



# S A C 2 0 1 3

## *The Polar Battle*

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### Results & Stories

**The Scandinavian Activity Contest 2013**

CW: 21-22 September

SSB: 12-13 October

# SAC 2013

# Results & Stories

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# **WE ARE PROUD OF YOU**

Once again we can close the books of a successful Scandinavian Activity Contest on CW and SSB.

This year we decided to have a result booklet published. It has been a while since the last one; probably so far back in time that only the oldtimers remember it. This booklet will be distributed only via a PDF on our website <http://www.sactest.net>. Today the modern ham operator is fully Internet enabled and we hope that this booklet will end up in many computers, tablets and smartphones.

We are proud of the 2013 results - a new record in submitted logs was broken. And it is all thanks to all the participants. Ham radio contesting is a very special type of sport where the fun increases with the number of participants.

This is what the Scandinavian Activity Contest is, it is about ACTIVITY.

While activating our ham radio bands we show ourselves what we can achieve in world-wide communications. We also show the world that ham radio operators are capable of building highly efficient and very capable radio stations, together with great knowledge of shortwave ionospheric propagation.

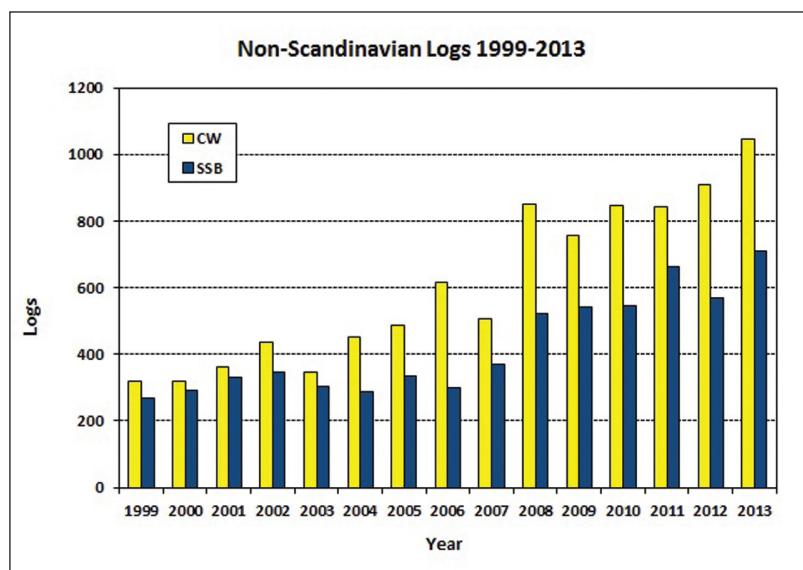
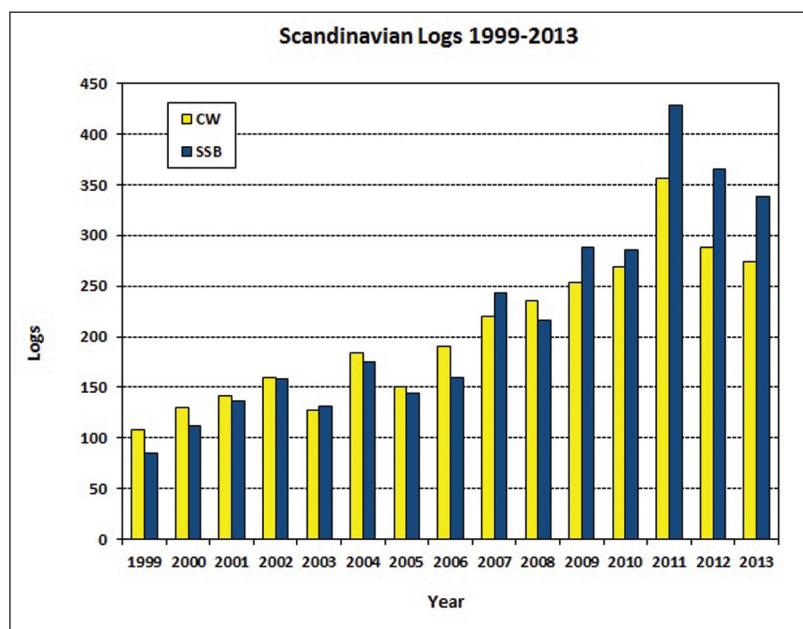
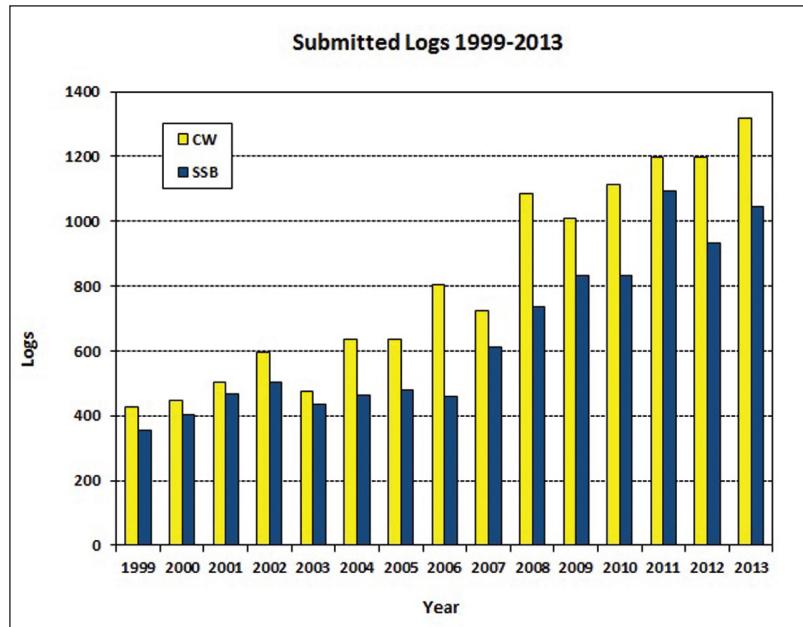
This booklet contains all results for all continents.

If you need to see how you did among your countrymen, just go to [sactest.net](http://sactest.net) and make your favourite result listing by making a specific search in the result database.

While at it, don't forget to check your UBN file, and also download your own SAC 2013 Award, just click on the ranking figure on the left in the listings.

Finally we would sincerely thank all the "SAC Story" contributors: DJ6FC, G3TXF, LA3S, OH1F, OH2BH, OH2MM, PA6SAC and VK8AV.

SM5AJV / SE5E Ingemar  
SAC Contest Committee Team Leader



## TRYING TO DIG DEEPER INTO THE HERITAGE OF SAC

As the SAC 2013 results were published in a remarkably easy-to-read format, I decided to look back - as far as the SAC website would allow, some ten years at the minimum - and study the recent history of the Scandinavian Activity Contest. Are there any major findings, or can we even develop a specific science from the statistical data? By examining the ten-year window, can a future individual competitor possibly improve his strategy? Or, can an entire Nordic country as a whole formulate a readjusted strategy for the next ten years?

When you look at the ten-year window and the Single-Operator All-Band (SSB) listing for the same period, you will notice an interesting top-three pattern; an OH operator has won each SAC, and even for silver, only once has an SM (SM2WMV) stood on the podium. Bronze is not much different; only three times has an SM placed among the top three and one of them is Teemu, SM0W, operating from Market Reef (OJ0B) -- which is half Finland -- Market Reef that is! OZ and LA - none.

So, are the SAC scores in a somewhat broader context any different? A survey of top ten placings over the past 10-plus years covers 100 scoring slots. Sixty of those go to OH, thirty to SM, seven to OZ and three to LA.

It seems obvious from an analysis of the top three or the wider top ten listings that SM/LA/OZ see their strategy differently.

## WHY DOES OH STAND TALLER THAN THE OTHER THREE?

The question that inevitably comes to mind is, why does Finland stand out as a perennial winner in the long history of the Scandinavian Activity Contest? It is definitely not because of a larger ham population. It is not because Finns today are better off financially. Many hours have been spent around the Midsummer bonfires in Finland pondering this mystery, in an effort to establish the causes and the simple truth of the matter. There was an initial analysis of the first three decades from 1959 through the 1980s and then of the more recent times extending from 1980 to the present century. Let's look at the potential reasoning.

During the first few decades, still in the aftermath of a bloody war, Finns had to struggle and things were marginal, but working together to survive it was all possible.

People supported each other and they had to do things together. The learning process, the practice of acquiring new skills passed from one generation to another, was at its best. During that time period, OH and SM were different as night and day.

Some fortunate Finns were able to travel to the affluent neighboring country and help those SMs basking in the sun under the blue sky on the peaceful shores of Lake Vättern. We concluded then that it was those suffering Finns who used SM for bench-



marking and wanted to try harder, and decided that one day they would beat the neighboring Swedes. They wanted to - we all need to have dreams!

So, when it comes to many important things in life - SAC included - Finns sort of benefited from the wartime spirit. It gave the Finns a platform to rise up from and to try to push life back into a normal format while it may well be that the Swedes took it all for granted. Life's Good - LG.

We do not promote an actual war experience here but, for self-improvement, war-related computer games may help if SM wants to use that early strategy. Swedes may then become the hungry Angry Birds of modern times. As Finns have now lost their lead industries, i.e., pulp & paper and cellphones, it may well be that the hard times come back again even before the original fighting spirit fades away. Gladly, the Santa Claus industry - SCL - still keeps OHs afloat.

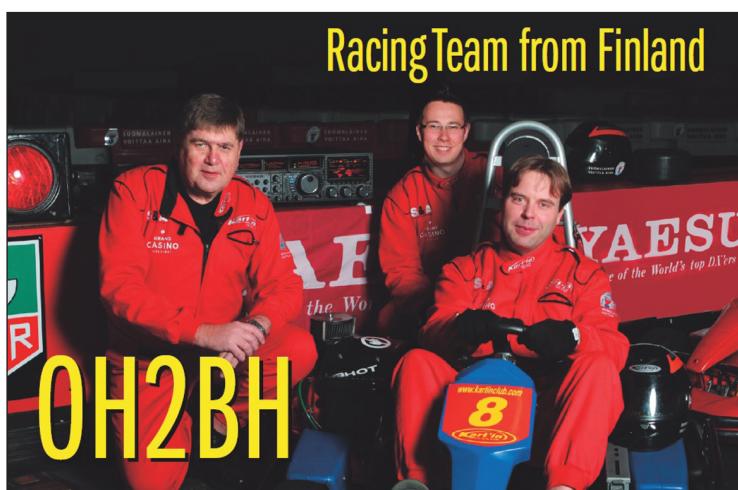
In the case of OZ and LA, the matter looks more complex. Both of them being NATO countries, they may have to borrow firepower from their allies and attack with larger caliber guns than wielded by poor SM and OH. Besides, where the Swedes rely on a professional army, Finns still go on with conscription, enrolling men and mammals for military service.

But the more recent years have proven that those were the olden days and that the SAC spirit has changed dramatically in shape, color, and smell. Smell, indeed?

### **SAC TODAY: FORMULA 1 RACING WITH TECHNOLOGY AND AN URGE TO WIN**

My assumption is that Formula One racing (F1) is known throughout Scandinavia, although TV viewer numbers in OH are bigger than in all the Nordic neighbors combined. There are many similarities between our radio racing and F1. Not only in the sense that if we just push the F1 key, our performance may not get any better.

Eyeing the F1 results for the past ten years, I discovered that OHs were the only ones to stand on the podium from Scandinavia. Formula One embodies many of the same elements as competitive amateur radio.



Teamwork is a key factor even if it is only the driver who ascends to the podium; there is a whole team behind him. With technology dominating F1, the race cars have the same number of controls as an FTdx5000. While downforce is an important issue in F1, upforce is a matter in radio racing. Even turbochargers are common to both.

Pushing the speed higher and maintaining exact accuracy in

driving lines (UBN) will get you to the podium. If we look at the SAC results, the top three slots are all related to powerful teams propelling the drivers just to drive faster and concentrate on their driving strategy. Just as each F1 team has two drivers with similar cars, it is actually proven, year after year, that a driver's urge to win and his skill set actually determine the winner - assuming that his station (car) is reliable and even the most detailed technicalities are well-thought-out and tested.

Finnish F1 drivers rarely have a Ph.D. in driving, but their scoring prowess comes from the heart of the masses and the deep forest, in the heat of an old sauna about to fall down with its aged construction. Yes, Finns do come with a tradition of perseverance and "sisu" nurtured by experience from the country's green woods and vast wastelands.

I recall a true fight between SM2EKM and OH7UE high up on 80m in one SAC with no common language between the two, OH7UE still winning the frequency - not with high tech but with "sisu." Actually, it is the smell of kerosene that drives the urge to put the pedal down and negotiate the corners.

If we examine Sweden's Formula racing history, it is worth keeping in mind that there was once a rising star by the name of Ronnie Peterson (1944-1978). He was one of the world's best of his time, dominated F3 with several world wins, but lost his life in an accident at the age of 34 after some 120 starts leading to ten victories. Even today, 35



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years after his death, he is still the best Swedish driver ever. SMs soon need another Ronnie as an idol in this, today's superfast sport. Ronnie was a Tyrrell team driver and when Nokia sponsored Tyrrell and Mika Salo, a Formula One driver of more recent vintage, I had the pleasure of meeting the old Tyrrell brothers and discuss Ronnie. They kept telling me that Ronnie was on his way to becoming a star to inspire the whole of Sweden to love the F1 sport. Ronnie had kerosene in his blood.

Then there is a young Swede by the name of Tom Blomqvist (age 20) who is advancing rapidly in F3 racing circles and may soon show his native Sweden how one can do marvels through a dedicated effort. His father Stig Blomqvist was a world champion in the golden years of Swedish rally racing, so Tom has smelled kerosene since his early childhood.

When I was living in Hong Kong with Nokia (VR2BH), we sponsored a young Danish driver, Jan Magnussen, who won two F3 races in Macau. He faced the prospect of a great future when moved over to F1 where he scored marginally but yet making the highest performance level. Jan is now 40 years of age. Perhaps he will be a valuable asset to EDR for coaching Danish SAC drivers?

Reviewing Norway is easy. No high-speed racing cars, but rather the best-performing skiers and the highest mountains. The competitive spirit is definitely there but it's not focused on radiosport. Is Norway just opulent and happy SAC-wise, or should they put some more money into radiosport? Norskies are a fun and competitive-minded people, but their focus is elsewhere.

The main issue with both Formula One and radiosport is that a country needs role models. Signed pictures of sports heroes displayed on the wall, coupled with the smell of kerosene, can work miracles with young people.

## STRATEGY SUMMARY

Ultimately, in contesting you need to have a personal strategy as well as a national strategy. Those who do not have one will need to think what their strategy elements are, and they must select those that will work best. A winning strategy will in the end produce the target scores and the rest is just business as usual. Each top-scoring OH station has outlined detailed targets even for 30-minute intervals. In the guest opera-



ting arena, OZ7YY/OZ1ADL have offered their stations for guest contesting - Finland has seen much of it at all times. In this area, Sweden and Norway may have some valuable racing options to consider. Has anyone ever talked to SM7EHU about the possibility of guest operating his powerful station in the best location in all of SM? Or, is SM0W speaking at the annual gatherings of SSA about what it takes to reach the top three in SAC? Maybe he should.

When we think about and look at the results over the past ten years, it seems obvious that things are not the way they should be in the Nordic countries when it comes to SAC participation and/or aiming for the pole position. Whether it is a question of World War II or Formula One, we will always have the benefit of history that explains part of today's reality. That history is indeed needed. Gladly, with increasing defense cooperation between SM and OH, we can learn from one another how to make sure that unguided missiles will not fly in our peaceful SAC airspace, but will instead arouse the dormant three crowns and lions. There is an urgent need to study the heritage of the SAC competitors.

It should be noted that OHs are actually not core-Scandinavian. Speaking strictly geographically, OHs are from what cartographers call Fennoscandina. Can that be a source of them being different animals, as even their rocky language bears some similarities to the East and sounds like Scandihuligan?

SAC is a Nordic treasure trove and it needs to be looked after with care and determination. And so SAC 2013 goes down in history with the enclosed results and comments.

OHs were again a different lot, to say the least. Until the next SAC!



# SAC CW 2013

## AFRICA

### Single Operator All Band High Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	EA8ZS	176	290	86	24.940	

### Single Operator All Band Low Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	EA8AVK	206	206	72	14.832	
2	SU9AF	44	66	32	2.112	SPARKY

## ASIA

### Single Operator All Band High Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	R9DX	484	906	128	115.968	
2	UA9AU	291	551	105	57.855	
3	UA8WAA	240	484	106	51.304	
4	JE4CIL	226	302	79	23.858	
5	4L8A	216	266	81	21.546	
6	UN6P	170	264	78	20.592	
7	JA9APS	207	267	75	20.025	
8	UA0OD	150	238	76	18.088	UA0OD
9	JJ3JJL	163	213	69	14.697	
10	ROAA	128	176	62	10.912	ROAA
11	HS0AC	157	165	60	9.900	HS0/OZ1HET
12	RW0AB	142	162	59	9.558	RW0AB
13	JA8DIV	83	115	49	5.635	
14	JA7BME	72	112	46	5.152	JA7BME
15	JR2PMT	89	97	50	4.850	
16	JA7IC	100	100	47	4.700	JA7IC
17	4X0A	81	81	44	3.564	4X1VF
18	JA3DAY	83	83	41	3.403	JA3DAY
19	TA3X	56	70	40	2.800	
20	JF2IWL	44	44	29	1.276	JF2IWL
21	JG3LGD	28	28	18	504	
22	JA1BIV	16	16	12	192	
23	RK9QWM	11	11	9	99	
24	HL5YI	7	19	5	95	HL5YI
25	7L4VYK	7	7	4	28	
26	JK1LUY	4	4	4	16	JK1LUY

### Single Operator All Band High Power Assisted

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	RG9A	689	1.321	160	211.360	RG9A
2	RF9C	612	1.136	158	179.488	UA9CIR
3	RM8W	492	936	134	125.424	RM8W
4	RJ9J	494	924	132	121.968	RJ9J
5	UN9GD	385	567	132	74.844	
6	R9RT	345	581	125	72.625	
7	RA9AP	332	518	114	59.052	RA9AP
8	UA9BA	257	417	106	44.202	UA9BA
9	JA6BZI	210	272	85	23.120	JA6BZI
10	RK9UE	203	203	65	13.195	RK9UE
11	JO7KMB	108	140	58	8.120	
12	4Z5TK	106	116	63	7.308	4Z5TK
13	RA0AQQ	100	126	52	6.552	RA0AQQ
14	JA2XYO	112	112	55	6.160	JA2XYO
15	JJ1NYH	85	99	47	4.653	JJ1NYH
16	RA0AM	45	77	36	2.772	RA0AM
17	E21YDP	64	64	29	1.856	E21YDP
18	JA2AXB	48	48	26	1.248	JA2AXB
19	JA1SKE	29	41	20	820	JA1SKE
20	RA9UN	16	16	13	208	RA9UN
21	JG1LFR	7	11	7	77	

### Single Operator All Band Low Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	UA9KAA	434	836	119	99.484	
2	UA9W	363	727	127	92.329	UA9W

3	C4Z	408	572	136	77.792	5B4AIZ
4	RA9AN	308	624	116	72.384	
5	UN5C	359	581	124	72.044	
6	UK8AR	294	454	110	49.940	
7	4K9W	300	444	109	48.396	
8	4K6FO	237	395	107	42.265	4K6FO
9	RW0AJ	291	421	99	41.679	RW0AJ
10	UN7CN	223	361	106	38.266	
11	RA9MX	214	390	93	36.270	
12	RU9WZ	228	334	84	28.056	
13	RN9RF	220	262	80	20.960	
14	UN7FW	153	223	74	16.502	
15	JA6BWH	154	206	73	15.038	
16	UN7QCC	142	200	70	14.000	
17	9K2/SP4R	166	166	72	11.952	SP4R
18	RA9SKL	99	163	70	11.410	RA9SKL
19	BA4MY	172	172	62	10.664	BA4MY
20	4L6QC	129	153	66	10.098	
21	RA9YUI	109	155	58	8.990	
22	UA0DM	147	151	59	8.909	
23	R9UG	119	157	56	8.792	
24	UN6G	120	142	60	8.520	
25	7Z1SJ	114	120	71	8.520	7Z1SJ
26	RA0LL	102	140	55	7.700	RA0LL
27	UA9WOB	118	140	54	7.344	
28	UA9NP	102	136	54	7.301	
29	EK6LP	83	149	49	7.296	
30	RZ8U	152	152	48	7.296	
31	UA9SMU	83	249	29	7.221	UA9SMU
32	RV9YK	136	136	52	7.072	
33	JF1KML	108	124	47	5.828	
34	JH3CUL	103	103	51	5.253	
35	JA3IKG	112	116	44	5.104	
36	JE4MHL	77	113	44	4.972	JE4MHL
37	JA1CP	74	100	46	4.600	JA1CP
38	R9CAC	50	122	37	4.514	
39	JJ5HUD	88	96	45	4.320	JJ5HUD
40	R9QQ	86	92	46	4.232	
41	JA1MZM	91	91	42	3.822	JA1MZM
42	BA3AX	85	85	39	3.315	BA3AX
43	JA3JM	68	74	44	3.256	
44	UA9JNT	79	81	39	3.159	
45	JS1KKY	76	76	39	2.964	JS1KKY
46	HS0OAG	74	76	39	2.964	HS0OAG
47	UA0KBG	87	87	34	2.958	
48	7Z1HL	75	75	37	2.775	7Z1HL
49	JA6FFK	66	70	37	2.590	
50	RV0CG	59	59	42	2.478	
51	VU2MUD	54	62	39	2.418	VU2MUD
52	JS6SYR	53	85	27	2.295	
53	VU2HFR	59	59	36	2.124	VU2HFR
54	JA0BJY	56	56	36	2.016	KEIIHI MATSUTA
55	RK9AY	57	67	30	2.010	
56	JS3CGH	56	56	34	1.904	
57	JA2KKA	45	69	25	1.725	
58	JH1EIG	53	53	31	1.643	
59	UA9UKL	53	53	29	1.537	
60	EX8BN	43	47	30	1.410	EX8BN
61	JA6CM	47	47	29	1.363	
62	BD8SZ	44	44	30	1.320	BD8SZ
63	JA6MQY	27	81	16	1.296	JA6MQY
64	JA0VTK	38	42	30	1.260	JA0VTK
65	RX0SC	39	41	30	1.230	
66	JH9DRL/9	52	52	22	1.144	
67	JH5FTY	41	41	25	1.025	
68	JE3UHV	34	38	26	988	
69	JE2VYM	39	39	25	975	JE2VYM
70	JL3MCM	53	53	18	954	JL3MCM
71	JA2GHP	33	33	26	858	JA2GHP
72	JE2CPI	32	32	25	800	
73	JQ3EDK	38	38	20	760	

# Results CW

74	JE1RRK	33	33	20	660		17	UX3HA	313	313	116	36.308
75	HL5JCB	31	31	19	589	HL5JCB	18	I3FDZ	288	288	117	33.696
76	JH1OES	26	26	22	572		19	SP9GR	316	316	106	33.496
77	JG1SWV	26	26	21	546	JG1SWV	20	SN6A	314	314	105	32.970
78	JA8AJE	35	35	15	525		21	UR2VA	301	301	99	29.799
79	JH3BYX	29	29	16	464		22	DF1IAQ	276	276	105	28.980
80	XV9NPS	26	26	15	390	XV9NPS	23	R1TEU	289	289	95	27.455
81	UK7AL	21	21	16	336		24	IK2AOO	248	248	105	26.040
82	RW0LCN	21	21	15	315		25	DL5JQ	257	257	98	25.186
83	JO1WIZ	21	21	15	315		26	OK1TN	236	236	106	25.016
84	JK2VOC	17	19	15	285		27	R5DT	245	245	96	23.520
85	UA9MW	17	19	14	266	UA9MW	28	IZ3SQW	272	272	86	23.392
86	JJ1KZZ	18	18	13	234		29	ON1DX	258	258	90	23.220
87	JE1REU	16	16	12	192	HARUO ISHIBA	30	EW1IP	258	258	90	23.220
88	JI6BEN	14	14	13	182		31	HA8TP	249	249	93	23.157
89	JA7LLL	13	13	12	156		32	OM8LA	243	243	93	22.599
90	JA4AVO	8	24	6	144		33	LZ1GE	241	241	81	19.521
91	JF2WXS	13	13	10	130		34	UR5KJK	235	235	78	18.330
92	JA1OHP	12	12	10	120		35	OK2QA	218	218	78	17.004
93	JA1CCX	8	12	7	84		36	RA6AQ	186	186	90	16.740
94	UA0SBQ/P	7	7	6	42	UA0SBQ	37	PA5WT	200	200	77	15.400
95	JI1AQY	7	7	6	42		38	YO3FF	169	169	87	14.703
96	JI1BDQ	6	6	6	36		39	OK1KZ	180	180	81	14.580
97	HS4DDQ	7	7	5	35	HS4DDQ	40	R7AC	156	156	85	13.260
98	JL1QDO	5	7	5	35		41	G4KMH	169	169	78	13.182
99	JG1WKM	5	5	4	20		42	R3OM	181	181	72	13.032
100	JA7ARW	4	4	3	12		43	F5BBB	172	172	72	12.384
101	JE1HTV	3	3	3	9		44	R7AT	185	185	65	12.025
102	JL2OGZ/2	2	2	2	4		45	LZ1QN	178	178	62	11.036
103	JR7ASO	2	2	2	4		46	YT9M	152	152	68	10.336
104	JF2FIU	1	3	1	3		47	EW1EO	131	131	67	8.777
105	JA5INF/1	1	1	1	1		48	RN2FQ	130	130	66	8.580
106	JN1BBO	1	1	1	1		49	DK7AN	130	130	65	8.450
107	JG2QUM	1	1	1	1		50	EA7RM	103	103	77	7.931
							51	RV3TG	127	127	61	7.747
							52	G4RKO	138	138	49	6.762
							53	UA3QGT	104	104	63	6.552
						JH3WKE	54	DC9ZP	109	109	60	6.540
							55	YO6LB	159	159	36	5.724
							56	DL5JAN	118	118	47	5.546
							57	DK3AX	117	117	47	5.499
							58	DF4UM	94	94	55	5.170
						RK9DO	59	UT6EE	91	91	52	4.732
						JG1BGT	60	DL1LOD	97	97	46	4.462
							61	DL8UNF	77	77	43	3.311
							62	PA2ALF	103	103	31	3.193
							63	UR4LBL	97	97	31	3.007
							64	UA3DSN	62	62	38	2.356
							65	SP6IEQ	58	58	38	2.204
							66	ES4RX	55	55	39	2.145
							67	OM0WR	60	60	31	1.860
							68	RM7C	65	65	28	1.820
							69	YL2IP	53	53	33	1.749
							70	RA1QD	51	51	34	1.734
							71	SO4R	40	40	26	1.040
							72	YU1M	33	33	27	891
							73	9A281CRT	34	34	23	782
							74	UA4NCI	31	31	22	682
							75	S51DX	31	31	19	589
							76	S52WW	27	27	19	513
							77	IZ3GNG	23	23	22	506
							78	SP9RI	26	26	17	442
							79	R3BT	3	3	3	9
							80	HA5LQ	1	1	1	1
							81	HB9EDY	1	1	1	1

## Single Operator All Band QRP Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	JH3WKE	66	80	41	3.280	JH3WKE
2	RA0AY	59	69	33	2.277	
3	7K1CPT	30	30	24	720	
4	BA7QT	26	30	19	570	
5	RK9DO	23	23	17	391	RK9DO
6	JG1BGT	1	1	1	1	JG1BGT

## Multi Operator Single Transmitter

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	RC9J	393	667	119	79.373	R9JR RK9JR
2	8J1MTD	287	413	96	39.648	JA1MML, JG1VGX
3	VU2UR	35	41	23	943	VU2UR, VU2LX

## Checklogs

7M1MCY, JA2IFW, RX9WN

## EUROPE

## Single Operator All Band High Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	UA4PN	507	507	147	74.529	UA4PN
2	UW1M	495	495	142	70.290	
3	UT5UGR	499	499	136	67.864	UT5UGR
4	HA0LP	495	495	135	66.825	
5	R4WDX	472	472	136	64.192	
6	HA8VK	461	461	131	60.391	HA8VK
7	RV4AB	409	409	131	53.579	
8	UT2UB	425	425	125	53.125	
9	UA9FGJ	403	403	126	50.778	
10	G3SWC	390	390	122	47.580	G3SWC
11	LZ1DQ	378	378	114	43.092	LZ1DQ
12	LY2BKT	360	360	118	42.480	LY2BKT
13	UR7QC	346	346	119	41.174	UR7QC
14	UT1QQ	346	346	119	41.174	UT1QQ
15	RA3NC	349	349	114	39.786	
16	OK1NE	347	347	112	38.864	OK1NE

## Single Operator All Band High Power Assisted

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	DF6JC	658	658	168	110.544	
2	UC7A	602	602	152	91.504	UC7A
3	LY6A	564	564	160	90.240	LY6A
4	UR7GO	588	588	150	88.200	UR7GO
5	RA6CB	626	626	139	87.014	
6	RY7G	607	607	142	86.194	
7	RT7T	592	592	134	79.328	RX6FF
8	9A1AA	549	549	144	79.056	

# Results CW

9	UA5C	552	552	142	78.384	UA5C	85	F5NBX	101	101	56	5.656
10	UA4L	550	550	142	78.100	HA6NL	86	PA3FMC	99	99	50	4.950
11	HA6NL	500	500	140	70.000	UR5QA	87	YO9HP	102	102	48	4.896
12	UR5QA	488	488	141	68.808	SP9LJD	88	PA3AAV	101	101	47	4.747
13	SP9LJD	465	465	138	64.170	SP9LJD	89	DL2NBY	113	113	40	4.520
14	RM2D	458	458	136	62.288	SM6LRR	90	IC8FBU	81	81	49	3.969
15	S53V	458	458	134	61.372	S53V	91	OK2PF	75	75	51	3.825
16	UA6LCN	458	458	132	60.456	UA6LCN	92	F6CUC	77	77	46	3.542
17	YL5X	456	456	130	59.280	YL5X	93	G4HSO	95	95	34	3.230
18	UA4WKK	436	436	131	57.116	UA4WKK	94	GM0AXY	74	74	42	3.108
19	SP9GFI	414	414	132	54.648	SP9GFI	95	Z6/LZ1BJ	65	65	42	2.730
20	LY5W	435	435	125	54.375	LY5W	96	EA1WX	65	65	37	2.405
21	YQ6A	419	419	129	54.051	YO6BHN	97	OK1ITK	57	57	36	2.052
22	OM3CWY	403	403	133	53.599		98	LY7Z	51	51	39	1.989
23	UT1IM	402	402	130	52.260	UT1IM	99	RT5X	65	65	26	1.690
24	RA6GW	467	467	103	48.101	RA6GW	100	IK2DZN	50	50	32	1.600
25	RN3GL	393	393	122	47.946	RN3GL	101	HB9ELD	61	61	24	1.464
26	IT9EJW	382	382	125	47.750		102	OK2NA	48	48	30	1.440
27	RK3IM	371	371	127	47.117	RK3IM	103	DK2AB	50	50	27	1.350
28	G3PJT	316	316	123	38.868		104	PG2AA	45	45	29	1.305
29	OK2QX	322	322	116	37.352		105	DL9LM	59	59	22	1.298
30	S53M	302	302	119	35.938	S51FB	106	HA2VR	33	33	21	693
31	SP2LNW	299	299	120	35.880		107	IV3AZV	24	24	20	480
32	UT4LW	331	331	106	35.086		108	DL2HRT	27	27	16	432
33	S562EB	302	302	115	34.730	S56A	109	9A283XV	5	5	4	20
34	LY2NY	328	328	102	33.456	LY2NY						
35	LZ1QV	296	296	111	32.856	LZ1QV						
36	OM4O	324	324	99	32.076	OM3NI						
37	LZ7O	305	305	101	30.805	LZ1ONK						
38	OM5XX	282	282	109	30.738	OM5XX						
39	LY2SA	298	298	103	30.694	LY2SA						
40	DL6KVA	239	239	125	29.875	DL6KVA						
41	DL3ANK	296	296	99	29.304							
42	DL1NKS	291	291	99	28.809	DL1NKS						
43	9A2EU	245	245	115	28.175	9A2EU						
44	LY2XW	270	270	104	28.080							
45	YU7KW	294	294	92	27.048							
46	SP2MKT	284	284	93	26.412	SP2MKT						
47	LZ5XQ	251	251	97	24.347	LZ5XQ						
48	DF5ZV	257	257	90	23.130	DF5ZV						
49	RT3N	265	265	86	22.790	RT3N						
50	LY2CO	239	239	94	22.466							
51	DJ9RR	238	238	88	20.944	DJ9RR						
52	OE3KAB	221	221	93	20.553	OE3KAB						
53	YL2BJ	197	197	96	18.912							
54	DK1AX	217	217	85	18.445	DK1AX						
55	UT7U	202	202	87	17.574	UT7UV						
56	YL2PA	232	232	75	17.400	YL2PA						
57	DJ2QV	154	154	112	17.248							
58	LY3CY	197	197	83	16.351	LY3CY						
59	SN5B	175	175	92	16.100	SP5SSB						
60	UT0UM	215	215	70	15.050							
61	YP5T	211	211	71	14.981	YO5CBX						
62	EW1FM	205	205	73	14.965							
63	YL2GP	175	175	83	14.525							
64	UA3RC	180	180	80	14.400							
65	PA0JED	186	186	74	13.764							
66	DL1DQW	157	157	80	12.560	DL1DQW						
67	G4MKR	173	173	66	11.418	G4MKR						
68	IK0EFR	160	160	70	11.200	IK0EFR						
69	OK2FB	166	166	67	11.122	OK2FB						
70	OM2ZZ	162	162	67	10.854	OM2ZZ						
71	YL2KO	108	108	90	9.720	YL2KO						
72	PA0LOU	142	142	67	9.514	PA0LOU						
73	RA5B	163	163	56	9.128	RA5B						
74	R9XT	151	151	54	8.154	R9XT						
75	HA5OV	116	116	70	8.120							
76	PA3EVY	146	146	55	8.030	PA3EVY						
77	F4FEP	121	121	62	7.502							
78	LY5D	114	114	59	6.726							
79	R6AF	105	105	63	6.615	R6AF						
80	MONIE	127	127	51	6.477	MONIE						
81	YL5T	113	113	57	6.441	YL3DQ						
82	DL7URH	115	115	55	6.325	DL7URH						
83	LZ1ZU	106	106	56	5.936	LZ1ZU						
84	DE1HF	105	105	55	5.775	DE1HF						

# Results CW

49	UY0CA	288	288	94	27.072		125	PA4PS	173	173	68	11.764	PA4PS
50	RV6LCI	287	287	94	26.978		126	ON6FC	156	156	75	11.700	ON6FC
51	F5PTI	267	267	101	26.967	F5PTI	127	EI8JX	163	163	71	11.573	EI8JX
52	YL3IZ	278	278	97	26.966		128	SP2AEK	157	157	72	11.304	SP2AEK
53	YL6Z	252	252	107	26.964		129	SP4EOO	161	161	70	11.270	SP4EOO
54	SV1BJW	320	320	84	26.880	SV1BJW	130	PA3DBS	158	158	71	11.218	PA3DBS
55	RT9X	268	268	100	26.800	RT9X	131	LY3B	147	147	76	11.172	LY3B
56	OK1JOC	268	268	100	26.800	OK1JOC	132	HA7JQK	145	145	77	11.165	
57	IK6DIN	255	255	104	26.520		133	US5LO	194	194	56	10.864	US5LO
58	SP2MKI	278	278	92	25.576	SP2MKI	134	DJ6TK	142	142	76	10.792	DJ6TK
59	RN3ANT	266	266	96	25.536	RN3ANT	135	RD3FT	147	147	73	10.731	
60	OM7AX	260	260	95	24.700	LUDO	136	G3ZGC	157	157	68	10.676	G3ZGC
61	OM8LM	246	246	98	24.108	OM8LM	137	YO5NY	151	151	70	10.570	YO5NY
62	UA3RF	258	258	91	23.478		138	OK1HCG	192	192	55	10.560	
63	RA6DE	246	246	95	23.370	RA6DE	139	RA3UAG	147	147	71	10.437	RA3UAG
64	YL2QN	270	270	86	23.220	YL2QN	140	DL1RTL	141	141	74	10.434	
65	OK1BA	258	258	89	22.962		141	OM2AW	189	189	55	10.395	OM2AW
66	UY5TE	238	238	96	22.848		142	EW2EO	141	141	72	10.152	EW2EO
67	DL3ZAI	247	247	91	22.477		143	OK5SA	171	171	59	10.089	
68	UU9JC	214	214	105	22.470	UU9JC	144	OK2EA	155	155	65	10.075	OK2EA
69	RX9FB	236	236	95	22.420	RX9FB	145	ER1OO	161	161	62	9.982	ER1OO
70	RD3TOK	250	250	89	22.250	RD3TOK	146	YO3GNF	151	151	65	9.815	YO3GNF
71	R3PC	230	230	95	21.850		147	RM2T	152	152	63	9.576	RM2T
72	HA3GO	245	245	89	21.805		148	R2OM	158	158	58	9.164	
73	RU3XY	230	230	94	21.620	RU3XY	149	OM8VL	159	159	57	9.063	OM8VL
74	RX3Z	232	232	93	21.576	RX3Z	150	R1AO	151	151	60	9.060	
75	RA3XCZ	230	230	93	21.390		151	OK1BLU	160	160	55	8.800	OK1BLU
76	OK1FPS	235	235	91	21.385		152	Z33A	127	127	69	8.763	
77	LZ2FM	222	222	95	21.090		153	HA2OS	142	142	61	8.662	HA2OS
78	RA6FUZ	254	254	82	20.828	RA6FUZ	154	R7MT	133	133	65	8.645	R7MT
79	YO4SI	194	194	103	19.982	YO4SI	155	UY5QQ	129	129	67	8.643	UY5QQ
80	RW4W	209	209	95	19.855		156	OM3BA	142	142	60	8.520	OM3BA
81	UX1CL	222	222	88	19.536	UX1CL	157	GW0BBO	149	149	57	8.493	
82	R3EA	213	213	88	18.744	R3EA	158	UA6HFI	121	121	68	8.228	UA6HFI
83	SV1JG	192	192	96	18.432		159	EA6ZS	128	128	64	8.192	
84	UX7U	247	247	74	18.278	UX7UA	160	RU6MO	131	131	62	8.122	UA8DA
85	SP2DKI	216	216	84	18.144	SP2DKI	161	Z32OR	150	150	54	8.100	
86	G0IBN	198	198	89	17.622	G0IBN	162	PA3ANN	139	139	56	7.784	
87	LY2TS	206	206	84	17.304		163	OK2KFK	116	116	67	7.772	
88	RA4WA	201	201	86	17.286	RA4WA	164	YP5C	141	141	55	7.755	
89	DL4JU	198	198	87	17.226		165	R7TO	127	127	58	7.366	
90	SP1AEN	213	213	80	17.040	SP1AEN	166	DL3KWR	118	118	62	7.316	
91	OK1HEH	199	199	84	16.716	OK1HEH	167	R8XF	128	128	57	7.296	R8XF
92	GM0WED	199	199	84	16.716	GM0WED	168	DL3KWF	128	128	57	7.296	
93	F6GCI	201	201	82	16.482		169	DM2RN	137	137	52	7.124	DM2RN
94	PA2REH	196	196	84	16.464	PA2REH	170	R9XS	125	125	56	7.000	R9XS
95	IK4VET	189	189	86	16.254		171	YL2PP	120	120	58	6.960	
96	UU7JD	200	200	81	16.200		172	PA2PCH	116	116	60	6.960	PA2PCH
97	R7HL	178	178	91	16.198		173	YO2QY	99	99	70	6.930	YO2QY
98	DL5SWB	210	210	77	16.170	DL5SWB	174	LZ1VQ	103	103	66	6.798	LZ1VQ
99	ES4RR	219	219	73	15.987	ES4RR	175	DL3EBX	115	115	59	6.785	
100	OK4DZ	175	175	91	15.925		176	DL3MVC	130	130	52	6.760	DL3MVC
101	HG8C	201	201	79	15.879	HA8EK	177	UR4LIN	109	109	62	6.758	
102	IN3FHE	205	205	77	15.785		178	ER5DX	120	120	56	6.720	
103	RA6HSM	194	194	81	15.714	RA6HSM	179	RX3AEX	110	110	61	6.710	
104	US1VB	196	196	79	15.484		180	DL5CD	113	113	59	6.667	
105	OM3CDN	185	185	80	14.800		181	ON3ND	125	125	53	6.625	
106	UR5AW	184	184	80	14.720	UR5AW	182	SP9DUX	106	106	62	6.572	SP9DUX
107	IW2FUT	185	185	76	14.060	IW2FUT	183	US7LM	109	109	60	6.540	
108	R3VL	177	177	79	13.983	R3VL	184	UT8UD	107	107	61	6.527	
109	HG5DX	174	174	80	13.920		185	IZ0DBA	112	112	58	6.496	IZ0DBA
110	G3RSD	168	168	82	13.776	G3RSD	186	RX6LOL	120	120	54	6.480	
111	OK1FCA	191	191	72	13.752	OK1FCA	187	DL1FMG	124	124	52	6.448	
112	UA3AKI	175	175	78	13.650	UA3AKI	188	YO3APJ	169	169	38	6.422	YO3APJ
113	DJ0YZ	177	177	75	13.275	DJ0YZ	189	PA3EYC	98	98	65	6.370	PA3EYC
114	DL1EAL	163	163	80	13.040	DL1EAL	190	SQ9EI	119	119	53	6.307	SQ9EI
115	OK2BRS	181	181	72	13.032		191	SQ3WW	99	99	63	6.237	
116	UA3GR	191	191	67	12.797		192	DJ1OJ	99	99	63	6.237	
117	RV3D	186	186	68	12.648		193	RN3DMB	95	95	65	6.175	RN3DMB
118	RA3ATE	194	194	65	12.610	RA3ATE	194	RW3DY	121	121	51	6.171	RW3DY
119	R4WT	197	197	64	12.608	R4WT	195	UZ1RM	106	106	58	6.148	
120	YO7ARY	185	185	68	12.580	YO7ARY	196	UR7IKJ	111	111	55	6.105	
121	DL5SVB	170	170	74	12.580	DL5SVB	197	PA3GDD	105	105	58	6.090	PA3GDD
122	DH2URF	172	172	69	11.868		198	DL7LIN	99	99	61	6.039	
123	M0CFW	177	177	67	11.859	JK3GAD	199	DL4AUK	102	102	59	6.018	
124	IK2YXB	157	157	75	11.775	IK2YXB	200	HA6OA	155	155	37	5.735	HA6OA

# Results CW

201	UR5FCM	104	104	55	5.720	UR5FCM	277	SP5GDY	71	71	40	2.840	SP5GDY
202	YO4FZX	107	107	53	5.671		278	DF7GG	81	81	35	2.835	DF7GG
203	GM4OSS	157	157	36	5.652	GM4OSS	279	YO6DBL	67	67	42	2.814	
204	YO9CWY	99	99	57	5.643	YO9CWY	280	ON5SE	67	67	42	2.814	ON5SE
205	IK4AUY	104	104	54	5.616		281	UT7MD	63	63	44	2.772	UT7MD
206	UU5JZ	110	110	51	5.610	UU5JZ	282	DK3GI	66	66	42	2.772	
207	YU1HFG	95	95	59	5.605		283	YL2GJR	68	68	40	2.720	
208	RA3FD	105	105	53	5.565		284	YO9FLD	60	60	45	2.700	YO9FLD
209	RA4HMT	103	103	54	5.562	RA4HMT	285	DL6GBL	69	69	39	2.691	
210	SN150PS	126	126	44	5.544	SP5CGN	286	UT3WX	69	69	38	2.622	
211	SP6LV	104	104	53	5.512	NONE	287	DL4ME	90	90	29	2.610	DL4ME
212	RM7F	106	106	52	5.512		288	OK1DDQ	70	70	37	2.590	OK1DDQ
213	OM8HG	156	156	35	5.460	OM8HG	289	RA4DB	68	68	38	2.584	
214	DL1RTW	99	99	54	5.346		290	UA2FBQ	67	67	38	2.546	UA2FBQ
215	YO9IF	80	80	66	5.280		291	EW6GF	64	64	39	2.496	EW6GF
216	DJ3CS	94	94	56	5.264		292	RK4R	62	62	40	2.480	
217	UT4XU	116	116	44	5.104	UT4XU	293	DK3CC	62	62	40	2.480	
218	PA0WKI	102	102	50	5.100	PA0WKI	294	UR5IHQ	67	67	37	2.479	UR5IHQ
219	ES1OX	100	100	51	5.100	ES1OX	295	UA2FL	65	65	38	2.470	UA2FL
220	UT8UL	110	110	46	5.060	UT8UL	296	YO7AWZ	67	67	36	2.412	
221	PA0WLB	106	106	47	4.982	PA0WLB	297	UA3UBT	68	68	35	2.380	
222	UT7VR	82	82	60	4.920		298	IZ4AKO	54	54	44	2.376	
223	G3XTT	97	97	50	4.850	G3XTT	299	F3WT	57	57	41	2.337	
224	SP6BAA	96	96	50	4.800	SP6BAA	300	LY2N	60	60	38	2.280	LY2N
225	SP3DOF	90	90	53	4.770	SP3DOF	301	EA5EHS	66	66	34	2.244	EA5EHS
226	OM3BY	97	97	49	4.753	OM3BY	302	PA7JWC	61	61	36	2.196	PA7JWC
227	LZ49FJ	88	88	54	4.752	LZ49FJ	303	G0SAC	59	59	37	2.183	G4WGE
228	UX1CW	115	115	41	4.715	UX1CW	304	RT1A	59	59	36	2.124	RT1A
229	PA0MIR	96	96	49	4.704	PA0MIR	305	DK5ZX	55	55	38	2.090	DK5ZX
230	DF5BX	98	98	48	4.704	DF5BX	306	OK2TBC	67	67	31	2.077	
231	SP1MHZ	97	97	48	4.656	SP1MHZ	307	RD3ZW	69	69	30	2.070	
232	UA3AAJ	97	97	48	4.656		308	PC3H	71	71	29	2.059	
233	UA4FDL	101	101	46	4.646	UA4FDL	309	DL7YAD	56	56	36	2.016	
234	UA4QK	132	132	35	4.620		310	DK5WO	83	83	24	1.992	DK5WO
235	G2HDR	107	107	43	4.601	G2HDR	311	PA2W	70	70	28	1.960	PA2W
236	OK2GU	93	93	49	4.557		312	YO4TL	67	67	29	1.943	
237	PA0FAW	108	108	42	4.536	PA0FAW	313	UA4CNJ	63	63	30	1.890	
238	IT9RZU	133	133	34	4.522		314	DM5JBN	62	62	30	1.860	DM5JBN
239	YU5T	98	98	46	4.508	YU5T	315	DK9MH	60	60	31	1.860	DK9MH
240	OK2ABU	90	90	50	4.500		316	OE1TKW	55	55	33	1.815	
241	UX6IB	104	104	43	4.472		317	DL5KW	51	51	35	1.785	DL5KW
242	DL4VQ	101	101	44	4.444	DL4VQ	318	UA5D	54	54	32	1.728	
243	EA5CP	97	97	45	4.365	EA5CP	319	LY5T	48	48	36	1.728	LY5T
244	UX1VT	128	128	34	4.352	UX1VT	320	OK2VX	57	57	30	1.710	
245	F1IWH	93	93	46	4.278	F1IWH	321	SP6IHE	61	61	28	1.708	SP6IHE
246	UR3LM	102	102	41	4.182	UR3LM	322	YO2LDU	55	55	31	1.705	YO2LDU
247	OK2BDR	86	86	48	4.128		323	EA1CS	51	51	33	1.683	EA1CS
248	EW2AO	85	85	48	4.080		324	ON6LO	58	58	29	1.682	
249	SP4AVG	79	79	51	4.029	SP4AVG	325	DL4JWU	46	46	36	1.656	
250	I2AZ	115	115	35	4.025		326	RA1CP	57	57	29	1.653	
251	DL5ARM	100	100	40	4.000	DL5ARM	327	EU6AA	49	49	33	1.617	
252	C37AC	93	93	43	3.999	C31CT	328	DM3FZN	61	61	26	1.586	DM3FZN
253	IV3DYS	84	84	47	3.948		329	OK1ES	44	44	36	1.584	
254	DK2FG	119	119	33	3.927	DK2FG	330	RN3AAB	49	49	32	1.568	
255	G0GDU	114	114	34	3.876	G0GDU	331	R3CW	49	49	32	1.568	
256	YO9HG	83	83	46	3.818	YO9HG	332	EW1NA	52	52	30	1.560	EW1NA
257	SP2BLC	85	85	44	3.740	SP2BLC	333	OK1UKV	49	49	31	1.519	
258	R3RK	82	82	45	3.690	R3RK	334	RX3MM	52	52	28	1.456	RX3MM
259	RZ4WZ	75	75	47	3.525		335	R3OR	45	45	30	1.350	R3OR
260	UT5IZ	105	105	33	3.465	UT5IZ	336	IK2WYI	48	48	27	1.296	
261	UU1JO	66	66	49	3.234		337	RK3DU	40	40	31	1.240	
262	EA5KA	70	70	46	3.220		338	UU9JK	49	49	25	1.225	UU9JK
263	DM3F	68	68	47	3.196	DH5FS	339	OK1AOU	49	49	25	1.225	OK1AOU
264	RX3XQ	74	74	42	3.108		340	UY7IS	42	42	29	1.218	
265	DA3T	69	69	45	3.105		341	PA2CHM	50	50	24	1.200	PA2CHM
266	DJ1SL	69	69	44	3.036		342	G3VYI	44	44	27	1.188	G3VYI
267	RN6AI	84	84	36	3.024	RN6AI	343	PA5GU	45	45	26	1.170	PA5GU
268	RA4ZA	94	94	32	3.008		344	IK2AIT/IV3	45	45	26	1.170	
269	RU4CO	75	75	40	3.000	RU4CO	345	DL2MEP	61	61	19	1.159	DL2MEP
270	IK2UJF	76	76	39	2.964		346	SP3BES	46	46	25	1.150	
271	RV6AA/P	82	82	36	2.952		347	UT5C	41	41	27	1.107	UX7CQ
272	9A5V	65	65	45	2.925	9A5V	348	PD5T	55	55	18	990	PD5T
273	OK4RQ	97	97	30	2.910		349	DK4EF	39	39	25	975	DK4EF
274	LY2ND	64	64	45	2.880	LY2ND	350	DH8MS	37	37	26	962	DH8MS
275	PA0RBA	68	68	42	2.856	PA0RBA	351	YO2CJX	48	48	20	960	
276	RA1TV	73	73	39	2.847		352	F6AJM	42	42	22	924	

# Results CW

353	YO3JV	35	35	25	875	YO3JV	21	UT3EK	182	182	81	14.742	UT3EK
354	UX1IB	35	35	25	875	UX1IB	22	YO6FGZ	180	180	81	14.580	YO6FGZ
355	IT9VDQ	36	36	24	864	IT9VDQ	23	OK2BLD	176	176	81	14.256	OK2BLD
356	DL4EAX	33	33	26	858	DL4EAX	24	SP2DNI	173	173	81	14.013	SP2DNI
357	IK2WXQ	33	33	26	858		25	RW3AI	170	170	75	12.750	
358	SQ3PMM	35	35	24	840	MICHA	26	DJ2RG	171	171	71	12.141	
359	UT7XT	36	36	23	828	UT7XT	27	DL6OCH	171	171	71	12.141	
360	UA3WW	33	33	25	825		28	RZ3TZZ	165	165	70	11.550	UA3TW
361	OQ6A	48	48	17	816	OQ6A	29	9A2EY	176	176	65	11.440	9A2EY
362	EI3CTB	32	32	25	800		30	SP4JFR	161	161	69	11.109	SP4JFR
363	YO2MJZ	38	38	21	798		31	IV3DRP	165	165	67	11.055	
364	LY2LF	30	30	26	780	LY2LF	32	UT3IT	151	151	72	10.872	
365	RW1AI	30	30	25	750		33	F6FTB	163	163	65	10.595	F6FTB
366	ON4KMB	34	34	21	714	ON4KMB	34	RD3ARU	138	138	76	10.488	RD3ARU
367	US0UX	29	29	24	696		35	IK3OII	138	138	72	9.936	
368	DL5KUR	40	40	17	680	DL5KUR	36	G3UFY	149	149	66	9.834	G3UFY
369	F4GXG	31	31	21	651	F4GXG	37	M0OSH	151	151	65	9.815	M0OSH
370	DL6DSA	30	30	21	630	DL6DSA	38	IK4OMU	130	130	62	8.060	IK4OMU
371	SV1RHL	28	28	22	616	SV1RHL	39	EA1GT	117	117	68	7.956	EA1GT
372	DH1TW	30	30	20	600		40	HA1TI	120	120	65	7.800	HA1TI
373	F4FDA	27	27	22	594		41	ON7CC	124	124	62	7.688	ON7CC
374	PA4EA	30	30	19	570	PA4EA	42	OK2BWJ	125	125	61	7.625	OK2BWJ
375	DL5QS	31	31	18	558	DL5QS	43	HA5BA	126	126	59	7.434	
376	DL7ET	27	27	20	540		44	I0ZUT	129	129	57	7.353	I0ZUT
377	PA3GEO	29	29	18	522	PA3GEO	45	YO4AAC	135	135	53	7.155	YO4AAC
378	DL2AXM	29	29	18	522		46	SO1D	111	111	63	6.993	SP1JPQ
379	DL8UAA	25	25	20	500	DL8UAA	47	DJ0MY	104	104	67	6.968	DJ0MY
380	EI7GY	26	26	19	494	EI7GY	48	DL5CL	106	106	52	5.512	
381	UA9XBJ	29	29	17	493		49	I0UZF	101	101	53	5.353	I0UZF
382	PA3CLQ	27	27	14	378	PA3CLQ	50	RU3FB	114	114	46	5.244	RU3FB
383	PB2A	22	22	17	374	PB2A	51	PA7RA	89	89	49	4.361	PA7RA
384	ON5JD	20	20	18	360	ON5JD	52	PE2K	102	102	42	4.284	PE2K
385	UT5LA	24	24	14	336	UT5LA	53	GM4HQF	92	92	46	4.232	GM4HQF
386	DC2IP	21	21	16	336	DC2IP	54	SP6BXM	78	78	45	3.510	SP6BXM
387	OE1CIW	19	19	16	304		55	RV3DBK	73	73	41	2.993	RV3DBK
388	OK2SWD	18	18	16	288	OK2SWD	56	SP2GOW	94	94	31	2.914	SP2GOW
389	UT5EPP	17	17	15	255		57	CT8/DL2TM	62	62	40	2.480	
390	G0MRH	16	16	11	176	G0MRH	58	LZ2SX	57	57	36	2.052	LZ2SX
391	RA6XB	15	15	11	165	RA6XB	59	DK4CU	69	69	29	2.001	
392	SP2HMY	13	13	11	143	SP2HMY	60	DH5MM	61	61	32	1.952	
393	ON7XN	11	11	11	121	ON7XN	61	OK4RM	59	59	33	1.947	OK4RM
394	DL6UAM	12	12	10	120		62	US5VX	59	59	30	1.770	
395	DM4KM	13	13	9	117		63	PA0ATG	56	56	29	1.624	PA0ATG
396	EA3GBA	12	12	8	96	EA3GBA	64	DL2DWP	46	46	27	1.242	DL2DWP
397	SP3AZO	8	8	7	56	SP3AZO	65	DH0JAE	36	36	26	936	
398	HA1DQ	8	8	7	56		66	DF5WW	39	39	22	858	DF5WW
399	EW2EG	8	8	7	56		67	DL3YDY	36	36	18	648	DL3YDY
400	HA5UA	6	6	6	36	HA5UA	68	UR5XMM	29	29	21	609	UR5XMM
401	HA8LWT	6	6	5	30	HA8RT	69	UW3WU	20	20	18	360	
402	9A5YY	5	5	5	25	9A5YY	70	DD0VS	22	22	16	352	DD0VS
403	IK2IKW	5	5	3	15	IK2IKW	71	DH6YMC	21	21	11	231	DH6YMC
404	DL3UX	2	2	2	4	DL3UX	72	OK4JR/P	11	11	7	77	OK4JR/P
405	YO2BPZ	1	1	1	1		73	PA7PYR	5	5	4	20	
							74	HA8MT	5	5	4	20	

## Single Operator All Band QRP Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	RA3AN	435	435	130	56.550	RA3AN
2	LZ2RS	441	441	126	55.566	LZ2RS
3	ON4RBO	355	355	110	39.050	DL1EFW
4	UA6LCJ	324	324	117	37.908	
5	RT4W	327	327	110	35.970	RT4W
6	US2IZ	302	302	117	35.334	
7	UA7G	334	334	99	33.066	VALENTIN
8	HG3M	275	275	109	29.975	HG3M
9	OK7CM	289	289	102	29.478	OK7CM
10	OK1FKD	288	288	89	25.632	
11	UU4JDD	280	280	89	24.920	UU4JDD
12	UX5UU	269	269	78	20.982	UX5UU
13	YO8DOH	217	217	95	20.615	
14	SV1JGX	213	213	93	19.809	SV1JGX
15	LZ7H	195	195	97	18.915	LZ2ITU
16	R7FO	212	212	86	18.232	
17	YO6EX	205	205	86	17.630	
18	DL8MBS	207	207	83	17.181	DL8MBS
19	RN4AO	206	206	83	17.098	RN4AO
20	RZ3QS	202	202	81	16.362	

## Multi Operator Single Transmitter

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	UA4M	752	752	171	128.592	RW4PL RA4LW
2	RM4I	609	609	161	98.049	UA4HTT UA9LAO
3	HG7T	629	629	150	94.350	HA5MY HA7TM
4	UT7E	593	593	150	88.950	UR3EZ UW5EGC
5	RY6Y	588	588	141	82.908	RY7Y RA6YDX
6	DF0FA	507	507	141	71.487	DL7UGN DK7YY
7	OE5X	367	367	124	45.508	OE5BWN OE5KE
8	ES5Q	255	255	123	31.365	ES5RY ES2MC
9	LZ2013HST	302	302	103	31.106	RD1A LZ1BP
10	RK4HYT	281	281	100	28.100	R4H-38
11	9A4U	253	253	99	25.047	9A6KKD 9A4MF
12	LZ6C	199	199	65	12.935	LZ2UW
13	S50XX	128	128	70	8.960	S50XX
14	HB9EP	120	120	63	7.560	HB9DOS HB9FBL
						HB9MEC

# Results CW

15	US2E	126	126	49	6.174	US2E
16	PA3FNB	81	81	38	3.078	PA3FNB PA0VLA
17	RK3DXW	55	55	30	1.650	RM3D R2DDH
18	S59T	25	25	17	425	S59T
19	EU1WW	17	17	14	238	EU1UA EW1AP
20	UT4UYA	13	13	13	169	SERGE ALEX IGOR

## Checklogs

CU2JT, DF8TY, DJ3RA, DL2JIM, DL5WW, DL9ZP, DM3RB, DM5DX, E74VN, E74Y, EI5DI, HB9/RV3DH, IK2FIL, IK8TEO, LY9A, LZ1RW, OK2BZ, OK2SG, OK4MM, R2LAC, RM3Z, RN6MA, RU6AV, UB3DAO, US5ABI, US5ELM, UU2JQ, UX1IL, YL2TD, YL3GU/P, YO4KAK, YT1Q, YT2AAA

## NORTH AMERICA

### Single Operator All Band High Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	AA2A	505	909	140	127.260	N2KW
2	K5ZD	268	484	112	54.208	K5ZD
3	W1FJ	222	346	100	34.600	W1FJ
4	VY2SS	274	358	92	32.936	VY2SS
5	VE3KZ	238	298	94	28.012	VE3KZ
6	K4BAI	186	268	79	21.172	K4BAI
7	K1BV	191	239	76	18.164	K1BV
8	K1ZZI	114	230	72	16.560	K1ZZI
9	VA7ST	130	228	70	15.960	VA7ST
10	VE3CX	130	206	72	14.832	VE3CX
11	K5EK	115	181	65	11.765	K5EK
12	K1TN	113	133	65	8.645	
13	W2LE	134	134	56	7.504	
14	KE2WY	94	144	52	7.488	KE2WY
15	K4DJ	100	100	51	5.100	K4DJ
16	N2CG	71	99	48	4.752	N2CG
17	AC7JW	64	74	38	2.812	AC7JW
18	K4RO	65	65	41	2.665	K4RO
19	VO1MP	73	73	34	2.482	
20	N5ZO	44	74	32	2.368	N5ZO
21	VA7OM	26	64	22	1.408	VA7OM
22	K4TCG	22	22	20	440	K4TCG
23	AI4WW	24	24	12	288	
24	K0TQ	15	15	13	195	K0TQ

30	KS0T	77	103	53	5.459	KS0T
31	W1RM	73	103	51	5.253	W1RM
32	KB1H	55	127	35	4.445	KB1H
33	N9NA	50	112	35	3.920	N9NA
34	K1JB	54	68	34	2.312	K1JB
35	NF8J	61	63	36	2.268	NF8J
36	K4MM	59	59	33	1.947	K4MM
37	VE9AA	30	90	20	1.800	VE9AA
38	VE5MX	45	45	34	1.530	VE5MX
39	W1UJ	52	52	27	1.404	W1UJ
40	K3KO	49	49	28	1.372	K3KO
41	N4GG	47	47	29	1.363	N4GG
42	N6ED	25	69	18	1.242	N6ED
43	AA4FU	23	69	18	1.242	AA4FU
44	WO1N	20	60	16	960	WO1N
45	XE2X	35	35	25	875	XE2X
46	K6XX	29	29	27	783	

### Single Operator All Band Low Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	VE3DZ	427	691	133	91.903	VE3DZ
2	VE1RGB	254	444	115	51.060	VE1RGB
3	N5AW	196	314	84	26.376	
4	K3NK	160	258	85	21.930	K3NK
5	NB1N	130	252	80	20.160	NB1N
6	WA1LWS	125	205	65	13.325	
7	WD5K	132	180	70	12.600	WD5K
8	NA8V	110	192	64	12.288	
9	W1END	133	157	68	10.676	W1END
10	VE9OA	101	147	64	9.408	VE9OA
11	N3KR	79	133	58	7.714	N3KR
12	N1GN	74	120	55	6.600	N1GN
13	VE3FH	59	109	48	5.232	VE3FH
14	KU7T	62	160	32	5.120	
15	VE3IAE	66	114	43	4.902	VE3IAE
16	KE2D	59	107	44	4.708	KE2D
17	VE4YU	48	64	39	2.496	VE4YU
18	KV4QS	44	64	32	2.048	KV4QS
19	VE3FJ	68	68	30	2.040	VE3FJ
20	VE3KAO	67	67	30	2.010	VE3KAO

### Single Operator All Band High Power Assisted

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	K3WW	404	660	132	87.120	K3WW
2	N4RV	341	663	125	82.875	N4RV
3	N3QE	384	584	129	75.336	N3QE
4	VE9HF	251	439	119	52.241	VE9HF
5	K3IPK	299	465	105	48.825	K3IPK
6	N4BP	341	457	104	47.528	N4BP
7	WX4G	273	425	109	46.325	WX4G
8	K1DM	230	392	107	41.944	K1DM
9	K1GQ	294	400	101	40.400	K1GQ
10	VE3EJ	203	327	105	34.335	
11	N8BJQ	132	210	87	18.270	N8BJQ
12	W1MSW	151	259	67	17.353	W1MSW
13	AC4CA	155	197	80	15.760	AC4CA
14	W3MF	126	224	69	15.456	W3MF
15	K1TH	123	207	73	15.111	K1TH
16	NK3Y	166	188	72	13.536	NK3Y
17	W1KM	114	198	68	13.464	W1KM
18	VE2FK	130	208	62	12.896	VE2FK
19	W3FV	94	262	48	12.576	W3FV
20	K0BJ	121	167	72	12.024	K0BJ
21	KE1J	117	213	56	11.928	KE1J
22	N3UA	95	197	57	11.229	N3UA
23	VE3NE	99	167	65	10.855	VE3NE
24	N1IW	151	151	62	9.362	N1IW
25	N3RD	80	162	56	9.072	N3RD
26	W7CT	87	137	58	7.946	W7CT
27	N5CW	99	109	58	6.322	N5CW
28	AB1QP	70	116	51	5.916	AB1QP
29	K7WP	62	120	46	5.520	K7WP

### Single Operator All Band QRP Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	K3TW	73	123	56	6.888	K3TW
2	VE3GTC	50	76	36	2.736	VE3GTC
3	K8ZT	56	56	35	1.960	K8ZT
4	VE3NZ	24	24	20	480	VE3NZ
5	VE1ZA	20	20	17	340	VE1ZA
6	VA3RKM	6	8	6	48	VA3RKM

# Results CW

## Multi Operator Single Transmitter

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	KG5VK	32	32	28	896	KG5VK

## Checklogs

N2UU, N4UEZ

## OCEANIA

### Single Operator All Band High Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	ZL2AGY	47	117	29	3.393	ZL2AGY
2	KH6CW	56	56	26	1.456	KH6CW
3	VK3TDX	35	35	27	945	VK3TDX

### Single Operator All Band High Power Assisted

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	VK2OXZ	69	73	34	2.482	VK2OXZ
2	DU1XX	8	8	7	56	
3	9M6ZAE	4	4	3	12	9M6ZAE

### Single Operator All Band Low Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	VK8AV	85	121	41	4.961	VK8AV
2	VK4TT	39	39	21	819	VK4TT
3	DU7HF	25	31	20	620	DU7HF
4	YD1ME	11	11	8	88	

## Multi Operator Single Transmitter

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	YB3ZCD	19	19	13	247	YE3AA YB3BX

## Checklogs

9M6XRO

## SOUTH AMERICA

### Single Operator All Band High Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	PW2D	343	493	122	60.146	PY2ZXU
2	LU1DZ	67	73	43	3.139	LU1DZ
3	PY3AU	44	44	30	1.320	PY3AU
4	PY1KR	17	51	14	714	PY1KR

### Single Operator All Band High Power Assisted

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	PY2ZEA	526	782	141	110.262	OH2MM
2	PJ4/G3TXF	244	448	112	50.176	G3TXF
3	PY4RGS	142	244	81	19.764	PY4RGS
4	PT7MM	113	197	67	13.199	PT7MM
5	PY2EX	100	192	55	10.560	PY2EX
6	LU3DAT	81	123	57	7.011	LU3DAT
7	PR7HR	12	36	12	432	PR7HR

### Single Operator All Band Low Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	PY2WC	202	310	84	26.040	PY2WC
2	PY4ARS	130	214	65	13.910	
3	PY4XX	123	199	63	12.537	PY4XX
4	PY4ZO	120	120	65	7.800	PY4ZO
5	PY4HO	67	75	41	3.075	PY4HO
6	PY4FQ	49	63	30	1.890	PY4FQ
7	CX2BR	52	54	23	1.242	CX2BR
8	PY2DV	27	27	19	513	PY2DV
9	PR7AR	15	15	11	165	PR7AR
10	LU2AYB	10	10	7	70	LU2AYB
11	LU1ICX	7	7	7	49	LU1ICX

## Checklogs

LU4FD, PY4YY, PY7OJ

## SCANDINAVIA

### Single Operator All Band High Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATOR
1	OH2BH	2295	5.406	265	1.432.590	OH6KZP
2	OH0R	2356	5.622	245	1.377.390	OH2PM
3	OH8X	2213	5.230	250	1.307.500	OH2UA
4	OH0Z	2258	5.395	241	1.300.195	OH6EI
5	SJ2W	2273	5.357	237	1.269.609	SM2LIY
6	OH4A	2034	4.775	233	1.112.575	OH6QU
7	LN3Z	1938	4.529	226	1.023.554	LA6YEA
8	OH6MW	1938	4.484	210	941.640	OH6MW
9	SE5E	1999	4.583	200	916.600	SM5AJV
10	SK3W	1931	4.564	200	912.800	SA5BJM
11	LA1J	1966	4.544	197	895.168	LA8OM
12	OZ1LO	1901	4.539	195	885.105	OZ1LO
13	SE0X	1856	4.327	189	817.803	SM0MDG
14	SM6CNN	1724	4.012	203	814.436	SM6CNN
15	SM6E	1694	3.935	190	747.650	SM6FUD
16	OU4O	1631	3.821	194	741.274	OZ4O
17	SM2T	1828	4.066	179	727.814	SM2EZT
18	OZ1IKY	1690	3.939	177	697.203	
19	OH1D	1512	3.604	188	677.552	OH1JD
20	OH4X	1544	3.557	184	654.488	OH5BM
21	OG6N	1521	3.374	192	647.808	
22	SM6M	1491	3.427	179	613.433	SM6MCW
23	OH1HS	1534	3.407	179	609.853	OH1HS
24	LA7AK	1492	3.303	174	574.722	LA7AK
25	OV0V	1515	3.495	161	562.695	OV0V
26	SM5EPO	1397	3.215	165	530.475	SM5EPO
27	OG1M	1288	3.007	174	523.218	OH1VR
28	SM6NET	1393	3.229	159	513.411	SM6NET
29	OH5YU	1209	2.741	169	463.229	OH5YU
30	OG30OJ	1396	3.050	151	460.550	OH3OJ
31	OZ1JTE	1283	2.900	157	455.300	OZ1JTE
32	OH6XY	1275	2.874	151	433.974	OH6XY
33	SA1A	1212	2.759	156	430.404	SM1TDE
34	SE2I	1265	2.755	156	429.780	SA2BRN
35	OH1XT	1048	2.441	162	395.442	OH1XT
36	LA8HGA	1215	2.739	142	388.938	LA8HGA
37	OZ8SW	1059	2.445	154	376.530	
38	SM5DXCC	1166	2.549	147	374.703	SM5DJZ
39	OH2XX	1105	2.554	146	372.884	
40	OH2BO	1074	2.410	154	371.140	OH2BO
41	OZ2TF	989	2.252	150	337.800	
42	SM5J	1055	2.394	139	332.766	SM5PHU
43	OH6CT	980	2.248	147	330.456	OH6CT
44	SM2SUM	945	2.126	151	321.026	SM2SUM
45	OH6BG	1028	2.265	130	294.450	OH6BG
46	5Q2T	830	1.871	143	267.553	OZ0J
47	SL0W	864	1.977	135	266.895	SM0AJU
48	SM0S	1032	2.230	117	260.910	SM5BAX
49	SM6CPY	937	2.051	106	217.406	SM6CPY
50	SM5ALJ	757	1.682	127	213.614	SM5ALJ
51	OH5NE	748	1.603	128	205.184	OH5NE
52	OH3UU	787	1.836	107	196.452	OH3UU
53	JW/DL2JRM930	2.132		92	196.144	DL2JRM
54	LA5UF	676	1.557	117	182.169	LA5UF
55	OH4XX	620	1.348	116	156.368	OH4XX
56	SM5QU	595	1.299	111	144.189	SM5QU
57	SM7C	584	1.325	101	133.825	SM7CFZ
58	SM6V	564	1.190	109	129.710	
59	OZ8PG	567	1.389	78	108.342	OZ8PG
60	OH2BLV	472	1.038	102	105.876	OH2BLV
61	OH3EX	446	980	106	103.880	OH3EX
62	OH2VB	450	991	101	100.091	OH2VB
63	SM5V	418	1.022	89	90.958	SM5ELV
64	OZ7EA	429	932	87	81.084	OZ7EA
65	OH7UG	565	1.183	66	78.078	OH7UG
66	OH6AC	422	1.081	70	75.670	OH6CS
67	OZ7KJ	421	1.001	75	75.075	
68	SM5BMB	317	781	60	46.860	SM5BMB
69	8S0W	254	560	74	41.440	SMONJO
70	OH3PE	220	520	74	38.480	OH3PE
71	SM0A	201	418	42	17.556	SM0AIG

# Results CW

72	SG4G	119	265	50	13.250	SM4JST
73	OH1EB	119	270	45	12.150	SM0W
74	SM0W	57	143	25	3.575	OG2X
75	OG2X	44	122	13	1.586	SM5INC
76	SM5INC	30	81	15	1.215	OH4BNP
77	OH4BNP	12	32	11	352	

## Single Operator All Band Low Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATOR
1	OH0V	1872	4.225	202	853.450	OH6LI
2	OH6RX	1623	3.579	175	626.325	OH6RX
3	LN8W	1560	3.478	180	626.040	LA3BO
4	SM5CSS	1448	3.166	154	487.564	SM5CSS
5	OH9UFO	1307	2.930	164	480.520	OH9UFO
6	OH8A	1171	2.568	147	377.496	OH8WW
7	OH3GGQ	1190	2.569	146	375.074	OZ1BII
8	OU2I	1137	2.543	139	353.477	
9	OH8UV	1091	2.329	150	349.350	
10	SM6FKF	1148	2.511	139	349.029	
11	SM7MX	1020	2.179	140	305.060	SM5MX
12	SM5CEU	943	2.087	144	300.528	SM5CEU
13	SM4DQE	966	2.075	137	284.275	SM4DQE
14	SI6W	868	1.881	149	280.269	SA6AQP
15	OZ4CG	1010	2.172	123	267.156	OZ4CG
16	LA2MOA	964	2.152	107	230.264	LA2MOA
17	SM5IMO	731	1.609	134	215.606	SM5IMO
18	SM6A	728	1.610	114	183.540	SM6BGA
19	OZ7BQ	726	1.611	111	178.821	OZ7BQ
20	SF0D	806	1.676	106	177.656	SM0DSF
21	TF3GB	754	1.690	104	175.760	TF3GB
22	SM0BSO	804	1.709	101	172.609	SM0BSO
23	SM5ACQ	615	1.337	111	148.407	SM5ACQ
24	SD7W/2	717	1.484	99	146.916	DL25WW
25	OH2KM	608	1.301	96	124.896	OH2KM
26	OH2CI	613	1.285	91	116.935	OH2CI
27	OH2LU	574	1.187	96	113.952	OH2LU
28	OH6OS	509	1.142	88	100.496	OH6OS
29	7S5Q	487	1.022	98	100.156	SM5COP
30	SM5DK	475	1.041	94	97.854	
31	SI2E	523	1.099	88	96.712	SM2EKA
32	OZ4FF	457	1.004	90	90.360	
33	SD6M	423	902	80	72.160	SA6BGR
34	SM7BVO	364	799	89	71.111	SM7BVO
35	OH3LS	389	818	83	67.894	OH3LS
36	SM5CNQ	353	739	88	65.032	SM5CNQ
37	SM6X	356	786	77	60.522	SM6X
38	SM7CIL	358	789	74	58.386	SM7CIL
39	OH3DP	305	654	89	58.206	OH3DP
40	SM6TOL	341	761	74	56.314	SM6TOL
41	OH1TS	381	795	61	48.495	OH1TS
42	LA7MFA	382	808	60	48.480	LA7MFA
43	OH2BBM	299	644	61	39.284	
44	SM5DXR	234	497	73	36.281	
45	OH3KQ	232	501	65	32.565	OH3KQ
46	OH8KA	194	426	46	19.596	OH8KA
47	SE6N	173	370	52	19.240	SA6AXR
48	OZ1JFK	176	420	44	18.480	OZ1JFK
49	SM5AQI	110	263	49	12.887	SM5AQI
50	SM6PPS	115	265	47	12.455	SM6PPS
51	OH6LW	129	271	43	11.653	OH6LW
52	OH1MAR	113	251	45	11.295	OH1MAR
53	SM5EFX	116	248	43	10.664	SM5EFX
54	SJ7J	102	250	34	8.500	SM7HVQ
55	LA/SP2ASJ	121	248	31	7.688	LA/SP2ASJ
56	LA9DK	102	233	32	7.456	LA9DK
57	SJ9WL	92	203	32	6.496	SM6EAT
58	SA6W	102	215	30	6.450	SM6PVB
59	OH2BFG	63	152	39	5.928	OH2BFG
60	SM5BJT	67	156	36	5.616	SM5BJT
61	SM6NT	69	163	27	4.401	SM6NT
62	LA6GX	73	158	25	3.950	LA6GX
63	OH3CV	55	131	26	3.406	OH3CV
64	OH5XO	77	162	20	3.240	OH5XO
65	OH2EV	47	101	22	2.222	OH2EV
66	OH2FHN	43	99	21	2.079	OH2FHN
67	OY4M	41	89	21	1.869	OY4M

68	LA3ZA	32	73	23	1.679	LA3ZA
69	SM6Y	29	72	16	1.152	SM6DER
70	LA7CL	25	56	18	1.008	LA7CL
71	OZ7SG	22	56	8	448	OZ7SG
72	LA8AW	24	67	6	402	
73	OH2JI	13	33	11	363	
74	OZ1BMA	12	27	12	324	OZ1BMA
75	SM5ILE	15	32	10	320	SM5ILE
76	OH1T	11	24	9	216	OH1MN
77	OZ4QX	9	20	6	120	
78	OH6MBQ	4	8	4	32	OH6MBQ

## Single Operator All Band Low Power TB-Wires

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATOR
1	OH1RX	1433	3.139	169	530.491	OH1RX
2	SK4EA	1287	2.908	160	465.280	SM4EPR
3	LA5LJA	1265	2.698	145	391.210	LA5LJA
4	SM3C	1200	2.632	142	373.744	SM5CCT
5	SA6G	1089	2.405	140	336.700	SM6CUK
6	SM6Z	1098	2.382	131	312.042	SM6BZE
7	OH8MBN	932	1.954	112	218.848	OH8MBN
8	LA6CF	756	1.669	117	195.273	
9	SA5N	762	1.644	114	187.416	SM5NBE
10	OH6BA	710	1.543	118	182.074	OH6BA
11	OH2MGA	716	1.530	119	182.070	OH2MGA
12	LA2HFA	751	1.615	104	167.960	LA2HFA
13	OH1B	706	1.500	109	163.500	OH1BOI
14	OH7KD	669	1.452	112	162.624	OH7KD
15	SG0M	540	1.190	129	153.510	SA0AQ
16	SM6BSK	653	1.408	107	150.656	
17	OG9R	580	1.275	107	136.425	OG9R
18	SI5Y	604	1.345	99	133.155	SM5BKK
19	OH3KAV	600	1.287	98	126.126	OH3KAV
20	LA6ZFA	490	1.046	106	110.876	LA6ZFA
21	OH1NDA	528	1.108	97	107.476	OH1NDA
22	OH4JT	497	1.057	97	102.529	OH4JT
23	OH2LNH	487	1.034	78	80.652	OH2LNH
24	SM3TLG	409	861	82	70.602	SM3TLG
25	SM5KQS	334	714	86	61.404	SM5KQS
26	OH2HZ	139	331	59	19.529	OH2HZ
27	SI6T	155	336	51	17.136	SM6LZQ
28	SM0NCL	102	237	39	9.243	SM0NCL
29	OH8FAL	52	111	24	2.664	OH8FAL
30	SM0FPR	25	54	14	756	
31	OU3A	12	28	10	280	OZ5UR

## Single Operator All Band Low Power Rookie

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATOR
1	TF3EO	10	23	9	207	

## Single Operator All Band QRP Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATOR
1	SM6DF4XG677	1	4.08	104	146.432	DF4XG
2	OG4T	569	1.217	96	116.832	OH4MFA
3	SM0THU	516	1.081	103	111.343	SM0THU
4	OH4EA	467	996	88	87.648	OH4EA
5	OH3RF	415	915	95	86.925	OH3RF
6	SM6FPG	479	990	87	86.130	SM6FPG
7	SM0LGO	247	527	70	36.890	SM0LGO
8	OH2BT	135	312	72	22.464	OH2BT
9	SM3DFM	121	271	41	11.111	SM5DFM
10	OZ8A	92	196	41	8.036	OZ8A
11	OH2ID	44	102	26	2.652	OH2ID
12	SA5Q	28	61	12	732	SA5ACN
13	LA3LJA	17	38	16	608	LA3LJA

## Single Operator 80 meter

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATOR
1	OG2YL	511	1.068	37	39.516	OH2YL
2	SM0HEK	301	620	31	19.220	
3	OH8CW	124	255	17	4.335	OH8CW
4	OZ1IKW	54	110	22	2.420	OZ1IKW

## Single Operator 40 meter

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATOR
1	OH2BV	1088	2.461	62	152.582	OH2BV

# Results CW

2	OH6R	974	2.216	54	119.664	OH3FM	14	OH7FF	59	131	23	3.013
3	OH1ND	503	1.062	42	44.604	OH1ND	15	OH5KW	23	63	8	504
4	LA7JO	57	116	22	2.552		16	SM6WZH	11	26	9	234
												SM6WZH

## Single Operator 20 meter

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATOR
1	OH8L	1152	2.709	70	189.630	OH8LO
2	SM7GIB	894	2.175	64	139.200	SM7GIB
3	OH2BAI	750	1.616	53	85.648	OH2BAI
4	OZ7RQ	594	1.386	55	76.230	OZ7RQ
5	OV3X	419	942	51	48.042	OZ8AE
6	OH2BCD	416	908	46	41.768	OH2BCD
7	SM2CVH	442	929	44	40.876	SM2CVH
8	OH6TN	429	911	44	40.084	OH6TN
9	OH1LWZ/M	396	866	46	39.836	
10	OH6NEV	414	864	40	34.560	OH6NEV
11	SM6EWB	352	760	40	30.400	SM6EWB
12	SM4PEL	292	693	39	27.027	SM4PEL
13	SM0Q	276	567	36	20.412	
14	OZ7TTT	259	562	32	17.984	
15	SM0Y	196	428	34	14.552	SM0OY
16	OZ6TL	198	421	30	12.630	OZ6TL
17	SM6GBM	110	275	24	6.600	SM6GBM
18	SM7RPU	93	191	23	4.393	SM7RPU
19	SM7RYR	78	182	19	3.458	SM7RYR
20	OV2V	33	67	14	938	OV2V
21	SM6PDS	23	49	10	490	LEE
22	TF3Y	19	41	9	369	TF3Y
23	LA7NFA	22	63	5	315	LA7NFA
24	LB1GB	12	26	8	208	LB1GB
25	OX5T	6	12	5	60	OX5T

## Single Operator 10 meter

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATOR
1	OH2BBT	53	125	23	2.875	OH2BBT
2	OH2KI	16	39	13	507	

## Multi Operator Single Transmitter

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	OH1F	2257	5.322	252	1.341.144	OH1NOA OH1TM
2	OG7F	2243	5.221	241	1.258.261	OH5DA DJ9DZ
3	OH5Z	2205	5.150	237	1.220.550	OH5TS OH5WH
4	SA8C	2016	4.640	211	979.040	SM3PHM SM3VAC
5	OH9W	1821	4.261	227	967.247	OH2BCI OH2TA
6	LA2AB	1884	4.345	189	821.205	LA5P2ASJ LA7MFA
7	LN5O	1831	4.142	189	782.838	LA6FJA
8	OH2BAH	1705	3.996	193	771.228	OH2BAH OH2PQ
9	SI9AM	1756	3.884	170	660.280	SM3CER SM3EAE
10	OZ7HAM	1509	3.466	170	589.220	OZ1FJB OZ1ETA
11	SM6BGG	1537	3.582	163	583.866	SM6BGG SM2BJS
12	SB0A	1417	3.243	164	531.852	SM0NCS SM0LPO
13	LN1B	1457	3.244	163	528.772	LA1QDA LA4WKA
14	SK0QO	1335	3.002	173	519.346	LA8PDA LA9IS
						SA0AAZ SA0BJL
						SM0DSG SM0FDO
						SM0NUUE
						SM3RAB SM3WMU
						LA9TJA
						TF3SG VK6DXI

## Single Operator 15 meter

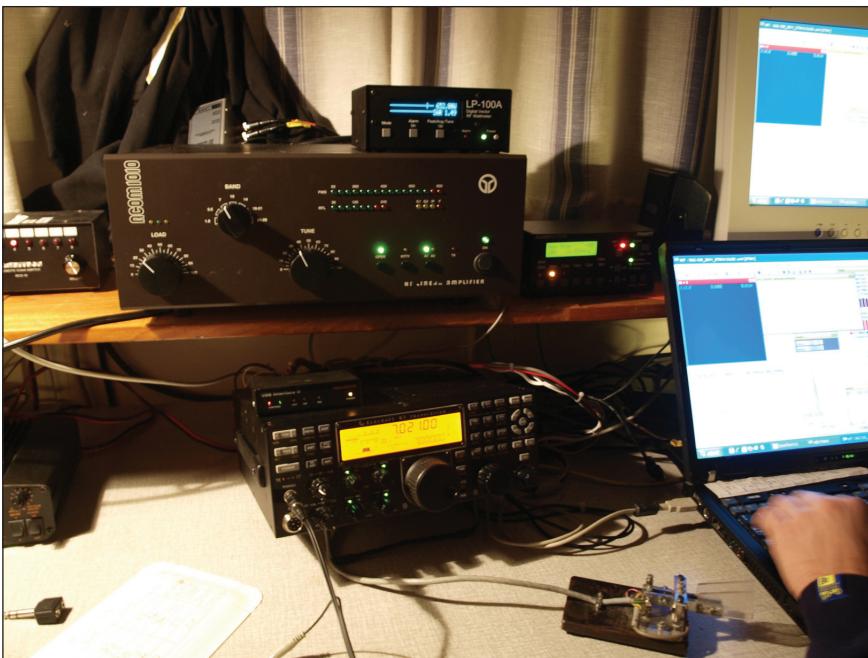
RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATOR
1	OG4X	771	1.973	75	147.975	
2	OH2T	671	1.755	71	124.605	OH2KW
3	SM7GVF	652	1.733	67	116.111	SM7GVF
4	OH2J	433	1.136	52	59.072	OH2OT
5	OH3NU	383	988	57	56.316	OH3NU
6	OH7CW	344	866	58	50.228	OH7CW
7	OH3AR	259	628	50	31.400	OH3MC OH3XA
8	SM7YIN	236	606	32	19.392	SM7YIN
9	OH7WV	167	400	35	14.000	OH7WV
10	SM3OMO	122	300	38	11.400	SM3OMO
11	OH2BN	106	270	35	9.450	OH2BN
12	OZ4ABH	150	346	25	8.650	
13	SM2A	70	159	25	3.975	SM2ILF

## Multi Operator Multi Transmitter

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	OH2K	1762	4.099	179	733.721	OH2GEK OH2LRE
2	OZ0MF	1709	3.773	165	622.545	DL6BW DL5SE
3	SK5LW	1441	3.181	172	547.132	SM5SIC SM5PBT

## Checklogs

OG5A, SK5A



## Alan, VK8AV

The SAC is one of my favourite contests. I make every attempt to be able to submit a log. I even try to vary my vacations around SAC CW. I don't worry about any SSB Contests, because they confirm what the Poet said, "Empty vessels make the most noise"! Accordingly, I have no microphone for HF - the microphone is for the local 2m/70cm repeaters.

I was first licensed as VK8AV in about 1986. Prior to that, I held the call MP4BBZ in Bahrain in the mid-1950s, and VR4CV in the then British Solomon Islands Protectorate, between 1959 and 1962. Presently, I also hold the call VK4IV. I got this call just in case I decide to move to VK4-land at some stage in the future.

I used to have a 8-element Log Periodic Antenna. The heavy-weight parrots kept sitting on the elements, and they finally destroyed the antenna. To worsen my situation, my amplifier also crashed. Now, I am QRV with my ancient IC751A barefoot. My antennae consist of an Inverted vee for 20m, a Butternut HF2V vertical on the metal roof for 40/15m, a quarter-wave sloper for 80m, and a home-made wire vertical for 10/15m. As you can see, my station has limited resources.



With these limited resources, it is very difficult to make too many QSOs because of the USA-JA-EU clique which have their beams pointing to each other, totally ignoring us Down Under! Of course, it is also possible that the operators don't know where Australia is located. Hi!

Another problem for me are the multi-kW stations in UA/JA calling "CQ" and blotting out any feeble signal I can put out. Here, the USA stations do not cause any problems. Fortunately for me, making contacts with the Scandinavian stations is not a major problem on 20/40m. That also includes the UA1 areas. I think this is because my signals have a long skip. The net result is that my log usually consists of less than 200 QSOs. Nevertheless, I have always enjoyed contesting.

## Jörg, DF6JC

2013 is my 21st year in the Scandinavian Activity Contest, both CW and SSB, and the Contest Committee asked "What made you participate in SAC?" Well, in the beginning, I guess, it was the appeal of a regional contest with a good number of participants and the chance of ending up in the top ranks even when using a modest station. Nowadays, having some ties to Sweden and holding a Swedish call sign as well, it's more like an emotional commitment to be part of the party either from here or there. Back in the early 1990's I began participating in SAC by running barefoot with a vertical. Slowly, I upgraded to a single yagi and high power, which earned me my first place on top of the European pack in 2002. After moving from the countryside back into a city, I now participate from DR1A ([www.dr1a.com](http://www.dr1a.com)) in north-western Germany,

close to the Dutch border. This station is actually designed for multi-operator/multi-transmitter contests, i.e., we have six single-band operator positions in different shacks. This makes quick QSY's technically easy but physically demanding, sprinting from one radio to the other all the time... and SO2R is not an option in the current configuration.

It is obvious that when sitting in the driver's seat of such a station, there is only the recently added "multi band - high power assisted" category to participate in. I really welcome this new category because now we non-Scandinavians can utilize all those nice bells and whistles of up-to-date contesting.

The distance to the main population centres in Scandinavia from my location ranges between 600 km and 1500 km. This is obviously not very favourable for single-hop F-layer propagation on the high bands, but that is partly compensated by less attenuation on the low bands, of course. This means I have to rely on all sorts of scatter propagation on the high bands, especially during sunspot minima. I remember very well one year working SE5E on 10m in the middle of the night with a decent signal, be it via meteor, airplane, or even UFO scatter, who knows!

In this respect, one big advantage of the setup at DR1A is that there are two independent yagi-stacks on each of the high bands. I usually point one antenna into the short path direction to Scandinavia, while scanning for those possible scatter areas with the other antenna all the time. From the propagation point of view, any dedicated entrant for example from the Black Sea area will give me a very hard time (or someone operating from a small, and thus rare, European country...).

I usually spend most of the contest S&P'ing, but it can be observed during the contest that many top-scoring Europeans call CQ a lot. Perhaps some time in the future I will take the time to analyse the logs to see what kinds of rates their CQ'ing yields and probably revise my strategy.

But at the end of the day, amateur radio contesting for me is all about a friendly competition in a fascinating hobby, true to the Olympic motto: Taking part is everything. And last but not least SAC is also a lot of FUN, too!

Finally, I would like to announce a challenge:

I am willing to sponsor a special plaque to the first non-Scandinavian single operator entry that breaks the 1000-QSO mark in the final results! Is this a reasonable goal? Well, the result lists shows around 250 all-band logs from Scandinavia in the most recent years. So the potential is there and Ben, DL6FBL, already got close in 2011. So see you all in the Scandinavian Activity Contest 2014!

## **OH1F (Timo & Timo, OH1NOA & OH1TM)**

The radio club OH1F (OH1AF/OH1AB) strives to participate in SAC CW and SAC SSB every year. Quite often we choose the multi/single category, just like this year in the CW leg. We have also participated as multi/multi, and in 2012 we tried three single band entries.

We were able to repair our 40m yagi stack just before the contest, and thus we were all set as far as antennas go. We used an 80m GP and dipole, a 40m 3/2 yagi stack and a dipole, 4/4 yagi stacks and single 4 element yagis for both 20m and 15m, and for 10m we had a 4/4/4/4 yagi stack and a single 6 element antenna. The station was set up with two operating positions, which were both able to use antennas for all bands through a WX0B six pack. The rigs were an FT1000MP and FT1000D, with AL-82 and Alpha 91b amplifiers. Win-Test was used as our software of choice. We had troubles with the antenna cables and connectors throughout the contest, but fortunately one of the stations was able to carry on with pileup operation all the time.

The live scoreboard and CW Skimmer have completely revolutionized the tactical "game" around SAC. One can make strategic decisions quickly based on opponents' actions. The Skimmer and the scoreboard very quickly show which band is hot and which one isn't. Moreover, the live scoreboard gives a great boost for operating.

Our strategy was different from most others in that we started on 20m and stayed there for quite long. After visiting 15m we were again on 20m for a long time before moving to 40m. At the end of the contest we worked some 10m and racked up quite a good multiplier there despite the marginal conditions. Our strategy worked great, with the only setback being the lost multipliers from the east on 40m.

Conditions on 80m were quite good (i.e., we worked "more than one" Japanese station) and the 40m nighttime opening to the United States was one of the best we've ever experienced. The conditions were thus good, although not unheard of - still, we succeeded in breaking our own QSO record in SAC CW. In the post-WRTC SAC of 2002 there were many more multipliers on the bands and 10m opened well, and thus we weren't quite able to break any score records this year. But it was fun again, even though the early hours of the morning are always challenging in a two-man multi/single!

### Nigel, PJ4/G3TXF

In late September a short DX trip was planned to Bonaire PJ4. Although there are only three resident amateur radio operators (PJ4LS, PJ4NX and PJ4VHF) currently on Bonaire, there is a large contest station (PJ4G) owned by Noah K2NG. This rent-a-shack is used by visiting DXers as well as by the core team of contestants who use the PJ4G station for each of the major contests (CQWW, ARRL, WPX).

The short PJ4/G3TXF operation in late September was timed to coincide with both the SAC CW contest and CQWW RTTY. It has to be said that the ideal place for taking part in the SAC CW contest is definitely not the Caribbean! The UK is a much better place for participating in the SAC contests. Nevertheless, it was great to be able to make a part-time entry in SAC CW from PJ4.

The PJ4G rent-a-shack station is in a self-contained house with two tall towers on top of a hill with views over most of Bonaire. The PJ4G hill-top site is shared with several other users including local broadcasters, cellular phone companies and other radio utilities. Despite the proximity to these other users on the same site, there are no co-interference problems.

However, the same cannot be said for the medium voltage utility power-line which passes right between the two towers at PJ4G. The constant noise generated by this power-line is



a major drawback to an otherwise excellent station.

Although this was (I think) my first entry in SAC CW from overseas, I have been taking part in SAC CW from home as G3TXF on and off since 1965. My first ever QSO in SAC CW was with OH2LA on September 18, 1965. On 40m, OH2LA gave me 187 to my 001!

## Ville, PY2ZEA (OH2MM)

As a Finn, SAC is like a "civic duty" to me. I participated in my first SAC in 1967 as OH5SE, then later as OH2MM, OH0MM, and OH0E. At times, I've been able to "combine" a professional trip with SAC and operate on the "other side" as EA8EA/EA3, VE7/OH2MM, and SV8/OH2MM. Now that I live permanently in Brazil, I work SAC as PY2ZEA.

When I moved to PY, my good friend Atilano, PY5EG, invited me to install my rigs and operate at one of his superstations located in Araraquara, which is just a one-hour drive from my home. The setup there consists of two radios and amplifiers with automatic band changing, and it is compatible with SO2R, M/2 and M/S operations. PS2T is the call used in most contests at this QTH.

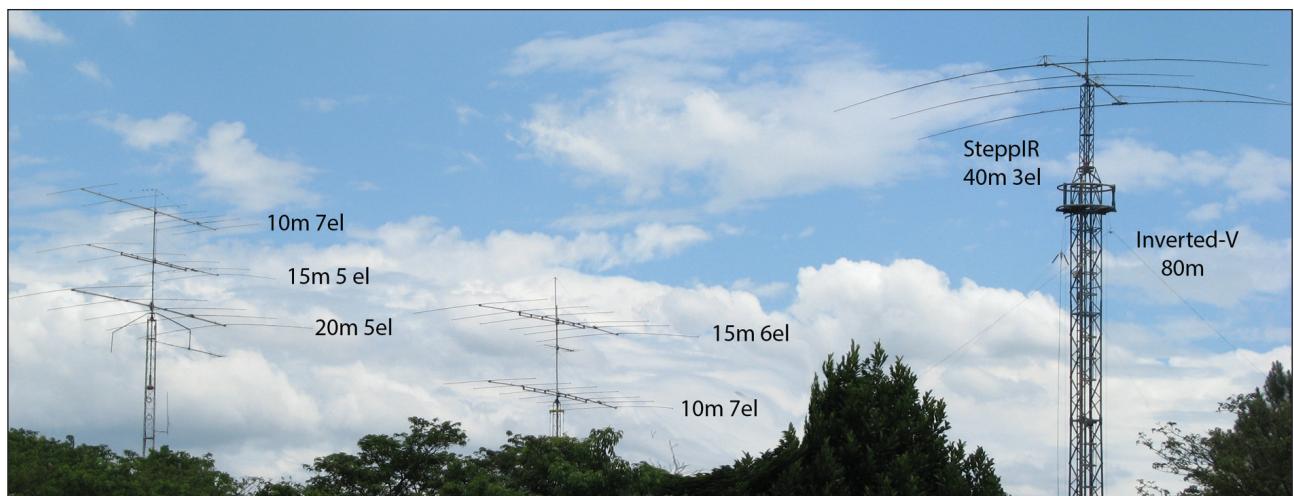


The Reverse Beacon Network (RBN) is an exciting new tool for contesters. In last year's SAC CW, I watched RBN all the time like a hawk. Whenever a new Scandinavian callsign appeared, I jumped there right away. Many times I received the serial number 001 from that station. The whole process lasted just one minute! This is great! RBN is also democratic. It identifies CQs of modest stations from common countries like OH or SM. Nobody would consider these "small pistols" worth reporting on the conventional cluster.

Some ask me "who was the strongest" on the band. I don't know. The Scandinavians beam to Asia in the morning and to USA in the evening. Few people beam much to South America. Fortunately, I'm often able to penetrate Scandinavians' pileups using QRO and big yagis, no matter where they are beaming.

Please listen to South America! Being close, I could hear small stations from LU, CX, and PY desperately calling the Scandinavians with no result.

We have problems here with man-made noise from motors, switching power supplies, etc., in the neighborhood. After fixing one noise source, a new one pops up right away. On 80m, I made 43 QSOs in SAC CW 2012, but only 4 QSOs in 2013, thanks to a new source of S9+ ignition noise on 80m!



## CW soapbox comments

7M1MCY: I enjoyed the contest.

C37AC: Tnx to managers for contest -- 73.

C4Z: Good to see more OZ's & LA's this year. A great contest as always, thanks to all entrants and the organisers.

DF0FA: Not so easy to make QSO on higher bands from south east corner of Germany. We hear more on 10m and 15m. Any way tnx for all qso and tnx for nice contest.

DJ6TK: Good activity on all bands.

DK2AB: Worked from the attic with KX3 @ 5 W and hyendfed 10m/20m/40m in inverted V configuration. Due to a broken notebook batterie, first contest with hand-key and paperlog. Tablet worked well to spot some stations on the cluster. 73s de Jens, DK2AB

DK3CC: Nice operators.

DK8NT: After a miserably slow start (not uncommon) I harvested an average result. 40 and even 80 m worked fine, but 15 was bad and no QSOs on 10m (on sunday it was completely useless due to a strong, broad multi-carrier "garden fence"). Thanks for the nice contest!

EW2EO: Nice test!

G0SAC: This call always seems to elicit some amusement. It seems eminately suitable for this contest!

HA2OS: 1st SAC, enjoyed with only 4 band GP + 100W :)

JA1CCX: I enjoyed the contest very much.

JE1HTV: I tried to participate this contest in a very short time and made only three qsos.

JH1OES: I used ts-2000 (50w) & mobile. whip ant. I'm very happy to contact with mni SAC stations. Vy tnx!

K1DM: What a great contest! I enjoyed QSO's with expert operators from Scandinavia! knew cut-numbers! I will play in this contest again. Thank you!

K1GQ: Many good CW operators with good ears.

K1TN: On Sunday, 20 meters started to open at 1120z. 15 meters started to open at 1145z. Sounded like conditions were going to be even better than on Saturday.

K3TW: Conditions were good for QRP, especially on the low bands. Special thanks to all the fine CW operators for making the SAC so much fun.

K5ZD: Fun as always. OH0V moved me from 15m to 10m. Weak, but made the qso. Tuning around I heard XZ1Z with a nice signal. Never expected to work XZ on 10m!

KV4QS: Signal was not strong as I had many fill requests. Many thanks to the organizers and participants. 73 KV4QS

M0CFW: I felt fewer Scandinavian station this year. I was watching 10m SDR and waterfall screen, only found 2 Scandinavian station (both OH) but C4, PY were very strong. I can hear strong NA/CA station calling Scandinavian station on 15/20m but seems propagation between them were not good. As you can see top Scandinavian station put webcam and broadcast on cqcontest.net website so I know they were awake and operating but I wonder where they are?? I wish organiser will add SO(A)LP category soon. 73 Kazu M0CFW, M5Z, JK3GAD

OG6N: 17 hours was the best I could do while suffering from a cold. The first 9 hours went surprisingly well but after that the rest of the contest was struggle. I had to take a 3 hour nap in the morning due to a nearby thunderstorm and exhaustion.

OH0V: This was the first contest I started to feel I am getting to learn how to use the second radio. Score wise, 80m was a disappointment. It was difficult to be a low power station as many who QSYed to new band came there but they could not hear me. Thank you very much for trying. My other station, OH4A, was on with a complete newcomer to two radio era, OH6QU. Jari did pretty well taking into account this was his first contest for many years and all-time first trying to use two radios. Thanks all for a lot of fun. Hear you on SSB.

OH1F: CW M/S qso record! We had a tight battle with OH5Z it that was a joy to follow that at cqcontest.net scoreboard! CU in SSB part.

OK4RM: My first contest try with Elecraft KX3 and KCOMM software.

OK7CM: TRX Elecraft K3 5W, ant. dipole and vertical. Nice contest. Good activity from Scandinavia. Cuagn next year.

ON5SE: Many OM on the air; funny test.

PA0FAW: Lot with QRP.

PA0MIR: After returning from the Dutch HF meeting and dinner just wanted to make some Scandinavia QSO,s but had to stop after nr. 100 as XYL had other projects.

PA0RBA: 73 from Holland.

PA2REH: Was fun, but no OY and OX activity, 73.

R0AA: Thanks for a nice contest! I will be back next year.

RV3D: This contest was hard work.

SK4EA: Local noise at s9 in 80 meters until 20z annoying. The same about intruder noise in the whole CW part of 10 meters on Sunday. Good activity and conds in 15, 20 and 40 meters. Had some hard work keying manually all the time with our not so good manipulator. Rig was IC-718, 100W, tribander and a delta loop for 80 meters also tuned for 40 meters. Thanks for all contacts. /Mats SM4EPR

SM0THU: First time in SAC for me. A lot more running than I'm used to and a good fight with OG4T on cqcontest.net at the end of the contest. Really close, we'll see who has the most busted QSOs. Probably me...

SM2CVH: RX = Drake R4A, TX = Drake T4X ant = 100 m long-wire. Manual logging and time-keeping, no computer, no internet, no cluster. Just basic radio communication.

TF3Y: Only a few minutes to participate this time around.

VE3NZ: Unfortunately had only 3 hrs for the fun. Tnx fer contacts. Mni good op's.

VK8AV: An enjoyable contest even with my limited resources.

VU2MUD: Sl. no 3 missed by oversight - ICOM IC-718 - G5RV jr antenna - 80 W - hope to have a better run next time with better antenna setup.

W1END: Good participation and fine conditions provided many contacts.

WQ6X: This was another ad-hoc operation from Alameda, CA. using an ICOM-7000 into a modified MFJ apartment antenna with a 40-meter ham-stick 2.5-mh. I had a limited amount of op time which was focused mainly on the WaQP. However when I heard SJ2W with the puny ham-stick antenna, I had to call him. I want to thank SJ2W for sticking with my s-1 signal and getting me into the log. Next year I will operate the contest from a real fixed location and really give it a go. Thanks for being there.

YO2IS: My 4th SAC-CW in row !, pleased to meet old friends again. Hard conditions on 15m, nil on 10m, severe local BC QRM on 80m !. Setup... IC-7000, 100W...Diamond CP6 trap GP...73 Szigy.

YU2A: Thanks for a nice contest! See you next year!

# Results SSB

# SAC SSB 2013

## AFRICA

Single Operator All Band High Power Assisted						
RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	ZS2EC	14	14	10	140	ZS2EC

## Single Operator All Band Low Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	SU9AF	245	251	92	23.092	
2	EA8/OH2BP	129	133	55	7.315	OH2BP
3	EA8CVW	30	30	18	540	
4	EA8CER	14	14	13	182	

## ASIA

### Single Operator All Band High Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	RX9CCJ	322	388	103	39.964	
2	R9QQ	201	251	86	21.586	
3	RZ9JZ	274	274	78	21.372	
4	4X0A	182	182	80	14.560	4X1VF
5	R9KD	196	196	62	12.152	R9KD
6	A61K	97	147	77	11.319	A61K
7	R9AE	105	139	64	8.896	R9AE
8	EX8MAT	76	160	52	8.320	
9	JT1BV	90	90	38	3.420	NARAN
10	BV1EK	64	64	45	2.880	BV1EK
11	JA8ECS	93	93	30	2.790	JA8ECS
12	JA3LEZ	61	69	35	2.415	
13	5B4AIF	79	79	28	2.212	
14	RW0UU	50	50	27	1.350	
15	JA9CCG	47	47	22	1.034	
16	JH8CXW	22	22	14	308	JH8CXW
17	JG8TDZ	5	5	4	20	
18	7L4VYK	4	4	4	16	

### Single Operator All Band High Power Assisted

RANK	CALL	POINTS	MULT.	SCORE	OPERATORS
1	RF9C	623	987	172	169.764
2	VR2XMT	166	166	75	12.450
3	RZ9UO	102	102	62	6.324
4	E21EIC	67	73	46	3.358
5	4L1UN	102	102	32	3.264
6	RK9UE	60	60	35	2.100
7	RZ9UMA	47	47	27	1.269
8	4Z5KZ	27	27	18	486
9	VR2UBC	19	19	15	285
10	RA0AM	12	12	10	120
11	UA9CBF	12	12	8	96
12	RV9LM	9	9	5	45
13	9M2KRZ	5	5	5	25
					9M2KRZ

### Single Operator All Band Low Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	UA9R	384	508	125	63.500	
2	RF8R	280	362	112	40.544	RW9RW
3	UA9OMT	235	269	99	26.631	UA9OMT
4	UA9XMC	328	330	79	26.070	UA9XMC
5	RA9MX	208	252	98	24.696	
6	UA9MA	215	239	99	23.661	
7	R9UVF	222	250	91	22.750	R9UVF
8	UA0WW	210	210	80	16.800	UA0WW
9	RT9TM	104	166	68	11.288	
10	TA4/OH2BDD	126	168	66	11.088	OH2BDD
11	UA9SMU	75	225	30	6.750	UA9SMU
12	JA7BEW	104	120	55	6.600	
13	RA9UAD	101	117	55	6.435	
14	RV9YK	105	105	55	5.775	
15	R9OAZ	96	98	56	5.488	
16	UA9JNT	95	101	51	5.151	

17	TA5CV	60	112	42	4.704	TA5CV
18	4K6FO	71	85	43	3.655	4K6FO
19	RA9UGU	108	108	33	3.564	
20	JA8COE	106	106	31	3.286	JA8COE
21	JA9TQY	64	64	40	2.560	
22	R9UG	62	62	39	2.418	
23	JE8VZK	54	54	27	1.458	JE8VZK
24	4Z5MV	48	48	29	1.392	
25	UB8QAA	47	47	28	1.316	UB8QAA
26	JJ5HUD	44	46	27	1.242	JJ5HUD
27	VR2XMC	42	42	29	1.218	VR2XMC
28	4Z5PJ	41	41	28	1.148	
29	JS3CGH	37	37	23	851	
30	JE1RRK	36	36	20	720	
31	JH5FTY	28	28	24	672	
32	JR0JOW	31	31	20	620	
33	TA1AGA	13	27	12	324	TA1AGA
34	JE1CWQ	21	21	15	315	JE1CWQ
35	JA6CVR	21	21	15	315	
36	TA7EB	21	21	14	294	ALI
37	JA1UXV	20	20	14	280	
38	7K1CPT	17	17	14	238	
39	VU2SGW	16	16	14	224	
40	JI3CWI	10	30	7	210	JI3CWI
41	JH6FTJ	19	19	11	209	JH6FTJ
42	HS4DDQ	16	16	12	192	HS4DDQ
43	DS2CYI	9	25	7	175	DS2CYI
44	JA0BJY	13	13	10	130	KEIIHI MATSUTA
45	JG1MJ	12	12	10	120	
46	BA1SN	12	12	10	120	BA1SN
47	JH7IQQ	11	13	9	117	
48	DS5TOS	6	18	5	90	DS5TOS
49	JH3GMI	3	3	3	9	
50	7N4GIB	3	3	3	9	7N4GIB
51	JR4LRY	1	1	1	1	
52	JG2QUM	1	1	1	1	
53	9W2MZY	1	1	1	1	9W2MZY
54	BG4UQX	0	0	0	0	BG4UQX

### Single Operator All Band QRP Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	RA0AY	80	84	31	2.604	
2	JH3DMQ	23	23	15	345	

### Multi Operator Single Transmitter

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	RK9CYA	432	592	136	80.512	UA9CMP RK9CR
2	RK9QWM	265	331	93	30.783	RW9QM RW9QP
3	RU9CZD	174	200	88	17.600	RW9QU UA9CDC UA9CIR
4	RN9T	90	90	42	3.780	UA9SBH RA9ST
5	UA8WAA	56	56	30	1.680	

### Checklogs

BD7IS

## EUROPE

### Single Operator All Band High Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	TM0X	714	714	173	123.522	F4BKV
2	R4WDX	625	625	165	103.125	R4WDX
3	US5D	541	541	153	82.773	
4	IW5EFX	532	532	151	80.332	IW5EFX
5	YO3CZW	556	556	144	80.064	YO3CZW
6	F1RHS	441	441	141	62.181	
7	DL7SP	465	465	129	59.985	DL7SP
8	HA1AG	358	358	146	52.268	
9	MW0EDX	407	407	126	51.282	

# Results SSB

10	IZ8GUQ	345	345	147	50.715		13	9A3B	318	318	135	42.930	9A1AA
11	ON5GQ	400	400	123	49.200	DG1EA	14	HB9ELV	328	328	126	41.328	HB9ELV
12	DG1EA	352	352	125	44.000	EA5ICU	15	S56A	294	294	123	36.162	S56A
13	SV1JG	330	330	128	42.240		16	LZ5R	292	292	122	35.624	LZ1UK
14	UA3VFS	333	333	123	40.959		17	SV1PMR	282	282	123	34.686	SV1PMR
15	EA5ICU	321	321	118	37.878	EA5ICU	18	DL1FMK	290	290	103	29.870	DL1FMK
16	IK4AUY	313	313	121	37.873		19	SO9C	283	283	104	29.432	SQ9CNN
17	SQ6R	293	293	126	36.918	SQ6R	20	LY3CY	274	274	102	27.948	LY3CY
18	9A4U	313	313	107	33.491	9A4MF	21	ON1DX	246	246	109	26.814	ON1DX
19	SN2K	254	254	123	31.242	SQ2SIT	22	LY3B	227	227	117	26.559	LY3B
20	UT3QD	270	270	110	29.700		23	EA7LL	252	252	100	25.200	
21	HA0HW	244	244	107	26.108	HA0HW	24	GI4AAM	226	226	108	24.408	GI4AAM
22	RU3FN	273	273	89	24.297		25	HA7PL	226	226	92	20.792	HA7PL
23	UT1QQ	230	230	105	24.150	UT1QQ	26	DK2CX	196	196	101	19.796	
24	DG6SA	247	247	84	20.748	DG6SA	27	LY5W	165	165	87	14.355	LY5W
25	DL2FCB	237	237	87	20.619		28	CT2IVH	178	178	64	11.392	
26	OK2BEN	220	220	93	20.460		29	LX9EG	147	147	72	10.584	LX9EG
27	EA5DFV	255	255	80	20.400		30	S56B	138	138	64	8.832	S56B
28	PA3AAV	211	211	91	19.201	PA3AAV	31	PA1H	141	141	56	7.896	PA1H
29	EA3HJO	192	192	97	18.624	EA3HJO	32	LZ1BJ	105	105	56	5.880	LZ1BJ
30	RM4HZ	206	206	89	18.334		33	EW6GF	150	150	38	5.700	EW6GF
31	IQ3MF	214	214	79	16.906	IV3CTT	34	DO1GAR	100	100	45	4.500	DO1GAR
32	ES2IPA	168	168	100	16.800		35	IW9HIK/3	102	102	43	4.386	IW9HIK/3
33	OM4J	180	180	93	16.740	OM4JD	36	PE1KL	93	93	46	4.278	PE1KL
34	LY4T	175	175	93	16.275		37	RT9X	77	87	47	4.089	RT9X
35	DJ2YE	193	193	83	16.019	DJ2YE	38	YL2PP	70	70	56	3.920	
36	DL1DTL	178	178	78	13.884		39	DJ9ZB	118	118	27	3.186	DJ9ZB
37	DF1IAQ	176	176	73	12.848	DF1IAQ	40	PA0LOU	67	67	35	2.345	PA0LOU
38	YU1DW	165	165	63	10.395		41	PG2AA	71	71	33	2.343	PG2AA
39	OK1KZ	137	137	72	9.864		42	YO8WW	56	56	25	1.400	YO8WW
40	IZ2ODM	110	110	86	9.460		43	LY7Z	38	38	32	1.216	
41	IW3FVZ	141	141	64	9.024		44	PD1B	38	38	21	798	PD1B
42	DG9SEH	163	163	55	8.965	DG9SEH	45	9A6DJX	36	36	19	684	
43	RV3ZN	133	133	61	8.113	RV3ZN	46	YO5CUQ	19	19	13	247	YO5CUQ
44	RW1CW	113	113	68	7.684	RW1CW	47	F4GWY	20	20	10	200	F4GWY
45	U1BD	133	133	57	7.581		48	G4AYU	13	13	10	130	G4AYU
46	EW2EO	122	122	59	7.198		49	EA1IIP	9	9	8	72	EA1IIP
47	MM0DXH	104	104	68	7.072	MM0DXH	50	9A3DBJ	9	9	7	63	
48	UI2K	91	91	71	6.461	UA2FZ							
49	F4FNT	119	119	54	6.426								
50	G4SGI	101	101	55	5.555	G4SGI							
51	RZ3TZZ	97	97	48	4.656	UA3TW							
52	UR4LBL	88	88	43	3.784								
53	DL1BSN	81	81	43	3.483	DL1BSN							
54	HB9EOU	106	106	32	3.392	HB9EOU							
55	HB9EDY	95	95	33	3.135	OH6EDY							
56	IZ5MOQ	56	56	41	2.296								
57	S51DX	57	57	39	2.223	S51DX							
58	YT3A	70	70	30	2.100								
59	YU7AV	58	58	29	1.682	VOJA YU7AV							
60	DL/SP3LPG	54	54	27	1.458	DL/SP3LPG							
61	SV1GSW	29	29	29	841	SV1GSW							
62	DC2CB	28	28	22	616								
63	G8JYV	29	29	18	522	G8JYV							
64	HA0LZ	30	30	12	360	HA0LZ							
65	M00XD	22	22	16	352	M00XD							
66	R7CK	15	15	15	225	R7CK							
67	SV3OQJ	15	15	13	195								
68	YU7ECD	15	15	6	90	ACA YU7JX							
69	DF8AA	11	11	8	88								
70	SP3GEM	7	7	5	35								

## Single Operator All Band High Power Assisted

RANK	CALL	POINTS	MULT.	SCORE	OPERATORS
1	UT0U	735	735	174	127.890
2	RM5A	693	693	175	121.275
3	S52WW	678	678	165	111.870
4	RA3Y	479	479	141	67.539
5	9A9J	461	461	144	66.384
6	RW4WA	409	409	155	63.395
7	UT7QL	437	437	136	59.432
8	IZ3GNG	394	394	141	55.554
9	RA5B	380	380	134	50.920
10	F5NBX	358	358	140	50.120
11	DD8SM	367	367	131	48.077
12	ES5MG	313	313	140	43.820
13	9A3B	318	318	135	42.930
14	HB9ELV	328	328	126	41.328
15	S56A	294	294	123	36.162
16	LZ5R	292	292	122	35.624
17	SV1PMR	282	282	123	34.686
18	DL1FMK	290	290	103	29.870
19	SO9C	283	283	104	29.432
20	LY3CY	274	274	102	27.948
21	ON1DX	246	246	109	26.814
22	LY3B	227	227	117	26.559
23	EA7LL	252	252	100	25.200
24	GI4AAM	226	226	108	24.408
25	HA7PL	226	226	92	20.792
26	DK2CX	196	196	101	19.796
27	LY5W	165	165	87	14.355
28	CT2IVH	178	178	64	11.392
29	LX9EG	147	147	72	10.584
30	S56B	138	138	64	8.832
31	PA1H	141	141	56	7.896
32	LZ1BJ	105	105	56	5.880
33	EW6GF	150	150	38	5.700
34	DO1GAR	100	100	45	4.500
35	IW9HIK/3	102	102	43	4.386
36	PE1KL	93	93	46	4.278
37	RT9X	77	87	47	4.089
38	YL2PP	70	70	56	3.920
39	DJ9ZB	118	118	27	3.186
40	PA0LOU	67	67	35	2.345
41	PG2AA	71	71	33	2.343
42	YO8WW	56	56	25	1.400
43	LY7Z	38	38	32	1.216
44	PD1B	38	38	21	798
45	9A6DJX	36	36	19	684
46	YO5CUQ	19	19	13	247
47	F4GWY	20	20	10	200
48	G4AYU	13	13	10	130
49	EA1IIP	9	9	8	72
50	9A3DBJ	9	9	7	63
51	RZ1ND	614	614	157	96.398
52	I2PJA	521	521	157	81.797
53	IZ8XLP	500	500	157	78.500
54	I0KNQ	476	476	138	65.688
55	F4FSY	487	487	133	64.771
56	UY2IG	452	452	142	64.184
57	ON5RZ	454	454	131	59.474
58	RZ3Z	394	394	135	53.190
59	EA3KT	381	381	138	52.578
60	RU4SO	395	395	133	52.535
61	ER3CT	384	384	134	51.456
62	IK4QJF	395	395	125	49.375
63	RA4SR	326	326	133	43.358
64	9A1CFR	366	366	117	42.822
65	E74WN	349	349	121	42.229
66	IK7RVY	355	355	113	40.115
67	YO7CDB	327	327	120	39.240
68	DK8NT	330	330	117	38.610
69	RA4I	344	344	112	38.528
70	EI3CTB	328	328	114	37.392
71	DL8AAV	326	326	109	35.534
72	YO9AGI	297	297	119	35.343
73	SV1GX	293	293	114	33.402
74	OM8HG	289	289	113	32.657
75	F5PAL	292	292	111	32.412
76	GW4BLE	298	298	108	32.184
77	G4PKP	289	289	111	32.079
78	F1AEY				

# Results SSB

36	CT7AIX	266	266	105	27.930	CT7AIX	112	RA3DGH	125	125	58	7.250	
37	HA1TI	255	255	108	27.540	HA1TI	113	YO7CVL	116	116	61	7.076	YO7CVL
38	LY1SR	277	277	99	27.423		114	ON3ND	125	125	56	7.000	
39	IV3UHL	260	260	104	27.040		115	CT2JBG	101	101	68	6.868	
40	IZ7FLS	229	229	118	27.022		116	EA3XL	106	106	63	6.678	EA3XL
41	EA2WD	230	230	117	26.910	EA2WD	117	PA4HM	115	115	58	6.670	PA4HM
42	IN3IKF	245	245	107	26.215	IN3IKF	118	F8VNU	111	111	60	6.660	
43	YO8RZJ	240	240	108	25.920		119	RA6XB	99	99	67	6.633	RA6XB
44	YO9GSB	236	236	107	25.252	YO9GSB	120	YO4SI	97	97	68	6.596	YO4SI
45	F8KKH	249	249	101	25.149	F4GBW	121	UV3QF	113	113	58	6.554	UV3QF
46	OK2KG	230	230	109	25.070	OK2KG	122	UR5TEX	109	109	60	6.540	
47	YL2GP	229	229	106	24.274		123	DG4KAD	110	110	57	6.270	DG4KAD
48	EB3WH	230	230	105	24.150	EB3WH	124	SQ9FQY	109	109	56	6.104	
49	YO3APJ	250	250	94	23.500	YO3APJ	125	OM5WW	124	124	49	6.076	
50	EI/W5GN	240	240	95	22.800	EI/W5GN	126	OE8YSQ	117	117	51	5.967	SONJA
51	DL1NKS	235	235	94	22.090	DL1NKS	127	F6FTB	117	117	50	5.850	F6FTB
52	DL9HB	212	212	104	22.048		128	IK0BAL	92	92	60	5.520	
53	HB9MXY	214	214	98	20.972	HB9MXY	129	DJ7MH	95	95	58	5.510	
54	OK1HEH	217	217	93	20.181	OK1HEH	130	PD7MDJ	119	119	46	5.474	
55	OR4K	237	237	84	19.908	OR4K	131	OM2TB	111	111	48	5.328	OM2TB
56	F6DRP	243	243	80	19.440	F6DRP	132	OK2BRS	90	90	59	5.310	
57	HA1DEL	208	208	93	19.344	HA1DEL	133	YU2A	94	94	56	5.264	YU2A
58	US5IND	183	183	105	19.215		134	RA1ANY	104	104	49	5.096	
59	YO7ARY	218	218	86	18.748	YO7ARY	135	DL6MDG	121	121	42	5.082	DL6MDG
60	PG1R	198	198	93	18.414	PG1R	136	PD1TV	104	104	48	4.992	PD1TV
61	M0MCV	201	201	89	17.889	M0MCV	137	PC2D	128	128	39	4.992	PC2D
62	YO4US	205	205	87	17.835		138	DG6DCB	86	86	56	4.816	DG6DCB
63	DL1KRT	200	200	88	17.600	DL1KRT	139	SP6OPZ	95	95	50	4.750	SP6OPZ
64	OK2EC	194	194	90	17.460	OK2EC	140	F1EPQ	98	98	48	4.704	F1EPQ
65	I3QKO	247	247	70	17.290		141	F6GPT	99	99	47	4.653	F6GPT
66	SP6FJ	215	215	79	16.985	SP6FJ	142	OK1ES	80	80	55	4.400	
67	EA3EZD	208	208	81	16.848	EA3EZD	143	LY2OM	79	79	54	4.266	
68	PA0MIR	194	194	85	16.490	PA0MIR	144	SP2GOW	87	87	49	4.263	SP2GOW
69	UX7UU	240	240	68	16.320	UX7UU	145	DD4BY	81	81	52	4.212	
70	IW2FUT	187	187	87	16.269	IW2FUT	146	DL8UVG	100	100	42	4.200	
71	LZ1GE	184	184	87	16.008	LZ1GE	147	LY2N	83	83	50	4.150	LY2N
72	RA1ABR	183	183	85	15.555	RA1ABR	148	PF9A	96	96	43	4.128	PF9A
73	SQ8OQE	203	203	75	15.225	SQ8OQE	149	ON6LO	98	98	42	4.116	
74	G4DFI	215	215	70	15.050	G4DFI	150	LZ4SU	72	72	57	4.104	LZ4SU
75	EA5HRB	169	169	84	14.196	EA5HRB	151	YO5AXF	77	77	53	4.081	
76	OM7JM	182	182	76	13.832		152	YO7LDT	84	84	48	4.032	YO7LDT
77	SQ5MRI	191	191	70	13.370	SQ5MRI	153	OK1VHV	82	82	49	4.018	OK1VHV
78	LZ2FM	163	163	82	13.366		154	PA3DBS	91	91	44	4.004	PA3DBS
79	RW3AI	165	165	79	13.035		155	SQ7BTY	85	85	47	3.995	SQ7BTY
80	I24VSD	154	154	83	12.782		156	IK4XQT	84	84	46	3.864	
81	RM4A	163	163	77	12.551		157	SP5DRE	113	113	34	3.842	SP5DRE
82	DK4LL	146	146	82	11.972	DK4LL	158	9A6SJZ	80	80	48	3.840	
83	DJ4MH	145	145	81	11.745		159	S51I	82	82	46	3.772	
84	US5QUB	146	146	80	11.680	US5QUB	160	SV1DOO	72	72	52	3.744	SV1DOO
85	PE1LTY	163	163	71	11.573	PE1LTY	161	DM6HB	72	72	51	3.672	DM6HB
86	MU0GSY	184	184	62	11.408	MU0GSY	162	EA1AJV	88	88	41	3.608	
87	YO9XC	167	167	68	11.356	YO9XC	163	UA6ABE	72	72	50	3.600	UA6ABE
88	IW2NRI	186	186	61	11.346		164	SQ3RLC	99	99	36	3.564	
89	I5DOF	140	140	80	11.200		165	SP7VTQ	101	101	35	3.535	SP7VTQ
90	EI3HDB	169	169	66	11.154	EI3HDB	166	SQ9PPO	98	98	36	3.528	SQ9PPO
91	PA1VD	144	144	76	10.944	PA1VD	167	ES6RMR	72	72	46	3.312	ES6RMR
92	LZ1DM	146	146	73	10.658	LZ1DM	168	DL2DQL	87	87	38	3.306	DL2DQL
93	ES1LS	143	143	73	10.439		169	CT1ETK	69	69	47	3.243	CT1ETK
94	RA3YDA	140	140	73	10.220		170	9A2EY	75	75	43	3.225	9A2EY
95	PA0CT	146	146	66	9.636	PA0CT	171	OM8JP	87	87	37	3.219	
96	DD3D	140	140	68	9.520	DK3WM	172	SP3J	78	78	41	3.198	
97	RV1AE	142	142	66	9.372	RV1AE	173	UX6IB	72	72	43	3.096	
98	ES8SX	131	131	71	9.301		174	SP5BB	79	79	39	3.081	
99	IN3AUD	149	149	62	9.238		175	HA8RT	77	77	40	3.080	HA8RT
100	OK2FKF	131	131	70	9.170		176	DB1WT	73	73	42	3.066	
101	IW2NEF	130	130	69	8.970	IW2NEF	177	YO2BPZ	71	71	43	3.053	
102	RK3DU	124	124	72	8.928		178	EW1FM	68	68	44	2.992	
103	IK4JQQ	120	120	72	8.640	IK4JQQ	179	DL1EAL	72	72	41	2.952	DL1EAL
104	IT9BZW	131	131	65	8.515		180	EA3NA	97	97	30	2.910	EA3NA
105	OK1JOC	131	131	63	8.253	OK1JOC	181	S57AW	98	98	29	2.842	S57AW
106	SP7EBM	135	135	61	8.235	GAGAS WIKTOR	182	YO3JV	67	67	42	2.814	YO3JV
107	RV6LMG/3	120	120	67	8.040		183	DO8ABS	69	69	37	2.553	
108	F1ULQ	113	113	70	7.910		184	IK2SAR	67	67	38	2.546	IK2SAR
109	M6EAM	117	117	66	7.722	M6EAM	185	CT2JBD	54	54	47	2.538	
110	OE2LRO	105	105	71	7.455	OE2LRO	186	DH4PSG	57	57	44	2.508	
111	SP4AAZ	107	107	68	7.276	SP4AAZ	187	UT0UY	64	64	39	2.496	

# Results SSB

# Results SSB

## Multi Operator Single Transmitter

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS		17	W9SS	76	76	35	2.660	DENNIS
1	HG7T	713	713	175	124.775	HA5MY HA7TM		18	XE2MX	57	73	34	2.482	
2	UX4E	394	394	129	50.826	UT5EOX, UR7EC		19	N1WRK	52	52	34	1.768	
3	PA6SAC	381	381	133	50.673	PA3DAT PE5JW PA8KW PD2JM PH0AS		20	K8FZY	41	41	32	1.312	K8FZY
								21	VE1ZD	34	40	21	840	VE1ZD
								22	WB3BSA	30	30	25	750	WB3BSA
								23	KD4QMY	28	28	21	588	
4	HB9EP	170	170	78	13.260	HB9DOS HB9DUR		24	VA3DDX	29	29	19	551	VA3DDX
5	ES5WP	101	101	62	6.262	ES5RIT ES5IMRE ES5FRED ES5INTS		25	KE1J	19	31	17	527	KE1J
6	PB8DX	102	102	36	3.672	PB8DX		27	KX4O	12	32	11	352	KX4O
7	ES1O	72	72	44	3.168	ES6AXS KE1JO		28	W9SWT	18	18	16	288	W9SWT
8	UR4PWC	53	53	27	1.431	ARTEMENKO ALEX BILOZERSKYH IVAN.		29	VA3DBT	12	36	8	288	
9	S59T	18	18	15	270	S59T		30	W4NFT	19	19	15	285	W4NFT
								31	K9ASE	16	16	15	240	K9ASE
								32	VE9OA	16	16	12	192	VE9OA
								33	W2PIP	13	13	12	156	W2PIP
								34	WV4V	8	22	7	154	WV4V
								35	W8KNO	11	15	8	120	W8KNO
								36	NJ6W	9	9	7	63	
								37	AE7IK	6	10	5	50	AE7IK
								38	W0PAN	7	7	7	49	W0PAN
								39	N7TEW	7	7	7	49	N7TEW
								40	KB1WEZ	6	6	6	36	KB1WEZ
								41	WB3CII	6	6	6	36	WB3CII
								42	VE3TW	7	7	5	35	VE3TW
								43	WW3MM	5	5	5	25	WW3MM
								44	K7JKM	3	7	3	21	K7JKM
								45	W6SWC	4	4	3	12	W6SWC
								46	W1WAB	1	1	1	1	W1WAB
								47	KC7H	1	1	1	1	KC7H
								48	AB6TF	1	1	1	1	AB6TF
								49	W5TTY	0	0	0	0	W5TTY
								50	KW7DSP	0	0	0	0	KW7DSP

## NORTH AMERICA

### Single Operator All Band High Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	K3ZO	376	530	140	74.200	
2	W7WA	322	488	107	52.216	
3	K1QS	158	240	74	17.760	K1QS
4	N4NO	178	196	87	17.052	N4NO
5	KA8Q	131	169	80	13.520	KA8Q
6	K1TN	155	177	72	12.744	
7	VE9AA	124	152	79	12.008	VE9AA
8	W6AFA	128	170	61	10.370	ALEXANDER SHERMAN
9	W1GXZ	110	124	60	7.440	E RAMSDELL
10	KQ0C	92	116	52	6.032	KQ0C
11	W3TMS	102	104	57	5.928	W3TMS
12	W9ROG	96	96	54	5.184	W9ROG
13	K5ZD	70	102	40	4.080	K5ZD
14	VE3FJ	64	88	41	3.608	VE3FJ
15	K6NA	56	56	38	2.128	K6NA
16	W1MSN	27	51	24	1.224	W1MSN
17	VE9HF	7	9	7	63	VE9HF

### Single Operator All Band High Power Assisted

RANK	CALL	POINTS	MULT.	SCORE	OPERATORS	
1	NK3Y	205	247	92	22.724	NK3Y
2	AE1T	117	125	64	8.000	AE1T
3	KC0DEB	99	99	60	5.940	KC0DEB
4	W9OA	100	100	57	5.700	W9OA
5	AC8MR	75	101	44	4.444	AC8MR
6	NA4EA	62	68	45	3.060	NA4EA
7	VE9PLS	45	45	26	1.170	VE9PLS
8	AB1QP	28	36	23	828	AB1QP
9	XE2B	22	22	12	264	XE2B
10	N9VPV	10	10	7	70	N9VPV
11	VE3WBT	2	2	2	4	VE3WBT

### Single Operator All Band Low Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	AB2TC	214	260	100	26.000	
2	W0PV	194	246	93	22.878	W0PV
3	VE2HIT	137	263	80	21.040	
4	VO1BI	136	212	80	16.960	
5	WD5K	143	185	80	14.800	WD5K
6	N5JR	148	184	78	14.352	N5JR
7	KB1VUN	144	184	69	12.696	KB1VUN
8	NB1N	96	148	56	8.288	NB1N
9	VE3IAE	118	130	60	7.800	VE3IAE
10	W1DYJ	91	113	61	6.893	W1DYJ
11	VE3HG	97	97	55	5.335	VE3HG
12	K3IE	94	106	50	5.300	K3IE
13	K7WP	62	80	43	3.440	K7WP
14	WP3GW	63	65	47	3.055	
15	KJ8O	61	67	43	2.881	KJ8O
16	KU8E	44	74	37	2.738	KU8E

### Single Operator All Band QRP Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	K3TW	39	39	26	1.014	K3TW
2	WB0IWG	37	37	27	999	WB0IWG
3	N3CZ	11	11	8	88	N3CZ

### Multi Operator Single Transmitter

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	VA6MA	291	399	105	41.895	VE6JY, VA6MA
2	NE1C	130	166	72	11.952	K1MAZ KB1NW
3	K3NEM	137	137	66	9.042	ND3D AI3Z

### Checklogs

K1LOG, W1WLW, W6HYI

## OCEANIA

### Single Operator All Band High Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	YB0NDT	40	40	26	1.040	YB0NDT
2	YC1LA	29	29	17	493	YC1LA

### Single Operator All Band High Power Assisted

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	9M6XRO	70	76	46	3.496	9M6XRO
2	YC3ELS	44	44	24	1.056	YC3ELS
3	YC2FAJ	40	40	24	960	YC2FAJ
4	YB0COU	30	30	20	600	YB0COU
5	VK2OXZ	24	24	20	480	VK2OXZ

### Single Operator All Band Low Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	VK5PAS	88	88	49	4.312	
2	YB0MWM	79	79	46	3.634	YB0MWM
3	YB1BGI	58	58	38	2.204	YB1BGI
4	DU2XXA	54	54	37	1.998	
5	YB3EDD	36	36	31	1.116	YB3EDD
6	VK3AVV	19	19	14	266	VK3AVV

# Results SSB

7	DU7HF	11	13	10	130	DU7HF
8	DU2BOQ	11	11	11	121	DU2BOQ
9	YB9WZJ	6	6	5	30	YB9WZJ

## SOUTH AMERICA

### Single Operator All Band High Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	PY2ZEA	436	516	130	67.080	OH2MM
2	PW2D	360	454	126	57.204	SM0CXU
3	LU8DY	32	32	21	672	

### Single Operator All Band High Power Assisted

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	PY1GQ	110	110	57	6.270	PY1GQ
2	PP5JAK	106	106	42	4.452	PP5JAK
3	PY7VI	45	79	39	3.081	PY7VI
4	PU1KGG	61	61	30	1.830	PU1KGG

### Single Operator All Band Low Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	LU1ICX	134	136	72	9.792	LU1ICX
2	PY1PDF	70	92	54	4.968	PY1PDF
3	PY8WW	34	60	29	1.740	PY8WW
4	PY4XX	40	48	30	1.440	PY4XX
5	CW3A	40	40	20	800	CX5CBA
6	PY2DPM	32	32	21	672	
7	PU2LEP	30	30	18	540	PU2LEP
8	PY2IQ	11	21	10	210	PY2IQ
9	XR3Y	11	11	9	99	XQ7UP
10	PY2XC	11	11	9	99	PY2XC
11	PY2ABN	12	12	8	96	PY2ABN
12	CA3MRD	11	11	8	88	CA3MRD
13	PU2SDX	1	1	1	1	PU2SDX

### Multi Operator Single Transmitter

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	CE2LS	129	175	77	13.475	CE2SQE

CE2RTF

### Checklogs

PY2EB, PY2SHF, YV5EPM

## SCANDINAVIA

### Single Operator All Band High Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	OH8X	2423	6.061	283	1.715.263	OH2UA
2	OH2BH	1939	4.648	296	1.375.808	
3	OH0Z	2094	5.302	257	1.362.614	OH6EI
4	SG8X	1970	4.969	252	1.252.188	SM5AQD
5	OH0R	1957	4.962	233	1.156.146	OH2PM
6	SK3W	1788	4.560	247	1.126.320	SM5AJV
7	OH5BM	1692	4.109	241	990.269	OH5BM
8	LN5O	1532	3.542	204	722.568	LA6FJA
9	SE0X	1387	3.263	210	685.230	SM0MDG
10	OZ1ADL	1286	3.303	195	644.085	
11	SB6A	1443	3.391	184	623.944	SB6A
12	OG7F	1181	2.663	202	537.926	OH2FNZ
13	OG7X	1093	2.523	192	484.416	OH4XX
14	LA9TJA	1258	2.835	164	464.940	LA9TJA
15	OH6MW	1109	2.511	176	441.936	OH6MW
16	OU4O	985	2.458	173	425.234	OZ4O
17	SM5J	1086	2.442	172	420.024	
18	SM0T	1117	2.551	162	413.262	
19	LA8OM	1073	2.484	162	402.408	LA8OM
20	OH6XY	1005	2.246	173	388.558	OH6XY
21	OZ2PBS	986	2.325	165	383.625	OZ2PBS
22	OH1XT	892	2.075	183	379.725	OH1XT
23	OG6N	970	2.233	170	379.610	
24	SA2Z	1092	2.367	154	364.518	SM2Z
25	OH2BR	828	1.959	182	356.538	OH2BR
26	5Q2J	914	2.123	162	343.926	5Q2J
27	OH1NX	803	1.990	158	314.420	OH1NX

### Single Operator All Band Low Power

RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	OH6RX	922	2.043	183	373.869	OH6RX
2	LA3S	903	2.067	149	307.983	LA3BO
3	OH4A	887	1.891	159	300.669	OG3MS
4	OH8UV	897	1.898	151	286.598	
5	OZ11A	868	2.046	128	261.888	OZ6ABA
6	7S5S	757	1.601	145	232.145	SM5CSS
7	SM2S	811	1.706	128	218.368	SM2S
8	SM4DQE	647	1.410	134	188.940	SM4DQE
9	SE5Z	314	717	104	74.568	SA5BCG

# Results SSB

10	OH5KIZ	349	749	93	69.657	OH5KIZ
11	OZ1KKH	319	693	95	65.835	
12	OH1LWZ/M	375	802	78	62.556	
13	OH3KQ	325	697	84	58.548	OH3KQ
14	OH1TP	378	822	69	56.718	OH1TP
15	OH6GZT	306	648	87	56.376	OH6GZT
16	SI5R	333	695	79	54.905	SM0RUX
17	SG5W	267	657	80	52.560	SM5IMO
18	SE5S	295	693	73	50.589	SE5S
19	OH3LS	272	579	79	45.741	OH3LS
20	LA7TN	250	512	75	38.400	LA7TN
21	OZ5RF	273	571	65	37.115	OZ5RF
22	SM3NFB	255	582	62	36.084	TORSTEN
23	SA2APO	243	500	66	33.000	
24	SM0RCL	173	402	68	27.336	SM0RCL
25	SA6I	160	348	76	26.448	SA6I
26	OU8A	192	399	61	24.339	OU8A
27	OH3GGQ	160	329	63	20.727	OH3GGQ
28	OZ2ELA	176	362	51	18.462	OZ2ELA
29	OH6LW	142	304	60	18.240	OH6LW
30	OH3CV	145	312	58	18.096	OH3CV
31	SM5ILE	154	325	55	17.875	SM5ILE
32	LA6GX	135	281	60	16.860	LA6GX
33	LA7SKA	121	278	60	16.680	LA7SKA
34	OZ9V	115	255	59	15.045	
35	LA6PBA	107	232	52	12.064	LA6PBA
36	OH2LU	110	238	49	11.662	OH2LU
37	LA4AAA	100	215	53	11.395	LA4AAA
38	SM0O	108	233	47	10.951	SM0O
39	SM2YIP	99	209	51	10.659	YNGVE
40	OZ1XV	112	233	43	10.019	OZ1XV
41	OH6JE	95	202	47	9.494	OH6JE
42	OH0RJ	100	215	42	9.030	
43	LA9NKA	91	203	44	8.932	LA9NKA
44	LA6ALA	83	179	49	8.771	LA6ALA
45	OH8KA	95	203	40	8.120	OH8KA
46	SM5W	76	187	38	7.106	SM5FWW
47	SK6QA	79	166	36	5.976	SA6AXR
48	OH1TS	79	166	35	5.810	
49	SM6WZH	74	160	35	5.600	SM6WZH
50	SM2OKD	75	155	35	5.425	
51	SA5ATV	57	120	35	4.200	SA5ATV
52	SA7AZQ	55	115	35	4.025	SA7AZQ
53	OZ6VC	61	131	30	3.930	OZ6VC
54	OH5XO	54	115	29	3.335	OH5XO
55	SM7PGB	53	117	26	3.042	SM7PGB
56	SA5X	44	98	29	2.842	SM5TJH
57	OU5W	47	96	29	2.784	OU5W
58	SB6Z	43	93	29	2.697	ANDERS
59	LA1HSA	42	95	28	2.660	LA1HSA
60	OZ1JFK	48	110	24	2.640	OZ1JFK
61	SM0Y	40	92	28	2.576	SM0OY
62	SM5BJT	41	90	27	2.430	
63	SA6BMM	43	88	27	2.376	SA6BMM
64	SA4AVS	40	87	27	2.349	
65	OZ2PJ	42	108	20	2.160	OZ2PJ
66	SM4WKT	41	85	25	2.125	SM4WKT
67	LA/PA5JD-P	37	77	27	2.079	PA5JD-P
68	SM5ACQ	38	82	23	1.886	SM5ACQ
69	OH1MH	33	69	25	1.725	OH1MH
70	OH2FHN	35	72	22	1.584	OH2FHN
71	OZ7AEI	33	66	22	1.452	OZ7AEI
72	LA6LLA	31	63	21	1.323	LA6LLA
73	SM6Y	32	66	20	1.320	SM6DER
74	OH3FMI	30	62	18	1.116	OH3FMI
75	OZ9URA	28	56	19	1.064	OZ9URA
76	OG4M	25	54	18	972	OG4M
77	OZ1DGQ	24	54	14	756	
78	OH2EV	20	42	13	546	OH2EV
79	OZ4QX	17	34	14	476	
80	OH1POR	15	34	13	442	
81	SM5AQI	15	33	11	363	SM5AQI
82	OH3KAQ	13	27	9	243	OH3KAQ
83	SM4LRA	11	24	10	240	SM4LRA
84	OG3A	10	21	9	189	
85	LA7USA	11	22	8	176	LA7USA

Single Operator All Band Low Power TB-Wires						
RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	OH3JP	800	1.725	142	244.950	OH3JP
2	OZ4VW	712	1.664	147	244.608	OZ4VW
3	OH3P	661	1.490	126	187.740	OH3P
4	SF3A	610	1.283	115	147.545	SM3CER
5	OH7CW	546	1.167	113	131.871	OH7CW
6	8S0C	412	0.997	126	125.622	SM0MPV
7	SM6FKF	471	1.003	110	110.330	
8	OH6BG	523	1.119	94	105.186	
9	OH3AA	354	0.857	118	101.126	OH3RF
10	OH8MBN	499	1.030	91	93.730	OH8MBN
11	SM5B	412	0.934	100	93.400	
12	OH9GGY	449	0.935	93	86.955	
13	OZ7IS	374	0.849	102	86.598	OZ7IS
14	OH1B	409	0.863	96	82.848	OH1BOI
15	OH6GDX	314	0.691	108	74.628	OH6GDX
16	SM2A	383	0.830	88	73.040	SM2A
17	OH6DX	327	0.705	99	69.795	OH6DX
18	OH4MVH	405	0.865	79	68.335	OH4MVH
19	OZ4NA	315	0.664	92	61.088	OZ4NA
20	LA2HFA	310	0.644	91	58.604	LA2HFA
21	OZ8ZS	296	0.623	94	58.562	OZ8ZS
22	LA4CQ	329	0.680	84	57.120	LA4CQ
23	OH1NDA	236	0.500	86	43.000	OH1NDA
24	SM6BSK	237	0.507	77	39.039	SM6BSK
25	OH2MGA	255	0.544	71	38.624	OH2MGA
26	SG0M	219	0.470	77	36.190	SA0AQT
27	OZ3SM	194	0.426	74	31.524	OZ3SM
28	OH3DP	198	0.421	74	31.154	OH3DP
29	SM3TLG	193	0.418	60	25.080	SM3TLG
30	OH2HZ	180	0.397	60	23.820	OH2HZ
31	OZ1KVM	125	0.277	66	18.282	OZ1KVM
32	OH2BGR	123	0.267	61	16.287	OH2BGR
33	SM6MVE	142	0.288	51	14.688	SM6MVE
34	LB4CD	108	0.228	48	10.944	LB4CD
35	OH2BXT	102	0.220	49	10.780	OH2BXT
36	SM6Z	108	0.232	43	9.976	SM6BZE
37	SI5Y	116	0.239	39	9.321	SM5BKK
38	LA8OSA	94	0.197	37	7.289	LA8OSA
39	SM0LIU	84	0.176	39	6.864	SM0LIU
40	SM7I	61	0.140	24	3.360	SM7I
41	SI6T	35	0.074	22	1.628	SM6LZQ
42	OH6GSB	24	0.054	17	918	OH6GSB
43	SD5L	22	0.046	14	644	SD5L
44	OH8GVQ	13	0.027	9	243	OH8GVQ
45	SM6VYP	3	0.006	1	6	SM6VYP
Single Operator All Band Low Power Rookie						
RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	OH6ECM	627	1.358	129	175.182	OH6ECM
2	OH6FXW	519	1.095	100	109.500	OH6FXW
3	OH5FVY	341	0.730	86	62.780	OH5FVY
4	SE0P	208	0.437	61	26.657	SA0BYP
5	OH4EBD	301	0.625	36	22.500	
6	LA2NTA	121	0.262	63	16.506	LA2NTA
7	SA0CAM	125	0.283	54	15.282	
8	OH7EBA	85	0.183	45	8.235	OH7EBA
9	SA6CBY	91	0.198	37	7.326	SA6CBY
10	OH2FXI	78	0.165	43	7.095	OH2FXI
11	OH7EAH	39	0.081	30	2.430	OH7EAH
12	LA5YTA	29	0.064	23	1.472	LA5YTA
13	LA3CLA	25	0.055	18	990	LA3CLA
14	OH5EIU	11	0.025	8	200	OH5EIU
15	LA5ZTA	10	0.020	10	200	
16	OH2VS	3	0.006	2	12	OH2VS
Single Operator All Band QRP Power						
RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS
1	OH2BT	165	0.374	84	31.416	OH2BT
2	LA1DSA	159	0.347	69	23.943	LA1DSA
3	LA5EIA	180	0.370	52	19.240	LA5EIA
4	OH2FXD	107	0.230	50	11.500	

# Results SSB

5	LA1TPA	77	158	34	5.372	LA1TPA	4	OH1TX	1338	3.056	221	675.376	OH1TX OH1RX	
6	SM5MEK	57	127	31	3.937	SM5MEK	5	SK2T	1411	3.192	195	622.440	SM2EKA	
7	OZ7BQ	25	53	20	1.060	OZ7BQ							SM2LIY SM2SYV	
8	OH1T	23	62	7	434	OH1MN							SM2UVU SM2VJX	
<b>Single Operator 80 meter</b>														
RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS	6	LA2AB	1220	2.850	180	513.000	LA/SP9P LA/SP2ASJ	
1	OZ30EU	202	409	35	14.315	OZ30EU	7	SB3W	1171	2.696	184	496.064	SM3RAB SM3MMU	
2	LA9TY	141	146	22	3.212	LA9TY	8	OZ5ESB	1041	2.664	164	436.896	SM6U	
3	SA0E	21	42	14	588	SA0BJL	9	SB0A	1067	2.605	164	427.220	OZ1INN OZ4AFQ	
4	OH2BAH	19	39	12	468	OH2PQ	10	OH2NM	976	2.292	174	398.808	OZ4ABH OZ1CWP	
5	7S3J	5	10	5	50	SM3DZH							SM0LPO SM0NCS	
6	OH2BAB	3	6	3	18	OH2BAB							OH2BLV OH2FRE	
<b>Single Operator 40 meter</b>														
RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS	11	SI9AM	1040	2.264	171	387.144	SA3AZK SA3BYC	
1	OH2BV	737	1.645	56	92.120	OH2BV	12	LN1B	1171	2.574	150	386.100	LA1QDA LA1VNA	
2	OV9A	221	450	32	14.400	OV9A	13	OH6K	951	2.135	170	362.950	LA4XLA LA8PDA	
3	SE6E	51	136	16	2.176	SM6FUD	14	OI3V	869	1.902	164	311.928	OH6FSG OH6MSZ	
4	SM5MX	39	79	18	1.422	SM5MX	15	OZ7KJ	824	1.975	157	310.075	OH3BJL OH3FZR	
<b>Single Operator 20 meter</b>														
RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS	16	SK7K	828	1.900	152	288.800	OH3KAV	
1	OH8A	1254	3.131	77	241.087	OH8LQ	17	SK0QO	869	2.028	134	271.752	SG7A SM7LXV	
2	OZ1ZD	562	1.265	57	72.105	OZ1ZD	18	OH4AB	773	1.669	154	257.026	SM0DSF SM0IFP	
3	TF3CY	611	1.387	49	67.963	TF3CY	19	OZ7HAM	689	1.578	144	227.232	SM0NUE SM0XMU	
4	OH2BAI	471	991	46	45.586	OH2BAI	20	LG5LG	795	1.733	128	221.824	OH4KZM OH4MFA	
5	OH6IU	391	837	50	41.850	OH6IU	21	SK5WB	760	1.786	121	216.106	OH4YR OH4EA	
6	SM6USS	315	727	44	31.988	SM6USS	22	LN4BBC	705	1.528	138	210.864	OH4FB OH6FT	
7	OH6GAZ	219	455	32	14.560	OH6GAZ	23	SF6D	648	1.443	121	174.603	DL2JIL DL2JIM	
8	OH2KI	172	354	31	10.974		24	OH2U	569	1.546	97	149.962	DL2JRM	
9	OH2VZ	110	224	30	6.720	OH2VZ							LA2HJA LA3RNA	
10	SD3A	117	242	27	6.534	SM3FJF							LA5FBA LA6ZFA	
11	OH6BC	15	31	9	279	OH6BC							SM6FUD SM6JCC	
12	OH2CI	11	23	7	161	OH2CI							SA6BKQ SM6XKB	
13	OH8FBD	10	21	7	147	OH8FBD							SM6ZDN	
<b>Single Operator 15 meter</b>														
RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS	25	JW5X	641	1.497	86	128.742	OH1JT OH2HE	
1	OH1MA	1006	2.671	72	192.312	OH1MA	26	SK4EA	402	977	105	102.585	OH2XX	
2	OH2PQ	738	1.824	67	122.208	OH2PQ	27	SJ2W	585	1.555	62	96.410	LA9DL LA7XK	
3	OG30OJ	570	1.308	59	77.172	OH3OJ	28	OH3NE	318	683	96	65.568	SM4IPC SM4DYQ	
4	OH2BCD	402	926	52	48.152	OH2BCD	29	LA4O	301	636	84	53.424	SM4LRA SM4EPR	
5	OG1D	323	812	52	42.224	OH1JD	30	LA5G	259	548	79	43.292	OH3BK OH5FWO	
6	SG5A	255	611	40	24.440	SM5ERK	31	LA1OTX	211	436	70	30.520	OH8JXR	
7	OH8KVY	105	212	21	4.452	OH8KVY	32	SM3EAE	141	299	46	13.754	LA3PK LA8FTA	
8	SM3XRJ	54	122	21	2.562	SM3XRJ	33	OH1KI	91	191	37	7.067	LA8OKA LA9MTA	
9	OZ1JYX	59	129	17	2.193		34	OZ7UV	21	49	13	637	LA5YSA LA6UMA	
10	LA2XNA	51	111	15	1.665	LA2XNA	35	SM2XHI	1	2	1	2	LB1LE LA4VRA	
11	SM6IQD	41	96	17	1.632								SM3EEA	
12	OV2V	19	44	11	484	OV2V							MIKA, ANTON	
13	SM6WYN	18	42	11	462								OZ7UV	
<b>Single Operator 10 meter</b>														
RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS	Multi Operator Multi Transmitter	Rank	Call	Qso	Points	Mult.	Score	Operators
1	XP1A	1229	3.123	58	181.134	OX3KQ	1	OH5Z	3069	7.426	306	2.272.356	OH5KS OH5KW	
2	OH0JFP	522	1.412	63	88.956	SM0TQX	2	OH2K	1811	4.206	225	946.350	OH5LF OH5NQ	
3	SM5INC	375	1.042	52	54.184		3	LN2T	1258	2.719	179	486.701	OH5TS	
4	OZ7EDR	182	506	41	20.746	OZ6OM	4	SA6AIN	1126	2.583	187	483.021	OH2GEK OH2LNH	
5	OH1MRR	40	99	19	1.881	OH1MRR	5	SK5LW	1144	2.590	177	458.430	OH2LRE OH2LZC	
6	SM6DPB	22	55	10	550	SM6DPB	6	OH6GE	240	514	85	43.690	OH7JEV OH7LZB	
7	SM5KQS	12	30	6	180	SM5KQS	7	SA5N	175	366	77	28.182	LB9RE LA1UW	
8	LA6YIA	6	15	4	60	LA6YIA	8	OH7AA	186	386	65	25.090	LA3WAA	
9	OH1KH/M	5	12	3	36	OH1KH							SA6AIN SM6NET	
10	SA6APZ	4	9	3	27	SA6APZ							SA6AQF	
11	LA7IJA	2	5	2	10	LA7IJA							SM5SIC SM5PBT	
12	OH2BN	1	2	1	2	OH2BN							SM5ISM SA5BUM	
<b>Multi Operator Single Transmitter</b>														
RANK	CALL	QSO	POINTS	MULT.	SCORE	OPERATORS	6	OH6GE	240	514	85	43.690	OH6GE OH6KP	
1	OH1F	2019	4.934	292	1.440.728	OH1NOA OH1TM	7	SA5N	175	366	77	28.182	SM5NBE, KALLE & MATTI	
2	SA8C	1996	5.010	234	1.172.340	SM0W SM0SHG	8	OH7AA	186	386	65	25.090	OH7FXK OH7RK	
3	OH9W	1616	3.840	263	1.009.920	SM0SYP SM0MLZ							Checklogs SK3BG	

## LA3S (Svein, LA3BO)

LA3S, the club station in Sandefjord, Norway, has a modest antenna set-up with a 3-el SteppIR beam for 20, 15, and 10m, plus a Windom antenna about 15m up for 80 and 40m. This qualifies for a TB-Wires entry, but I find the competition more challenging without overlay, so decided to enter the regular SOAB LP category. The transceiver is a single K3, and the logging program is Wintest.

My goal was to win Norway, contribute as well as possible to the National Team, and possibly beat the Norwegian record.

The start was hectic, because the direct connection to the cqcontest.net scoreboard did not work with my mobile network connection. I was about to skip that part of the competition, but was encouraged to manually update the score via e-mail. This introduced some distraction at the beginning, but did not ruin the operation too much. I started on 10m, but there was no good opening. I thus soon went over to 15m and stayed there for about two hours. Then 10m opened to North America, and that kept me busy for the next 1.5 hours. Included in that period were also some South Americans and Europeans. Afterwards it was again time for 15m, mainly North America until 17:30.

After that I switched between 20, 40, and 80 to pick up as many stations as possible before Europeans went to bed. Let's face it; there are not so many stations outside of Scandinavia staying up through the night for SAC. Half an hour past midnight the rate was very low, and I had no response from outside Europe, so I decided to sleep for a couple of hours. The second day was mainly spent working European stations, with a few occasional DX on the higher bands.

In SAC SSB the important thing is to keep a signal on the air continuously. Moreover, with low power you have to select the bands with the best openings. My preferred mode in contests is CW, and I miss the reverse beacon on SSB. It was difficult to establish a decent run, and only a few times I could run at rates over 100/h.

Compared with the CW leg, and in particular compared with last year's SSB leg, the conditions were pretty good. The 2012 result was passed after 9 hours. I believe I reached my goals and had a good time. A 24-hour contest is piece of cake, especially when including a 2-hour nap. I believe my score shows that it is possible to be competitive even with a modest set-up.



## **PA6SAC (by Aloys, PA3DAT)**

Joeri PE5JW and I came up with the idea of participating in the Scandinavian Activity Contest as a multi/single entry. My wife Femma (PA3DWK) and I have met quite a few Scandinavian radioamateurs during our holiday trips to Norway, Sweden, and Finland, and thus it's fun to work them in a contest.

Our location for the contest was the Scouting club "Vaandrig Lengton Groep" in Zwolle, the Netherlands. SAC was only one week before my 34th Jamboree On The Air (JOTA), so we just put up the antennas for the JOTA event one week in advance! Our team consisted of Joeri PE5JW, Arbo PH0AS, Wilko PA8KW, Joris PD2JM, and Aloys PA3DAT. We used a 25m high tower for a 2-element tribander and some wire antennas for 40 and 80m.

We began building the antennas after 19:00 local time on Friday evening. Putting up the antennas in the dark in heavy rain is not always a lot of fun... However, we succeeded in putting up the 2-element yagi in the tower and also some wires for pulling up dipoles for 40 and 80m. To be continued.

On Saturday morning we gathered at 09:00, as there was still a lot to do. New dipoles for 40 and 80m still had to be cut to the proper length. Pulling up the wire antennas is not easy, as there are a lot of trees surrounding the tower. At least we had some nice weather!

Another problem was our computer network and the internet. Radiation from the transmitters, even running at only 5 watts, made the internet connection drop. The problem seemed to be a new router, and so an older one had to be found. With some bad luck we started the contest nearly one hour late...

After this bad start, things were getting better. Running was not too successfull, but search and pound gave us qso's and multipliers. Joris PD2JM cooked a nice dinner, and we were having fun in a nice and warm shack!

On Sunday morning I got up around 06:30, and I found Joris PD2JM and Arbo PH0AS still working. We made some breakfast with bacon and eggs, along with a new pot of coffee! Close to 09:00, Joeri PE5JW was active on 20m, and Arbo PH0AS was trying to work some multipliers on 15m. With 5 hours to go, we had a score of 42.999 points, consisting of 337 QSOs and 127 multipliers.

Well, time ran out in the end! Our claimed result was 404 QSOs, 140 multipliers, and 56.560 points! Not bad for this first attempt, we are very satisfied.

## SSB soapbox comments

5B4AIF: Just giving a few points away just for fun.

7L4VYK: Thanks for a nice contest! I will be back next year.

9A1CFR: Bad propagations on 10m, every QSO was digging...hi.

9M6XRO: My rig: Transceiver Yaesu FT-1000MP and Quadra linear amp @ 400W. Antennas @ 27m (HF) 2-ele lightning bolt quad (LF) Butternut HF2V vert. Band conditions were up and down but good to have an opening on 10m. Thank you to the organisers. 73 to all from Borneo!

CT7AIX: First SAC with my new callsign. Old callsign was CT2KFA. CU next year.

DK8NT: Worst start ever - 7 hours too late! A wrong keysetting on the tiny FT-857D blocked the CAT transfer from rig to N1MM logger software. Once solved (with the help of the great N1MM forum), the rig had locked up and I had to do a reset and restore my settings... Nonetheless, I felt no panic and managed to reach my two goals and my best SAC QSO rate so far. 20 and 15 m worked nicely for the short distances, but on 10 the skip hopped over Scandinavia and touched down on Bear Island - my only (and best!) 10 m qso in this contest. Missed OJ0, OX, OY, TF, JX, but still it was great fun. Takk takk for the nice contest, and see you again next year!

DL1HWH: Mobilantenna on the balcony.

DL6MDG: Thanks for a lot of very friendly Scandinavian stations.

DU2XXA: Thanks I'll be back for the next contest.

DU7HF: Rig: IC-725, 70-watt only. With di-poor wire antenna, 7-yard up.

EB3WH: Hello ! My third SAC test and very happy with the score; a lot of Scandinavian stations calling CQ contest. For me, one of the most fun annual contests.

ES1QD: First contest with QRP, Yaesu FT-817.

EW2EO: I like this contest!!!

G4PKP: Usual abundance of OH's and lack of OY's! No propagation on 10 mtrs except an XP who did not want to work EU. Good condxs on 15, 20, 40 and 80 meters. Used SD which worked flawlessly as usual.

IZ4XHG: Thanx Vikings!!!

JW5X: As usual we had strong aurora the days before the contst. It cleard up a bit on Saturday but during the night we were boxed in by the aurora oval. Conds improved again Sunday morning. Better result and conds however than last year. We are looking forward to 2014.

K3TW: Band conditions were good for QRP.

K5ZD: Had visitors over the weekend so little time for contesting.

KB1VUN: Great contest. Good propagation on 15 and 20 meters, even 40 meters.

KW7DSP: I was demonstrating this radio for sale when I came across the SAC contest. Second SJ2W contact was after I sold radio from my Yaesu FT-990 and dipole.

OH2BT: Used minor CQ calls. Better be only picking when working with 4W QRP.

OH2VZ: First time in international SSB-contest since seventies.

OH3P: Thanks for nice SAC ! Managed to get more QSO's with new wire loop this year. Conditions were great. The gear was: TS-590S, N1MM, wire loop and Optibeam OB11-3 tribander. Hope to hear you next year !

PA6SAC: We enjoyed our participation in the SAC contest with our special event callsign PA6SAC. Although it is hard to work Scandinavia on the higher bands on such a short distance we managed to get a for us acceptable result.

PD7MDJ: I love the polar battle!

PG1R: Again I enjoyed this nice contest. Thanks!

SM0O: QRM, QRN, computer crash, no sleep and bad coffee. Great contest ! :-)

SM2T: No rotor indicator, PA broke after 9h.

TF3CY: Relaxed contesting - condition up and down - hard keeping frequency when big SE/OH stations starts calling 1kHz from me!

VE3WBT: Expected to run the full contest, but ran into antenna problems.

VR2XMC: I can only operate on 15 and 10m. Just spent a few hours in the contest, hope my participation will let you get more scores and multiplier. This time I am using an Elecraft KX3 + a small linear to 100W.

W9ROG: Great contest, as usual!

XE2B: Nice opening on 10m!

Y09XC: Thanks for a nice contest! I will be back next year.

<https://twitter.com/SACContestTeam>

<https://www.facebook.com/ScandinavianActivityContest?ref=ts&fref=ts>

<http://www.sactest.net>

# The Scandinavian Activity Contest 2014

**CW: 20-21 September**

1200 – 1159 UTC

**SSB: 11-12 October**

1200 – 1159 UTC