

# Results of the 2021 CQ World Wide VHF Contest

BY JOHN "JK" KALENOWSKY,\* K9JK

**T**he third full weekend of July 2021 brought another opportunity to competitively exercise amateur radio stations and operators on the 50- and 144-MHz frequency bands throughout the world as another CQ World Wide VHF Contest was conducted. The overall number of logs submitted this year dropped by a little over 20% from the amazing log count of 2020. Even with that reduction, there were still 1,159 logs received (plus another 17 checklogs) so this year's count is the second highest this century.

As compared to 2020, propagation conditions this year seemed more favorable toward 6 meters and less toward 2 meters. The total count of QSOs in the 1,159 logs was 58,691, yielding an average of just over 50 contacts reported in each log. For 6 meters, 48,099 QSOs were reported in the 907 logs that included QSOs on that band versus 10,592 QSOs in the 560 logs that reported QSOs on 2 meters. Looking at percentages, 82% of QSOs reported were on 6 meters and

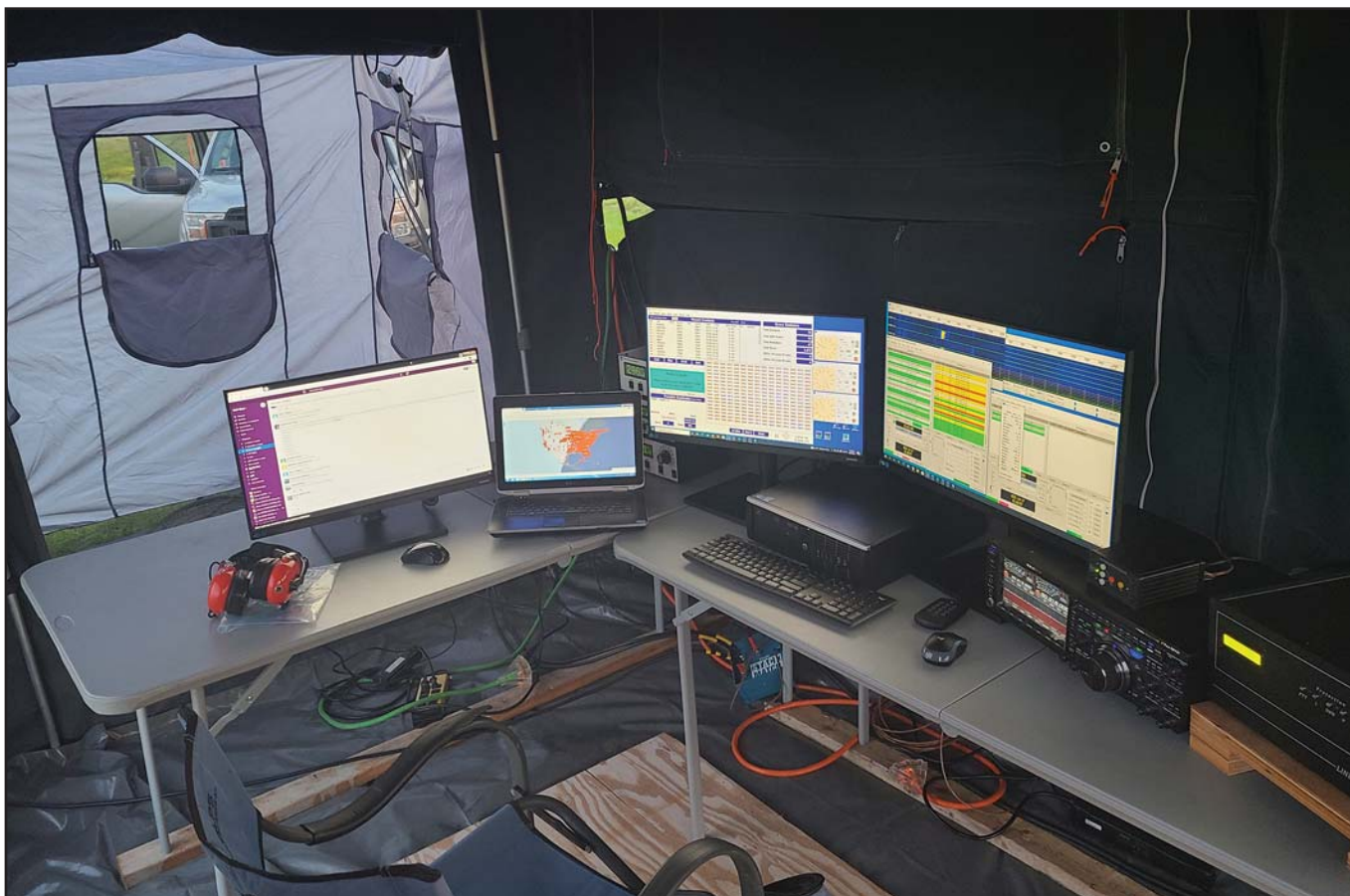
18% were on 2 meters; this compares to a 79% / 21% split in 2020 and 88% / 12% in 2019.

Based on the mode reported on the Cabrillo QSO: lines, just over 65% of 6-meter QSOs and just over 38% of 2-meter QSOs were completed using digital modes in 2021; the actual percentages of digital mode QSOs is likely higher since many logs record "PH" as the mode for those. Surprisingly, those percentages are lower than last year's, which were 77% digital on 6 meters and 42% on 2 meters with the same expectation that the actual percentages of digital mode QSOs would have been higher due to logs recording "PH" as the mode. Did more participants look at the signal levels reported for their digital mode QSOs and try to make more QSOs using the traditional voice and CW modes?

## USA

Stations in the contiguous 48 U.S. states submitted 489 logs in 2021 (plus three checklogs) which was less than 60% of last year's count of 854 from U.S. participants, a notable

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Wyatt Dirk's, ACØRA, Field Day style setup for the 2021 CQWW VHF contest. Here is ACØRA's "shack." (Photo by ACØRA)

## 2021 CQWW VHF PLAQUE WINNERS AND DONORS

### SINGLE OPERATOR, ALL BAND

**WORLD:** Dr. Gene Zimmerman, W3ZZ Memorial, sponsored by Directive Systems and the Grid Pirates. Won by: **Andy Yanulyavichus, UW8SM**  
**USA:** Steve Bolia, N8BJQ Trophy. Won by: **Jeff Klein, K1TEO**

### SINGLE OPERATOR, SINGLE BAND

**WORLD 50 MHz:** Jorge F. Rios Alvarado, XE2X Trophy. Won by: **Marco Angioni, ISØBSR**  
**USA 50 MHz:** Florida Contest Group Trophy. Won by: **Wyatt Dirks, ACØRA**  
**WORLD 144 MHz:** CQ VHF Contest Committee Trophy, sponsored by Joe Devenyi, HAØLC. Won by: **Bostjan Sever, S56P**  
**USA 144 MHz:** Chuck Dietz, W5PR Trophy. Won by: **Jim Christiansen, K7ND**

### SINGLE-OPERATOR QRP ALL BAND

**USA:** Curt Roseman, K9AKS Memorial, sponsored by the CQ WW VHF Contest Directors. Won by: **Jim Spence, KO9A**

### ROVER

**USA:** Northern Lights Radio Society Trophy. Won by: **Tony Contratto, KG9OV**

### MULTI-OPERATOR

**WORLD:** Dr. Gene Zimmerman, W3ZZ Memorial, sponsored by Directive Systems and the Grid Pirates. Won by: **Station TC3A, operated by: TA3E, TA3LHH**  
**USA:** Bob Striegl, K2DRH Trophy. Won by: **Station W4VHF, operated by: W3GQ, NI4E, W3OA, W4MW, KU4V, AA4ZZ, W4GRW**

*\*Denotes awarded to runner-up in category*

reduction. If 2020's log count from the U.S. stations had had been matched this year, the total logs received would have topped last year's excellent total. The Single-Operator, Single-Band, 6-meter category remained the most popular among U.S. entrants with 235. Single Operator All-Band was not too far behind with 183. There were 22 Rovers, 20 Multi-Operator, 16 Single-Operator All-Band QRP, seven 2-meter only, and six Hilltoppers made up the balance of U.S. entries. Among the U.S. call areas, 4-land returned as the log submission leader with 103 (a 37% drop from last year's 180). The 7<sup>th</sup> call area returned as 2<sup>nd</sup> busiest with 71 logs (also a decrease of 36% from 111 in 2021). Stations in Illinois, Indiana, and Wisconsin, also known as the 9<sup>th</sup> district, submitted 53 logs to claim the third busiest call area spot (this was a 22% drop from last year's count of 68 from the area).

Scores between the various categories are typically not compared in the results but an interesting inter-category scoring battle was noted between Wyatt, ACØRA, and Jeff, K1TEO. After roving for the past few years and achieving amazing scores from his roving efforts, Wyatt decided to stay in one place and focus on 6 meters for 2021, entering in the Single-Operator, Single-Band, 6-meters category. Jeff piloted his very capable station and improved his Single-Operator, All-Band score by about 20% over last year. Wyatt's 619 QSOs topped Jeff's 582 (445 on 6 meters, 137 on 2 meters) but with 2-meter QSOs earning two QSO points, that gave Jeff a 100 QSO point advantage over Wyatt, 719 vs. 619. Multipliers were where Wyatt overcame Jeff's QSO point advantage, with Wyatt recording a total of 235 grids worked on 6 meters compared to Jeff's total of 202 (160 on 6 meters, 42 on 2 meters). Their final scores were outstanding: 143,585 for Wyatt and 143,218 for Jeff; a difference of less than 400 points between them, even though they were competing in different categories.

With a total score not too far behind Wyatt's and Jeff's scores, a Multi-Operator team gathered at the QTH of AA4ZZ to use the W4VHF callsign, amassing 322 Qs and 161 multipliers on 6 meters and 139 Qs and 60 multipliers on 2 meters for a final score of 131,053 to claim the top U.S. score in that category. Some may remember the W4VHF call as very active in the previous decade but with a "/R" suffix, often claiming the top score in this contest's Rover category over a number of years,

when the call was held by Ted Goldthorpe, who unfortunately now is a Silent Key. Their operation was a nice tribute in memory of Ted's past roving achievements.

For the third year in a row, Jim, KO9A, achieved the top U.S. score in the Single-Operator, All-Band QRP category. Jim collected 266 QSOs on 6 meters (with a VUCC plus two of multipliers) plus 49 QSOs and 23 multipliers on 2 meters for a final score of 44,875. Again, Jim capitalized on the capabilities of the digital modes in the WSJT-X software but ALSO spent time in the SSB and CW segments of the bands. Also of note is that, in 2021, Jim was the 23<sup>rd</sup> person to complete making contacts in each of the 488 maidenhead grid squares in the contiguous 48 U.S. states for the ARRL's Fred Fish Memorial award from what is a very modest station.

Tony, KG9OV, bested the 22 Rover category entrants from the U.S. with an 8-grid trek through western Illinois. His 154 QSOs and 118 multipliers netted him a final score of 22,420. This was an excellent result for Tony's first effort as a Rover in this contest.

Pete, K9PW, returned to operate in the Hilltopper category as he did in 2020, but operating in the first six hours of the contest this year before leaving to participate in one of the Chicago area's Saturday evening hidden transmitter hunts. Pete bettered his score from 2020 by more than 60%, completing 74 QSOs for a final score of 3,528.

After last year's heightened conditions on 144-MHz produced a close and high scoring battle between AA4ZZ and W1VD in the Single-Operator, Single-

## TOP SCORES WORLD

<b>All Band</b>		UR4RZA.....2,052
UW8SM.....53,130		UY2RA.....1,518
VA2BN.....37,536		
VE3WY.....33,728		<b>QRP</b>
VA6AN.....23,328		UZ7W.....13,360
I1JTQ.....19,504		M5W.....10,086
		E24QND.....2,744
		DO1FDK.....2,184
		UT6EY.....1,750
<b>6 Meters</b>		
ISØBSR.....70,110		<b>Rover</b>
UT5X.....62,658		VE3OIL/R.....5,368
IZ5EME.....32,800		BG2KAJ/R.....4,400
F4ARU.....32,604		E22FFJ/R.....726
E77A.....30,171		VE2GT/R.....378
		VA7OTC/R.....315
<b>2 Meters</b>		
S56P.....22,040		<b>Multi-Op</b>
EM8A.....9,506		TC3A.....30,250
E74G.....7,440		OK1RDO.....28,890
DL1DBR.....5,888		UZ2I.....24,570
UR7IMM.....4,960		TC3EC.....19,260
		LY5W.....16,600
<b>Hilltopper</b>		
VE2NCG.....3,744		
IZ3NVR.....3,060		
JR1UJX/2.....2,475		

## USA

<b>All Band</b>		W9SZ.....703
K1TEO.....143,218		N6AN.....117
K2DRH.....121,402		KD7WPJ.....16
KD2LGX.....57,040		
N2NT.....55,948		<b>QRP</b>
N2JMH.....49,248		KO9A.....44,875
		NØUR.....23,901
		WB9AYW.....3,002
		WA5DM.....1,600
		NØSUW.....1,575
<b>6 Meters</b>		
ACØRA.....143,585		<b>Rover</b>
NØURW.....32,342		KG9OV/R.....22,420
KØVG.....32,226		AA5PR/R.....14,935
N7PHY.....27,495		K9JK/R.....14,608
W5PR.....23,247		AE5P/R.....14,472
		N6RH/R.....13,462
<b>2 Meters</b>		
K7ND.....486		<b>Multi-Op</b>
WE7L.....418		W4VHF.....131,053
W7OJT.....320		NV9L.....66,299
AF7GL.....250		N4SVC.....40,905
KC3SWL.....50		K5QE.....40,040
		W4ZST.....34,848
<b>Hilltopper</b>		
K9PW.....3,528		
AJ6X.....799		





ACØRA's three 6-meter antennas, two 7-element Yagis and a 5-element Yagi, not to mention a 60-foot pneumatic mast for one of the 7-element Yagis. (Photo by ACØRA)

### QSO & GRID LEADERS

#### 6-Meter QSOs

ACØRA.....	619
K2DRH.....	446
K1TEO.....	445
ISØBSR.....	371
UT5X.....	355
W4VHF.....	322
NØURW.....	321
NV9L.....	310
UW8SM.....	288
SV6JHA.....	281
VA2BN.....	274
W9GA.....	271
KØVG.....	268
E77A.....	267
KO9A.....	266

#### 2-Meter QSOs

E25GNL.....	289
S56P.....	191
W4VHF.....	139
K1TEO.....	137
OK1RDO.....	127
E74G.....	121
E2ØWVV.....	108
K5QE.....	99
EM8A.....	98
E24QND.....	98
OM6TX.....	97
DL1DBR.....	92
AE5P/R.....	89
N6RH/R.....	86
N2NT.....	82

#### 6-Meter Grids

ACØRA.....	235
ISØBSR.....	190
UT5X.....	177
IZ5EME.....	164
K2DRH.....	162
W4VHF.....	161
K1TEO.....	160
UW8SM.....	146
F4ARU.....	143
NV9L.....	140
VA2BN.....	136
SV2AEL.....	133
UT4XU.....	128
W5LO.....	126
W5PR.....	123
KØVG.....	123

#### 2-Meter Grids

K5QE.....	61
W4VHF.....	60
S56P.....	58
EM8A.....	49
K1TEO.....	42
UR7IMM.....	40
K2DRH.....	40
W4ZST.....	38
KG9OV/R.....	38
OK1RDO.....	37
N4SVC.....	36
YR8D.....	36
KD2LGX.....	36
N2NT.....	36
N2JMH.....	33

### ROVERS & GRIDS OPERATED

AA5PR/R.....	DM65 DM74 DM75 DM84 DM85
AE5P/R.....	EM20 EM21 EM22 EM30 EM31 EM32
BG2KAJ/R.....	PN23 PN24
E22FFJ/R.....	NK92 NK93 NK94 OK02 OK03 OK04
JJ1WWL/R.....	PM96 QM06
KØBAK/R.....	FN10 FN11 FN20 FN21
KØBBC/R.....	EN13 EN14 EN15
K9JK/R.....	EN50 EN51 EN52 EN60 EN61 EN62
KDØEFQ/R.....	DM12 DM13
KE7MSU/R.....	CN85 CN86
KG6BXW/R.....	CM86 CM96 CM97 DM07
KG9OV/R.....	EM47 EM49 EM57 EM59 EN40 EN41 EN50 EN51
KI5FIQ/R.....	EM20 EM21 EM22 EM30 EM31 EM32
KI5RAT/R.....	EM20 EM21 EM22 EM30 EM31 EM32
KK6MC/R.....	DM54 DM55 DM64 DM74 DM75
KO4IJH/R.....	FM08 FM09 FM18
KX6A/R.....	DM03 DM13
N6GP/R.....	DM03 DM04 DM13 DM14
N6JSO/R.....	CM87 CM97
N6RH/R.....	EM20 EM21 EM22 EM30 EM31 EM32
N6UTC/R.....	DM03 DM04 DM13
NV4B/R.....	EM43 EM53 EM54 EM55 EM64 EM65
UR3ABM/R.....	KO70 KO71
VA7OTC/R.....	CN88 CN89
VE2GT/R.....	FN35 FN36
VE3OIL/R.....	EN93 FN03
VE3RKS/R.....	EN93
WØZF/R.....	EN13 EN14 EN15 EN34
W3DHJ/R.....	DM77 DM78 DM87 DM88
WB6AGE/R.....	CN76 CN85 CN86
YD3ALU/R.....	OI62
YF3CYT/R.....	OI62
YG3FZT/R.....	OI62

Band, 2-meter category, activity in the category ebbed substantially in 2021. Congrats to Jim, K7ND, for achieving a final score of 486 from 27 QSOs and 9 multipliers to lead this year's seven U.S entrants in the category.

From 28 U.S. clubs from which more than three logs were received, the Society of Midwest Contesters reclaimed the top spot in the club competition with 21 entries for an aggregate score of 358,735. With a final score of 121,402, Bob, K2DRH, was the top contributor to SMC's total.

**DX**

There were 670 logs (plus 14 checklogs) received from all six continents, which is an increase in the DX log count as compared to last year. The breakdown by continent is shown in the table below:

Continent	Logs	# of different DXCC Countries
Africa	4	1
Asia	129	13
Europe	276	35
Oceania	98	2
South America	103	2
North America (other than U.S.)	72	5 (other than U.S.)
<b>Total</b>	<b>670</b>	<b>58</b>

With 99 logs submitted (96% of the logs submitted from South America), Brazil repeated as the top source of logs among the non-U.S. countries. Ukraine was the participation leader for Europe, with 67 logs submitted. Among non-U.S. North America, Canada was the top log submitter, with 56. Japan with 47 logs submitted was the leader in log submissions from Asia with China growing its count of logs to 28. Oceania's log submission count grew to 98 (88 logs from Indonesia and 10 from the Philippines) a significant increase



Another view of ACØRA's antenna farm. (Photo by ACØRA)

**CLUB COMPETITION**

(Minimum of 3 entries required for listing)

UNITED STATES			DX		
Club Name	# Entries	Score	Club Name	# Entries	Score
SOCIETY OF MIDWEST CONTESTERS	21	358,735	UKRAINIAN CONTEST CLUB	18	204,806
POTOMAC VALLEY RADIO CLUB	41	183,016	CONTEST CLUB ONTARIO	17	95,924
CAROLINA DX ASSOCIATION	4	135,199	ITALIAN CONTEST CLUB	8	80,664
ROCHESTER VHF GROUP	5	114,700	RHEIN RUHR DX ASSOCIATION	8	23,918
MT AIRY VHF RADIO CLUB	7	94,037	LATVIAN CONTEST CLUB	7	23,470
YANKEE CLIPPER CONTEST CLUB	8	93,109	BALTIC CONTEST CLUB	3	20,515
NORTHERN LIGHTS RADIO SOCIETY	11	91,959	CONTEST GROUP DU QUEBEC	4	16,059
NORTH EAST WEAK SIGNAL GROUP	7	82,386	STRC KRYVBAS	3	12,884
PACIFIC NORTHWEST VHF SOCIETY	22	81,504	SARMAT	6	12,339
BADGER CONTESTERS	7	76,990	THRACIAN ROSE CLUB	4	5,946
FOURLANDERS CONTEST TEAM	5	55,665	CABREUVADX	17	5,097
DFW CONTEST GROUP	6	44,253	SP DX CLUB	3	4,606
FLORIDA CONTEST GROUP	13	44,246	UKRAINIAN VHF INTERNATIONAL CONTEST CLUB	3	4,185
FRANKFORD RADIO CLUB	4	43,394	WCWSA	3	3,684
ARIZONA OUTLAWS CONTEST CLUB	20	40,101	MULAN DX CLUB	3	2,986
SOUTHERN CALIFORNIA CONTEST CLUB	12	39,257	CDR GROUP	9	2,801
KENTUCKY CONTEST GROUP	4	35,688	ORARI LOKAL KEDIRI	24	1,746
NACOGDOCHES AMATEUR RADIO CLUB	3	27,315	599 DX GROUP	6	1,352
MAD RIVER RADIO CLUB	5	23,906	NCG DX GROUP	3	1,268
TEXAS DX SOCIETY	3	23,528	ORCA DX AND CONTEST CLUB	3	1,164
NEW MEXICO VHF SOCIETY	5	22,371	RIO DX GROUP	14	882
GRAND MESA CONTESTERS OF COLORADO	6	21,074	ARAUCARIA DX GROUP	5	430
NORTHERN CALIFORNIA CONTEST CLUB	7	13,989	ORARI LOKAL GRESIK	7	426
SOUTH EAST CONTEST CLUB	7	11,244	LU CONTEST GROUP	4	399
HUDSON VALLEY CONTESTERS AND DXERS	4	7,929	144ZORIO	4	298
BRISTOL (TN/VA) ARC	3	4,246	SINGLE FIGHTER DX GROUP	4	290
CENTRAL OHIO OPERATORS KLUB	3	2,829	YBDXPI	6	275
TENNESSEE CONTEST GROUP	3	1,933	LABRE-RS	6	172
			YB LAND DX CLUB	3	57







digital modes exclusively. Sixty-five of Nicolas's 70 QSOs were on 50 MHz as were 47 of his 52 total multipliers. With a visit to two different grid locators in the province of Ontario, Russell, VE3OIL, piloted his rover station to put 84 QSOs and 61 multipliers in his logbook for a final score of 5,368. The majority of Russell's QSOs were completed on 6 meters.

From China, first-time rover Ma, BG2KAJ, travelled to two different locators to record 100 QSOs with 44 multipliers, all on 6 meters, for a final score of 4,400. In Ma's Scatter comments, he noted, "really a hot day but very happy to take part in the contest. Very good 6-meter SSB pile-up for me, very exciting." Hopefully Ma will return to roving in 2022 and beyond.

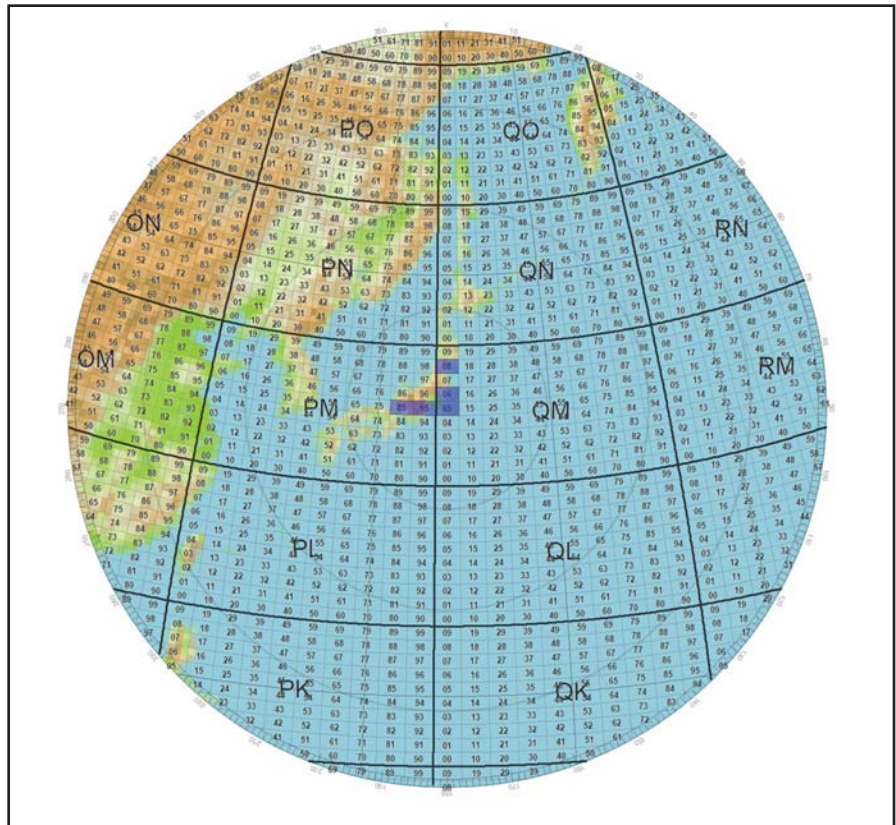
Among 19 DX clubs that met the minimum of three log submissions, the Ukrainian Contest Club claimed the top aggregate club score with a total of 204,806. A score of 62,658 from UT5X (operated by Nikolay, UT2XQ) was the leading score among the 18 logs from the club.

### The Elephant in the Room – FT-8!

As the director for this contest, I am not ignoring the many postings to email reflectors and emails I have received about how FT-8 has impacted activity in this VHF radiosport event. I have reviewed the countless, varied, and often conflicting suggestions of what needs to be done to "improve" this contest.

Personally, I have not explored any of the digital modes myself ... preferring to follow the "KISS" principles (Keep It Simple Silly, though I have seen a different word for that last S) as I grid-hop in my roverbobile, the CoROVERolla. This means that I've been using only the "legacy" modulation modes (SSB mostly, but with an occasional CW or FM contact). Having finished third among U.S. Rovers this year and second in 2019, I've not felt limited by restricting myself to "legacy" modulation modes so I might not be the best person to judge how FT-8 has impacted this contest.

On the other hand, I have seen how FT-8 can be used to increase scores, especially collecting more distant multipliers that, even under the best conditions, might be very challenging to work with other modes. In the majority of cases, the higher scoring stations in the various categories have included the "legacy" modes in their QSO mixes, not relying exclusively on using FT-8 and other digital modes.



ACØRA's map of the grids he worked in Asia during the 2021 CQWW VHF contest. (Photo by ACØRA)

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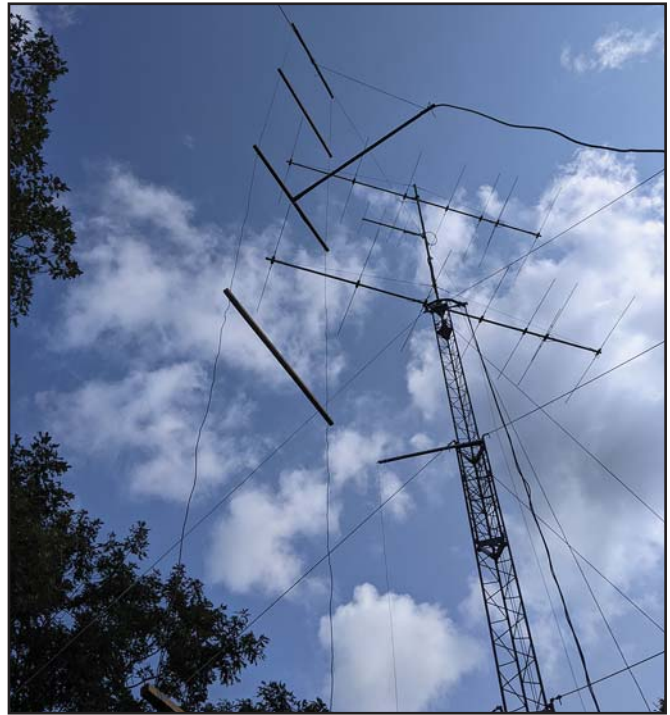
Paul, AA4ZZ, sent in these photos, shot by a drone, of the 2-meter Yagi used for the W4VHF contest station. (Photo by W4GRW)

I also recall the incredible conditions that were experienced in the U.S. back in 2006 on the CQWW VHF Contest weekend. Several entrants logged more than 1,000 QSOs and I'm pretty sure this was "BD" (Before Digital), all using "legacy" modulation modes, so incredible contest scores CAN be achieved without the benefit of "new-fangled" modulation methods.

For 2022, the rules will not see any changes. Multiple contacts with the same station using different modes will be considered duplicates so feel free to do that if you must but don't expect any increase in your score from such activity. I do strongly request that logs submitted show "DG" on the Cabrillo QSO: Lines for contacts made using the various flavors of digital modes and NOT "PH" as other VHF contests have permitted. Use "PH" for SSB contacts (and if anyone is using AM in the contest, for those contacts), "CW" for CW contacts and "FM" for contacts made using FM voice.

### Speaking of "Next Year," Let's Move On!

The dates for the 2022 CQWW VHF Contest are set as July 17<sup>th</sup> and 18<sup>th</sup>. Let's hope that the global pandemic will continue its easing but even if it doesn't, we can continue to "socially distance" on the 50- and 144-MHz bands. And has Cycle 25 really started? Propagation conditions on 50 MHz



This photo shows off the 6-meter Yagi at the W4VHF contest station. (Photo by AA4ZZ)



The team at W4VHF was comprised of the following members (from l. to r.) Dick, W3OA; Paul, W3GQ; Paul, AA4ZZ; and Bill, W4GRW. They are members of the Carolina DX Association. (Photo by AA4ZZ)

may answer that question, once the third weekend of July comes around this year.

Repeating the constant plea of past directors, if you operate, please send in a log. Any size log is greatly appreciated. If you need help, please ask. More logs make cross-checking logs more accurate.

Don't forget to check out the CQ VHF website <[www.cqww-vhf.com](http://www.cqww-vhf.com)>. Comments, suggestions, and corrections are always welcome. Quite a bit of the data was entered manually. If you find an error, please let us know.

(Scores on page 108)

Number/letter groups after call letters denote the following: Class (A=allband, 6=6 meters, 2=2 meters, Q=QRP, Q\*=QRP portable hilltopper, R=rover, M=multi-operator), Final Score, Number of QSOs, Number of grid locators, State/Province (USA/Canada only), Grid Locator or Number of grids activated (rover only). Rover scores for USA are listed separately. Scores in bold indicate certificate winners. Scores in italics are disqualified.

**2021 VHF RESULTS  
NORTH AMERICA**

**UNITED STATES**

K1TEO	A	143,218	582	202	CT	FN31
N8RA	A	39,624	269	127	CT	FN31
W1XX	A	31,588	277	106	RI	FM41
W1FKF	A	25,199	180	113	NH	FM43
AF1T	A	23,316	248	87	NH	FN43
WA1T	A	12,640	150	80	NH	FN43
N1JEU	A	8,372	129	66	VT	FM44
N1JFU	A	8,640	109	64	MA	FM42
K2KA	A	5,814	103	57	MA	FM42
KSZD	A	5,428	93	59	MA	FM42
N1PRW	A	5,280	95	55	MA	FM42
WOZEN	A	5,076	93	54	MA	FM42
N1JD	A	2,342	40	36	ME	FM44
K1SX	A	1,494	63	34	MA	FN41
W1FJ	A	644	29	23	MA	FN42
N1JHU	A	294	14	14	NH	FN43
AF1R	A	216	17	12	MA	FN42
N1SFE	A	204	15	12	CT	FN31
A1IG	A	2	2	2	MA	FN42
N2HX	<b>6</b>	<b>18,281</b>	<b>183</b>	<b>101</b>	MA	<b>FN32</b>
AB1OC	<b>6</b>	<b>16,684</b>	<b>174</b>	<b>97</b>	NH	<b>FM42</b>
AE1T	<b>6</b>	<b>3,105</b>	<b>71</b>	<b>45</b>	NH	<b>FN43</b>
K1EP	<b>6</b>	<b>2,440</b>	<b>63</b>	<b>40</b>	MA	<b>FM42</b>
K1VW	<b>6</b>	<b>1,380</b>	<b>49</b>	<b>30</b>	ME	<b>FM43</b>
W1CEO	<b>6</b>	<b>1,350</b>	<b>57</b>	<b>27</b>	MA	<b>FM42</b>
NA1KRG	<b>6</b>	<b>1,269</b>	<b>50</b>	<b>27</b>	CT	<b>FN31</b>
Op: W1QK						
AG1A	<b>6</b>	<b>1,178</b>	<b>40</b>	<b>31</b>	MA	<b>FM42</b>
K9DQD	<b>6</b>	<b>832</b>	<b>34</b>	<b>26</b>	MA	<b>FM42</b>
KA1YOC	<b>6</b>	<b>693</b>	<b>33</b>	<b>21</b>	MA	<b>FM42</b>
W1HMM	<b>6</b>	<b>588</b>	<b>28</b>	<b>21</b>	ME	<b>FN53</b>
NY1E	<b>6</b>	<b>420</b>	<b>23</b>	<b>20</b>	ME	<b>FN55</b>
N1ADX	<b>6</b>	<b>182</b>	<b>14</b>	<b>13</b>	VT	<b>FN33</b>
N1WRK	<b>6</b>	<b>144</b>	<b>12</b>	<b>12</b>	MA	<b>FN41</b>
KW1RF	<b>6</b>	<b>64</b>	<b>8</b>	<b>8</b>	CT	<b>FN41</b>
KM1NDY	<b>6</b>	<b>48</b>	<b>9</b>	<b>8</b>	MA	<b>FM42</b>
NE1B	<b>M</b>	<b>27,488</b>	<b>218</b>	<b>109</b>	NH	<b>FM42</b>
Op: NE1B WA2IYO						
N1SOH	<b>M</b>	<b>6,903</b>	<b>124</b>	<b>59</b>	MA	<b>FM42</b>
Op: N1SOH W1FM						
W1VPR	<b>M</b>	<b>1,020</b>	<b>42</b>	<b>20</b>	MA	<b>FM42</b>
Op: KB1EKN N1QD K1SU						
KD2LGX	<b>A</b>	<b>57,400</b>	<b>308</b>	<b>155</b>	NY	<b>FN13</b>
N2NT	<b>A</b>	<b>55,948</b>	<b>316</b>	<b>142</b>	NJ	<b>FN20</b>
Op: N2NC						
N2JMH	<b>A</b>	<b>49,248</b>	<b>266</b>	<b>152</b>	NY	<b>FN12</b>
W9KXI	<b>A</b>	<b>29,312</b>	<b>214</b>	<b>128</b>	NY	<b>FN12</b>
W2YR	<b>A</b>	<b>12,720</b>	<b>133</b>	<b>80</b>	NJ	<b>FN20</b>
N2RC	<b>A</b>	<b>5,742</b>	<b>83</b>	<b>66</b>	NY	<b>FN21</b>
KA2ENE	<b>A</b>	<b>5,141</b>	<b>91</b>	<b>53</b>	NY	<b>FN13</b>
N1NQD	<b>A</b>	<b>3,213</b>	<b>61</b>	<b>51</b>	NY	<b>FN13</b>
N2SLO	<b>A</b>	<b>3,003</b>	<b>65</b>	<b>39</b>	NY	<b>FN30</b>
K2OEO	<b>A</b>	<b>2,196</b>	<b>56</b>	<b>36</b>	NY	<b>FN13</b>
K2ZI	<b>A</b>	<b>1,820</b>	<b>52</b>	<b>35</b>	NJ	<b>FM29</b>
K2PAL	<b>A</b>	<b>1,650</b>	<b>50</b>	<b>30</b>	NY	<b>FN30</b>
WA3AFS	<b>A</b>	<b>1,628</b>	<b>45</b>	<b>37</b>	NY	<b>FN32</b>
N2NXX	<b>A</b>	<b>1,102</b>	<b>38</b>	<b>29</b>	NY	<b>FN22</b>
N2BEG	<b>A</b>	<b>1,075</b>	<b>38</b>	<b>25</b>	NY	<b>FN12</b>
AC2ZZ	<b>A</b>	<b>126</b>	<b>12</b>	<b>9</b>	NJ	<b>FN20</b>
WW2Y	<b>A</b>	<b>21</b>	<b>4</b>	<b>3</b>	NJ	<b>FN20</b>
K2XA	<b>6</b>	<b>3,216</b>	<b>67</b>	<b>48</b>	NY	<b>FN32</b>
W3SW	<b>6</b>	<b>2,784</b>	<b>61</b>	<b>48</b>	NY	<b>FN22</b>
N2JJ	<b>6</b>	<b>1,855</b>	<b>54</b>	<b>35</b>	NY	<b>FN33</b>
W2TZ	<b>6</b>	<b>1,440</b>	<b>46</b>	<b>32</b>	NY	<b>FN12</b>
AF2F	<b>6</b>	<b>1,320</b>	<b>44</b>	<b>33</b>	NJ	<b>FN20</b>
W2XL	<b>6</b>	<b>1,230</b>	<b>43</b>	<b>30</b>	NY	<b>FN21</b>
WB2AMU	<b>6</b>	<b>621</b>	<b>29</b>	<b>23</b>	NY	<b>FN30</b>
K2ANZ	<b>6</b>	<b>323</b>	<b>19</b>	<b>17</b>	NY	<b>FN13</b>
AC2PB	<b>6</b>	<b>130</b>	<b>13</b>	<b>13</b>	NJ	<b>FN20</b>
KD2EPM	<b>6</b>	<b>90</b>	<b>10</b>	<b>9</b>	NJ	<b>FM29</b>
N2RKL	<b>6</b>	<b>20</b>	<b>5</b>	<b>4</b>	NY	<b>FN13</b>
KB2URI	<b>6</b>	<b>1</b>	<b>1</b>	<b>1</b>	NY	<b>FN02</b>
KC2WVF	<b>Q</b>	<b>4</b>	<b>2</b>	<b>2</b>	NJ	<b>FN20</b>
K2TER	<b>M</b>	<b>27,552</b>	<b>179</b>	<b>123</b>	NY	<b>FN13</b>
Op: K2TER KD2UEW						
W2RME	<b>M</b>	<b>1,785</b>	<b>47</b>	<b>35</b>	NY	<b>FN22</b>
Op: N2SLN W2BDN KC2SFU						
K2AA	<b>M</b>	<b>480</b>	<b>26</b>	<b>16</b>	NJ	<b>FM29</b>
Op: WB2EOD KC2THQ						
NF3R	<b>A</b>	<b>23,112</b>	<b>191</b>	<b>108</b>	PA	<b>FN20</b>
K3TC	<b>A</b>	<b>12,388</b>	<b>143</b>	<b>76</b>	MDC	<b>FM19</b>
N3XF	<b>A</b>	<b>6,090</b>	<b>92</b>	<b>58</b>	PA	<b>FN00</b>
W3LL	<b>A</b>	<b>5,828</b>	<b>91</b>	<b>47</b>	MDC	<b>FM18</b>
K3ZO	<b>A</b>	<b>3,318</b>	<b>68</b>	<b>42</b>	MDC	<b>FM18</b>
KR1ST	<b>A</b>	<b>2,482</b>	<b>52</b>	<b>34</b>	PA	<b>FN21</b>
N3M/WQ	<b>A</b>	<b>990</b>	<b>34</b>	<b>22</b>	DE	
K3RFL	<b>A</b>	<b>644</b>	<b>30</b>	<b>23</b>	MDC	<b>FM18</b>
W3OFD	<b>A</b>	<b>330</b>	<b>16</b>	<b>11</b>	PA	<b>FN10</b>
KD4IZ	<b>A</b>	<b>231</b>	<b>16</b>	<b>11</b>	MDC	<b>FM19</b>
W3EKT	<b>A</b>	<b>144</b>	<b>20</b>	<b>9</b>	MDC	<b>FM19</b>
K3EFS	<b>A</b>	<b>135</b>	<b>12</b>	<b>9</b>	PA	<b>FN20</b>
KE5NJ	<b>A</b>	<b>40</b>	<b>5</b>	<b>4</b>	DE	
N1EK	<b>6</b>	<b>8,757</b>	<b>143</b>	<b>63</b>	MDC	<b>FM19</b>
K3MM	<b>6</b>	<b>1,008</b>	<b>49</b>	<b>21</b>	MDC	<b>FM19</b>
KD3HN	<b>6</b>	<b>986</b>	<b>35</b>	<b>29</b>	PA	<b>FM19</b>
AA3S	<b>6</b>	<b>940</b>	<b>47</b>	<b>20</b>	MDC	<b>FM19</b>
KB3ORR	<b>6</b>	<b>825</b>	<b>33</b>	<b>24</b>	PA	<b>EN90</b>
K2LNS	<b>6</b>	<b>558</b>	<b>33</b>	<b>18</b>	PA	<b>FN01</b>
N3ADF	<b>6</b>	<b>558</b>	<b>32</b>	<b>18</b>	MDC	<b>FM18</b>

WO2C	<b>6</b>	<b>450</b>	<b>25</b>	<b>18</b>	PA	<b>EN90</b>
WT3K	<b>6</b>	<b>350</b>	<b>25</b>	<b>14</b>	MDC	<b>FM19</b>
N3DUE	<b>6</b>	<b>275</b>	<b>25</b>	<b>11</b>	MDC	<b>FM19</b>
N3FJP	<b>6</b>	<b>200</b>	<b>21</b>	<b>9</b>	MDC	<b>FM19</b>
AG3I	<b>6</b>	<b>135</b>	<b>16</b>	<b>9</b>	PA	<b>FN00</b>
W3OU	<b>6</b>	<b>135</b>	<b>16</b>	<b>9</b>	PA	<b>FM18</b>
N3OE	<b>6</b>	<b>135</b>	<b>24</b>	<b>4</b>	MDC	<b>FM19</b>
AJ3M	<b>6</b>	<b>95</b>	<b>21</b>	<b>5</b>	MDC	<b>FM19</b>
N3ODE	<b>6</b>	<b>72</b>	<b>12</b>	<b>6</b>	MDC	<b>FM19</b>
N3XL	<b>6</b>	<b>72</b>	<b>12</b>	<b>6</b>	MDC	<b>FM18</b>
KC3SWL	<b>2</b>	<b>50</b>	<b>2</b>	<b>1</b>	PA	<b>FM29</b>
NG3W	<b>2</b>	<b>50</b>	<b>2</b>	<b>1</b>	PA	<b>FM29</b>
W3IPA	<b>Q</b>	<b>294</b>	<b>21</b>	<b>14</b>	PA	<b>EN91</b>
WO6D	<b>Q</b>	<b>252</b>	<b>16</b>	<b>14</b>	PA	<b>FN21</b>
N3DPB	<b>M</b>	<b>15,382</b>	<b>158</b>	<b>74</b>	MDC	<b>FM19</b>
Op: N3DPB K3MTR KB3VQC AD5XI WA3EKL						
W3SO	<b>M</b>	<b>11,894</b>	<b>133</b>	<b>78</b>	PA	<b>FN00</b>
Op: W3IDT W3BXT W3SF W3XOX						
N3MK	<b>A</b>	<b>39,130</b>	<b>246</b>	<b>130</b>	VA	<b>FM27</b>
W3IP	<b>A</b>	<b>29,484</b>	<b>225</b>	<b>108</b>	VA	<b>FM19</b>
K1HTV	<b>A</b>	<b>27,577</b>	<b>232</b>	<b>109</b>	VA	<b>FM18</b>
W4MAA	<b>A</b>	<b>16,380</b>	<b>162</b>	<b>91</b>	GA	<b>EM74</b>
K1MTO	<b>A</b>	<b>14,670</b>	<b>167</b>	<b>90</b>	FL	<b>EL87</b>
NG4C	<b>A</b>	<b>13,816</b>	<b>134</b>	<b>88</b>	NC	<b>FM16</b>
K31PPY	<b>A</b>	<b>8,427</b>	<b>128</b>	<b>53</b>	VA	<b>FM18</b>
AA5JF	<b>A</b>	<b>6,968</b>	<b>94</b>	<b>67</b>	GA	<b>EM83</b>
NBKH	<b>A</b>	<b>4,464</b>	<b>92</b>	<b>48</b>	FL	<b>EL98</b>
K3FR	<b>A</b>	<b>4,305</b>	<b>91</b>	<b>41</b>	VA	<b>FM18</b>
WB4OMG	<b>A</b>	<b>3,784</b>	<b>67</b>	<b>43</b>	FL	<b>EL98</b>
W4ATL	<b>A</b>	<b>3,397</b>	<b>62</b>	<b>43</b>	GA	<b>EM73</b>
W4ENN	<b>A</b>	<b>2,886</b>	<b>57</b>	<b>39</b>	AL	<b>EM84</b>
W4AFM	<b>A</b>	<b>2,432</b>	<b>57</b>	<b>32</b>	VA	<b>FM07</b>
K2PS	<b>A</b>	<b>1,872</b>	<b>58</b>	<b>34</b>	FL	<b>EL98</b>
KV4ZY	<b>A</b>	<b>1,871</b>	<b>54</b>	<b>27</b>	VA	<b>FM08</b>
W4ALZU	<b>A</b>	<b>1,824</b>	<b>41</b>	<b>32</b>	SC	<b>EM83</b>
AA4DD	<b>A</b>	<b>1,656</b>	<b>42</b>	<b>36</b>	TN	<b>EM86</b>
N3KN	<b>A</b>	<b>1,200</b>	<b>40</b>	<b>30</b>	VA	<b>EM97</b>
K4FJW	<b>A</b>	<b>1,196</b>	<b>37</b>	<b>26</b>	VA	<b>EM86</b>
KV4G	<b>A</b>	<b>1,196</b>	<b>34</b>	<b>26</b>	AL	<b>EM64</b>
WB4EHG	<b>A</b>	<b>1,161</b>	<b>41</b>	<b>27</b>	FL	<b>EL96</b>
WG8S	<b>A</b>	<b>984</b>	<b>35</b>	<b>24</b>	AL	<b>EM64</b>
K1DS	<b>A</b>	<b>928</b>	<b>35</b>	<b>24</b>	FL	<b>FN20</b>
K4MY	<b>A</b>	<b>740</b>	<b>29</b>	<b>20</b>	GA	<b>EM74</b>
NU4E	<b>A</b>	<b>612</b>	<b>24</b>	<b>17</b>	SC	<b>EM95</b>
KS4S	<b>A</b>	<b>572</b>	<b>26</b>	<b>14</b>	NC	<b>FM04</b>
W4SLD	<b>A</b>	<b>322</b>	<b>25</b>	<b>14</b>	FL	<b>EL99</b>
KA4FTO	<b>A</b>	<b>208</b>	<b>26</b>	<b>8</b>	VA	<b>FM18</b>
N3CA	<b>A</b>	<b>132</b>	<b>13</b>	<b>12</b>	NC	<b>FM05</b>
AE4Y	<b>A</b>	<b>130</b>	<b>17</b>	<b>10</b>	NC	<b>EM85</b>
K3YC	<b>A</b>	<b>117</b>	<b>13</b>	<b>9</b>	NC	<b>EM95</b>
K4MI	<b>A</b>	<b>90</b>	<b>10</b>	<b>9</b>	VA	<b>FM17</b>
K4BSK	<b>A</b>	<b>77</b>	<b>8</b>	<b>7</b>	VA	<b>FM07</b>
K4VTE	<b>A</b>	<b>70</b>	<b>10</b>	<b>7</b>	GA	<b>EM73</b>
KX4UK	<b>A</b>	<b>66</b>	<b>12</b>	<b>6</b>	VA	<b>FM08</b>
K4VBM	<b>A</b>	<b>56</b>				



WB9AYW	Q	3,002	70	38	IL	EN51
K9PW	H	3,528	74	42	IL	EN61
W9SZ	H	703	27	19	IL	EN50
NV9L	M	66,299	356	167	IL	EN80
Ops: NV9L WB9Z						
WD9EXD	M	30,888	188	132	IL	EM57
Ops: WD9EXD W9AKW						
N9YZA	M	15,990	156	82	IL	EN51
Ops: N9YLZ N9YZA						
KA9VVQ	M	7,392	121	56	WI	EN43
Ops: KA9VVQ W9FZ						
KA0PQW	A	10,498	183	58	MN	EN33
N0HJZ	A	6,968	128	52	MN	EN34
K0AWU	A	6,840	108	60	MN	EN37
K0NR	A	4,888	94	47	CO	DM78
WOVTT	A	3,280	73	41	MN	EN33
KB0ZOM	A	546	22	21	NE	EN00
KB0KQI	A	406	20	14	CO	DM78
WOETT	A	336	20	12	CO	DM79
W8LYJ	A	154	15	11	CO	DN70
K0S0C	A	108	10	9	MO	EM48
K0UK	A	1	1	1	CO	DM59
AC0RA	6	143,585	619	235	IA	EN42
N0URW	6	32,342	321	103	IA	EN41
K0VJ	6	32,226	268	123	MN	EN27
WOJW	6	15,444	157	99	IA	EN31
WT0DX	6	14,694	165	93	CO	DM79
KS0AA	6	10,206	133	81	KS	EM28
KC0ZEP	6	9,179	142	67	NE	EN11
WJ0W	6	5,586	99	57	ND	EN08
WOSEI	6	5,220	93	60	MN	EN35
K7BG	6	2,332	53	44	SD	DN94
KF0AJJ	6	1,624	58	29	IA	EN31
N0AX	6	1,612	52	31	MO	EM48
NY0A	6	1,504	47	32	MN	EN24
K0JP	6	1,479	51	29	MN	EN18
WO0HU	6	1,426	47	31	MN	EN33
K0OP	6	1,372	49	28	MN	EN16
KC0VDY	6	1,020	35	30	CO	DM59
K0RJW	6	936	36	26	MN	EN35
AA0CW	6	812	36	29	CO	DM58
WDOT	6	779	41	19	SD	DN94
K0SPN	6	480	29	20	KS	EM29
NX0I	6	154	16	11	MO	EM29
K0JV	6	96	12	8	SD	DN84
KY0O	6	6	3	2	MO	EM29
WE7L	2	418	19	11	CO	DM79
N0UR	Q	23,901	253	93	MN	EN33
N0SUV	Q	1,575	46	35	MN	EN34
AB0YM	Q	135	16	9	CO	DM79
N0JK	H	6	3	2	KS	EM28
Rover						
KG9OV	R	22,420	154	118	IL	8
AA5PR	R	14,935	137	103	NM	5
K9JK	R	14,608	126	88	IL	6
AESF	R	14,472	179	54	LA	6
N6RH	R	13,462	171	53	TX	6
K15FI	R	12,189	161	51	TX	6
K15RAT	R	11,985	158	51	TX	6
N6P	R	5,820	85	60	CA	4
NV4B	R	5,162	71	58	MS	6
K0BAK	R	4,888	77	52	PA	4
K3GMC	R	4,644	79	54	NM	5
WB6AGE	R	3,655	85	43	WA	3
KX6A	R	3,600	90	30	CA	2
WOZF	R	3,528	71	49	SD	4
KG6BXW	R	2,135	53	35	CA	4
K0BBC	R	1,961	55	37	SD	3
K04JH	R	1,680	47	28	VA	3
W3DHJ	R	1,210	35	22	CO	4
KE7MSU	R	1,170	50	18	OR	2
N6UTC	R	576	23	18	CA	3
N6JSC	R	170	12	10	CA	2
KD6EFO	R	140	13	7	CA	2
CANADA						
VA2BN	A	37,536	277	138	QC	FN36
VE3WY	A	33,728	220	136	ON	FN04
VA6AN	A	23,328	201	108	AB	DO42
VE2EBK	A	12,240	147	85	QC	FN46
VE3RX	A	12,144	134	88	ON	EN96
VE6BMX	A	9,594	112	82	AB	DO33
VE3SMA	A	9,180	117	68	ON	FN03
VE3RZ	A	8,073	118	69	ON	EN93
VA3TIC	A	5,208	85	62	ON	FN14
VE7DAY	A	3,760	78	47	BC	CO70
VE3NRT	A	2,296	52	41	ON	FN03
VE7AFZ	A	2,156	68	22	BC	CN89
VA6WWW	A	2,100	48	42	AB	DO20
VE3EJ	A	1,734	52	34	ON	FN03
VE3PJ	A	1,591	44	37	ON	FN14
VE6MB	A	1,443	38	37	AB	DO20
VA6MA	A	740	29	20	AB	DO33
VE3SSR	A	682	32	22	ON	FN03
VE7DZ	A	600	29	20	BC	CN79
VATQI	A	570	25	19	BC	CO70
VA2KD	A	500	25	20	QC	FN37
VA2DG	A	460	22	20	QC	FN35
VE3KP	A	418	22	19	ON	FN04
VATDXC	A	407	28	11	BC	CN89
VE3KTB	A	238	17	14	ON	EN93
VE7HR	A	85	10	5	BC	CN89
VE3RVZ	A	70	8	7	ON	FN04
VA3PC	6	12,480	121	104	ON	FN06
VE6WQ	6	8,778	117	77	AB	DO33
VE3MDX	6	5,580	94	60	ON	FN03
VE3KI	6	4,234	74	58	ON	FN25
VA3WB	6	2,520	63	40	ON	FN03
VA2LQ	6	2,310	56	42	QC	FN15
VE3DZ	6	2,064	48	43	ON	FN03
VE3VHB	6	1,505	45	35	ON	FN24
VE3CWU	6	1,056	46	24	ON	FN03
VO1KVT	6	760	40	19	NL	GN29

VA7ST	6	520	26	20	BC	DO00
VE3QC	6	378	21	18	ON	FN25
VA7DX	6	300	25	12	BC	CN89
VE3BFU	6	240	16	15	ON	FN03
VA3WEB	6	225	17	15	ON	FN03
VE2HIT	6	63	9	7	QC	FN35
VE7BC	6	44	11	4	BC	CN89
VA3ZNV	6	20	5	5	ON	FN03
VE9RLW	6	16	4	4	MAR	FN57
VE2HAY	6	12	4	3	QC	FN35
VE9LEG	6	4	2	2	MAR	FN76
VA7USD	Q	100	11	5	BC	CN88
VE2NCG	H	3,744	70	52	QC	FN45
VE7KPM	H	100	10	5	BC	CN88
VE4YH	M	16,560	208	80	MB	EN19
Ops: VE4YH VE4EA						
VE3OIL	R	5,368	84	61	ON	2
VE2GT	R	378	21	18	QC	2
VA7OTC	R	315	21	9	BC	2
VE3RKS	R	36	7	6	ON	1
CUBA						
CM2RSV	6	1,911	53	39		EL83
DOMINICAN REPUBLIC						
H8DL	A	368	19	16		FK58
MEXICO						
XE2X	6	7,254	120	62		EL06
XE3N	6	2,990	65	46		EL60
XE2JS	6	2,752	69	43		DL68
XE2W	6	1,120	40	28		DL95
XE2NK	6	800	34	25		DL95
XE2YWH	6	375	25	15		DK89
4A5E	6	180	18	10		DL90
Op: XE1EE						
XE1AY	6	140	16	10		DK79
XE3WM	6	132	12	11		EL51
XE2JT	6	70	12	7		DL64
XE2YWB	Q	4	2	2		DL82
PUERTO RICO						
WP3EF	A	616	26	22		FK78
KP4RV	6	462	22	21		FK78
AFRICA						
CANARY ISLANDS						
E8BCTK	A	238	14	14		IL18
E8BAC	A	54	7	6		IL28
E8AAQV	6	506	24	22		IL28
E8B8PX	2	176	11	8		IL18
ASIA						
ASIATIC RUSSIA						
RV9OW	M	40	5	4		NO15
UB8O	2	598	23	13		MO84
Ops: R8OAK R8OEN R8YDJ						
ASIATIC TURKEY						
TA1CM	6	196	14	14		KN30
TA4CS	6	1	1	1		KM37
TA3MTM	2	8	2	2		KM38
TC3A	M	30,250	251	121		KM38
Ops: TA3E TA3LHH						
TC3EC	M	19,260	215	90		KM38
Ops: TA3NEB TA3AWB TA3SYM						
CHINA						
BH1EIH	A	580	29	20		ON80
BD6JN	A	380	21	19		OM64
BG1TPT	A	36	6	6		OM89
BA4SCP	A	30	6	5		PM01
BG0AVI	A	9	3	3		NN33
BA5CW	6	11,960	234	52		PM00
BY6ANG	6	10,209	253	41		OM80
Op: BG6CJR						
BH8CKU	6	2,613	67	39		OM20
BH1LID	6	630	31	21		OM89
BG1HGS	6	544	32	17		OM89
BH6KWC	6	468	26	18		OM64
BG5BAA	6	288	20	16		OL99
BG6SNJ	6	273	21	13		OM50
BG4FOD	6	231	21	11		PM01
BH4BFS	6	198	18	11		PM01
BG6GQE	6	150	15	10		OM82
B7BHUMN	6	120	12	10		OL65
BH7ACO	6	108	12	9		OL68
BG9HKP	6	100	12	9		OM16
BD1RCR	6	36	6	6		OM89
BH4BUI	6	25	5	5		PM01
BG2KZP	6	2	2	2		PN42
B17MPS	6	1	1	1		OL72
BD4SYH	Q	532	28	19		OM82
BH3BBJ	Q	28	7	4		OM89
BA7LAC	Q	12	4	3		OL63
BG6LH	Q	4	2	2		OM89
BG2KAJ	R	4,400	100	44		2
HONG KONG						
VR2XYL	6	224	17	16		OL72
INDIA						
VU2GRM	A	128	21	4		MK82
VU2GHO	A	120	17	5		MK83
VU2BGS	A	90	13	5		MK82
VU2MGS	A	27	7	3		MK83
VU3UZD	A	18	9	2		MK82
VU2IBI	Q	8	4	2		MK82
JAPAN						
JH1VX	A	3,630	118	22		PM85
JO4CFV	A	399	21	19		PM64
JR3UIC	A	280	20	14		PM74

JK3HFN	A	180	14	12		
JG3DHN	A	28	6	4		
JH0MUC/O	A	8	2	2		
7L4IU	6	2,108	68	31		
JH9DRL	6	1,870	57	34		
JL3MCM	6	1,326	41	34		
JE1BMJ	6	1,089	33	33		
JO7KMB	6	858	34	26		
JABRUZ	6	663	39	17		
JR4CZM	6	494	26	19		
JE2BOM	6	330	23	15		
JA1IE	6	187	17	11		
JK2TTP	6	132	12	11		
JA7KPI	6	100	10	10		
7K4VPV	6	99	11	9		
JA1SCE	6	90	10	9		
JF2FJU	6	88	12	8		
JR0QFA	6	72	9	8		
J11KC	6	70	10	7		
JA3RAZ	6	49	8	7		
JP1LRT	6	42	7	6		
JK8PB	6	30	6	5		
JS8UGO	6	25	5	5		
JJ1IDW	6	16	4	4		
JA1CRJ	6	9	3	3		
JR3KEX	6	6	3	3		
JA6WFM	6	4	2	2		
JG2KGS	6	4	2	2		
JJ1ONK	6	4	2	2		
JR6HJO/1	6	4	2	2		
JA3GQJ	6</					

IT9CKA	6	4,524	79	58	JM68
I25HQB	6	2,784	62	48	JN53
IU5ICR	6	1,512	43	36	JN53
I4LCK	6	1,320	46	30	JN54
I25XRC	6	992	34	31	JN53
I4IKW	6	928	32	29	JN54
IW9CTJ	6	928	33	29	JM77
I4JEE	6	575	26	23	JN54
IK3SSG	6	456	24	19	JN55
IU5MOC	6	440	22	20	JN53
IT9BNX	6	425	25	17	JM68
IK1JMM	6	256	17	16	JN45
IT9MBZ/					
IT9	6	130	15	10	JM68
IK1NEG	6	49	7	7	JN43
I25YBK	6	49	7	7	JN53
I22CSX	6	1	1	1	JN45
I27UMS	2	2,750	55	25	JN81
I2YFU	2	108	9	6	JM88
IU4CS	2	32	4	4	JN54
I22OOS	Q	1,184	38	32	JN45
I23NVR	H	3,060	62	51	JN65
LATVIA					
YL1ZF	6	17,640	181	98	KO27
YL2SQ	6	3,243	73	47	KO27
YL2QG	6	2,262	59	39	KO06
YL2AO	6	1,804	45	41	KO16
YL2GN	6	1,634	44	38	KO37
YL2LW	6	1,480	42	37	KO26
YL3CU	6	1,280	40	32	KO06
YL2CP	6	775	33	25	KO27
YL2TD	6	357	22	17	KO26
YL2EA	6	252	19	14	KO26
YL2PJ	6	42	7	6	KO36
YL2II	2	360	15	12	KO26
YL3FW	Q	12	4	3	KO06
LITHUANIA					
LY3BR	A	672	27	24	KO14
LY1R	6	1,458	56	27	KO14
LY2BU	6	616	28	22	KO25
LY2SA	6	440	22	20	KO14
LY5I	6	143	13	11	KO35
LY2BBF	2	448	18	14	KO24
LY2NAS	Q	884	35	26	KO25
LY5W	M	16,600	168	100	KO15
NETHERLANDS					
PA5WT	6	5,304	78	68	JO22
PA5KT	6	2,112	50	44	JO11
PE1EWR	6	484	22	22	JO11
PC3T	6	42	7	6	JO21
PA6FEI	Q	72	9	8	JO33
NORTH MACEDONIA					
Z36W	6	3,124	72	44	KN11
Z33B	6	800	33	25	KN01
NORWAY					
LA5LJA	6	484	23	22	JP50
POLAND					
SO4ATA	A	660	31	20	KO13
SP8NS	A	204	13	12	KO11
SP6JOE	6	3,630	66	55	JO80
SP8ALT	6	2,700	75	36	KO11
SP5GNI	6	1,710	46	38	KO02
SP5UFP	6	1,271	41	31	KO02
SP6DHH	6	672	31	24	JO80
HF5WIM	6	527	31	17	KO02
SQ1IFY	6	494	27	19	JO74
SP4BEU	6	418	22	19	KO03
SQ6ELV	6	360	20	18	JO80
SP7AWG	6	304	20	16	JO91
SQ8R	6	289	18	17	JO71
SP9JBE	6	90	11	9	KN09
SP1FRD	6	56	8	8	JO73
SP7MUL	6	16	4	4	KO02
SP9RVF	2	342	19	9	JO80
SP9SDF	Q	418	23	19	JN99
SP2MGR	Q	1	1	1	JO94
SP9KJM	M	2,790	62	45	JO90
Ops: SQ9MLZ SP9TDA SP2NNO SQ9NIU SP9DLM SQ9RZ					
PORTUGAL					
CT7AKG	A	54	6	6	IN60
CT1BRM	6	12	4	3	IM58
CT7AUP	6	1	1	1	IM58
CT1END	Q	1,221	37	33	IM58
ROMANIA					
YO2GL	A	4,524	76	58	KN05
YO5PUP/P	6	11,352	134	86	KN16
YO7LXB	6	7,820	145	55	KN15
YO2NAA	6	6,894	97	72	KN05
YO6A	6	2,560	64	40	KN25
Ops: YO6BHN					
YO6PVZ	6	1,479	51	29	KN17
YO5DAS	6	910	36	26	KN17
YO2LEL	6	868	33	28	KN05
YO7LDT	6	667	29	23	KN14
YO4FZX	6	598	26	23	KN45
YO8BXE	6	342	19	18	KN24
YO6BHN	6	323	19	17	KN25
YO8TGE	6	224	16	14	KN36
YO8DOH	6	154	14	11	KN37
YO5CTS	6	150	15	10	KN17
YO8BGE	6	80	10	10	KN36
YR8D	2	3,456	48	36	KN27
Ops: YO8SSB					
YO6CWY/P2	216	14	9	9	KN35
YO3JW	2	96	8	6	KN35
YO9CLG	2	60	7	5	KN35

YO9BCM	Q	896	31	28	KN35
YO3GNF/P	Q	2	1	1	KN25
SARDINIA					
IS0BSR	6	70,110	371	190	JN40
IS0/ON4EI	6	27,233	247	113	JN41
SCOTLAND					
MM0GOR	6	684	38	18	IO85
SERBIA					
YU1RA	A	1,519	49	31	KN04
YU0T	6	15,040	164	94	JN93
YT2TNT	6	884	34	26	KN04
YU1MS	6	63	10	9	KN04
YU1NR	Q	216	19	12	KN03
SLOVAK REPUBLIC					
OM6TX	2	3,686	97	19	JN99
OM3KHT	M	140	10	7	JN98
Ops: OM7ANT OM6AT					
SLOVENIA					
S50DK	A	121	11	11	JN76
S52CC	6	48	8	8	JN76
S56P	2	22,040	191	58	JN76
SPAIN					
EA3AYQ	6	3,692	72	52	JN11
EA3RCI	M	480	25	20	JN02
Ops: EA3ATO EA3DUR EA3IME					
SWEDEN					
SE6K	6	3,072	66	48	JO66
Ops: SM6FZO					
SM6OEF	6	306	18	18	JO68
SM1TDE	6	9	3	3	JO97
UKRAINE					
UW8SM	A	53,130	311	161	KN28
UT5ECZ	A	19,153	174	107	KN68
UT2QQ	A	3,900	63	39	KN77
UT7UA/P	A	2,501	62	41	KO20
UY5QZ	A	2,379	52	39	KN77
UT6CW	A	1,464	61	24	KN58
UR4QV	A	1,071	31	21	KN77
UX3IW	A	868	30	28	KN68
UT2EC	A	520	25	13	KN67
UR4IPW	A	108	9	9	KN97
UR6EOW	A	66	11	6	KN78
UT5X	6	62,658	355	177	KO40
Ops: UT2XQ					
UT4XU	6	26,112	213	128	KO40
US0KW	6	10,184	194	76	KO30
UT5ERP	6	4,800	78	64	KN77
UT3UA	6	3,795	71	55	KO50
UR1HR	6	3,332	70	49	KO60
UY5ZZ	6	3,100	63	50	KO50
UT5EL	6	3,087	63	49	KO31
UR7EU	6	2,236	53	43	KN78
UT2UB	6	1,715	52	35	KO50
UT1KY/P	6	247	19	13	KO20
UT5EA	6	117	13	9	KN78
US6CQ	6	110	11	10	KN69
UR4QFP	6	99	11	9	KN77
UX8IX	6	20	5	4	KN87
UX7LL	6	16	4	4	KO80
UR7LY	6	15	5	5	KO80
UX3IT	6	1	1	1	KN88
EM8A	2	9,506	98	49	KO60
Ops: US8AR					
UR7IMM	2	4,960	62	40	KN88
UY8IF	2	4,320	73	30	KN88
UX0QQ	2	3,276	80	21	KN87
UR6QS	2	3,172	61	26	KN77
UT8LE	2	3,000	50	30	KN79
US4ICG	2	1,980	46	22	KN87
US5QGL	2	960	30	16	KN86
UY5YA	2	840	29	15	KN77
UT9UR	2	510	17	15	KO40
UR7QDO	2	324	18	9	KN77
UR6ETN	2	144	12	6	KN78
UW5EYI	2	136	17	4	KN77
UY3QF	2	80	10	4	KN77
UR7QDU	2	56	7	4	KN77
UR6ZHP	2	40	5	4	KN66
US5EY	2	16	4	2	KN67
UZ7W	Q	13,360	168	80	KN18
Ops: UT4WA					
UT6EY	Q	1,750	35	25	KN77
UW5EGT	Q	396	22	9	KN67
US0GB	Q	210	16	7	KN67
UT3IB	Q	168	15	14	KN98
UX2QL	Q	48	6	4	KN87
UR3QTN	Q	36	6	3	KN77
UT0NB	Q	20	5	4	KN48
UW5EMJ	Q	6	3	1	KN67
UR4RZA	H	2,052	56	36	KO51
Ops: UY2RY					
UY2RA	H	1,518	44	33	KO51
UT1IC	H	615	28	15	KN87
UR3ALL	H	8	2	2	KO71
UZ2I	M	24,570	171	105	KN88
Ops: UT2II UT2IV US2IR US1ITU UY2IF UX6IZ					
EM50QWMM	16,430	165	106	KN77	UT2IJ
Ops: UR9QQ UR5QW					
UR4EWA	M	12,358	137	74	KN67
Ops: UR20EK US5EGP UW5ELR					
UT1IZZ	M	976	62	8	KN97
Ops: UR5ICK US9IHF US8IRW					
UZ3U/P	M	910	35	26	KO51
Ops: UT7UT UT3UEU UX0LL					
UT7E	M	247	19	13	KN78
Ops: UT9EZ UT4EO					

UW3E	M	210	15	10	KN78
Ops: UR7EL UR3E2					
UR3ABM	R	242	11	11	Z
WALES					
GW4OKT	6	952	36	28	IO83
OCEANIA					
INDONESIA					
YB2HAF	A	120	13	6	IO52
YC2VOC	A	90	10	5	IO52
YB3OIR	A	84	21	2	IO52
YC3RUL	A	80	20	2	IO62
YB3EF	A	72	12	3	IO62
YC3GRK	A	72	18	2	IO62
YB3FYQ	A	60	16	2	IO62
YB2TS	A	50	8	5	IO52
YC2KJC	A	45	8	3	IO42
YB2NDX	A	32	6	4	IO52
YD2HBS	A	18	3	3	IO52
YG2ACB	A	18	3	3	IO52
YD2CHR	A	8	4	1	IO42
YB2DX	A	6	2	2	IO52
YD7AAB	A	2	1	1	IO41
YB2ERL	A	1	1	1	IO53
YB2MDU	6	80	10	8	IO53
YB2MM	6	6	3	2	IO43
YC2STS	6	4	2	2	IO43
YC2KDU	6	2	2	1	IO42
YB3RYX	2	192	24	4	IO62
YC3FTY	2	176	22	4	IO62
YD3AXD	2	168	21	4	IO51
YF3ERE	2	136	18	4	IO62
YD3AWR	2	132	22	3	IO62
YD3GEV	2	114	19	3	IO62
YC3GFN	2	108	27	2	IO52
YD3AFX	2	108	18	3	IO62
YG3DGK	2	102	17	3	IO62
YD3VRY	2	80	20	2	IO62
YD3AVN	2	76	19	2	IO52
YD3NHV	2	72	19	2	IO62
YE3AA	2	72	12	3	IO62
YF3WIL	2	72	12	3	IO62
YB3BAR	2	60	15	2	IO62
YD3HJC	2	60	15	2	IO62
YG3FIZ	2	60	15	2	IO62
YF3FN	2	60	16	2	IO62
YC3WKI	2	56	15	2	IO62
YD3RAN	2	52	13	2	IO62
YB3VK	2	40	10	2	IO62
YC3CRZ	2	40	11	2	IO62
YC3GER	2	40	10	2	IO62
YD3BHC	2	36	9	2	IO62
YB3PIN	2	34	20	1	IO72
YB3EZN	2	28	7	2	IO5