

MINOR CHANGE APPLICATION

K260CT ANTENNA MODIFICATION

April, 2019

**TECHNICAL STATEMENT**

This technical statement and attached exhibits have been prepared on behalf of GCBENDITO 4 LLC, Licensee of translator K260CT, Facility identifier 139602. The applicant proposes to modify License BLFT-20160926AEK modify the type and pattern of the transmit antenna for K260CT. The antenna modification is the only change requested. K260CT will continue to operate as a fill-in translator for AM station KSWV (AM), (810kHz, Class D). Facility ID #36194 in compliance with 47CFR 74.1201(g).

**Facilities Proposed**

Location (NAD27)	35° 42' 05" N Latitude, 105° 57' 58" W Longitude
Channel	260D (99.9MHz)
Tower Overall AGL Height-	58m
Tower ASR	NOT REQUIRED (under 200ft AGL)
Proposed Antenna	3-Level, Jampro JLLP Directional ( <b>ONLY CHANGE</b> )
Antenna AGL Height-	56m
Site AMSL Height-	2153m
COR AMSL Height	2209m
ERP	250w DIRECTIONAL (EXHIBIT A)

## Interference Study

ComStudy 2.2 search of channel 250 (99.9 MHz Class D) at 35-42-05.0 N, 105-57-58.0 W.

CALL	CITY	ST CHN CL	DIST	SEP	BRNG	CLEARANCE
KPEK	ALBUQUERQUE	NM 262 C	69.68	29.00	219.1	-9.36 dB Exhibit D
KMGA	ALBUQUERQUE	NM 258 C	69.79	29.00	219.0	-8.86 dB Exhibit D
KTRO-LP	ESPANOLA	NM 260 LP100	34.76	7.00	345.6	0.04 dB Exhibit C
KUPR-LP	PLACITAS	NM 260 LP100	60.41	7.00	223.2	0.05 dB Exhibit C
KMG-LP	ALBUQUERQUE	NM 260 LP100	82.65	7.00	215.9	9.24 dB
K260DJ	LAS VEGAS	NM 260 D	69.23	0.00	101.0	12.25 dB
NEW	ALBUQUERQUE	NM 260 LP100	100.54	7.00	225.6	13.91 dB
KPEK	ALBUQUERQUE	NM 262 C	69.68	29.00	219.1	14.44 dB
KKTC-FM1	TAOS	NM 260 D	83.72	0.00	23.9	14.22 dB
KKTC	ANGEL FIRE	NM 260 C2	117.79	15.00	35.8	15.99 dB
KMGA	ALBUQUERQUE	NM 258 C	69.79	29.00	219.0	15.08 dB
KKTC	ANGEL FIRE	NM 260 C2	99.61	15.00	41.0	24.33 dB
K260AR	SOCORRO	NM 260 D	202.80	0.00	205.2	34.27 dB
KXTC	THOREAU	NM 260 C	245.93	29.00	268.3	36.18 dB
K261DT	CUBA	NM 261 D	100.35	0.00	297.6	39.03 dB

### COMPLIANCE, 74.1201(g), 74.1233(a)(1), 74.1204(a) and 74.1204(d)

Exhibit A shows the proposed directional antenna pattern for the translator which is to be mounted via an isocoupler to the KSWV tower.

Exhibit B demonstrates compliance with 74.1201(g) governing the use of a translator as a fill-in for an AM station. The 60dBu contour of the proposed K260CT will be completely contained within the 2mV/m contour of KSWV (AM) and is within 25 miles of the KSWV transmitter.

Since the translator location will not change, the proposed antenna modification will be compliant with 74.1233(a)(1).

Exhibit C demonstrates compliance with 74.1204(a). There are no impermissible contour overlaps to any other facilities.

As demonstrated in Exhibit D, per 74.1204(d), there will be no ground level location where the signal of the proposed K260CT will be in excess of 40dBu above the KPEK (FM)

or KMGA (FM) second adjacent signal.

As shown in Exhibit D, the maximum field from the proposed antenna at 90 degrees extends 357m meters. The Exhibit D map demonstrates that within the 360degree circle around the K260CT antenna, there is only one building structure which is located at 325 degrees T. At 325 degrees T, as shown in Exhibit D, the interfering contour extends 249 meters. There is a red line drawn at 256 meters demonstrating that the interfering signal from K260CT does not cover that structure.

Based upon the above exhibit, K260CT is considered compliant in that there are no locations where people dwell where the signal from K260CT will cause interference to either KPEK or KMGA.

### **Environmental Exhibit**

The proposed K260CT facility will utilize a dual element three level Jampro JLLP half-wave spaced custom directional antenna on the same tower and at the same height as currently licensed and will remain co-located with the host AM station, KSWV. The RF density near the tower was calculated using a worst-case dipole antenna setting at 250 watts horizontal and vertical at 56m AGL.

Using the FCC program "FM Model for Windows", it was calculated that the proposed antenna contributes approximately  $0.29 \mu\text{W}/\text{cm}^2$  or 0.15% of the total allowable  $200 \mu\text{W}/\text{cm}^2$ .

There is one non-excluded RF source on the tower, KSWV (AM), 5kW, Class D station.

KSWV maintains appropriate fencing and RFR protection requirements for that station. Because the contribution of K260CT in the uncontrolled environment is predicted to be far less than the  $10 \mu\text{W}/\text{cm}^2$  (5.0%) limit as set forth by §1.1307(b)(3), the facility complies with FCC guidelines.

Since this application meets the five percent exclusion test at all ground level areas, the impact of the proposed facility may be considered independently from other facilities operating at or nearby this site. It is believed the impact of the proposed operation should not be a factor at ground level as defined under §1.1307(b)(3), therefore the proposed K260CT operation is categorically excluded from further environmental review under §1.1306 of the FCC rules and regulations.

Respectfully Submitted

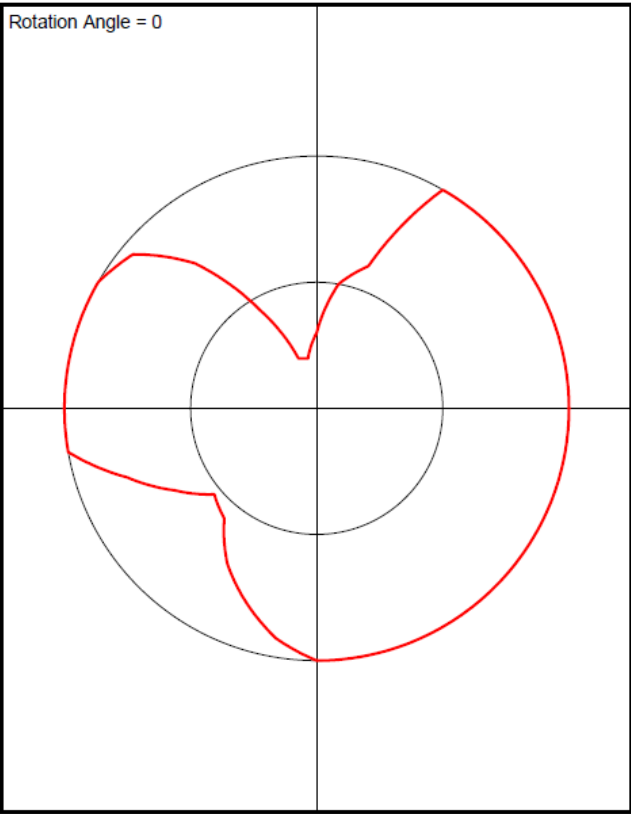
A handwritten signature in cursive script, appearing to read "Bert Goldman", written in dark ink.

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EXHIBIT A- DIRECTIONAL PATTERN

K260CT Jampro Pattern  
Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	0.3
5.0	0.4
10.0	0.5
15.0	0.55
20.0	0.6
25.0	0.8
30.0	1.0
35.0	1.0
40.0	1.0
45.0	1.0
50.0	1.0
55.0	1.0
60.0	1.0
65.0	1.0
70.0	1.0
75.0	1.0
80.0	1.0
85.0	1.0
90.0	1.0
95.0	1.0
100.0	1.0
105.0	1.0
110.0	1.0
115.0	1.0
120.0	1.0
125.0	1.0
130.0	1.0
135.0	1.0
140.0	1.0
145.0	1.0
150.0	1.0
155.0	1.0
160.0	1.0
165.0	1.0
170.0	1.0
175.0	1.0
180.0	1.0
185.0	0.963
190.0	0.926
195.0	0.872
200.0	0.818
205.0	0.7635
210.0	0.709
215.0	0.6395
220.0	0.57
225.0	0.55
230.0	0.53
235.0	0.59
240.0	0.65
245.0	0.725
250.0	0.8
255.0	0.9
260.0	1.0
265.0	1.0
270.0	1.0
275.0	1.0
280.0	1.0
285.0	1.0
290.0	1.0
295.0	1.0
300.0	1.0
305.0	0.975
310.0	0.95
315.0	0.85



320.0	0.75
325.0	0.6
330.0	0.45
335.0	0.33
340.0	0.21
345.0	0.205
350.0	0.2
355.0	0.25

EXHIBIT B- FCC 74.1201(g) Compliance

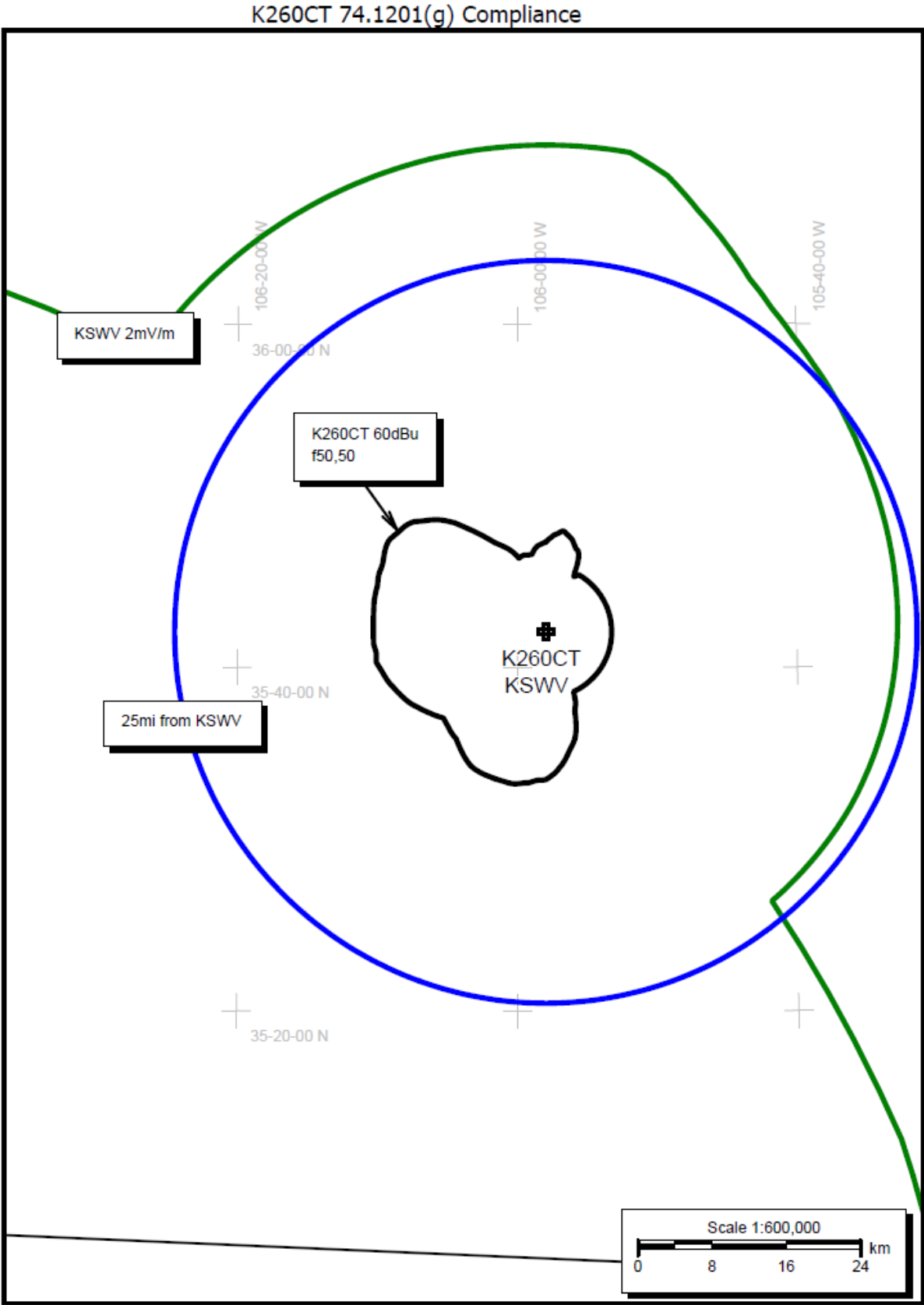
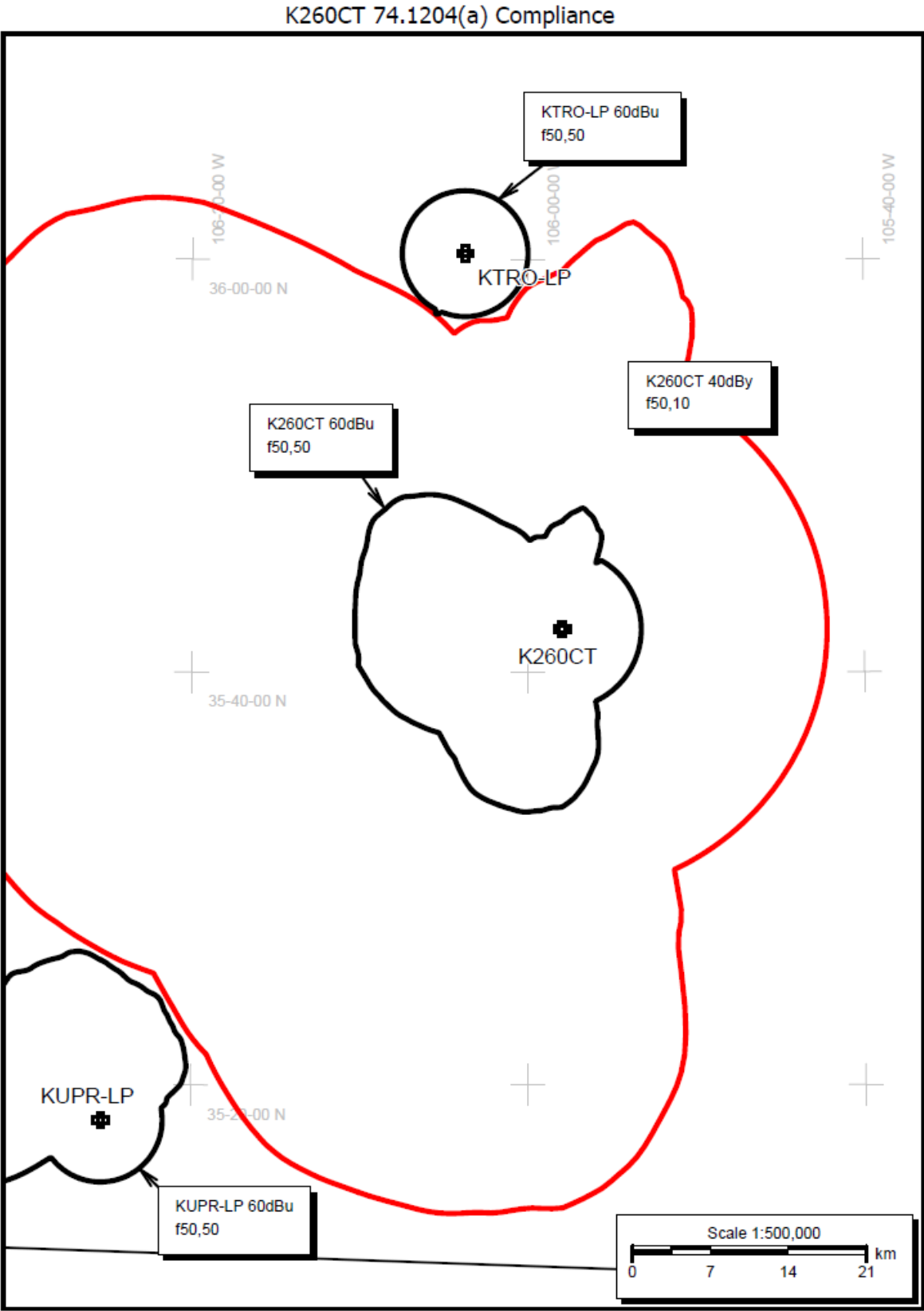


EXHIBIT C 74.1204(a) Compliance



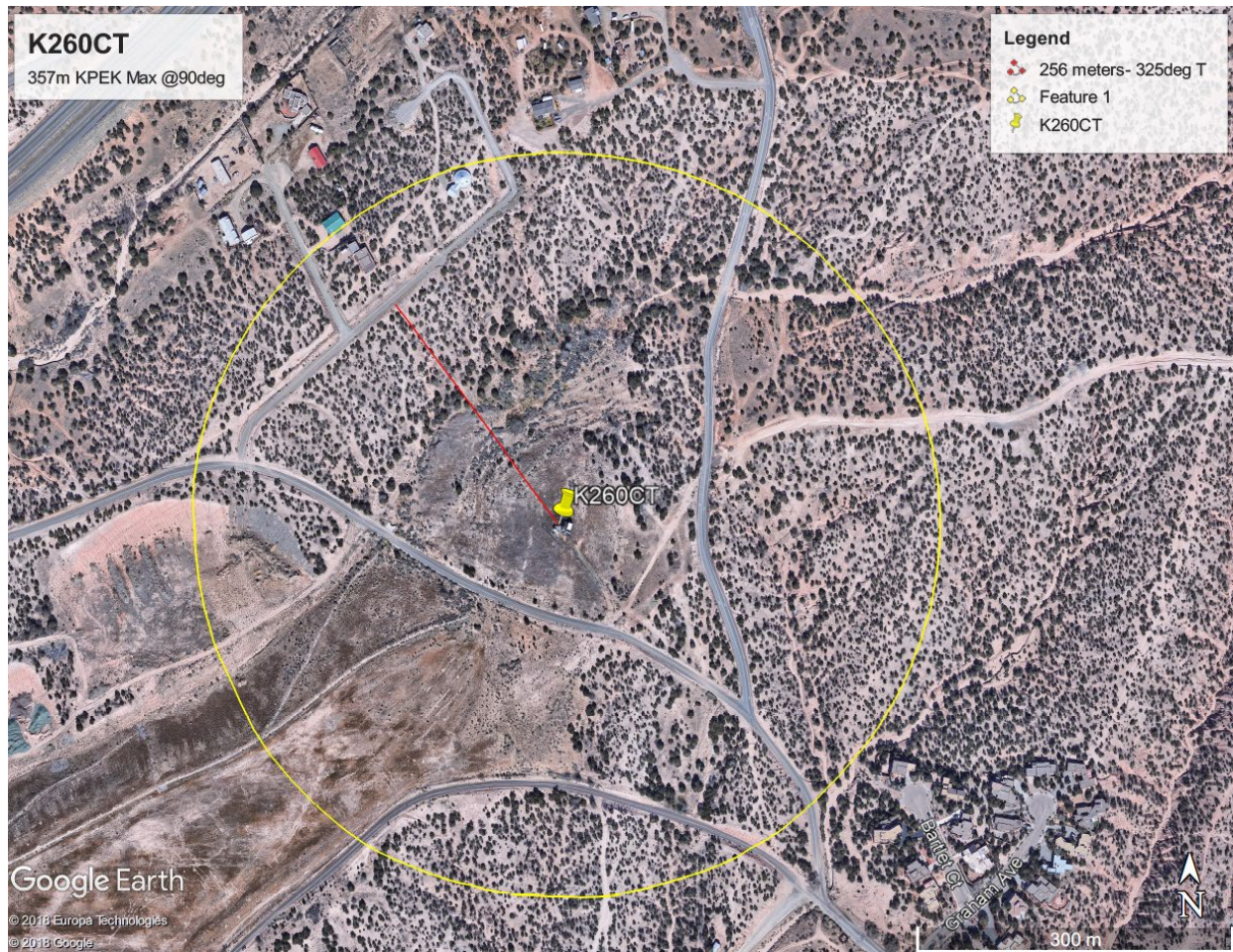


## EXHIBIT D 74.1204(d) Compliance

### Map of Interference:

Yellow- Maximum Interfering Field (356 meters- KPEK @90deg)

Red- Maximum Interfering Field @ 325deg T (256m – KPEK)





## Exhibit D1 PROP Santa Fe, NM- 2<sup>nd</sup> Adjacent KMG

K260CT Santa Fe, NM, Showing Protection to KMG  
 Geographic Coordinates: N. 35 42 05.0 W. 105 5 7 58.0  
 74.1204(d) Study - Using NED 03 SEC Terrain Database  
 Translator or LPFM Maximum Licensed ERP = 0.12  
 Translator or LPFM Antenna Height AG = 54 Meters  
 K260CT Antenna Model = SHPX3H

Protected Station's Contour = 69.26516 dBu  
 Translator's or LPFM's full Interference contour 109.26516

### Review Azimuth = 90 Degrees True (Maximum)

Horizontal Relative Field at Review Azimuth = 1.000  
 Translator/LPFM ERP on the horizontal at Review Azimuth = 0.12 kW  
 Distance between stations = 69.8 km  
 Protected Station= KMG, 22.5 kW, 3278 M Meters COR AMSL

Depression Angle From Degree(Deg) (m)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground
00.00	1.0	1.0	0.1200	264.4433	264.4433	054.000
01.00	0.999	1.0	0.1198	264.1789	264.1387	049.389
02.00	0.995	1.0	0.1188	263.1211	262.9608	044.817
03.00	0.99	1.0	0.1176	261.7989	261.4401	040.299
04.00	0.982	1.0	0.1157	259.6834	259.0508	035.885
05.00	0.972	1.0	0.1134	257.0389	256.0608	031.598
06.00	0.96	1.0	0.1106	253.8656	252.4749	027.464
07.00	0.946	1.0	0.1074	250.1634	248.2987	023.513
08.00	0.93	1.0	0.1038	245.9323	243.5389	019.773
09.00	0.912	1.0	0.0998	241.1723	238.2031	016.272
10.00	0.892	1.0	0.0955	235.8835	232.2999	013.039
11.00	0.87	1.0	0.0908	230.0657	225.8387	010.101
12.00	0.847	1.0	0.0861	223.9835	219.0889	007.431
13.00	0.823	1.0	0.0813	217.6369	212.0588	005.042
14.00	0.797	1.0	0.0762	210.7613	204.5008	003.012
15.00	0.769	1.0	0.0710	203.3569	196.4277	001.367
16.00	0.741	1.0	0.0659	195.9525	188.3616	-000.012
17.00	0.712	1.0	0.0608	188.2837	180.0566	-001.049
18.00	0.681	1.0	0.0557	180.0859	171.2719	-001.650
19.00	0.65	1.0	0.0507	171.8882	162.5234	-001.961
20.00	0.619	1.0	0.0460	163.6904	153.8187	-001.985
21.00	0.587	1.0	0.0413	155.2282	144.9180	-001.629
22.00	0.554	1.0	0.0368	146.5016	135.8339	-000.880
23.00	0.522	1.0	0.0327	138.0394	127.0660	000.064
24.00	0.489	1.0	0.0287	129.3128	118.1331	001.404
25.00	0.457	1.0	0.0251	120.8506	109.5278	002.926
26.00	0.424	1.0	0.0216	112.1240	100.7764	004.848
27.00	0.392	1.0	0.0184	103.6618	092.3633	006.939
28.00	0.36	1.0	0.0156	095.1996	084.0563	009.306
29.00	0.329	1.0	0.0130	087.0019	076.0935	011.821
30.00	0.298	1.0	0.0107	078.8041	068.2464	014.598
31.00	0.268	1.0	0.0086	070.8708	060.7481	017.499
32.00	0.239	1.0	0.0069	063.2020	053.5983	020.508
33.00	0.21	1.0	0.0053	055.5331	046.5740	023.755
34.00	0.183	1.0	0.0040	048.3931	040.1197	026.939
35.00	0.156	1.0	0.0029	041.2532	033.7926	030.338
36.00	0.13	1.0	0.0020	034.3776	027.8121	033.793
37.00	0.106	1.0	0.0013	028.0310	022.3865	037.131
38.00	0.082	1.0	0.0008	021.6844	017.0875	040.650
39.00	0.06	1.0	0.0004	015.8666	012.3307	044.015
40.00	0.039	1.0	0.0002	010.3133	007.9004	047.371

41.00	0.019	1.0	0.0000	005.0244	003.7920	050.704
42.00	0.0	1.0	0.0000	000.0264	000.0197	053.982
43.00	0.017	1.0	0.0000	004.4955	003.2878	050.934
44.00	0.034	1.0	0.0001	008.9911	006.4676	047.754
45.00	0.049	1.0	0.0003	012.9577	009.1625	044.838
46.00	0.063	1.0	0.0005	016.6599	011.5730	042.016
47.00	0.076	1.0	0.0007	020.0977	013.7066	039.301
48.00	0.088	1.0	0.0009	023.2710	015.5713	036.706
49.00	0.098	1.0	0.0012	025.9154	017.0021	034.441
50.00	0.108	1.0	0.0014	028.5599	018.3579	032.122
51.00	0.116	1.0	0.0016	030.6754	019.3047	030.161
52.00	0.124	1.0	0.0018	032.7910	020.1881	028.160
53.00	0.131	1.0	0.0021	034.6421	020.8481	026.334
54.00	0.136	1.0	0.0022	035.9643	021.1393	024.904
55.00	0.141	1.0	0.0024	037.2865	021.3867	023.457
56.00	0.145	1.0	0.0025	038.3443	021.4419	022.211
57.00	0.148	1.0	0.0026	039.1376	021.3159	021.176
58.00	0.151	1.0	0.0027	039.9309	021.1602	020.137
59.00	0.152	1.0	0.0028	040.1954	020.7022	019.546
60.00	0.153	1.0	0.0028	040.4598	020.2299	018.961
61.00	0.154	1.0	0.0028	040.7243	019.7435	018.382
62.00	0.153	1.0	0.0028	040.4598	018.9947	018.276
63.00	0.153	1.0	0.0028	040.4598	018.3684	017.950
64.00	0.151	1.0	0.0027	039.9309	017.5046	018.110
65.00	0.15	1.0	0.0027	039.6665	016.7638	018.050
66.00	0.148	1.0	0.0026	039.1376	015.9187	018.246
67.00	0.145	1.0	0.0025	038.3443	014.9823	018.704
68.00	0.142	1.0	0.0024	037.5510	014.0668	019.183
69.00	0.139	1.0	0.0023	036.7576	013.1728	019.684
70.00	0.136	1.0	0.0022	035.9643	012.3005	020.205
71.00	0.132	1.0	0.0021	034.9065	011.3645	020.995
72.00	0.128	1.0	0.0020	033.8487	010.4598	021.808
73.00	0.124	1.0	0.0018	032.7910	009.5872	022.642
74.00	0.12	1.0	0.0017	031.7332	008.7469	023.496
75.00	0.116	1.0	0.0016	030.6754	007.9394	024.370
76.00	0.111	1.0	0.0015	029.3532	007.1012	025.519
77.00	0.107	1.0	0.0014	028.2954	006.3651	026.430
78.00	0.102	1.0	0.0012	026.9732	005.6080	027.616
79.00	0.097	1.0	0.0011	025.6510	004.8944	028.820
80.00	0.092	1.0	0.0010	024.3288	004.2246	030.041
81.00	0.087	1.0	0.0009	023.0066	003.5990	031.277
82.00	0.082	1.0	0.0008	021.6844	003.0179	032.527
83.00	0.077	1.0	0.0007	020.3621	002.4815	033.790
84.00	0.072	1.0	0.0006	019.0399	001.9902	035.064
85.00	0.067	1.0	0.0005	017.7177	001.5442	036.350
86.00	0.062	1.0	0.0005	016.3955	001.1437	037.644
87.00	0.057	1.0	0.0004	015.0733	000.7889	038.947
88.00	0.052	1.0	0.0003	013.7511	000.4799	040.257
89.00	0.047	1.0	0.0003	012.4288	000.2169	041.573
90.00	0.042	1.0	0.0002	011.1066	000.0000	042.893

## Exhibit D2 PROP Santa Fe, NM- 2<sup>nd</sup> Adjacent KPEK

K260CT Santa Fe, NM, Showing Protection to KPEK  
 Geographic Coordinates: N. 35 4 2 05.0 W. 105 5 7 58.0  
 74.1204(d) Study - Using NED 03 SEC Terrain Database  
 Translator or LPFM Maximum Licensed ERP = 0.25  
 Translator or LPFM Antenna Height AG = 56 Meters  
 K260CT Antenna Model = SHPX3H

Protected Station's Contour = 69.13079 dBu  
 Translator's or LPFM's full Interference contour 109.13079

### Review Azimuth = 90 Degrees True (MAX FIELD)

Horizontal Relative Field at Review Azimuth = 1.000  
 Translator/LPFM ERP on the horizontal at Review Azimuth = 0.25 kW  
 Distance between stations = 69.7 km  
 Protected Station= KPEK, 22.5 kW, 3260 M Meters COR AMSL

Depression Angle From Degree(Deg) (m)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground
00.00	1.0	1.0	0.2500	387.6417	387.6417	056.000
01.00	0.999	1.0	0.2495	387.2541	387.1951	049.241
02.00	0.995	1.0	0.2475	385.7035	385.4685	042.539
03.00	0.99	1.0	0.2450	383.7653	383.2394	035.915
04.00	0.982	1.0	0.2411	380.6642	379.7369	029.446
05.00	0.972	1.0	0.2362	376.7877	375.3540	023.161
06.00	0.96	1.0	0.2304	372.1360	370.0974	017.101
07.00	0.946	1.0	0.2237	366.7091	363.9757	011.309
08.00	0.93	1.0	0.2162	360.5068	356.9984	005.827
09.00	0.912	1.0	0.2079	353.5292	349.1767	000.696
10.00	0.892	1.0	0.1989	345.7764	340.5233	-004.043
11.00	0.87	1.0	0.1892	337.2483	331.0521	-008.350
12.00	0.847	1.0	0.1794	328.3325	321.1577	-012.264
13.00	0.823	1.0	0.1693	319.0291	310.8524	-015.766
14.00	0.797	1.0	0.1588	308.9504	299.7733	-018.742
15.00	0.769	1.0	0.1478	298.0965	287.9391	-021.153
16.00	0.741	1.0	0.1373	287.2425	276.1152	-023.175
17.00	0.712	1.0	0.1267	276.0009	263.9410	-024.695
18.00	0.681	1.0	0.1159	263.9840	251.0637	-025.576
19.00	0.65	1.0	0.1056	251.9671	238.2396	-026.032
20.00	0.619	1.0	0.0958	239.9502	225.4795	-026.068
21.00	0.587	1.0	0.0861	227.5457	212.4322	-025.545
22.00	0.554	1.0	0.0767	214.7535	199.1160	-024.448
23.00	0.522	1.0	0.0681	202.3490	186.2632	-023.064
24.00	0.489	1.0	0.0598	189.5568	173.1687	-021.100
25.00	0.457	1.0	0.0522	177.1523	160.5545	-018.868
26.00	0.424	1.0	0.0449	164.3601	147.7259	-016.051
27.00	0.392	1.0	0.0384	151.9555	135.3934	-012.986
28.00	0.36	1.0	0.0324	139.5510	123.2162	-009.515
29.00	0.329	1.0	0.0271	127.5341	111.5439	-005.830
30.00	0.298	1.0	0.0222	115.5172	100.0409	-001.759
31.00	0.268	1.0	0.0180	103.8880	089.0494	002.494
32.00	0.239	1.0	0.0143	092.6464	078.5686	006.905
33.00	0.21	1.0	0.0110	081.4048	068.2718	011.664
34.00	0.183	1.0	0.0084	070.9384	058.8106	016.332
35.00	0.156	1.0	0.0061	060.4721	049.5359	021.315
36.00	0.13	1.0	0.0042	050.3934	040.7691	026.379
37.00	0.106	1.0	0.0028	041.0900	032.8159	031.271
38.00	0.082	1.0	0.0017	031.7866	025.0482	036.430
39.00	0.06	1.0	0.0009	023.2585	018.0753	041.363
40.00	0.039	1.0	0.0004	015.1180	011.5811	046.282
41.00	0.019	1.0	0.0001	007.3652	005.5586	051.168

42.00	0.0	1.0	0.0000	000.0388	000.0288	055.974
43.00	0.017	1.0	0.0001	006.5899	004.8196	051.506
44.00	0.034	1.0	0.0003	013.1798	009.4808	046.845
45.00	0.049	1.0	0.0006	018.9944	013.4311	042.569
46.00	0.063	1.0	0.0010	024.4214	016.9645	038.433
47.00	0.076	1.0	0.0014	029.4608	020.0922	034.454
48.00	0.088	1.0	0.0019	034.1125	022.8257	030.649
49.00	0.098	1.0	0.0024	037.9889	024.9230	027.329
50.00	0.108	1.0	0.0029	041.8653	026.9105	023.929
51.00	0.116	1.0	0.0034	044.9664	028.2983	021.055
52.00	0.124	1.0	0.0038	048.0676	029.5934	018.122
53.00	0.131	1.0	0.0043	050.7811	030.5608	015.444
54.00	0.136	1.0	0.0046	052.7193	030.9876	013.349
55.00	0.141	1.0	0.0050	054.6575	031.3502	011.227
56.00	0.145	1.0	0.0053	056.2080	031.4311	009.401
57.00	0.148	1.0	0.0055	057.3710	031.2465	007.885
58.00	0.151	1.0	0.0057	058.5339	031.0182	006.360
59.00	0.152	1.0	0.0058	058.9215	030.3468	005.494
60.00	0.153	1.0	0.0059	059.3092	029.6546	004.637
61.00	0.154	1.0	0.0059	059.6968	028.9416	003.788
62.00	0.153	1.0	0.0059	059.3092	027.8440	003.633
63.00	0.153	1.0	0.0059	059.3092	026.9258	003.155
64.00	0.151	1.0	0.0057	058.5339	025.6596	003.390
65.00	0.15	1.0	0.0056	058.1463	024.5737	003.302
66.00	0.148	1.0	0.0055	057.3710	023.3349	003.589
67.00	0.145	1.0	0.0053	056.2080	021.9622	004.260
68.00	0.142	1.0	0.0050	055.0451	020.6203	004.963
69.00	0.139	1.0	0.0048	053.8822	019.3097	005.697
70.00	0.136	1.0	0.0046	052.7193	018.0311	006.460
71.00	0.132	1.0	0.0044	051.1687	016.6589	007.619
72.00	0.128	1.0	0.0041	049.6181	015.3328	008.810
73.00	0.124	1.0	0.0038	048.0676	014.0536	010.033
74.00	0.12	1.0	0.0036	046.5170	012.8218	011.285
75.00	0.116	1.0	0.0034	044.9664	011.6382	012.566
76.00	0.111	1.0	0.0031	043.0282	010.4095	014.250
77.00	0.107	1.0	0.0029	041.4777	009.3304	015.585
78.00	0.102	1.0	0.0026	039.5395	008.2207	017.325
79.00	0.097	1.0	0.0024	037.6012	007.1747	019.090
80.00	0.092	1.0	0.0021	035.6630	006.1928	020.879
81.00	0.087	1.0	0.0019	033.7248	005.2757	022.690
82.00	0.082	1.0	0.0017	031.7866	004.4238	024.523
83.00	0.077	1.0	0.0015	029.8484	003.6376	026.374
84.00	0.072	1.0	0.0013	027.9102	002.9174	028.243
85.00	0.067	1.0	0.0011	025.9720	002.2636	030.127
86.00	0.062	1.0	0.0010	024.0338	001.6765	032.025
87.00	0.057	1.0	0.0008	022.0956	001.1564	033.935
88.00	0.052	1.0	0.0007	020.1574	000.7035	035.855
89.00	0.047	1.0	0.0006	018.2192	000.3180	037.784
90.00	0.042	1.0	0.0004	016.2810	000.0000	039.719

## Exhibit D3 PROP Santa Fe, NM- 2<sup>nd</sup> Adjacent KPEK

### K260CT Santa Fe, NM, Showing Protection to KPEK

Geographic Coordinates: N. 35 4 2 05.0 W. 105 57 58.0

74.1204(d) Study - Using NED 03 SEC Terrain Database

Translator or LPFM Maximum Licensed ERP = 0.25

Translator or LPFM Antenna Height AG = 56 Meters

K260CT Antenna Model = SHPX3H

Protected Station's Contour = 69.13079 dBu

Translator's or LPFM's full Interference contour 109.13079

#### Review Azimuth = 325 Degrees True

Horizontal Relative Field at Review Azimuth = 0.600

Translator/LPFM ERP on the horizontal at Review Azimuth = 0.09 kW

Distance between stations = 69.7 km

Protected Station= KPEK, 22.5 kW, 3260 M Meters COR AMSL

Depression Angle From Degree(Deg) (m)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground
00.00	1.0	0.6	0.1500	300.2660	300.2660	056.000
01.00	0.999	0.6	0.1497	299.9657	299.9200	050.765
02.00	0.995	0.6	0.1485	298.7647	298.5827	045.573
03.00	0.99	0.6	0.1470	297.2633	296.8559	040.442
04.00	0.982	0.6	0.1446	294.8612	294.1429	035.432
05.00	0.972	0.6	0.1417	291.8585	290.7479	030.563
06.00	0.96	0.6	0.1382	288.2553	286.6762	025.869
07.00	0.946	0.6	0.1342	284.0516	281.9343	021.383
08.00	0.93	0.6	0.1297	279.2474	276.5298	017.136
09.00	0.912	0.6	0.1248	273.8426	270.4711	013.162
10.00	0.892	0.6	0.1193	267.8373	263.7682	009.491
11.00	0.87	0.6	0.1135	261.2314	256.4319	006.155
12.00	0.847	0.6	0.1076	254.3253	248.7677	003.123
13.00	0.823	0.6	0.1016	247.1189	240.7853	000.410
14.00	0.797	0.6	0.0953	239.3120	232.2034	-001.895
15.00	0.769	0.6	0.0887	230.9045	223.0367	-003.762
16.00	0.741	0.6	0.0824	222.4971	213.8779	-005.329
17.00	0.712	0.6	0.0760	213.7894	204.4478	-006.506
18.00	0.681	0.6	0.0696	204.4811	194.4731	-007.188
19.00	0.65	0.6	0.0634	195.1729	184.5396	-007.542
20.00	0.619	0.6	0.0575	185.8647	174.6556	-007.569
21.00	0.587	0.6	0.0517	176.2561	164.5493	-007.165
22.00	0.554	0.6	0.0460	166.3474	154.2346	-006.315
23.00	0.522	0.6	0.0409	156.7388	144.2789	-005.243
24.00	0.489	0.6	0.0359	146.8301	134.1359	-003.721
25.00	0.457	0.6	0.0313	137.2216	124.3650	-001.992
26.00	0.424	0.6	0.0270	127.3128	114.4280	000.190
27.00	0.392	0.6	0.0230	117.7043	104.8753	002.563
28.00	0.36	0.6	0.0194	108.0958	095.4429	005.252
29.00	0.329	0.6	0.0162	098.7875	086.4015	008.107
30.00	0.298	0.6	0.0133	089.4793	077.4913	011.260
31.00	0.268	0.6	0.0108	080.4713	068.9774	014.554
32.00	0.239	0.6	0.0086	071.7636	060.8590	017.971
33.00	0.21	0.6	0.0066	063.0559	052.8831	021.657
34.00	0.183	0.6	0.0050	054.9487	045.5545	025.273
35.00	0.156	0.6	0.0037	046.8415	038.3703	029.133
36.00	0.13	0.6	0.0025	039.0346	031.5796	033.056
37.00	0.106	0.6	0.0017	031.8282	025.4191	036.845
38.00	0.082	0.6	0.0010	024.6218	019.4023	040.841
39.00	0.06	0.6	0.0005	018.0160	014.0010	044.662
40.00	0.039	0.6	0.0002	011.7104	008.9707	048.473
41.00	0.019	0.6	0.0001	005.7051	004.3057	052.257
42.00	0.0	0.6	0.0000	000.0300	000.0223	055.980

43.00	0.017	0.6	0.0000	005.1045	003.7332	052.519
44.00	0.034	0.6	0.0002	010.2090	007.3438	048.908
45.00	0.049	0.6	0.0004	014.7130	010.4037	045.596
46.00	0.063	0.6	0.0006	018.9168	013.1407	042.392
47.00	0.076	0.6	0.0009	022.8202	015.5633	039.310
48.00	0.088	0.6	0.0012	026.4234	017.6807	036.364
49.00	0.098	0.6	0.0014	029.4261	019.3052	033.792
50.00	0.108	0.6	0.0017	032.4287	020.8448	031.158
51.00	0.116	0.6	0.0020	034.8309	021.9198	028.931
52.00	0.124	0.6	0.0023	037.2330	022.9229	026.660
53.00	0.131	0.6	0.0026	039.3348	023.6723	024.586
54.00	0.136	0.6	0.0028	040.8362	024.0029	022.963
55.00	0.141	0.6	0.0030	042.3375	024.2838	021.319
56.00	0.145	0.6	0.0032	043.5386	024.3465	019.905
57.00	0.148	0.6	0.0033	044.4394	024.2034	018.730
58.00	0.151	0.6	0.0034	045.3402	024.0266	017.549
59.00	0.152	0.6	0.0035	045.6404	023.5066	016.879
60.00	0.153	0.6	0.0035	045.9407	022.9703	016.214
61.00	0.154	0.6	0.0036	046.2410	022.4181	015.557
62.00	0.153	0.6	0.0035	045.9407	021.5678	015.437
63.00	0.153	0.6	0.0035	045.9407	020.8566	015.067
64.00	0.151	0.6	0.0034	045.3402	019.8758	015.249
65.00	0.15	0.6	0.0034	045.0399	019.0347	015.180
66.00	0.148	0.6	0.0033	044.4394	018.0751	015.403
67.00	0.145	0.6	0.0032	043.5386	017.0119	015.923
68.00	0.142	0.6	0.0030	042.6378	015.9724	016.467
69.00	0.139	0.6	0.0029	041.7370	014.9572	017.035
70.00	0.136	0.6	0.0028	040.8362	013.9668	017.627
71.00	0.132	0.6	0.0026	039.6351	012.9039	018.524
72.00	0.128	0.6	0.0025	038.4340	011.8768	019.447
73.00	0.124	0.6	0.0023	037.2330	010.8859	020.394
74.00	0.12	0.6	0.0022	036.0319	009.9317	021.364
75.00	0.116	0.6	0.0020	034.8309	009.0149	022.356
76.00	0.111	0.6	0.0018	033.3295	008.0631	023.661
77.00	0.107	0.6	0.0017	032.1285	007.2273	024.695
78.00	0.102	0.6	0.0016	030.6271	006.3677	026.042
79.00	0.097	0.6	0.0014	029.1258	005.5575	027.409
80.00	0.092	0.6	0.0013	027.6245	004.7969	028.795
81.00	0.087	0.6	0.0011	026.1231	004.0866	030.198
82.00	0.082	0.6	0.0010	024.6218	003.4267	031.618
83.00	0.077	0.6	0.0009	023.1205	002.8177	033.052
84.00	0.072	0.6	0.0008	021.6192	002.2598	034.499
85.00	0.067	0.6	0.0007	020.1178	001.7534	035.959
86.00	0.062	0.6	0.0006	018.6165	001.2986	037.429
87.00	0.057	0.6	0.0005	017.1152	000.8957	038.908
88.00	0.052	0.6	0.0004	015.6138	000.5449	040.396
89.00	0.047	0.6	0.0003	014.1125	000.2463	041.890
90.00	0.042	0.6	0.0003	012.6112	000.0000	043.389