WG2XPN/B 70.005 Spectrum Lab Test Results- COUNTS PER HOUR in 200 Hz BW, CW Mode.
228° at 898 km (558 mi.)- 18 dB Threshold for tests 2 - 7.

CODED[0] UTC Hour[8]	Average for 18 dB	Average[1] for 15 dB	TEST 2[2] 02/01/14	TEST 3[3] 02/02/14	TEST 4[4] 02/03/14	TEST 5[5] 02/04/14	TEST 6[6] 02/05/14	TEST 7[7] 02/06/14
00 04 LST	23.8	44.9	24	20	15	29	32	23
01 05 LST	23.7	42.4	22	27	25	20	28	20
02 06 LST	31.2	51.6	29	21	35	31	39	32
03 07 LST	33.7	59.3	28	22	47	37	43	25
04 08 LST	29.5	63.1	26	9	48	36	36	22
05 09 LST	32.7	63.7	25	11	34	47	44	35
06 10 LST	39.5	82.1	47	22	48	43	35	42
07 11 LST	40.3	89.1	38	27	59	34	46	38
08 12 LST	46.2	92.7	51	22	58	46	46	54
09 13 LST	57.2	117.9	73	34	58	63	66	49
10 14 LST	70.7	123.0	70	49	91	82	71	61
11 15 LST	63.0	119.4	65	67	68	64	63	51
12 16 LST	61.2	125.6	67	72	65	75	45	43
13 17 LST	61.3	127.1	77	60	58	73	60	40
14 18 LST	58.7	127.6	58	65	60	63	74	32
15 19 LST	68.8	115.9	60	81	67	68	79	58
16 20 LST	63.7	108.6	65	69	57	80	64	47
17 21 LST	50.5	110.4	49	60	60	45	52	37
18 22 LST	38.7	95.9	44	58	44	30	27	29
19 23 LST	33.7	85.1	28	45	47	16	39	27
20 00 LST	27.2	61.0	19	34	42	18	33	17
21 01 LST	27.3	43.6	32	27	39	20	27	19
22 02 LST	29.2	45.1	27	19	42	37	25	25
23 03 LST	28.0	43.9	29	28	34	34	21	22
TOTALS:	1,039.5	2039.0	1,053	949	1,201	1,091	1,095	848
Minimums:	23.7	42.4	19	9	15	16	21	17
=< 2x MIN:	47.3	84.9	38	18	30	32	42	34
Maximums:	70.7	127.6	77	81	91	82	79	61
> 75% of MAX:	53.0	95.7	58	61	68	62	59	46
DIUR. RATIO[0]:	2.99	3.01	4.05	9.00	6.07	5.13	3.76	3.59

NOTES (results are color coded for visual diurnal correlation)

~~VALUE~~ = Counting is off or an Interferer/ Es, etc. caused elevated and invalid counts.

[0] UTC HOUR is Color Coded by *averaging* tests 2 - 7 for diurnal variation correlation purposes. The DIURnal RATIO is = MAX /MIN Counts as a figure of merit for proof of diurnal detection. All color coding is automatic and dynamic except orange which is manually added only at the end of a complete 24 hour run OR until such time that all averaging has been completed.

[1] Is an average of 7 days of previous testing with threshold set at 15 dB and a 200 Hz bandwidth. These initial tests were conducted between 15 January and 30 January, 2014.

[2,3,4,5,6,7] Diurnal correlation tests with color coded results for mostly "sporadics". The WG2XPN beacon is 3 kW ERP and uses a 3 Element Yagi pointed on the horizon at a true bearing of 60°. The Conditional Actions File used for these tests was: WG2XPN_2014-02-01, utilizing an 18 dB detection threshold in an attempt to reduce as many false counts as practical consistent with obtaining an accurate diurnal ratio. During testing, external noise degradation occurred on: Feb. 2 & 4 masking meteor counts at certain times.

Due to *only* 898 km target distance, it's possible that some data represent aircraft scatter. The path midpoint was calculated to be over Reading, PA near grid FN20bj. Wavelength is 4.3 m.

KNOWN ACTIVE SHOWERS DURING TEST PERIOD

Possible activity that may have influenced the data with higher counts above the background are shown with celestial coordinates, general info and SW path efficiency estimates based upon data supplied by VHFPAK's © METEOR module written by Mike Owen, W9IP.

December Leonis Minorids (*DLM*) through February 4th with Max on December 19th (ZHR= 5):
2/5/14: 13:32 +10° Path Best 70%+ Effectivity: 16:00 - 20:00 UTC

Antihelion Source (*ANT*) Area of several radiants of general interest (ZHR= 4):
2/5/14: 09:56 +11° Path Best 70%+ Effectivity: 17:00 - 20:00 UTC

[8] Path midpoint LOCAL APPARENT SIDEREAL TIME (LST) is approximately UTC +4 hours

NOTE: Conditional Actions Scripts and USR configurations must be customized for each unique environment and application. The choice of detection bandwidth, threshold and secondary meteor tests depends upon potential interferers and the frequency stability over the temperature range experienced by the receiving equipment. Please download and maintain the original Script by Simon Dawes if the custom one by K1SIX does not work properly for your application. Attempting to obtain maximum raw counts without regard to controlling false counts will result in inaccuracy. Finding the correct balance of settings for accurate results should always be the goal!

COMING SOON!
Click here to download the latest version of Spectrum Lab

Click here for *REQUIRED READING* and to download the original counting Script

Click here to view development notes

Click here for the most recent USR file for the above tests

Click here to download the most recent SCRIPT for the above tests

Click here for RMOB.ORG - with automated hourly updates from this site
(SITES are sorted by Longitude E-W. Scroll down for Mobile_K1SIX data.)

Web File: WG2XPN_Meteors.pdf