

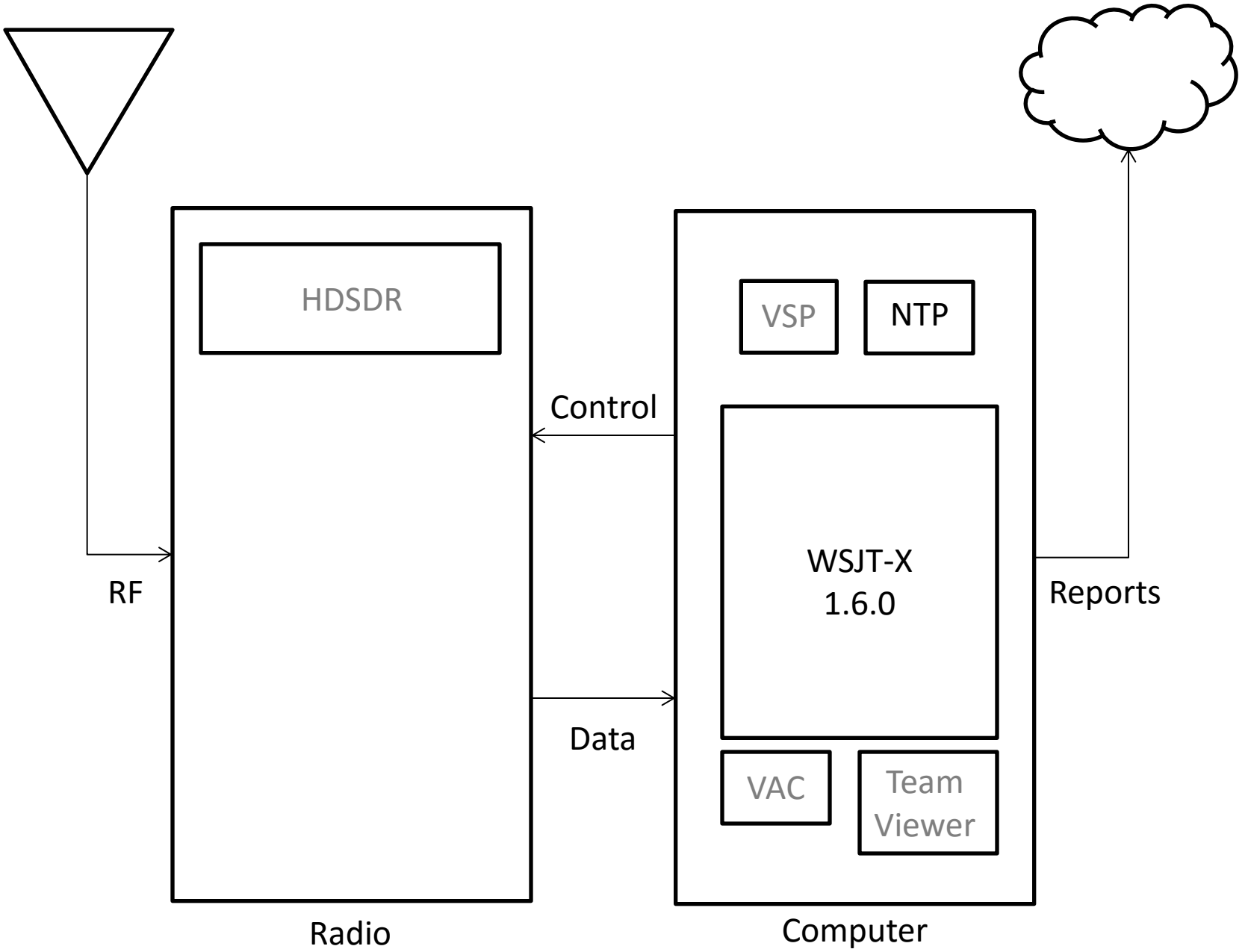
W4HOD Club Project WSPR Station

John Pratt, KC4RSN

Richard Robinson, AI4RY

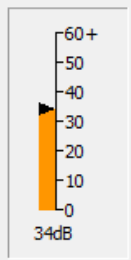
Background

- W4HOD has many informal SIGs
 - DX, Contesting, Antennas, Weak Signal (Meteor Scatter, WSPR), PSK, and others
 - Bob Schafer, Dick Jaeger and others suggested it might be good for the club to have WSPR
 - Bob, Dick and Cheryl provided the key equipment to get things started – THANKS!



UTC	dB	DT	Freq	Drift	Call	Grid	dBm	Dist
2018	-1	0.1	14.097002	0	K1BFS	FN42	30	1685
2018	-24	1.3	14.097065	0	DJ0ABR	JN68	37	7943
----- 20m -----								
2020	-24	-0.3	14.096997	0	AD7QQ	DN16	37	3087
2020	4	-0.3	14.097041	0	KK1D	FN31	30	1485
2020	-7	0.2	14.097079	0	AJ1Z	FN42	27	1685
2020	-16	2.1	14.097121	0	AA7FV	DM42	33	2389
2020	-9	-0.4	14.097136	1	KD0VJS	EN34	20	1474
2020	-18	-0.1	14.097148	0	KE7A	EM12	37	1080
----- 20m -----								
2022	-10	0.2	14.097021	-4	KB1CHU	FN42	30	1685
2022	-4	0.4	14.097032	0	VE3GEN	EN96	33	1592
2022	-24	-1.2	14.097073	-2	IQ5LU	JN53	33	8072
2022	-18	2.1	14.097097	1	W5JVS	EM15	37	1109
2022	-7	-0.3	14.097102	1	KD0VJS	EN34	20	1474
2022	10	0.1	14.097171	0	VE3PLE	FN25	37	1694
----- 20m -----								
2024	-26	-0.4	14.097028	-3	KK6DJC	DM12	27	2947
2024	-19	-0.1	14.097037	0	HB9CQK	JN47	33	7728
2024	-11	-0.5	14.097103	0	KE7BJB	FN42	30	1685
2024	-15	1.9	14.097120	-1	AA7FV	DM42	33	2389
2024	-2	-0.4	14.097136	1	KD0VJS	EN34	20	1474
2024	-23	-0.1	14.097163	1	K4COD	EM73	33	112
----- 20m -----								
2026	-7	0.3	14.097016	-1	KB1CHU	FN42	30	1685
2026	-5	-0.4	14.097070	0	KD0VJS	EN34	20	1474
2026	-19	-0.3	14.097074	-4	N5GG	EM13	23	1078
2026	-28	-0.4	14.097102	0	K8VFO	EN73	23	1212
2026	-9	-0.4	14.097104	-1	KC5MO	EM10	23	1115
2026	-28	-0.3	14.097136	0	DK0EP	JO31	27	7410
2026	-8	0.5	14.097149	0	KE7A	EM12	37	1080

14.095600 ● **14.095 600**

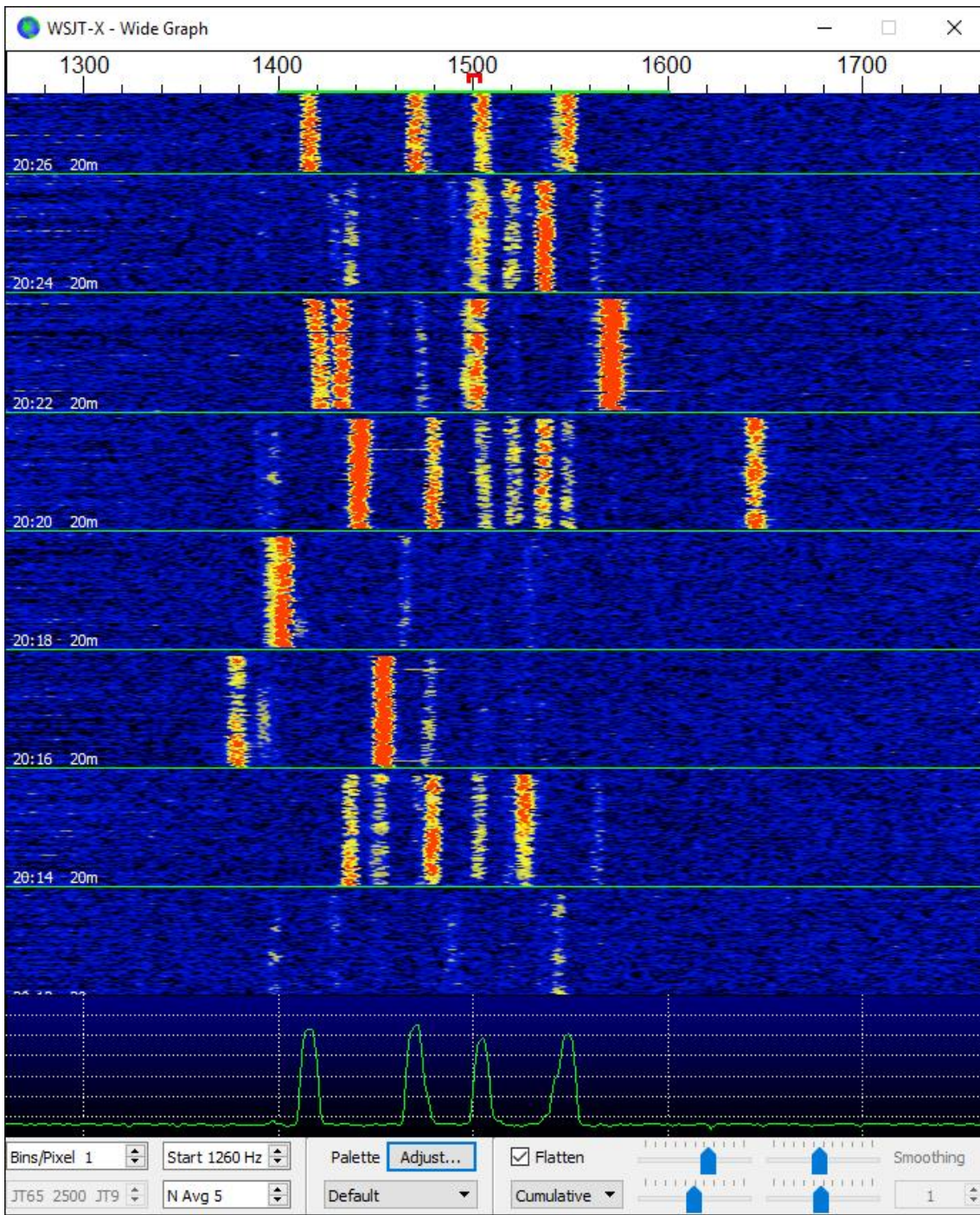


2016 Apr 04
20:29:03

Upload spots

 Band Hopping





Band Hopping

WSPR Band Hopping

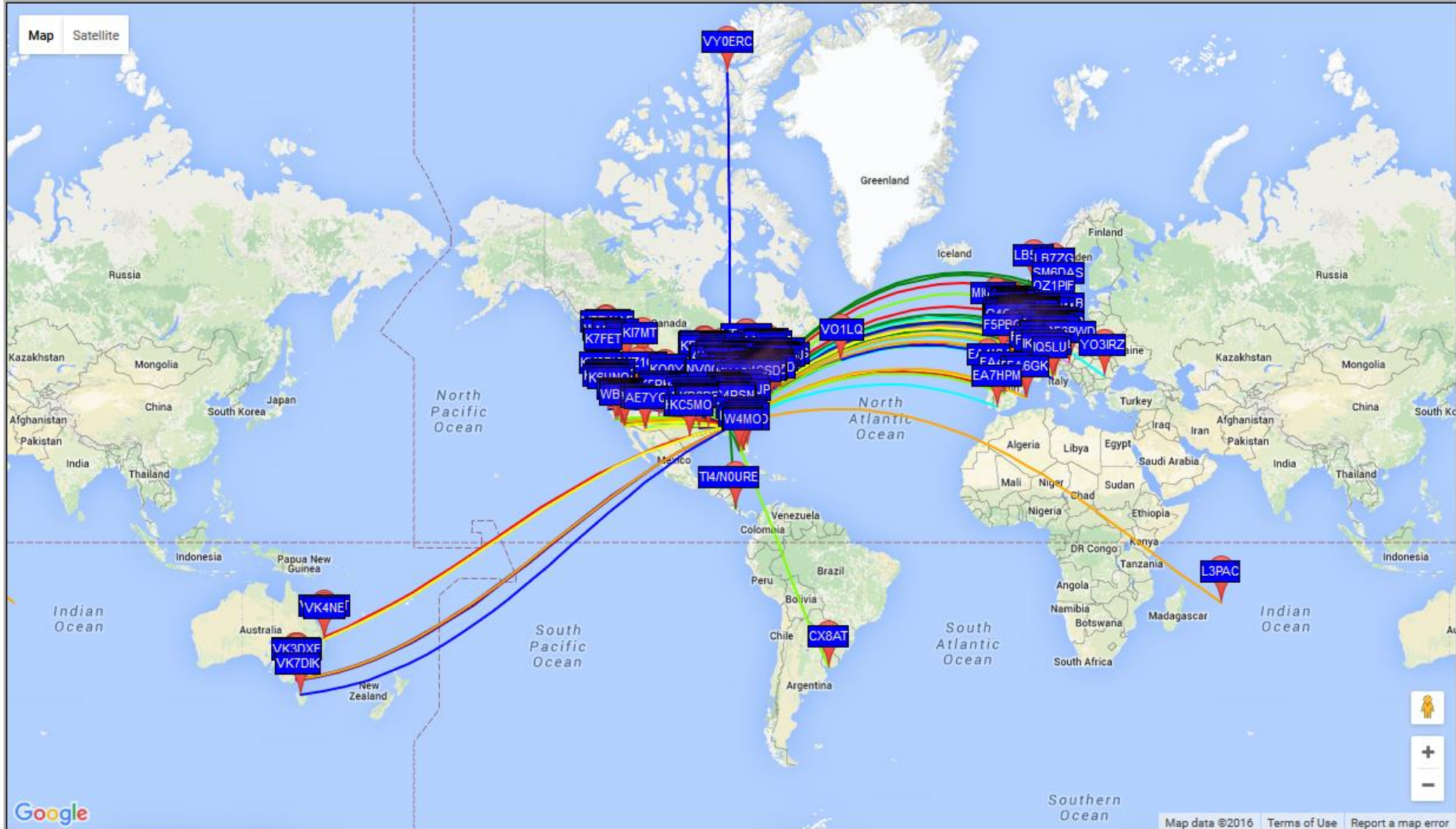
	2190m	630m	160m	80m	60m	40m	30m	20m	17m	15m	12m	10m	6m	4m	2m	70cm	23cm
Sunrise grayline	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sunset grayline	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Night	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tune	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rx only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Gray time: 120min

Band:	160	80	60	40	30	20	17	15	12	10
UTC minute:	00	02	04	06	08	10	12	14	16	18
	20	22	24	26	28	30	32	34	36	38
	40	42	44	46	48	50	52	54	56	58

WSPRnet.org

Map



Database

Specify query parameters

1000 spots:

Timestamp	Call	MHz	SNR	Drift	Grid	Pwr	Reporter	RGrid	km	az
2016-04-04 20:38	W8KV	10.140279	-22	0	EN80	0.01	W4HOD	EM72eo	905	196
2016-04-04 20:38	DJ6OL	10.140204	-20	0	JO52ap	5	W4HOD	EM72eo	7539	295
2016-04-04 20:38	WA9EIC	10.140170	+3	0	EN60ed	5	W4HOD	EM72eo	857	167
2016-04-04 20:38	AJ8S	10.140164	-1	0	EM89bt	0.5	W4HOD	EM72eo	817	192
2016-04-04 20:36	W4MO	14.097095	-24	0	EL86	5	W4HOD	EM72eo	725	340
2016-04-04 20:36	AJ1Z	14.097083	-3	0	FN42km	0.5	W4HOD	EM72eo	1684	234
2016-04-04 20:36	HB9CQK	14.097040	-13	0	JN47da	2	W4HOD	EM72eo	7696	296
2016-04-04 20:36	K4COD	14.097166	-20	0	EM73sc	2	W4HOD	EM72eo	122	243
2016-04-04 20:36	DL1GCD	14.097106	-11	0	JN48ar	20	W4HOD	EM72eo	7597	295
2016-04-04 20:36	DL/G6GLG	14.097098	-24	0	JN49jk	5	W4HOD	EM72eo	7612	295
2016-04-04 20:34	W0BY	10.140204	-3	-4	EL98	0.5	W4HOD	EM72eo	635	317
2016-04-04 20:34	W8KV	10.140195	-26	0	EN80	0.01	W4HOD	EM72eo	905	196
2016-04-04 20:34	WA9EIC	10.140170	-6	1	EN60ed	5	W4HOD	EM72eo	857	167
2016-04-04 20:34	K3GEN	10.140149	+9	0	FM19ke	5	W4HOD	EM72eo	1058	229
2016-04-04 20:32	VA3KV	14.097096	-10	0	FN25in	1	W4HOD	EM72eo	1691	215
2016-04-04 20:32	K5SWA	14.097057	-14	0	EM12ox	5	W4HOD	EM72eo	1044	89
2016-04-04 20:32	KE7BJB	14.097046	-2	0	FN42iu	1	W4HOD	EM72eo	1695	232
2016-04-04 20:32	AB4QS	14.096993	-25	0	EL88vb	5	W4HOD	EM72eo	602	328
2016-04-04 20:30	K9AN	14.097176	-22	0	EN50wc	2	W4HOD	EM72eo	863	164
2016-04-04 20:30	I2GPG	14.097132	-18	0	JN45kg	1	W4HOD	EM72eo	7822	297
2016-04-04 20:30	DJ3KU	14.097119	-28	0	JO31hd	0.2	W4HOD	EM72eo	7394	293
2016-04-04 20:30	EA6GK	14.097108	-15	-4	JM19iq	0.1	W4HOD	EM72eo	7641	295
2016-04-04 20:30	EA6ALL	14.097106	-20	-1	JM19fn	0.2	W4HOD	EM72eo	7628	295
2016-04-04 20:30	AJ1Z	14.097082	-1	0	FN42km	0.5	W4HOD	EM72eo	1684	234
2016-04-04 20:30	DJ0ABR	14.097068	-21	0	JN68nt	5	W4HOD	EM72eo	7925	298
2016-04-04 20:30	DL2JA	14.097055	-15	-1	JN58vk	1	W4HOD	EM72eo	7858	298

WSPR Challenge

<http://wspr.pe1itr.com/>

Date: 2016-04-03		
Freq: 14 MHz		
nr	reporter	uniq's
1	K4COD	262
2	K9AN	223
3	K3SC	198
4	EA7HPM	180
5	UR8IP	178
6	DK6UG	171
7	KK1D	152
9	K5XL	148
10	KD6RF	147
11	KA9LHE	146
12	VK3AXF	144
13	G3RSF	144
14	K6CCA	142
15	W4HOD	142

Date: 2016-04-03			
Freq: 14 MHz			
nr	reporter	uniq's	km sum
6	DPOGVN	78	1047050
7	K3SC	198	899807
8	VK5KET	68	854599
9	ZL3DMH	65	780119
10	KK1D	152	687878
11	KA9LHE	146	656360
12	W3CSW	139	621845
13	AB4QS	137	589063
14	K6CCA	142	583512
15	K5XL	148	568916
16	KD6RF	147	561345
17	WJ1I	137	557030
18	VE3GF	134	555270
19	DK6UG	171	552522
20	VK4FLR	52	538689
21	W4HOD	142	523130

Freq: 14 MHz

nr	reporter	reportergrid	callsign	grid	distance	power	version	num. records
1	W4HOD	EM72eo	VK2PNH	QF15si	15503	5.012	1.6.0	2
2	W4HOD	EM72eo	VK3DXE	QF21nv	15429	5.012	1.6.0	1
3	W4HOD	EM72eo	CX8AT	GF15wc	8112	5.012	1.6.0	3
4	W4HOD	EM72eo	I4ZTO	JN54pl	8032	0.501	1.6.0	5
5	W4HOD	EM72eo	DJ4KI	JN59oi	7773	1.000	1.6.0	1
6	W4HOD	EM72eo	DK6SQ	JN58bf	7759	5.012	1.6.0	1
7	W4HOD	EM72eo	DH7LK	JO62nk	7736	0.501	1.6.0	12
8	W4HOD	EM72eo	HB9CQK	JN47da	7696	1.995	1.6.0	8

Freq: 14 MHz

nr	datum	frequency	reporter	reportergrid	callsign	grid	distance	power	snr
1	2016-04-03 14:06:00	14.097086	W4HOD	EM72eo	DH7LK	JO62nk	7736	0.501	-28
2	2016-04-03 13:38:00	14.097086	W4HOD	EM72eo	DH7LK	JO62nk	7736	0.501	-21
3	2016-04-03 13:22:00	14.097087	W4HOD	EM72eo	DH7LK	JO62nk	7736	0.501	-31
4	2016-04-03 13:12:00	14.097087	W4HOD	EM72eo	DH7LK	JO62nk	7736	0.501	-33
5	2016-04-03 13:06:00	14.097087	W4HOD	EM72eo	DH7LK	JO62nk	7736	0.501	-21
6	2016-04-03 12:50:00	14.097087	W4HOD	EM72eo	DH7LK	JO62nk	7736	0.501	-18
7	2016-04-03 12:40:00	14.097087	W4HOD	EM72eo	DH7LK	JO62nk	7736	0.501	-20
8	2016-04-03 12:36:00	14.097088	W4HOD	EM72eo	DH7LK	JO62nk	7736	0.501	-23
9	2016-04-03 12:26:00	14.097088	W4HOD	EM72eo	DH7LK	JO62nk	7736	0.501	-21
10	2016-04-03 12:20:00	14.097088	W4HOD	EM72eo	DH7LK	JO62nk	7736	0.501	-20
11	2016-04-03 12:10:00	14.097088	W4HOD	EM72eo	DH7LK	JO62nk	7736	0.501	-20
12	2016-04-03 11:42:00	14.097088	W4HOD	EM72eo	DH7LK	JO62nk	7736	0.501	-24

What's Next

- Act as a beacon as well as a reporter (xmit)
- Replace SDR receiver with Yaesu FT-840
 - CAT control
 - Rig interface
 - Antenna matching