Results of the 2018 CQWW 160-Meter Contest

High Angles and No Angles

BY ANDY BLANK,* N2NT

he reports were all over the map for conditions in this year's event. Most stations reported great conditions on Friday night during the CW contest, not so good on Saturday. It seemed like being in the classic places closer to population centers, such as W1/VE1 in North America and western coast of Europe, were the best places to be. The SSB contest seemed to be an overall bust with poor conditions and QRN. Lots of thunderstorms, and generally poor propagation resulted in some of the lowest scores in recent history.

Be that as it may, many thanks to the Bavarian Contest Club, whose members come out in droves for the CQ 160 Contest. Amassing a whopping 29-million point total, they are responsible for a good chunk of the activity in the contest. The score is close to the combined total of the PVRC, YCCC, and FRC added together.

Congratulations, and thanks for the support.

CW Results

A record 2,697 logs were received for CW. Single Op Assisted continues to be the most popular category with

Millionaires Club

EF8R	2,678,262	VE3EJ1,156,544
CR3DX	2,241,960	S51V1,153,696
	2,021,700	SN7Q1,150,582
P33W	1,721,631	OK5Z1,137,750
	1,580,971	VE3JM1,134,039
OK7K	1,464,400	DL6FBL1,130,046
ZF9CW	1,436,666	OL3Z1,066,440
4X2M	1,383,580	OZ7AM1,052,226
	1,374,912	RU1A1,029,802
P40AA	1336,400	UA2FZ1,029,589
LX7I	1,312,188	N5DX1,025,468
ES5G	1,303,284	G5W1,019,788
ZC4A	1,262,436	E7DX1,017,436
EI0R	1,261,372	K1LZ1,006,402
HG8DX	1,242,120	W1UE1,003,950
VA2WA	1,240,920	OK5W1,003,937
TM6M	1,223,168	OM2Y1,000,200
VA2EW	1,188,528	

Table 1. A list of the Millionaires Club. It is comprised of contestants who scored over a million points during the 2018 CQWW 160-Meter Contest.



K9LA's second-op tuning carefully for multipliers.



K8MR, K1TO, and K9DDO inspect the new K5KG vertical.

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more than double the number of logs submitted for Single Op Unassisted. The Millionaires Club was well represented this year. Congratulations to all (see *Table 1*).

In the U.S., Kevin, N5DX, blew away the competition by nearly 150,000 points, and he was operating remotely to the fine QTH of N2QV in New York. This style of operation is becoming more popular and with some fantastic results. K1BX was able to edge out perennial winner K3ZM while K1KI was right there as well. This is a representation of the conditions favoring the northeastern U.S., especially on Friday night.

Low Power U.S. was a tough go this year, but KD4D almost doubled the next highest score of N1UR and K5KU. In Canada, VE3VN edged out VE3MGY this time for Low Power honors.

QRP U.S. takes a strong will in this contest. Congrats to KA1J for winning comfortably with 75K with W8GP, NTØZ, and N4AX bunched behind KA1J.

In Canada, where they enjoy a point advantage for working U.S., the Topband King of PEI Jeff, K1ZM, not only made it to the Millionaire's Club, he became a multi-millionaire, more than doubling the scores of the next competitors, VE3AT and VE3DZ. Not only was this the top spot in Canada, but also the world! Congrats to Jeff on another CQ160 victory.

On the West Coast in Zone 3, where working DX is a challenge, AC6DD, W2VJN, and K6NA fought a close battle, all within 22K. In LP, W7RH edged out N7IR by only 9K for the winning score.

Zone 4 was a race of Canadians with VE3AT and VE3DZ winning by less than 100K. Tightly packed in the U.S. were W5MX, K5WA, K1LT, and WD5COV. Those four slots were only separated by 37K.

Rest of the World

As N5DX dominated the U.S., his dad Stan, ZF9CW, beat the next highest competitor, G5W, by 400K. Stan's excellent seaside QTH has again proven to be very effective. And special mention to YV1KK with a fantastic Low Power showing of 672K, making it into the top ten with only HP scores above 500K. C6AGU and DL1AUZ were the next highest scores to the top, with HG5D, Z6ØA, and TM5EE close behind.

Also in Zone 14, GM4Z and GU4YOX managed to break 500K. And Michel, ON7EH, had the highest Low Power score at 405K. ED3O, DLØMCM, and SEØX were in the next LP slots, at

TROPHY WINNERS AND DONORS

World Single Operator Combined SSB/CW Jeffrey T. Briggs, VY2ZM Donor: Alex Tkatch, KU1CW

World Multioperator Combined SSB/CW Dezso Gyulai, HG8DX (HA8DJ HA8DU HA8DZ HA8FM HA8JV HA8KW HA8RT HA4FF ops) Donor: Top Band DX Club

CW

SINGLE OPERATOR World Jeffrey T. Briggs, VY2ZM

Jeffrey T. Briggs, VY2ZM Donor: Bill Tippett, W4ZV-DJ8WL Memorial

U.S.A Kevin Stockton, N5DX Donor: Milt Jensen, N5IA, Memorial by Arizona Outlaws Contest Club

Canada Ron Vander Kraats, VE3AT Donor: VE2XAA Memorial by Thor Stefansson, TF4M

U.S.A. – Zone 3 Niko Cimbur, AC6DD Donor: Bruce Butler – W6OSP Memorial

> U.S.A. – Zone 4 Bryan M. Bydal, W5MX Donor: Steve Schmidt, K4WA

U.S.A. – Zone 5 Art Hambleton, K1BX Donor: Paul H. Newberry, Jr., N4PN

Africa Ashraf Chaabane, 3V8CB Donor: James "Skip" Riba, WS9V

Asia Yasar Gocet, TA3D Donor: Missouri DX / Contest Club

Europe Don Beattie (G3BJ), G5W Donor: Emir-Braco Memic, E77DX

South America Mathias Kolpe (DL4MM), P4ØAA Donor: John Rodgers, WE3C

Oceania Massimo Zenobi (KH6ZM), KH7M Donor: Will Angenent, K6ND

> European Russia Igor Avdeev, UA2FZ Donor: UA2 Contest Club

> Asiatic Russia Dmitry Avdeyev, RV9CX Donor: UA2 Contest Club

Japan Masaki Okano, JH4UYB Donor: Alabama Contest Group

North America Stan Stockton, ZF9CW Donor: CQ magazine – N4IN Memorial

Southern Hemisphere Osvaldo Santarone, LU8DPM Donor: Robert Kile, W7RH

World Assisted Igor Buklan (RA3AUU), P33W Donor: Andy Chesnokov, UA3AB

Asia Assisted Pavel Kukushkin, UN9L Donor: Joe Iwakura, JA1LZR Europe Assisted Ron Schiltmans (DL3BPC), LX7I Donor: DX-Hotel DM9EE

U.S.A. Assisted Dennis Egan, W1UE Donor: Akito Nagi, JA5DQH

U.S.A. Assisted – Zone 3 Larry Pace, N7DD Donor: Larry Pace, N7DD

U.S.A Assisted – Zone 4 Gary Schwartz (K9GS) op. NV9L Donor: Pete Michaelis, N8TR

Assisted – Zone 5 Curtis Rose, N2ZX Donor: Potomac Valley Radio Club

> World Low Power Julio Rivero, YV1KK Donor: Ed Parish, K1EP

U.S.A. Low Power Mark Bailey, KD4D Donor: Rich Kennedy, N4ESS

Asia – Low Power Nikolaj Starkov, RA9CCK Donor: Robert Kile, W7RH

Europe Low Power Husein Gosic, E74R Donor: Petr Ourednik, OK1RP – DL1RK Memorial

> Canada Low Power Ron Schwartz, VE3VN Donor: Contest Club Ontario

> World QRP Arunas Vaglys (LY2IJ), LY5E Donor: Wayne Mills, N7NG

U.S.A. QRP Gary Smith, KA1J Donor: Bob Raymond, WA1Z

U.S.A. QRP – Zone 4 Gregory Poel, W8GP Donor: K9JWV Memorial by Dale Putnam, WC7S

> Europe QRP Vaclav Muska (OK6RA), OL9R Donor: Peter Voelpel, DJ7WW

MULTI-OPERATOR World EF8R (ops. EA8RM, R4FO, RW4WR, UA4FER) Donor: Hugh Valentine, N4RJ

U.S.A. Krassimir Petkov K1LZ (ops. K1LZ, K3JO) Donor: WØCD Memorial – K8GG W8UVZ

Europe Petr Clupny, OK7K (ops. OK1BN, OK1DWP, OK1GK, OK1NS) Donor: Bob Evans, K5WA

Zone 16 Vladimir Aksenov, RU1A (ops. RN1A, RN1AM, RU1AF, RV1AW, RW1A) Donor: Vladimir Lesnichy, R7LV

Asia Arthur Avrunin, 4X2M (ops. 4X4DZ, 4X6FR, 4Z4AK, UW8SM, UZ5DX) Donor: Nodir Tursoon-Zadeh, EY8MM

U.S.A – Zone 3 Al Van Buren, K7CA (ops. K7CA, K7NJ, N7JW, W7RH, WA7LNW) Donor: Tom Whitted, WA8WZG

TROPHY WINNERS AND DONORS

SINGLE OPERATOR

World Jeffrey T. Briggs, VY2ZM Donor: Nodir Tursoon-Zadeh, EY8MM

U.S.A. John Lindholm, W1XX Donor: W4PZV/W4SVO Memorial by Rick Dougherty, NQ4I

> Canada Peter Barron, VE3PN Donor: Tom Haavisto, VE3CX

U.S.A. – Zone 3 Jack Reed, WA7LNW Donor: Nate Moreschi, N4YDU

U.S.A. – Zone 4 Bryan M. Bydal, W5MX Donor: Alabama Contest Group

U.S.A. – Zone 5 James Ussailis, W1EQO Donor: Brent Scott, WR50

Africa Manuel Angel Martin Brito, ED8W Donor: Carl Henson, WB4ZNH

Asia Grigoriy Smirnov (UN9LG), UP2L Donor: Ed Campbell, NW4DX

Europe Rein Kolk, ES5RW Donor: James "Skip" Riba, WS9V

> European Russia Igor Avdeev, UA2FZ Donor: UA2 Contest Club

Asiatic Russia Vladimir (Willy) Umanets, UA9BA Donor: UA2 Contest Club

North America John Barcroft, ZF2AM Donor: CQ magazine – K2EEK Memorial

> South America Julio Rivero, YV1KK Donor: John Rodgers, WE3C

Oceania Bill Kollenbaum, KH7XS Donor: Steve "Sid" Caesar – NH7C

Southern Hemisphere Eduardo Araujo, LU2DKT Donor: John Rogers, WE3C

World Assisted Petr Clupny, OK7K Donor: Ray Sokola, K9RS

Asia Assisted Sergey Rebrov (UT5UDX), P3X Donor: CQ160M Contest Committee

Europe Assisted Rolandas Jokubauskas, LY4A Donor: CQ160M Contest Committee

U.S.A. Assisted Curtis Rose, N2ZX Donor: Pete Michaelis, N8TR

U.S.A. Assisted – Zone 4 Peter Madsen, K2PM Donor: Pete Michaelis, N8TR

World Low Power Tony Ramos, KP4KE Donor: Howard Klein, K2HK U.S.A. Low Power John Keller, W4ZAO Donor: Tim Duffy, K3LR

Europe Low Power Bostjan Sever, S56P Donor: Contest Club Ontario

Canada Low Power Brian Campbell, VE3MGY Donor: Rudy Bakalov, N2WQ

World QRP Maksim Kesic, E77Y Donor: John Rodgers, WE3C

MULTI-OPERATOR World Dezso Gyulai, HG8DX (ops. HA4FF, HA8DJ, HA8DU, HA8DZ, HA8FM, HA8JV, HA8KW) Donor: Southeastern DX Club

U.S.A. Krassimir Petkov, K1LZ (ops. K1LZ, K3JO) Donor: Jerry Rosalius, WB9Z

Europe Silvo Knuplez, S51V (ops. S51V, S56DX, S57DX, S57K, S57UN, S58MU, S59A) Donor: South Jersey DX Assocation, N2CW

Zone 3 Bob Epstein, N7AT (ops. K8IA, N7RQ) Donor: Paulo, PV8DX

Asia Activity Team TC7C (ops. TA7K, TA7OM, TA7Q, TA7SO, TA9J, TB7BL, TB7NB) Donor: CQ160M Contest Committee

around 300K. Also in Low Power, 3V8CB, KL7SB/VP9, and ON7EH all broke 400K.

In Zone 15, SP3HLM, OM7RU, and SP2LNW were bunched around 500K. E74Y was top LP followed by HA8FK at 395K.

In the highly competitive Zone 16, UW5Y just edged out EU4E by less than 30K. R7NW and UX1UA were only sep-

arated by less than 4K. Top LP was UA5F, winning comfortably over UX3HA by 65K. RL6M and USØHZ were right behind within only 5K!

In Russia, R7NW took top honors, just missing 500K but blowing away the field. R3ZZ, R8WF, UA9BA, and RK9UE all hovered behind him at around 350K. In LP, UA5F was high score by a wide margin over RL6M, RA3Y, and UA1CUR.



Operating Field Day-style at C6AGU. Looks too hot for a 160 contest.

2018 CQWW 160M CONTEST TOP SCORES

	CW		HG5D	Zone 15	652 800
	1164		Z6ØA		
NEDY	USA 1,025	168	SP3HLM		
			OM7RU		
	797		SP2LNW		
	741		*E74R		
	708		9A2AJ		
			LY4T *HA8FK		
W3BGN		,618	OH2YL		
	508 502		011212		.004,221
				Zone 16	
1.0 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.		,070	UW5Y		.569,875
	VE		EU4E		.540,085
VY2ZM	2,021	,700	R7NW		
	915		UX1UA		
	817		R3ZZ		
			UYØZG R8WF		
	582 402		UT6UD		
			US7VF		
			RU3UR		
	234				
VE6BBP	229	,425		Russia	
			R7NW		
	Zone 3	100	R3ZZ		
			R8WF UA9BA		
	219 207		RK9UE		
*W7RH		600	UA9QM		
*N7IR		.164	RU3UR		
			*UA5F		
N6JV	99	,756	*RL6M		
N7QT	91	,656	*RA3Y		.166,705
	83				
*W6J11	80	,405	LC	W POWER World	
-	Zone 4		*YV1KK		672 00/
		976	*E74R		474 462
			*3V8CB		
			*KL7SB/VP9		
			*KD4D		
	497		*ON7EH		
			*VE3VN		
			*HA8FK		
			*VE3MGY *HGØR		
	375 345		110.011		.000,904
VE010101		,141	LOW	POWER W/	VF
	QRP		*KD4D		
**LY5E	249	,535	*VE3VN		.402,270
**0L9R	200	,751	*VE3MGY		
**0L4W		,868	*N1UR		
**0K1FKD	178 148	,029	*K5KU *VE3VSM		
**F77Y	145	800	*N1IX		
**US3IW	140	.745	*W1NN		155 064
**EU8U	138	,108	*W1QK		
	126		*K9PG		.152,228
**S52P	119	,826			
	DX		(RP W/VE	
7F9CW	их 1,436	666	**KA1J		75,660
			**W8GP		59,520
			**NTØZ		47,153
	718		**N4AX	•••••	45,000
*YV1KK	672	,994	**K2PI **K2YGM		21 0/2
	652		**W1TW		21 750
			**WR50		21.675
	587 569		**K2XN		15,912
			**K4T0		15,876
GIVI-12		,100			
Z	one 14		MULTI-0	PERATOR V	VORLD
G5W	1,019		EF8R	2	,678,262
DL1AUZ	718	,794	CR3DX		
			PJ2T		
			0K7K		
	541		4X2M RW2F		
	405 377		ZC4A		
			ElØR		
*ED30		,690	HG8DX		
*DLØMCM		,150	TM6M		

	Zone 15		MULTI-OP	ERATOR W/VE	K9Z0	119,422
				1,006,402	A3YP	119,200
		588,772				_
					QRF	
					**E77Y	
				562,569 559,320	**0K1WM **VA3X0	
					**WN8HCV	
					**EU1AA	
					**UR5VAA	
					**UR5FE0	
L					**DL8LR	
	Zone 16		TSIZZA	ED WORLD	**ON9CC	
′		569.875			**N8LJ	
				1,336,400		,
				1,312,188	DX	
				1,303,284	ES5RW	
		379,496	+VA2WA	1,240,920	S530	242,433
			+VA2EW	1,188,528	SN7D	
			+VE3EJ	1,156,544	F6G0X	
			+SN7Q	1,150,582	*KP4KE	
				1,134,039	*S56P	
К		248,668	+DL6FBL	1,130,046	ZF2AM	
	Durate				YTØW	
,	Russia	400.050		STED W/VE	*YT8A US5D	
				1,240,920	0300	120,103
				1,188,528	Zone	1/
				1,156,544	F6GOX	
				1,134,039	DLØSLG	
				1,003,950	EA1EJ	
					*0U7A	
				718,142 628,422	DKØRX	
					DL1EKO	
					*DLØNG	
			11.0000		EA5KA	
L	OW POWER	R			*DL4ZA	
	World			SSB	DK3BK	44,270
<k< th=""><th></th><th>672,994</th><th></th><th></th><th></th><th></th></k<>		672,994				
				USA	Zone	15
					ES5RW	
	9				S530	
					SN7D	
					*S56P	
		402,270				
-K		205 000				
					*YT8A	
MGY		345,141	WD5COV	171,336		
MGY		345,141	WD5COV AF1T	171,336 166,090	*YT8A *SQ7CL LY4T	
ИGY R		345,141 336,954	WD5COV AF1T K3ZM	171,336 166,090 166,000	*YT8A *SQ7CL LY4T *HGØR	126,846 126,531 122,248
MGY R LOW	/ POWER W	345,141 336,954 //VE	WD5COV AF1T K3ZM	171,336 166,090	*YT8A *SQ7CL LY4T	126,846 126,531 122,248
MGY R L OW D	/ POWER W	345,141 336,954 //VE 409,596	WD5COV AF1T K3ZM	171,336 	*YT8A *SQ7CL LY4T *HGØR SN6M	126,846 126,531 122,248 117,150
MGY R LOW D /N	/ POWER W	345,141 336,954 //VE 409,596 402,270	WD5COV AF1T K3ZM K2XA		*YT8A *SQ7CL LY4T *HGØR SN6M Zone	126,846 126,531 122,248 117,150 16
MGY R L OW D /N MGY	/ POWER W	345,141 336,954 //VE 409,596 402,270 345,141	WD5COV AF1T K3ZM K2XA VY2ZM		*YT8A *SQ7CL. LY4T *HGØR SN6M Zone US5D	126,846 126,531 122,248 117,150 16 128,163
MGY R D /N MGY R	/ POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412	WD5COV AF1T K3ZM K2XA VY2ZM VE3PN		*YT8A *SQ7CL LY4T *HGØR SN6M US5D US5D UX1UA	126,846 126,531 122,248 117,150 16 128,163 103,986
MGY R D MGY J /SM	/ POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883	WD5COV AF1T K3ZM K2XA VY2ZM VE3PN *VE3MGY VE3CKO		*YT8A *SQ7CL LY4T *HGØR SN6M US5D US5D UX1UA UYØZG	126,846 126,531 122,248 117,150 16
MGY R D MGY J /SM	/ POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883	WD5COV AF1T K3ZM K2XA VY2ZM VE3PN *VE3MGY VE3CKO		*YT8A *S07CL LY4T *HGØR SN6M US5D US5D UX1UA UYØZG EW8R	126,846 126,531 122,248 117,150 16
MGY R D MGY R J /SM /SM	/ POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,820 155,064	WD5COV AFIT. K3ZM K2XA VY2ZM VS3PN VE3MGY VE3CKO VA3YP		*YT8A *SQ7CL LY4T SN6M US5D UX1UA UYØZG EW8R. *UT1AN	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 85,248
MGY R D MGY R J /SM K K	/ POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348	WD5COV AF1T K3ZM V2ZM VE3PN VE3PN VE3CKO VE3CKO VA3YP VA3AC VE6BBP		*YT8A *SQ7CL	126,846 .126,531 .122,248 .117,150 16 .128,163 .103,986 .93,636 .85,248 .61,875 .61,470
MGY R D MGY R J /SM K K	/ POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348	WD5COV AF1T K3ZM K2XA VY2ZM VE3PN *VE3MGY VE3MGY VE3KO VA3YP *VA3AC VE6BBP VE3KP		*YT8A *SQ7CL LY4T HGØR SN6M US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW	126,846 126,531 122,248 117,150 16 128,163 103,986
MGY R D MGY R J /SM K K	/ POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348	WD5COV AFIT. K3ZM K2XA VY2ZM *VE3PN *VE3MGY VE3CKO VA3YP *VA3AC. VE6BBP VE3KP. *VE9ML		*YT8A* *SQ7CL LY4T* *HGØR SN6M US5D US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW* *RK3E	126,846 .126,531 .122,248 .117,150 16
MGY R D /N MGY J /SM G G	V POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228	WD5COV AFIT. K3ZM K2XA VY2ZM *VE3PN *VE3MGY VE3CKO VA3YP *VA3AC. VE6BBP VE3KP. *VE9ML		*YT8A *SQ7CL LY4T HGØR SN6M US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW	126,846 .126,531 .122,248 .117,150 16 .128,163 .103,986 .93,636 .93,636 .85,248 .61,875 .61,470 .58,080 .45,879 .45,469
MGY R D /N MGY J /SM G G	V POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228	WD5COV AFIT. K3ZM K2XA VY2ZM *VE3PN *VE3MGY VE3CKO VA3YP *VA3AC. VE6BBP VE3KP. *VE9ML		*YT8A *SQ7CL LY4T *HGØR SN6M US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW *RK3E UY5ZZ	126,846 .126,531 .122,248 .117,150 16 .128,163 .103,986 .93,636 .93,636 .85,248 .61,875 .61,470 .58,080 .45,879 .45,469
MGY R D MGY R J /SM S G IJ	/ POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228	WD5COV AFIT. K3ZM K2XA VY2ZM VE3PN VE3GKO VE3GKO VA3YP *VA3AC VA3YP VA3AC VE3BP VE3KP *VE3BJ		*YT8A *SQ7CL LY4T HGØR SN6M US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW *RK3E UY5ZZ *UR2Y	126,846 126,531 .122,248 117,150 16
ИGY R D /N ИGY ИGY /SM /SM /SM /SM / S / GP ØZ	V POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 59,520 47,153	WD5COV AF1T K3ZM K2XA VY2ZM VE3PN *VE3MGY VE3CKO VA3YP *VA3AC VE6BBP VE6BBP VE3KP VE3KP VE3KP VE3EJ Z		*YT8A *SQ7CL LY4T HGØR SN6M Zone US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW *RK3E UY5ZZ *UR2Y Russ	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 45,469 144,160
ИGY R D /N ИGY К /SM /SM /SM /SM /SM /SM /S /S /S /S /S /S /S	V POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 59,520 47,153 45,000	WD5COV AF1T	171,336 166,090 166,000 150,640 VE 871,563 233,287 151,689 126,228 119,200 .69,165 .48,756 .46,062 .36,708 .30,184 one 3 .65,274	*YT8A *SQ7CL LY4T HGØR SN6M US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW *RK3E UY5ZZ *UR2Y	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 93,636 85,248 61,875 61,875 61,470 58,080 45,469 45,469 45,469 44,160 ia 61,470
ИGY R D MGY R /SM	V POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 59,520 47,153 45,000 22,578	WD5COV AF1T. K3ZM K2XA VY2ZM. VS3PN. *VE3MGY VE3CKO VA3YP. *VA3AC. VE3GBP VE3KP. *VE9ML VE3KP. *VE9ML VE3EJ. Z WA7LNW NJ6P. WA8WZG		*YT8A* *SQ7CL LY4T* *HGØR. SN6M US5D US5D UYØZG EW8R. *UT1AN R3ST UY3AW* *RK3E UY5ZZ. *UR2Y Russ R3ST	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 93,636 85,248 61,875 61,470 58,080 45,879 45,879 45,469 44,160 ia 61,470
ИGY R LOW D /N /N /SM	V POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,142 233,714 179,883 178,220 155,064 154,348 152,228 75,660 59,520 47,153 45,000 22,578 21,942	WD5COV AF1T K3ZM K2XA VE3PN *VE3MGY VE3CKO VE3CKO VA3YP *VA3AC VE6BBP VE3KS VE3KS VE3		*YT8A *SQ7CL LY4T HGØR SN6M Zone US5D UX1UA UY9ZG EW8R *UT1AN R3ST UY3AW *RK3E UY5ZZ *UR2Y Russ R3ST *RK3E	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 44,160 ia 61,470 45,879 40,644
ИGY R /N /GY R /SM	V POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 59,520 47,153 45,000 22,578 21,942 21,750	WD5COV AF1T K3ZM V22ZM VE3PN *VE3MGY VE3RGY VE3CKO VA3YP *VE3KP *VE9ML VE3KP VE3KP VE3KP *VE9ML VE3EJ VE3		*YT8A* *SQ7CL	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 93,636 93,636 93,636 93,636 93,636
ИGY R IOW D /N /N MGY R /SM /SD /SD /SD /SM /SD /	V POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 	WD5COV AF1T K3ZM K2XA VY2ZM VE3PN *VE3MGY VE3PN *VE3MGY VE3CKO VA3YP *VA3AC VE6BBP VE3KP *VE9ML VE3EJ Z WA7LNW NJ6P WA8WZG N'XS *WA7NWL W6AFA		*YT8A *SQ7CL LY4T HGØR SN6M Zone US5D UX1UA UY9ZG EW8R *UT1AN R3ST UY3AW *RK3E UY5ZZ *UR2Y Russ R3ST *RK3E R3ST *RK3E R3ST *RK3E R3SA RC5Z *UA1CUR R5ER	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 93,636 93,636 61,875 61,470 58,080 45,879 45,469 44,160 ia 61,470 45,879 40,644 27,258 23,067
ИGY R LOW D MGY MGY R /SM /SM /SM /SM /SM /SM /C /C /C /C /C /C /SM /SM /SM /SM /S /SM	V POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 59,520 47,153 45,000 22,578 21,942 21,750 21,675 15,912	WD5COV AF1T. K3ZM K2XA. VY2ZM VS3PN. *VE3MGY. VE3CKO VE3KP. *VA3AC. VE3KP. *VA3AC. VE6BBP VE3KP. *VE9ML VE3KP. *VE9ML VE3EJ. Z WA7LNW NJ6P NJ6P WA8WZG N7XS. *WA7NWL W6AFA N7RK		*YT8A *SQ7CL LY4T HGØR SN6M Zone US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW *RK3E UY5ZZ *UR2Y RUSS R3ST *RK3E R3XA RC5Z *UA1CUR R5ER *RD3DS	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 44,160 ia 61,470 45,879 40,644 37,924 23,067 17,640
ИGY R LOW D MGY MGY R /SM /SM /SM /SM /SM /SM /C /C /C /C /C /C /SM /SM /SM /SM /S /SM	V POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 59,520 47,153 45,000 22,578 21,942 21,750 21,675 15,912	WD5COV AF1T K3ZM K2XA VY2ZM VE3PN *VE3MGY VE3CKO VA3YP *VA3AC VE3BP VE3KP *VA3AC VE6BBP VE3KP *VE9ML VE3KP *VE9ML VE3EJ VE3EJ VE3EJ VE3KZ VE3KZ *VA7LNW NA6P WA8WZG N7XS *WA7NWL W6AFA N7RK K6ME		*YT8A *SQ7CL LY4T HGØR SN6M Zone US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW *RK3E UY5ZZ *UR2Y Russ R3ST *RK3E R3ST *UR2Y Russ R3ST *RK3E R3XA RC5Z *UA1CUR R5ER *RD3DS UA2FB	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 44,160 ia 61,470 45,879 40,644 37,924 27,258 23,067 17,640 16,965
ИGY LOW D /N ИGY R N IJ N K N Z 22 22 23 24 24 25 27	V POWER W	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 59,520 47,153 45,000 22,578 21,675 21,675 15,912 15,876	WD5COV AF1T K3ZM V22ZM VE3PN *VE3MGY VE3RGY VE3CKO VA3YP *VE3KP *VE9ML VE3KP *VE9ML VE3EJ VE3E		*YT8A. *SQ7CL. LY4T	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 85,248 61,875 61,470 58,080 45,469 45,469 45,469 45,469 45,879 45,469 45,879 45,469 45,879 40,644 37,924 27,258 23,067 17,640 16,965 16,820
ИGY LOW D /N MGY R /SM /ST	V POWER W QRP W/VE	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 59,520 47,153 45,000 25,578 21,942 21,675 15,912 15,876 WORLD	WD5COV AF1T K3ZM V22ZM VE3PN *VE3MGY VE3RGY VE3CKO VA3YP *VE3KP *VE9ML VE3KP *VE9ML VE3EJ VE3E		*YT8A *SQ7CL LY4T HGØR SN6M Zone US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW *RK3E UY5ZZ *UR2Y Russ R3ST *RK3E R3ST *UR2Y Russ R3ST *RK3E R3XA RC5Z *UA1CUR R5ER *RD3DS UA2FB	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 85,248 61,875 61,470 58,080 45,469 45,469 45,469 45,469 45,879 45,469 45,879 45,469 45,879 40,644 37,924 27,258 23,067 17,640 16,965 16,820
ИGY LOW D /N MGY MGY /SM	V POWER W QRP W/VE	345,141 336,954 //VE 409,596 402,270 345,141 245,412 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 259,520 47,153 45,000 22,578 21,675 21,675 15,912 15,876 WORLD 2,678,262	WD5COV AF1T K3ZM V22ZM VE3PN *VE3MGY VE3RGY VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VA3AC VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VA3AC VE3CKO VA3YP VA3AC VE3CKO VA3YP VA3AC VE3CKO VA3YP VA3AC VE3CKO VA3YP VA3AC VE3CKO VA3YP VA3AC VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3YP VE3CKO VA3AC VE3CKO VA3AC VE3CKO VA3AC VE3CKO VA3AC VE3CKO VA3AC VE3CKO VE3CKO VE3CKO VE3CKO VE3CKO VE3CKO VE3CKO VE3CKO VE3CKO VE3CKO VE3CKO VE3CKO VE3CKO VE3CKO VE3CKO NJ6P VE3CKO VE3CKO NJ6P VE3CKO VE3CKO NJ6F NJ6F NJ7K K6ME NGRK AI6LY		*YT8A *S07CL LY4T HGØR SN6M Zone US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW *RK3E UY5ZZ *UR2Y Russ R3ST *RK3E R3XA RCSZ *UA2FB UA2FB UA2FB UA2FB UA2FB CST *RC3E	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 93,636 85,248 61,875 61,875 61,875 45,469 45,469 45,469 45,469 44,160 ia 61,470 45,879 40,644 27,258 23,067 17,640 16,965 16,820 14,896
ИGY LOW D /N MGY R /SM	QRP W/VE	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 21,675 21,942 21,750 21,675 21,5876 WORLD 2,678,262 2,241,960	WD5COV AF1T		*YT8A *SQ7CL LY4T HGØR SN6M Zone US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW *RK3E R3ST *RK3E R3XA RC5Z *UA1CUR R5ER *RD3DS UA2FB UA2FB UA2FB UA2KW *RC2SB	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 44,160 1a 61,470 45,879 40,644 37,924 23,067 17,640 16,965 16,820 14,896 R WORLD
ИGY LOW D /N /SM	V POWER W QRP W/VE	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 59,520 47,153 45,000 22,578 21,942 21,675 21,675 15,912 15,876 WORLD 2,678,262 2,241,960 1,580,971	WD5COV AF1T K3ZM K2XA VY2ZM VE3PN *VE3MGY VE3CKO VA3YP *VA3AC VE3KP *VE3KP *VE3KP VE3KP VE3KP VE3KP VE3KP WAZLNW NJ6P WAAZLNW NJ6P WAAZUNUL W6AFA N7RK K6ME NGRK A16LY VE3PN		*YT8A *SQ7CL LY4T HGØR SN6M Zone US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW *RK3E R3ST *UR2Y Russ R3ST *RK3E R3XA RC5Z *UA1CUR R5ER *R3DS UA2FB	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 44,160 ia 61,470 45,879 40,644 37,924 27,258 23,067 17,640 16,965 16,820 14,896 R WORLD 190,929
ИGY R LOW D MGY MGY J /SM /S	V POWER W QRP W/VE	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 59,520 47,153 45,000 22,578 21,942 21,750 21,675 15,912 15,876 WORLD 2,678,262 2,241,960 1,580,971 1,464,400	WD5COV AF1T K3ZM K2XA VY2ZM VE3PN *VE3MGY VE3PN *VE3KP VA3AC VE6BBP VE3KP *VE9ML VE3EJ Z WA7LNW NJ6P WA8WZG N7XS *WA7NWL W6AFA N7RK. K6ME N6RK AI6LY Z VE3PN		*YT8A *SQ7CL LY4T *HGØR SN6M Zone US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW *RK3E UY5ZZ *UR2Y RUSS R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E *RC5Z *UA1CUR R5ER *D3DS UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB COM POWEF *KP4KE *VE3MGY	126,846 126,531 122,248 117,150 16 13,986 93,636 85,248 61,875 61,470 58,080 45,469 45,469 45,469 45,879 45,469 14,160 16,965 16,924 27,258 23,067 17,640 16,965 16,820 14,896 8 WORLD 190,929 151,689
ИGY R LOW D MGY R /SM /SM /SM /SM /SM /SM /GP 27 /GP 27 /GY /GY /S	V POWER W QRP W/VE	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 259,520 47,153 45,000 22,578 21,675	WD5COV AF1T K3ZM K2XA VY2ZM VE3PN *VE3MGY VE3PN *VE3MGY VE3CKO VA3YP *VA3AC VE6BBP VE3KP *VE9ML VE3EJ Z WA7LNW NJ6P WA8WZG N7RS *WA7NWL W6AFA N7RK K6ME NGRK A16LY Z VE3PN WSMX NR5M.		*YT8A *S07CL LY4T HGØR SN6M Zone US5D UX1UA UY9ZG EW8R *UT1AN R3ST UY3AW *RK3E UY5ZZ *UR2Y Russ R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RC2 Russ R3ST *CZ *UT4CUR R5ER *D3DS UA2FB COM POWEFF *KP4KE *VE3MGY *S56P	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 85,248 61,875 61,470 58,080 45,469 45,469 45,469 44,160 ia 61,470 45,879 45,469 14,160 ia 61,470 16,965 16,820 17,640 16,820 14,896 ia 14,896 ia 14,896 ia 14,215
ИGY LOW D /N MGY R /SM	V POWER W QRP W/VE	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 21,675 21,876	WD5COV AF1T K3ZM K2XA VY2ZM VE3PN *VE3MGY VS3PN *VE3MGY VE3CKO VA3YP *VE3MGY VE6BBP VE3EJ Z WA7LNW NJ6P WA8WZG N7RK K6ME N6RK AI6LY VE3PN WSMX NRSM WD5COV		*YT8A *S07CL LY4T *HGØR SN6M US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW *RK3E R3ST *IK3E R3ST *RK3E R3XA RC5Z *UA1CUR R5ER *RD3DS UA2FB COW POWEFF *KP4KE *VE3MGY *S56P *YT8A	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 44,160 16 16 16,470 45,879 40,644 37,924 27,258 23,067 17,640 16,965 16,820 14,896 8 WORLD 190,929 142,215 128,576
ИGY R LOW D /N /SM /	V POWER W QRP W/VE	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 59,520 47,153 45,000 22,578 21,942 21,675 21,675 15,876 WORLD 2,678,262 2,241,960 1,383,580 1,374,912 1,262,436	WD5COV AF1T K3ZM K2XA VY2ZM VE3PN *VE3MGY VE3CKO VA3YP *VA3AC VE3KP *VE3KP *VE3KP *VE3KP VE3KP *VE3KP VE3KP VE3KP VE3KP VE3KP VE3KP VE3KZ WA7LNW NJ6P WA8WZG N7XS *WA7NWL W6AFA N7RK K6ME N6RK A16LY Z VE3PN W5MX NF6M WD5COV *VE3MGY		*YT8A *SQ7CL LY4T HGØR SN6M Zone US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW *RK3E R3ST *UT2X Russ R3ST *RK3E R3XA RC5Z *UR2Y Russ R3ST *RK3E R3XA RC5Z *UA1CUR R5ER *R3DS UA2FB COW POWEF *KP4KE *VE3MGY *SGP *TR8A *SQ7CL	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 85,248 61,879 45,879 45,469 44,160 ia 61,470 61,470 45,879 40,644 37,924 27,258 23,067 17,640 16,965 16,820 14,896 X WORLD 190,929 151,689 128,576 128,576 126,846
ИGY R LOW D /N /N /SM /S	V POWER W QRP W/VE	345,141 336,954 //VE 409,596 402,270 345,141 245,142 233,714 179,883 178,220 155,064 154,348 152,228 75,660 59,520 47,153 45,000 22,578 21,942 21,675 21,675 15,912 15,876 WORLD 2,678,262 2,241,960 1,378,263 1,262,436 1,262,436 1,262,436	WD5COV AF1T K3ZM K2XA VY2ZM VE3PN *VE3MGY VE3PN *VE3MGY VE3CKO VA3YP *VA3AC VE6BBP VE3KP *VE9ML VE3EJ WA7LNW NJ6P WA8WZG N7XS *WA7NWL W6AFA N7RK. K6ME N6RK AI6LY Z VE3PN W5MX NR5M WD5COV *VE3MGY		*YT8A *SQ7CL LY4T *HGØR SN6M Zone US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW *RK3E UY5ZZ *UR2Y RUSS R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E *RU2 *UT1AN R05Z *UA1CUR R5ER *D30S UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB COW POWEF *KP4KE *VE3MGY *S6P *TY8A *S07CL *HGØR	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 85,248 61,879 45,469 45,879 45,469 44,160 16 16 17,640 16,965 16,820 14,896 142,215 128,576 126,846 122,248
ИGY R LOW D MGY MGY R /SM /SM /SM /SM /SM /GP 27 /GP 27 /GP 27 /GP /GP /C /S.	QRP W/VE	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 21,750 21,675 21,750 21,675 21,750 21,675 21,675 21,675 21,675 21,675 21,750 21,675 21,675 21,675 21,750 21,675 21,750 21,675 21,7755 21,7755 21,7755 21,7755	WD5COV AF1T K3ZM K2XA VY2ZIM VE3PN *VE3MGY VE3PN *VE3MGY VE3CKO VA3YP *VA3AC VE6BBP VE3KP *VE9ML VE3EJ Z WA7LNW NJ6P WA8WZG N7XS *WA7NWL W6AFA N7RK K6ME N6RK A16LY Z VE3PN W5MX NR5M WD5COV *VB3MGY NA8V KØIDX		*YT8A *S07CL LY4T HGØR SN6M Zone US5D UX1UA UY9ZG EW8R *UT1AN R3ST UY3AW *RK3E UY5ZZ *UR2Y Russ R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RC2 Russ R3ST *RC2 Russ R3ST *RC2 Russ *UT1AN R5ER *D3DS UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB COM POWEF *KP4KE *VE3MGY *S56P *YT8A *S07CL *HGØR *YV1KK	126,846 126,531 122,248 117,150 16 13,986 93,636 85,248 61,875 61,470 58,080 45,469 45,469 45,469 45,469 45,469 45,469 45,469 142,215 16,820 16,820 16,820 14,896 8 WORLD 190,929 151,689 142,215 126,846 122,248 105,391
ИGY R LOW D MGY MGY R /SM /SM /SM /SM /SM /GP 27 /GP 27 /GP 27 /GP /GP /C /S.	V POWER W QRP W/VE	345,141 336,954 //VE 409,596 402,270 345,141 245,412 233,714 179,883 178,220 155,064 154,348 152,228 75,660 21,750 21,675 21,750 21,675 21,750 21,675 21,675 21,675 21,675 21,675 21,750 21,675 21,675 21,675 21,750 21,675 21,750 21,675 21,7755 21,7755 21,7755 21,7755	WD5COV AF1T K3ZM K2XA VY2ZIM VE3PN *VE3MGY VE3PN *VE3MGY VE3CKO VA3YP *VA3AC VE6BBP VE3KP *VE9ML VE3EJ Z WA7LNW NJ6P WA8WZG N7XS *WA7NWL W6AFA N7RK K6ME N6RK A16LY Z VE3PN W5MX NR5M WD5COV *VB3MGY NA8V KØIDX		*YT8A *SQ7CL LY4T *HGØR SN6M Zone US5D UX1UA UYØZG EW8R *UT1AN R3ST UY3AW *RK3E UY5ZZ *UR2Y RUSS R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E R3ST *RK3E *RU2 *UT1AN R05Z *UA1CUR R5ER *D30S UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB UA2FB COW POWEF *KP4KE *VE3MGY *S6P *TY8A *S07CL *HGØR	126,846 126,531 122,248 117,150 16 128,163 103,986 93,636 85,248 61,875 61,470 58,080 45,469 45,469 45,469 45,469 45,469 44,160 16,965 16,820 17,640 16,965 16,820 14,896 8 WORLD 190,929 151,689 142,215 126,846 122,248 105,391

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1 1	19.200	*SQ4JEN	
	,200	00.02.0	
QRP		LOW POW	'ER W/VE
	39,024	*VE3MGY	151,689
VM	30,710	*VA3AC	
Ю ЧСУ	26,364	*W4ZA0 *KP40LM	
HCV A		*KB40LM *AB4B	
/AA	20,740	*KS3D	40 140
E0		*N8XTH	
R		*VE9ML	
C.	8 600	*ND4Y *WA5VHU	
	7,854	*WA5VHU	33,957
DV		000	MAIE.
DX	02.075	QRP \ **VA3X0	N/VE
2 2		**WN8HCV	20,304
2		**N8LJ	7 854
2	13,000	**NTØZ	5,775
1	90,929	* * W0YJT	2.834
1		**N9NBC	2.816
1		* * K3HX	2,604
1	30,800	**W7BAK	1,875
1 1	28,576	**W1TW **NNØQ	1,260
	20,103	NINØQ	1,104
Zone 14		MULTI-OPERA	TOR WORLD
2	13.000	HG8DX	
G	98,982	S51V	435,624
	66,087	UA7K	
		LZ5R	
		K1LZ	
)		PJ4G	
G		0K1KUW RW2F	
l	46,040	ND8DX	
	44.270	VA3MN	
Zone 15		MULTI-OPER	
2	83 075	K1LZ	
2	42,433	ND8DX VA3MN	
2	20,415	N2CW	
1	42,215	N2CEI	
1	30,800	W8PR	
1	28,576	W1TJL	
1	26,846	WG3J	
1 1	20,001	NA5NN	85,974
1	17 150	N7AT	85,693
	,	ASSISTED	WORLD
Zone 16			
20110 10			
1			
1	03.986	+LY4A +TM6M	485,886 385,700
1 1	03,986 93,636	+LY4A +TM6M +S53F	485,886 385,700 375,243
1 1	03,986 93,636 85,248	+LY4A +TM6M +S53F +VE3CX	485,886 385,700 375,243 265,647
1 1	03,986 93,636 85,248 61,875	+LY4A +TM6M +S53F +VE3CX +UR5AS	485,886 385,700 375,243 265,647 248,751
	03,986 93,636 85,248 61,875 61,470	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX	485,886 385,700 375,243 265,647 248,751 225,596
	03,986 93,636 85,248 61,875 61,470 58,080	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +UA2FZ	485,886 385,700 375,243 265,647 248,751 225,596 204,409
1	03,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX	485,886 385,700 375,243 265,647 248,751 225,596 204,409 193,960
	03,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +UA2FZ +DA2FZ	485,886 385,700 375,243 265,647 248,751 225,596 204,409 193,960
	03,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +N4ZZ +DK6WL +N4RV ASSISTE	
	03,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 44,160	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +UA2FZ +DK6WL +N4RV ASSISTE +VE3CX	
	03,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 44,160 61,470	+LY4A +TM6M +S53F +VE3CX +UR5AS +UR5AS +N2ZX +DK6WL +N4RV ASSISTE +VE3CX +N2ZX	
1 1	03,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 44,160 61,470 45,879	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +UA2FZ +DA2FZ +D42FZ +N4RV ASSISTE +VE3CX +N4RV	
	03,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 44,160 61,470 45,879 40,644	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +UA2FZ +DK6WL +N4RV ASSISTE +VE3CX +N4RV +N4RV +K3WW	
1 	03,986 93,636 85,248 61,875 61,470 45,879 45,469 44,160 61,470 45,879 40,644 37,924	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +UA2FZ +DK6WL +N4RV ASSISTE +VE3CX +N2ZX +N2ZX +N4RV +N4RV +V3LL	
	03,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 44,160 61,470 45,879 40,644 37,924 27,258	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +UA2FZ +DK6WL +N4RV ASSISTE +VE3CX +N4RV +N4RV +K3WW	
	03,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 44,160 61,470 45,879 40,644 37,924 27,258 27,258 23,067 17,640	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +UA2FZ +D42FZ +N4RV ASSISTE +VE3CX +N4RV +VE2X +N4RV +K3WW +K3WW +K3WW +K3PM	
	03,986 93,636 85,248 61,875 61,470 58,080 45,469 44,160 61,470 45,879 44,160 61,470 45,879 40,644 37,924 27,258 23,067 17,640	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +UA2FZ +DK6WL +N4RV ASSISTE +VE3CX +N4RV +V2ZX +N4RV +K3WW +K3WW +K3WW +K3PA +K3PA +WK9U	
	03,986 93,636 85,248 61,875 61,470 58,080 45,469 44,160 61,470 45,879 44,160 61,470 45,879 40,644 37,924 27,258 23,067 17,640	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +UA2FZ +D42FZ +N4RV ASSISTE +VE3CX +N4RV +VE2X +N4RV +K3WW +K3WW +K3WW +K3PM	
	03,986 93,636 85,248 61,875 61,470 58,080 45,469 44,160 61,470 45,879 44,160 61,470 45,879 40,644 37,924 27,258 23,067 17,640	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +DK6WL +N4RV ASSISTE +VE3CX +N4RV +VE3CX +N4RV +K3WW +W3LL +K3WW +W3LL +K2PM +KVØQ +K3PA +WK9U +WX4G	
Russia	03,986 93,636 85,248 61,875 61,470 58,080 45,879 40,644 45,469 44,160 61,470 45,879 40,644 37,924 27,258 23,067 17,640 16,965 16,820 14,896	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +DK6WL +N4RV +N4RV +VE3CX +N4RV +X3WW +K3WW +K3WW +K3WW +K3WW +K3PA +KVØQ +K3PA +WK9U +WX4G *Low Power	
Russia	03,986 93,636 85,248 61,875 61,470 58,080 45,879 445,469 44,160 61,470 45,879 40,644 37,924 27,258 23,067 17,640 16,965 16,820 14,896	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +DK6WL +N4RV ASSISTE +VE3CX +N4RV +VE3CX +N4RV +K3WW +W3LL +K3WW +W3LL +K2PM +KVØQ +K3PA +WK9U +WX4G	
Russia	03,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 44,160 61,470 61,470 61,470 45,879 40,644 37,924 27,258 23,067 16,965 16,820 14,896 D 90,929	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +DK6WL +N4RV +N4RV +VE3CX +N4RV +X3WW +K3WW +K3WW +K3WW +K3WW +K3PA +KVØQ +K3PA +WK9U +WX4G *Low Power	
Russia	03,986 93,636 85,248 61,875 61,470 58,080 45,469 44,160 61,470 45,879 45,469 44,160 61,470 45,879 40,644 37,924 27,258 23,067 17,640 16,965 16,820 14,896 .D 90,929 51,689	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +DK6WL +N4RV +N4RV +VE3CX +N4RV +X3WW +K3WW +K3WW +K3WW +K3WW +K3PA +KVØQ +K3PA +WK9U +WX4G *Low Power	
Russia	03,986 93,636 85,248 61,875 61,470 58,080 45,469 44,160 61,470 45,879 45,469 44,160 61,470 45,879 40,644 37,924 27,258 23,067 17,640 16,965 16,820 14,896 .D 90,929 51,689	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +DK6WL +N4RV +N4RV +VE3CX +N4RV +X3WW +K3WW +K3WW +K3WW +K3WW +K3PA +KVØQ +K3PA +WK9U +WX4G *Low Power	
Russia Russia UR	03,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 44,160 61,470 61,470 61,470 45,879 40,644 37,924 27,258 23,067 17,640 16,965 16,820 14,896 D 90,929 51,689 42,215 28,576 26,846	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +DK6WL +N4RV +N4RV +VE3CX +N4RV +X3WW +K3WW +K3WW +K3WW +K3WW +K3PA +KVØQ +K3PA +WK9U +WX4G *Low Power	
Russia Russia UR	03,986 93,636 85,248 61,875 61,470 58,080 45,879 45,469 44,160 61,470 61,470 61,470 45,879 40,644 37,924 27,258 23,067 17,640 16,965 16,820 14,896 D 90,929 51,689 42,215 28,576 26,846	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +DK6WL +N4RV +N4RV +VE3CX +N4RV +X3WW +K3WW +K3WW +K3WW +K3WW +K3PA +KVØQ +K3PA +WK9U +WX4G *Low Power	
Russia UR	03,986 93,636 85,248 61,875 61,875 61,470 58,080 45,879 40,644 47,160 61,470 45,879 40,644 37,924 27,258 23,067 17,640 16,820 14,896 14,896 14,896 14,896 14,896 14,896 14,896 14,896	+LY4A +TM6M +S53F +VE3CX +UR5AS +N2ZX +DK6WL +N4RV +N4RV +VE3CX +N4RV +X3WW +K3WW +K3WW +K3WW +K3WW +K3PA +KVØQ +K3PA +WK9U +WX4G *Low Power	

Single-Operator Assisted (SOA) continues to be the most popular category with over 1,000 logs submitted.

For purposes of this contest, LP and HP scores are listed together by tradition. A further breakdown can be found on CQ160.com using our data-sorting tool.

The top score goes to Harry, RA3AUU, operating at his P33W superstation, and his score of 1.7 million was the fourth-highest in the contest. The top four scores in SOA were by guest

The beautiful station at LY4A. Rolandas wears the same shirt in red when he is on CW.



2018 CQWW 160M CONTEST CLUB SCORES

(Minimum of 3 entries required for listing)

SCORE	#ENTRIES		SCORE	#ENTRIES	
28,888,158	204	BAVARIAN CONTEST CLUB	559,630	4	IOWA DX AND CONTEST CLUB
13,459,443	132	POTOMAC VALLEY RADIO CLUB	486,749	3	CATALONIA CONTEST CLUB
13,045,492	80	YANKEE CLIPPER CONTEST CLUB	480,857	8	BIG SKY CONTESTERS
11,447,805	91	FRANKFORD RADIO CLUB	461,235	5	BERGEN AMATEUR RADIOASSOCIATION
10,790,723	95	UKRAINIAN CONTEST CLUB	458,183	16	SHENANDOAH VALLEY WIRELESS ASSOCIATION
9,463,456	45	CONTEST CLUB ONTARIO	456,458	11	
6,776,769	39 14	KAUNAS UNI. OF TECHNOLOGY RADIO CLUB BELOKRANJEC CONTEST CLUB	445,841 416,963	5 4	MISSISSIPPI VALLEY DX/CONTEST CLUB UR-QRP-CLUB
5,578,001	94	SOCIETY OF MIDWEST CONTESTERS	392,884	4 9	
5,501,561 5,476,274	94 55	RHEIN RUHR DX ASSOCIATION	392,884	9 5	WILLAMETTE VALLEY DX CLUB OK1KQJ CONTEST CLUB
5,347,468	32	RUSSIAN CONTEST CLUB	377,342	5	THRACIAN ROSE CLUB
4,769,256	33	ITALIAN CONTEST CLUB	368,807	7	NE MARYLAND AMATEUR RADIO CONTEST SOC.
4,499,827	38	SP DX CLUB	365,887	6	NORTH TEXAS CONTEST CLUB
4,499,827	20	BELARUS CONTEST CLUB	335,804	3	GEORGIA CONTEST GROUP
4,338,345	20	CONTEST CLUB FINLAND	322,045	10	DFW CONTEST GROUP
4,296,249	53	ARIZONA OUTLAWS CONTEST CLUB	315,171	6	TEXAS DX SOCIETY
4,290,249	12	SLOVENIA CONTEST CLUB	314,658	6	599 DX ASSOCIATION
3,974,366	20	MAD RIVER RADIO CLUB	304,485	7	KANSAS CITY CONTEST CLUB
3,289,924	16	CROATIAN CONTEST CLUB	294,683	8	BRISTOL (TN/VA) ARC
3,011,471	9	UA2 CONTEST CLUB	285,540	6	ROCHESTER DX ASSOCIATION
2,890,867	11	VYTAUTAS MAGNUS UNIVERSITY RADIO CLUB	266,876	3	S5 QRP CLUB
2,885,654	12	HUNGARIAN DX CLUB	264,127	7	DONBASS CONTEST CLUB
2,650,848	6	CONTEST GROUP DU QUEBEC	263,441	3	TURKISH RADIO AMATEUR CLUB
2,605,915	9	ALRS ST PETERSBURG	252,728	9	SWAMP FOX CONTEST GROUP
2,452,159	11	URAL CONTEST GROUP	246,710	5	BAY AREA DXERS
2,274,983	14	LATVIAN CONTEST CLUB	241,236	8	CAROLINA DX ASSOCIATION
2,075,861	17	HUDSON VALLEY CONTESTERS AND DXERS	239,397	8	MOTHER LODE DX & CONTEST CLUB
1,931,144	23	FLORIDA CONTEST GROUP	216,673	9	WESTERN WASHINGTON DX CLUB
1,897,942	41	MINNESOTA WIRELESS ASSN	215,063	4	KIROVOGRAD REGION RADIO CLUB
1,646,577	5	BOSNIA AND HERZEGOVINA CONTEST CLUB	201,649	3	SPANDAU DXERS
1,592,488	17	SOUTHERN CALIFORNIA CONTEST CLUB	183,156	8	RU-QRP
1,572,188	13	CENTRAL TEXAS DX AND CONTEST CLUB	180,736	3	DELARA CONTEST TEAM
1,509,340	12	CONTEST CLUB SERBIA	175,885	5	LA CONTEST CLUB (NORWAY)
1,416,042	15	NORTH COAST CONTESTERS	171,776	8	ARAUCARIA DX GROUP
1,395,111	12	CHILTERN DX CLUB	121,202	4	ORCA DX AND CONTEST CLUB
1,373,475	17	EA CONTEST CLUB	106,963	3	VERON
1,311,537	7	MARITIME CONTEST CLUB	103,031	4	HILLTOP TRANSMITTING ASSOCIATION
1,299,641	25	TENNESSEE CONTEST GROUP	95,872	5	SAUDI CONTEST GROUP
1,290,866	10	KENTUCKY CONTEST GROUP	92,577	3	CSU PITESTI
1,261,453	7	DANISH DX GROUP	82,746	4	ALEXANDER THE GREAT CONTEST GROUP
1,091,307	19	ALABAMA CONTEST GROUP	76,714	3	INTEREST GROUP RTTY
998,532	7	CTRI CONTEST GROUP	76,284	4	PORTAGE COUNTY AMATEUR RADIO SERVICE
986,179	8	DEEP DIXIE CONTEST CLUB	75,189	5	VRHNIKA CONTESTERS
974,757	7	ARIPA DX TEAM	73,571	7	METRO DX CLUB
955,245	23	NORTHERN CALIFORNIA CONTEST CLUB	50,889	3	NORTH CAROLINA DX AND CONTEST CLUB
933,702	11	GIPANIS CONTEST GROUP	50,373	5	UTAH DX ASSOCIATION
923,329	18	YO DX CLUB	31,850	3	ORDER OF BOILED OWLS OF NEW YORK
829,140	3	CENTRAL SIBERIA DX CLUB	26,732	3	LA-DX-GROUP
806,154	22	DEUTSCH AMATEUR RADIO CLUB	26,234	3	GRANITE STATE ARA
806,024	13	NIAGARA FRONTIER RADIOSPORT	17,219	3	PACIFIC NORTHWEST VHF SOCEITY
778,016	3	RIIHIMAEN KOLMOSET	16,244	9	YB LAND DX CLUB
771,684	3	FLORIDA WEAK SIGNAL GROUP	869	3	RCWC
755,695	8	SOUTH EAST CONTEST CLUB	808	3	SINGLE FIGHTER DX GROUP
715,191	3	FAZENDA ACTIVITY CONTEST GROUP	594	3	VK CONTEST CLUB
682,692	7	GRAND MESA CONTESTERS OF COLORADO	189	7	ORARI LOKAL KEDIRI
677,391	5	BLACK SEA CONTEST CLUB	76	3	SIAM DX GROUP
615,032	3	SHAKHAN CONTEST CLUB	70	3	CDR GROUP
609,201	3	WORLD WIDE YOUNG CONTESTERS	58	3	ORARI LOKAL BOGOR
576,627	3	SOUTH URAL CONTEST CLUB			



Michel, ON7EH, celebrating with a toast in a ferrite cup!

ops or DXpeditions from P4ØAA by DL4MM, LX7I by DL3BPC, and ES5G by IK2NCJ.

Three scores from Canada, all over 1.1 million points, were in the top ten. VA2WA took the top spot, with VA2EW, and VE3EJ all within 85K.

The top score in the U.S. was Dennis, W1UE, operating from W1KM on Cape Cod and the only score in the U.S. over 1 million. N2ZX, N2KW, and K3WW were next, but quite a bit down from UE. The conditions were favorable to the northeast and the 4-square near the ocean helped as well.

In the highly competitive multi-op competition, the highest score in the contest goes to EF8R. The team of EA8RM, R4FO, RW4WR, and UA4FER blew away the competition by 2.6 million points. Next highest is CR3DX, with an all-Slovak team of OM3BH, OM3GI, OM3RM, and OM7LW. This was their first multi op effort, but surely not the last. Being in Africa, the point advantage was evident as the next highest spot goes to PJ2T, where Jim, W8WTS, and Jeff, K8ND, have operated the contest for nine straight years. There were 15 more stations at 1 million points or more. Great Job!

The top score in the U.S. went to Krassy, K1LZ; he and station designer K3JO edged out the crew at W2GD by just over 50K. The GD boys reported the same as most - that the incredible conditions on Friday disappeared on Saturday.

SSB Results

There were 1,303 logs submitted for SSB, with Single-Operator Low Power (SOLP) and Single-Operator Assisted (SOA) split as the most popular category.

It was tough going this year on SSB, with many stations reporting poor conditions, thunderstorms, heavy QRM, etc. Scores were noticeably down, but topband brings out the best of the stalwart ops.

With just over 800 QSOs, John, W1XX, who has been plugging away in this contest for years, took the top Single Op Unassisted spot. There were only four scores over 200K, and second place went to Bryan, W5MX, who had more QSOs (over 1,000) but fewer multipliers and 10 pointers. W1EQO and W2RE also broke 200K. Ray (RE) was operating remotely to his Maine station while sitting in the comfort of his New York QTH.

Matching his dominance on CW, Jeff, VY2ZM, almost tripled the score of the next highest Canadian, VE3PN. Jeff used this to combine with his CW score and win the combined score trophy.



Glenn, K2FF, is carefully tuning for sleeping multipliers.



Number 1 in Poland on SSB was Matt, SN7D.

In Low Power, congratulations to Brian, VE3MGY, for his fine score, more than double that of second-place VA3AC at 69K.

In the U.S. Low Power, where nobody was able to break 100K, top honors for LP go to John, W4ZAO, for his first victory. John was followed closely by KB4OLM, AB4B, and KS3D.

Out in the lonely western US/VE Zone 3, where conditions were at best marginal; WA7LNW was top high power and WA7NWL was top low power. I thought I had dyslexia for a moment, but Jack is in Washington and John is in Arizona. NJ6P and WA8WZG were behind Jack in LP, around 60K.

In highly competitive Zone 4, there were 12 stations above 100K. In the states, W5MX won the battle over NR5M and WD5COV. Bryan was the only Zone 4 station over 200K. Congratulations.

I can't even imagine the patience it takes to operate CQ160 SSB QRP. But the first four slots go to different countries. Congrats to Max, E77Y, the world winner, and OK1WM, VA3XO, and WN8HCV (W8GP) following behind.

On the DX side, only 19 stations were able to break 100K. Top DX goes to Rein, ES5RW, with 283K. Following next were S53O, S57D, and F6GOX, all over 200K. In Low Power, Tony, KP4KE, was high scorer with S56P following behind. For Zone 14, DLØSLG and EA1EJ were just under 100K and OU7A took Low Power with 62K, edging out DLØNG. In Zone 15 LP, S56P was followed by YT8A and SQ7CL, only 15K behind. Zone 16 managed only two scores over 100K, with US5D and UX1UA fighting for first and second. UT1AN and RK3E claimed first and second in LP. RK3E was also top Russia LP. For HP Russia, R3ST was top scorer at 61K, with R3XA and RC5Z second and third. In Assisted Russia, the top score and only one over 200K goes to Igor, UA2FZ, who is very dedicated to the CQ160 Contest. RL3A was second in Russia and the only other score over 100K.

Now to the Big Scores

Once again in Multi op, the team of HG8DX took top world honors. The fine ops at HG8DX were HA4FF, HA8DJ, HA8DU, HA8DZ, HA8FM, HA8JV, and HA8KW. HG8DX was followed closely by the teams of S51V, UA7K and LZ5R.

In the U.S., Team Krassy, K1LZ, wins again with only two operators: K1LZ and K3JO. Great job by the LZ team. Special mention goes to ND8DX for edging out N2CW (not easy to do due to QTH advantages). Karl operated with WV8SW making 1,240 QSOs, with N2CW at 887. That was enough to make up the point differential.

In World Single-Op Assisted, the second highest score in the contest goes to Petr, OK7K. With 1,138 QSOs and a whopping multiplier count, Petr's score was almost 70K higher than LY4A at number two. But LY4A was 100K ahead of the next competitors, TM6M and S53F.

In Single-op Assisted U.S., Curtis, N2ZX, operating from New York, had the top score at 225K with N4RV, K3WW, W3LL, K2PM, and KV0Q all bunched around 150-185K. Tom, VE3CX, was the top scorer in Canada and number 5 for the world.

A Note About Sportsmanship

For the most part, complaints about key clicks and operating out of IARU band segments were down this year. That is a good thing.

There were some new complaints about QRM to FT8 digital operation. My position on this is that it's unfortunate, but due to the choice of FT8 calling frequencies it falls smack in the middle of traditional CW/SSB operation. We feel that for contest weekends, FT8 operation can coexist and accept some QRM.

There were numerous complaints about power abuse. It is nearly impossible to monitor power levels, this is supposed to be on the honor system. Remember, if you abuse the rules, you are not only cheating others but cheating yourself.

This year we did reclassify some stations based on RBN analysis. Since RBN (Reverse Beacon Network) is not definitive, we felt disqualification was not warranted (yet). But in the future, we may not be as lenient. As technology improves, it will be easier to identify outliers.

In Closing

A special thanks to all those helping out to make the contest a success, including N6TR (log-checking), K1DG (trophies), and K5ZD (webmaster).

Certificates for everyone are available for printing on our website at CQ160.com. Trophies will be mailed shortly.

If anyone would like a Log Checking Report, send an email to me at <director@CQ160.com>. Please specify which *mode* you are inquiring about and the **callsign used**.

Thanks to all for participating and see you in 2019. Remember, all CQ contests have a 5-day deadline for submitting logs. Check out the rules on CQ160.com for the latest information. – *73, Andy, N2NT*

(Complete scores begin on page 103)