

## ANTENNA SPECIFICATIONS



<b>CALL SIGN:</b>	WOCK
<b>CITY OF LICENSE:</b>	Chicago
<b>STATE:</b>	IL
<b>ANTENNA TYPE:</b>	HP Bcast Slot
<b>ANTENNA MODEL:</b>	ATC-BCH48CWR-41

### ELECTRICAL CHARACTERISTICS

<b>Channel(s):</b>	<b>41</b>	
<b>Frequency Range(s) (MHz):</b>	632-638	
<b>Azimuth Pattern:</b>	<b>Directivity</b>	<b>dB</b>
Hpol	1.70	2.30
<b>Elevation Pattern:</b>		
Peak of Beam:	8.60	9.34
Horizontal:	8.14	9.11
<b>Peak Power Gain:</b>	14.62	11.65
<b>Gain at Horizontal</b>	13.84	11.41
<b>Electrical Beam Tilt:</b>	1.00 Degrees	
<b>Polarization:</b>	Horizontal	
<b>Power Handling (Max. Input, kW):</b>	1.5kW	
<b>Input Type:</b>	7/8" EIA	
<b>VSWR (Maximum):</b>	1.08	

### MECHANICAL CHARACTERISTICS

<b>Mount Type:</b>	Side Mount	
<b>Length of Antenna:</b>	14 ft.	
<b>Center of Radiation:</b>	7.0 ft.	
<b>Radome Diameter:</b>	Slot Cover	
<b>Color:</b>	Gray	
<b>Climbing Device:</b>	None	
<b>Weight:</b>	85 lbs.	Note 1,2
<b>Force x Proj Area:</b>	5 ft <sup>2</sup>	Note 1,2

#### NOTES:

- Weights, dimensions, and windload data are approximate and site dependent. Localized conditions may require design reevaluation to higher wind speed values than TIA/EIA specifications.
- Loads are typical for antennas designed to 85 MPH basic wind speed per EIA-222F.



## SYSTEM SPECIFICATIONS



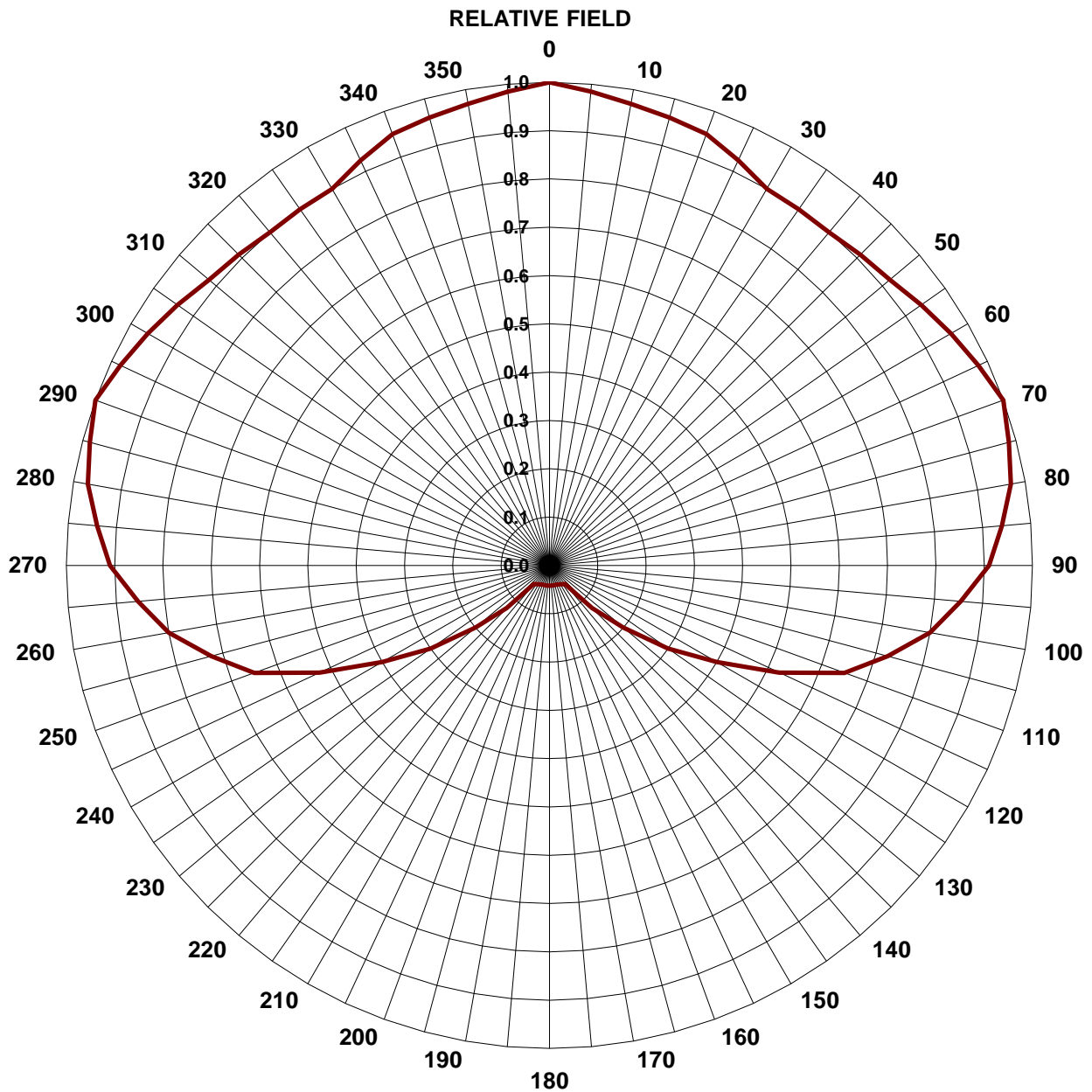
CALL SIGN:	WOCK
CITY OF LICENSE:	Chicago
STATE:	IL
ANTENNA TYPE:	HP Bcast Slot
ANTENNA MODEL:	ATC-BCH48CWR-41

Channel(s):	41	
Frequency Range(s) (MHz):	632-638	
EFFECTIVE RADIATED POWER:	kW	dBk
	<u>15.00</u>	<u>11.76</u>
ANTENNA PEAK POWER GAIN:		dBd
	<u>14.62</u>	<u>11.65</u>
ANTENNA INPUT POWER:	kW	dBk
	<u>1.03</u>	<u>0.11</u>
TRANSMISSION LINE TYPE:	1-5/8" Foam HELIAX	
LENGTH (ft.):		250
ATTENUATION/100 ft. (dB):		0.583
TOTAL LINE LOSS (dB):		1.458
LINE EFFICIENCY (%) :		71.49
TPO:	kW	dBk
	<u>1.44</u>	<u>1.57</u>

# AZIMUTH PATTERN



TYPE:	ATC-BCHCWR	
	Numeric	dB
Directivity:	1.7	2.30
Polarization:	Horizontal	
Channel:	41	
Location:	Chicago	



# AZIMUTH PATTERN TABULATION

TYPE: ATC-BC8CS-20

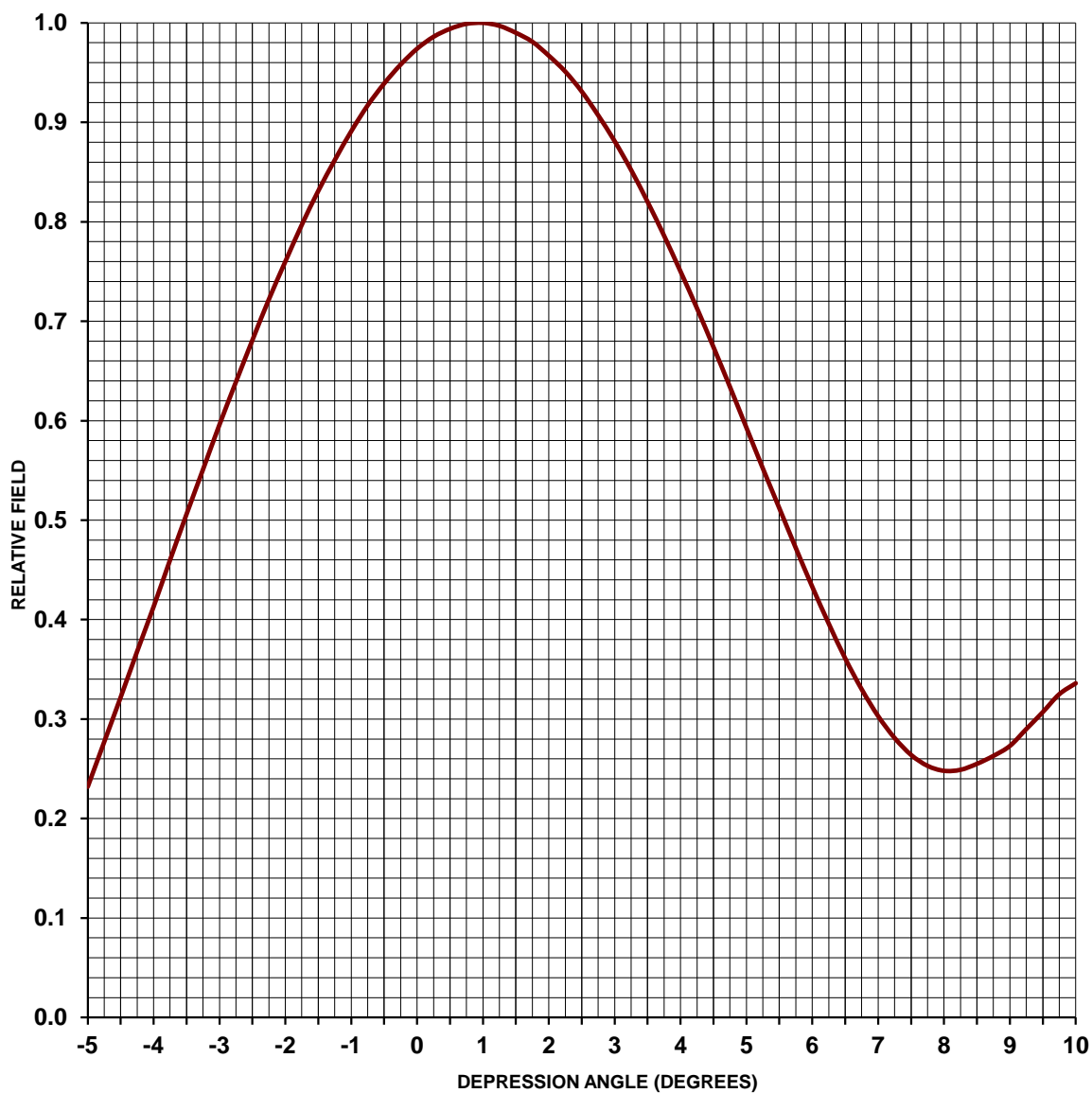


ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
0	1.000	0.00	94	0.869	-1.22	188	0.042	-27.54	282	0.974	-0.23
2	1.000	0.00	96	0.841	-1.50	190	0.042	-27.54	284	0.981	-0.16
4	0.989	-0.10	98	0.814	-1.79	192	0.042	-27.54	286	0.989	-0.10
6	0.981	-0.16	100	0.800	-1.94	194	0.042	-27.54	288	0.996	-0.03
8	0.978	-0.20	102	0.781	-2.14	196	0.042	-27.54	290	1.000	0.00
10	0.970	-0.26	104	0.744	-2.57	198	0.042	-27.54	292	0.995	-0.04
12	0.970	-0.26	106	0.706	-3.02	200	0.042	-27.54	294	0.985	-0.13
14	0.963	-0.33	108	0.669	-3.49	202	0.042	-27.46	296	0.975	-0.22
16	0.958	-0.38	110	0.650	-3.74	204	0.043	-27.31	298	0.965	-0.31
18	0.953	-0.42	112	0.619	-4.17	206	0.044	-27.16	300	0.960	-0.35
20	0.950	-0.45	114	0.556	-5.09	208	0.045	-27.01	302	0.955	-0.40
22	0.944	-0.50	116	0.494	-6.13	210	0.045	-26.94	304	0.945	-0.49
24	0.931	-0.62	118	0.431	-7.31	212	0.046	-26.82	306	0.935	-0.58
26	0.919	-0.74	120	0.400	-7.96	214	0.047	-26.58	308	0.925	-0.68
28	0.906	-0.86	122	0.375	-8.52	216	0.048	-26.35	310	0.920	-0.72
30	0.900	-0.92	124	0.325	-9.76	218	0.049	-26.13	312	0.918	-0.75
32	0.900	-0.92	126	0.275	-11.21	220	0.050	-26.02	314	0.913	-0.80
34	0.900	-0.92	128	0.225	-12.96	222	0.069	-23.25	316	0.908	-0.84
36	0.900	-0.92	130	0.200	-13.98	224	0.106	-19.47	318	0.903	-0.89
38	0.900	-0.92	132	0.185	-14.65	226	0.144	-16.85	320	0.900	-0.92
40	0.900	-0.92	134	0.158	-16.04	228	0.181	-14.83	322	0.900	-0.92
42	0.903	-0.89	136	0.122	-18.28	230	0.200	-13.98	324	0.900	-0.92
44	0.908	-0.84	138	0.086	-21.32	232	0.225	-12.96	326	0.900	-0.92
46	0.913	-0.80	140	0.050	-26.02	234	0.275	-11.21	328	0.900	-0.92
48	0.918	-0.75	142	0.049	-26.13	236	0.325	-9.76	330	0.900	-0.92
50	0.920	-0.72	144	0.048	-26.35	238	0.375	-8.52	332	0.906	-0.86
52	0.925	-0.68	146	0.047	-26.58	240	0.400	-7.96	334	0.919	-0.74
54	0.935	-0.58	148	0.046	-26.82	242	0.431	-7.31	336	0.931	-0.62
56	0.945	-0.49	150	0.045	-26.94	244	0.494	-6.13	338	0.944	-0.50
58	0.955	-0.40	152	0.045	-27.01	246	0.556	-5.09	340	0.950	-0.45
60	0.960	-0.35	154	0.044	-27.16	248	0.619	-4.17	342	0.953	-0.42
62	0.965	-0.31	156	0.043	-27.31	250	0.650	-3.74	344	0.958	-0.38
64	0.975	-0.22	158	0.042	-27.46	252	0.669	-3.49	346	0.963	-0.33
66	0.985	-0.13	160	0.042	-27.54	254	0.706	-3.02	348	0.968	-0.29
68	0.995	-0.04	162	0.042	-27.54	256	0.744	-2.57	350	0.970	-0.26
70	1.000	0.00	164	0.042	-27.54	258	0.781	-2.14	352	0.974	-0.23
72	0.996	-0.03	166	0.042	-27.54	260	0.800	-1.94	354	0.981	-0.16
74	0.989	-0.10	168	0.042	-27.54	262	0.814	-1.79	356	0.989	-0.10
76	0.981	-0.16	170	0.042	-27.54	264	0.841	-1.50	358	0.996	-0.03
78	0.974	-0.23	172	0.042	-27.54	266	0.869	-1.22	360	1.000	0.00
80	0.970	-0.26	174	0.042	-27.54	268	0.896	-0.95			
82	0.963	-0.33	176	0.042	-27.54	270	0.910	-0.82			
84	0.948	-0.47	178	0.042	-27.54	272	0.918	-0.75			
86	0.933	-0.61	180	0.042	-27.54	274	0.933	-0.61			
88	0.918	-0.75	182	0.042	-27.54	276	0.948	-0.47			
90	0.910	-0.82	184	0.042	-27.54	278	0.963	-0.33			
92	0.896	-0.95	186	0.042	-27.54	280	0.970	-0.26			

## ELEVATION PATTERN



TYPE:	ATC-BCH48CWR-41	
Directivity:	Numeric	dBd
Main Lobe:	8.60	9.3
Horizontal:	8.14	9.1
Beam Tilt:	1.00	
Polarization:	Horizontal	
Channel:	41	
Location:	Chicago	



**ELEVATION PATTERN TABULATION****ATC-BCH48CWR-41****-5 to 10 in 0.25 increments****10 to 90 in 0.50 increments**

<b>ANGLE</b>	<b>FIELD</b>	<b>dB</b>	<b>ANGLE</b>	<b>FIELD</b>	<b>dB</b>	<b>ANGLE</b>	<b>FIELD</b>	<b>dB</b>	<b>ANGLE</b>	<b>FIELD</b>	<b>dB</b>	<b>ANGLE</b>	<b>FIELD</b>	<b>dB</b>
-5.00	0.232	-12.69	6.75	0.330	-9.63	27.00	0.121	-18.34	50.50	0.092	-20.72	74.00	0.049	-26.20
-4.75	0.277	-11.15	7.00	0.303	-10.37	27.50	0.124	-18.13	51.00	0.082	-21.72	74.50	0.049	-26.20
-4.50	0.322	-9.84	7.25	0.281	-11.03	28.00	0.123	-18.20	51.50	0.071	-22.97	75.00	0.050	-26.02
-4.25	0.368	-8.68	7.50	0.264	-11.57	28.50	0.118	-18.56	52.00	0.059	-24.58	75.50	0.051	-25.85
-4.00	0.413	-7.68	7.75	0.253	-11.94	29.00	0.109	-19.25	52.50	0.047	-26.56	76.00	0.051	-25.85
-3.75	0.460	-6.74	8.00	0.248	-12.11	29.50	0.098	-20.18	53.00	0.034	-29.37	76.50	0.051	-25.85
-3.50	0.506	-5.92	8.25	0.249	-12.08	30.00	0.084	-21.51	53.50	0.022	-33.15	77.00	0.051	-25.85
-3.25	0.551	-5.18	8.50	0.255	-11.87	30.50	0.068	-23.35	54.00	0.011	-39.17	77.50	0.051	-25.85
-3.00	0.596	-4.50	8.75	0.263	-11.60	31.00	0.050	-26.02	54.50	0.007	-43.10	78.00	0.051	-25.85
-2.75	0.639	-3.89	9.00	0.273	-11.28	31.50	0.032	-29.90	55.00	0.016	-35.92	78.50	0.050	-26.02
-2.50	0.681	-3.34	9.25	0.290	-10.75	32.00	0.016	-35.92	55.50	0.027	-31.37	79.00	0.049	-26.20
-2.25	0.722	-2.83	9.50	0.307	-10.26	32.50	0.013	-37.72	56.00	0.037	-28.64	79.50	0.048	-26.38
-2.00	0.760	-2.38	9.75	0.325	-9.76	33.00	0.028	-31.06	56.50	0.047	-26.56	80.00	0.047	-26.56
-1.75	0.797	-1.97	10.00	0.336	-9.47	33.50	0.043	-27.33	57.00	0.056	-25.04	80.50	0.045	-26.94
-1.50	0.831	-1.61	10.50	0.340	-9.37	34.00	0.057	-24.88	57.50	0.064	-23.88	81.00	0.043	-27.33
-1.25	0.862	-1.29	11.00	0.334	-9.53	34.50	0.070	-23.10	58.00	0.071	-22.97	81.50	0.041	-27.74
-1.00	0.891	-1.00	11.50	0.321	-9.87	35.00	0.080	-21.94	58.50	0.077	-22.27	82.00	0.039	-28.18
-0.75	0.917	-0.75	12.00	0.300	-10.46	35.50	0.087	-21.21	59.00	0.082	-21.72	82.50	0.037	-28.64
-0.50	0.939	-0.55	12.50	0.273	-11.28	36.00	0.092	-20.72	59.50	0.086	-21.31	83.00	0.034	-29.37
-0.25	0.958	-0.37	13.00	0.242	-12.32	36.50	0.094	-20.54	60.00	0.089	-21.01	83.50	0.032	-29.90
0.00	0.974	-0.23	13.50	0.208	-13.64	37.00	0.093	-20.63	60.50	0.091	-20.82	84.00	0.029	-30.75
0.25	0.986	-0.12	14.00	0.175	-15.14	37.50	0.089	-21.01	61.00	0.093	-20.63	84.50	0.026	-31.70
0.50	0.994	-0.05	14.50	0.145	-16.77	38.00	0.082	-21.72	61.50	0.093	-20.63	85.00	0.023	-32.77
0.75	0.999	-0.01	15.00	0.123	-18.20	38.50	0.073	-22.73	62.00	0.093	-20.63	85.50	0.020	-33.98
1.00	1.000	0.00	15.50	0.114	-18.86	39.00	0.063	-24.01	62.50	0.092	-20.72	86.00	0.017	-35.39
1.25	0.997	-0.03	16.00	0.118	-18.56	39.50	0.050	-26.02	63.00	0.090	-20.92	86.50	0.013	-37.72
1.50	0.990	-0.09	16.50	0.130	-17.72	40.00	0.036	-28.87	63.50	0.088	-21.11	87.00	0.010	-40.00
1.75	0.981	-0.17	17.00	0.147	-16.65	40.50	0.021	-33.56	64.00	0.086	-21.31	87.50	0.007	-43.10
2.00	0.967	-0.29	17.50	0.162	-15.81	41.00	0.006	-44.44	64.50	0.082	-21.72	88.00	0.003	-50.46
2.25	0.951	-0.44	18.00	0.173	-15.24	41.50	0.012	-38.42	65.00	0.079	-22.05	88.50	0.010	-40.00
2.50	0.931	-0.62	18.50	0.180	-14.89	42.00	0.028	-31.06	65.50	0.075	-22.50	89.00	0.007	-43.10
2.75	0.907	-0.85	19.00	0.182	-14.80	42.50	0.044	-27.13	66.00	0.072	-22.85	89.50	0.003	-50.46
3.00	0.881	-1.10	19.50	0.178	-14.99	43.00	0.059	-24.58	66.50	0.068	-23.35	90.00	0.001	-60.00
3.25	0.852	-1.39	20.00	0.169	-15.44	43.50	0.073	-22.73	67.00	0.064	-23.88			
3.50	0.820	-1.72	20.50	0.156	-16.14	44.00	0.086	-21.31	67.50	0.060	-24.44			
3.75	0.786	-2.09	21.00	0.138	-17.20	44.50	0.097	-20.26	68.00	0.057	-24.88			
4.00	0.750	-2.50	21.50	0.117	-18.64	45.00	0.107	-19.41	68.50	0.054	-25.35			
4.25	0.713	-2.94	22.00	0.093	-20.63	45.50	0.115	-18.79	69.00	0.051	-25.85			
4.50	0.674	-3.43	22.50	0.069	-23.22	46.00	0.121	-18.34	69.50	0.049	-26.20			
4.75	0.634	-3.96	23.00	0.047	-26.56	46.50	0.125	-18.06	70.00	0.048	-26.38			
5.00	0.593	-4.54	23.50	0.033	-29.63	47.00	0.127	-17.92	70.50	0.046	-26.74			
5.25	0.552	-5.16	24.00	0.037	-28.64	47.50	0.127	-17.92	71.00	0.046	-26.74			
5.50	0.512	-5.81	24.50	0.054	-25.35	48.00	0.125	-18.06	71.50	0.046	-26.74			
5.75	0.472	-6.52	25.00	0.072	-22.85	48.50	0.122	-18.27	72.00	0.046	-26.74			
6.00	0.433	-7.27	25.50	0.089	-21.01	49.00	0.116	-18.71	72.50	0.046	-26.74			
6.25	0.396	-8.05	26.00	0.104	-19.66	49.50	0.110	-19.17	73.00	0.047	-26.56			
6.50	0.361	-8.85	26.50	0.114	-18.86	50.00	0.101	-19.91	73.50	0.048	-26.38			