FM Booster Application

This application seeks a broadcast booster station for operation with co-owned stations KOST, KHHT, KBIG, and KIIS-FM, each Los Angeles, California. This exhibit is common to each of the FCC Form 349 applications.

It is proposed that the shared facility be authorized 1,000 watt power for stations KHHT, KBIG, and KIIS-FM, and 150 watts for station KOST[1], for a combined 3,150 watts effective radiated power, utilizing a composite array of (2) Scala CL-FM antenna mounted 110° relative to each other, centered at 330° true, located at an elevation of 13 meters above ground level upon an existing 19 meter tower which does not require registration.

The attached contour map as **Figure 1** demonstrates the predicted service contour of the booster facility, as well as the primary station, computed in accordance with Sec. 73.313 paragraphs (a) through (d). This study shows the booster will not extend services beyond the corresponding service contour of the primary FM station. This proposal meets the spacing of Section 73.207 for a Class B station with respect to stations 53 and 54 channels removed from the booster channel as required by Section 74.1204 (g) as demonstrated in **Spacing Study Tables 1 to 4**. Also, all first adjacent stations exceed the signal of the booster by more than 6 dB at all points in the protected contour of the first adjacent station as required by Section 74.1204(i).

The Proposed facilities were evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio frequency Radiation."

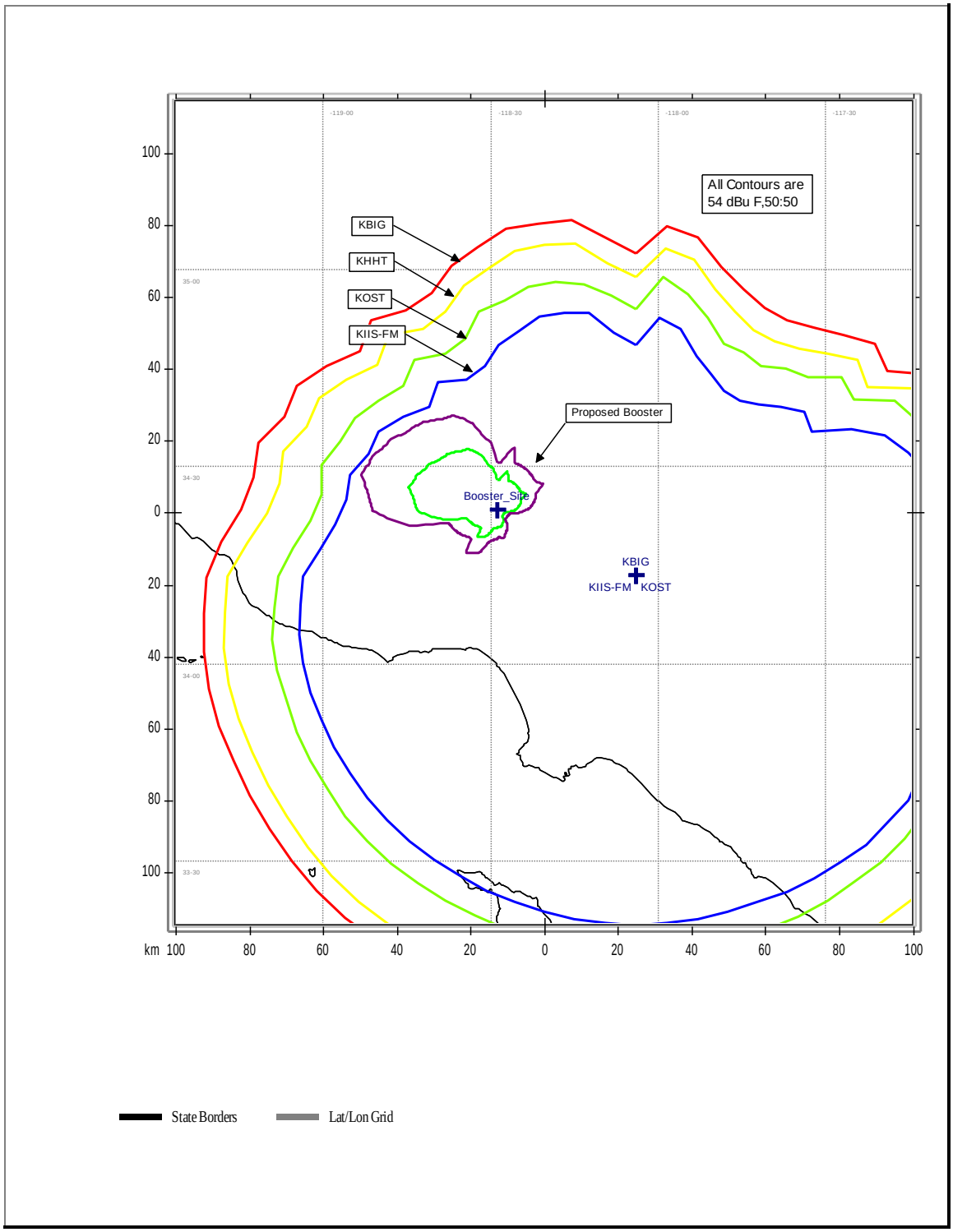
The proposed antenna system is an array of (2) Scala CL-FM mounted in the "vertical polarity" position. The manufacture provided elevation radiation pattern was used in conjunction with the methods of OET Bulletin Number 65 to produce the exposure values for each station utilizing the facility, an example calculation is shown as **Figure 2**. The values for each station were summed in **Figure 3** to demonstrate that at 2 meters above ground, at 14 meters from the base of the tower, this proposal will contribute worst case 84.8 percent of the allowable limit for **uncontrolled** exposure.

It is therefore believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission.

Further, the applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The site itself is restricted from public access. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

[1] Power limited to prevent prohibited contour overlap with Superpower Station KVYB.

Figure 1 Contour Map



Spacing Study Table 1 - KHHT

KHHT Booster Spacing

REFERENCE
34 23 23.7 N.
118 28 54.0 W.

CLASS = B Int = B
Current Spacings to 3rd Adj.
Channel 222 - 92.3 MHz

DISPLAY DATES
DATA 06-20-14
SEARCH 06-20-14

Call	Channel		Location		Azi	Dist	FCC	Margin
KHHT	LIC	222B	Los Angeles	CA	115.3	42.34	241.0	-198.7
KYRA	LIC	224A	Thousand Oaks	CA	236.6	37.07	69.0	-31.9
KYRA	APP	224A	Thousand Oaks	CA	237.2	46.08	69.0	-22.9
KYRA	RSV-A	224A	Thousand Oaks	CA	237.2	46.08	69.0	-22.9
KMYX-FM	LIC	223A	Arvin	CA	347.3	91.58	113.0	-21.4
KVMX	LIC	221A	Bakersfield	CA	343.2	127.20	113.0	14.2
AL1865	RSV-A	224A	Adelanto	CA	75.4	96.15	69.0	27.2
KDLD	LIC	276A	Santa Monica	CA	167.4	42.64	15.0	27.6
KYLA	LIC-Z	224A	Fountain Valley	CA	144.4	106.87	69.0	37.9
KJEE	LIC	225A	Montecito	CA	274.7	110.19	69.0	41.2
KYZA	LIC	224A	Adelanto	CA	76.9	112.11	69.0	43.1
KVCR	LIC-Z	220B	San Bernardino	CA	112.8	119.95	74.0	46.0
KOMP	LIC	222C	Las Vegas	NV	56.3	322.94	274.0	48.9
KJEE	APP	225B1	Montecito	CA	276.0	123.51	71.0	52.5
	RSV-M	225B1	Montecito	CA	275.8	123.83	71.0	52.8
KJEE	RSV-A	225B1	Montecito	CA	275.8	123.83	71.0	52.8
		225B1		CA	275.8	124.34	71.0	53.3
XHRM-FM	OPE	223C1	Tijuana	BN	147.2	248.43	195.0	53.4
KXLM	LIC	275A	Oxnard	CA	255.8	68.54	15.0	53.5
KCIY	CP	219A	Helendale	CA	72.5	125.08	69.0	56.1
KKAL	LIC	223B	Paso Robles	CA	299.2	226.10	169.0	57.1
KSRY	LIC	276A	Tehachapi	CA	7.7	76.69	15.0	61.7
KCSB-FM	LIC	220B	Santa Barbara	CA	276.8	136.49	74.0	62.5
KFHL	LIC	219A	Wasco	CA	329.2	132.89	69.0	63.9
KWTD	LIC-N	220B	Ridgecrest	CA	30.3	140.20	74.0	66.2
KSOQ-FM	LIC	221A	Escondido	CA	138.8	187.79	113.0	74.8

RSV-R = reserved - needs protection, RSV-A = allocation

Spacing Study Table 2 – KIIS-FM

KIIS_FM Booster Spacing

REFERENCE
34 23 23.7 N.
118 28 54.0 W.

CLASS = B Int = B
Current Spacings to 3rd Adj.

DISPLAY DATES
DATA 06-20-14
SEARCH 06-20-14

Channel 274 - 102.7 MHz

Call	Channel	Location		Azi	Dist	FCC	Margin
KIIS-FM	LIC-D 274B	Los Angeles	CA	115.3	42.34	241.0	-198.7
KXLM	LIC 275A	Oxnard	CA	255.8	68.54	113.0	-44.5
KDLD	LIC 276A	Santa Monica	CA	167.4	42.64	69.0	-26.4
KJLH	LIC 272A	Compton	CA	165.4	44.94	69.0	-24.1
KSSI	LIC 274A	China Lake	CA	27.2	157.82	178.0	-20.2
KIWI	LIC-N 275B1	Mcfarland	CA	313.1	152.42	145.0	7.4
KSRY	LIC 276A	Tehachapi	CA	7.7	76.69	69.0	7.7
KSNI-FM	LIC 273B	Santa Maria	CA	286.3	182.90	169.0	13.9
AL3520	VAC 275A	Randsburg	CA	34.4	132.15	113.0	19.2
KCNQ	LIC 273A	Kernville	CA	1.7	136.79	113.0	23.8
KZPE	CP 271A	Ford City	CA	310.0	106.22	69.0	37.2
KLQV	LIC 275B	San Diego	CA	146.1	206.55	169.0	37.6
KDLE	LIC-Z 276A	Newport Beach	CA	144.5	106.85	69.0	37.9
AL8372	VAC 273A	Hemet	CA	117.1	155.43	113.0	42.4
1422394	RSV-A 273A	Hemet	CA	117.1	155.43	113.0	42.4
KVFG	LIC-D 276A	Victorville	CA	76.9	112.06	69.0	43.1
KHGE	LIC 274B	Fresno	CA	341.3	285.09	241.0	44.1
1358319	APP-D 273A	Hemet	CA	120.4	161.41	113.0	48.4
1358465	APP-D 273A	Hemet	CA	120.6	161.46	113.0	48.5
KZXY-FM	LIC-D 272A	Apple Valley	CA	88.5	119.17	69.0	50.2
1402988	APP-D 273A	Hemet	CA	121.6	167.80	113.0	54.8
1435320	APP-D 273A	Hemet	CA	121.6	167.80	113.0	54.8
1560163	APP 274A	Mecca	CA	111.6	240.08	178.0	62.1
AU9466900	VAC 274A	Mecca	CA	111.6	240.08	178.0	62.1
KVYB	LIC 277B	Santa Barbara	CA	276.7	136.56	74.0	62.6
KSSI	CP -N 271B1	China Lake	CA	30.3	140.19	71.0	69.2

RSV-R = reserved - needs protection, RSV-A = allocation

Spacing Study Table 3- KOST

KOST Booster Spacing

REFERENCE
34 23 23.7 N.
118 28 54.0 W.

CLASS = B Int = B
Current Spacings to 3rd Adj.

DISPLAY DATES
DATA 06-20-14
SEARCH 06-20-14

Channel 278 - 103.5 MHz

Call	Channel		Location		Azi	Dist	FCC	Margin
KOST	LIC	278B	Los Angeles	CA	115.4	42.51	241.0	-198.5
KMLA	LIC-Z	279A	El Rio	CA	262.2	69.35	113.0	-43.7
KVYB	LIC	277B	Santa Barbara	CA	276.7	136.56	169.0	-32.4
KDLD	LIC	276A	Santa Monica	CA	167.4	42.64	69.0	-26.4
KRCD	LIC	280A	Inglewood	CA	165.8	43.79	69.0	-25.2
KXLM	LIC	275A	Oxnard	CA	255.8	68.54	69.0	-0.46
KGBB	LIC-Z	280A	Edwards	CA	23.6	71.43	69.0	2.4
KSRY	LIC	276A	Tehachapi	CA	7.7	76.69	69.0	7.7
KGBB	RSV-A	280A	Edwards	CA	33.5	80.67	69.0	11.7
AL2504	RSV-A	280A	Edwards	CA	33.5	80.67	69.0	11.7
KYRA	LIC	224A	Thousand Oaks	CA	236.6	37.07	15.0	22.1
KYRA	RSV-A	224A	Thousand Oaks	CA	237.2	46.08	15.0	31.1
KYRA	APP	224A	Thousand Oaks	CA	237.2	46.08	15.0	31.1
KEGY	LIC	279B	San Diego	CA	146.2	206.59	169.0	37.6
KDLE	LIC-Z	276A	Newport Beach	CA	144.5	106.85	69.0	37.9
KIQQ-FM	LIC	279A	Newberry Springs	CA	68.8	155.44	113.0	42.4
KVFG	LIC-D	276A	Victorville	CA	76.9	112.06	69.0	43.1
KTMQ	LIC	277A	Temecula	CA	129.8	156.80	113.0	43.8
KBDS	LIC	280A	Taft	CA	312.5	120.54	69.0	51.5
KCXX	LIC	280A	Lake Arrowhead	CA	97.6	124.67	69.0	55.7
AL3520	VAC	275A	Randsburg	CA	34.4	132.15	69.0	63.2
KPST-FM	LIC-D	278A	Coachella	CA	108.9	243.97	178.0	66.0
KZPO	LIX	277B1	Lindsay	CA	351.4	212.97	145.0	68.0

RSV-R = reserved - needs protection, RSV-A = allocation

Spacing Study Table 4- KBIG

KBIG Booster Spacing

REFERENCE
34 23 23.7 N.
118 28 54.0 W.

CLASS = B Int = B
Current Spacings to 3rd Adj.

DISPLAY DATES
DATA 06-20-14
SEARCH 06-20-14

Channel 282 - 104.3 MHz

Call	Channel		Location		Azi	Dist	FCC	Margin
KBIG	LIC	282B	Los Angeles	CA	115.3	42.29	241.0	-198.7
KBQF	LIC	282A	Mcfarland	CA	329.3	147.12	178.0	-30.9
KRCD	LIC	280A	Inglewood	CA	165.8	43.79	69.0	-25.2
KCAQ	LIC	284B	Oxnard	CA	262.6	50.26	74.0	-23.7
KCAQ	LIX	284B	Oxnard	CA	274.2	50.95	74.0	-23.1
KMLA	LIC-Z	279A	El Rio	CA	262.2	69.35	69.0	0.35
KGBB	LIC-Z	280A	Edwards	CA	23.6	71.43	69.0	2.4
AL2504	RSV-A	280A	Edwards	CA	33.5	80.67	69.0	11.7
KGBB	RSV-A	280A	Edwards	CA	33.5	80.67	69.0	11.7
KRVQ-FM	LIC-N	283A	Lake Isabella	CA	1.7	136.79	113.0	23.8
KDAY	LIC-Z	228A	Redondo Beach	CA	165.6	44.06	15.0	29.1
KBTW	LIC	283A	Lenwood	CA	63.5	147.04	113.0	34.0
KBOX	LIC	281B1	Lompoc	CA	282.8	184.42	145.0	39.4
AU7951808	VAC	281A	Murrieta	CA	127.1	153.91	113.0	40.9
1334064	APP	281A	Murrieta	CA	127.1	153.91	113.0	40.9
KQAV	LIC-N	228A	Rosamond	CA	19.4	57.01	15.0	42.0
1334450	APP	281A	Murrieta	CA	129.8	156.80	113.0	43.8
KFRH	LIC	282C	North Las Vegas	NV	56.2	322.96	274.0	49.0
KBDS	LIC	280A	Taft	CA	312.5	120.54	69.0	51.5
KCXX	LIC	280A	Lake Arrowhead	CA	97.6	124.67	69.0	55.7
KIQO	LIC	283B	Atascadero	CA	299.2	226.10	169.0	57.1
1561660	APP-Z	282A	Mecca	CA	107.9	240.50	178.0	62.5
1566446	RSV-A	282A	Mecca	CA	113.3	241.04	178.0	63.0
KEPD	LIC-N	285B1	Ridgecrest	CA	30.3	140.19	71.0	69.2
KDEY-FM	LIC-D	228A	Ontario	CA	105.7	86.90	15.0	71.9

RSV-R = reserved - needs protection, RSV-A = allocation

Figure 2- Example NIER Calculation

RFR EXPOSURE CALCULATOR

Tom Cox, P.E.

Must have Analysis Pak and XlXtrFun Add In Loaded

Fill In Data In Gray Cells Only

		S(uW/sq.cm.) MAX	%GPE MAX	%OCC MAX
Distance (m)	**1000**			
P hor (W)	**0**			
P vert (W)	**1000**	**53.84**	**26.92%**	**5.38%**
COR (m)	**13**			

COR-2 (m)	Distance (m)	Hypotenuse (m)	Theta(deg)	Field Mult	Power Mult	S(uW/sq.cm.)	%GPE	%OCC
11	2	11.18	79.7	0.0536	0.0029	0.77	0.38%	0.08%
11	4	11.70	70.0	0.1900	0.0361	8.80	4.40%	0.88%
11	6	12.53	61.4	0.3648	0.1331	28.32	14.16%	2.83%
11	8	13.60	54.0	0.4830	0.2333	42.13	21.07%	4.21%
11	10	14.87	47.7	0.5775	0.3335	50.42	25.21%	5.04%
11	12	16.28	42.5	0.6535	0.4271	53.84	26.92%	5.38%
11	14	17.80	38.2	0.7136	0.5092	53.67	26.83%	5.37%
11	16	19.42	34.5	0.7615	0.5799	51.39	25.69%	5.14%
11	18	21.10	31.4	0.8008	0.6413	48.15	24.07%	4.81%
11	20	22.83	28.8	0.8312	0.6909	44.30	22.15%	4.43%
11	22	24.60	26.6	0.8554	0.7317	40.41	20.20%	4.04%
11	24	26.40	24.6	0.8766	0.7684	36.83	18.42%	3.68%
11	26	28.23	22.9	0.8909	0.7937	33.27	16.64%	3.33%
11	28	30.08	21.4	0.9044	0.8179	30.20	15.10%	3.02%
11	30	31.95	20.1	0.9152	0.8376	27.41	13.70%	2.74%
11	32	33.84	19.0	0.9230	0.8519	24.86	12.43%	2.49%
11	34	35.74	17.9	0.9317	0.8681	22.71	11.36%	2.27%
11	36	37.64	17.0	0.9380	0.8798	20.74	10.37%	2.07%
11	38	39.56	16.1	0.9452	0.8934	19.07	9.54%	1.91%
11	40	41.48	15.4	0.9496	0.9017	17.51	8.75%	1.75%
11	42	43.42	14.7	0.9538	0.9097	16.12	8.06%	1.61%
11	44	45.35	14.0	0.9580	0.9178	14.91	7.45%	1.49%
11	46	47.30	13.4	0.9616	0.9247	13.81	6.91%	1.38%
11	48	49.24	12.9	0.9645	0.9303	12.82	6.41%	1.28%
11	50	51.20	12.4	0.9670	0.9351	11.92	5.96%	1.19%
11	52	53.15	11.9	0.9696	0.9401	11.12	5.56%	1.11%
11	54	55.11	11.5	0.9720	0.9448	10.39	5.20%	1.04%
11	56	57.07	11.1	0.9744	0.9495	9.74	4.87%	0.97%
11	58	59.03	10.7	0.9765	0.9536	9.14	4.57%	0.91%
11	60	61.00	10.4	0.9780	0.9565	8.59	4.29%	0.86%
11	62	62.97	10.1	0.9795	0.9594	8.08	4.04%	0.81%
11	64	64.94	9.8	0.9804	0.9612	7.62	3.81%	0.76%
11	66	66.91	9.5	0.9810	0.9624	7.18	3.59%	0.72%
11	68	68.88	9.2	0.9816	0.9635	6.78	3.39%	0.68%

Figure 3- NIER Summation

Multi Station Tabulation						
					Max	84.8%
Dist. M	KBIG	KHHT	KISS-FM	KOST		Total
2	0.38%	0.38%	0.38%	0.06%		1.2%
4	4.40%	4.40%	4.40%	0.66%		13.9%
6	14.16%	14.16%	14.16%	2.12%		44.6%
8	21.07%	21.07%	21.07%	3.16%		66.4%
10	25.21%	25.21%	25.21%	3.78%		79.4%
12	26.92%	26.92%	26.92%	4.04%		84.8%
14	26.83%	26.83%	26.83%	4.03%		84.5%
16	25.69%	25.69%	25.69%	3.85%		80.9%
18	24.07%	24.07%	24.07%	3.61%		75.8%
20	22.15%	22.15%	22.15%	3.32%		69.8%
22	20.20%	20.20%	20.20%	3.03%		63.6%
24	18.42%	18.42%	18.42%	2.76%		58.0%
26	16.64%	16.64%	16.64%	2.50%		52.4%
28	15.10%	15.10%	15.10%	2.26%		47.6%
30	13.70%	13.70%	13.70%	2.06%		43.2%
32	12.43%	12.43%	12.43%	1.86%		39.2%
34	11.36%	11.36%	11.36%	1.70%		35.8%
36	10.37%	10.37%	10.37%	1.56%		32.7%
38	9.54%	9.54%	9.54%	1.43%		30.0%
40	8.75%	8.75%	8.75%	1.31%		27.6%
42	8.06%	8.06%	8.06%	1.21%		25.4%
44	7.45%	7.45%	7.45%	1.12%		23.5%
46	6.91%	6.91%	6.91%	1.04%		21.8%
48	6.41%	6.41%	6.41%	0.96%		20.2%
50	5.96%	5.96%	5.96%	0.89%		18.8%
52	5.56%	5.56%	5.56%	0.83%		17.5%
54	5.20%	5.20%	5.20%	0.78%		16.4%
56	4.87%	4.87%	4.87%	0.73%		15.3%
58	4.57%	4.57%	4.57%	0.69%		14.4%
60	4.29%	4.29%	4.29%	0.64%		13.5%
62	4.04%	4.04%	4.04%	0.61%		12.7%
64	3.81%	3.81%	3.81%	0.57%		12.0%
66	3.59%	3.59%	3.59%	0.54%		11.3%
68	3.39%	3.39%	3.39%	0.51%		10.7%
70	3.21%	3.21%	3.21%	0.48%		10.1%
72	3.04%	3.04%	3.04%	0.46%		9.6%
74	2.89%	2.89%	2.89%	0.43%		9.1%
76	2.75%	2.75%	2.75%	0.41%		8.6%
78	2.61%	2.61%	2.61%	0.39%		8.2%
80	2.49%	2.49%	2.49%	0.37%		7.8%
82	2.37%	2.37%	2.37%	0.36%		7.5%
84	2.27%	2.27%	2.27%	0.34%		7.1%
86	2.17%	2.17%	2.17%	0.32%		6.8%
88	2.07%	2.07%	2.07%	0.31%		6.5%
90	1.98%	1.98%	1.98%	0.30%		6.2%
92	1.90%	1.90%	1.90%	0.29%		6.0%
94	1.82%	1.82%	1.82%	0.27%		5.7%
96	1.75%	1.75%	1.75%	0.26%		5.5%
98	1.68%	1.68%	1.68%	0.25%		5.3%
100	1.62%	1.62%	1.62%	0.24%		5.1%
102	1.56%	1.56%	1.56%	0.23%		4.9%