Results of the 2015 CQWW DX SSB Contest

It's this kind of unexpected opening ... that makes the game of radiosport so fascinating.

BY RANDY THOMPSON,* K5ZD

he 68th running of the CQ World Wide DX SSB Contest dished out its share of QRM, heartache, and triumph for those who packed the bands over 48 hours during the last weekend of October 2015. The story of the contest can be summed up in three words: Expectations, Coronal Mass Ejection (CME), and noise!

There is nothing more hopeful than preparing for a contest. We watch the bands 27 days in advance to see if the sun will be offering tricks or treats. We carefully plan our strategy — not only for which band to be on at what time, but also to make sure the family knows to give us time in the chair. For those who travel, it's a frantic rush to find and pack all of the gear. And we work on antennas. A contest like the CQ WW provides all the motivation needed to make last minute adjustments in the hope of a better score.

Conditions over the summer and in the months leading up to the contest had lowered all expectations for 10 meters. Lots of energy was going into low-band antennas. Two weeks before the contest, the solar flux went up and 10 meters started to open. The week leading up to the contest sounded great and expectations started to rise. Could we sneak one more year out of our favorite band with room for everyone?

The solar flux was up to 124 two days before the contest and we were not only seeing encouraging 10 meter conditions, but the low bands were looking promising as well. Hope and expectations were on the rise.

What a difference a few days can make. The flux was dropping as the contest began — down to 106 both days. Even worse, a CME arrived earlier than expected and spewed unwelcome particles into the ionosphere during the middle portion of the contest. The low bands were highly absorbed and not good at all. The high bands opened well, but not with the length of openings we have come to enjoy over the past few years. More than one multi-op team had visions of a record score after the first 24 hours, only to see it slip away due to slow QSO rates on Sunday. To tease us with what might have been, conditions improved dramatically during the last few hours of the contest. Perhaps it is the sun's way of offering some encouragement to try again next year.

The CMEs weren't all bad news. In a twist from the usual, the CMEs did not cause an aurora and radio blackout for the northern latitudes. Instead, stations in northern Europe enjoyed a rare late night polar opening on 20 meters into North America. It's this kind of unexpected surprise — where stations in the far north gained an unexpected advantage



The team behind the multi-single entry of YS1YS in El Salvador. From left to right: Mario, YS1MAE; Roberto, YS1RS; and Mario, YS1GMV. (Courtesy of YS1GMV)

over those in the south — that make the game of radiosport so fascinating.

As if weak signal levels on the low bands weren't enough, static seemed to be everywhere. The remnants of Hurricane Patricia were moving through Texas, bringing rain and lightning. Big thunderstorms in the Caribbean made it difficult to hear anything on the low bands. Even stations in the Mediterranean complained of high static levels. Those who had invested their antenna building efforts on receiving antennas were rewarded.

A recurring theme in the post-contest comments was another kind of noise — QRM. Without 10 meters, all 40,000 stations active in CQ WW were crammed into less than 300 kHz on each band. It was almost impossible to find a clear frequency, which meant stations in different parts of the world were sharing three deep, causing lots of confusion and some not-in-log penalties. If you stopped talking even for a moment, it seemed someone would try to muscle in on the frequency. This was not helped by those selfish operators with over-processed audio and splatter well beyond the limits of a normal SSB signal.

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2015 WW DX SSB TROPHY WINNERS AND DONORS

SINGLE OPERATOR

World 8P5A (Op: Tom Georgens, W2SC) Donor: Southern California DX Club

World – Low Power TO2A (Op.: Rich Smith, N6KT) Donor: Slovenian Contest Club

World – QRP Ron Schwartz, VE3VN Donor: Jeff Steinman, N5TJ

World Assisted TM6M (Op.: Sebastien Le Gall, F8DBF) Donor: Glenn Johnson, WØGJ

World – Assisted Low Power P40W (Op.: John Crovelli, W2GD) Donor: Gail Sheehan, K2RED

U.S.A. Krassimir Petkov, K1LZ Donor: Potomac Valley Radio Club – KC8C Memorial

U.S.A. – Low Power K3CR (Op.: Alex Avramov, LZ4AX) Donor: North Coast Contesters

U.S.A. – QRP Anthony Luscre, K8ZT Donor: Pat Collins, N8VW

U.S.A. – Assisted Charles D Fulp Jr, K3WW Donor: John Rodgers, WE3C

U.S.A. – Assisted Low Power Dennis Egan, W1UE Donor: LA9Z/LN9Z Leia Contest Club

U.S.A. Zone 3 Mitch Mason, K7RL Donor: World Wide Radio Operators Foundation (WWROF)

U.S.A. Zone 4 Kevin Stockton, N5DX Donor: Dave Pruett, K8CC & Greg Surma, K8GL

Europe Tonno Vahk, ES5TV Donor: Potomac Valley R.C. – W4BVV Memorial

Europe – Low Power ED5N (Op.: Raul Blasco, EA5KA) Donor: Tim Duffy, K3LR

Europe – QRP Pit Schmidt, DK3WE Donor: Steve "Sid" Caesar, NH7C

Europe – Assisted OH0X (Op.: Kim Ostman, OH6KZP)* Donor: Martin Huml, OL5Y

Europe – Assisted Low Power Imanol Antonanzas, EC2DX Donor: Alex Goncharov, R3ZZ

Africa EF8U (Op.: Jeff Kinzli, N6GQ) Donor: Chris Terkla, N1XS

Asia UP0L (Op.: Vladimir Vinichenko, UN9LW) Donor: Nodir Tursun-Zade, EY8MM

Caribbean/Central America – High Power YN5Z (Op.: Scott Tuthill, K7ZO) Donor: Alex M. Kasevich, 8R1A

Caribbean/Central America – Low Power Felipe Hernandez, KP3Z Donor: Albert Crespo, NH7A

Oceania KH7M (Op.: Jim Neiger, N6TJ) Donor: Barbara Yasson, AC7UH

South America YW4D (Op.: Paolo Stradiotto, YV1DIG) Donor: Yankee Clipper Contest Club

Canada Jeff Briggs, VY2ZM Donor: Contest Club Ontario – VE3WT Memorial

Russia Anatoly Polevik, RC90 Donor: Roman Thomas, R5AA

Japan – High Power Masaki Masa Okano, JH4UYB Donor: Rush Drake, W7RM, Memorial

Japan – Low Power Yuichi Yamazaki, JJ1VRO Donor: Western Washington DX Club

Southern Cone (CE CX LU) – Low Power CW5W (Op.: Jorge Diez Furest, CX6VM) Donor: LU Contest Group

ASEAN (XZ HS XW XU 3W 9M 9V V8 YB DU) XW1IC (Op.: Champ Muangamphun, E21EIC) Donor: YB Land DX Club

ASEAN (XZ HS XW XU 3W 9M 9V V8 YB DU) - Low Power Nikhorn Deesai, HS5NMF Donor: Bob Kupps, N6BK

SINGLE OPERATOR, SINGLE BAND

World – 28 MHz D4Z (Op.: Massimo Cortesi, IZ4DPV) Donor: Joel Chalmers, KG6DX

World – 21 MHz ED8X (Op.: Alexey Mikhailov, RA1AIP) Donor: Robert Naumann, W5OV

World – 14 MHz CR5C (Op.: Pavel Prihoda, OK4PA) Donor: North Jersey DX Assn. – K2HLB Memorial

World – 7 MHz D4C (Op.: Andrea Bianchi, HB9DUR) Donor: Fred Laun, K3ZO – K7ZZ Memorial

World – 3.7 MHz CR2X (Op.: Martti Laine, OH2BH) Donor: Fred Capossela, K6SSS

World – 1.8 MHz IH9A (Op.: Gianfranco Di Maio, IT9SPB) Donor: Martin Monsalvo, LU5DX & Carlos Monsalvo, LU6EBY - LU8DQ Memorial

U.S.A. – 28 MHz Jay Camac, N4OX Donor: World Wide Radio Operators Foundation (WWROF)

U.S.A. – 21 MHz Peter Bizlewicz, KU2M Donor: 11PM Dayton Pizza Gang

U.S.A. – 14 MHz Conrad Romberg, N5CR/7 Donor: Yankee Clipper Contest Club – KC1F Memorial

U.S.A. – 7 MHz Dan Handa, W7WA Donor: Stanley Cohen, W8QDQ

U.S.A. - 3.7 MHz Joe Gagliardi, AA1BU Donor: John Rodgers, WE3C

U.S.A. – 1.8 MHz Ronald McClain, W2VO Donor: South Texas DX & Contest Club (STXDXCC)

Caribbean/Central America (14 MHz) Gil Joachim, FM5FJ Donor: Nate Moreschi, N4YDU

Oceania (14 MHz) E51EAQ (Op.: Jacek Marczewski, SP5EAQ) Donor: Bruce D. Lee, KD6WW

Asia (21 MHz) Shinya Hatakenaka, JA5FDJ Donor: Dallas/Fort. Worth Contest Group W5PG Memorial

Europe – 28 MHz EE3A (Op.: Jordi Bueno, EA3ATM) Donor: John Rodgers, WE3C

Europe – 21 MHz OH8X (Op.: Pasi Luoma-Aho, OH6UM) Donor: Tine Brajnik, S5ØA

Europe – 14 MHz OZ7X (Op.: Kristian Soeholm, OZ5KF) Donor: Charles Wooten, NF4A

Europe – 7 MHz TM0T (Op.: Gildas Balannec, TU5KG) Donor: Central Texas DX and Contest Club – NT5C Memorial

Europe – 3.7 MHz OK5D (Op.: David Lunak, OK1DTP)* Donor: Ted Demopoulos, KT1V

Europe – 1.8 MHz Max Elleby, OZ4MD Donor: Robert Kasca, S53R

MULTI-OPERATOR, SINGLE TRANSMITTER

World EF8R (Ops.: R2AA, UA5C, RA5A, RT9T, EA8RM, LY4A, OH1RY, RN3QO, RW3QNZ) Donor: So. Calif. DX Club – W6AM Memorial

World – Low Power FY5KE (Ops.: FY5FY, F1HAR, F5HRY, F5UII, F6FVY) Donor: Rex Turvin, NR6M

U.S.A. K6ND/1 (Ops: W1VE, KE1J, K6ND, K3JO) Donor: Carolina DX Association – Ted Goldthorpe, W4VHF & Ken Boyd, K4DXA Memorial

Canada VE3JM (Ops.: VE3EK, VE3EY, VE3JM) Donor: John Sluymer, VE3EJ – Paul Hudson, VE3TA Memorial

Caribbean/Central America V47T (Ops: K1DG, N2NT, KM3T) Donor: Bob Raymond, WA1Z

Africa CR3A (Ops.: CT1BC, CT3BD, CT3DL, CT3DZ, CT3EE, OM3GI, OM3RM) Donor: World Wide Radio Operators Foundation (WWROF)

Asia P33W (Ops.: UR5MID, LZ2HM, LZ3FN, LY4AA, 5B4AIE, R4FO, UA4FER, RW4WR, RA3AUU) Donor: Edward L. Campbell, NX7TI – AA6BB and KA6V Memorial

Japan JR5YCE (Ops: JM1UWB, JR2GRX, JJ5GMJ, JH5FIS, JH5RXS) Donor: Arizona Outlaws Contest Club

Europe EI7M (Ops.: EI8IR, EI3JE, EI3JZ, EI3KD, EI7IG, G0CKV, EI7KD, G4CLA) Donor: Gail Sheehan, K2RED

Europe – Low Power EF7X Ops.: (EA7AKK, EA7FUN, EA7KW, EA7PP, EA7RM) Donor: EA Contest Club

Oceania VK4NM (Ops: VK4NM, VK4LAT) Donor: Junichi Tanaka, JH4RHF

South America PJ4X (Ops: K2NG, NA2AA, PJ4LS, JH5GHM) Donor: Victor Burns, KI6IM – The Cuba Libra Contest Club

MULTI-OPERATOR, TWO TRANSMITTERS

CN2AA (Ops: R3DCX, RA3CO, RC6U, RK3AD, R3FA, RK7A, RL3FT, RM2U, RM9I, RN2FA, RU9I, RV3MA, RW7K, RX3APM, UA2FM, UA3AB, UA3ASZ, UA4Z, UB7K) Donor: Dave Leeson, W6NL & Barb Leeson, K6BL

U.S.A. K3LR (Ops: K3LR, N2NC, N5UM, W3CDG, W2RQ, WM2H, W5OV, K3LA, K1AR, N6MJ, N3SD, K3UA, DL6LAU, N3GJ, LU7DW) Donor: Jim Lawson, W2PV Memorial

Europe DF0HQ (Ops: DG1ATN, DJ1TH, DJ9AO, DK5KMA, DK7YY, DL1AUZ, DL4UNY, DL5ANT, DL5GA, DL5MLO, DL6SAK, DL7CH, DL7FER, DL7VOA, DL8BH, DM8HH) Donor: Finnish Amateur Radio League

Oceania KH6J (Ops: AH6S, AH6NF, KH6NX, KH6U, KH7U, KH6WG, KH6XL, N2NL, WH6R, W0CN) Donor: Tack Kumagai, J21CKA – JR2GMC and JA9SSY Memorial

CONTEST EXPEDITIONS

World Single Operator ZD7W (Op: Oliver Sweningsen III, W6NV) Donor: National Capitol DX Association - Stuart Meyer, W2GHK Memorial

World Multi-Op TO4K (Ops: G4XUM, GM4AFF, M5RIC, N0VD) Donor: Gail Sheehan, K2RED

OVERLAY CATEGORIES

World – Classic P49Y (Op.: Andrew Faber, AE6Y) Donor: Pete Smith, N4ZR

U.S.A. – Classic Jon Zaimes, AA1K/3 Donor: Tom Horton, K5IID

World – Rookie Valery Zhitkovich, EW6W Donor: Tim Duffy, K3LR - N8SM Memorial

U.S.A. – Rookie Tucker McGuire, W4FS Donor: Tim Duffy, K3LR - K3TUP Memorial *Second place

	Single Operator				Assisted			
	High	Low	QRP	Total	High	Low	QRP	Total
All Bands	844	1979	110	2933	1126	912	30	2068
10m	85	357	28	470	131	175	18	324
15m	98	224	35	357	108	99	13	220
20m	71	191	24	286	85	72	9	166
40m	59	86	15	160	56	44	14	114
75m	31	29	8	68	35	28	4	67
160m	28	20	4	52	21	13	3	37
Multi-One					260	121		381
Multi-Two					104			104
Multi-Multi					54			54
Totals				4326				3535

Table 1. Number of Entries by Category



The men behind the voices at Signal Point, PJ2T. Back row (from left to right): Jack, N4RV; Rick, NØYY; Andrea, IK7YTT; and Dave, VA7AM. Front: Heiko, DK3DM; Geoff, WØCG/PJ2DX; Uli, DL8OBQ; John, N4QQ; and Adam, W1ASB. (Courtesy of WØCG)

There is QRM, and then there is QRM on 40 meters. It seemed like every highpowered multi-op was fighting for space between 7125 and 7200. Franki, OQ5M, summed it up this way, "if SSB is 'like pulling teeth' — on 40 it's without anesthesia." Karel, OK1CF, noted, "it is a great pity that many of us have forgotten how to work split. Between the terrible splatters here in [the] middle part of Europe, it is simply not possible to listen to weak signals."

The pressure to find a frequency was so great that some stations sought refuge by operating slightly outside of the amateur radio bands. We used our SDR recordings to identify stations that were running on 14350 and 21450. Sorry guys, but that puts a lot of your signal outside the limit. We removed these QSOs when we found them. Stations in ITU region 1 also need to remember that they may not work above 7200 kHz.

Radiosport is a game played regardless of the conditions. When the starting bell for CQ WW sounds, the bands explode with activity and the race is on. Conditions were good enough that over 5 million QSOs were reported in the received logs, including contacts with 223 different country multipliers. Even some QRP stations accomplished DXCC in a weekend. Nineteen stations were able to work all 40 CQ Zones on 15 meters, three did it on 20 meters, and one did it on 10 meters.

What words would describe your experiences in CQ WW SSB 2015?

Single Operator All Bands

The top overall Single Operator All Bands (SOAB) score was a repeat victory by Tom, W2SC, operating from his usual spot in Barbados as 8P5A. Tom logged exactly 400 contacts in the first 60 minutes of the contest on his way to a total of 10,220 after log checking! His only moment of concern was losing a homebrew solid-state amplifier 26 hours into the contest. After the contest, Tom reported, "the high bands were great but the low bands had very high noise levels. The first night it was even hard to work other Caribbean stations on 160."



Installing radials directly in the saltwater at A73A were (red shirt) Alex, OZ7AM and (white shirt) Romeo, S59. (Courtesy of S59M)

Tonno, ES5TV, was thrilled with his second place overall finish calling it "... probably the most memorable contest experience I have ever had." Tonno was watching the online scoreboard at cocontest.net and saw that Kim, OHØX, was ahead on multipliers. Tonno used that as motivation, saying, "I literally pushed like never before. Without a single break for 48 hours other than a quick jump or two into the bathroom." What Tonno didn't realize was that Kim was in the Assisted category. "Had I known that I was competing only against myself and without any ambition for top Europe, I would have certainly taken a short nap or relaxed." Taking advantage of the incredible late night opening on 20 meters to North America, Tonno finished far ahead of all other European scores.

There were four continents represented among the top five SOAB scores. Jeff, N6GQ, overcame a killer travel schedule to place fourth from EF8U in his first time operating from Africa. Vladimir, UN9LW, represented Asia with a big score from UPØL in Kazakhstan.

The USA Top Ten for SOAB featured stations from across the country. Krassy, K1LZ, in Massachusetts nailed down the top spot with Kevin, N5DX,



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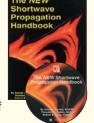


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2015 CQ WW DX SSB TOP SCORES

WORLD	28 MHz PU1MHZ122,910
SINGLE OPERATOR HIGH POWER	I5KAP54,431
All Band 8P5A (W2SC)16,911,600	WA6FGV43,758
ES5TV13,177,813	21 MHz
VY2ZM (K1ZM)11,665,566 EF8U (N6GQ)9,956,860	YT7Z (YU7SK)103,740 SP5DDJ83,520
UPØL (UN9LW)9,666,524	GJ3YHU52,917
CF3A (VE3AT)9,618,125 9A1P (9A1UN)9,316,256	14 MHz
RC908.963.178	SQ5NBE
P3F (5B4AGN)8,666,580 UW2M (URØMC)8,424,752	R2ABT11,286
28 MHz	7 MHz
D4Z (IZ4DPV)3,252,670 CX2DK2,325,162	CT1BXT37,570 UT5UUV12,264
ZY2B1,502,904	IZ2JPN11,456
21 MHz	3.7 MHz
ED8X (RA1A)2,069,516	OL4W (OK1IF)13,872 SQ8MFB6,020
OH8X (OH6UM)1,797,696 CR6T (CT1ESV)1,512,368	RA4FWA
14 MHz	1.8 MHz
CR5C (OK4PA)1,403,061	HA1TI2,883
OZ7X (OZ5KF)1,367,688 G9W (MØDXR)1,352,575	ASSISTED
	HIGH POWER All Band
7 MHz D4C (HB9DUR)1,436,064	TM6M (F8DBF)14,263,470
TMØT798,532 RK4FD750,547	OHØX (OH6KZP)11,790,240 PX5E (PP5JR)11,073,697
	TO2M (VE3LA)9,460,955 6Y9X (K1XM)8,245,664
3.7 MHz CR2X (OH2BH)453,248	P4ØA (KK9A)8,176,630
CR2X (OH2BH)453,248 OK5D (OK1DTP)201,178 EW8Y163,464	S020 (SQ2GX0)8,168,004 VA2WA7,674,189
	LP1H (LU5HM)7,318,072 EU1A7,185,879
1.8 MHz IH9A (IT9SPB)267,736	EU1A7,185,879
OZ4MD42,280	28 MHz
G4L (G4LDL)37,417	CQ3L (DF7ZS)2,157,246 LR1E (LW6DG)1,906,736
LOW POWER	OK7K (OK1BN)1,216,885
All Band	21 MHz
T02A (N6KT)7,035,756 3V8SS (KF5EYY)6,408,158	DL2ARD1,685,103 YV4NN1.542.240
KP3Z6.138.341	YV4NN1,542,240 9Y4W1,495,224
VE3DZ5,727,392 NP2X5,452,457	14 MHz
ED5N (EA5KA)3,808,761 0K7Z (0K2ZI)3,728,718	4L8A1,606,648
OK7Z (OK2ZI)3,728,718 K3CR (LZ4AX)3,568,956 EF2A (EA20T)3,542,272	OL9A (OK2ZAW)1,516,482 OH8L (OH8LQ)1,503,712
LY5R (LY9A)3,531,635	7 MHz
28 MHz	SN3A (SP3GEM)772,740
EA8TX1,122,680 ZP6DYA514,856	TM7G575,127 9A2L (9A3AG)519,224
VR2ZQZ	
21 MHz	3.7 MHz HA8A (HA8DZ)279,672
SØS (EA2CNU)876,555 JF3BFS374,267	M5B (G3WVG)257,370 OQ5M (ON5ZO)181,450
LZ2JA241,280	
14 MHz	1.8 MHz IO4C (IZ4ZAW)76,440 EF8S (OH2BYS)70,824
9Y4D1,275,340 CO6LC388,326	EF8S (OH2BYS)70,824 OK1W69,388
RZ90Q239,085	0111
7 MHz	ASSISTED LOW POWER
RC7KY163,114	All Band
YV8ER157,080 SQ7NSN108,150	P4ØW (W2GD)8,641,514 EC2DX5,377,401
3.7 MHz	HI3TEJ4.665.692
F5BEG55,242	LY7Z
SP4SHD33,672 VE3BR	9A5Y (9A7DX)4,088,268 KE3X3,701,388
1.8 MHz	K5WA
SQ9IAU23,265	VE2IDX (VE3ZF)2,569,899 VA3DF2,438,257
OK1JOK13,886 YO8RZJ12,528	28 MHz
	ED80 (EC5AN)1,035,709
QRP All Band	SV9GPV805,304 IR9W (IWØHBY)739,576
VE3VN677,340 DK3WE642,208	21 MHz
DK3WE642,208 JR4DAH500,678 JH10GC485,010	YV1KK1,229,658
UX2MF	EA8MT1,012,860 UK9AA867,232
K8ZT	14 MHz
IZ1ANK287,328	GI6K (GIØKOW)638,880 UR2Y (USØYW)619,362 YO9HP439,200
W6QU (W8QZA)236,610	
NDØC235,554	Y09HP439,200

2015	CQ	WV	V D)
	7 8		
CQ7X (E		1Hz	225 / 20
PD1D			.62.084
HI8KW.			.59,600
	3.7	мц.,	
E740			.63.492
UK1AY.			
YUØU			.56,628
	1.8	MH7	
ES5RY.			.32,154
Z35T			28,644
LY20U.			.21,122
	ASSI	STED	
	QI Ali e		
RT4W			678,300
IZ8JFL/	1		444.087
RA4AAT IZ3NVR		4	417,125
DD5FM.	•••••		334.196
OK2FD.			221,112
DD5FM. OK2FD YU1LM. SP9RQH			195,337
UR5XM	1 M		141,949
LZ7H			.74,036
SP5EW)	28 1		162 960
JR3RW	Β		117.645
R7NA			.96,480
	21	MU-	
OH2BV			178 416
0H2BV. 113W (13	VFJ)	•	165,240
BD9XÈ.			.73,440
	14 [MH7	
MWØJR	Χ	******	201.720
YT4T			71,536
IZØFUW			.43,344
	7 N	1Hz	
IQ3KU (IZ3IBL)		.23,400
SV3GKL IZ1DGG	J		.13,662
IZ1DGG			.10,761
	3.7	MHz	
EW1IP.			.24,640
ES7RIX 9A4AA			4,530
0/11/010			
VP8A	1.8		3 116
YP8A SP60JK			1,710
	MUL		
SING	GLE TR/ High I		TER
EF8R			859.830
CR3A			524.220
P33W V47T UP2L		25,5	506,000
UP2L		23,	342.103
PJ4X		18,4	425,844
EI7M		16,9	388,367
IR4X		16,0 14 8	J26,408 857 570
9K2HN . IR4X E7DX		14,4	454,180
EV5KE	Low I	20wer	118 //80
FY5KE VP9I		6.	784,064
EF7X		5,3	370,786
KP4BD.		4,3	309,425
HI3K FD1B			900,902 910 548
ED1B PR1T		3,8	841,830
5/14		2 2	947 U.S.
0E2S 9A3B	•••••	2,8	363,344 493 120
5400			100,120
ти	MUL [*] 0 Trai	TI-OP	FD
CN2R			
CN3A PJ4Q			973,452
PJ4Q		23,6	307 194
C4A TO4K A73A V26B		20,	705.908
A73A		19,	171,206
V26B		18,6	535,988
KUIXX.		Ið,	105,813
PX2A ED9K		16,8	893,920
мш	MUL'		TFR
CN2AA.			
K3LR			002,910

HK1NA 30,132,7 PJZT 27,166,1 W3LPL 23,437,4 9A1A 23,148,5 ZW5B 21,068,2 ZW5B 21,068,2 W2SC 19,324,0 Ye3C 19,324,0 Ye3C 19,324,0 Ye3C 28 ROOKIE High Power Ye3C 28,33,2 ND7J/4 355,3 LBZ7G 228,8 VU2DZ 184,4 YU2DBZ 184,4 YU1USA 150,2 YU1USA 150,2 YU1USA 150,2 YU1USA 363,0 YU1USA 363,0 YU1USA 363,0 YU1USA 352,2 PA91GB 224,7 PA91GB 224,7 PA91GB 224,7 PA91GB 224,7 PA91GB 224,7 PA91GB 229,7 PA91GB 229,7 PA91GB 229,7		
00 PJ2T 27,166,1 01 DFØHQ. 23,497,4 9ATA 23,637,5 23,497,4 9ATA 23,497,4 9ATA 92WE3C 19,324,0 23,497,4 92WE3C 19,324,0 19,324,0 12 WE3C 19,324,0 14 EWGW 3,240,2 15 L93W 18,088,2 16 High Power 18,24,0 16 ND7J/4 355,3 16 KG5CIK 364,2 17 YU2DBZ 184,4 16 ROOKIE Low Power 16 OHGCZ 391,5 17 YU2DBZ 184,4 19 BG2CTX 639,8 10 PA91GB 294,7 10 PA91(MØPMV) 315,2 10 RØAEE 297,7 10 RØAEE 297,7 10 RØAE 2,835,1 10 RØAE 2,835,1 <td< td=""><td></td><td>HK1NA</td></td<>		HK1NA
941 A. 23, 146, 23, 146, 24, 21, 066, 2 2 2 19, 324, 0 2 WE3C. 19, 324, 0 14 EWGW. 3, 240, 5 15 L29W. 18, 088, 2 14 EWGW. 3, 240, 5 15 L49W. 3, 240, 5 16 EWGW. 3, 240, 5 17 24, 322A, 853, 1 KG5CIK. 18 A92AA. 853, 1 18 KG5CIK. 364, 2 ND7J/4. 355, 2 WYCYL. 211, 6 16 WTCYL. 211, 6 692, 6 17 YU2DBZ. 184, 4 150, 2 16 OH5CZ. 391, 5 K69, 0 16 OH5CZ. 391, 7 191, 7 16 CLASSIC High Power 192, 294, 7 16 CLASSIC High Power 2, 294, 7 16 CLASSIC SPGHL. 2, 883, 1 16 CLASSIC SPGHL. 2, 2, 822, 1 16<		PJ2T27,166,1
941 A. 23, 146, 23, 146, 24, 21, 066, 2 2 2 19, 324, 0 2 WE3C. 19, 324, 0 14 EWGW. 3, 240, 5 15 L29W. 18, 088, 2 14 EWGW. 3, 240, 5 15 L49W. 3, 240, 5 16 EWGW. 3, 240, 5 17 24, 322A, 853, 1 KG5CIK. 18 A92AA. 853, 1 18 KG5CIK. 364, 2 ND7J/4. 355, 2 WYCYL. 211, 6 16 WTCYL. 211, 6 692, 6 17 YU2DBZ. 184, 4 150, 2 16 OH5CZ. 391, 5 K69, 0 16 OH5CZ. 391, 7 191, 7 16 CLASSIC High Power 192, 294, 7 16 CLASSIC High Power 2, 294, 7 16 CLASSIC SPGHL. 2, 883, 1 16 CLASSIC SPGHL. 2, 2, 822, 1 16<		W3LPL23,637,5
ZW5B. 21.068.2 WE3C. 19.324.0 WE3C. 19.324.0 WE3C. 19.324.0 WE3C. 19.324.0 WE3C. 21.9.324.0 WE3C. 21.9.324.0 WE3C. 24.9.283.2 WW4S. 2.4.2.813.5 KG5CIK. .364.2 WD7JV4. .355.3 LB7ZG. .258.2 VU3CV. .224.4 VE3TCV. .224.5 VU1USA. .150.2 V11USA. .250.2 V11USA. .250.2 V11USA. .250.2 <td>10</td> <td>9A1A23,148.8</td>	10	9A1A23,148.8
Bigh Power High Power 14 EW6W		ZW5B21,068,2
Bigh Power High Power 14 EW6W	92	WE3C19,324,0
HOOKIE High Power High Power High Power 44 EW6W		LZ9W
44 EW6W. 3.240; 3.240; 3.240; MD7.1/4. 3.240; 3.652; MD7.1/4. 44 W4FS. 2.813; 4.52; MD7.1/4. 3.653; 3.652; MD7.1/4. 55 VESTCV. 2.24; 2.24; MD7.1/4. 3.553; 3.652; MD7.1/4. 56 W7CVL. 2.211; 4.7 1.60; 2.24; MD7.1/4. 57 YU1USA. 1.50; 2.24; 4.25 1.84, 4.25 58 PU1USA. 1.50; 4.26 692; 6.6 69 B62CTX. 6.692; 6.29; 8.62; 6.10 6.92; 6.29; 8.62; 7.15 6.24; 6.29; 8.29; 7.10 6.24; 7.11; 8.22; 7.10 7.11; 8.22; 7.11 50 B62CTX. 6.692; 6.39; 7.42; 7.42; 7.42; 7.42; 7.42; 7.42; 7.42; 7.44 7.42; 7.42; 7.42; 7.42; 7.44; 7.4	.0	ROOKIE
12 A92AA. 853.1 KG5GLK		High Power
12 A92AA. 853.1 KG5GLK		EW6W3,240,9
KGSCIK		W4FS2,813,5
ND7J/4 355. LB7ZG 258. VESTCV 224.5 VESTCV 224.5 VESTCV 224.5 YU2DBZ 184.4 15 YU1USA 150.2 7 YU2DBZ 184.4 15 YU1USA 692.5 16 ROOKIE 2 17 YY1YLY 692.6 18 AMP (MØPMV) 315.7 16 CH6SC 391.5 16 PA9IGB 294.7 16 CLASSIC 11 17 YU2LY AATK/3 18 AUAR (AL4WW) 5500.8 0 PA9Y (AEGY) 6.930.5 10 PASS 2.355.7 11 CLASSIC Low Power 12 OAASS 2.355.7 13 CLASSIC SOB(HORG) 14 AATK/3 2.653.5 15 VA9 (V31MA) 1.918.2 16 CEASISC 1.183.6	.2	KG5CIK
LB72G. 2680,		ND7J/4355,3
00 W7CVL 211, 6 150, 2 150, 2 166 ROOKIE 17 YUJUSA 166 ROOKIE 17 YUJUSA 167 BG2CTX 168 A 17 YUJUSA 17 YUJUSA 160 BG2CTX 17 YUSIN 17 YUSIN 160 ED3T (EA3HSO) 175 M4P (MØPMV) 176 CLASSIC 177 PA9IGB 182 A1K/3 184 A1K/3 184 A1K/3 184 A1K/3 184 A1K/3 184 A1K/3 184 A1K/3 <tr< td=""><td></td><td>LB7ZG258,9</td></tr<>		LB7ZG258,9
77 YU2DBZ. 184.4 78 YU1USA. 150.2 74 ROOKIE Low Power 75 YY1YLY. 692.6 76 BG2CTX. 639.6 77 YY1YLY. 692.6 78 BG2CTX. 639.6 79 BG2CTX. 639.6 899EH. 419.1 1 70 ED3T (EA3HSO). 319.7 715 M4P (MØPMV). 315.2 70 RØAEE 297.2 70 RØASS 2.385.7 71 CLASSIC 297.4 73 OA4SS 2.355.7 74 GSW (5B4WN). 2.456.5 75 V3A (V31MA). 1.913.2 74 K1BK. 1.538.6 744B </td <td>10</td> <td>VE3TCV224,5</td>	10	VE3TCV224,5
44 ROOKIE 2 Low Power 77 Y1YLY		YU2DBZ
44 ROOKIE 2 Low Power 77 Y1YLY	25	YU1USA150,2
2 Low Power 77 YY1YLY .692,E 98 BG2CTX .639,E 60 BG2CTX .639,E 61 OH5CZ .391,5 62 CK5VDX .363,C 97 YTSIVN .327,1 63 CLASSIC		
17 YY1YLY		
99 BG2CTX		
80 8P9EH		
16 OHSC2		8P9EH419,1
NO HOREE 291, 294, 7 PAGIGB 2294, 7 6 CLASSIC High Power 6, 930, 294, 7 10 P49Y (AEGY) 6, 930, 294, 7 10 P49Y (AEGY) 6, 6, 930, 206, 206, 206, 206, 206, 206, 206, 20	36	0H5C7 301 P
NO HOREE 291, 294, 7 PAGIGB 2294, 7 6 CLASSIC High Power 6, 930, 294, 7 10 P49Y (AEGY) 6, 930, 294, 7 10 P49Y (AEGY) 6, 6, 930, 206, 206, 206, 206, 206, 206, 206, 20		KF5VDX
NO HOREE 291, 294, 7 PAGIGB 2294, 7 6 CLASSIC High Power 6, 930, 294, 7 10 P49Y (AEGY) 6, 930, 294, 7 10 P49Y (AEGY) 6, 6, 930, 206, 206, 206, 206, 206, 206, 206, 20	60	ED3T (EA3HSO)
NO HOREE 291, 294, 7 PAGIGB 2294, 7 6 CLASSIC High Power 6, 930, 294, 7 10 P49Y (AEGY) 6, 930, 294, 7 10 P49Y (AEGY) 6, 6, 930, 206, 206, 206, 206, 206, 206, 206, 20	5	M4P (MØPMV)
6 CLASSIC High Power 10 P49Y (AEGY) .6.930,8 11 ALDA (AL4WW) .5.500,8 12 HGR .2.883,1 13 CLASSIC	30	RØAEE
U0 High Power 100 P49Y (AEGY)		PA9IGB
U0 High Power 100 P49Y (AEGY)	6	CLASSIC
4L0A (4L4WW) 5,500,8 0HØV (0H6L) 3,050,4 0HØV (0H6L) 3,050,4 14 AATK/3 2,883,5 14 AATK/3 2,653,5 14 AATK/3 2,653,5 14 AATK/3 2,653,5 15 GSW (5B4WN) 2,456,7 16 GEC (JGCMWN) 2,450,7 17 LASSIC Low Power 10 VE3DZ 2,355,7 10 VE3DZ 2,355,7 11 CLASSIC Low Power 10 VE3DZ 2,352,2 10 VE3DZ 2,352,2 10 VE3DZ 2,352,2 10 VE3DZ 2,352,2 11 CLASSIC 2,232,2 12 VE3DZ 2,232,2 13 K1Z 7,38,0 14 MSDZ 2,333,2 14 MIBAD 2,334,2 14 K1Z 2,232,3		
10 HG3R		P49Y (AE6Y)6,930,8
10 HG3R		4LØA (4L4WW)5,500,8
16 A65BP	0	UHØV (UH0LI)
14 AA1K/3 2.653, SP9LJD 2,527,4 GSW (5B4WN) 2.456,9 00 GM2V (GM3WOJ) 2.456,9 01 CLASSIC Low Power 02 VE3DZ 3.526,2 03 GE(2) (GM3WOJ) 2.456,9 04 VE3DZ 3.526,2 05 V3A (V31MA) 1.918,2 05 V3A (V31MA) 1.918,2 06 DE62 (DE6M8G) 2.402,2 07 YAAB .925,3 08 CVE3DZ .788,3 09 US0HZ .786,4 010 US0HZ .786,2 02 K1HT .738,6 03 K1LZ .8225,6 04 N5DX .7,336,0 05 N1UR .7,172,6 06 N40X .504,5 07 N5DX .118,2 08 N40X .504,5 09 PAE .563,4 00 N9RV/7 .557,3		A65BP2.882.1
00 GM22 (GM3WOJ). 2, 450, 7 04 2, 355, 7 05 CLASSIC Low Power Low Power 00 VE3DZ	4	AA1K/32,653,5
00 GM22 (GM3WOJ). 2, 450, 7 04 2, 355, 7 05 CLASSIC Low Power Low Power 00 VE3DZ		SP9LJD2,527,4
22 0A4SS 2,355,7 11 CLASSIC LOW Power 3,526,2 16 0E6Z (0E6MBG) 2,402,2 16 0E6Z (0E6MBG) 2,402,2 17 X488 1,538,6 18 0E6Z (0E6MBG) 2,402,2 19 X482,2 1,538,6 19 1,538,6 1,918,2 10 USOHZ 778,2 10 USOHZ 778,3 10 USITA 649,0 10 SINGLE OPERATOR 11 HIGH POWER 14 K1LZ 8,223,6 14 K1LZ 8,223,6 10 WSRE 5,584,4 10 N9R/7 5,573,3 10 N40X 504,5 14 KMEO 441,1 152 K06G 92,5 16 V42Y/6 28 MHz 15 K02W 115,2 16 K12MFO 441,1 154 </td <td>10</td> <td>G5W (5B4WN)2,456,9</td>	10	G5W (5B4WN)2,456,9
I CLASSIC Low Power 10 VE3DZ	-	0A4SS 2 355 7
Low Power Low Ve3DZ		0/1100
00 VE3DZ 3.526.2 00 OEGZ (OEGMBG) 2.402.2 01 VISOL (OEGMBG) 1.918.2 02 VISOL (OEGMBG) 1.918.2 02 VISOL (OEGMBG) 1.918.2 03 K1EX 1.538.6 04 USOHZ .788.3 05 VIA (VIIMA) .788.3 05 LYGA .814.6 06 LYGA .814.6 07 SOGH (SQGPLH) .686.7 06 UNITED STATES SINGLe OPERATOR 07 HIGH POWER AII Band 108 NTUR .7172.6 109 NORV.7 .5573.3 100 NAUX .564.4 101 XMEV .115.2 101 XMEV .115.2 101 XMEV .115.2 101 21 MHZ 101 XMEV .113.4 101 XIEVY/6 .284.5 114 MHZ .260.6		CLASSIC
66 0E6Z (0E6MBG)24022, 55 V3A (V31MA)1,918,2 56 LY6A	0	Low Power
55 V3A (V31MA) 1,918,2 K1BX 1,538,6 TY4AB 925,3 6 LY6A 814,6 0 USQHZ 786,2 K1HT 788,2 SQGH (SGGPLH) 00 UNITED STATES SINGLE OPERATOR 11GH POWER All Band K1LZ 124 K1LZ 8,223,6 126 NSDX 7,336,0 127 N1UR 7,172,6 128 W9RE 554,4 120 N40X 504,5 121 N40X 504,9 122 N10G 92,5 126 KU2M 115,2 127 N10G 92,5 128 L 118,3 129 N10G 92,5 120 SKQY/6 284,5 121		OE67 (OE6MBG) 2 402 2
1Y4AB		V3A (V31MA)
1Y4AB	55	
0 USØHZ	55	K1BX1,538,6
KITI		TY4AB925,3
UNITED STATES 00 UNITED STATES 100 SINGLE OPERATOR 117 HIGH POWER 118 8.223, 118 8.223, 118 8.223, 118 8.223, 118 8.223, 118 8.223, 118 8.223, 118 8.223, 118 7.336,0 118 7.736,0 118 9.77 118 7.777,0 118 7.777,0 118 1.118,3 119 1.118,2 110 2 110 2 110 1.118,3 111 1.118,3 111 1.118,3 111 1.118,3 111 1.118,3 111 1.118,3 111 1.113,4 111 1.113,4 111 1.113,4 111 1.113,4 111 1.113,4 </td <td>6</td> <td>TY4AB</td>	6	TY4AB
UNITED STATES 00 UNITED STATES 100 SINGLE OPERATOR 117 HIGH POWER 118 8.223, 118 8.223, 118 8.223, 118 8.223, 118 8.223, 118 8.223, 118 8.223, 118 8.223, 118 7.336,0 118 7.736,0 118 9.77 118 7.777,0 118 7.777,0 118 1.118,3 119 1.118,2 110 2 110 2 110 1.118,3 111 1.118,3 111 1.118,3 111 1.118,3 111 1.118,3 111 1.118,3 111 1.113,4 111 1.113,4 111 1.113,4 111 1.113,4 111 1.113,4 </td <td>6</td> <td>TY4AB925,3 LY6A814,6 USØHZ786,2</td>	6	TY4AB925,3 LY6A814,6 USØHZ786,2
OUNTED STATED 00 SINGLE OPERATOR 101 HIGH POWER 113 K1LZ 8.223.6 124 K1LZ 8.223.6 135 K1LZ 8.223.6 144 N5DX 7.336.0 155 K1UR 7.172.6 160 W9RE 5.584.4 17 MSDX 5.584.4 180 N40X 504.5 180 N40X 504.5 180 N40X 504.5 181 W40X 120.0 184 K8MFO 441.1 186 W4SLT 120.0 180 21 MHz 115.2 180 21 MHz 1,118.3 180 21 MHz 1,363.4 180 X12Y/6 284.5 181 WTWA 132.2 182 X1RX 96.6 183 N7AU 48.5 184 Y MX 212.8 185	6	TY4AB
OUNTED STATED 00 SINGLE OPERATOR 101 HIGH POWER 113 K1LZ 8.223.6 124 K1LZ 8.223.6 135 K1LZ 8.223.6 144 N5DX 7.336.0 155 K1UR 7.172.6 160 W9RE 5.584.4 17 MSDX 5.584.4 180 N40X 504.5 180 N40X 504.5 180 N40X 504.5 181 W40X 120.0 184 K8MFO 441.1 186 W4SLT 120.0 180 21 MHz 115.2 180 21 MHz 1,118.3 180 21 MHz 1,363.4 180 X12Y/6 284.5 181 WTWA 132.2 182 X1RX 96.6 183 N7AU 48.5 184 Y MX 212.8 185	6	TY4AB
Inicit Portation 7 All Band 77 All Band 144 K1LZ 8.223,6 145 MSDX 7.336,0 146 WOWER 8.23,6 144 K1LZ 8.23,6 145 MSDX 7.336,0 146 WORE 5.584,4 147 WSRV7 5.573,3 148 WAOX 504,5 144 WASLT 120,0 155 KCSWAV 115,2 156 KU2M 115,2 157 NIØG 92,5 158 WZYY/6 284,5 158 NSCR/7 260,6 154 MSER/7 260,6 154 WZYY/6 284,5 154 WTWA 532,0 154 NAU 48,5 155 3.7 MHz 48,5 155 3.7 MHz 48,5 150 3.7 MHz 28,3 100 AA1BU </td <td>6 0</td> <td>TY4AB. 925 ; LY6A 814, USØHZ 786, K1HT 738, SQ6H (SQ6PLH) 686, OK1TA 649,0</td>	6 0	TY4AB. 925 ; LY6A 814, USØHZ 786, K1HT 738, SQ6H (SQ6PLH) 686, OK1TA 649,0
All Band K1LZ 8,23,6 N5DX 7,336,0 N1UR 7,336,0 N1UR 7,336,0 NUR 5,584,4 N9RV/7 5,573,3 N40X 5,574,3 N40X 5,574,3 N40X 5,54,4 N40X 5,54,4 N40X 120,0 Start 120,0 Start 120,0 Start 120,0 Start 115,2 NIØG 92,5 Start 1,118,3 Start 1,14,4	6 0 80	ТҮ4АВ 9253 LY6A
33 K1LZ 8,223,6 77 N5DX 7,336,0 76 N5DX 7,336,0 77 N5DX 7,336,0 80 N1PR/7 7,72,6 90 N9RV/7 5,573,3 90 N40X .504,6 91 K8MFD .441,1 92 N/0G .92,5 93 21 MHz .120,0 94 K8MFD .1118,2 95 KU2M .115,2 96 21 MHz .363,4 97 .8567/7 .260,8 98 ABTWR .113,4 98 ABTWR .113,4 98 W7WA .232,0 98 W7WA .244,5 99 Y74,0 .44,5 90 X74,0 .48,5 91 .7 MHz .44,5 92 .7 MHz .44,5 90 AA18U .101,2 91 .44,00W	6 0 80 20	1Y4AB 9253 LY6A 814, USØHZ 786, K1HT 738, SOGH (SOGPLH) 686, OK1TA 649,(UNITED STATES SINGLE OPERATOR
N5DX	6 0 30 20 00 77	1Y4AB 9253; LY6A814, USØHZ786, K1HT738, SOGH (SOGPLH)686, OK1TA649,(UNITED STATES SINGLE OPERATOR HIGH POWER
N1UH	6 0 80 20 00 77 13	1Y4AB 9253 LY6A
10 N9RV/7 5,573.3 28 MHz N40X 504.5 14 K8MFO 441.1 15 K0 441.1 16 W4SLT 120.0 16 W4SLT 120.0 15 KC9WAV 115.2 10 21 MHz 363.4 10 21 MHz 363.4 10 K2YY/6 284.5 14 W3EP/1 363.4 10 K2YY/6 284.5 113.4 W3EP/1 363.4 12 K1RX 96.6 10 K1RX 96.6 10 XMVA 532.0 14 W3EN 48.5 15 S.7 MHz 3.7 MHz 10 AA1BU 101.2 10 AA1BU 27.0 10 1.8 MHz 134.4	80 20 27 33 44	1Y4AB 9253 LY6A
28 MHz N40X 504,9 K8MF0 441,1 V4SLT 120,0 V5 KCSWAV NIØG 92,5 NIØG 92,5 KU2M 115,2 KU2M 115,2 KU2M 1,118,3 KU2W 21 MHz KU2W 284,5 N5CR/7 260,6 K1RX 96,6 WTWA 532,0 N7AU 48,5 S 3.7 MHz NAABUW 21,2,8 W4XL 212,2,6 W1XX 212,2,6 W1XX 212,2,6 W1XX 212,2,6 W1XX 212,2,6 W1XX 212,2,6 W1XX 212,2,6 W4QNW 28,3,2 W2XL 27,0 W0 1.8 MHz	80 20 27 33 44 57	TY4AB 925; LY6A 814; US0HZ 786; K1HT 738; SQ6H (SQ6PLH) 686; OK1TA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ N5DX 7,336; N1UB 7,1376;
N40X 504,6 K8MFO 441,1 K8MFO 112,0 K0 V45LT K0 21 MHz K0 24 MHz K0 24 MHz K14 W3EP/1 K18X 96,6 K1RX 96,6 W1XX 212,8 N7AU 48,5 S 3.7 MHz AA1BU 101,2 W4QNW 28,3 W2XL 27,0	6 0 20 00 77 03 14 57 08 00	TY4AB 925;3 LY6A 814,6 USØHZ 786,6 K1HT 738,6 SQGH (SG6PLH) 686,7 OK1TA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,6 N1UR 7,172,6 N1UR 5,584,4
44 K8MF0	6 0 20 00 77 03 14 57 08 00	TY4AB 925;3 LY6A 814,6 USØHZ 786,6 K1HT 738,6 SQGH (SG6PLH) 686,7 OK1TA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,6 N1UR 7,172,6 N1UR 5,584,4
16 W4SLT 120,0 16 KCSWAV 115,2 17,2 NIØG 92,5 18 0 21 MHz 10 21 MHz 1,118,3 10 21 MHz 363,4 10 K2YY/6 .284,5 11 MSCR/7 .260,8 18 MSCR/7 .260,8 18 AB1WR .113,4 19 K1RX .96,6 10 7 MHz	6 0 20 00 77 03 14 57 08 00	TY4AB 925; LY6A 814,6 USØHZ 786,6 K1HT 738,6 SOGH (SG6PLH) 686,7 OK1TA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,0 N5DX 7,336,0 N1UR 7,172,0 W9RE 5,584,0 N9RV/7 5,573,3 28 MHz 28 MHz
KCSWAV. 115.2 NIØG 92,5 II 92,5 KU2M. 1,118,2 KU2M. 1,118,2 KU2M. 1,118,2 KU2M. 1,118,2 KU2W. 284,5 NSCR/7 260,8 AB1WR 113,4 K1RX 260,8 W7WA 532,0 K1RX 212,8 N7AU 48,5 S 3.7 MHz W4QNW 28,3 W2XL 27,0 10 1.8 MHz	6 0 20 00 77 03 14 57 08 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TY4AB 925; LY6A 814,6 USØHZ 786,2 K1HT 738,2 SOGH (SOGPLH) 686,6 OK1TA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,0 N5DX 7,336,0 N1UR 7,172,2 W9RE 5,584,4 N9RV/7 5,573,5 28 MHz N40X
NIØG 92,5 NIØG 92,5 III 1,118,3 III 1,113,4 III 1,113,4 IIII 1,113,4 IIII 1,113,4 IIIII 1,113,4 IIIII 1,11,2 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	6 0 20 20 20 27 33 44 57 88 00 50 54	TY4AB 925; LY6A 814, USØHZ 786, K1HT 738, SQGH (SQGPLH) 686, OK1TA 649,0 UNITED STATES SINGLE OPERATOR SINGLE OPERATOR HIGH POWER HIGH POWER AII Band K1LZ 8,223,0 N5DX 7,336,0 NUR 7,172,0 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X X40X .504,4
Image: Non-State National State National Na	6 0 0 0 0 0 0 7 7 3 3 4 4 5 7 8 0 0 0 0 0 0 0 0 0 0 0 0 7 3 3 4 4 5 7 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TY4AB 925; LY6A 814,6 USØHZ 786,2 K1HT 738,3 SOGH (SG6PLH) 686,6 OK1TA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER AII Band K1LZ 8,223,0 N5DX 7,336,0 N1DR 7,172,0 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X N40X 504,4 W4SLT 120,0
55 KU2M	6 0 0 0 0 0 0 7 7 3 14 57 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TY4AB 925; LY6A 814,6 USØHZ 786,2 K1HT 738,2 SOGH (SOGPLH) 686,6 OK1TA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,0 N5DX 7,336,0 NUR 7,172,0 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X K8MFO 441,1 W40X 115,2
14 W3EP/1	6 0 80 00 90 00 90 00 90 00 90 00 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 9	TY4AB 925; LY6A 814,6 USØHZ 786,2 K1HT 738,3 SOGH (SG6PLH) 686,7 OKITA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,0 N5DX 7,336,0 N1UR 7,172,0 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X N4SLT 120,0 K8MFO 441,1 W4SLT 120,0 KC9WAV 115,2 NIØG 92,9
20 K2YY/6	6 0 80 100 17 13 14 17 18 10 10 10 10 10 10 10 10 10 10	TY4AB 925; LY6A 814,6 USØHZ 786,2 K1HT 738,2 SOGH (SQ6PLH) 686,6 OK1TA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,0 N5DX 7,336,0 N1UR 7,172,0 W9RE 5,584,4 N9RV/7 5,573,5 K8MFO 441,1 W4SLT 120,0 NIØG 92,5 21 MHz 21 MHz
14 MHz N5CR/7 260,8 AB1WR 113,4 12 K1RX 96,6 0 7 MHz 08 W7WA 532,0 16 W1XX 212,8 18 N7AU 48,5 5 3.7 MHz 48,5 10 AA1BU 101,2 W4QNW 28,3 W2XL 27,0 10 1.8 MHz 10 1.2	6 0 00 00 00 07 7 13 14 7 78 70 80 80 80 80 80 80 80 80 80 80 80 80 80	TY4AB 925; LY6A 814,6 USØHZ 786,2 K1HT 738,2 SOGH (SOGPLH) 686,6 OK1TA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER AII Band K1LZ 8,223,0 N5DX 7,336,0 N1UR 7,172,0 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X X639MAV 115,2 NIØG 92,5 21 MHz KU2M KU2M 1,118,5
N5CR/7	6 0 80 80 80 80 80 80 80 80 80 8	TY4AB 925; LY6A 814,6 USØHZ 786,2 K1HT 738,3 SOGH (SG6PLH) 686,6 OKITA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,0 N5DX 7,336,0 N1UR 7,172,0 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X N40X 504,4 K48MFO 441,1 W4SLT 120,0 K029WAV 115,2 NIØG 92,2 21 MHz KU2M KU2M 1,118,5 W3EP/1 363,4
88 AB1WR 113,4 82 K1RX 96,6 90 7 MHz 96,6 94 7 MHz 532,0 96 W1XX 212,6 96 W1XX 212,6 97 AA18U 48,5 96 3.7 MHz 48,5 90 AA18U 101,2 W40NW 28,3 W2XL 90 1.8 MHz	6 0 80 80 80 80 80 80 80 80 80 8	TY4AB 925;3 LY6A 814,4 USØHZ 786,5 K1HT 738,6 SQGH (SOSPLH) 688,7 OKITA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,6 N5DX 7,336,0 NUR 7,172,6 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X N40X 504,9 KU2M 115,5 NIØG 92,9 21 MHz 1,118,3 W3EP/1 363,4 K2YY/6 284,5
22 K1RX 96,6 01 7 MHz 96,6 02 7 MHz 532,0 03 WTXX 212,6 04 N7AU 48,5 05 3.7 MHz 48,5 00 AA1BU 101,2 W4QNW 28,3 W2XL 27,0 00 1.8 MHz 101,2	6 0 80 80 80 80 80 80 80 80 80 8	TY4AB 925; LY6A 814,6 USØHZ 786,2 K1HT 738,3 SOGH (SG6PLH) 686,6 OKITA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,0 N5DX 7,336,0 N1UR 7,172,0 W9RE 5584,0 W9RE 5594,5 K8MFO 441,1 NIØG 92,2 21 MHz K127 KU2M 1,118,5 W3EP/1 363,4 K2YY/6 284,5
00 7 MHz 14 7 MHz 16 WTXX	6 0 0 0 0 0 7 7 3 14 7 7 8 0 0 0 0 0 4 6 5 5 2 8 0 5 5 4 2 0 5 5 4 2 0 0 5 5 2 8 0 0 5 5 2 8 0 0 0 7 7 3 14 7 7 8 0 0 0 0 7 7 3 14 7 7 8 0 0 0 0 7 7 3 14 7 8 0 0 0 0 0 7 7 3 14 7 8 0 0 0 0 0 7 7 3 14 7 7 8 0 0 0 0 0 7 7 3 14 7 7 8 0 0 0 0 0 7 7 3 14 7 7 8 0 0 0 7 7 3 14 7 7 8 0 0 0 7 7 7 3 14 7 7 8 10 0 10 7 7 7 3 14 7 7 8 10 10 10 10 10 10 10 10 10 10 10 10 10	TY4AB 925; LY6A 814,6 USØHZ 786,2 K1HT 738,2 S0GH (S0GPLH) 686,0 OK1TA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,0 N5DX 7,336,0 N1DR 7,172,0 W9RE 5,584,4 N9RV/7 5,573,5 K8MFO 441, W4SLT 120,0 NIØG 92,5 KU2M 115,2 NIØG 92,4 KU2M 1,118,3 W3EP/1 .363,4 K2YY/6 284,5 14 MHz N5CR/7
7 MHz 8 W7WA	6 0 00007733447788 00 34465528 80 55440 88055440	TY4AB 925; LY6A 814,6 USØHZ 786,6 K1HT 738,6 SUGEH (SGEPLH) 688,7 OKITA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,6 N5DX 7,336,0 N1UR 7,172,6 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X N40X 504,9 KU2M 115,2 NIØG 92,9 21 MHz 1,118,3 KU2M 1,118,3 W3EP/1 363,4 K2YY/6 284,5 14 MHz N5CR/7 ABTWR 113,4
06 W1XX	6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TY4AB 925; LY6A 814,6 USØHZ 786,2 K1HT 738,2 SOGH (SQ6PLH) 686,6 OKITA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,0 N5DX 7,336,0 N1UR 7,172,0 W9RE 5,584,4 N9RV/7 5,573,5 K08MFO 441,1 W4SL 120,0 KU2M 115,2 NIØG 92,5 21 MHz KU2M KU2M 1,118,2 W3EP/1 363,4 K2YY/6 284,5 14 MHz N5CR/7 N5CR/7 260,8 AB1WR 113,4 K1RX 96,6
88 N7AU 48,5 5 3.7 MHz 00 3.7 MHz 01,2 4A1BU 040,000 28,3 040,000 27,0 100 1.8 MHz	6 0 80 00 77 33 44 57 88 00 80 44 65 52 88 80 55 14 0 88 52 00 44	TY4AB 925; LY6A 814,4 USØHZ 786,5 K1HT 738,6 SUGH (SGEPLH) 686,7 OK1TA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER HIGH POWER AII Band K1LZ 8,223,0 N5DX 7,336,0 N1UR 7,172,0 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X N40X 504,9 K8MFO 441,1 W4SLT 120,0 KCGWAV 115,2 NIØG 92,2 Z1 MHz K29V/6 V3EP/1 363,4 K2YV/6 284,5 M3EH/Hz 126,0 K1RX 96,6 TMHz 736,0
5 10 20 20 20 20 20 20 20 20 20 2	6 0 30 00 077 13 14 77 18 0 10 14 77 18 0 10 10 14 16 15 12 18 10 15 14 10 18 12 10	TY4AB 925; LY6A 814 (USØHZ 786, K1HT 738, SOGH (SOGPLH) 686, OKITA 686, OKITA 686, SINGLE OPERATOR HIGH POWER HIGH POWER AII Band K1LZ 8,223,6 N5DX 7,336, N1UR 7,172,2 W9RE 5,584, N9RV/7 5,573,3 28 MHz N40X N40X 504,4 K12 120,0 K09WAV 115,5 N10G 92,5 21 MHz KU2M KU2M 1,118,3 W3EP/1 363,4 K2YY/6 284,5 N5CR/7 260,6 AB1WR 113,4 K1BX 96,6 YWWA 532,0
00 3.7 MHz 20 AA1BU101,2 W4QNW28,3 W2XL27,0	6 0 80 00 77 3 14 77 80 0 10 10 14 16 15 12 18 10 15 14 10 18 12 10 14 18 16 15 14 10 18 12 10 14 18 16 16 16 16 16 16 16 16 16 16 16 16 16	TY4AB 925; LY6A 814,6 USØHZ 786,6 K1HT 738,6 SUGEI (SG6PLH) 686,7 OKITA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,0 N5DX 7,336,0 N1UR 7,172,0 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X N40X 504,1 K8MFO 441,1 W4SLT 120,0 K09RV/7 25,573,2 21 MHZ N106 K12YY/6 284,5 N10G 92,5 113,4 1118,5 N10G 22,6 14 MHz 363,4 NEYY/6 284,5 NEWR 113,4 K1RX 96,6 YTMA 532,0 W1XX 212,6
W4QNW28,3 W2XL27,0	6 0 80 00 07 7 13 14 17 78 00 80 43 46 55 22 8 10 15 14 10 82 20 14 18 16 18 1	TY4AB 925; LY6A 814,6 USØHZ 786,2 K1HT 738,2 SOGH (SOGPLH) 686,0 OKITA 686,0 WITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,6 N5DX 7,336,0 N1UR 7,172,2 W9RE 5,584,4 N9RV/7 5,573,3 N9RV/7 5,573,5 V9RE 5,584,4 N40X 504,5 K12MPO 441,1 W4SLT 1200, K29WAV 115,2 NIGG 92,5 21 MHz K2YY/6 K2YY/6 284,5 NEGK/7 260,4 ABTWR 113,4 NSCR/7 260,6 ABTWR 13,4 V7WA 532,0 W7WA 532,0 W7WA 48,5
W2XL27,0	6 0 00073344778700 8044655288055440 88220448668550	TY4AB 925; LY6A 814,6 USØHZ 786,5 K1HT 738,6 SUGEH (SG6PLH) 686,7 OKITA 649,0 UNITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,6 N5DX 7,336,0 NUR 7,172,6 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X N40X 504,9 KU2M 115,5 NIØG 92,9 21 MHz 1,118,3 W3EP/1 363,8 K2YY/6 284,5 N5CR/7 260,6 ABIWR 113,2 K1RX 96,6 WTWA 532,0 W1XX 212,8 NTAU 48,8
0 1.8 MHz	6 0 00073344778700 8044655288055440 88220448668550	TY4AB 925; LY6A 814,4 USØHZ 786,2 K1HT 738,3 SOGH (SG6PLH) 686,6 OKITA 684,1 INIGLE OPERATOR HIGH POWER HIGH POWER AII Band K1LZ 8,223,0 N1UR 7,172,0 V99RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X N40X 504,4 K8MFO 441,1 N10G 92,2 21 MHz KU2M NU2K 260,4 K2YY/6 284,5 N5CR/7 260,2 AB1WR 113,4 K1RX 96,6 YTWA 532,0 WTWA 532,12,0 NTAU 48,5 A1BUW 101,2
	6 0 00073344778700 8044655288055440 88220448668550	TY4AB 925; TY6A 814 (USØHZ 786, K1HT 738, SOGH (SOGPLH) 686, OKITA 686, SINGLE OPERATOR HIGH POWER HIGH POWER AIB Band K1LZ 8,223,6 N5DX 7,336, N1R 7,172,2 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X N9RV/7 5,573,3 V9RE 5,584,4 K29WAV 115,5 NIGG 92,5 21 MHz KU2M KU2M 1,118,3 V3EP/1 363,4 K2YY/6 284,5 SGRIWR 113,4 NSCR/7 260,6 ABIWR 113,4 VTWA 532,0 WTWA 532,0 WTXX 212,8 N7AU 48,5 A1BU 101,7 W4QUVW 28,5
	6 0 00073344778700 8044655288055440 88220448668550	TY4AB 925; TY6A 814 (USØHZ 786, K1HT 738, SOGH (SOGPLH) 686, OKITA 686, SINGLE OPERATOR HIGH POWER HIGH POWER AIB Band K1LZ 8,223,6 N5DX 7,336, N1R 7,172,2 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X N9RV/7 5,573,3 V9RE 5,584,4 K29WAV 115,5 NIGG 92,5 21 MHz KU2M KU2M 1,118,3 V3EP/1 363,4 K2YY/6 284,5 SGRIWR 113,4 NSCR/7 260,6 ABIWR 113,4 VTWA 532,0 WTWA 532,0 WTXX 212,8 N7AU 48,5 A1BU 101,7 W4QUVW 28,5
	6 0 80 00 07 7 13 14 77 18 0 00 80 14 16 15 12 18 00 15 14 20 18 12 10 14 18 16 18 15 10 10 10 10 10 10 10 10 10 10 10 10 10	TY4AB 925; LY6A 814,4 USØHZ 786,2 K1HT 738,3 S0GH (S0GPLH) 686,0 WITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,6 N5DX 7,336,0 N1UR 7,172,2 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X N9RV/7 5,573,3 V9RE 5,584,4 K29WAV 115,7 NIGG 92,6 21 MHz KU2M KU2M 1118,3 NSCR/7 260,4 ABTWR 113,4 NSCR/7 260,4 ABTWR 113,4 W7WA 98,6 TMHz 90,6 W7WA 28,3 A18U 101,2 W7WA 28,3 A18U 101,2 W4QUVW 28,2 W2XL 27,0
	6 0 80 00 07 7 13 14 77 18 0 00 80 14 16 15 12 18 00 15 14 20 18 12 10 14 18 16 18 15 10 10 10 10 10 10 10 10 10 10 10 10 10	TY4AB 925; LY6A 814,4 USØHZ 786,2 K1HT 738,3 S0GH (S0GPLH) 686,0 WITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,6 N5DX 7,336,0 N1UR 7,172,2 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X N9RV/7 5,573,3 V9RE 5,584,4 K29WAV 115,7 NIGG 92,6 21 MHz KU2M KU2M 1118,3 NSCR/7 260,4 ABTWR 113,4 NSCR/7 260,4 ABTWR 113,4 W7WA 98,6 TMHz 90,6 W7WA 28,3 A18U 101,2 W7WA 28,3 A18U 101,2 W4QUVW 28,2 W2XL 27,0
	6 0 80 00 07 7 13 14 77 18 0 00 80 14 16 15 12 18 00 15 14 20 18 12 10 14 18 16 18 15 10 10 10 10 10 10 10 10 10 10 10 10 10	TY4AB 925; LY6A 814,4 USØHZ 786,2 K1HT 738,3 S0GH (S0GPLH) 686,0 WITED STATES SINGLE OPERATOR HIGH POWER All Band K1LZ 8,223,6 N5DX 7,336,0 N1UR 7,172,2 W9RE 5,584,4 N9RV/7 5,573,3 28 MHz N40X N9RV/7 5,573,3 V9RE 5,584,4 K29WAV 115,7 NIGG 92,6 21 MHz KU2M KU2M 1118,3 NSCR/7 260,4 ABTWR 113,4 NSCR/7 260,4 ABTWR 113,4 W7WA 98,6 TMHz 90,6 W7WA 28,3 A18U 101,2 W7WA 28,3 A18U 101,2 W4QUVW 28,2 W2XL 27,0

SCORES	
30,132,705	N7GP (N5IA)4,200
30,132,705	WB4WXE
23,637,570 23,497,428	LOW POWER
23.148.840	All Band
21,068,295 19,324,062	K3CR (LZ4AX)3,568,956
19,324,062	AD4Z2,495,871 N5AW2,226,978
	NA8V1,949,815
OKIE Power	N4TZ/91,887,472
3,240,975	28 MHz
2,813,586 853,160	K2PS/4137,826
	K3MSB96,250 WE6EZ/591,258
258,995 224,576	21 MHz
	KØBBB151,065 W3SM/1122,752
	K5FUV113,704
150,290	
OKIE	14 MHz KJ4QHL66,926
Power 692,886	KF5CYZ32,851
	KX2S/326,325
	7 MHz
391,575 363,090	KB3LIX29,484
	KD5LNO16,660 W9QL4,329
0)319,770)315,248	W0QL
	3.7 MHz
	W8JGU7,498 K4CC6,223
ASSIC	
Power	QRP All Band
6,930,818	K8ZT
/)5,500,828 3,050,431	W6QU (W8QZA)236,610
2,883,540	NDØC235,554 W1JCW/5223,965
2,882,180 2,653,530	KA8SMA151,891
2,527,448	28 MHz
2,456,904	WA6FGV43,758
OJ)2,450,760 2,355,792	KM4VR9,464
	KIØG/53,120 N8XX1,200
ASSIC Power	11077
	21 MHz
G)2,402,244	N3UR16,464
1,918,290 1,538,685	14 MHz
925,344	WB3D/46,624
814,618 786,210	ASSISTED
	HIGH POWER
H)686,700	All Band K3WW6,889,155
	K5TR5,839,540
STATES	NN1SS5,456,136 N3RS5,158,964
OPERATOR	AA3B4,647,250
POWER	28 MHz
Band 8,223,696	W5PR615,038
7,336,080	K2SSS480,048
7,336,080 7,172,642	W7ZR222,162
5,584,410	21 MHz
5,573,344	K3EST/6931,245
5,573,344 MHz	K3EST/6931,245 N7DD884,256
5,573,344 MHz 504,900	K3EST/6931,245 N7DD884,256 AB4B773,245
5,573,344 MHz 	K3EST/6931,245 N7DD884,256 AB4B773,245 14 MHz
MHz 	K3EST/6931,245 N7DD884,256 AB4B773,245
5,573,344 MHz 	K3EST/6
MHz 504,900 441,188 120,078 115,230 92,514 MHz	K3EST/6
MHz 	K3EST/6
	K3EST/6
5,573,344 MHz 504,900 441,188 120,078 15,230 92,514 MHz 1,118,340 363,485 284,532	K3EST/6
	K3ES7/6
MHz 	K3ES7/6
	K3EST/6
	K3ES57/6
	K3EST/6
	K3EST/6
5,573,344 MHz 504,900 441,188 20,078 15,230 	K3EST/6
	K3ES37/6
	K3EST/6

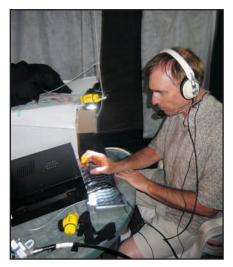
4,200	21 MHz
2,400	AIØL
	W2AW (N2GM)256,122 N9TGR240,099
	14 MHz
68,956 195,871	N4DL73,401
226,978	NW4V10,176 N2GA1,456
949,815 387,472	7 MHz
	WK9U34,452
37,826	KCØMCK/44,180
.96,250 .91,258	3.7 MHz
.91,230	K3TW/48,195 WB40MM2,607
51,065	
22,752	ASSISTED QRP
13,704	28 MHz
	KB2HSH11,232
.66,926	21 MHz
.32,851 .26,325	NØUR20,808 W9SUN17,871
	N8HP16,614
.29,484	14 MHz
.16,660 4,329	N9NBC19,512
	7 MHz N9NBC19,512
7,498	10,012
6,223	MULTI-OP
	SINGLE TRANSMITTER High Power
340,075	K6ND/1
236,610 235,554	K8AZ8,447,173 NV9L7,142,818
223,965	W2FU6,447,080
101,001	WW4LL6,141,788
.43,758	Low Power NM1C1,667,925
9,464	KT4ZB1,423,148
3,120 1,200	WA1F/4503,440 K4RC401,790
	W3HAC260,848
.16,464	MULTI-OP
	TWO TRANSMITTER KC1XX18,105,815
6,624	K9CT11,482,330 NQ4I10,526,440
	NQ4110,526,440 NØNI6,898,755
	K4TCG5,673,734
889,155	MULTI-OP
339,540 156,136	MULTI-TRANSMITTER K3LR31,602,915
58,964 547,250	W3LPL23,637,570
,200	WE3C19,324,062 WK1Q12,144,725
615.038	W4RM10,249,351
180,048 222,162	ROOKIE
.22,102	High Power W4FS2,813,586
31.245	W4FS2,813,586 KG5CIK364,212 ND7J/4355,320
031,245 084,256 773,245	W7CYL211,640
73,245	KG5CIJ98,306
329,556	Low Power KF5VDX
.63,245	KC1BOH205,425
.27,730	KEØCRP187,543 AEØEE165,000
.71,027 .68,794	AC8XI161,138
10.010	

	SSIC Power
AA1K/3	2,653,530
NN1N	1,729,920
N8II	1,609,685
W1WEF	1,424,280
	1,060,618

Low Power								
K1BX	1,538,685							
K1HT	738,360							
NA1DX/3								
KK4RV								
K1IX	315,268							



Gary, KF5VDX, set up this vertical array on the beach and worked 94 countries — five for all time new ones! (Courtesy of KF5VDX)



Rich, N6KT, operating as TO2A. (Courtesy of N6KT)

doing a great job to finish second from Arkansas. Mike, W9RE, did his usual strong effort from Indiana in fourth. Pat, N9RV/7, in Montana outdueled Mitch, K7RL, in Washington for the top score out west.

SOAB Low Power was the most popular category in the contest with 1,979 entries (see *Table 1*). The top score was a real Field Day style operation by Rich, N6KT, operating as TO2A in French Guiana. Rich worked from a tent with generator power and no antennas more than 10 meters high. This was Rich's 11th world high score in CQ WW Phone. Ashraf, KF5EYY, operated 3V8SS to second place just ahead of three North American entries KP3Z, VE3DZ, and NP2X. The top European score was ED5N operated by Raul, EA5KA. Long time high-power competitor Alex, LZ4AX, drove the K3CR station in low power for the top USA score, followed by Julio, AD4Z, and Marv, N5AW.

Single Operator All Bands Assisted

The Assisted categories continue to grow in popularity. The SOAB Assisted High Power category had 1,126 entries. The winner was TM6M in Western France operated by Sebastien, F8DBF. Sebastien had the second highest single-operator score in the contest behind only 8P5A. Kim, OH6KZP, operated OHØX to the highest multiplier of any single operator to finish second. Sergio, PP5JR, piloted PX5E to third with one of the few big scores from the Southern Hemisphere in a year where all the action was up north.

The winner of the SOAB Assisted Low Power category was John, W2GD, operating from P4ØW in Aruba. John's score would have placed him fifth in the High-Power category. The contest had a special meaning for John, "Nine months ago the doctors told me I had cancer and my prognosis was limited. But, after six months of treatment with a new immuno-therapy drug (and the loving prayers of thousands), last month I achieved the miracle of complete remission ... the cancer is currently gone. Unfortunately there is no permanent cure for this, but I'm enjoying every extra day I have."

<u>what's new</u>



SOTAbeams Redesigns Popular Portable Log Pad

SOTAbeams has redesigned its popular portable log pad. The changes were suggested by users and include a new page format together with revised columns for easier use. The pad uses A6 paper, which is 105 x 148 mm (approx. 4 x 6 inches) and is made up of 80 g/sqm white paper that is not waterproof. It is glued to the 750micron grayboard backing along the long edge, which makes it easy to tear off individual sheets. There are 50 sheets per pad with 13 QSO lines per sheet.

The Log Pad is available now and has a retail price of \$2.12 with a special price on 10 or more pads. For more information, contact: SOTAbeams, 2nd Floor, Paradise Mill, Park Lane, Macclesfield, SK11 6TL U.K. Phone: +44 (0) 7976 688359. Website: http://www.sotabeams.co.uk.

Note: "What's New" is not a product review and does not constitute a product endorsement by CQ. Information is primarily provided by manufacturers/vendors and has not necessarily been independently verified.



2015 CQ WW DX SSB BAND-BY-BAND BREAKDOWN—TOP ALL BAND SCORES

Number groups indicate: QSOs/Zones/Countries on each band

WORLD SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
8P5A	67/7/23	533/18/77	1621/28/101	1996/33/108	2744/31/113	3259/30/111
ES5TV	235/12/54	562/19/73	982/31/107	2243/36/127	3017/38/132	781/35/117
VY2ZM	251/18/68	361/21/74	937/27/94	2006/34/117	1298/35/116	1088/29/105
EF8U	20/3/16	230/15/44	420/19/80	942/30/100	1778/35/110	2492/28/100
UPL	68/7/19	326/11/50	1300/28/95	1666/34/99	1183/31/99	1442/27/96

WORLD SINGLE OPERATOR ASSISTED ALL BAND

TM6M	148/11/49	606/19/86	1287/31/115	1601/34/131	 1543/36/151
OHØX	180/9/52	515/17/85	965/35/126	1572/38/149	605/36/143
PX5E	8/5/7	150/16/60	246/29/89	1028/34/124	2888/35/136
T02M	24/4/16	268/19/60	888/28/96	1434/35/120	2819/32/124
*P4ØW	21/4/18	155/16/57	439/26/90	1060/34/121	1919/31/115

WORLD MULTI-OPERATOR SINGLE TRANSMITTER

EF8R	85/11/54	632/21/92	1615/37/125	2365/38/156	2083/39/154	4814/38/162
CR3A	96/13/56	648/23/95	850/32/113	2364/38/147	2155/37/149	4168/38/154
P33W	179/9/56	451/20/84	1249/34/123	2628/38/155	2296/39/151	3299/37/154
V47T	87/11/47	417/19/84	1824/33/118	2206/37/140	3421/38/145	3700/34/137
UP2L	151/8/51	564/18/78	1798/37/129	2417/38/152	2363/37/150	965/32/129

WORLD MULTI-OPERATOR TWO TRANSMITTER

CN2R	246/10/49	1497/27/107	2031/33/121	2086/37/150	4086/38/153	3960/38/154
CN3A	62/8/45	887/21/92	2115/34/121	3043/38/149	3627/38/152	4068/37/158
PJ4Q	63/11/30	498/19/76	1539/28/108	2305/34/130	3272/32/118	3423/31/123
C4A	93/8/42	481/14/71	1396/32/114	2051/37/146	2202/38/135	2555/37/155
T04K	84/6/20	650/17/72	1902/28/95	2557/33/125	3900/31/113	3392/29/118

WORLD MULTI-OPERATOR MULTI-TRANSMITTER

CN2AA	872/20/84	2284/31/117	3537/37/140	5710/38/162	5518/39/168	5423/40/164
K3LR	466/19/61	841/27/99	2350/36/137	3353/39/174	3188/40/168	2260/34/147
HK1NA	268/16/52	596/21/78	2017/31/116	3349/37/140	3199/36/132	3888/32/120
PJ2T	175/13/28	644/20/79	1823/30/108	2816/36/136	3631/33/124	3794/30/124
W3LPL	275/14/42	750/26/99	1844/34/130	1931/39/158	3051/40/157	2001/34/140

EC2DX put up a very nice score to finish first in Europe. Dennis, W1UE, was the top USA finisher and fifth overall.

Single Operator Single Band

With the D4C contest station not fully ready for a multi-operator effort due to the reconstruction activities after Hurricane Fred (2015), two single-band entries were planned. Max, IZ4DPV, selected 10 meters and the callsign D4Z. Andrea, HB9DUR, joined Max on the trip with the intention of operating 20 meters. After two days of work trying to prevent interference from 20 meters to 10 meters, it was decided that Andrea would do 40 meters. The D4C mountaintop location is fantastic and resulted in two dominating first place scores.

No surprise that 10 meters was the most popular singleband entry category. It was nice to have plenty of room to spread out with signals from 28300 to above 28700. Marcelo, CX2DK, made a valiant effort in finishing in second place. The 10-meter scores dropped dramatically as you headed north. Jay, N4OX, had the top USA score on 10, with Don, K8MFO, close on his heels.

The top score on 15 meters was by Alexey, RA1A, testing out a new location in the Canary Islands as ED8X. It was tough going with the band packed from 21100 to the top. Pasi, OH6UM, made a last minute decision to switch from his usual 20-meter, single-band effort to 15 meters. Not only did he finish second in the world, he broke the Finland record (OH5BM, 1988) that had stood for 27 years! He ended up only 30K points from capturing the European record. Peter, KU2M, cruised to a dominant victory among USA scores.

The championship of 20 meters was between three Europeans: north, central, and south. The winner by a narrow margin was Pavel, OK4PA, operating as CR5C from the

USA TOP SINGLE OPERATOR ALL BAND

Station	160	80	40	20	15	10
K1LZ	79/10/38	329/21/70	714/20/81	897/31/100	1658/33/104	1114/23/93
N5DX	17/8/11	176/20/63	793/31/99	691/35/120	1622/37/126	780/32/108
N1UR	42/9/26	349/17/69	555/24/89	842/31/107	1141/33/115	1088/27/100
W9RE	33/9/15	171/18/63	450/30/95	643/34/111	979/35/113	897/26/96
N9RV/7	12/5/5	101/21/39	747/32/73	735/32/107	1667/37/113	533/27/65

USA SINGLE OPERATOR ASSISTED ALL BAND

K3WW K5TR	40/8/25 23/10/17	199/20/74 90/20/60	243/26/96 563/30/109	1312/35/134 367/36/122	756/33/129 1342/37/140	898/29/112 827/32/129
NN1SS	13/7/8	165/19/75	238/26/96	1071/37/130	713/33/118	603/29/113
N3RS	5/4/3	160/16/67	283/23/85	674/36/130	789/34/122	817/29/119
AA3B	16/6/15	170/14/64	332/25/91	659/32/116	598/31/114	798/26/107

USA MULTI-OPERATOR SINGLE TRANSMITTER

K6ND/1	42/11/32	374/19/82	535/27/102	823/37/135	1210/33/135	1210/30/122	
K8AZ	21/9/18	76/20/73	523/29/105	1107/38/137	1313/37/138	958/33/126	
NV9L	30/11/29	73/21/68	536/31/114	753/38/141	1129/38/140	902/31/116	
W2FU	26/9/24	246/21/81	247/28/101	907/38/140	838/36/130	831/32/120	
WW4LL	14/8/13	128/21/74	516/31/113	656/36/134	1040/38/140	726/32/126	

USA MULTI-OPERATOR TWO TRANSMITTER

KC1XX	36/11/29	595/23/91	1297/32/119	1601/39/147	2408/40/151	1876/31/132
KU I XX		393/23/91	1201/02/110	1001/39/147	2400/40/101	10/0/31/132
K9CT	32/8/18	232/23/75	699/33/115	1156/38/140	1888/37/140	1537/32/128
NQ4I	36/10/21	231/17/72	865/31/115	1071/37/138	1425/37/140	1521/30/128
NNØI	28/10/19	184/21/68	563/30/106	1165/37/131	1168/36/138	660/33/114
K4TCG	23/8/14	173/19/63	425/27/89	503/32/110	1146/35/109	1070/28/104

USA MULTI-OPERATOR MULTI-TRANSMITTER

K3LR	466/19/61	841/27/99	2350/36/137	3353/39/174	3188/40/168	2260/34/147
W3LPL	275/14/42	750/26/99	1844/34/130	1931/39/158	3051/40/157	2001/34/140
WE3C	180/15/48	639/24/91	1222/33/123	2285/39/159	2491/40/153	1385/33/140
WK1Q	229/12/40	605/24/91	1021/27/110	916/38/145	1721/36/134	1230/30/124
W4RM	26/8/15	387/20/76	959/28/110	1405/36/132	1730/37/131	669/26/112

QTH owned by OK1RF. Kristian, OZ5KF, operated OZ7X to second place over Mark, MØDXR, at G9W. All three managed to put in about 40 hours of operation. It was 10 extra country multipliers by CR5C that made the difference. Siggi, TF3CW, deserves an honorable mention for his fourth place score and for handing out the zone 40 multiplier.



Will, AA4NC, enjoying the pileups from Fernando de Noronha as PYØF/AA4NC. (Courtesy of AA4NC)

	EUROPE TOP SINGLE OPERATOR ALL BAND							
Station	160	80	40	20	15	10		
ES5TV	235/12/54	562/19/73	982/31/107	2243/36/127	3017/38/132	781/35/117		
9A1P	146/9/55	320/14/66	832/26/92	1025/33/102	1354/35/103			
UW2M	97/8/44	411/15/65	1156/29/101	1140/35/107	2049/35/123	1544/33/108		
403A	270/12/53	400/17/68	1246/28/100	1185/36/112	1508/35/126	1264/32/110		
OE3K	177/8/46	567/14/62	1159/28/97	1003/28/91	1103/33/101	994/30/96		
	EUROP	E SINGLE	OPERATO	R ASSISTE	D ALL BAN	D		
TM6M	148/11/49	606/19/86	1287/31/115	1601/34/131	1872/37/135	1543/36/151		
OHØX	180/9/52	515/17/85	965/35/126	1572/38/149	2457/39/151	605/36/143		
S020	116/9/53	174/19/82	1054/34/114	1144/37/124	1390/37/127	399/35/135		
EU1A	39/6/30	129/13/58	1000/33/112	1069/37/125	1180/36/127	1034/36/140		
DJ80G	115/9/52	419/17/83	354/34/111	1068/37/130	1068/37/130	711/37/143		
	EUROP	E MULTI-O	PERATOR	SINGLE TF	RANSMITTE	R		
EI7M	102/11/52	597/17/88	1776/36/119	1804/38/146	2407/38/145	2037/36/151		
IR4X	118/12/61	498/20/93	1486/37/127	1512/38/147	1809/38/148	1576/37/152		
E7DX	84/10/56	631/24/99	1356/35/124	1429/38/151	2151/40/154	1918/36/156		
RU1A	51/9/51	145/16/72	1243/35/127	2948/40/156	2552/40/150	602/35/144		
OM7M	150/12/64	240/19/86	1607/37/133	1659/38/145	1600/39/151	1595/38/160		
	EURO	PE MULTI-	OPERATO	R TWO TRA	NSMITTER	ł		
ED1R	254/13/62	1108/22/98	1773/29/113	1769/38/150	2672/40/147	1984/37/142		
HG1S	187/7/46	1113/20/90	1312/31/113	1619/38/145	2713/39/149	1672/36/150		
PI4DX	261/10/53	1023/18/87	1288/35/116	1772/38/132	1525/38/135	2124/36/135		
IB9T	302/11/60	833/19/84	1152/28/104	1997/38/149		2150/38/156		
HG7T	231/11/55	1125/26/97	1388/35/125	1299/37/144	1840/40/147	1551/39/152		
	EUROP	E MULTI-O	DPERATOR	NULTI-TR	ANSMITTE	R		
DFHQ	688/10/61	1815/26/100	3186/38/141	3329/40/163	2002/40/161	1538/38/160		
9A1A	983/16/72	1970/20/98	2477/34/128	3163/38/145	2958/40/149	1856/37/146		
LZ9W	620/12/62	1683/31/110	2275/39/132	2979/38/146	2057/38/143	1767/36/149		
OT5A	778/12/61	1490/17/75	2126/28/117	1802/39/133	2204/39/140	1582/34/141		
C37N	442/9/54	1438/19/83	2355/27/104	2823/31/115	2119/27/107	1457/25/98		

Martti, OH2BH, operated on 75 meters as CR2X from his place in Madeira to a big lead over David, OK1DTP, as OK5D. Each made more than 1,600 QSOs on the band. The top USA score was by 75-meter regular Joe, AA1BU.

How can you operate from Italy and enjoy the extra QSO point advantage of being in Africa? Pantelleria Island is just across the continental boundary so it counts as a separate CQWW multiplier called African Italy. Gianfranco, IT9SPB, operated there as IH9A and finished far ahead of everyone on Top Band. Max, OZ4MD, was the top European. Scores were much lower in the USA where an east vs. west battle saw Ronald, W2VO, in western New York sneak ahead of Milt, N5IA, operating as N7GP in Arizona, by just 240 points!

QRP

It takes a special kind of determination to enter the QRM of CQ WW SSB with only 5 watts. Scores were only about half of what they were in the previous two years reflecting the shorter openings on 10 meters. Ron, VE3VN, took the top score for the world followed closely by Pit, DK3WE. Both are regulars in the QRP category. Mike, RT4W, made over 1,100 contacts on his way to the top Assisted score.

Overlay Categories

The Classic Overlay is open to single operator entries that use only one radio, no DX cluster, and counts only the first 24 hours of operation for the score. We had 856 Classic entries this year. The high-power winner was by Andy, AE6Y, vacationing in Aruba as P49Y. Andy explained his choice to focus on the Classic Overlay. "This year I was by myself, but the idea of celebrating one's 70th birthday (Sunday) alone is **RIGblaster Advantage** For use with digital mode and logging software



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bad enough without the concomitant hallucinations and fatigue that go with a full-blown effort in this contest." Giving part-time efforts a chance to compete is one of the main reasons for the Classic Overlay. Yuri, VE3DZ, did a full-time effort, but his first 24 hours were enough to win the low-power class.

The Rookie Overlay is for operators who have been licensed less than 3 years at the time of the contest. The 315 Rookie entries were the highest number ever and indicate a bright future for CQWW. There were two big scores in the high-power class with both licensed in September 2014. Valery, EW6W, finished ahead of 17-year-old Tucker, W4FS. It was a very close race on low power between Grecia, YY1YLY, in Venezuela and Wuyi, BG2CTX, in China. Grecia is a 19-year-old YL who has now won the Rookie category in both CQ WPX and CQ WW SSB! Wuyi has only had a ham radio license for 2 months. Keep an eye out for all of these great operators in the future!

Multi-Ops

The most exciting multi-operator category was Two Transmitter. Six of the top 10 entries were contest expeditions. The top spot was a shootout between CN2R and CN3A in Morocco. CN2R won on the basis of a few more multipliers and lower error rate. PJ4Q was a combination of local and visiting operators who enjoyed the luxury of having a swimming pool included in the QTH. The guys at TO4K also enjoyed some relaxing time in their pool overlooking the Caribbean on their way to the top North American score.

While KC1XX won the USA title for multi-two, it was the spirited competition between K9CT and NQ4I that demonstrated how much fun it can be to use the cqcontest.ru live

<u>what's new</u>



Pasternack Announces a New and Improved Version of The Cable Creator™

Pasternack has released an improved version of its popular online tool called The Cable Creator™. This new iteration allows users to not only design and customize special cable configurations online, but also purchase their designs without the need to wait for a quote from the company's sales team.

With a modernized look and feel, Pasternack's Cable Creator enables engineers and buyers to quickly and easily create customized RF cable assemblies that meet their specifications from any combination of compatible connectors and cables offered by the company. Designers can choose from over 1,300 connector types and 115 different coaxial cables to construct a cable solution for their specific applications. The Creator can also be used to locate any of the company's existing 40,000+ cable assemblies.

This new version of the Pasternack Cable Creator builds a unique product page on the fly, which provides customers a part number, pricing, a build-of-materials (BOM) datasheet, and the ability to enter the desired length of the assembly. The users can then add their special designs to the online shopping cart and purchase their assemblies like any other products. The engineer or buyer can then use the newly created part number to reorder the same assembly again in the future. You can use Pasternack's new Cable Creator™ at <http://www.pasternack.com/t-cable-creator.aspx>.

Note: "What's New" is not a product review and does not constitute a product endorsement by CQ. Information is primarily provided by manufacturers/vendors and has not necessarily been independently verified.



Ivo, 9A3A, operating from the well-equipped station of 4O3A in Montenegro. (Courtesy of 4O3A)

score reporting site. According to Craig, K9CT, "our team was totally focused on the horse race ... It was a marathon and neither team was ever in the lead or behind very long. I can tell you that it kept our team in the chair and chasing every multi and QSO possible."

The biggest score of the contest was by multi-multi entry CN2AA. This team of Russian contesters has perfected the logistics to assemble a large station at a beachfront hotel just for the contest. The antennas are grouped in three sites, all within a 400-meter circle; The Beach (sandy beach by the Atlantic Ocean), The Cliff (30-meter-high cliff above the ocean) and The Rock (50-meter-high hill near the ocean). There were 51,052 total QSOs logged by CN2R, CN3A, and CN2AA. No one should have missed the CN multiplier!

Second place in multi-multi went to K3LR, just ahead of HK1NA. The K3LR station had upgraded to new Icom IC-7851 radios at all RUN positions on the way to an 11th consecutive USA victory. DFØHQ was the top European score, only 1% ahead of 9A1A. This was the first time in many years that WØAIH was not entered in the multi-multi category.

The multi-single category has become the category of choice for intense competition among Russian teams using very sophisticated in-band run and multiplier station combinations. This year, the winning team was EF8R on the strength of fantastic QSO numbers on 40 and 10 meters. CR3A in second place showed that a traditional single run and multiplier station could still be competitive. EI7M overcame losing their 80-meter dipole three hours into the contest on their way to the top European score. As always, it was a close race for the top USA plaque with K6ND/1 finishing just a few points above K8AZ. FY5KE tried the multi-single low-power category and more than doubled the world record.

Final Thoughts

Once again, the CQ WW Contest Committee pored over the logs and recordings to validate the results. In addition to the usual checking for transmissions out of band and unclaimed use of DX spotting assistance, we looked more closely into self-spotting. Spotting yourself or asking someone to spot you is prohibited by the rules. We detected a number of stations that were spotting themselves using other calls (sometimes fake calls) to hide their identity. We have developed new techniques to detect this and it resulted in 28 disqualifications. We ask everyone to please read the rules carefully and follow them.

The Elecraft K-Line Now Featuring the New K3S Transceiver



K3S Superhet/SDR Architecture Ultra Low-Noise RX/TX

The Elecraft K3 set the standard for compact, high-performance transceivers, proving to be ideal for DXpeditions, multi-transmitter contesting, Field Day, and home stations alike. With the 2nd-generation K3s, we've raised the bar once again, upgrading nearly every subsystem. Improvements include:

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After many years of contributions by individuals, the cost

of producing and mailing certificates is no longer viable. As

a result, CQ magazine has decided it will no longer provide

paper certificates. All entries that were received by the log

deadline may download their own certificates in electronic

form from the cqww.com website. It is easy to use this file to

The CQ WW contest lost a close friend and supporter short-

ly after the contest when Rich, KL7RA, unexpectedly passed away. Rich had built multi-multi capable stations at three dif-

ferent locations in Alaska over the past 30 years. His call was

the zone 1 multiplier in many logs. We will miss his sharp wit

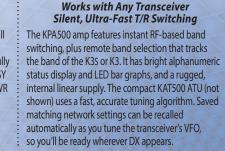
Thanks to the many people who work behind the scenes to

administer the CQ WW DX Contest. Log checking was

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KPA500

improved this year through the donation of a new server by the World Wide Radio Operators Foundation (WWROF). There is a small group of people who spend many hours of their time checking the logs and investigating suspected violations all with the goal of protecting the integrity of the competition.

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We have added a new feature to the cqww.com website. You can now see the highest QSO rates by category and continent at <http://www.cqww.com/rates/>. Everyone loves high rates and it is fun to see how your best stacks up to others in your area.

We look forward to seeing everyone again later this year for the CQ WW DX SSB Contest on October 29-30, 2016. Full rules, all-time records, electronic certificates, and other information are available on the Web at <www.cqww.com>. (Continued on page 93 for scores)

CQ WW SSB on the Web

Quadcopter Overview of Signal Point PJ2T: https://www.nfdxa.com/CQWW%20@%20VP5DX.pdf">https://www.nfdxa.com/CQWW%20@%20VP5DX.pdf VK2GGC in CQWW 2015: https://youtu.be/1Mf8VIPyi8 ED9K Expedition (Spanish): highest QSO Rates">https://www.facebook.com/ed9kTeam/videos/1134691346559622/> Highest QSO Rates in CQ WW: https://www.facebook.com/ed9kTeam/videos/1134691346559622/>https://www.facebook.com/ed9kTeam/videos/1134691346559622/>https://www.facebook.com/ed9kTeam/videos/1134691346559622/>https://www.facebook.com/ed9kTeam/videos/1134691346559622/>https://www.facebook.com/ed9kTeam/videos/1134691346559622/>https://www.facebook.com/ed9kTeam/videos/1134691346559622/>https://www.facebook.com/ed9kTeam/videos/1134691346559622/>https://www.facebook.com/ed9kTeam/videos/1134691346559622/>https://www.facebook.com/ed9kTeam/videos/1134691346559622/>https://www.facebook.com/ed9kTeam/videos/1134691346559622/>https://youtu.be/AUKAODZoso//com/ed9kTeam/videos/1134691346559622/>dvwww.facebook.com/ed9kTeam/videos/1134691346559622/>dvwww.facebook.com/ed9kTeam/videos/1134691346559622/>dvwww.facebook.com/ed9kTeam/videos/1134691346559622/>dvwww.facebook.com/ed9kTeam/videos/1134691346559622/>dvwww.facebook.com/ed9kTeam/videos/1134691346559622/>dvwww.facebook.com/ed9kTeam/videos/1134691346559622/>dvwww.facebook.com/ed9kTeam/videos/1134691346559622/>dvwww.facebook.com/ed9kTeam/videos/1134691346559622/>dvwww.facebook.com/ed9kTeam/videos/1134691346559622/>dvwww.facebook.com/ed9kTeam/videos/1134691346559622/>dvwww.facebook.com/ed9kTeam/videos/1134691346559622///dvww.facebook.com/ed9kTeam/videos/1134691346559622///dvww.facebook.com/ed9kTeam/videos/1134691346559622///dvww.facebook.com/ed9kTeam/videos/113469134655962///dvww.facebook.com/ed9kTeam/videos/113469134655962///dvwwerebook.com/ed9kTeam/videos/113469134655962///dvwwrebook.c