

Minor Change Application

K277DH

Facility ID No: 151282

This exhibit is for minor modification of K277DH Facility ID No. 151282 to specify a change in antenna location of approximately 120 meters.

Antenna Location

The proposed antenna is to be mounted on an existing tower identified by ASR# 1014527, at 20 meters above ground level. The directional pattern as proposed is given in **Figure 0**. Below as **Figure 1** is an overlap and spacing study, which considers the given antenna pattern, from which it can be determined that this proposal is within the protected contour of **second** adjacent channel full-power stations KLQV, and translator station KSON.

73.1204 Compliance

We will demonstrate that a lack of population and/or other factors allow this proposal to be compliant with 74.1204. With respect to domestic facilities, the process commonly called “Living Way”, allows for the use of D/U Analysis, also known as “signal strength ratio methodology” to be utilized to demonstrate compliance. In this instant case the facility to be protected is on a second or third adjacent channel and is to be afforded protection from signals 40 dB stronger than the protected facility presents near the proposed translator antenna location.

Concerning KLQV; In **Figure 1** the distance between KLQV and this proposal is shown as 250 Meters. The predicted signal of KLQV at this distance is a predicted 133.6 dBu. This proposal can only cause predicted interference to the protected facility by having a signal exceeding 173.6 dBu (133.6 + 40) in a habitable and populated area. Utilizing the line of sight equation and out of an abundance of caution NOT considering the proposed antenna vertical pattern as shown in **Figure 2**, it has been determined that a 173.6 dBu signal developed by 250 watts, as proposed, will not leave the proposed antenna aperture and thus cannot reach any habitable space.

Concerning KSON; In **Figure 1** the distance between KSON and this proposal is shown as 100 Meters – effectively co-located. The predicted signal of KSON at this distance is a predicted 141.0 dBu. As this is a signal of greater value than that of KLQV, protection of the stronger KSON signal is assured by the protection of the weaker KLQV signal.

Thus the provisions of the rules section concerning prohibited overlap with domestic facilities has been satisfied as it has been demonstrated that no actual interference will occur due to a lack of population and other factors as applied in this instant proposal.

Compliance with the United Mexican States FM Broadcast Agreement

This proposal is compliant with the agreement between the government of the United States of American and the Government of the United Mexican States relating to FM Broadcasting. The map in **Figure 4** demonstrates that this proposal is within 125 km of the common border, does not produce a protected contour exceeding 8.7 km in the direction of Mexico, and that the 34 dBu “interfering contour” does not exceed 32 km. Further, **Figure 5** is a table demonstrating that over the arc of interest between 100° True and 163° True the proposal will not emit in excess of 50 watts in the direction of Mexico.

Fill-in and Minor Change Status

This proposal is to serve as a fill-in translator for station KLSD, Facility ID No 34452, San Diego, California. The map of **Figure 3** demonstrates that the proposed 60 dBu contour is contained within the 2 mV/M signal and a 25 mile radius of the KLSD facility.

RF Fields Statement

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 a 2-antenna array of Scala “CL-FMV” antenna mounted 20 meters above ground. Due to the complexity of the surrounding RF environment, applicant will take power density measurements prior to filing of an application for license, demonstrating compliance with 73 CFR 1.1306.

Figure 0. Antenna Pattern

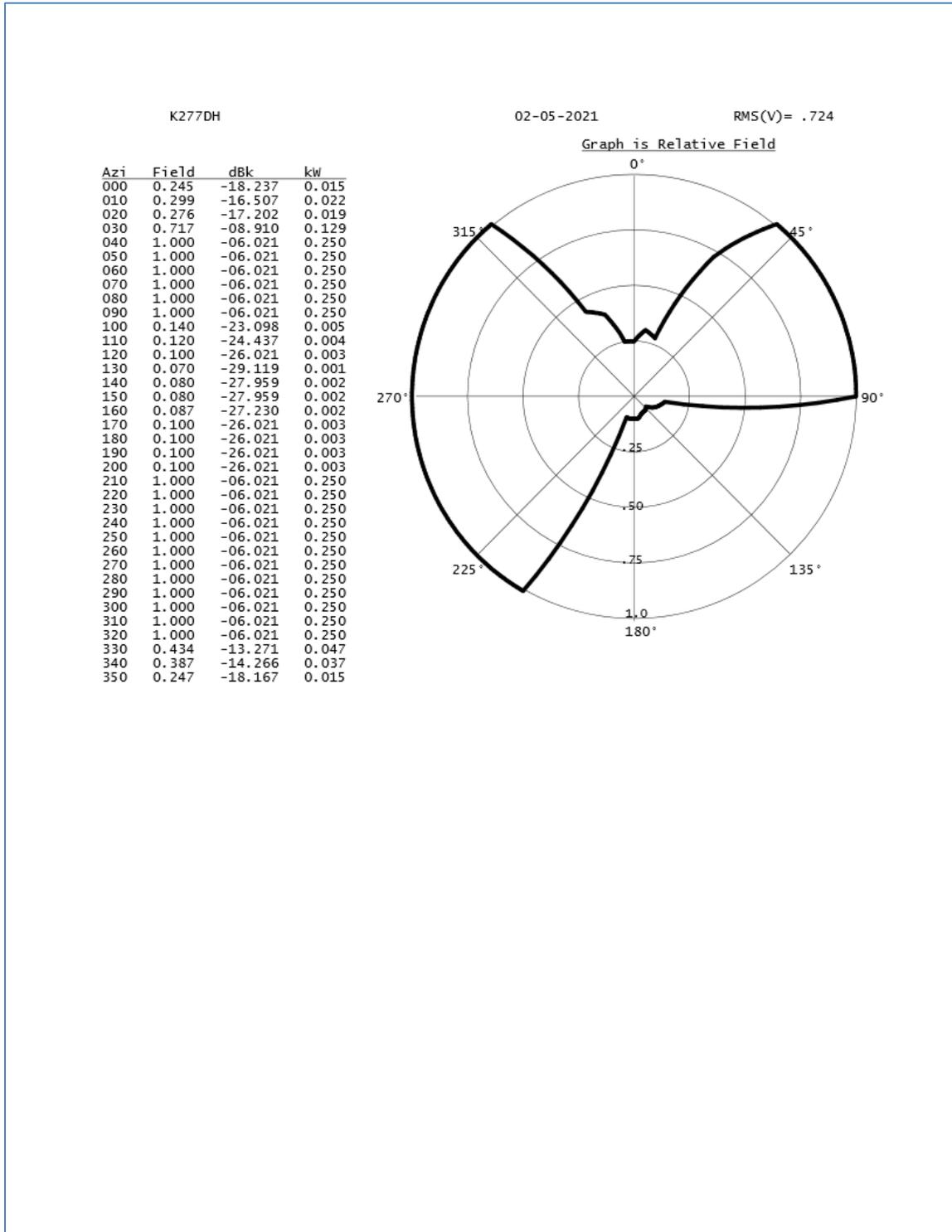


Figure 1. Overlap and Spacing Study

K277DH Existing Pattern, new TL at ASR 1014527 Corrected AGL
Ihm Licenses, LLC

REFERENCE CH# 277D - 103.3 MHz, Pwr= 0.25 kW DA, HAAT= 211.0 M, COR= 253 M DISPLAY DATES
32 50 17.00 N. Average Protected F(50-50)= 19.02 km DATA 02-05-21
117 15 00.00 W. Standard Directional SEARCH 02-08-21

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap)	*OUT* (in km)
275B	KLQV	LIC_CN CA		30.1 210.1	0.25 BLH20080207API	32 50 24.10 117 14 55.10	30.000 193	6.8 265	71.1	-20.8*	-72.4*
279B	KSDN	LIC_CN CA		13.3 193.3	0.10 BLH20070409AAQ	32 50 20.20 117 14 59.10	26.500 210	6.8 289	71.8	-16.2*	-72.3*
277A	KTMQ	LIC_CN CA		4.9 185.0	71.73 BLH20010109AAA	33 28 51.10 117 11 01.10	1.250 218	97.0 611	35.3	-37.9*	1.6
277D	K277DH	LIC_DVN CA		358.8 178.8	0.12 BLFT20171221ACH	32 50 21.10 117 15 00.10	0.250	271	---Reference---		
277B	XHENAFM	USE_BN		152.0 332.4	123.48	31 51 20.29 116 38 12.03	50.000 150	134.3 278	65.0	-20.4*	32.9
277B	XHENAFM	LIC_DHN BN		152.0 332.4	123.48	31 51 20.30 116 38 12.00	50.000 150	134.3 278	65.0	-20.4*	32.9
277D	K277DG	LIC_DHN CA		143.2 323.3	19.95 BLFT20161205ABI	32 41 39.20 117 07 20.10	0.015	1.9 139	0.3	12.7	2.4
277B	XHVGFM	USE_BN		96.8 277.8	169.40	32 38 37.21 115 27 11.97	50.000 150	138.9 158	65.0	15.2	38.8
278B	KOST	LIC_NCN CA		334.1 153.6	171.92 BLH20170207AAC	34 13 35.30 118 04 00.90	11.500 949	131.3 1852	105.1	20.5	26.8
277B	XHVGFM	LIC_DHN BN		96.8 277.8	169.39	32 38 37.20 115 27 12.00	14.600 56	95.6 64	65.0	58.4	38.8
276A	KDLE	LIC_ZCN CA		328.7 148.4	100.01 BLH20041215AAA	33 36 19.10 117 48 41.20	0.300 294	21.7 374	12.5	58.9	51.7
278A	KPST-FM	LIC_DCN CA		51.8 232.5	148.17 BLH20120521BEN	33 39 23.10 115 59 32.00	1.900 179	70.2 559	46.2	61.9	78.4
277B	KRUZ	LIC_CN CA		307.5 126.0	313.05 BLH19990513KB	34 31 28.90 119 57 35.50	105.000 905	225.5 1238	123.1	67.0	108.4
276A	KQPS	LIC_CN CA		33.3 213.8	137.16 BMLH20130613AAE	33 51 58.50 116 26 01.60	1.900 180	50.7 486	34.0	70.3	78.5
274B	KIIS-FM	LIC_DCN CA		334.1 153.7	171.94 BLH5361	34 13 36.00 118 04 00.20	8.000 902	5.5 1802	98.8	146.3	72.3
278A	AU9166247	USE_CA		46.6 227.2	137.02 RM11056	33 40 49.08 116 10 26.03	6.000 100	47.6 211	30.7	73.7	80.1
224A	KYLA	LIC_ZCN CA		328.7 148.4	99.88 BMLE20121211ABJ	33 36 20.10 117 48 38.20	0.690 293	0.0 376	0.0	9.5R	90.4M
276A	KDLD	LIC_CN CA		321.6 140.9	167.73 BLH20041227ABE	34 00 53.00 118 22 53.30	3.700 82	41.3 163	27.0	105.7	108.6
280A	KHTI	LIC_CN CA		3.7 183.7	155.54 BLH19960502KA	34 14 03.00 117 08 28.10	0.180 548	0.9 1988	41.4	140.3	113.7

Terrain database is NGDC 30 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= East Zone 2A, Co to 3rd adjacer
All separation margins (if shown) include rounding.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"=" affixed to 'IN' or 'OUT' values = site inside restricted contour.
« = Station meets FCC minimum distance spacing for its class.

Figure 2. Signal Level

ERP	0.25	kw	
Calculated IX contour	173.6	dbu	
			Distance to interfering contour meters (hypot)
Relative Field	Downward ERP		
1	0.2500		0.2317

Figure 3. Fill-in Contour and Distance Map

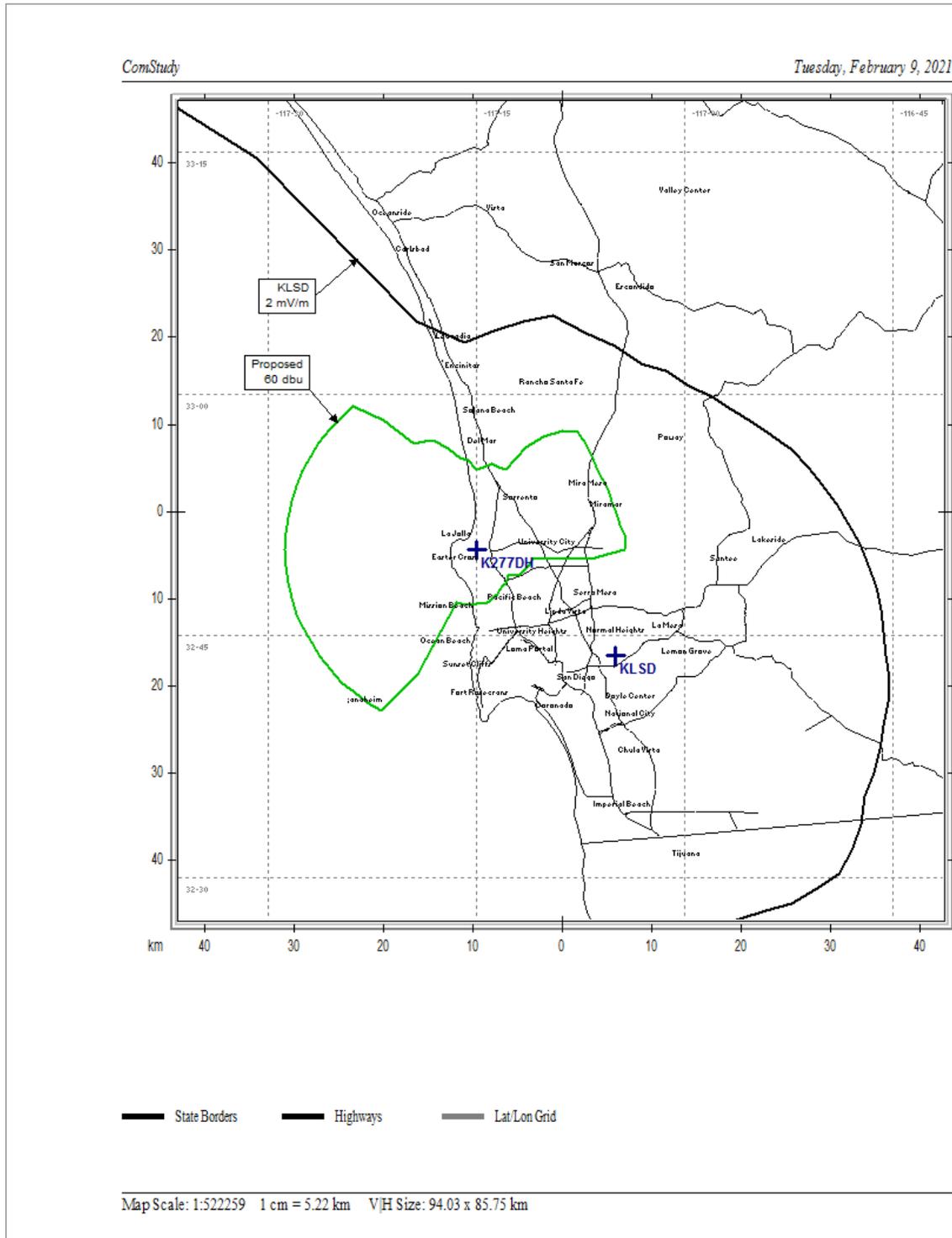


Figure 4. Map of Compliance to the United Mexican States

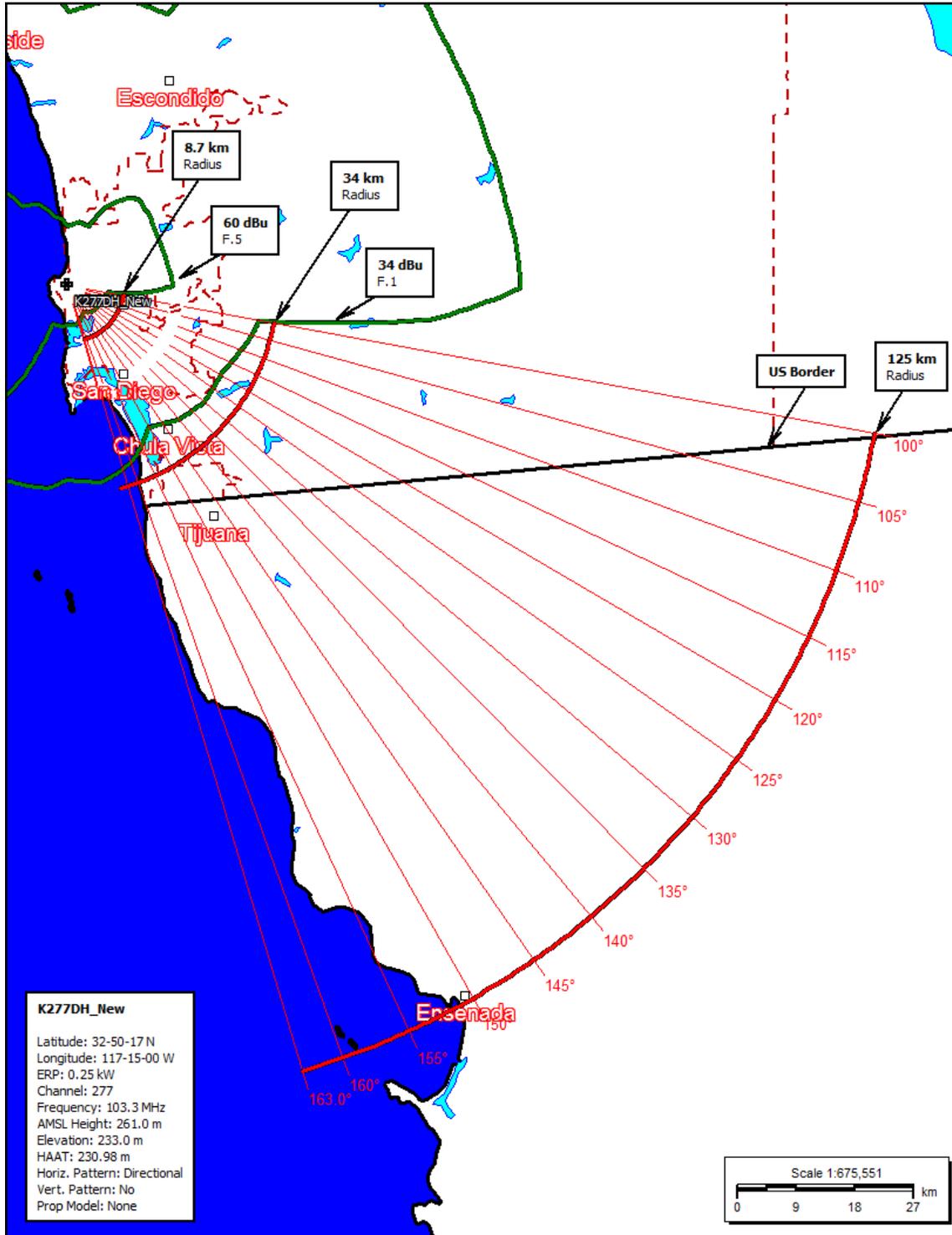


Figure 5. Table of Compliance to the United Mexican States

Azi	Rel	dBk	kW	dB	Azi	Rel	dBk	kW	dB
0	0.245	-18.24	0.015	-12.22	180	0.100	-26.02	0.003	-20.00
10	0.299	-16.51	0.022	-10.49	190	0.100	-26.02	0.003	-20.00
20	0.276	-17.20	0.019	-11.18	200	0.100	-26.02	0.003	-20.00
30	0.717	-8.91	0.129	-2.89	210	1.000	-6.02	0.250	-0.00
40	1.000	-6.02	0.250	0.00	220	1.000	-6.02	0.250	0.00
50	1.000	-6.02	0.250	0.00	230	1.000	-6.02	0.250	0.00
60	1.000	-6.02	0.250	0.00	240	1.000	-6.02	0.250	0.00
70	1.000	-6.02	0.250	0.00	250	1.000	-6.02	0.250	0.00
80	1.000	-6.02	0.250	0.00	260	1.000	-6.02	0.250	0.00
90	1.000	-6.02	0.250	0.00	270	1.000	-6.02	0.250	0.00
100	0.140	-23.10	0.005	-17.08	280	1.000	-6.02	0.250	0.00
110	0.120	-24.44	0.004	-18.42	290	1.000	-6.02	0.250	0.00
120	0.100	-26.02	0.003	-20.00	300	1.000	-6.02	0.250	0.00
130	0.100	-26.02	0.003	-20.00	310	1.000	-6.02	0.250	0.00
140	0.090	-26.94	0.002	-20.92	320	1.000	-6.02	0.250	0.00
150	0.070	-29.12	0.001	-23.10	330	0.434	-13.27	0.047	-7.25
160	0.087	-27.23	0.002	-21.21	340	0.387	-14.27	0.037	-8.25
170	0.100	-26.02	0.003	-20.00	350	0.247	-18.17	0.015	-12.15

Rotation Angle = 0