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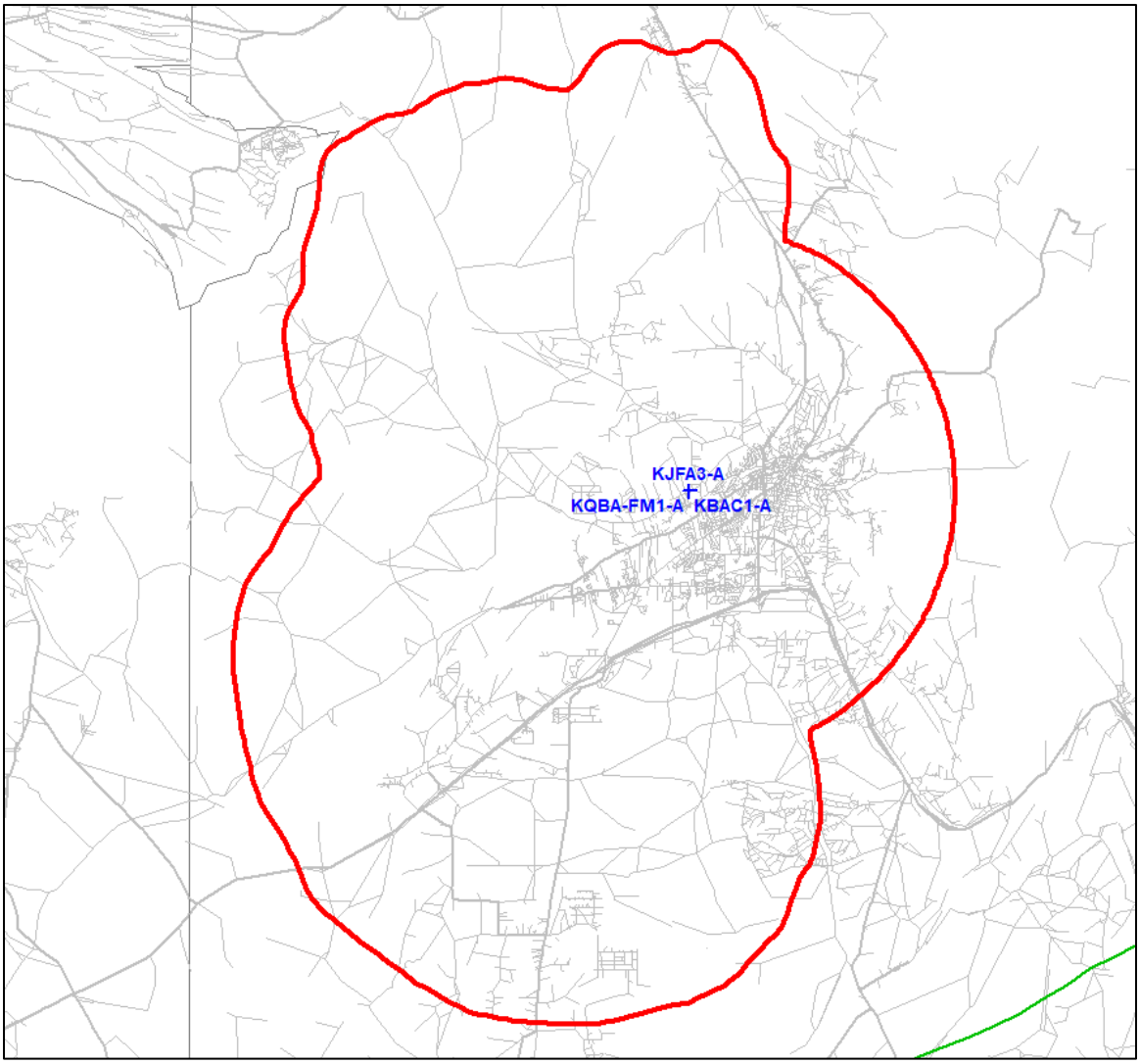
Minor change for **KQBA-FM1**
LOS ALAMOS & SANTA FE, NM
HUTTON BROADCASTING, LLC
BLFTB-20100125ACZ

PROPOSED 60dBu F(50,50) SERVICE CONTOUR

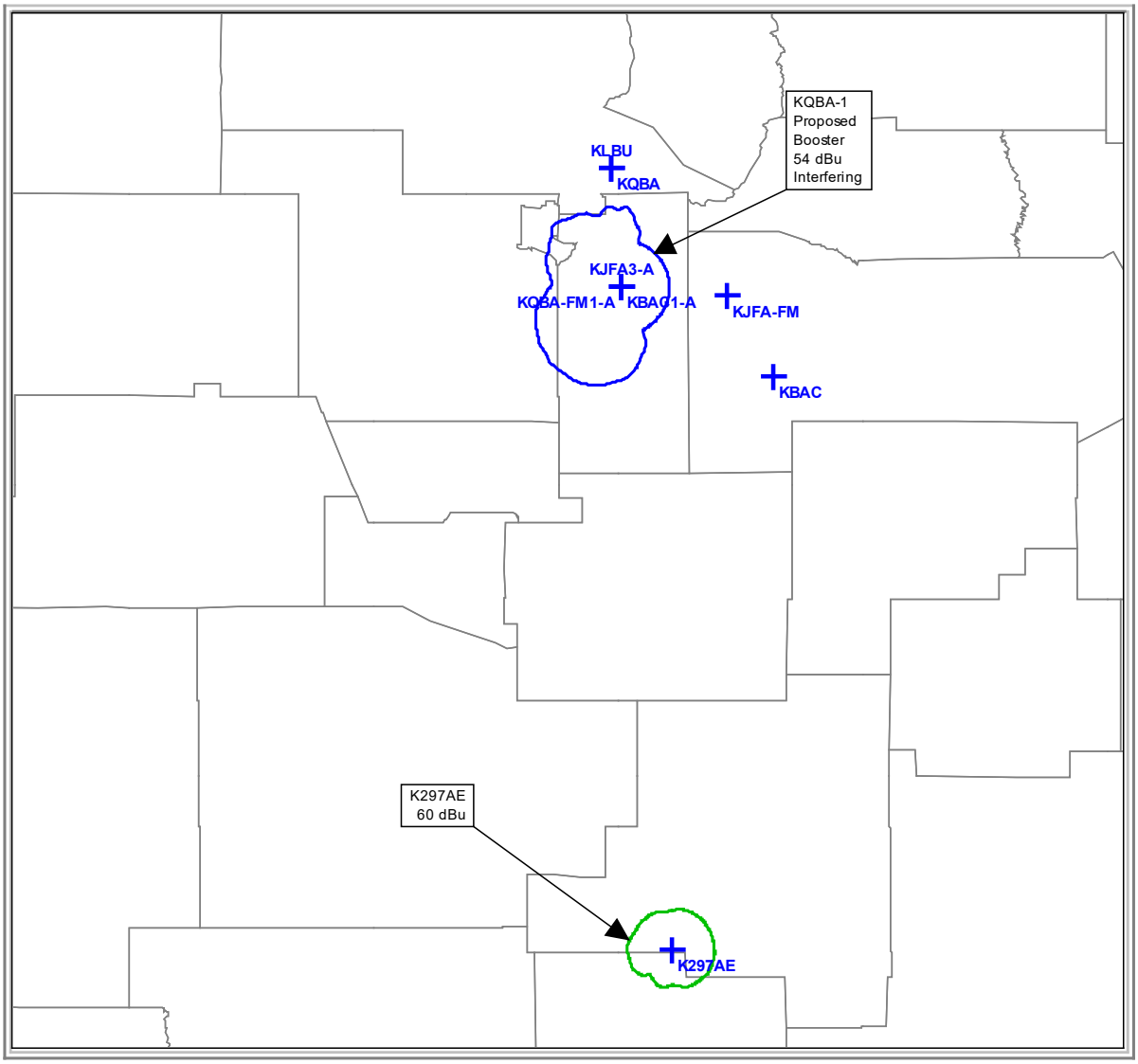


LOS ALAMOS & SANTA FE, NM ~ Channel 298D (107.5 MHz) ~ ERP 2.340 kW V/H DA
Elev: 2085 meters ~ RCAGL: 41 meters ~ RCAMSL: 2126 meters ~ HAAT: 23 meters
Support structure: 0 meters AGL
Overall tower height: 60 meters AGL ~ ASR: None (no airports within 5 miles)
NAD83 Latitude: 35° 40' 43.2" NL ~ Longitude: 105° 59' 30.0" WL
No impacted AM stations.
Combined Antenna: This facility along with the proposed FM booster for KLBU-FM will be combined into this antenna with existing K249FB and K279CX.
This application replaces expired CP file number 0000087106.

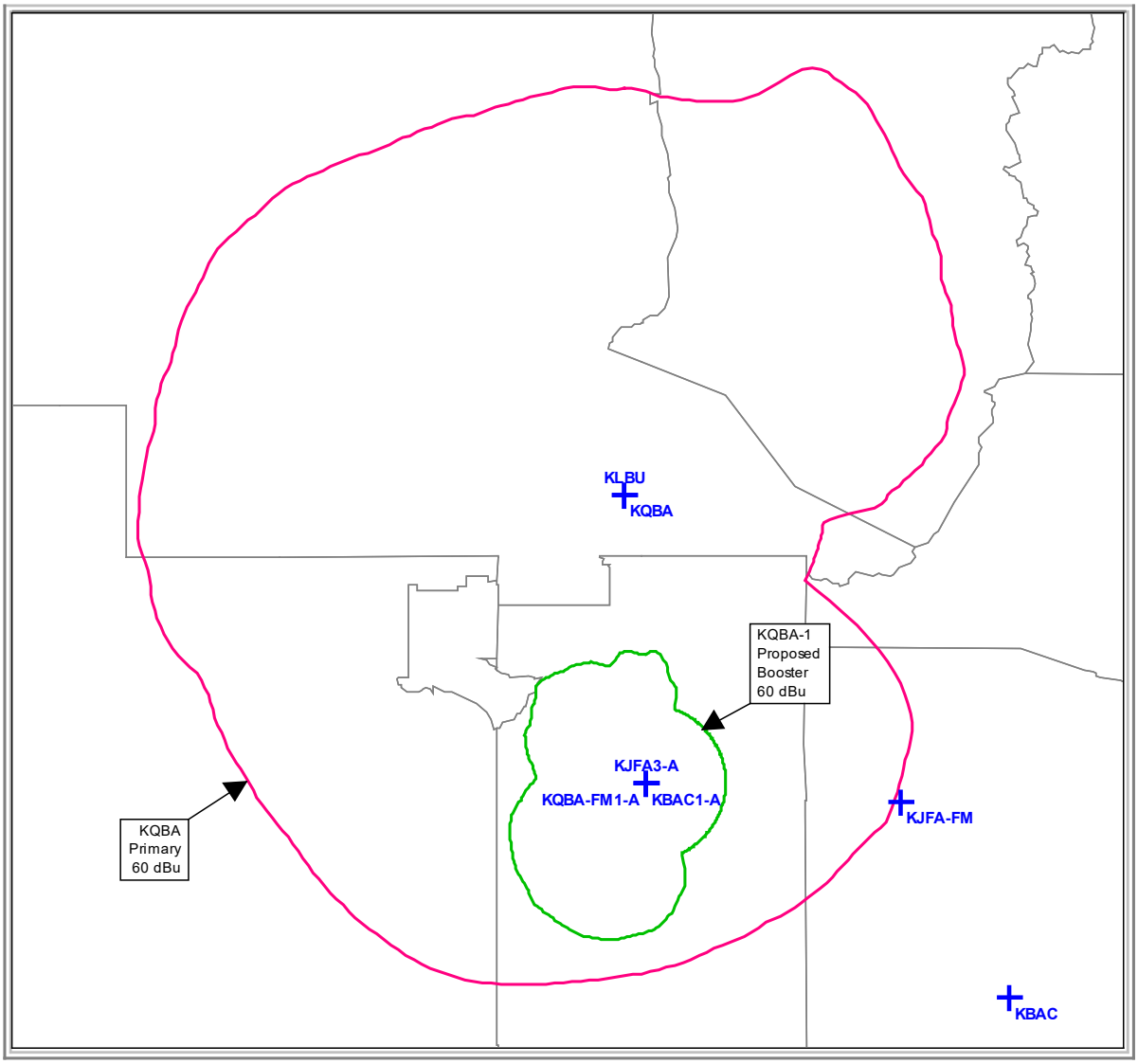
Site: KQBA-FM1-A
Coordinates: 35-40-43.2 N, 105-59-30.0 W
Freq: 107.50000 MHz
ERP: 2.34 kW

Bearing	ERP kW	HAAT	DH	Distance	Lat	Lon
0	2.12	83	170	20.36	35.861820	-105.991667
5	2.17	84	200	20.60	35.863209	-105.971744
10	2.21	68	270	18.62	35.843575	-105.955794
15	2.23	52	250	16.20	35.819437	-105.945146
20	2.26	35	360	13.19	35.790147	-105.941641
25	2.30	5	490	12.42	35.779864	-105.933491
30	2.34	-22	590	12.46	35.775734	-105.922577
35	2.32	-52	920	12.44	35.770296	-105.912568
40	2.30	-94	1280	12.42	35.764182	-105.903202
45	2.29	-143	1240	12.40	35.757517	-105.894452
50	2.28	-167	1210	12.39	35.750265	-105.886460
55	2.28	-177	970	12.39	35.742545	-105.879178
60	2.28	-230	930	12.39	35.734338	-105.872753
65	2.27	-235	810	12.38	35.725662	-105.867356
70	2.26	-264	720	12.36	35.716627	-105.862979
75	2.26	-271	850	12.36	35.707372	-105.859402
80	2.26	-210	690	12.36	35.697899	-105.856832
85	2.26	-174	690	12.36	35.688281	-105.855289
90	2.26	-248	560	12.36	35.678589	-105.854785
95	2.26	-297	640	12.36	35.668899	-105.855323
100	2.26	-274	550	12.36	35.659284	-105.856897
105	2.26	-250	430	12.36	35.649817	-105.859497
110	2.26	-224	410	12.36	35.640569	-105.863101
115	2.27	-175	300	12.38	35.631544	-105.867502
120	2.28	-148	390	12.39	35.622879	-105.872919
125	2.28	-133	430	12.39	35.614684	-105.879358
130	2.28	-104	110	12.39	35.606977	-105.886649
135	2.29	-83	170	12.40	35.599738	-105.894644
140	2.30	-48	160	12.42	35.593087	-105.903391
145	2.32	-18	150	12.44	35.586985	-105.912750
150	2.34	10	100	12.46	35.581560	-105.922745
155	2.32	39	200	13.97	35.564745	-105.926372
160	2.29	58	190	17.34	35.532057	-105.926103
165	2.23	72	160	19.19	35.511950	-105.936791
170	2.17	89	170	21.20	35.490875	-105.951000
175	2.08	105	180	22.79	35.474498	-105.969733
180	1.99	117	210	23.72	35.465328	-105.991667
185	1.86	129	180	24.33	35.460636	-106.015086
190	1.73	144	190	25.11	35.456265	-106.039808
195	1.61	156	290	25.59	35.456363	-106.064786
200	1.48	169	470	26.04	35.458554	-106.090005
205	1.36	179	380	26.21	35.464916	-106.114009
210	1.25	185	200	26.06	35.475574	-106.135590
215	1.16	189	210	25.87	35.487965	-106.155565
220	1.07	196	170	25.82	35.500631	-106.175024
225	0.99	196	210	25.41	35.516927	-106.190177
230	0.92	192	250	24.75	35.535393	-106.201226
235	0.87	192	300	24.45	35.552342	-106.213058
240	0.82	186	350	23.80	35.571400	-106.219625
245	0.79	177	400	23.11	35.590610	-106.223298
250	0.76	170	430	22.48	35.609274	-106.225410
255	0.74	159	390	21.69	35.627949	-106.223515
260	0.73	141	410	20.35	35.646678	-106.213497
265	0.72	122	400	18.94	35.663641	-106.200515
270	0.71	107	450	17.64	35.678509	-106.187012
275	0.72	103	670	17.32	35.692091	-106.182717
280	0.73	110	790	18.00	35.706618	-106.187996
285	0.74	122	740	19.09	35.722946	-106.196010
290	0.76	132	750	19.94	35.739823	-106.199281
295	0.79	134	780	20.29	35.755610	-106.195450
300	0.82	136	900	20.62	35.771219	-106.189590
305	0.87	142	870	21.33	35.788537	-106.185376
310	0.92	152	940	22.30	35.807463	-106.181152
315	1.00	154	990	22.87	35.824006	-106.171081
320	1.09	142	1010	22.45	35.833244	-106.151764
325	1.18	127	590	21.76	35.838881	-106.130119
330	1.27	119	580	21.53	35.846337	-106.111133
335	1.41	107	380	20.99	35.849707	-106.090088
340	1.55	92	300	19.88	35.846669	-106.067114
345	1.71	86	290	19.67	35.849528	-106.048153
350	1.88	93	290	20.96	35.864284	-106.032054
355	2.00	88	200	20.67	35.863908	-106.011665

KQBA-FM1 - First Adjacent Channel Protections



KQBA-FM1 - Booster Fill-In Area



Map Scale: 1:885360 1 cm = 8.85 km V|H Size: 163.37 x 171.15 km

NEARBY AM FACILITIES
47 CFR 1 Subpart BB

Within 3 km of the proposed site, all AM towers are nondirectional with the longest wavelength being KKOB operating at 390 meters. The proposed facility is located at least 390 meters from any AM broadcast station. Therefore, notification to AM stations is not required.

Array Center Latitude	Longitude	Distance Req'd	Distance Actual	Elec. Degrees Req'd	Elec. Degrees Actual	Notify Station
KSWV 810 kHz (370 m) BL-20030918ACI Non-Directional (Daytime)						
35 42' 3.60"	105 57' 57.60"	370 m	3364 m	60	58.32	NO
KSWV 810 kHz (370 m) BL-20030918ACI Non-Directional (Nighttime)						
35 42' 3.60"	105 57' 57.60"	370 m	3364 m	60	58.32	NO
KKOB 770 kHz (390 m) BLEX-19871005AH Non-Directional (Unlimited)						
35 40' 55.20"	105 58' 22.80"	390 m	1680 m	60	55.44	NO
KVSF 1260 kHz (238 m) BL-19920813AE Non-Directional (Daytime)						
35 40' 55.20"	105 58' 22.80"	238 m	1680 m	60	90.72	NO
KVSF 1260 kHz (238 m) BL-19920813AE Non-Directional (Nighttime)						
35 40' 55.20"	105 58' 22.80"	238 m	1680 m	60	90.72	NO
KTRC 1400 kHz (214 m) BL-19970205AJ Non-Directional (Unlimited)						
35 40' 55.20"	105 58' 22.80"	214 m	1680 m	60	100.80	NO

NEPA COMPLIANCE

KQBA-FM1
Los Alamos & Santa Fe, New Mexico
Channel 298D ~ 107.5 MHz

Using the Commission's FM MODEL tool, we have determined the peak power density from the tower with all proposed facilities to be as follows:
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Other tower occupants include:

Call	kW	Type	Above ground	Power Density	Peak Dist
KSFR	2.9-H/2.9-V	EPA-1/1 bay	50m	50.616	12.9m
K240EC	0.07-H/0.07-V	EPA-2/1 bay	45m	0.697	44m
K249FB	0.25-H/0.25-V	EPA-2/6 bay	41m	6.520	11.2m
K279CX	0.25-H/0.25-V	EPA-2/6 bay	41m	6.520	11.2m
KQBA-FM1*	2.34-H/2.34-V	EPA-2/6 bay	41m	11.569	11.2m
KLBU-FM2*	2.3-H/2.3-V	EPA-2/6 bay	41m	11.372	11.2m
KBAC-FM1*	1.585-V	EPA-1/2 bay	30m	64.432	5.4m
KJFA-FM3*	1.585-V	EPA-1/2 bay	30m	64.432	5.4m

** - Proposed facilities.*

As the sum of the peak power density at any distance exceeds 200 µW/cm² and due to the fact that there are multiple antennas at varying heights, we look further to determine the actual power density at various distances from the tower. This is done by using the FM Model tool to examine all locations within 50 meters of the tower site at 1 meter increments between 0 and 20 meters and 2 meter increments between 20 and 50 meters. Based on this study, we can conclude that the maximum power density for this tower reaches 199.2 µW/cm² at 9 meters from the tower base.

Therefore, it has been determined that there is no point that will exceed the general population/controlled exposure guideline of 200 µW/cm².

Prepared by,

/S/
Michelle Bradley, CBT
REC Networks

January 9, 2023

Distance from tower (m)	KSFR	KBAC-FM1	KJFA-FM3	K240EC	K249FB	K279CX	KOBA-FM1	KLBU-FM1	Total
0.0	42.1	55.0	55.0	0.2	0.8	0.8	7.5	7.3	168.7
1.0	42.6	56.1	56.0	0.2	0.8	0.8	7.6	7.5	171.6
2.0	43.2	57.0	56.9	0.2	0.8	0.8	7.7	7.6	174.2
3.0	43.7	59.0	58.9	0.2	0.8	0.8	7.9	7.7	179.0
4.0	44.2	61.9	61.8	0.2	0.9	0.9	8.3	8.2	186.4
5.0	45.3	64.4	64.4	0.2	1.0	1.0	8.9	8.8	194.0
6.0	46.6	64.4	64.4	0.2	1.0	1.0	9.5	9.4	196.5
7.0	47.9	64.1	64.1	0.2	1.1	1.1	10.1	9.9	198.5
8.0	49.2	63.4	63.4	0.3	1.1	1.1	10.7	10.5	199.7
9.0	49.9	62.3	62.3	0.3	1.2	1.2	11.1	10.9	199.2
10.0	50.2	61.0	60.9	0.3	1.2	1.2	11.4	11.2	197.4
11.0	50.4	59.9	59.9	0.3	1.2	1.2	11.6	11.4	195.9
12.0	50.5	58.7	58.7	0.3	1.2	1.2	11.5	11.3	193.4
13.0	50.6	57.2	57.2	0.3	1.1	1.1	11.2	11.0	189.7
14.0	50.6	54.3	54.3	0.4	1.1	1.1	10.6	10.4	182.8
15.0	50.5	51.1	51.1	0.4	1.0	1.0	9.8	9.6	174.5
16.0	50.4	47.9	47.9	0.4	0.9	0.9	8.7	8.6	165.7
17.0	50.2	45.2	45.2	0.4	0.8	0.8	7.5	7.4	157.5
18.0	50.2	42.6	42.5	0.5	0.7	0.7	6.2	6.1	149.5
19.0	50.2	39.8	39.8	0.5	0.5	0.5	4.8	4.8	140.9
20.0	50.2	36.6	36.6	0.5	0.4	0.4	3.5	3.5	131.7
22.0	50.1	29.8	29.8	0.5	0.2	0.2	1.4	1.4	113.4
24.0	49.2	23.6	23.6	0.6	0.0	0.0	0.3	0.3	97.6
26.0	48.0	18.3	18.3	0.6	0.0	0.0	0.1	0.1	85.4
28.0	46.9	13.9	13.9	0.6	0.1	0.1	0.6	0.6	76.7
30.0	46.0	10.0	10.0	0.6	0.1	0.1	1.2	1.2	69.2
32.0	45.1	7.0	7.0	0.6	0.2	0.2	1.6	1.6	63.3
34.0	44.0	4.9	4.9	0.7	0.2	0.2	1.6	1.6	58.1
36.0	42.3	3.5	3.5	0.7	0.1	0.1	1.3	1.2	52.7
38.0	40.6	2.3	2.3	0.7	0.1	0.1	0.7	0.7	47.5
40.0	39.0	1.4	1.4	0.7	0.0	0.0	0.3	0.3	43.1
42.0	37.5	0.7	0.7	0.7	0.0	0.0	0.0	0.0	39.6
44.0	36.1	0.3	0.3	0.7	0.0	0.0	0.0	0.0	37.4
46.0	34.7	0.1	0.1	0.7	0.0	0.0	0.2	0.2	36.0
48.0	33.4	0.0	0.0	0.7	0.0	0.0	0.5	0.4	35.0
50.0	32.0	0.0	0.0	0.7	0.0	0.0	0.7	0.7	34.1