

ARRL NOVEMBER SWEEPSTAKES CW ACTIVITY ANALYSIS

2006 – 2014

This document is a collection of data assembled from the logs that were processed by the ARRL for determining the results of the CW contest for the years 2006 through 2014. No callsigns or locations are contained in the data which I received – only the total number of QSO's that were made for each included year broken down by hour and by band.

The data can be used to determine when to take time off, or conversely – when the best times to operate on a band or bands based on historical overall activity levels.

Local propagation must be taken into account when using this data, as conditions vary greatly by geographic area and solar activity at any given time. However, the data shows trends of when there is the maximum and minimum numbers of stations that are operating and available for making QSO's.

My first attempt at trying to determine the best times to operate this contest date back to 1997, and I first managed to assemble a useable set of data in 2006.

The purpose of this study is to assist anyone interested in operating the SS CW contest in planning a successful and enjoyable experience - regardless of the amount of time that one has available to operate, and in turn generate more overall activity for the contest. It has long been one of my favorite operating events.

Many thanks to Tree – N6TR for all of his contributions to the contesting community, and for taking the time to provide the data needed to produce this study.

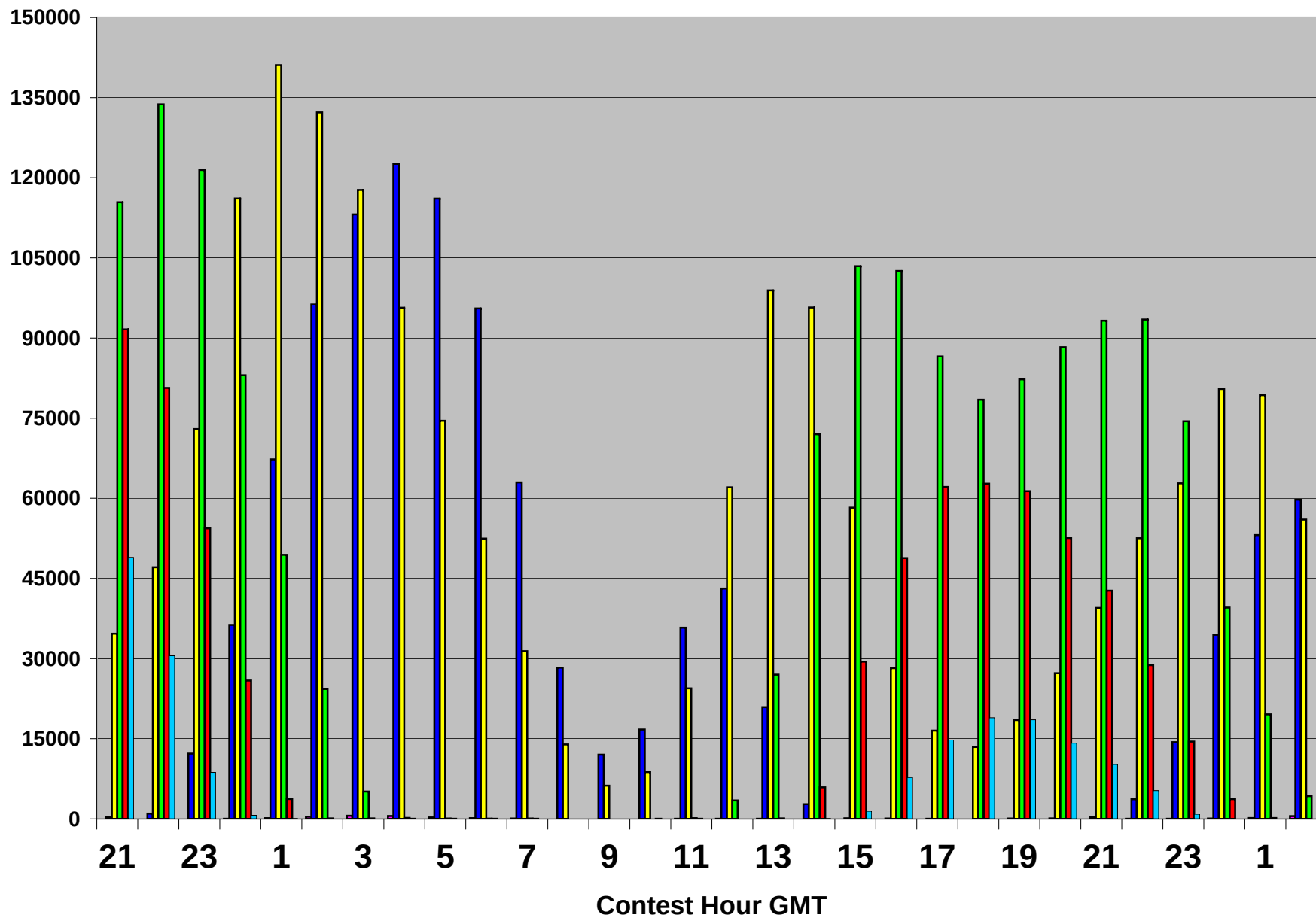
73 and hope to see you in the SS CW!

Don W4OC

2006-2014 CW SS HOUR TOTALS BY BAND

<u>HOUR</u>							<u>HOUR QSO TOTALS</u>	<u>OVERALL CONTEST CUMULATIVE DATA</u>			<u>PEAK ACTIVITY HOURS</u>		
	<u>160</u>	<u>80</u>	<u>40</u>	<u>20</u>	<u>15</u>	<u>10</u>		<u>HOUR RANK</u>	<u>QSO TOTAL</u>	<u>PERCENT OF TOTAL</u>	<u>CUMULATIVE PEAK HOURS QSO TOTAL</u>	<u>PERCENT OF PEAK QSO TOTAL</u>	<u>PERCENT OF QSO'S BY HOUR</u>
21	0	354	34666	115406	91607	48934	290967	2	290967	5.64	290967	6.05	6.05
22	11	986	47100	133731	80673	30541	293042	1	584009	11.31	584009	12.13	6.09
23	3	12219	72961	121454	54364	8698	269699	3	853708	16.54	853708	17.74	5.60
0	18	36290	116101	83038	25888	687	262022	4	1115730	21.61	1115730	23.18	5.44
1	126	67291	141079	49403	3714	39	261652	5	1377382	26.68	1377382	28.62	5.44
2	404	96274	132224	24324	79	15	253320	6	1630702	31.59	1630702	33.88	5.26
3	582	113136	117705	5119	85	5	236632	7	1867334	36.17	1867334	38.80	4.92
4	532	122596	95672	190	19	1	219010	8	2086344	40.41	2086344	43.35	4.55
5	261	116087	74509	65	22	0	190944	10	2277288	44.11	2277288	47.31	3.97
6	134	95535	52445	50	30	14	148208	22	2425496	46.98	2425496	50.39	3.08
7	59	62975	31390	74	21	1	94520	26	2520016	48.81			
8	7	28309	13919	11	3	0	42249	28	2562265	49.63			
9	5	12002	6209	5	1	0	18222	30	2580487	49.98			
10	4	16713	8774	11	13	0	25515	29	2606002	50.48			
11	13	35780	24431	134	22	0	60380	27	2666382	51.65			
12	15	43101	62058	3451	5	0	108630	25	2775012	53.75			
13	15	20908	98918	26994	83	4	146922	23	2921934	56.60	2572418	53.44	3.05
14	4	2745	95716	71997	5907	48	176417	17	3098351	60.01	2748835	57.11	3.67
15	1	107	58247	103439	29419	1441	192654	9	3291005	63.75	2941489	61.11	4.00
16	0	62	28214	102555	48807	7754	187392	11	3478397	67.38	3128881	65.01	3.89
17	0	15	16512	86557	62118	14822	180024	16	3658421	70.86	3308905	68.75	3.74
18	0	9	13447	78467	62733	18920	173576	18	3831997	74.22	3482481	72.35	3.61
19	0	64	18500	82267	61333	18539	180703	15	4012700	77.72	3663184	76.11	3.75
20	0	79	27256	88283	52571	14166	182355	14	4195055	81.26	3845539	79.90	3.79
21	1	360	39482	93232	42706	10183	185964	12	4381019	84.86	4031503	83.76	3.86
22	19	3662	52528	93470	28773	5284	183736	13	4564755	88.42	4215239	87.58	3.82
23	28	14363	62796	74416	14469	874	166946	19	4731701	91.65	4382185	91.04	3.47
0	78	34450	80461	39535	3688	0	158212	20	4889913	94.72	4540397	94.33	3.29
1	167	53113	79308	19558	147	0	152293	21	5042206	97.67	4692690	97.50	3.16
2	516	59745	56010	4252	4	4	120531	24	5162737	100.00	4813221	100.00	2.50
<u>BAND TOTALS</u>								5162737					
								HIGHEST ACTIVITY BAND					
<u>PERCENT QSO'S OF TOTAL</u>								2nd HIGHEST ACTIVITY BAND					
								0.06 20.33 34.06 29.08 12.96 3.51					

2006-2014 CW SS QSO's By Band



160

80

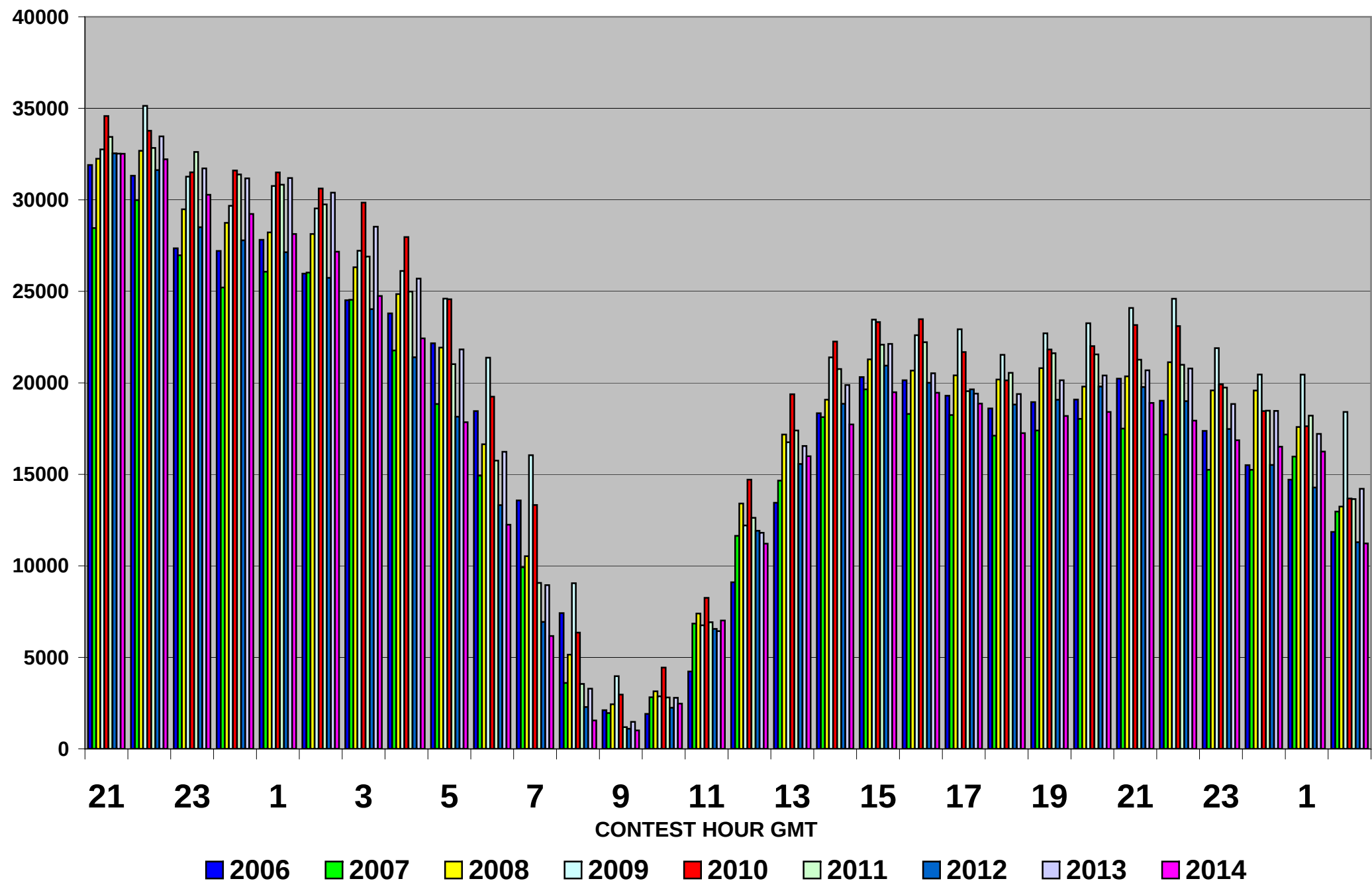
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SS CW Total QSO's 2006 - 2014



2006 CW SS HOUR TOTALS BY BAND

								OVERALL CONTEST CUMULATIVE DATA			PEAK ACTIVITY HOURS		
							HOUR QSO TOTALS	HOUR RANK	QSO TOTAL	PERCENT OF TOTAL	CUMULATIVE PEAK HOURS QSO TOTAL	PERCENT OF PEAK QSO TOTAL	PERCENT OF QSO'S BY HOUR
HOUR	160	80	40	20	15	10	TOTALS						
21	0	61	4457	14316	13064	7	31905	1	31905	5.85	31905	6.27	6.27
22	0	36	5784	18275	7222	0	31317	2	63222	11.59	63222	12.42	6.15
23	0	1074	9146	15918	1214	0	27352	3	90574	16.60	90574	17.79	5.37
0	0	4570	14311	8312	13	0	27206	5	117780	21.58	117780	23.14	5.34
1	18	7788	18980	1030	0	0	27816	4	145596	26.68	145596	28.60	5.46
2	138	10293	15476	59	0	0	25966	6	171562	31.44	171562	33.70	5.10
3	38	13066	11374	36	0	0	24514	7	196076	35.93	196076	38.52	4.82
4	28	14383	9356	31	0	0	23798	8	219874	40.29	219874	43.19	4.67
5	7	13862	8242	51	0	0	22162	9	242036	44.35	242036	47.54	4.35
6	2	12029	6370	36	19	1	18457	18	260493	47.73	260493	51.17	3.63
7	0	10339	3229	5	0	0	13573	23	274066	50.22	274066	53.84	2.67
8	4	4928	2488	0	0	0	7420	27	281486	51.58			
9	0	1154	960	0	0	0	2114	29	283600	51.97			
10	2	1116	795	1	0	0	1914	30	285514	52.32			
11	2	2346	1860	18	0	0	4226	28	289740	53.09			
12	0	3705	5061	338	0	0	9104	26	298844	54.76			
13	0	2304	8975	2169	0	0	13448	24	312292	57.23	287514	56.48	2.64
14	0	310	10966	6998	68	0	18342	19	330634	60.59	305856	60.08	3.60
15	0	1	7859	11736	716	1	20313	10	350947	64.31	326169	64.07	3.99
16	0	0	4314	11785	4042	0	20141	12	371088	68.00	346310	68.03	3.96
17	0	0	2887	10184	6220	3	19294	13	390382	71.54	365604	71.82	3.79
18	0	0	2306	10154	6142	2	18604	17	408986	74.94	384208	75.47	3.65
19	0	0	2959	9888	6080	21	18948	16	427934	78.42	403156	79.19	3.72
20	0	0	4077	10583	4428	0	19088	14	447022	81.91	422244	82.94	3.75
21	0	1	5402	11356	3472	0	20231	11	467253	85.62	442475	86.92	3.97
22	0	297	6124	11520	1084	0	19025	15	486278	89.11	461500	90.65	3.74
23	3	1769	6664	8777	160	0	17373	20	503651	92.29	478873	94.07	3.41
0	2	4428	8973	2097	3	0	15503	21	519154	95.13	494376	97.11	3.05
1	63	6332	8248	66	0	0	14709	22	533863	97.83	509085	100.00	2.89
2	430	6388	5030	7	0	0	11855	25	545718	100.00			
BAND TOTALS 737 122580 202673 165746 53947 35 545718 HIGHEST ACTIVITY BAND													
PERCENT QSO'S OF TOTAL 0.14 22.46 37.14 30.37 9.89 0.01 2nd HIGHEST ACTIVITY BAND													

2007 CW SS HOUR TOTALS BY BAND

								OVERALL CONTEST CUMULATIVE DATA			PEAK ACTIVITY HOURS		
							HOUR QSO TOTALS	HOUR RANK	QSO TOTAL	PERCENT OF TOTAL	CUMULATIVE PEAK HOURS QSO TOTAL	PERCENT OF PEAK QSO TOTAL	PERCENT OF QSO'S BY HOUR
HOUR	160	80	40	20	15	10	TOTALS						
21	0	28	4015	17716	6695	6	28460	2	28460	5.52	28460	5.95	5.95
22	0	153	5381	21834	2621	0	29989	1	58449	11.34	58449	12.22	6.27
23	3	1595	9144	16159	69	0	26970	3	85419	16.58	85419	17.85	5.64
0	5	4170	15631	5406	0	0	25212	6	110631	21.47	110631	23.12	5.27
1	7	8554	16835	675	0	0	26071	4	136702	26.53	136702	28.57	5.45
2	10	12788	13201	28	0	0	26027	5	162729	31.58	162729	34.01	5.44
3	43	14766	9708	19	0	0	24536	7	187265	36.35	187265	39.14	5.13
4	101	14787	6882	1	0	0	21771	8	209036	40.57	209036	43.69	4.55
5	41	13379	5422	1	0	0	18843	10	227879	44.23	227879	47.63	3.94
6	2	11317	3607	2	0	0	14928	22	242807	47.13	242807	50.75	3.12
7	0	7576	2333	9	0	0	9918	26	252725	49.05			
8	0	2775	826	1	0	0	3602	28	256327	49.75			
9	0	1696	262	0	0	0	1958	30	258285	50.13			
10	2	2224	595	0	0	0	2821	29	261106	50.68			
11	0	4478	2354	11	0	0	6843	27	267949	52.01			
12	0	5617	5788	234	3	0	11642	25	279591	54.27			
13	0	3270	9383	2005	0	0	14658	23	294249	57.11	257465	53.81	3.06
14	0	611	10973	6540	1	0	18125	13	312374	60.63	275590	57.60	3.79
15	0	2	6865	12513	264	0	19644	9	332018	64.44	295234	61.71	4.11
16	0	8	3234	13103	1955	2	18302	11	350320	67.99	313536	65.53	3.83
17	0	2	2547	11820	3871	0	18240	12	368560	71.53	331776	69.35	3.81
18	0	0	2254	11656	3205	0	17115	18	385675	74.86	348891	72.92	3.58
19	0	0	3070	12201	2125	1	17397	16	403072	78.23	366288	76.56	3.64
20	0	8	3698	12767	1559	2	18034	14	421106	81.73	384322	80.33	3.77
21	0	91	5175	11280	954	0	17500	15	438606	85.13	401822	83.99	3.66
22	0	954	4973	11111	141	0	17179	17	455785	88.46	419001	87.58	3.59
23	0	2271	6449	6525	2	0	15247	21	471032	91.42	434248	90.76	3.19
0	0	4986	9141	1122	0	0	15249	20	486281	94.38	449497	93.95	3.19
1	0	8126	7823	23	0	0	15972	19	502253	97.48	465469	97.29	3.34
2	48	8782	4119	15	0	0	12964	24	515217	100.00	478433	100.00	2.71
BAND TOTALS	262	135014	181688	174777	23465	11	515217	HIGHEST ACTIVITY BAND					
PERCENT QSO'S OF TOTAL	0.05	26.21	35.26	33.92	4.55	0.00	2nd HIGHEST ACTIVITY BAND						

2008 CW SS HOUR TOTALS BY BAND

								OVERALL CONTEST CUMULATIVE DATA			PEAK ACTIVITY HOURS				
							HOUR QSO TOTALS	HOUR RANK	QSO TOTAL	PERCENT OF TOTAL	CUMULATIVE PEAK HOURS QSO TOTAL	PERCENT OF PEAK QSO TOTAL	PERCENT OF QSO'S BY HOUR		
HOUR	160	80	40	20	15	10	TOTALS								
21	0	50	4972	19983	7240	0	32245	2	32245	5.54	32245	6.12	6.12		
22	0	331	6143	22797	3411	0	32682	1	64927	11.15	64927	12.32	6.20		
23	0	3090	10622	15570	204	0	29486	3	94413	16.22	94413	17.92	5.60		
0	2	9012	14828	4891	4	5	28742	4	123155	21.15	123155	23.37	5.46		
1	0	12651	15121	441	0	6	28219	5	151374	26.00	151374	28.73	5.36		
2	21	16008	12086	18	0	0	28133	6	179507	30.83	179507	34.07	5.34		
3	28	17196	9083	7	0	0	26314	7	205821	35.35	205821	39.06	4.99		
4	27	16220	8601	0	0	0	24848	8	230669	39.62	230669	43.78	4.72		
5	39	14831	7053	0	0	0	21923	9	252592	43.39	252592	47.94	4.16		
6	3	12451	4192	0	0	0	16646	23	269238	46.25	269238	51.10	3.16		
7	0	8432	2095	0	0	0	10527	26	279765	48.05					
8	1	4409	736	0	0	0	5146	28	284911	48.94					
9	4	2208	225	0	0	0	2437	30	287348	49.36					
10	0	2669	476	2	0	0	3147	29	290495	49.90					
11	0	5312	2081	0	0	0	7393	27	297888	51.17					
12	0	6574	6749	85	0	0	13408	24	311296	53.47	282646	53.65	2.54		
13	0	3430	11280	2465	1	0	17176	22	328472	56.42	286414	54.36	3.26		
14	0	328	11750	6994	11	0	19083	20	347555	59.70	305497	57.98	3.62		
15	0	8	8863	12215	196	0	21282	10	368837	63.35	326779	62.02	4.04		
16	0	2	4762	14076	1827	0	20667	13	389504	66.90	347446	65.94	3.92		
17	0	0	2685	13724	4001	0	20410	14	409914	70.41	367856	69.82	3.87		
18	0	7	2304	13472	4398	3	20184	16	430098	73.88	388040	73.65	3.83		
19	0	20	2495	14547	3741	0	20803	12	450901	77.45	408843	77.60	3.95		
20	0	24	3197	13637	2935	0	19793	17	470694	80.85	428636	81.35	3.76		
21	0	183	5866	13004	1306	0	20359	15	491053	84.35	448995	85.22	3.86		
22	0	815	7656	12588	68	0	21127	11	512180	87.98	470122	89.23	4.01		
23	0	2597	9103	7888	0	0	19588	18	531768	91.34	489710	92.95	3.72		
0	0	6058	11242	2280	0	0	19580	19	551348	94.70	509290	96.66	3.72		
1	1	7997	9440	152	0	0	17590	21	568938	97.73	526880	100.00	3.34		
2	1	8333	4875	30	0	0	13239	25	582177	100.00					
BAND TOTALS							127	161246	200581	190866	29343	14	582177	HIGHEST ACTIVITY BAND	
PERCENT QSO'S OF TOTAL							0.02	27.70	34.45	32.78	5.04	0.00		2nd HIGHEST ACTIVITY BAND	

2009 CW SS HOUR TOTALS BY BAND

								OVERALL CONTEST CUMULATIVE DATA			PEAK ACTIVITY HOURS		
							HOUR QSO TOTALS	HOUR RANK	QSO TOTAL	PERCENT OF TOTAL	CUMULATIVE PEAK HOURS QSO TOTAL	PERCENT OF PEAK QSO TOTAL	PERCENT OF QSO'S BY HOUR
HOUR	160	80	40	20	15	10							
21	0	80	5508	21251	5911	6	32756	2	32756	5.09	32756	5.52	5.52
22	11	146	7785	23238	3953	1	35134	1	67890	10.54	67890	11.45	5.93
23	0	2301	9697	18866	404	0	31268	3	99158	15.40	99158	16.72	5.27
0	11	6359	16077	7228	0	0	29675	5	128833	20.01	128833	21.73	5.00
1	16	10523	19818	400	0	0	30757	4	159590	24.79	159590	26.91	5.19
2	146	12604	16743	4	35	0	29532	6	189122	29.37	189122	31.90	4.98
3	281	14370	12489	2	74	0	27216	7	216338	33.60	216338	36.49	4.59
4	208	17425	8480	0	0	0	26113	8	242451	37.66	242451	40.89	4.40
5	121	17184	7294	0	0	0	24599	9	267050	41.48	267050	45.04	4.15
6	91	14773	6511	3	0	0	21378	18	288428	44.80	288428	48.64	3.61
7	51	9995	5980	23	0	0	16049	25	304477	47.29			
8	2	5958	3080	8	3	0	9051	27	313528	48.70			
9	0	2719	1248	4	1	0	3972	29	317500	49.31			
10	0	1922	948	4	0	0	2874	30	320374	49.76			
11	0	4682	2055	13	1	0	6751	28	327125	50.81			
12	1	6352	5849	5	0	0	12207	26	339332	52.70			
13	0	4662	11045	1046	0	0	16753	24	356085	55.31	305181	51.47	2.83
14	0	878	13909	6551	53	0	21391	19	377476	58.63	326572	55.08	3.61
15	0	49	11153	11814	440	0	23456	10	400932	62.27	350028	59.03	3.96
16	0	7	6919	13633	2042	0	22601	12	423533	65.78	372629	62.84	3.81
17	0	9	3729	12401	6785	4	22928	13	446461	69.34	395557	66.71	3.87
18	0	0	2500	11665	7364	1	21530	17	467991	72.69	417087	70.34	3.63
19	0	33	2998	12093	7534	49	22707	16	490698	76.21	439794	74.17	3.83
20	0	24	3951	13621	5664	0	23260	14	513958	79.83	463054	78.09	3.92
21	0	35	5419	14758	3878	0	24090	11	538048	83.57	487144	82.16	4.06
22	2	767	7453	14656	1716	0	24594	15	562642	87.39	511738	86.30	4.15
23	6	2698	7825	11112	253	0	21894	20	584536	90.79	533632	90.00	3.69
0	61	5385	9973	5027	6	0	20452	21	604988	93.96	554084	93.45	3.45
1	95	6342	11880	2134	0	0	20451	22	625439	97.14	574535	96.90	3.45
2	20	6941	11129	317	0	2	18409	23	643848	100.00	592944	100.00	3.10
BAND TOTALS										HIGHEST ACTIVITY BAND			
PERCENT QSO'S OF TOTAL										2nd HIGHEST ACTIVITY BAND			
	0.17	24.11	37.19	31.35	7.16	0.01							

2010 CW SS HOUR TOTALS BY BAND

								OVERALL CONTEST CUMULATIVE DATA			PEAK ACTIVITY HOURS		
	HOUR QSO TOTALS							HOUR RANK	QSO TOTAL	PERCENT OF TOTAL	CUMULATIVE PEAK HOURS QSO TOTAL	PERCENT OF PEAK QSO TOTAL	PERCENT OF QSO'S BY HOUR
HOUR	160	80	40	20	15	10	TOTALS						
21	0	83	6799	13721	13840	136	34579	1	34579	5.44	34579	5.90	5.90
22	0	313	8040	17341	8074	6	33774	2	68353	10.76	68353	11.66	5.76
23	0	3919	9665	16167	1751	0	31502	4	99855	15.72	99855	17.03	5.37
0	0	9930	14821	6843	11	0	31605	3	131460	20.69	131460	22.42	5.39
1	85	14565	16391	458	0	0	31499	5	162959	25.65	162959	27.80	5.37
2	89	17877	12652	0	0	0	30618	6	193577	30.47	193577	33.02	5.22
3	170	19037	10639	0	0	0	29846	7	223423	35.17	223423	38.11	5.09
4	139	17704	10123	0	0	0	27966	8	251389	39.57	251389	42.88	4.77
5	0	15754	8812	0	0	0	24566	9	275955	43.44	275955	47.07	4.19
6	15	13218	6013	0	0	0	19246	21	295201	46.47	295201	50.35	3.28
7	4	9070	4254	0	0	0	13328	26	308529	48.57			
8	0	4327	2025	0	0	0	6352	28	314881	49.57			
9	0	2136	830	1	0	0	2967	30	317848	50.03			
10	0	3530	900	1	12	0	4443	29	322291	50.73			
11	4	5696	2536	9	5	0	8250	27	330541	52.03			
12	0	7147	7296	265	0	0	14708	24	345249	54.35	309909	52.86	2.51
13	0	4233	13277	1866	2	0	19378	20	364627	57.40	329287	56.17	3.31
14	0	466	13677	7994	116	0	22253	14	386880	60.90	351540	59.96	3.80
15	0	12	9038	12218	2051	0	23319	11	410199	64.57	374859	63.94	3.98
16	0	28	4563	12845	6024	15	23475	10	433674	68.27	398334	67.95	4.00
17	0	3	2294	9955	8856	576	21684	17	455358	71.68	420018	71.64	3.70
18	0	2	1890	9063	9055	128	20138	18	475496	74.85	440156	75.08	3.44
19	0	0	3388	10450	7954	32	21824	16	497320	78.28	461980	78.80	3.72
20	0	3	4588	12300	5117	1	22009	15	519329	81.75	483989	82.56	3.75
21	0	34	5676	14726	2723	2	23161	12	542490	85.39	507150	86.51	3.95
22	0	620	7562	14348	572	0	23102	13	565592	89.03	530252	90.45	3.94
23	1	2277	9184	8431	21	0	19914	19	585506	92.17	550166	93.84	3.40
0	2	6843	10513	1098	3	0	18459	22	603965	95.07	568625	96.99	3.15
1	5	11082	6534	5	0	0	17626	23	621591	97.85	586251	100.00	3.01
2	8	11069	2598	4	0	2	13681	25	635272	100.00			
BAND TOTALS	522	180978	216578	170109	66187	898	635272	HIGHEST ACTIVITY BAND					
PERCENT QSO'S OF TOTAL	0.08	28.49	34.09	26.78	10.42	0.14		2nd HIGHEST ACTIVITY BAND					

2011 CW SS HOUR TOTALS BY BAND

								OVERALL CONTEST CUMULATIVE DATA			PEAK ACTIVITY HOURS		
HOUR	160	80	40	20	15	10	HOUR QSO TOTALS	HOUR RANK	QSO TOTAL	PERCENT OF TOTAL	CUMULATIVE PEAK HOURS QSO TOTAL	PERCENT OF PEAK QSO TOTAL	PERCENT OF QSO'S BY HOUR
21	0	31	2012	7082	9199	15115	33439	1	33439	5.63	33439	6.05	6.05
22	0	2	3045	7168	13397	9222	32834	2	66273	11.16	66273	11.98	5.94
23	0	116	6337	8798	13872	3494	32617	3	98890	16.66	98890	17.88	5.90
0	0	649	9262	12183	8939	358	31391	5	130281	21.94	130281	23.56	5.68
1	0	3719	11530	14035	1542	0	30826	4	161107	27.13	161107	29.13	5.57
2	0	8139	14740	6840	28	0	29747	6	190854	32.14	190854	34.51	5.38
3	7	9504	16708	673	6	2	26900	7	217754	36.68	217754	39.38	4.86
4	0	11132	13806	34	19	0	24991	8	242745	40.88	242745	43.90	4.52
5	11	11517	9467	4	22	0	21021	9	263766	44.43	263766	47.70	3.80
6	8	9473	6239	9	11	13	15753	18	279519	47.08	279519	50.55	2.85
7	0	5380	3631	37	21	1	9070	23	288589	48.61	288589	52.19	1.64
8	0	2205	1342	1	0	0	3548	27	292137	49.20			
9	0	889	299	0	0	0	1188	29	293325	49.40			
10	0	1631	1176	0	0	0	2807	30	296132	49.88			
11	0	3374	3493	37	15	0	6919	28	303051	51.04			
12	1	3618	8333	670	0	0	12622	26	315673	53.17			
13	0	1136	11817	4389	57	0	17399	24	333072	56.10	305988	55.33	3.15
14	1	97	8998	9663	1979	20	20758	19	353830	59.59	326746	59.09	3.75
15	0	0	3533	10226	7711	617	22087	10	375917	63.31	348833	63.08	3.99
16	0	1	1064	10281	7826	3048	22220	12	398137	67.06	371053	67.10	4.02
17	0	0	786	6575	6676	5508	19545	13	417682	70.35	390598	70.63	3.53
18	0	0	603	5247	6970	7725	20545	17	438227	73.81	411143	74.35	3.72
19	0	5	733	6167	7962	6750	21617	16	459844	77.45	432760	78.26	3.91
20	0	0	1937	5964	7606	6050	21557	14	481401	81.08	454317	82.16	3.90
21	1	2	2780	6743	6731	5008	21265	11	502666	84.66	475582	86.00	3.85
22	17	31	4348	7032	6383	3177	20988	15	523654	88.20	496570	89.80	3.80
23	18	500	6400	7631	4533	659	19741	20	543395	91.52	516311	93.37	3.57
0	12	1804	8156	7333	1174	0	18479	21	561874	94.63	534790	96.71	3.34
1	0	3720	9022	5425	40	0	18207	22	580081	97.70	552997	100.00	3.29
2	0	4087	7671	1890	3	0	13651	25	593732	100.00			
BAND TOTALS							593732	HIGHEST ACTIVITY BAND					
PERCENT QSO'S OF TOTAL								2nd HIGHEST ACTIVITY BAND					
	0.01	13.94	30.19	25.62	18.99	11.25							

2012 CW SS HOUR TOTALS BY BAND

<u>HOUR</u>								OVERALL CONTEST CUMULATIVE DATA			PEAK ACTIVITY HOURS		
	<u>160</u>	<u>80</u>	<u>40</u>	<u>20</u>	<u>15</u>	<u>10</u>	<u>HOUR QSO TOTALS</u>	<u>HOUR RANK</u>	<u>QSO TOTAL</u>	<u>PERCENT OF TOTAL</u>	<u>CUMULATIVE PEAK HOURS QSO TOTAL</u>	<u>PERCENT OF PEAK QSO TOTAL</u>	<u>PERCENT OF QSO'S BY HOUR</u>
21	0	18	2740	8068	14614	7103	32543	1	32543	6.12	32543	6.50	6.50
22	0	1	4161	8618	15640	3208	31628	2	64171	12.08	64171	12.81	6.31
23	0	60	6701	12537	8998	210	28506	3	92677	17.44	92677	18.50	5.69
0	0	927	11359	14414	1088	0	27788	4	120465	22.67	120465	24.05	5.55
1	0	4492	16072	6568	3	0	27135	5	147600	27.78	147600	29.47	5.42
2	0	8206	17039	491	0	0	25736	6	173336	32.62	173336	34.60	5.14
3	9	10904	13110	3	0	0	24026	7	197362	37.15	197362	39.40	4.80
4	12	12344	9041	1	0	0	21398	8	218760	41.17	218760	43.67	4.27
5	21	10891	7239	0	0	0	18151	18	236911	44.59	236911	47.30	3.62
6	10	7828	5480	0	0	0	13318	23	250229	47.10	250229	49.96	2.66
7	4	4252	2683	0	0	0	6939	26	257168	48.40			
8	0	1116	1174	0	0	0	2290	28	259458	48.83			
9	1	330	767	0	0	0	1098	30	260556	49.04			
10	0	1136	1108	0	1	0	2245	29	262801	49.46			
11	0	2937	3574	42	0	0	6553	27	269354	50.70			
12	0	4062	7383	471	0	0	11916	24	281270	52.94	262145	52.33	2.38
13	0	918	11805	2840	0	2	15565	20	296835	55.87	277710	55.44	3.11
14	0	52	10195	8036	572	1	18856	16	315691	59.42	296566	59.21	3.76
15	1	29	4982	11723	4191	14	20940	9	336631	63.36	317506	63.39	4.18
16	0	2	2239	10554	7081	128	20004	10	356635	67.12	337510	67.38	3.99
17	0	1	1133	9247	8144	1119	19644	13	376279	70.82	357154	71.30	3.92
18	0	0	1331	6839	9160	1488	18818	17	395097	74.36	375972	75.06	3.76
19	0	6	1720	6499	8765	2087	19077	14	414174	77.95	395049	78.87	3.81
20	0	19	2608	7416	8396	1364	19803	11	433977	81.68	414852	82.82	3.95
21	0	14	4353	7296	7304	802	19769	12	453746	85.40	434621	86.77	3.95
22	0	123	5816	7690	5306	68	19003	15	472749	88.98	453624	90.56	3.79
23	0	1396	6104	9010	965	4	17479	19	490228	92.27	471103	94.05	3.49
0	0	2822	6958	5731	4	0	15515	21	505743	95.19	486618	97.15	3.10
1	0	4934	8483	864	1	0	14282	22	520025	97.87	500900	100.00	2.85
2	0	5368	5903	24	0	0	11295	25	531320	100.00			
BAND TOTALS	58	85188	183261	144982	100233	17598	531320				HIGHEST ACTIVITY BAND		
PERCENT QSO'S OF TOTAL	0.01	16.03	34.49	27.29	18.86	3.31					2nd HIGHEST ACTIVITY BAND		

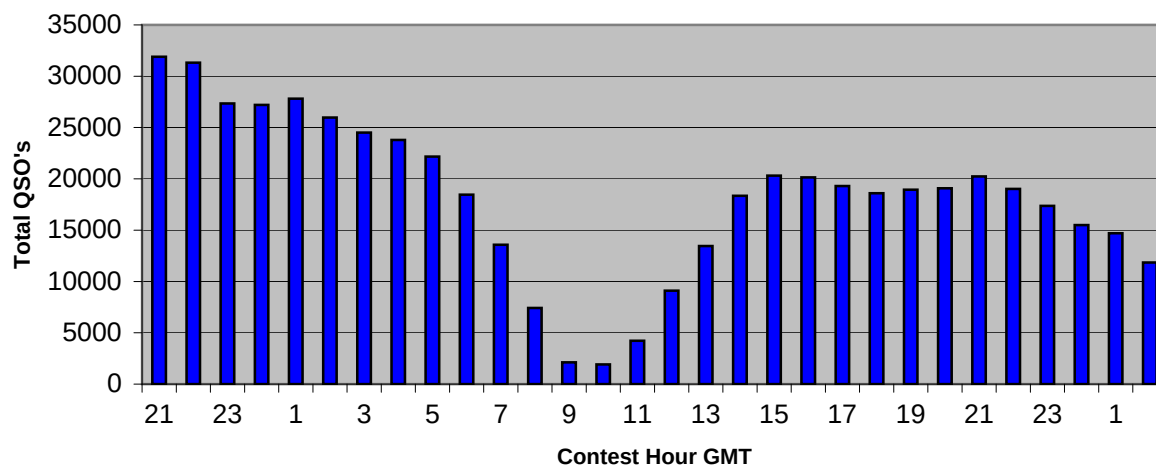
2013 CW SS HOUR TOTALS BY BAND

								OVERALL CONTEST CUMULATIVE DATA			PEAK ACTIVITY HOURS		
HOUR	160	80	40	20	15	10	HOUR QSO TOTALS	HOUR RANK	QSO TOTAL	PERCENT OF TOTAL	CUMULATIVE PEAK HOURS QSO TOTAL	PERCENT OF PEAK QSO TOTAL	PERCENT OF QSO'S BY HOUR
21	0	1	1846	6096	11635	12947	32525	2	32525	5.55	32525	6.08	6.08
22	0	2	4216	6195	15410	7643	33466	1	65991	11.26	65991	12.33	6.25
23	0	59	6626	8617	14591	1827	31720	3	97711	16.67	97711	18.26	5.93
0	0	484	10232	13050	7344	65	31175	5	128886	21.99	128886	24.08	5.83
1	0	3148	13708	13365	946	26	31193	4	160079	27.31	160079	29.91	5.83
2	0	5836	15511	9024	7	15	30393	6	190472	32.50	190472	35.59	5.68
3	1	8013	18290	2223	2	3	28532	7	219004	37.36	219004	40.92	5.33
4	17	9921	15649	107	0	1	25695	8	244699	41.75	244699	45.72	4.80
5	20	10239	11562	7	0	0	21828	10	266527	45.47	266527	49.80	4.08
6	3	8328	7903	0	0	0	16234	23	282761	48.24	282761	52.84	3.03
7	0	4786	4160	0	0	0	8946	26	291707	49.77			
8	0	1986	1302	0	0	0	3288	28	294995	50.33			
9	0	721	757	0	0	0	1478	30	296473	50.58			
10	0	1519	1273	1	0	0	2793	29	299266	51.06			
11	0	3747	2684	0	1	0	6432	27	305698	52.15			
12	0	3620	7525	665	0	0	11810	25	317508	54.17			
13	0	734	10551	5246	22	1	16554	22	334062	56.99	283081	52.90	3.09
14	0	1	8243	10018	1602	18	19882	16	353944	60.38	302963	56.61	3.72
15	0	1	3545	10674	7360	546	22126	9	376070	64.16	325089	60.75	4.13
16	0	8	591	7990	9664	2273	20526	13	396596	67.66	345615	64.58	3.84
17	0	0	335	5857	9285	3934	19411	17	416007	70.97	365026	68.21	3.63
18	0	0	149	4982	9012	5247	19390	18	435397	74.28	384416	71.83	3.62
19	0	0	726	5173	8154	6086	20139	15	455536	77.72	404555	75.59	3.76
20	0	1	1870	6232	8296	4004	20403	14	475939	81.20	424958	79.41	3.81
21	0	0	3303	6599	8692	2095	20689	12	496628	84.73	445647	83.27	3.87
22	0	10	5448	7706	7127	492	20783	11	517411	88.27	466430	87.16	3.88
23	0	464	6770	7881	3690	40	18845	19	536256	91.49	485275	90.68	3.52
0	1	1548	9072	6998	847	0	18466	20	554722	94.64	503741	94.13	3.45
1	3	3373	9985	3849	2	0	17212	21	571934	97.58	520953	97.34	3.22
2	9	5584	8271	349	0	0	14213	24	586147	100.00	535166	100.00	2.66
BAND TOTALS							586147	HIGHEST ACTIVITY BAND					
PERCENT QSO'S OF TOTAL								2nd HIGHEST ACTIVITY BAND					
	0.01	12.65	32.77	25.40	21.10	8.06							

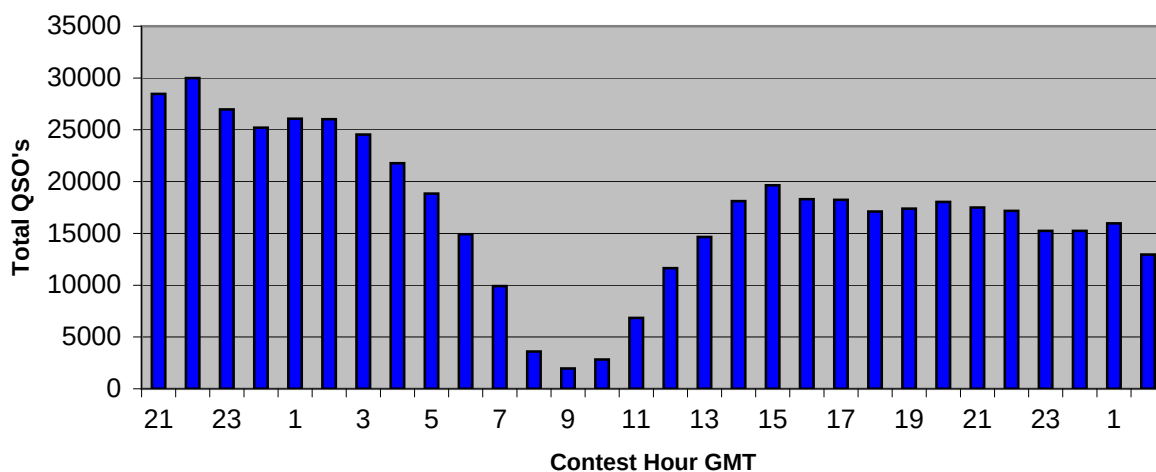
2014 CW SS HOUR TOTALS BY BAND

								OVERALL CONTEST CUMULATIVE DATA			PEAK ACTIVITY HOURS		
HOUR	160	80	40	20	15	10	HOUR QSO TOTALS	HOUR RANK	QSO TOTAL	PERCENT OF TOTAL	CUMULATIVE PEAK HOURS QSO TOTAL	PERCENT OF PEAK QSO TOTAL	PERCENT OF QSO'S BY HOUR
21	0	2	2317	7173	9409	13614	32515	1	32515	6.14	32515	6.67	6.67
22	0	2	2545	8265	10945	10461	32218	2	64733	12.23	64733	13.28	6.61
23	0	5	5023	8822	13261	3167	30278	3	95011	17.95	95011	19.48	6.21
0	0	189	9580	10711	8489	259	29228	4	124239	23.47	124239	25.48	5.99
1	0	1851	12624	12431	1223	7	28136	5	152375	28.79	152375	31.25	5.77
2	0	4523	14776	7860	9	0	27168	6	179543	33.92	179543	36.82	5.57
3	5	6280	16304	2156	3	0	24748	7	204291	38.60	204291	41.89	5.08
4	0	8680	13734	16	0	0	22430	8	226721	42.83	226721	46.49	4.60
5	1	8430	9418	2	0	0	17851	16	244572	46.21	244572	50.16	3.66
6	0	6118	6130	0	0	0	12248	23	256820	48.52	256820	52.67	2.51
7	0	3145	3025	0	0	0	6170	27	262990	49.69			
8	0	605	946	1	0	0	1552	29	264542	49.98			
9	0	149	861	0	0	0	1010	30	265552	50.17			
10	0	966	1503	2	0	0	2471	28	268023	50.64			
11	7	3208	3794	4	0	0	7013	26	275036	51.96			
12	13	2406	8074	718	2	0	11213	25	286249	54.08			
13	15	221	10785	4968	1	1	15991	22	302240	57.10	260563	53.43	3.28
14	3	2	7005	9203	1505	9	17727	17	319967	60.45	278290	57.07	3.64
15	0	5	2409	10320	6490	263	19487	9	339454	64.13	297777	61.07	4.00
16	0	6	528	8288	8346	2288	19456	10	358910	67.81	317233	65.06	3.99
17	0	0	116	6794	8280	3678	18868	12	377778	71.37	336101	68.93	3.87
18	0	0	110	5389	7427	4326	17252	18	395030	74.63	353353	72.46	3.54
19	0	0	411	5249	9018	3513	18191	14	413221	78.07	371544	76.19	3.73
20	0	0	1330	5763	8570	2745	18408	13	431629	81.55	389952	79.97	3.78
21	0	0	1508	7470	7646	2276	18900	11	450529	85.12	408852	83.84	3.88
22	0	45	3148	6819	6376	1547	17935	15	468464	88.51	426787	87.52	3.68
23	0	391	4297	7161	4845	171	16865	19	485329	91.69	443652	90.98	3.46
0	0	576	6433	7849	1651	0	16509	20	501838	94.81	460161	94.37	3.39
1	0	1207	7893	7040	104	0	16244	21	518082	97.88	476405	97.70	3.33
2	0	3193	6414	1616	1	0	11224	24	529306	100.00	487629	100.00	2.30
BAND TOTALS											HIGHEST ACTIVITY BAND		
PERCENT QSO'S OF TOTAL											2nd HIGHEST ACTIVITY BAND		
	0.01	9.86	30.80	28.73	21.46	9.13							

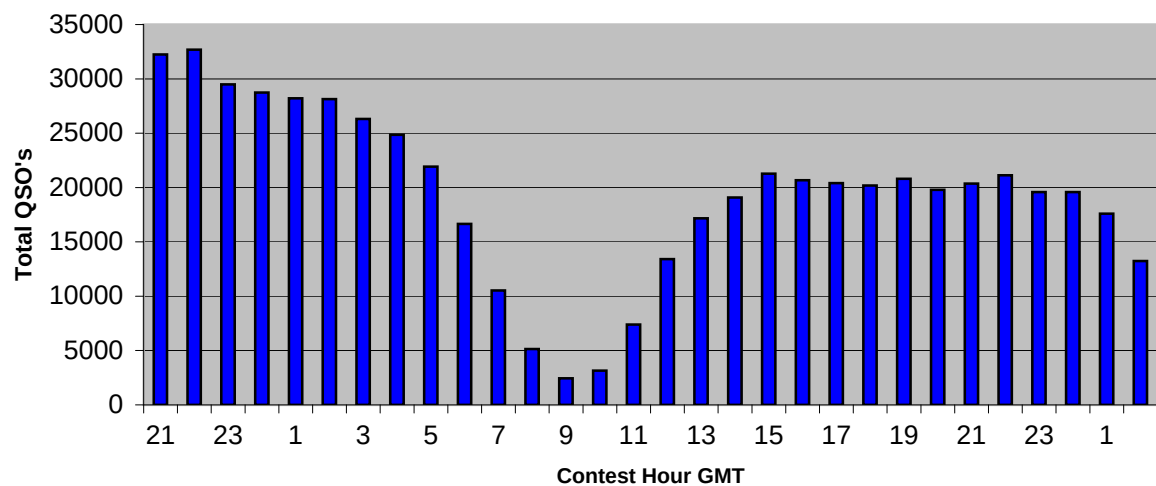
2006 CW SS Total QSO's By Hour



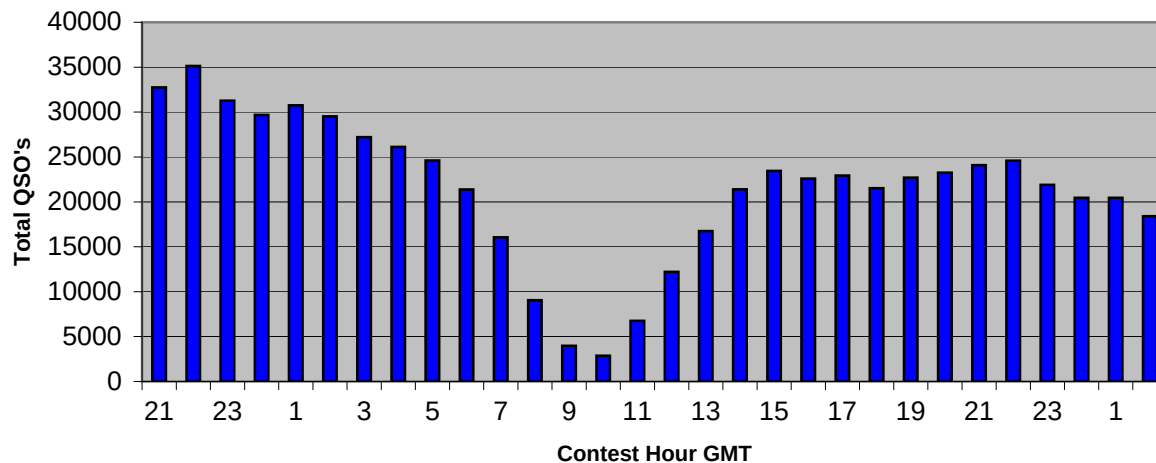
2007 CW SS Total QSO's By Hour



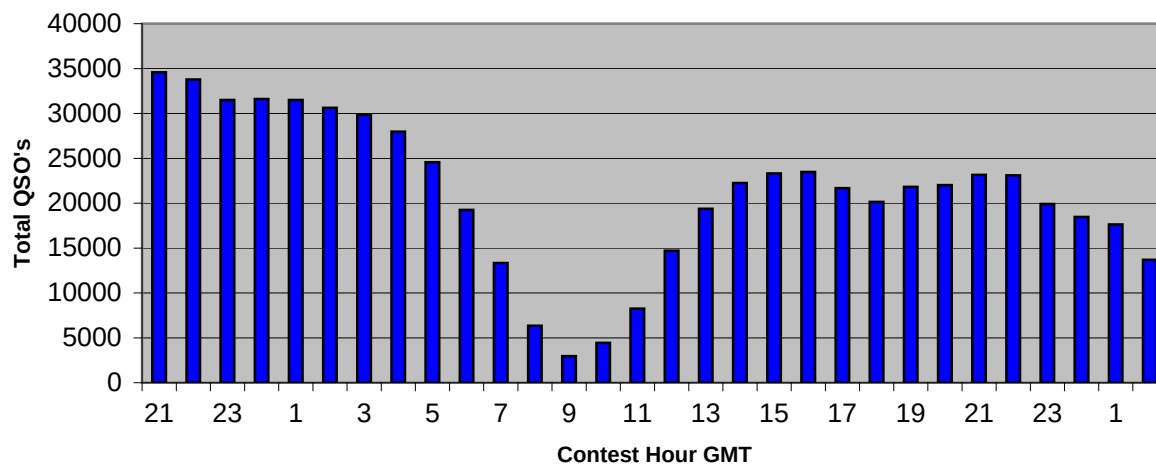
2008 CW SS Total QSO's By Hour



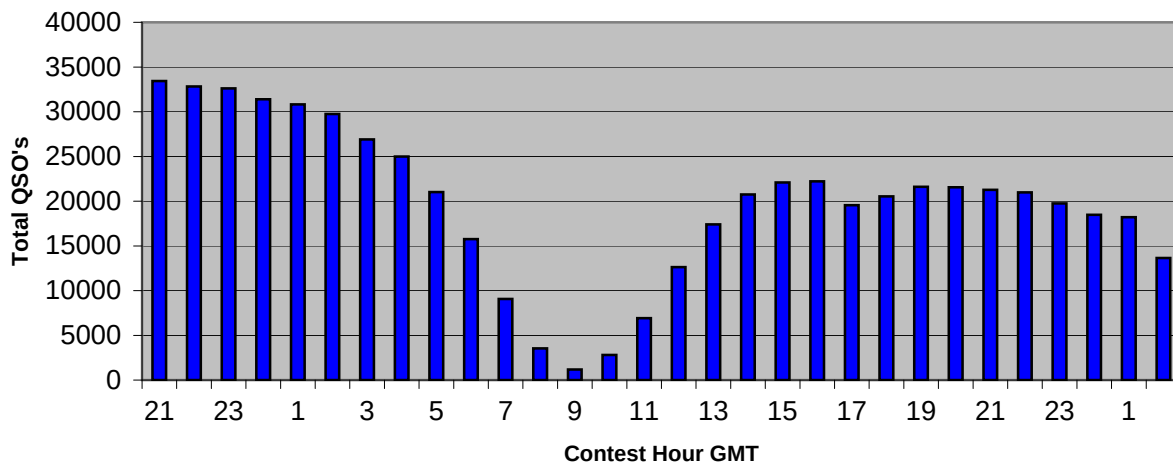
2009 CW SS Total QSO's By Hour



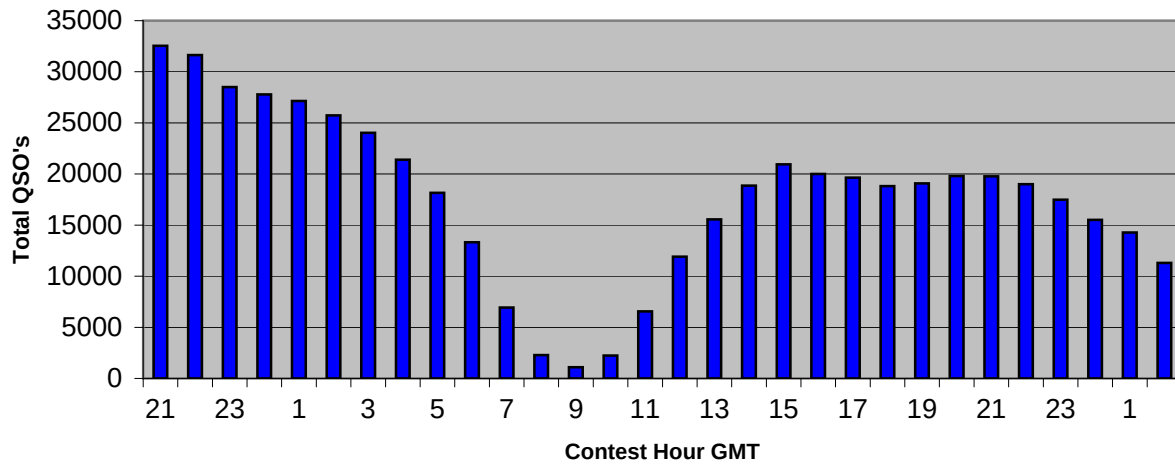
2010 CW SS Total QSO's By Hour



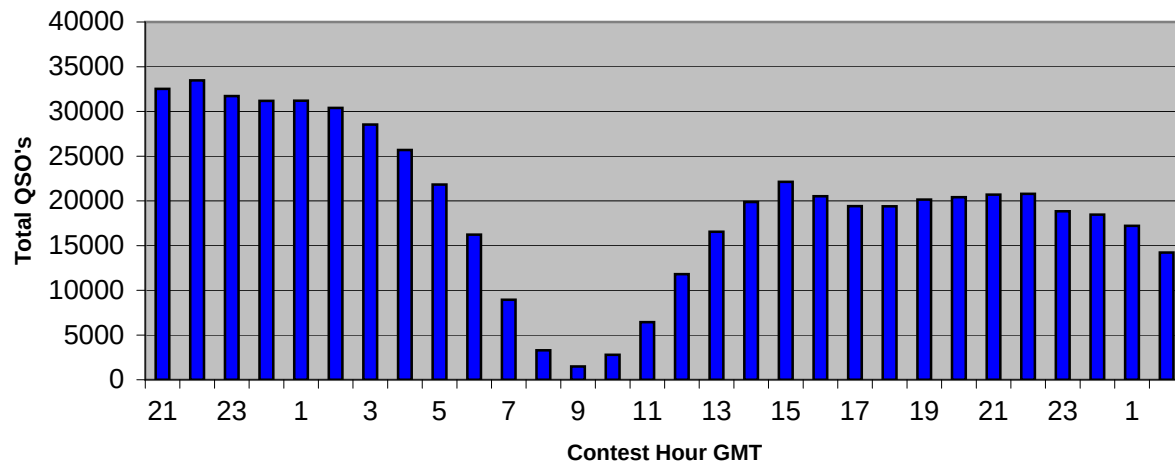
2011 CW SS Total QSO's By Hour



2012 CW SS Total QSO's By Hour



2013 CW SS Total QSO's By Hour



2014 CW SS Total QSO's By Hour

