



**FCC ID: BMTTTHDU250
Confirmation # EA181977**

FCC TYPE ACCEPTANCE REPORT

**For the
EMCEE TTHDU-250 UHF Transmitter**

21 July, 2009

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TABLE OF CONTENTS

1.0 INTRODUCTION.....	3
2.0 CERTIFICATION OF DATA	3
3.0 TEST EQUIPMENT.....	3
4.0 MEASUREMENTS.....	4
4.1 RF POWER MEASUREMENTS	4
4.1.1 Digital RF Power Measurement	4
4.2 MODULATION CHARACTERISTICS.....	5
4.2.1 Digital Modulation Characteristics.....	5
4.2.1.2 DEMODULATED DIGITAL PERFORMANCE CHARACTERISTICS	9
4.3 OCCUPIED BANDWIDTH	10
4.3.1 Modulation Channel Occupancy	10
4.3.2 Occupied Bandwidth in Digital Operation	11
4.4 SPURIOUS EMISSIONS AT ANTENNA TERMINALS.....	12
4.4.1 Spurious Emissions Tests with Digital Modulation.....	13
4.4.2 Protection to Radio Navigation Satellite Services	81
4.5 FREQUENCY STABILITY	82
4.6 FIELD STRENGTH OF SPURIOUS EMISSIONS	83
5.0 SUMMARY	84

1.0 INTRODUCTION

This test report contains the required information for type acceptance of the EMCEE Model TTHDU-250 UHF Transmitter. The data presented was taken from laboratory tests performed on a production transmitter system designed to transmit in the frequency range of 470-806 MHz at up to 300.0 Watts average power in digital mode and utilized for operation in the UHF bands under FCC Rule Part 74. The transmitter system design and test data reflect operation and performance pursuant to the rules as prescribed in Part 74 of the Commission's Rules.

2.0 CERTIFICATION OF DATA

I certify that the testing procedures and the accumulated test data contained in this report have been personally supervised by me, and that the test results are true and correct to the best of my knowledge and belief.



James A. Yard, CEO
EMCEE Communications

3.0 TEST EQUIPMENT

The following is a list of major test equipment which was used in testing the LPU-300 transmitter.

Manufacturer	Model #	Serial Number	Description
HP/Agilent	89431A	US39312280	VSA RF Section
HP/Agilent	89441A	US39313875	Vector Signal Analyzer
HP/Agilent	8753ES	US39171643	Vector Network Analyzer
HP/Agilent	E4433B	US38080113	Signal Generator
HP/Agilent	E4402B	US39010125	Spectrum Analyzer
HP/Agilent	E7405A	US39440172	EMC/Spectrum Analyzer
Tektronix	VM-700A	B030893	Video Measurement Test Set
Tektronix	1450-1	B011060	Precision Demodulator
Tektronix	TSG95	B028349	Video Generator
EMCEE	LPSMF-100	32499	Output Band Pass Filter
Narda	3020A	20dB	Directional Coupler
Narda Microwave	768-20	20dB	Attenuator
HP/Agilent	8903B	3514A15172	Audio Analyzer

4.0 MEASUREMENTS

4.1 RF POWER MEASUREMENTS

4.1.1 Digital RF Power Measurement

Figure 4-3 shows the test equipment setup for the digital RF power measurements.

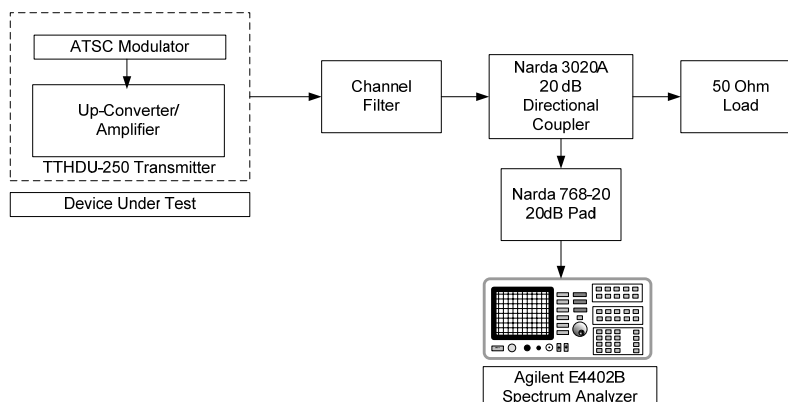


Figure 4-1: Test Setup for Digital Power Measurement

Method of Measurement:

The TTHDU-250, modulated with a ATSC compliant 8VSB modulator, was adjusted to obtain a 300 Watt average channel power (54.75 dBm) measurement on the spectrum analyzer at the output of the mask filter. The metering circuit was adjusted to obtain a 100% reading on the forward power meter. With the transmitter properly configured for digital operation and the average power set to 300 Watts, all required tests were performed and the digital operation test data recorded in the following sections of the test report. The results of the digital power measurement test are shown in Figure 4-2.

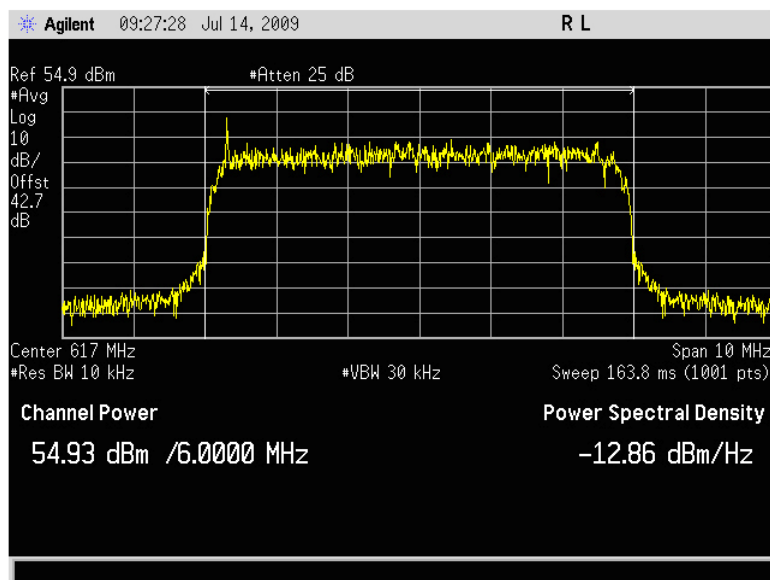


Figure 4-2: Digital Power Measurement Test

4.2 MODULATION CHARACTERISTICS

4.2.1 Digital Modulation Characteristics

4.2.1.1 Description of 8-VSB Digital Modulation

8-VSB is the RF modulation format utilized by the ATSC digital television standard to transmit digital bits over the airways to the home consumer. Since any terrestrial TV system must overcome numerous channel impairments such as ghosts, noise bursts, signal fades, and interference in order to reach the home viewer, the selection of the right RF modulation format is critical. Being one of the most crucial aspects of the DTV system, the 8-VSB format has received a great deal of attention and scrutiny recently. There are two fundamental technologies when describing the complete DTV system: 8-VSB and MPEG-2. 8-VSB is the RF modulation format and MPEG-2 is the video compression/packetization format. To convert high definition video into a form suitable for over-the-air broadcast, according to ATSC standards, two stages of processing are needed: MPEG-2 encoding and 8-VSB modulation. Accordingly, two major pieces of equipment are required: an MPEG-2 encoder and an 8-VSB modulator.

The MPEG-2 encoder accepts the baseband digital video and performs bit rate compression using the techniques of discrete cosine transform, run length coding and bi-directional motion prediction. The MPEG-2 encoder then multiplexes this compressed video information together with pre-coded Dolby Digital (AC-3) audio and any ancillary data that will be transmitted. The result is a stream of highly compressed MPEG-2 data packets with a data rate of only 19.39 Mbps. This 19.39 Mbps data stream is known as the DTV Transport Layer. It is output from the MPEG-2 encoder and input to the 8-VSB modulator.

The 8-VSB modulator receives the incoming MPEG-2 data packets and utilizes its own internal circuits to synchronize to the incoming signal. Before any signal processing can occur, the 8-VSB modulator must correctly identify the start and end points of each MPEG-2 data packet. This is accomplished using the MPEG-2 sync byte. MPEG-2 packets are 188 bytes in length with the first byte in each packet always being the sync byte. The MPEG-2 sync byte is then discarded; it will ultimately be replaced by the ATSC segment sync in a later stage of processing.

With the exception of the segment and field syncs, the 8-VSB bit stream must have a completely random, noise-like nature. This is because the transmitted signal frequency response must have a flat noise-like spectrum in order to use the allotted channel space with maximum efficiency. If the data contained repetitious patterns, the recurring rhythm of these patterns would cause the RF energy content of the output signal to "lump" together at certain discrete points of the frequency spectrum and thereby leaving gaps in other parts. This implies that certain parts of the six MHz channel would be over-used while other parts would be under-used. Also, the large concentrations of RF energy at certain modulating frequencies would be more likely to create discernible beat patterns in an NTSC television set when DTV-to-NTSC interference is experienced.

The modulator also incorporates a data randomizer and Reed-Solomon Encoder. In the data randomizer, each byte value is changed according to known pattern of pseudo-

random number generation. This process is reversed in the receiver in order to recover the proper data values. Reed-Solomon encoding is a Forward Error Correction (FEC) scheme applied to the incoming data stream. Forward Error Correction is a general term used to describe a variety of techniques that can be used to correct bit errors that occur during transmission. Atmospheric noise, multipath propagation, signal fades, and transmitter non-linearities may all create received bit errors. Forward Error Correction can detect and correct these errors, up to a reasonable limit. The Reed-Solomon encoder takes all 187 bytes of an incoming MPEG-2 data packet (the packet sync byte has been removed) and mathematically manipulates them as a block to create a sort of "digital sketch" of the block contents. This "sketch" occupies 20 additional bytes which are then tacked onto the end of the original 187 byte packet. These 20 bytes are known as Reed-Solomon parity bytes. The receiver will compare the received 187 byte block to the 20 parity bytes in order to determine the validity of the recovered data. If errors are detected, the receiver can use the parity "digital sketch" to locate the exact location of the errors, modify the disrupted bytes, and reconstruct the original information. Up to 10 byte errors per packet can be corrected this way. If too many byte errors are present in a given packet, the parity "digital sketch" no longer resembles the received data block, the validity of the data can no longer be confirmed, and the entire MPEG-2 packet must be discarded.

The modulator also employs data interleaving and Trellis coding. The data interleaver disturbs the sequential order of the data stream and disperses the data throughout time (over a range of about 4.5 mSec through the use of memory buffers) in order to minimize the transmitted signal's sensitivity to burst-type interference. If a noise burst creates a hole in the signal during propagation and several milliseconds of data are lost, many different segments lose very few bits instead of one data segment losing all of its bits. This is known as time diversity. Data interleaving is done according to a known pattern; the process is reversed in the receiver in order to recover the proper data order.

Trellis coding is another form of Forward Error Correction. Unlike Reed-Solomon coding, which treats the entire MPEG-2 packet simultaneously as a block, trellis coding is an evolving code that tracks the progressing stream of bits as it develops through time. Accordingly, Reed-Solomon coding is known as a form of block code, while trellis coding is a convolutional code. For trellis coding, each 8-bit byte is split up into a stream of four, 2-bit words. In the trellis coder, each 2-bit word that arrives is compared to the past history of previous 2-bit words. A 3-bit binary code is mathematically generated to describe the transition from the previous 2-bit word to the current one. These 3-bit codes are substituted for the original 2-bit words and transmitted over-the-air as the eight level symbols of 8-VSB ($2^3 = 8$ combinations or levels). For every two bits that go into the trellis coder, three bits come out. For this reason, the trellis coder in the 8-VSB system is said to be a 2/3 rate coder. The trellis decoder in the receiver uses the received 3-bit transition codes to reconstruct the evolution of the data stream from one 2-bit word to the next. In this way, the trellis coder follows a "trail" as the signal moves from one word to the next through time. The power of trellis coding lies in its ability to track a signal's history through time and discard potentially faulty information (errors) based on a signal's past and future behavior. This is somewhat like following one person's footsteps through the snow on a busy sidewalk. When the trail becomes confused with other tracks (i.e., errors are received), the trellis decoder has the ability to follow several possible "trails" for a few footprints and make a decision as to which prints are the correct ones.

The next step in the signal processing chain is the insertion of the various "helper" signals that aid the 8-VSB receiver in accurately locating and demodulating the transmitted RF signal. These are the ATSC pilot, segment sync, and frame sync. The pilot and sync signals are inserted after the data randomization, Reed-Solomon coding, data interleaving and trellis coding stages so as not to destroy the fixed time and amplitude relationships that these signals must possess in order to be effective. Recovering a clock signal in order to decode a received waveform has always been a tricky proposition in digital RF communications. If we derive the receiver clock from the recovered data, we have a sort of "chicken and egg" dilemma. The data must be sampled by the receiver clock in order to be accurately recovered. The receiver clock itself must be generated from accurately recovered data. The resulting clocking system quickly "crashes" when the noise or interference level rises to a point that significant data errors are received.

8-VSB employs sync pulses and residual carriers that allows the receiver to "lock" onto the incoming signal and begin decoding, even in the presence of heavy ghosting and high noise levels. The first "helper" signal is the ATSC pilot. Just before modulation, a small DC shift is applied to the 8-VSB baseband signal (which was previously centered about zero volts with no DC component). This causes a small residual carrier to appear at the zero frequency point of the resulting modulated spectrum. This is the ATSC pilot. This gives the RF PLL circuits in the 8-VSB receiver something to lock onto that is independent of the data being transmitted. Although similar in nature to the visual carrier in an NTSC signal, the ATSC pilot is much smaller than the NTSC visual carrier, consuming only 0.3 dB or 7 percent of the transmitted power.

The other "helper" signals are the ATSC segment and frame syncs. An ATSC data segment is comprised of the 187 bytes of the original MPEG-2 data packet plus the 20 parity bytes added by the Reed-Solomon encoder. After trellis coding, our 207 byte segment has been stretched out into a stream of 828 8-level symbols. The ATSC segment sync is a repetitive four symbol (one byte) pulse that is added to the front of the data segment and replaces the missing first byte (packet sync byte) of the original MPEG-2 data packet. Correlation circuits in the 8-VSB receiver home in on the repetitive nature of the segment sync, which is easily contrasted against the background of completely random data. The recovered sync signal is used to generate the receiver clock and recover the data. Because of their repetitive nature and extended duration, the segment syncs are easy for the receiver to spot. The result is that accurate clock recovery can be had at noise and interference levels well above those where accurate data recovery is impossible (up to 0 dB SNR: data recovery requires at least 15 dB SNR). This allows for quick data recovery during channel changes and other transient conditions. An ATSC data segment is roughly analogous to an NTSC line; ATSC segment sync is somewhat like NTSC horizontal sync. Their duration and frequencies of repetition are, of course, completely different. Each ATSC segment sync lasts 0.37 msec.; NTSC sync lasts 4.7 msec. An ATSC data segment lasts 77.3 msec.; an NTSC line 63.6 msec. A careful inspection of the numbers involved reveals that the ATSC segment sync is somewhat more "slender" when compared to its NTSC counterpart. This is done to maximize the active data payload and minimize the time committed to sync "overhead." Three hundred and thirteen consecutive data segments are combined to make a data frame. The ATSC frame sync is an entire data segment that is repeated once per frame (24.2 msec.) and is roughly analogous to the NTSC vertical interval. (FYI: The NTSC vertical interval occurs once every 16.7 msec.). The ATSC frame sync has a known data symbol pattern and is used to "train" the adaptive ghost-canceling

equalizer in the receiver. This is done by comparing the received signal with errors against the known reference of the frame sync. The resulting error vectors are used to adjust the taps of the receiver ghost canceling equalizer. Like the segment sync, the repetitive nature of the frame sync, and correlation techniques used in the 8-VSB receiver, allow frame sync recovery at very high noise and interference levels (up to 0 dB SNR). The robustness of the segment and frame sync signals permits accurate clock recovery and ghost-canceling operation in the 8-VSB receiver--even when the active data is completely corrupted by the presence of strong multipath distortion. This allows the adaptive ghost-canceling equalizer "to keep its head" and "hunt around in the mud" in order to recover a useable signal--even during the presence of strong signal echoes.

The eight-level baseband signal, with syncs and DC pilot shift added, is then amplitude modulated on an intermediate frequency (IF) carrier which is then fed to the transmitter up-converter. With traditional amplitude modulation, we generate a double sideband RF spectrum about the carrier frequency, with each RF sideband being the mirror image of the other. This represents redundant information and one sideband can be discarded without any net information loss. This strategy was employed to some degree in creating the vestigial lower sideband in traditional NTSC analog television. In 8-VSB, this concept is taken to greater extremes with the lower RF sideband being almost completely removed. (Note: 8-VSB = 8 level-- Vestigial Side Band.)

(There are several different ways to implement the AM modulation, VSB filtering, and pilot insertion stages of the 8-VSB exciter, some of which are completely digital and involve direct digital synthesis of the required waveforms. All methods aim to achieve the same results at the exciter output. This particular arrangement was chosen in the interest of providing a clear, easily understandable, signal flow diagram.)

As a result of the data overhead added to the signal in the form of forward error correction coding and sync insertion, the data rate has gone from 19.39 Mbps at the exciter input to 32.28 Mbps at the output of the trellis coder. Since 3 bits are transmitted in each symbol of the 8-level 8-VSB constellation, the resulting symbol rate is $32\text{Mb}/3=10.76$ Million symbols/sec. By virtue of the Nyquist Theorem, we know that 10.76 Million symbols/sec can be transmitted in a VSB signal with a minimum frequency bandwidth of $1/2 \times 10.76 \text{ MHz} = 5.38 \text{ MHz}$. Since we are allotted a channel bandwidth of 6 MHz, we can relax the steepness of our VSB filter skirts slightly and still fall within the 6 MHz channel. This permissible excess bandwidth is 11.5 percent for the ATSC 8-VSB system. That is, $5.38 \text{ MHz (minimum bandwidth per Nyquist)} + 620 \text{ kHz (11.5 percent excess bandwidth)} = 6.00 \text{ MHz (channel bandwidth used)}$. This virtual elimination of the lower sideband, along with the narrowband filtering of the upper sideband, creates very significant changes in the RF waveform that is ultimately transmitted.

Following is a description of the 8-VSB Signal Constellation. In 8-VSB, the digital information is transmitted exclusively in the amplitude of the RF envelope and not in the phase. This is unlike other digital modulation formats such as 8-VSB, where each point in the signal constellation is a certain vector combination of carrier amplitude and phase. This is not possible in 8-VSB since the carrier phase is no longer an independent variable, as it is lost in suppressing the vestigial lower sideband. The resulting 8-VSB signal constellation is shown in figure 4-11.

The eight modulation levels are recovered by sampling an in-phase (I channel) synchronous detector. Nothing would be gained by sampling a quadrature channel detector since no useful information is contained in this channel. The signal constellation diagram is therefore a series eight vertical lines that correspond to the eight transmitted amplitude levels. By eliminating any dependence on the Q-channel, the 8-VSB receiver need only process the I channel, thereby cutting in half the number of DSP circuits required in certain stages. The result is greater simplicity, and ultimately cost savings, in the receiver design.

After the Nyquist VSB filter, the 8-VSB IF signal is then up-converted in the transmitter up-converter, by traditional PLL oscillator-mixer-filter circuits, to the assigned channel frequency in the UHF band. The on-channel RF output of the up-converter is then supplied to the power amplifiers for amplification to the specified output power. A transmitter output filter (mask filter), filters the transmitter output signal and suppresses any spurious out-of-band signals caused by transmitter nonlinearities.

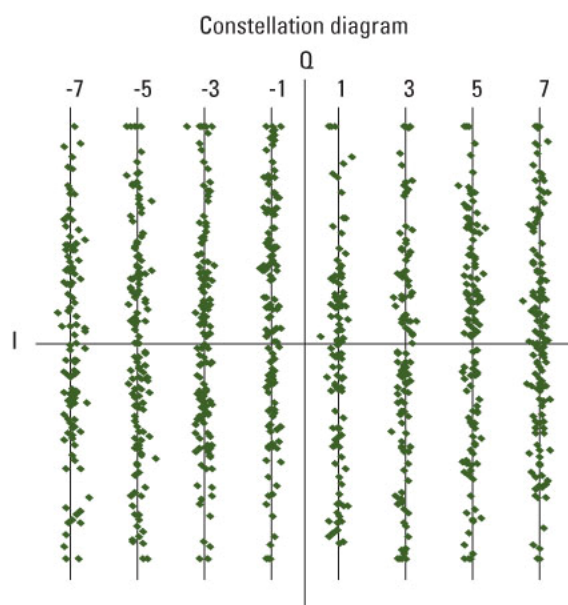


Figure 4-3: 8-VSB Constellation Diagram

4.2.1.2 Demodulated Digital Performance Characteristics

Method of Measurement:

Using the test setup shown in Figure 4-12, tests were performed to measure the performance linearity of the transmitter in digital mode. The results of the test are shown in the vector signal analyzer plot as shown in Figure 4-13. The tests revealed that the transmitter operates with very low distortion (<2% RMS EVM) and with a very high SNR, >35dB.

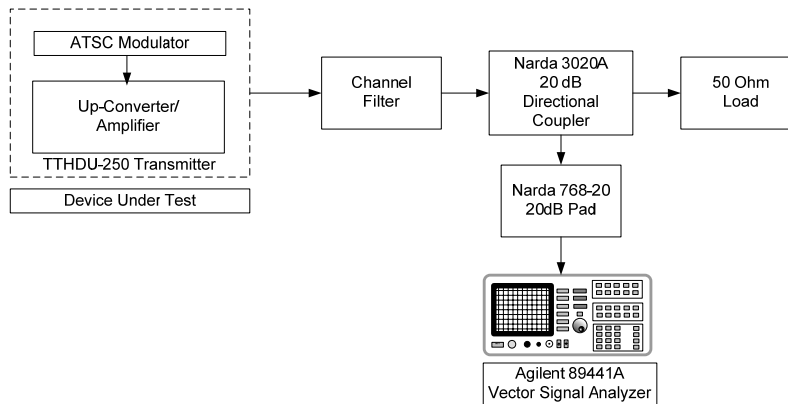


Figure 4-4: Digital Demodulation Test Setup

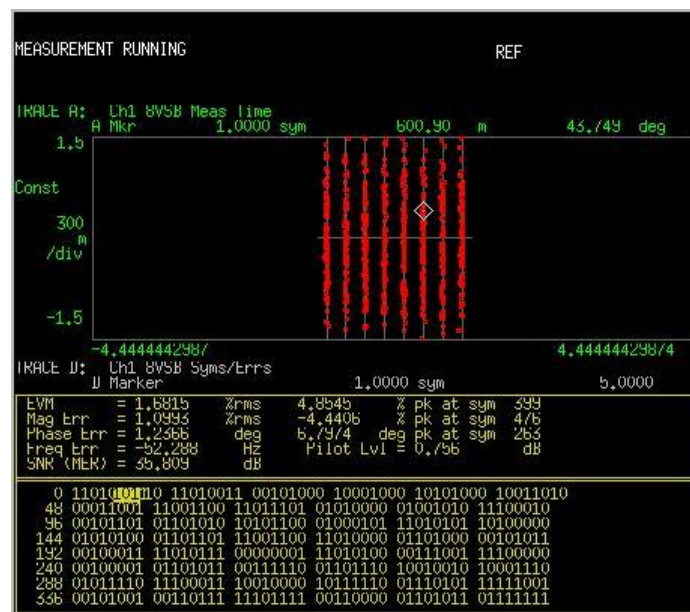


Figure 4-13: Digital Demodulation Test Results

4.3 OCCUPIED BANDWIDTH

4.3.1 Modulation Channel Occupancy

4.3.1.1 Digital Operation vs. Analog (NTSC) Operation:

The digital modulation occupancy of 8-VSB is 5.38 MHz measured at the -3 dB roll-off points. This is shown below as compared to a standard NTSC vestigial sideband signal in a standard 6 MHz channel. The 8-VSB signal employs a suppressed carrier modulation with a uniform power spectral density as opposed to the usual system M/N (NTSC) signal with separate analog visual, chroma, and aural carriers. A comparison between Analog and Digital occupied bandwidth is shown in Figure 4-5.

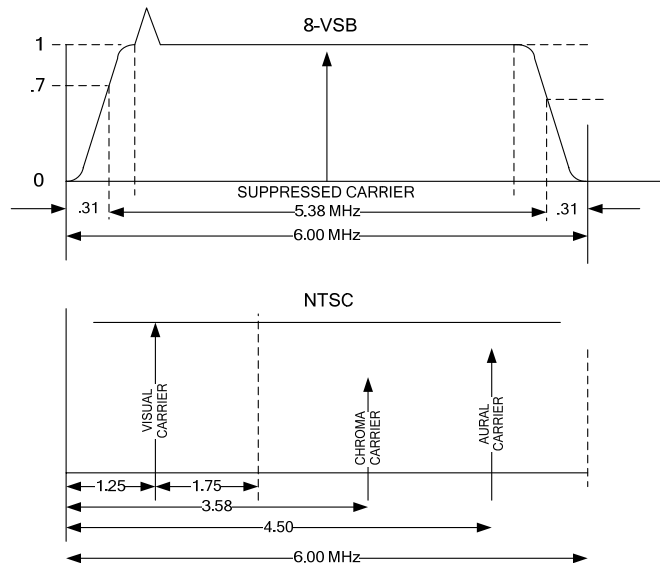


Figure 4-5: Digital & Analog modulation occupancy

4.3.2 Occupied Bandwidth in Digital Operation

Using the test setup in Figure 4-1, the spectrum analyzer was used to capture the occupied bandwidth spectrum of the transmitter in digital operation. The results of the test are shown in Figure 4-6.

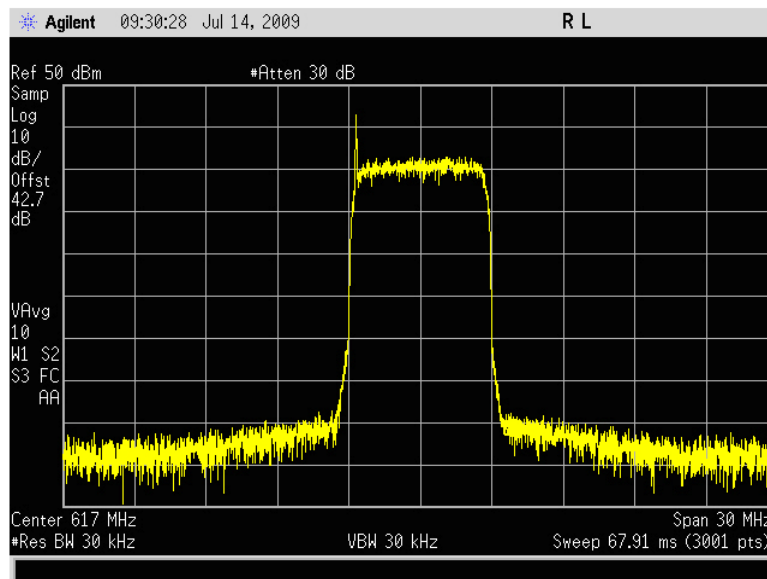


Figure 4-6: Occupied Bandwidth Plot in Digital Operation

4.4 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Method of Measurement:

Using the test setup in Figure 4-1, the spectrum outside the desired channel was observed and the data was recorded on all spurious above the -60 dB noise floor of the spectrum analyzer as shown in Figure 4-7. The spurious emissions were observed on the analyzer at a span of 2 GHz. With the average in band signal of the desired channel of 617 MHz set as the reference, the spurious emissions were observed. The measured data is shown in the table 4-1 for 500 Watts average output power.

Table 4-1 Products above the -60dB Analyzer Noise Floor

FREQUENCY (MHz)	SOURCE	PEAK LEVEL (dB)
617	Reference Channel	0dB Reference
10	10 MHz Reference	None Observed
44	IF Frequency	None Observed
422	1 st LO	None Observed
466	1 st Conversion Output	None Observed
1688	2 nd LO	None Observed
2154	2 nd Conversion Output	None Observed
2771	3 rd LO	None Observed
1234	2 nd Harmonic	None Observed
1851	3 rd Harmonic	None Observed
2468	4 th Harmonic	None Observed
3085	5 th Harmonic	None Observed
3702	6 th Harmonic	None Observed
4319	7 th Harmonic	None Observed
4936	8 th Harmonic	None Observed
5553	9 th Harmonic	None Observed
6170	10 th Harmonic	None Observed

Using the test setup in Figure 4-1, the spectrum analyzer was used to capture the spurious output spectrum of the transmitter in digital operation. The results of the test are shown in Figure 4-15.

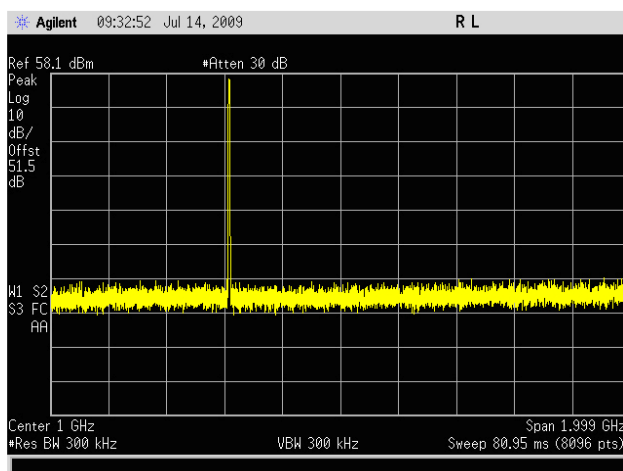


Figure 4-7: Spurious Emissions Spectrum Analyzer Plot

4.4.1 Spurious Emissions Tests with Digital Modulation

Part §74.794 of the Commission's Rules states:

§74.794 (a)(1) An applicant for a digital LPTV or TV translator station construction permit shall specify that the station will be constructed to confine out-of-channel emissions within one of the following emission masks: simple or stringent.

§74.794 (a)(2) The power level of emissions on frequencies outside the authorized channel of operation must be attenuated no less than following amounts below the average transmitted power within the authorized 6 MHz channel. In the mask specifications listed in § 74.794(a)(2) and (a)(3), A is the attenuation in dB and Δf is the frequency difference in MHz from the edge of the channel.

(i) Simple mask. At the channel edges, emissions must be attenuated no less than 46 dB. More than 6 MHz from the channel edges, emissions must be attenuated no less than 71 dB. At any frequency between 0 and 6 MHz from the channel edges, emissions must be attenuated no less than the value determined by the following formula: $A \text{ (dB)} = 46 + (\Delta f^2 / 1.44)$

(ii) Stringent mask. In the first 500 kHz from the channel edges, emissions must be attenuated no less than 47 dB. More than 3 MHz from the channel edges, emissions must be attenuated no less than 76 dB. At any frequency between 0.5 and 3 MHz from the channel edges, emissions must be attenuated no less than the value determined by the following formula: $A \text{ (dB)} = 47 + 11.5 (\Delta f - 0.5)$

§74.794(a)(3) The attenuation values for the simple and stringent emission masks are based on a measurement bandwidth of 500 kHz. Other measurement bandwidths may be used and converted to the reference 500 kHz value by the following formula:

$$A \text{ (dB)} = A_{\text{alternate}} + 10 \log (BW_{\text{alternate}} / 500)$$

where A(dB) is the measured or calculated attenuation value for the reference 500 kHz bandwidth, and $A_{\text{alternate}}$ is the measured or calculated attenuation for a bandwidth $BW_{\text{alternate}}$. Emissions include sidebands, spurious emissions and radio harmonics. Attenuation is to be measured at the output terminals of the transmitter (including any filters that may be employed). In the event of interference caused to any service by out-of-channel emissions, greater attenuation may be required.

(b) In addition to meeting the emission attenuation requirements of the simple or stringent mask (including attenuation of radio frequency harmonics), digital low power TV and TV translator stations authorized to operate on TV channels 22–24, (518–536 MHz), 32–36 (578–608 MHz), 38 (614–620 MHz), and 65–69 (776–806 MHz) must provide specific “out of band” protection to Radio Navigation Satellite Services in the bands: L5 (1164–1215 MHz); L2 (1215–1240 MHz) and L1 (1559–1610 MHz).

(1) An FCC-certificated transmitter specifically certified for use on one or more of the above channels must include filtering with an attenuation of not less than 85 dB in the GPS bands, which will have the effect of reducing harmonics in the GPS bands from what is produced by the digital transmitter, and this attenuation must be demonstrated as part of the certification application to the Commission.

Method of Measurement:

With regard to measurements specified by FCC §74.794(*et al.*), a 10 KHz resolution measurement bandwidth has been chosen so as to provide for the most accurate measurement of the out of band emissions. Frequencies out to 12 MHz above and below the desired channel were measured. The amount of out-of-band power in 10 KHz increments relative to the transmitter output power can be automatically measured by the channel power function of the 4402B Spectrum Analyzer integrated into a 10 KHz bandwidth. With an 8-VSB digital modulation, the out of band emissions were sampled at 10KHz increments inside and outside of the desired channel, and no emissions above either the simple or stringent emission masks relative to the average carrier power were observed.

The test setup in Figure 4-8 was used to obtain the measurements recorded into Table 4-4, Column 2.

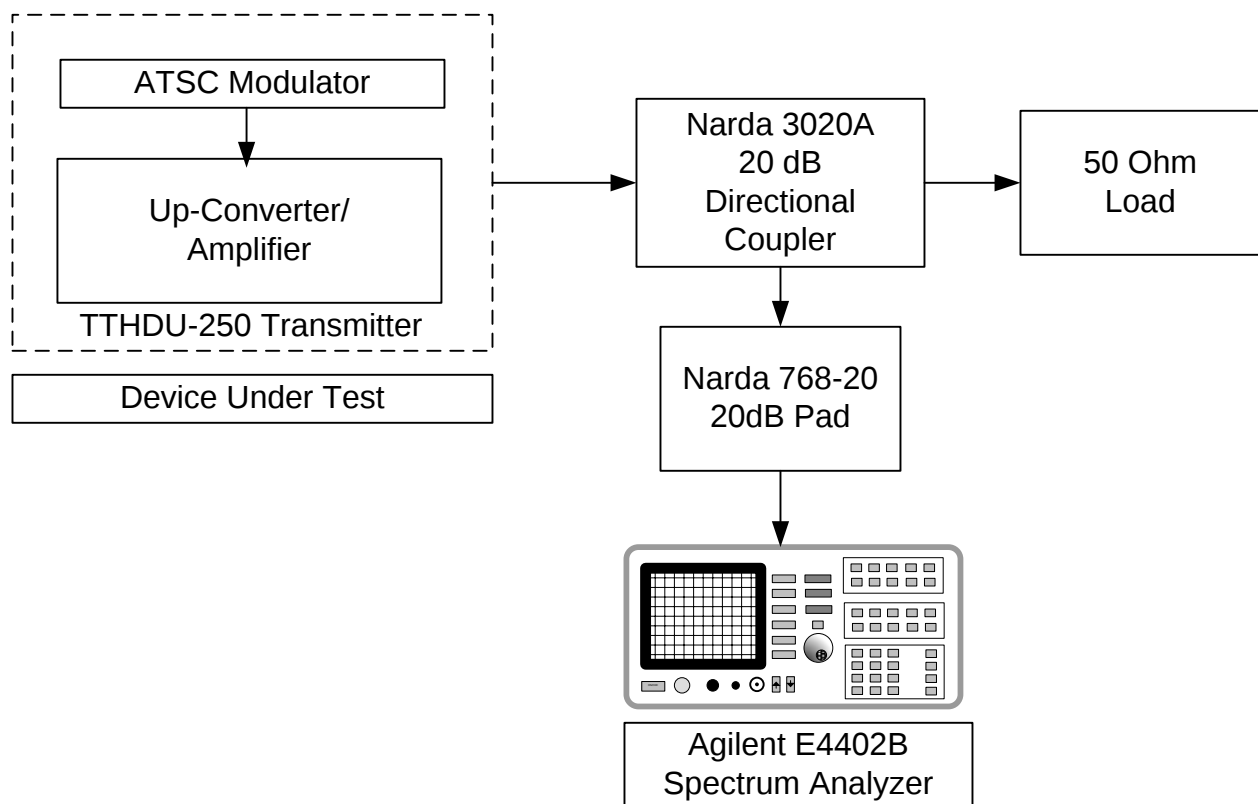


Figure 4-8: Spurious Emissions Measurement Setup

The performance of the mask (output) filter was also measured and the resultant data was recorded into Table 4-2, Column 3, for its attenuation vs. frequency. The test equipment setup for measuring the output filter is shown in Figure 4-9.

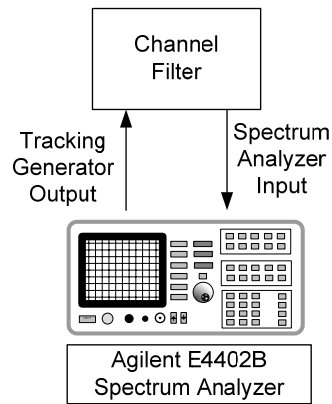


Figure 4-9: Output Filter Measurement Setup

Column 4 of Table 4-2 is the combined spectral power output of the transmitter and mask filter relative to the average in-band power of 54.75dBm as measured in a 10 KHz RBW. Column 5 is the spectral output of the combination of the transmitter and filter corrected to a 500 KHz resolution bandwidth (per §74.794(a)(3)). Columns 6 and 7 of Table 4-4 are the output simple and stringent mask boundaries as defined by §74.794 (a)(2) (i) and (ii) respectively.

When the data in Columns 5, 6, and 7 are plotted, the transmitter spectral performance may be observed (see Figure 4-13) against the simple mask (green line) and stringent mask (red line). It is apparent that in no case does the transmitter exceed either output mask.

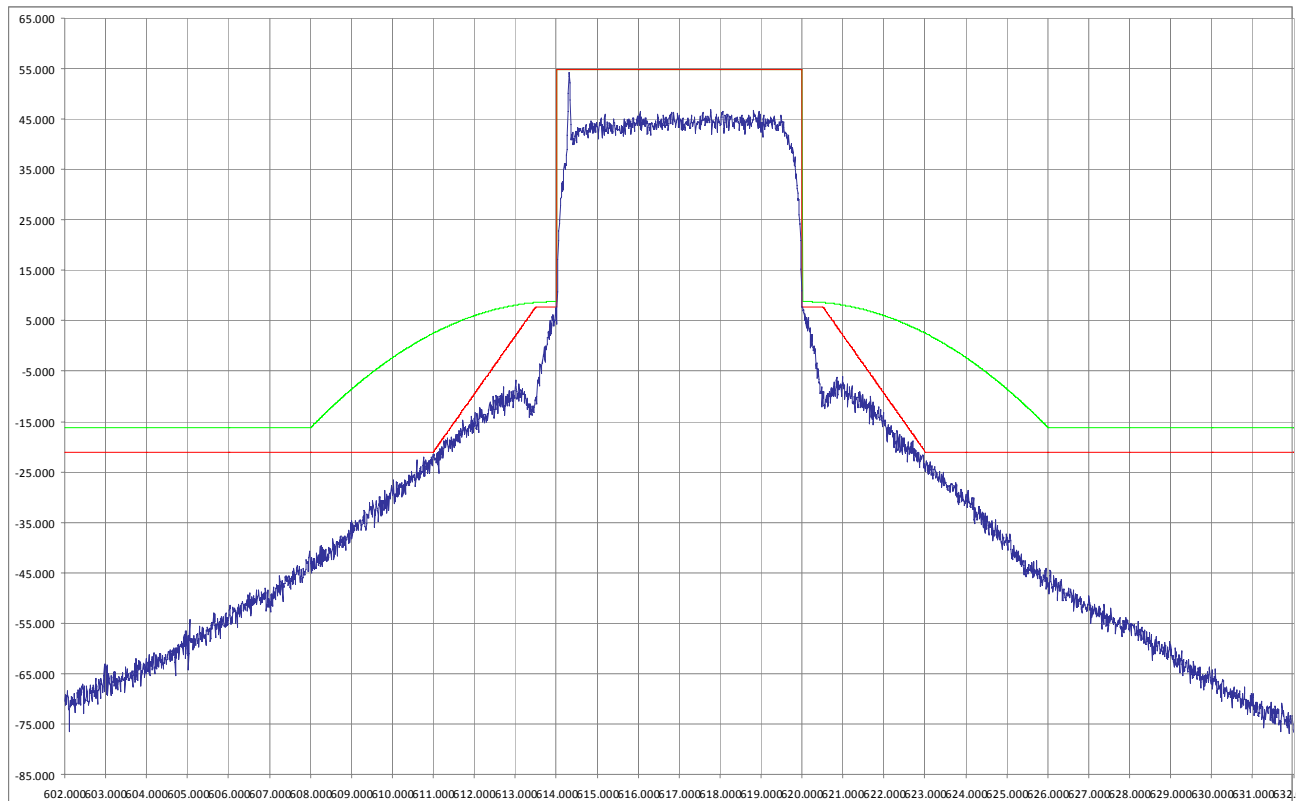


Figure 4-10: Spectral Output Compared To Mask Boundaries

Table 4-2: Spurious Emissions for Digital Operations

Measurement Center Frequency (MHz)	Tx Output No Filter	Band-Pass Filter Response	Combined Transmitter+ Filter Output	Tx Output Corrected to 500KHz Res BW	Simple Mask Boundary	Stringent Mask Boundary
602.000	-23.710	-58.983	-82.693	-70.483	-16.212	-21.212
602.010	-22.406	-59.004	-81.410	-69.200	-16.212	-21.212
602.020	-24.519	-58.885	-83.404	-71.194	-16.212	-21.212
602.030	-22.572	-59.068	-81.640	-69.430	-16.212	-21.212
602.040	-23.432	-58.749	-82.181	-69.971	-16.212	-21.212
602.050	-24.472	-58.737	-83.209	-70.999	-16.212	-21.212
602.060	-21.781	-58.829	-80.610	-68.400	-16.212	-21.212
602.070	-22.387	-58.998	-81.385	-69.175	-16.212	-21.212
602.080	-23.213	-58.721	-81.934	-69.724	-16.212	-21.212
602.090	-25.409	-58.872	-84.281	-72.071	-16.212	-21.212
602.100	-25.679	-58.828	-84.507	-72.297	-16.212	-21.212
602.110	-29.836	-58.962	-88.798	-76.588	-16.212	-21.212
602.120	-25.565	-58.76	-84.325	-72.115	-16.212	-21.212
602.130	-23.629	-58.904	-82.533	-70.323	-16.212	-21.212
602.140	-25.300	-58.621	-83.921	-71.711	-16.212	-21.212
602.150	-24.806	-58.57	-83.376	-71.166	-16.212	-21.212
602.160	-23.152	-58.675	-81.827	-69.617	-16.212	-21.212
602.170	-23.498	-58.467	-81.965	-69.755	-16.212	-21.212
602.180	-24.662	-58.563	-83.225	-71.015	-16.212	-21.212
602.190	-23.651	-58.388	-82.039	-69.829	-16.212	-21.212
602.200	-24.767	-58.535	-83.302	-71.092	-16.212	-21.212
602.210	-23.847	-58.469	-82.316	-70.106	-16.212	-21.212
602.220	-25.245	-58.384	-83.629	-71.419	-16.212	-21.212
602.230	-22.784	-58.497	-81.281	-69.071	-16.212	-21.212
602.240	-26.473	-58.423	-84.896	-72.686	-16.212	-21.212
602.250	-23.855	-58.474	-82.329	-70.119	-16.212	-21.212
602.260	-24.413	-58.263	-82.676	-70.466	-16.212	-21.212
602.270	-24.729	-58.543	-83.272	-71.062	-16.212	-21.212
602.280	-24.972	-58.405	-83.377	-71.167	-16.212	-21.212
602.290	-24.511	-58.481	-82.992	-70.782	-16.212	-21.212
602.300	-22.540	-58.412	-80.952	-68.742	-16.212	-21.212
602.310	-23.387	-58.45	-81.837	-69.627	-16.212	-21.212
602.320	-23.516	-58.379	-81.895	-69.685	-16.212	-21.212
602.330	-22.117	-58.337	-80.454	-68.244	-16.212	-21.212
602.340	-25.379	-57.966	-83.345	-71.135	-16.212	-21.212
602.350	-23.366	-58.271	-81.637	-69.427	-16.212	-21.212
602.360	-21.865	-58.113	-79.978	-67.768	-16.212	-21.212
602.370	-23.668	-58.18	-81.848	-69.638	-16.212	-21.212
602.380	-25.313	-58.195	-83.508	-71.298	-16.212	-21.212
602.390	-22.436	-58.087	-80.523	-68.313	-16.212	-21.212
602.400	-23.512	-58.12	-81.632	-69.422	-16.212	-21.212
602.410	-22.780	-58.178	-80.958	-68.748	-16.212	-21.212

602.420	-21.803	-57.945	-79.748	-67.538	-16.212	-21.212
602.430	-22.101	-58.094	-80.195	-67.985	-16.212	-21.212
602.440	-21.357	-57.907	-79.264	-67.054	-16.212	-21.212
602.450	-22.405	-58.082	-80.487	-68.277	-16.212	-21.212
602.460	-27.104	-58.056	-85.160	-72.950	-16.212	-21.212
602.470	-24.476	-58.023	-82.499	-70.289	-16.212	-21.212
602.480	-21.655	-58.103	-79.758	-67.548	-16.212	-21.212
602.490	-25.142	-57.912	-83.054	-70.844	-16.212	-21.212
602.500	-24.623	-57.902	-82.525	-70.315	-16.212	-21.212
602.510	-24.693	-57.86	-82.553	-70.343	-16.212	-21.212
602.520	-24.045	-57.769	-81.814	-69.604	-16.212	-21.212
602.530	-22.094	-57.623	-79.717	-67.507	-16.212	-21.212
602.540	-22.340	-57.782	-80.122	-67.912	-16.212	-21.212
602.550	-22.934	-57.793	-80.727	-68.517	-16.212	-21.212
602.560	-24.785	-57.991	-82.776	-70.566	-16.212	-21.212
602.570	-24.896	-57.843	-82.739	-70.529	-16.212	-21.212
602.580	-25.749	-57.707	-83.456	-71.246	-16.212	-21.212
602.590	-24.909	-57.718	-82.627	-70.417	-16.212	-21.212
602.600	-22.797	-57.683	-80.480	-68.270	-16.212	-21.212
602.610	-22.244	-57.755	-79.999	-67.789	-16.212	-21.212
602.620	-21.955	-57.524	-79.479	-67.269	-16.212	-21.212
602.630	-23.529	-57.744	-81.273	-69.063	-16.212	-21.212
602.640	-22.973	-57.566	-80.539	-68.329	-16.212	-21.212
602.650	-24.143	-57.51	-81.653	-69.443	-16.212	-21.212
602.660	-25.057	-57.606	-82.663	-70.453	-16.212	-21.212
602.670	-22.382	-57.59	-79.972	-67.762	-16.212	-21.212
602.680	-22.920	-57.457	-80.377	-68.167	-16.212	-21.212
602.690	-22.195	-57.308	-79.503	-67.293	-16.212	-21.212
602.700	-23.585	-57.409	-80.994	-68.784	-16.212	-21.212
602.710	-23.349	-57.317	-80.666	-68.456	-16.212	-21.212
602.720	-24.438	-57.238	-81.676	-69.466	-16.212	-21.212
602.730	-23.679	-57.376	-81.055	-68.845	-16.212	-21.212
602.740	-22.973	-57.207	-80.180	-67.970	-16.212	-21.212
602.750	-20.785	-57.307	-78.092	-65.882	-16.212	-21.212
602.760	-24.743	-57.463	-82.206	-69.996	-16.212	-21.212
602.770	-22.046	-57.318	-79.364	-67.154	-16.212	-21.212
602.780	-22.493	-57.28	-79.773	-67.563	-16.212	-21.212
602.790	-23.898	-57.237	-81.135	-68.925	-16.212	-21.212
602.800	-26.086	-57.09	-83.176	-70.966	-16.212	-21.212
602.810	-23.375	-57.245	-80.620	-68.410	-16.212	-21.212
602.820	-23.231	-57.148	-80.379	-68.169	-16.212	-21.212
602.830	-21.301	-57.148	-78.449	-66.239	-16.212	-21.212
602.840	-21.783	-57.051	-78.834	-66.624	-16.212	-21.212
602.850	-22.990	-57.086	-80.076	-67.866	-16.212	-21.212
602.860	-21.947	-57.141	-79.088	-66.878	-16.212	-21.212
602.870	-25.315	-56.876	-82.191	-69.981	-16.212	-21.212

602.880	-21.288	-56.888	-78.176	-65.966	-16.212	-21.212
602.890	-22.023	-57.066	-79.089	-66.879	-16.212	-21.212
602.900	-21.956	-57.103	-79.059	-66.849	-16.212	-21.212
602.910	-22.371	-56.972	-79.343	-67.133	-16.212	-21.212
602.920	-22.733	-56.965	-79.698	-67.488	-16.212	-21.212
602.930	-24.293	-56.757	-81.050	-68.840	-16.212	-21.212
602.940	-21.720	-56.843	-78.563	-66.353	-16.212	-21.212
602.950	-20.817	-56.882	-77.699	-65.489	-16.212	-21.212
602.960	-18.508	-56.912	-75.420	-63.210	-16.212	-21.212
602.970	-24.230	-56.632	-80.862	-68.652	-16.212	-21.212
602.980	-21.054	-56.724	-77.778	-65.568	-16.212	-21.212
602.990	-18.913	-56.79	-75.703	-63.493	-16.212	-21.212
603.000	-18.446	-56.823	-75.269	-63.059	-16.212	-21.212
603.010	-19.218	-56.764	-75.982	-63.772	-16.212	-21.212
603.020	-24.759	-56.649	-81.408	-69.198	-16.212	-21.212
603.030	-18.952	-56.501	-75.453	-63.243	-16.212	-21.212
603.040	-22.418	-56.642	-79.060	-66.850	-16.212	-21.212
603.050	-24.858	-56.62	-81.478	-69.268	-16.212	-21.212
603.060	-22.264	-56.607	-78.871	-66.661	-16.212	-21.212
603.070	-20.674	-56.564	-77.238	-65.028	-16.212	-21.212
603.080	-21.693	-56.479	-78.172	-65.962	-16.212	-21.212
603.090	-22.564	-56.501	-79.065	-66.855	-16.212	-21.212
603.100	-23.007	-56.396	-79.403	-67.193	-16.212	-21.212
603.110	-22.873	-56.524	-79.397	-67.187	-16.212	-21.212
603.120	-25.196	-56.35	-81.546	-69.336	-16.212	-21.212
603.130	-22.900	-56.417	-79.317	-67.107	-16.212	-21.212
603.140	-21.203	-56.407	-77.610	-65.400	-16.212	-21.212
603.150	-24.597	-56.535	-81.132	-68.922	-16.212	-21.212
603.160	-22.268	-56.445	-78.713	-66.503	-16.212	-21.212
603.170	-22.605	-56.357	-78.962	-66.752	-16.212	-21.212
603.180	-21.618	-56.302	-77.920	-65.710	-16.212	-21.212
603.190	-20.652	-56.118	-76.770	-64.560	-16.212	-21.212
603.200	-22.301	-56.177	-78.478	-66.268	-16.212	-21.212
603.210	-23.673	-56.087	-79.760	-67.550	-16.212	-21.212
603.220	-22.588	-56.143	-78.731	-66.521	-16.212	-21.212
603.230	-20.749	-56.183	-76.932	-64.722	-16.212	-21.212
603.240	-24.303	-55.873	-80.176	-67.966	-16.212	-21.212
603.250	-22.792	-56.09	-78.882	-66.672	-16.212	-21.212
603.260	-23.741	-56.078	-79.819	-67.609	-16.212	-21.212
603.270	-22.658	-56.031	-78.689	-66.479	-16.212	-21.212
603.280	-22.192	-56.036	-78.228	-66.018	-16.212	-21.212
603.290	-24.532	-55.998	-80.530	-68.320	-16.212	-21.212
603.300	-23.319	-56.042	-79.361	-67.151	-16.212	-21.212
603.310	-22.540	-55.929	-78.469	-66.259	-16.212	-21.212
603.320	-21.751	-55.991	-77.742	-65.532	-16.212	-21.212
603.330	-22.341	-55.908	-78.249	-66.039	-16.212	-21.212

603.340	-22.152	-55.976	-78.128	-65.918	-16.212	-21.212
603.350	-22.818	-55.912	-78.730	-66.520	-16.212	-21.212
603.360	-25.039	-55.76	-80.799	-68.589	-16.212	-21.212
603.370	-22.852	-55.965	-78.817	-66.607	-16.212	-21.212
603.380	-22.024	-55.76	-77.784	-65.574	-16.212	-21.212
603.390	-23.027	-55.682	-78.709	-66.499	-16.212	-21.212
603.400	-21.179	-55.781	-76.960	-64.750	-16.212	-21.212
603.410	-21.391	-55.815	-77.206	-64.996	-16.212	-21.212
603.420	-22.566	-55.774	-78.340	-66.130	-16.212	-21.212
603.430	-22.683	-55.797	-78.480	-66.270	-16.212	-21.212
603.440	-22.753	-55.64	-78.393	-66.183	-16.212	-21.212
603.450	-22.436	-55.596	-78.032	-65.822	-16.212	-21.212
603.460	-25.450	-55.595	-81.045	-68.835	-16.212	-21.212
603.470	-23.215	-55.625	-78.840	-66.630	-16.212	-21.212
603.480	-20.185	-55.711	-75.896	-63.686	-16.212	-21.212
603.490	-22.756	-55.586	-78.342	-66.132	-16.212	-21.212
603.500	-22.745	-55.532	-78.277	-66.067	-16.212	-21.212
603.510	-22.324	-55.507	-77.831	-65.621	-16.212	-21.212
603.520	-20.744	-55.49	-76.234	-64.024	-16.212	-21.212
603.530	-22.610	-55.469	-78.079	-65.869	-16.212	-21.212
603.540	-21.665	-55.48	-77.145	-64.935	-16.212	-21.212
603.550	-22.761	-55.339	-78.100	-65.890	-16.212	-21.212
603.560	-23.251	-55.395	-78.646	-66.436	-16.212	-21.212
603.570	-22.768	-55.389	-78.157	-65.947	-16.212	-21.212
603.580	-23.311	-55.336	-78.647	-66.437	-16.212	-21.212
603.590	-22.551	-55.277	-77.828	-65.618	-16.212	-21.212
603.600	-21.792	-55.213	-77.005	-64.795	-16.212	-21.212
603.610	-22.602	-55.158	-77.760	-65.550	-16.212	-21.212
603.620	-22.281	-55.15	-77.431	-65.221	-16.212	-21.212
603.630	-23.025	-55.227	-78.252	-66.042	-16.212	-21.212
603.640	-21.548	-55.178	-76.726	-64.516	-16.212	-21.212
603.650	-23.088	-55.224	-78.312	-66.102	-16.212	-21.212
603.660	-24.698	-55.149	-79.847	-67.637	-16.212	-21.212
603.670	-22.593	-54.984	-77.577	-65.367	-16.212	-21.212
603.680	-22.059	-55.181	-77.240	-65.030	-16.212	-21.212
603.690	-21.706	-55.022	-76.728	-64.518	-16.212	-21.212
603.700	-23.319	-55.056	-78.375	-66.165	-16.212	-21.212
603.710	-20.180	-55.022	-75.202	-62.992	-16.212	-21.212
603.720	-23.938	-55.009	-78.947	-66.737	-16.212	-21.212
603.730	-22.541	-54.999	-77.540	-65.330	-16.212	-21.212
603.740	-19.316	-54.865	-74.181	-61.971	-16.212	-21.212
603.750	-22.040	-54.911	-76.951	-64.741	-16.212	-21.212
603.760	-23.547	-54.826	-78.373	-66.163	-16.212	-21.212
603.770	-23.520	-54.948	-78.468	-66.258	-16.212	-21.212
603.780	-20.813	-54.685	-75.498	-63.288	-16.212	-21.212
603.790	-21.303	-54.755	-76.058	-63.848	-16.212	-21.212

603.800	-21.731	-54.767	-76.498	-64.288	-16.212	-21.212
603.810	-19.936	-54.683	-74.619	-62.409	-16.212	-21.212
603.820	-21.595	-54.765	-76.360	-64.150	-16.212	-21.212
603.830	-20.146	-54.68	-74.826	-62.616	-16.212	-21.212
603.840	-20.736	-54.522	-75.258	-63.048	-16.212	-21.212
603.850	-22.657	-54.719	-77.376	-65.166	-16.212	-21.212
603.860	-25.101	-54.664	-79.765	-67.555	-16.212	-21.212
603.870	-21.979	-54.605	-76.584	-64.374	-16.212	-21.212
603.880	-22.956	-54.574	-77.530	-65.320	-16.212	-21.212
603.890	-22.426	-54.492	-76.918	-64.708	-16.212	-21.212
603.900	-22.173	-54.423	-76.596	-64.386	-16.212	-21.212
603.910	-20.702	-54.483	-75.185	-62.975	-16.212	-21.212
603.920	-21.765	-54.441	-76.206	-63.996	-16.212	-21.212
603.930	-21.090	-54.466	-75.556	-63.346	-16.212	-21.212
603.940	-20.904	-54.464	-75.368	-63.158	-16.212	-21.212
603.950	-23.697	-54.288	-77.985	-65.775	-16.212	-21.212
603.960	-22.317	-54.301	-76.618	-64.408	-16.212	-21.212
603.970	-22.132	-54.32	-76.452	-64.242	-16.212	-21.212
603.980	-20.095	-54.209	-74.304	-62.094	-16.212	-21.212
603.990	-22.894	-54.27	-77.164	-64.954	-16.212	-21.212
604.000	-22.186	-54.218	-76.404	-64.194	-16.212	-21.212
604.010	-20.746	-54.21	-74.956	-62.746	-16.212	-21.212
604.020	-22.408	-54.257	-76.665	-64.455	-16.212	-21.212
604.030	-22.539	-54.246	-76.785	-64.575	-16.212	-21.212
604.040	-22.371	-54.179	-76.550	-64.340	-16.212	-21.212
604.050	-19.245	-54.249	-73.494	-61.284	-16.212	-21.212
604.060	-21.310	-54.134	-75.444	-63.234	-16.212	-21.212
604.070	-23.347	-53.948	-77.295	-65.085	-16.212	-21.212
604.080	-23.529	-54.065	-77.594	-65.384	-16.212	-21.212
604.090	-20.799	-53.989	-74.788	-62.578	-16.212	-21.212
604.100	-21.132	-53.978	-75.110	-62.900	-16.212	-21.212
604.110	-21.835	-53.888	-75.723	-63.513	-16.212	-21.212
604.120	-20.546	-53.855	-74.401	-62.191	-16.212	-21.212
604.130	-19.954	-53.916	-73.870	-61.660	-16.212	-21.212
604.140	-22.610	-53.833	-76.443	-64.233	-16.212	-21.212
604.150	-21.063	-53.85	-74.913	-62.703	-16.212	-21.212
604.160	-20.843	-53.798	-74.641	-62.431	-16.212	-21.212
604.170	-19.266	-53.832	-73.098	-60.888	-16.212	-21.212
604.180	-22.282	-53.793	-76.075	-63.865	-16.212	-21.212
604.190	-23.321	-53.876	-77.197	-64.987	-16.212	-21.212
604.200	-22.116	-53.788	-75.904	-63.694	-16.212	-21.212
604.210	-22.460	-53.612	-76.072	-63.862	-16.212	-21.212
604.220	-19.920	-53.609	-73.529	-61.319	-16.212	-21.212
604.230	-21.740	-53.706	-75.446	-63.236	-16.212	-21.212
604.240	-22.670	-53.68	-76.350	-64.140	-16.212	-21.212
604.250	-20.306	-53.614	-73.920	-61.710	-16.212	-21.212

604.260	-21.716	-53.417	-75.133	-62.923	-16.212	-21.212
604.270	-22.277	-53.478	-75.755	-63.545	-16.212	-21.212
604.280	-20.456	-53.593	-74.049	-61.839	-16.212	-21.212
604.290	-22.502	-53.5	-76.002	-63.792	-16.212	-21.212
604.300	-21.579	-53.652	-75.231	-63.021	-16.212	-21.212
604.310	-19.808	-53.436	-73.244	-61.034	-16.212	-21.212
604.320	-20.682	-53.451	-74.133	-61.923	-16.212	-21.212
604.330	-21.779	-53.272	-75.051	-62.841	-16.212	-21.212
604.340	-19.854	-53.419	-73.273	-61.063	-16.212	-21.212
604.350	-22.791	-53.273	-76.064	-63.854	-16.212	-21.212
604.360	-21.199	-53.19	-74.389	-62.179	-16.212	-21.212
604.370	-22.503	-53.267	-75.770	-63.560	-16.212	-21.212
604.380	-21.659	-53.379	-75.038	-62.828	-16.212	-21.212
604.390	-20.479	-53.193	-73.672	-61.462	-16.212	-21.212
604.400	-23.104	-53.228	-76.332	-64.122	-16.212	-21.212
604.410	-22.034	-53.124	-75.158	-62.948	-16.212	-21.212
604.420	-22.024	-53.121	-75.145	-62.935	-16.212	-21.212
604.430	-20.975	-53.033	-74.008	-61.798	-16.212	-21.212
604.440	-21.389	-53.089	-74.478	-62.268	-16.212	-21.212
604.450	-21.280	-53.046	-74.326	-62.116	-16.212	-21.212
604.460	-20.405	-53.026	-73.431	-61.221	-16.212	-21.212
604.470	-22.350	-52.948	-75.298	-63.088	-16.212	-21.212
604.480	-21.632	-52.918	-74.550	-62.340	-16.212	-21.212
604.490	-21.444	-52.936	-74.380	-62.170	-16.212	-21.212
604.500	-20.688	-52.85	-73.538	-61.328	-16.212	-21.212
604.510	-21.175	-52.858	-74.033	-61.823	-16.212	-21.212
604.520	-19.980	-52.932	-72.912	-60.702	-16.212	-21.212
604.530	-20.040	-52.86	-72.900	-60.690	-16.212	-21.212
604.540	-20.105	-52.91	-73.015	-60.805	-16.212	-21.212
604.550	-21.503	-52.849	-74.352	-62.142	-16.212	-21.212
604.560	-19.687	-52.747	-72.434	-60.224	-16.212	-21.212
604.570	-22.012	-52.782	-74.794	-62.584	-16.212	-21.212
604.580	-20.424	-52.657	-73.081	-60.871	-16.212	-21.212
604.590	-20.115	-52.598	-72.713	-60.503	-16.212	-21.212
604.600	-21.638	-52.722	-74.360	-62.150	-16.212	-21.212
604.610	-20.486	-52.712	-73.198	-60.988	-16.212	-21.212
604.620	-22.065	-52.576	-74.641	-62.431	-16.212	-21.212
604.630	-20.228	-52.597	-72.825	-60.615	-16.212	-21.212
604.640	-19.946	-52.531	-72.477	-60.267	-16.212	-21.212
604.650	-21.260	-52.461	-73.721	-61.511	-16.212	-21.212
604.660	-20.482	-52.445	-72.927	-60.717	-16.212	-21.212
604.670	-19.695	-52.366	-72.061	-59.851	-16.212	-21.212
604.680	-21.506	-52.473	-73.979	-61.769	-16.212	-21.212
604.690	-22.547	-52.479	-75.026	-62.816	-16.212	-21.212
604.700	-25.236	-52.382	-77.618	-65.408	-16.212	-21.212
604.710	-19.963	-52.272	-72.235	-60.025	-16.212	-21.212

604.720	-21.761	-52.384	-74.145	-61.935	-16.212	-21.212
604.730	-19.981	-52.227	-72.208	-59.998	-16.212	-21.212
604.740	-20.433	-52.265	-72.698	-60.488	-16.212	-21.212
604.750	-20.911	-52.247	-73.158	-60.948	-16.212	-21.212
604.760	-19.273	-52.217	-71.490	-59.280	-16.212	-21.212
604.770	-19.134	-52.238	-71.372	-59.162	-16.212	-21.212
604.780	-22.255	-52.163	-74.418	-62.208	-16.212	-21.212
604.790	-20.122	-52.173	-72.295	-60.085	-16.212	-21.212
604.800	-20.084	-52.041	-72.125	-59.915	-16.212	-21.212
604.810	-19.858	-52.042	-71.900	-59.690	-16.212	-21.212
604.820	-19.441	-52.024	-71.465	-59.255	-16.212	-21.212
604.830	-19.609	-52.079	-71.688	-59.478	-16.212	-21.212
604.840	-19.882	-52.066	-71.948	-59.738	-16.212	-21.212
604.850	-18.796	-51.943	-70.739	-58.529	-16.212	-21.212
604.860	-20.217	-51.901	-72.118	-59.908	-16.212	-21.212
604.870	-19.210	-51.952	-71.162	-58.952	-16.212	-21.212
604.880	-20.117	-51.956	-72.073	-59.863	-16.212	-21.212
604.890	-21.629	-51.87	-73.499	-61.289	-16.212	-21.212
604.900	-18.216	-51.79	-70.006	-57.796	-16.212	-21.212
604.910	-17.660	-51.787	-69.447	-57.237	-16.212	-21.212
604.920	-19.930	-51.768	-71.698	-59.488	-16.212	-21.212
604.930	-17.351	-51.74	-69.091	-56.881	-16.212	-21.212
604.940	-16.984	-51.707	-68.691	-56.481	-16.212	-21.212
604.950	-22.534	-51.665	-74.199	-61.989	-16.212	-21.212
604.960	-18.144	-51.665	-69.809	-57.599	-16.212	-21.212
604.970	-17.128	-51.613	-68.741	-56.531	-16.212	-21.212
604.980	-20.685	-51.652	-72.337	-60.127	-16.212	-21.212
604.990	-21.634	-51.619	-73.253	-61.043	-16.212	-21.212
605.000	-22.121	-51.585	-73.706	-61.496	-16.212	-21.212
605.010	-18.184	-51.479	-69.663	-57.453	-16.212	-21.212
605.020	-24.949	-51.444	-76.393	-64.183	-16.212	-21.212
605.030	-21.821	-51.457	-73.278	-61.068	-16.212	-21.212
605.040	-18.621	-51.327	-69.948	-57.738	-16.212	-21.212
605.050	-15.135	-51.404	-66.539	-54.329	-16.212	-21.212
605.060	-19.272	-51.395	-70.667	-58.457	-16.212	-21.212
605.070	-19.670	-51.377	-71.047	-58.837	-16.212	-21.212
605.080	-18.886	-51.286	-70.172	-57.962	-16.212	-21.212
605.090	-19.325	-51.343	-70.668	-58.458	-16.212	-21.212
605.100	-19.742	-51.263	-71.005	-58.795	-16.212	-21.212
605.110	-19.068	-51.226	-70.294	-58.084	-16.212	-21.212
605.120	-19.438	-51.233	-70.671	-58.461	-16.212	-21.212
605.130	-21.315	-51.133	-72.448	-60.238	-16.212	-21.212
605.140	-18.478	-51.168	-69.646	-57.436	-16.212	-21.212
605.150	-19.573	-51.185	-70.758	-58.548	-16.212	-21.212
605.160	-21.008	-51.12	-72.128	-59.918	-16.212	-21.212
605.170	-20.010	-51.01	-71.020	-58.810	-16.212	-21.212

605.180	-19.312	-51.043	-70.355	-58.145	-16.212	-21.212
605.190	-20.660	-51.013	-71.673	-59.463	-16.212	-21.212
605.200	-20.156	-51.026	-71.182	-58.972	-16.212	-21.212
605.210	-18.559	-50.89	-69.449	-57.239	-16.212	-21.212
605.220	-18.555	-50.885	-69.440	-57.230	-16.212	-21.212
605.230	-18.598	-50.821	-69.419	-57.209	-16.212	-21.212
605.240	-18.483	-50.79	-69.273	-57.063	-16.212	-21.212
605.250	-20.305	-50.843	-71.148	-58.938	-16.212	-21.212
605.260	-19.453	-50.87	-70.323	-58.113	-16.212	-21.212
605.270	-21.146	-50.745	-71.891	-59.681	-16.212	-21.212
605.280	-17.087	-50.666	-67.753	-55.543	-16.212	-21.212
605.290	-18.540	-50.762	-69.302	-57.092	-16.212	-21.212
605.300	-18.424	-50.626	-69.050	-56.840	-16.212	-21.212
605.310	-19.866	-50.677	-70.543	-58.333	-16.212	-21.212
605.320	-18.991	-50.644	-69.635	-57.425	-16.212	-21.212
605.330	-20.182	-50.57	-70.752	-58.542	-16.212	-21.212
605.340	-19.143	-50.521	-69.664	-57.454	-16.212	-21.212
605.350	-17.520	-50.499	-68.019	-55.809	-16.212	-21.212
605.360	-20.278	-50.539	-70.817	-58.607	-16.212	-21.212
605.370	-18.670	-50.413	-69.083	-56.873	-16.212	-21.212
605.380	-17.742	-50.417	-68.159	-55.949	-16.212	-21.212
605.390	-18.374	-50.53	-68.904	-56.694	-16.212	-21.212
605.400	-19.915	-50.367	-70.282	-58.072	-16.212	-21.212
605.410	-19.323	-50.401	-69.724	-57.514	-16.212	-21.212
605.420	-19.283	-50.302	-69.585	-57.375	-16.212	-21.212
605.430	-19.366	-50.267	-69.633	-57.423	-16.212	-21.212
605.440	-21.375	-50.27	-71.645	-59.435	-16.212	-21.212
605.450	-20.764	-50.279	-71.043	-58.833	-16.212	-21.212
605.460	-18.483	-50.176	-68.659	-56.449	-16.212	-21.212
605.470	-18.554	-50.202	-68.756	-56.546	-16.212	-21.212
605.480	-17.801	-50.195	-67.996	-55.786	-16.212	-21.212
605.490	-18.344	-50.169	-68.513	-56.303	-16.212	-21.212
605.500	-19.535	-50.027	-69.562	-57.352	-16.212	-21.212
605.510	-18.365	-50.138	-68.503	-56.293	-16.212	-21.212
605.520	-18.699	-49.997	-68.696	-56.486	-16.212	-21.212
605.530	-18.439	-50	-68.439	-56.229	-16.212	-21.212
605.540	-18.163	-49.989	-68.152	-55.942	-16.212	-21.212
605.550	-20.830	-49.974	-70.804	-58.594	-16.212	-21.212
605.560	-20.467	-49.877	-70.344	-58.134	-16.212	-21.212
605.570	-17.807	-49.863	-67.670	-55.460	-16.212	-21.212
605.580	-17.218	-49.891	-67.109	-54.899	-16.212	-21.212
605.590	-18.583	-49.786	-68.369	-56.159	-16.212	-21.212
605.600	-17.298	-49.81	-67.108	-54.898	-16.212	-21.212
605.610	-17.914	-49.791	-67.705	-55.495	-16.212	-21.212
605.620	-17.551	-49.772	-67.323	-55.113	-16.212	-21.212
605.630	-15.501	-49.692	-65.193	-52.983	-16.212	-21.212

605.640	-17.479	-49.67	-67.149	-54.939	-16.212	-21.212
605.650	-17.319	-49.641	-66.960	-54.750	-16.212	-21.212
605.660	-15.674	-49.64	-65.314	-53.104	-16.212	-21.212
605.670	-18.064	-49.544	-67.608	-55.398	-16.212	-21.212
605.680	-20.469	-49.53	-69.999	-57.789	-16.212	-21.212
605.690	-17.810	-49.556	-67.366	-55.156	-16.212	-21.212
605.700	-17.965	-49.549	-67.514	-55.304	-16.212	-21.212
605.710	-18.819	-49.498	-68.317	-56.107	-16.212	-21.212
605.720	-17.366	-49.447	-66.813	-54.603	-16.212	-21.212
605.730	-16.863	-49.424	-66.287	-54.077	-16.212	-21.212
605.740	-17.386	-49.409	-66.795	-54.585	-16.212	-21.212
605.750	-17.876	-49.332	-67.208	-54.998	-16.212	-21.212
605.760	-20.063	-49.375	-69.438	-57.228	-16.212	-21.212
605.770	-17.912	-49.317	-67.229	-55.019	-16.212	-21.212
605.780	-17.690	-49.224	-66.914	-54.704	-16.212	-21.212
605.790	-21.000	-49.264	-70.264	-58.054	-16.212	-21.212
605.800	-17.104	-49.177	-66.281	-54.071	-16.212	-21.212
605.810	-18.839	-49.167	-68.006	-55.796	-16.212	-21.212
605.820	-16.921	-49.076	-65.997	-53.787	-16.212	-21.212
605.830	-18.806	-49.104	-67.910	-55.700	-16.212	-21.212
605.840	-18.269	-49.087	-67.356	-55.146	-16.212	-21.212
605.850	-17.818	-49.063	-66.881	-54.671	-16.212	-21.212
605.860	-16.958	-49.008	-65.966	-53.756	-16.212	-21.212
605.870	-17.740	-48.97	-66.710	-54.500	-16.212	-21.212
605.880	-18.883	-48.994	-67.877	-55.667	-16.212	-21.212
605.890	-18.667	-48.906	-67.573	-55.363	-16.212	-21.212
605.900	-18.833	-48.936	-67.769	-55.559	-16.212	-21.212
605.910	-19.056	-48.852	-67.908	-55.698	-16.212	-21.212
605.920	-16.806	-48.816	-65.622	-53.412	-16.212	-21.212
605.930	-16.212	-48.884	-65.096	-52.886	-16.212	-21.212
605.940	-19.013	-48.714	-67.727	-55.517	-16.212	-21.212
605.950	-18.114	-48.766	-66.880	-54.670	-16.212	-21.212
605.960	-17.552	-48.65	-66.202	-53.992	-16.212	-21.212
605.970	-18.981	-48.643	-67.624	-55.414	-16.212	-21.212
605.980	-18.904	-48.603	-67.507	-55.297	-16.212	-21.212
605.990	-17.955	-48.664	-66.619	-54.409	-16.212	-21.212
606.000	-16.973	-48.599	-65.572	-53.362	-16.212	-21.212
606.010	-16.153	-48.538	-64.691	-52.481	-16.212	-21.212
606.020	-15.789	-48.537	-64.326	-52.116	-16.212	-21.212
606.030	-15.138	-48.488	-63.626	-51.416	-16.212	-21.212
606.040	-17.376	-48.456	-65.832	-53.622	-16.212	-21.212
606.050	-19.054	-48.417	-67.471	-55.261	-16.212	-21.212
606.060	-17.995	-48.376	-66.371	-54.161	-16.212	-21.212
606.070	-17.627	-48.378	-66.005	-53.795	-16.212	-21.212
606.080	-18.916	-48.344	-67.260	-55.050	-16.212	-21.212
606.090	-16.906	-48.238	-65.144	-52.934	-16.212	-21.212

606.100	-15.875	-48.248	-64.123	-51.913	-16.212	-21.212
606.110	-15.811	-48.207	-64.018	-51.808	-16.212	-21.212
606.120	-16.574	-48.22	-64.794	-52.584	-16.212	-21.212
606.130	-16.755	-48.229	-64.984	-52.774	-16.212	-21.212
606.140	-15.963	-48.176	-64.139	-51.929	-16.212	-21.212
606.150	-16.578	-48.146	-64.724	-52.514	-16.212	-21.212
606.160	-16.877	-48.104	-64.981	-52.771	-16.212	-21.212
606.170	-19.099	-48.057	-67.156	-54.946	-16.212	-21.212
606.180	-16.656	-48.041	-64.697	-52.487	-16.212	-21.212
606.190	-17.715	-47.957	-65.672	-53.462	-16.212	-21.212
606.200	-17.316	-47.924	-65.240	-53.030	-16.212	-21.212
606.210	-20.084	-47.912	-67.996	-55.786	-16.212	-21.212
606.220	-16.249	-47.952	-64.201	-51.991	-16.212	-21.212
606.230	-15.962	-47.858	-63.820	-51.610	-16.212	-21.212
606.240	-17.607	-47.801	-65.408	-53.198	-16.212	-21.212
606.250	-15.703	-47.839	-63.542	-51.332	-16.212	-21.212
606.260	-17.311	-47.762	-65.073	-52.863	-16.212	-21.212
606.270	-18.332	-47.652	-65.984	-53.774	-16.212	-21.212
606.280	-15.938	-47.696	-63.634	-51.424	-16.212	-21.212
606.290	-16.730	-47.679	-64.409	-52.199	-16.212	-21.212
606.300	-18.452	-47.634	-66.086	-53.876	-16.212	-21.212
606.310	-15.800	-47.622	-63.422	-51.212	-16.212	-21.212
606.320	-15.700	-47.594	-63.294	-51.084	-16.212	-21.212
606.330	-15.750	-47.564	-63.314	-51.104	-16.212	-21.212
606.340	-15.570	-47.434	-63.004	-50.794	-16.212	-21.212
606.350	-16.219	-47.517	-63.736	-51.526	-16.212	-21.212
606.360	-17.395	-47.448	-64.843	-52.633	-16.212	-21.212
606.370	-16.117	-47.431	-63.548	-51.338	-16.212	-21.212
606.380	-16.292	-47.424	-63.716	-51.506	-16.212	-21.212
606.390	-17.054	-47.329	-64.383	-52.173	-16.212	-21.212
606.400	-17.344	-47.295	-64.639	-52.429	-16.212	-21.212
606.410	-16.005	-47.271	-63.276	-51.066	-16.212	-21.212
606.420	-16.328	-47.218	-63.546	-51.336	-16.212	-21.212
606.430	-16.292	-47.287	-63.579	-51.369	-16.212	-21.212
606.440	-15.251	-47.222	-62.473	-50.263	-16.212	-21.212
606.450	-17.592	-47.134	-64.726	-52.516	-16.212	-21.212
606.460	-15.981	-47.12	-63.101	-50.891	-16.212	-21.212
606.470	-16.728	-47.174	-63.902	-51.692	-16.212	-21.212
606.480	-14.525	-47.072	-61.597	-49.387	-16.212	-21.212
606.490	-16.952	-47.041	-63.993	-51.783	-16.212	-21.212
606.500	-16.324	-47	-63.324	-51.114	-16.212	-21.212
606.510	-14.311	-46.977	-61.288	-49.078	-16.212	-21.212
606.520	-17.275	-46.925	-64.200	-51.990	-16.212	-21.212
606.530	-18.221	-46.908	-65.129	-52.919	-16.212	-21.212
606.540	-15.582	-46.888	-62.470	-50.260	-16.212	-21.212
606.550	-18.793	-46.866	-65.659	-53.449	-16.212	-21.212

606.560	-15.177	-46.756	-61.933	-49.723	-16.212	-21.212
606.570	-16.734	-46.714	-63.448	-51.238	-16.212	-21.212
606.580	-16.914	-46.674	-63.588	-51.378	-16.212	-21.212
606.590	-16.035	-46.692	-62.727	-50.517	-16.212	-21.212
606.600	-15.196	-46.65	-61.846	-49.636	-16.212	-21.212
606.610	-16.815	-46.676	-63.491	-51.281	-16.212	-21.212
606.620	-16.492	-46.626	-63.118	-50.908	-16.212	-21.212
606.630	-16.683	-46.547	-63.230	-51.020	-16.212	-21.212
606.640	-15.765	-46.575	-62.340	-50.130	-16.212	-21.212
606.650	-16.617	-46.496	-63.113	-50.903	-16.212	-21.212
606.660	-16.356	-46.485	-62.841	-50.631	-16.212	-21.212
606.670	-14.300	-46.417	-60.717	-48.507	-16.212	-21.212
606.680	-17.018	-46.404	-63.422	-51.212	-16.212	-21.212
606.690	-16.897	-46.394	-63.291	-51.081	-16.212	-21.212
606.700	-15.547	-46.37	-61.917	-49.707	-16.212	-21.212
606.710	-15.815	-46.273	-62.088	-49.878	-16.212	-21.212
606.720	-15.162	-46.31	-61.472	-49.262	-16.212	-21.212
606.730	-14.474	-46.252	-60.726	-48.516	-16.212	-21.212
606.740	-16.283	-46.234	-62.517	-50.307	-16.212	-21.212
606.750	-16.551	-46.191	-62.742	-50.532	-16.212	-21.212
606.760	-16.667	-46.146	-62.813	-50.603	-16.212	-21.212
606.770	-16.144	-46.07	-62.214	-50.004	-16.212	-21.212
606.780	-17.473	-46.028	-63.501	-51.291	-16.212	-21.212
606.790	-17.046	-46.026	-63.072	-50.862	-16.212	-21.212
606.800	-15.085	-46.002	-61.087	-48.877	-16.212	-21.212
606.810	-17.113	-46.003	-63.116	-50.906	-16.212	-21.212
606.820	-15.696	-45.887	-61.583	-49.373	-16.212	-21.212
606.830	-16.002	-45.879	-61.881	-49.671	-16.212	-21.212
606.840	-15.600	-45.862	-61.462	-49.252	-16.212	-21.212
606.850	-15.876	-45.871	-61.747	-49.537	-16.212	-21.212
606.860	-16.769	-45.783	-62.552	-50.342	-16.212	-21.212
606.870	-15.544	-45.766	-61.310	-49.100	-16.212	-21.212
606.880	-15.875	-45.735	-61.610	-49.400	-16.212	-21.212
606.890	-16.681	-45.646	-62.327	-50.117	-16.212	-21.212
606.900	-14.696	-45.601	-60.297	-48.087	-16.212	-21.212
606.910	-15.629	-45.588	-61.217	-49.007	-16.212	-21.212
606.920	-19.244	-45.562	-64.806	-52.596	-16.212	-21.212
606.930	-17.919	-45.578	-63.497	-51.287	-16.212	-21.212
606.940	-18.510	-45.496	-64.006	-51.796	-16.212	-21.212
606.950	-15.186	-45.506	-60.692	-48.482	-16.212	-21.212
606.960	-17.325	-45.459	-62.784	-50.574	-16.212	-21.212
606.970	-18.475	-45.49	-63.965	-51.755	-16.212	-21.212
606.980	-16.898	-45.357	-62.255	-50.045	-16.212	-21.212
606.990	-17.429	-45.349	-62.778	-50.568	-16.212	-21.212
607.000	-17.600	-45.344	-62.944	-50.734	-16.212	-21.212
607.010	-18.601	-45.225	-63.826	-51.616	-16.212	-21.212

607.020	-19.719	-45.236	-64.955	-52.745	-16.212	-21.212
607.030	-16.400	-45.245	-61.645	-49.435	-16.212	-21.212
607.040	-16.239	-45.186	-61.425	-49.215	-16.212	-21.212
607.050	-18.476	-45.139	-63.615	-51.405	-16.212	-21.212
607.060	-17.093	-45.11	-62.203	-49.993	-16.212	-21.212
607.070	-18.828	-45.084	-63.912	-51.702	-16.212	-21.212
607.080	-16.821	-45.042	-61.863	-49.653	-16.212	-21.212
607.090	-15.055	-45.027	-60.082	-47.872	-16.212	-21.212
607.100	-17.414	-44.947	-62.361	-50.151	-16.212	-21.212
607.110	-16.782	-44.932	-61.714	-49.504	-16.212	-21.212
607.120	-16.494	-44.887	-61.381	-49.171	-16.212	-21.212
607.130	-16.103	-44.859	-60.962	-48.752	-16.212	-21.212
607.140	-17.760	-44.834	-62.594	-50.384	-16.212	-21.212
607.150	-15.438	-44.769	-60.207	-47.997	-16.212	-21.212
607.160	-15.429	-44.76	-60.189	-47.979	-16.212	-21.212
607.170	-14.748	-44.692	-59.440	-47.230	-16.212	-21.212
607.180	-17.079	-44.697	-61.776	-49.566	-16.212	-21.212
607.190	-15.081	-44.681	-59.762	-47.552	-16.212	-21.212
607.200	-15.467	-44.617	-60.084	-47.874	-16.212	-21.212
607.210	-15.054	-44.595	-59.649	-47.439	-16.212	-21.212
607.220	-16.343	-44.523	-60.866	-48.656	-16.212	-21.212
607.230	-16.644	-44.511	-61.155	-48.945	-16.212	-21.212
607.240	-13.289	-44.492	-57.781	-45.571	-16.212	-21.212
607.250	-14.519	-44.447	-58.966	-46.756	-16.212	-21.212
607.260	-15.096	-44.381	-59.477	-47.267	-16.212	-21.212
607.270	-17.249	-44.392	-61.641	-49.431	-16.212	-21.212
607.280	-15.629	-44.291	-59.920	-47.710	-16.212	-21.212
607.290	-15.317	-44.3	-59.617	-47.407	-16.212	-21.212
607.300	-14.402	-44.289	-58.691	-46.481	-16.212	-21.212
607.310	-16.153	-44.238	-60.391	-48.181	-16.212	-21.212
607.320	-18.676	-44.225	-62.901	-50.691	-16.212	-21.212
607.330	-16.181	-44.154	-60.335	-48.125	-16.212	-21.212
607.340	-15.248	-44.133	-59.381	-47.171	-16.212	-21.212
607.350	-15.976	-44.12	-60.096	-47.886	-16.212	-21.212
607.360	-15.261	-44.068	-59.329	-47.119	-16.212	-21.212
607.370	-15.378	-44.001	-59.379	-47.169	-16.212	-21.212
607.380	-14.073	-43.965	-58.038	-45.828	-16.212	-21.212
607.390	-14.781	-44.003	-58.784	-46.574	-16.212	-21.212
607.400	-13.973	-43.919	-57.892	-45.682	-16.212	-21.212
607.410	-14.582	-43.862	-58.444	-46.234	-16.212	-21.212
607.420	-15.181	-43.796	-58.977	-46.767	-16.212	-21.212
607.430	-14.346	-43.761	-58.107	-45.897	-16.212	-21.212
607.440	-14.920	-43.789	-58.709	-46.499	-16.212	-21.212
607.450	-15.907	-43.756	-59.663	-47.453	-16.212	-21.212
607.460	-15.683	-43.717	-59.400	-47.190	-16.212	-21.212
607.470	-14.186	-43.636	-57.822	-45.612	-16.212	-21.212

607.480	-15.173	-43.616	-58.789	-46.579	-16.212	-21.212
607.490	-15.311	-43.575	-58.886	-46.676	-16.212	-21.212
607.500	-16.594	-43.532	-60.126	-47.916	-16.212	-21.212
607.510	-17.039	-43.512	-60.551	-48.341	-16.212	-21.212
607.520	-14.947	-43.457	-58.404	-46.194	-16.212	-21.212
607.530	-14.560	-43.422	-57.982	-45.772	-16.212	-21.212
607.540	-15.534	-43.383	-58.917	-46.707	-16.212	-21.212
607.550	-13.954	-43.371	-57.325	-45.115	-16.212	-21.212
607.560	-16.087	-43.354	-59.441	-47.231	-16.212	-21.212
607.570	-13.587	-43.27	-56.857	-44.647	-16.212	-21.212
607.580	-16.069	-43.245	-59.314	-47.104	-16.212	-21.212
607.590	-13.000	-43.228	-56.228	-44.018	-16.212	-21.212
607.600	-14.368	-43.152	-57.520	-45.310	-16.212	-21.212
607.610	-15.446	-43.112	-58.558	-46.348	-16.212	-21.212
607.620	-14.467	-43.111	-57.578	-45.368	-16.212	-21.212
607.630	-16.336	-43.119	-59.455	-47.245	-16.212	-21.212
607.640	-14.641	-43.011	-57.652	-45.442	-16.212	-21.212
607.650	-14.519	-42.974	-57.493	-45.283	-16.212	-21.212
607.660	-13.401	-42.981	-56.382	-44.172	-16.212	-21.212
607.670	-12.920	-42.885	-55.805	-43.595	-16.212	-21.212
607.680	-13.958	-42.879	-56.837	-44.627	-16.212	-21.212
607.690	-14.331	-42.851	-57.182	-44.972	-16.212	-21.212
607.700	-14.798	-42.788	-57.586	-45.376	-16.212	-21.212
607.710	-14.072	-42.748	-56.820	-44.610	-16.212	-21.212
607.720	-13.517	-42.726	-56.243	-44.033	-16.212	-21.212
607.730	-13.204	-42.689	-55.893	-43.683	-16.212	-21.212
607.740	-16.536	-42.693	-59.229	-47.019	-16.212	-21.212
607.750	-15.590	-42.64	-58.230	-46.020	-16.212	-21.212
607.760	-15.295	-42.565	-57.860	-45.650	-16.212	-21.212
607.770	-14.871	-42.528	-57.399	-45.189	-16.212	-21.212
607.780	-13.988	-42.483	-56.471	-44.261	-16.212	-21.212
607.790	-16.725	-42.497	-59.222	-47.012	-16.212	-21.212
607.800	-16.042	-42.401	-58.443	-46.233	-16.212	-21.212
607.810	-15.765	-42.409	-58.174	-45.964	-16.212	-21.212
607.820	-13.972	-42.356	-56.328	-44.118	-16.212	-21.212
607.830	-15.023	-42.323	-57.346	-45.136	-16.212	-21.212
607.840	-14.698	-42.311	-57.009	-44.799	-16.212	-21.212
607.850	-15.419	-42.259	-57.678	-45.468	-16.212	-21.212
607.860	-15.405	-42.207	-57.612	-45.402	-16.212	-21.212
607.870	-14.923	-42.163	-57.086	-44.876	-16.212	-21.212
607.880	-14.296	-42.144	-56.440	-44.230	-16.212	-21.212
607.890	-12.577	-42.097	-54.674	-42.464	-16.212	-21.212
607.900	-13.299	-42.045	-55.344	-43.134	-16.212	-21.212
607.910	-13.112	-42.013	-55.125	-42.915	-16.212	-21.212
607.920	-13.392	-41.997	-55.389	-43.179	-16.212	-21.212
607.930	-13.053	-41.937	-54.990	-42.780	-16.212	-21.212

607.940	-14.946	-41.929	-56.875	-44.665	-16.212	-21.212
607.950	-15.063	-41.867	-56.930	-44.720	-16.212	-21.212
607.960	-12.502	-41.811	-54.313	-42.103	-16.212	-21.212
607.970	-11.202	-41.782	-52.984	-40.774	-16.212	-21.212
607.980	-11.162	-41.748	-52.910	-40.700	-16.212	-21.212
607.990	-11.672	-41.676	-53.348	-41.138	-16.212	-21.212
608.000	-13.726	-41.657	-55.383	-43.173	-16.212	-21.212
608.010	-13.700	-41.65	-55.350	-43.140	-16.128	-21.212
608.020	-15.737	-41.59	-57.327	-45.117	-16.045	-21.212
608.030	-12.795	-41.543	-54.338	-42.128	-15.962	-21.212
608.040	-15.101	-41.53	-56.631	-44.421	-15.879	-21.212
608.050	-13.458	-41.46	-54.918	-42.708	-15.797	-21.212
608.060	-14.350	-41.443	-55.793	-43.583	-15.714	-21.212
608.070	-15.029	-41.382	-56.411	-44.201	-15.632	-21.212
608.080	-13.068	-41.396	-54.464	-42.254	-15.549	-21.212
608.090	-15.160	-41.325	-56.485	-44.275	-15.467	-21.212
608.100	-13.171	-41.28	-54.451	-42.241	-15.385	-21.212
608.110	-15.065	-41.232	-56.297	-44.087	-15.303	-21.212
608.120	-15.111	-41.171	-56.282	-44.072	-15.222	-21.212
608.130	-15.179	-41.151	-56.330	-44.120	-15.140	-21.212
608.140	-13.816	-41.143	-54.959	-42.749	-15.059	-21.212
608.150	-12.210	-41.108	-53.318	-41.108	-14.977	-21.212
608.160	-14.146	-41.07	-55.216	-43.006	-14.896	-21.212
608.170	-13.813	-41.043	-54.856	-42.646	-14.815	-21.212
608.180	-12.795	-40.959	-53.754	-41.544	-14.734	-21.212
608.190	-14.740	-40.936	-55.676	-43.466	-14.653	-21.212
608.200	-12.838	-40.883	-53.721	-41.511	-14.573	-21.212
608.210	-14.499	-40.86	-55.359	-43.149	-14.492	-21.212
608.220	-14.438	-40.832	-55.270	-43.060	-14.412	-21.212
608.230	-11.147	-40.754	-51.901	-39.691	-14.332	-21.212
608.240	-15.283	-40.702	-55.985	-43.775	-14.252	-21.212
608.250	-11.028	-40.681	-51.709	-39.499	-14.172	-21.212
608.260	-14.980	-40.66	-55.640	-43.430	-14.092	-21.212
608.270	-11.565	-40.603	-52.168	-39.958	-14.012	-21.212
608.280	-15.386	-40.57	-55.956	-43.746	-13.933	-21.212
608.290	-12.648	-40.538	-53.186	-40.976	-13.853	-21.212
608.300	-14.471	-40.502	-54.973	-42.763	-13.774	-21.212
608.310	-12.159	-40.446	-52.605	-40.395	-13.695	-21.212
608.320	-14.372	-40.419	-54.791	-42.581	-13.616	-21.212
608.330	-13.691	-40.373	-54.064	-41.854	-13.537	-21.212
608.340	-12.437	-40.32	-52.757	-40.547	-13.459	-21.212
608.350	-12.887	-40.3	-53.187	-40.977	-13.380	-21.212
608.360	-14.635	-40.249	-54.884	-42.674	-13.302	-21.212
608.370	-12.334	-40.184	-52.518	-40.308	-13.223	-21.212
608.380	-14.075	-40.176	-54.251	-42.041	-13.145	-21.212
608.390	-14.925	-40.115	-55.040	-42.830	-13.067	-21.212

608.400	-14.186	-40.072	-54.258	-42.048	-12.989	-21.212
608.410	-13.398	-40.038	-53.436	-41.226	-12.912	-21.212
608.420	-13.669	-39.985	-53.654	-41.444	-12.834	-21.212
608.430	-14.757	-39.968	-54.725	-42.515	-12.757	-21.212
608.440	-14.267	-39.945	-54.212	-42.002	-12.679	-21.212
608.450	-12.232	-39.898	-52.130	-39.920	-12.602	-21.212
608.460	-13.470	-39.85	-53.320	-41.110	-12.525	-21.212
608.470	-12.650	-39.793	-52.443	-40.233	-12.448	-21.212
608.480	-12.867	-39.758	-52.625	-40.415	-12.372	-21.212
608.490	-12.762	-39.731	-52.493	-40.283	-12.295	-21.212
608.500	-13.517	-39.684	-53.201	-40.991	-12.219	-21.212
608.510	-15.042	-39.604	-54.646	-42.436	-12.142	-21.212
608.520	-13.480	-39.598	-53.078	-40.868	-12.066	-21.212
608.530	-12.955	-39.561	-52.516	-40.306	-11.990	-21.212
608.540	-10.979	-39.518	-50.497	-38.287	-11.914	-21.212
608.550	-12.138	-39.497	-51.635	-39.425	-11.838	-21.212
608.560	-15.161	-39.427	-54.588	-42.378	-11.763	-21.212
608.570	-14.411	-39.39	-53.801	-41.591	-11.687	-21.212
608.580	-13.357	-39.364	-52.721	-40.511	-11.612	-21.212
608.590	-12.336	-39.322	-51.658	-39.448	-11.537	-21.212
608.600	-13.133	-39.287	-52.420	-40.210	-11.462	-21.212
608.610	-14.295	-39.235	-53.530	-41.320	-11.387	-21.212
608.620	-11.857	-39.213	-51.070	-38.860	-11.312	-21.212
608.630	-12.518	-39.16	-51.678	-39.468	-11.237	-21.212
608.640	-11.927	-39.093	-51.020	-38.810	-11.163	-21.212
608.650	-14.839	-39.067	-53.906	-41.696	-11.088	-21.212
608.660	-12.092	-39.037	-51.129	-38.919	-11.014	-21.212
608.670	-12.287	-38.975	-51.262	-39.052	-10.940	-21.212
608.680	-12.615	-38.938	-51.553	-39.343	-10.866	-21.212
608.690	-12.416	-38.908	-51.324	-39.114	-10.792	-21.212
608.700	-13.356	-38.866	-52.222	-40.012	-10.719	-21.212
608.710	-11.830	-38.804	-50.634	-38.424	-10.645	-21.212
608.720	-13.093	-38.773	-51.866	-39.656	-10.572	-21.212
608.730	-11.363	-38.759	-50.122	-37.912	-10.498	-21.212
608.740	-11.152	-38.696	-49.848	-37.638	-10.425	-21.212
608.750	-12.588	-38.635	-51.223	-39.013	-10.352	-21.212
608.760	-12.114	-38.597	-50.711	-38.501	-10.279	-21.212
608.770	-13.620	-38.561	-52.181	-39.971	-10.207	-21.212
608.780	-11.957	-38.501	-50.458	-38.248	-10.134	-21.212
608.790	-13.653	-38.466	-52.119	-39.909	-10.062	-21.212
608.800	-11.666	-38.433	-50.099	-37.889	-9.989	-21.212
608.810	-12.957	-38.404	-51.361	-39.151	-9.917	-21.212
608.820	-13.174	-38.32	-51.494	-39.284	-9.845	-21.212
608.830	-13.468	-38.305	-51.773	-39.563	-9.773	-21.212
608.840	-11.570	-38.253	-49.823	-37.613	-9.702	-21.212
608.850	-14.474	-38.226	-52.700	-40.490	-9.630	-21.212

608.860	-12.413	-38.179	-50.592	-38.382	-9.559	-21.212
608.870	-12.451	-38.141	-50.592	-38.382	-9.487	-21.212
608.880	-12.587	-38.122	-50.709	-38.499	-9.416	-21.212
608.890	-12.213	-38.078	-50.291	-38.081	-9.345	-21.212
608.900	-11.552	-38.007	-49.559	-37.349	-9.274	-21.212
608.910	-11.511	-37.99	-49.501	-37.291	-9.203	-21.212
608.920	-13.003	-37.911	-50.914	-38.704	-9.133	-21.212
608.930	-13.493	-37.895	-51.388	-39.178	-9.062	-21.212
608.940	-10.987	-37.825	-48.812	-36.602	-8.992	-21.212
608.950	-12.486	-37.778	-50.264	-38.054	-8.922	-21.212
608.960	-13.569	-37.74	-51.309	-39.099	-8.852	-21.212
608.970	-11.206	-37.705	-48.911	-36.701	-8.782	-21.212
608.980	-9.640	-37.665	-47.305	-35.095	-8.712	-21.212
608.990	-11.708	-37.616	-49.324	-37.114	-8.642	-21.212
609.000	-9.300	-37.602	-46.902	-34.692	-8.573	-21.212
609.010	-12.943	-37.535	-50.478	-38.268	-8.503	-21.212
609.020	-12.029	-37.489	-49.518	-37.308	-8.434	-21.212
609.030	-9.928	-37.453	-47.381	-35.171	-8.365	-21.212
609.040	-10.559	-37.409	-47.968	-35.758	-8.296	-21.212
609.050	-11.871	-37.369	-49.240	-37.030	-8.227	-21.212
609.060	-11.207	-37.315	-48.522	-36.312	-8.159	-21.212
609.070	-11.556	-37.284	-48.840	-36.630	-8.090	-21.212
609.080	-10.686	-37.243	-47.929	-35.719	-8.022	-21.212
609.090	-10.930	-37.187	-48.117	-35.907	-7.953	-21.212
609.100	-9.774	-37.133	-46.907	-34.697	-7.885	-21.212
609.110	-10.450	-37.1	-47.550	-35.340	-7.817	-21.212
609.120	-11.717	-37.043	-48.760	-36.550	-7.749	-21.212
609.130	-10.757	-37.007	-47.764	-35.554	-7.682	-21.212
609.140	-10.257	-36.951	-47.208	-34.998	-7.614	-21.212
609.150	-11.940	-36.91	-48.850	-36.640	-7.547	-21.212
609.160	-11.441	-36.884	-48.325	-36.115	-7.479	-21.212
609.170	-11.210	-36.834	-48.044	-35.834	-7.412	-21.212
609.180	-10.280	-36.77	-47.050	-34.840	-7.345	-21.212
609.190	-10.093	-36.765	-46.858	-34.648	-7.278	-21.212
609.200	-10.411	-36.693	-47.104	-34.894	-7.212	-21.212
609.210	-10.069	-36.639	-46.708	-34.498	-7.145	-21.212
609.220	-11.237	-36.607	-47.844	-35.634	-7.079	-21.212
609.230	-11.321	-36.554	-47.875	-35.665	-7.012	-21.212
609.240	-12.211	-36.522	-48.733	-36.523	-6.946	-21.212
609.250	-11.153	-36.466	-47.619	-35.409	-6.880	-21.212
609.260	-10.436	-36.425	-46.861	-34.651	-6.814	-21.212
609.270	-10.380	-36.375	-46.755	-34.545	-6.748	-21.212
609.280	-9.718	-36.335	-46.053	-33.843	-6.683	-21.212
609.290	-9.684	-36.286	-45.970	-33.760	-6.617	-21.212
609.300	-11.209	-36.237	-47.446	-35.236	-6.552	-21.212
609.310	-8.693	-36.189	-44.882	-32.672	-6.487	-21.212

609.320	-8.978	-36.137	-45.115	-32.905	-6.422	-21.212
609.330	-11.996	-36.097	-48.093	-35.883	-6.357	-21.212
609.340	-12.353	-36.065	-48.418	-36.208	-6.292	-21.212
609.350	-12.810	-36.028	-48.838	-36.628	-6.227	-21.212
609.360	-11.563	-35.962	-47.525	-35.315	-6.163	-21.212
609.370	-10.110	-35.918	-46.028	-33.818	-6.098	-21.212
609.380	-9.701	-35.872	-45.573	-33.363	-6.034	-21.212
609.390	-10.089	-35.835	-45.924	-33.714	-5.970	-21.212
609.400	-10.491	-35.795	-46.286	-34.076	-5.906	-21.212
609.410	-10.516	-35.724	-46.240	-34.030	-5.842	-21.212
609.420	-10.061	-35.706	-45.767	-33.557	-5.779	-21.212
609.430	-8.596	-35.661	-44.257	-32.047	-5.715	-21.212
609.440	-7.733	-35.606	-43.339	-31.129	-5.652	-21.212
609.450	-9.336	-35.571	-44.907	-32.697	-5.588	-21.212
609.460	-8.538	-35.495	-44.033	-31.823	-5.525	-21.212
609.470	-8.568	-35.463	-44.031	-31.821	-5.462	-21.212
609.480	-10.240	-35.412	-45.652	-33.442	-5.399	-21.212
609.490	-8.978	-35.366	-44.344	-32.134	-5.337	-21.212
609.500	-9.727	-35.341	-45.068	-32.858	-5.274	-21.212
609.510	-10.868	-35.286	-46.154	-33.944	-5.212	-21.212
609.520	-7.680	-35.255	-42.935	-30.725	-5.149	-21.212
609.530	-8.761	-35.198	-43.959	-31.749	-5.087	-21.212
609.540	-9.007	-35.131	-44.138	-31.928	-5.025	-21.212
609.550	-9.903	-35.091	-44.994	-32.784	-4.963	-21.212
609.560	-13.120	-35.034	-48.154	-35.944	-4.902	-21.212
609.570	-10.206	-34.983	-45.189	-32.979	-4.840	-21.212
609.580	-9.713	-34.947	-44.660	-32.450	-4.779	-21.212
609.590	-10.949	-34.894	-45.843	-33.633	-4.717	-21.212
609.600	-8.181	-34.839	-43.020	-30.810	-4.656	-21.212
609.610	-8.960	-34.772	-43.732	-31.522	-4.595	-21.212
609.620	-9.659	-34.777	-44.436	-32.226	-4.534	-21.212
609.630	-10.125	-34.731	-44.856	-32.646	-4.473	-21.212
609.640	-10.881	-34.659	-45.540	-33.330	-4.413	-21.212
609.650	-12.515	-34.613	-47.128	-34.918	-4.352	-21.212
609.660	-9.014	-34.582	-43.596	-31.386	-4.292	-21.212
609.670	-9.443	-34.523	-43.966	-31.756	-4.232	-21.212
609.680	-7.744	-34.469	-42.213	-30.003	-4.172	-21.212
609.690	-7.760	-34.418	-42.178	-29.968	-4.112	-21.212
609.700	-9.766	-34.367	-44.133	-31.923	-4.052	-21.212
609.710	-11.611	-34.335	-45.946	-33.736	-3.992	-21.212
609.720	-8.723	-34.281	-43.004	-30.794	-3.933	-21.212
609.730	-8.657	-34.248	-42.905	-30.695	-3.873	-21.212
609.740	-9.411	-34.199	-43.610	-31.400	-3.814	-21.212
609.750	-11.646	-34.165	-45.811	-33.601	-3.755	-21.212
609.760	-8.866	-34.122	-42.988	-30.778	-3.696	-21.212
609.770	-9.539	-34.035	-43.574	-31.364	-3.637	-21.212

609.780	-8.907	-33.989	-42.896	-30.686	-3.579	-21.212
609.790	-10.921	-33.954	-44.875	-32.665	-3.520	-21.212
609.800	-8.983	-33.9	-42.883	-30.673	-3.462	-21.212
609.810	-6.962	-33.832	-40.794	-28.584	-3.403	-21.212
609.820	-9.959	-33.803	-43.762	-31.552	-3.345	-21.212
609.830	-10.643	-33.736	-44.379	-32.169	-3.287	-21.212
609.840	-9.778	-33.685	-43.463	-31.253	-3.229	-21.212
609.850	-8.011	-33.636	-41.647	-29.437	-3.172	-21.212
609.860	-11.770	-33.59	-45.360	-33.150	-3.114	-21.212
609.870	-9.440	-33.558	-42.998	-30.788	-3.057	-21.212
609.880	-8.494	-33.517	-42.011	-29.801	-2.999	-21.212
609.890	-9.138	-33.453	-42.591	-30.381	-2.942	-21.212
609.900	-8.614	-33.403	-42.017	-29.807	-2.885	-21.212
609.910	-11.429	-33.356	-44.785	-32.575	-2.828	-21.212
609.920	-8.230	-33.307	-41.537	-29.327	-2.772	-21.212
609.930	-8.122	-33.236	-41.358	-29.148	-2.715	-21.212
609.940	-9.278	-33.215	-42.493	-30.283	-2.659	-21.212
609.950	-8.277	-33.147	-41.424	-29.214	-2.602	-21.212
609.960	-8.482	-33.114	-41.596	-29.386	-2.546	-21.212
609.970	-7.078	-33.083	-40.161	-27.951	-2.490	-21.212
609.980	-6.863	-33.011	-39.874	-27.664	-2.434	-21.212
609.990	-8.585	-32.954	-41.539	-29.329	-2.378	-21.212
610.000	-8.842	-32.905	-41.747	-29.537	-2.323	-21.212
610.010	-7.171	-32.85	-40.021	-27.811	-2.267	-21.212
610.020	-8.598	-32.794	-41.392	-29.182	-2.212	-21.212
610.030	-6.078	-32.768	-38.846	-26.636	-2.157	-21.212
610.040	-10.758	-32.708	-43.466	-31.256	-2.102	-21.212
610.050	-8.936	-32.648	-41.584	-29.374	-2.047	-21.212
610.060	-10.514	-32.592	-43.106	-30.896	-1.992	-21.212
610.070	-9.511	-32.542	-42.053	-29.843	-1.937	-21.212
610.080	-8.906	-32.496	-41.402	-29.192	-1.883	-21.212
610.090	-9.598	-32.457	-42.055	-29.845	-1.828	-21.212
610.100	-6.698	-32.421	-39.119	-26.909	-1.774	-21.212
610.110	-6.969	-32.356	-39.325	-27.115	-1.720	-21.212
610.120	-9.825	-32.31	-42.135	-29.925	-1.666	-21.212
610.130	-8.268	-32.257	-40.525	-28.315	-1.612	-21.212
610.140	-9.782	-32.203	-41.985	-29.775	-1.559	-21.212
610.150	-7.523	-32.148	-39.671	-27.461	-1.505	-21.212
610.160	-9.505	-32.104	-41.609	-29.399	-1.452	-21.212
610.170	-7.942	-32.046	-39.988	-27.778	-1.398	-21.212
610.180	-7.738	-32.002	-39.740	-27.530	-1.345	-21.212
610.190	-7.559	-31.944	-39.503	-27.293	-1.292	-21.212
610.200	-7.997	-31.892	-39.889	-27.679	-1.239	-21.212
610.210	-8.407	-31.856	-40.263	-28.053	-1.187	-21.212
610.220	-7.501	-31.788	-39.289	-27.079	-1.134	-21.212
610.230	-10.472	-31.75	-42.222	-30.012	-1.082	-21.212

610.240	-8.522	-31.686	-40.208	-27.998	-1.029	-21.212
610.250	-10.243	-31.639	-41.882	-29.672	-0.977	-21.212
610.260	-8.364	-31.568	-39.932	-27.722	-0.925	-21.212
610.270	-8.288	-31.514	-39.802	-27.592	-0.873	-21.212
610.280	-9.896	-31.489	-41.385	-29.175	-0.822	-21.212
610.290	-8.896	-31.44	-40.336	-28.126	-0.770	-21.212
610.300	-7.327	-31.394	-38.721	-26.511	-0.719	-21.212
610.310	-10.361	-31.332	-41.693	-29.483	-0.667	-21.212
610.320	-7.711	-31.27	-38.981	-26.771	-0.616	-21.212
610.330	-8.295	-31.236	-39.531	-27.321	-0.565	-21.212
610.340	-8.790	-31.154	-39.944	-27.734	-0.514	-21.212
610.350	-8.462	-31.124	-39.586	-27.376	-0.463	-21.212
610.360	-8.119	-31.055	-39.174	-26.964	-0.413	-21.212
610.370	-8.243	-31.006	-39.249	-27.039	-0.362	-21.212
610.380	-8.920	-30.96	-39.880	-27.670	-0.312	-21.212
610.390	-6.923	-30.907	-37.830	-25.620	-0.262	-21.212
610.400	-7.923	-30.839	-38.762	-26.552	-0.212	-21.212
610.410	-9.180	-30.799	-39.979	-27.769	-0.162	-21.212
610.420	-7.125	-30.755	-37.880	-25.670	-0.112	-21.212
610.430	-7.445	-30.708	-38.153	-25.943	-0.062	-21.212
610.440	-8.655	-30.652	-39.307	-27.097	-0.013	-21.212
610.450	-7.847	-30.584	-38.431	-26.221	0.037	-21.212
610.460	-7.329	-30.509	-37.838	-25.628	0.086	-21.212
610.470	-6.667	-30.485	-37.152	-24.942	0.135	-21.212
610.480	-8.711	-30.435	-39.146	-26.936	0.184	-21.212
610.490	-7.577	-30.376	-37.953	-25.743	0.233	-21.212
610.500	-7.820	-30.323	-38.143	-25.933	0.281	-21.212
610.510	-7.702	-30.26	-37.962	-25.752	0.330	-21.212
610.520	-7.392	-30.213	-37.605	-25.395	0.378	-21.212
610.530	-7.485	-30.134	-37.619	-25.409	0.427	-21.212
610.540	-8.681	-30.097	-38.778	-26.568	0.475	-21.212
610.550	-8.304	-30.032	-38.336	-26.126	0.523	-21.212
610.560	-10.217	-29.986	-40.203	-27.993	0.571	-21.212
610.570	-8.637	-29.933	-38.570	-26.360	0.618	-21.212
610.580	-8.138	-29.899	-38.037	-25.827	0.666	-21.212
610.590	-5.075	-29.839	-34.914	-22.704	0.713	-21.212
610.600	-8.447	-29.764	-38.211	-26.001	0.761	-21.212
610.610	-7.793	-29.722	-37.515	-25.305	0.808	-21.212
610.620	-7.659	-29.681	-37.340	-25.130	0.855	-21.212
610.630	-8.744	-29.623	-38.367	-26.157	0.902	-21.212
610.640	-7.977	-29.558	-37.535	-25.325	0.948	-21.212
610.650	-9.259	-29.486	-38.745	-26.535	0.995	-21.212
610.660	-7.458	-29.429	-36.887	-24.677	1.041	-21.212
610.670	-9.112	-29.392	-38.504	-26.294	1.088	-21.212
610.680	-7.203	-29.329	-36.532	-24.322	1.134	-21.212
610.690	-6.893	-29.271	-36.164	-23.954	1.180	-21.212

610.700	-8.500	-29.217	-37.717	-25.507	1.226	-21.212
610.710	-7.854	-29.179	-37.033	-24.823	1.272	-21.212
610.720	-8.075	-29.153	-37.228	-25.018	1.317	-21.212
610.730	-8.227	-29.063	-37.290	-25.080	1.363	-21.212
610.740	-6.905	-28.998	-35.903	-23.693	1.408	-21.212
610.750	-5.240	-28.956	-34.196	-21.986	1.453	-21.212
610.760	-9.046	-28.899	-37.945	-25.735	1.498	-21.212
610.770	-6.096	-28.842	-34.938	-22.728	1.543	-21.212
610.780	-9.044	-28.774	-37.818	-25.608	1.588	-21.212
610.790	-9.238	-28.717	-37.955	-25.745	1.633	-21.212
610.800	-7.560	-28.666	-36.226	-24.016	1.677	-21.212
610.810	-6.247	-28.602	-34.849	-22.639	1.722	-21.212
610.820	-7.336	-28.57	-35.906	-23.696	1.766	-21.212
610.830	-8.031	-28.546	-36.577	-24.367	1.810	-21.212
610.840	-8.334	-28.459	-36.793	-24.583	1.854	-21.212
610.850	-7.102	-28.381	-35.483	-23.273	1.898	-21.212
610.860	-9.091	-28.324	-37.415	-25.205	1.941	-21.212
610.870	-8.000	-28.267	-36.267	-24.057	1.985	-21.212
610.880	-6.706	-28.233	-34.939	-22.729	2.028	-21.212
610.890	-7.415	-28.188	-35.603	-23.393	2.072	-21.212
610.900	-6.985	-28.127	-35.112	-22.902	2.115	-21.212
610.910	-9.462	-28.027	-37.489	-25.279	2.158	-21.212
610.920	-6.822	-27.983	-34.805	-22.595	2.201	-21.212
610.930	-6.806	-27.939	-34.745	-22.535	2.243	-21.212
610.940	-7.779	-27.871	-35.650	-23.440	2.286	-21.212
610.950	-6.518	-27.842	-34.360	-22.150	2.328	-21.212
610.960	-8.162	-27.785	-35.947	-23.737	2.371	-21.212
610.970	-7.240	-27.687	-34.927	-22.717	2.413	-21.212
610.980	-7.490	-27.658	-35.148	-22.938	2.455	-21.212
610.990	-6.053	-27.603	-33.656	-21.446	2.497	-21.212
611.000	-6.698	-27.546	-34.244	-22.034	2.538	-21.212
611.010	-6.330	-27.469	-33.799	-21.589	2.580	-20.847
611.020	-7.425	-27.412	-34.837	-22.627	2.621	-20.732
611.030	-7.016	-27.36	-34.376	-22.166	2.663	-20.617
611.040	-7.212	-27.338	-34.550	-22.340	2.704	-20.502
611.050	-7.460	-27.236	-34.696	-22.486	2.745	-20.387
611.060	-7.726	-27.198	-34.924	-22.714	2.786	-20.272
611.070	-8.325	-27.149	-35.474	-23.264	2.827	-20.157
611.080	-6.390	-27.087	-33.477	-21.267	2.867	-20.042
611.090	-8.318	-27.01	-35.328	-23.118	2.908	-19.927
611.100	-6.347	-26.954	-33.301	-21.091	2.948	-19.812
611.110	-8.932	-26.889	-35.821	-23.611	2.988	-19.697
611.120	-8.595	-26.833	-35.428	-23.218	3.028	-19.582
611.130	-10.781	-26.762	-37.543	-25.333	3.068	-19.467
611.140	-6.465	-26.727	-33.192	-20.982	3.108	-19.352
611.150	-8.055	-26.695	-34.750	-22.540	3.148	-19.237

611.160	-5.931	-26.592	-32.523	-20.313	3.187	-19.122
611.170	-7.834	-26.564	-34.398	-22.188	3.227	-19.007
611.180	-7.561	-26.504	-34.065	-21.855	3.266	-18.892
611.190	-6.242	-26.464	-32.706	-20.496	3.305	-18.777
611.200	-7.365	-26.38	-33.745	-21.535	3.344	-18.662
611.210	-5.781	-26.33	-32.111	-19.901	3.383	-18.547
611.220	-7.196	-26.264	-33.460	-21.250	3.421	-18.432
611.230	-8.281	-26.182	-34.463	-22.253	3.460	-18.317
611.240	-6.384	-26.131	-32.515	-20.305	3.498	-18.202
611.250	-5.386	-26.074	-31.460	-19.250	3.537	-18.087
611.260	-5.108	-26.024	-31.132	-18.922	3.575	-17.972
611.270	-6.366	-25.942	-32.308	-20.098	3.613	-17.857
611.280	-5.610	-25.902	-31.512	-19.302	3.651	-17.742
611.290	-5.083	-25.856	-30.939	-18.729	3.688	-17.627
611.300	-6.646	-25.786	-32.432	-20.222	3.726	-17.512
611.310	-5.563	-25.727	-31.290	-19.080	3.763	-17.397
611.320	-5.329	-25.68	-31.009	-18.799	3.801	-17.282
611.330	-5.326	-25.604	-30.930	-18.720	3.838	-17.167
611.340	-4.941	-25.547	-30.488	-18.278	3.875	-17.052
611.350	-6.089	-25.49	-31.579	-19.369	3.912	-16.937
611.360	-7.093	-25.421	-32.514	-20.304	3.948	-16.822
611.370	-7.865	-25.355	-33.220	-21.010	3.985	-16.707
611.380	-6.291	-25.306	-31.597	-19.387	4.021	-16.592
611.390	-5.641	-25.251	-30.892	-18.682	4.058	-16.477
611.400	-7.395	-25.161	-32.556	-20.346	4.094	-16.362
611.410	-5.889	-25.112	-31.001	-18.791	4.130	-16.247
611.420	-7.200	-25.062	-32.262	-20.052	4.166	-16.132
611.430	-5.503	-25.005	-30.508	-18.298	4.202	-16.017
611.440	-5.443	-24.944	-30.387	-18.177	4.237	-15.902
611.450	-8.241	-24.881	-33.122	-20.912	4.273	-15.787
611.460	-6.508	-24.806	-31.314	-19.104	4.308	-15.672
611.470	-6.252	-24.742	-30.994	-18.784	4.343	-15.557
611.480	-6.078	-24.69	-30.768	-18.558	4.378	-15.442
611.490	-6.796	-24.63	-31.426	-19.216	4.413	-15.327
611.500	-7.858	-24.566	-32.424	-20.214	4.448	-15.212
611.510	-6.242	-24.493	-30.735	-18.525	4.483	-15.097
611.520	-7.543	-24.456	-31.999	-19.789	4.517	-14.982
611.530	-7.233	-24.401	-31.634	-19.424	4.552	-14.867
611.540	-5.484	-24.354	-29.838	-17.628	4.586	-14.752
611.550	-6.885	-24.268	-31.153	-18.943	4.620	-14.637
611.560	-6.639	-24.199	-30.838	-18.628	4.654	-14.522
611.570	-6.699	-24.145	-30.844	-18.634	4.688	-14.407
611.580	-5.696	-24.1	-29.796	-17.586	4.721	-14.292
611.590	-5.910	-24.02	-29.930	-17.720	4.755	-14.177
611.600	-7.343	-23.973	-31.316	-19.106	4.788	-14.062
611.610	-5.744	-23.887	-29.631	-17.421	4.822	-13.947

611.620	-6.505	-23.83	-30.335	-18.125	4.855	-13.832
611.630	-5.260	-23.753	-29.013	-16.803	4.888	-13.717
611.640	-7.726	-23.709	-31.435	-19.225	4.921	-13.602
611.650	-5.877	-23.651	-29.528	-17.318	4.953	-13.487
611.660	-6.267	-23.585	-29.852	-17.642	4.986	-13.372
611.670	-5.064	-23.523	-28.587	-16.377	5.018	-13.257
611.680	-6.345	-23.454	-29.799	-17.589	5.051	-13.142
611.690	-6.029	-23.4	-29.429	-17.219	5.083	-13.027
611.700	-6.868	-23.351	-30.219	-18.009	5.115	-12.912
611.710	-5.768	-23.298	-29.066	-16.856	5.147	-12.797
611.720	-3.746	-23.231	-26.977	-14.767	5.178	-12.682
611.730	-5.374	-23.146	-28.520	-16.310	5.210	-12.567
611.740	-5.778	-23.075	-28.853	-16.643	5.241	-12.452
611.750	-6.593	-23.04	-29.633	-17.423	5.273	-12.337
611.760	-5.462	-22.98	-28.442	-16.232	5.304	-12.222
611.770	-6.793	-22.916	-29.709	-17.499	5.335	-12.107
611.780	-5.396	-22.843	-28.239	-16.029	5.366	-11.992
611.790	-5.796	-22.776	-28.572	-16.362	5.397	-11.877
611.800	-6.234	-22.729	-28.963	-16.753	5.427	-11.762
611.810	-7.580	-22.676	-30.256	-18.046	5.458	-11.647
611.820	-5.977	-22.564	-28.541	-16.331	5.488	-11.532
611.830	-6.610	-22.538	-29.148	-16.938	5.518	-11.417
611.840	-6.179	-22.443	-28.622	-16.412	5.548	-11.302
611.850	-7.527	-22.412	-29.939	-17.729	5.578	-11.187
611.860	-5.952	-22.351	-28.303	-16.093	5.608	-11.072
611.870	-5.596	-22.27	-27.866	-15.656	5.638	-10.957
611.880	-6.274	-22.198	-28.472	-16.262	5.667	-10.842
611.890	-6.520	-22.138	-28.658	-16.448	5.697	-10.727
611.900	-7.110	-22.087	-29.197	-16.987	5.726	-10.612
611.910	-4.946	-22.03	-26.976	-14.766	5.755	-10.497
611.920	-6.818	-21.996	-28.814	-16.604	5.784	-10.382
611.930	-4.351	-21.901	-26.252	-14.042	5.813	-10.267
611.940	-7.804	-21.839	-29.643	-17.433	5.841	-10.152
611.950	-5.141	-21.77	-26.911	-14.701	5.870	-10.037
611.960	-7.556	-21.727	-29.283	-17.073	5.898	-9.922
611.970	-5.887	-21.662	-27.549	-15.339	5.927	-9.807
611.980	-6.600	-21.582	-28.182	-15.972	5.955	-9.692
611.990	-5.062	-21.544	-26.606	-14.396	5.983	-9.577
612.000	-6.429	-21.456	-27.885	-15.675	6.011	-9.462
612.010	-3.968	-21.414	-25.382	-13.172	6.038	-9.347
612.020	-5.916	-21.325	-27.241	-15.031	6.066	-9.232
612.030	-6.718	-21.273	-27.991	-15.781	6.093	-9.117
612.040	-7.435	-21.22	-28.655	-16.445	6.121	-9.002
612.050	-7.624	-21.178	-28.802	-16.592	6.148	-8.887
612.060	-4.744	-21.073	-25.817	-13.607	6.175	-8.772
612.070	-4.558	-21.007	-25.565	-13.355	6.202	-8.657

612.080	-6.992	-20.968	-27.960	-15.750	6.228	-8.542
612.090	-6.467	-20.89	-27.357	-15.147	6.255	-8.427
612.100	-8.545	-20.837	-29.382	-17.172	6.281	-8.312
612.110	-5.927	-20.797	-26.724	-14.514	6.308	-8.197
612.120	-3.794	-20.738	-24.532	-12.322	6.334	-8.082
612.130	-5.965	-20.646	-26.611	-14.401	6.360	-7.967
612.140	-4.125	-20.598	-24.723	-12.513	6.386	-7.852
612.150	-4.870	-20.546	-25.416	-13.206	6.412	-7.737
612.160	-5.707	-20.465	-26.172	-13.962	6.437	-7.622
612.170	-6.028	-20.399	-26.427	-14.217	6.463	-7.507
612.180	-4.446	-20.354	-24.800	-12.590	6.488	-7.392
612.190	-6.663	-20.271	-26.934	-14.724	6.513	-7.277
612.200	-5.910	-20.227	-26.137	-13.927	6.538	-7.162
612.210	-7.052	-20.171	-27.223	-15.013	6.563	-7.047
612.220	-5.723	-20.121	-25.844	-13.634	6.588	-6.932
612.230	-5.753	-20.035	-25.788	-13.578	6.613	-6.817
612.240	-6.878	-19.988	-26.866	-14.656	6.637	-6.702
612.250	-7.485	-19.925	-27.410	-15.200	6.662	-6.587
612.260	-6.006	-19.861	-25.867	-13.657	6.686	-6.472
612.270	-6.530	-19.799	-26.329	-14.119	6.710	-6.357
612.280	-6.291	-19.753	-26.044	-13.834	6.734	-6.242
612.290	-7.617	-19.682	-27.299	-15.089	6.758	-6.127
612.300	-6.887	-19.614	-26.501	-14.291	6.781	-6.012
612.310	-6.138	-19.531	-25.669	-13.459	6.805	-5.897
612.320	-7.514	-19.478	-26.992	-14.782	6.828	-5.782
612.330	-6.241	-19.441	-25.682	-13.472	6.852	-5.667
612.340	-5.544	-19.371	-24.915	-12.705	6.875	-5.552
612.350	-5.846	-19.322	-25.168	-12.958	6.898	-5.437
612.360	-4.653	-19.257	-23.910	-11.700	6.921	-5.322
612.370	-4.750	-19.217	-23.967	-11.757	6.943	-5.207
612.380	-4.229	-19.154	-23.383	-11.173	6.966	-5.092
612.390	-5.999	-19.084	-25.083	-12.873	6.988	-4.977
612.400	-4.819	-19.028	-23.847	-11.637	7.011	-4.862
612.410	-6.149	-18.966	-25.115	-12.905	7.033	-4.747
612.420	-5.363	-18.915	-24.278	-12.068	7.055	-4.632
612.430	-6.876	-18.861	-25.737	-13.527	7.077	-4.517
612.440	-5.827	-18.818	-24.645	-12.435	7.098	-4.402
612.450	-6.201	-18.73	-24.931	-12.721	7.120	-4.287
612.460	-3.435	-18.695	-22.130	-9.920	7.141	-4.172
612.470	-7.672	-18.638	-26.310	-14.100	7.163	-4.057
612.480	-7.968	-18.572	-26.540	-14.330	7.184	-3.942
612.490	-6.412	-18.522	-24.934	-12.724	7.205	-3.827
612.500	-5.099	-18.469	-23.568	-11.358	7.226	-3.712
612.510	-4.645	-18.4	-23.045	-10.835	7.247	-3.597
612.520	-6.402	-18.353	-24.755	-12.545	7.267	-3.482
612.530	-3.768	-18.315	-22.083	-9.873	7.288	-3.367

612.540	-4.745	-18.24	-22.985	-10.775	7.308	-3.252
612.550	-5.753	-18.193	-23.946	-11.736	7.328	-3.137
612.560	-4.129	-18.139	-22.268	-10.058	7.348	-3.022
612.570	-7.487	-18.079	-25.566	-13.356	7.368	-2.907
612.580	-5.210	-18.05	-23.260	-11.050	7.388	-2.792
612.590	-4.847	-17.984	-22.831	-10.621	7.408	-2.677
612.600	-4.894	-17.954	-22.848	-10.638	7.427	-2.562
612.610	-6.170	-17.916	-24.086	-11.876	7.447	-2.447
612.620	-4.288	-17.851	-22.139	-9.929	7.466	-2.332
612.630	-4.272	-17.807	-22.079	-9.869	7.485	-2.217
612.640	-6.165	-17.757	-23.922	-11.712	7.504	-2.102
612.650	-6.548	-17.682	-24.230	-12.020	7.523	-1.987
612.660	-5.573	-17.654	-23.227	-11.017	7.541	-1.872
612.670	-4.100	-17.612	-21.712	-9.502	7.560	-1.757
612.680	-6.643	-17.556	-24.199	-11.989	7.578	-1.642
612.690	-6.721	-17.511	-24.232	-12.022	7.597	-1.527
612.700	-2.839	-17.473	-20.312	-8.102	7.615	-1.412
612.710	-4.724	-17.426	-22.150	-9.940	7.633	-1.297
612.720	-7.671	-17.379	-25.050	-12.840	7.651	-1.182
612.730	-6.687	-17.355	-24.042	-11.832	7.668	-1.067
612.740	-8.735	-17.322	-26.057	-13.847	7.686	-0.952
612.750	-4.879	-17.279	-22.158	-9.948	7.703	-0.837
612.760	-6.811	-17.238	-24.049	-11.839	7.721	-0.722
612.770	-4.945	-17.2	-22.145	-9.935	7.738	-0.607
612.780	-5.818	-17.159	-22.977	-10.767	7.755	-0.492
612.790	-5.314	-17.134	-22.448	-10.238	7.772	-0.377
612.800	-6.990	-17.086	-24.076	-11.866	7.788	-0.262
612.810	-4.832	-17.07	-21.902	-9.692	7.805	-0.147
612.820	-5.172	-17.04	-22.212	-10.002	7.821	-0.032
612.830	-6.412	-16.988	-23.400	-11.190	7.838	0.083
612.840	-4.135	-16.966	-21.101	-8.891	7.854	0.198
612.850	-5.794	-16.95	-22.744	-10.534	7.870	0.313
612.860	-7.243	-16.905	-24.148	-11.938	7.886	0.428
612.870	-5.735	-16.912	-22.647	-10.437	7.902	0.543
612.880	-6.196	-16.884	-23.080	-10.870	7.917	0.658
612.890	-5.683	-16.829	-22.512	-10.302	7.933	0.773
612.900	-4.444	-16.826	-21.270	-9.060	7.948	0.888
612.910	-5.616	-16.815	-22.431	-10.221	7.963	1.003
612.920	-6.272	-16.795	-23.067	-10.857	7.978	1.118
612.930	-5.614	-16.795	-22.409	-10.199	7.993	1.233
612.940	-4.273	-16.763	-21.036	-8.826	8.008	1.348
612.950	-7.812	-16.752	-24.564	-12.354	8.023	1.463
612.960	-5.418	-16.754	-22.172	-9.962	8.037	1.578
612.970	-5.196	-16.744	-21.940	-9.730	8.052	1.693
612.980	-5.879	-16.76	-22.639	-10.429	8.066	1.808
612.990	-4.368	-16.737	-21.105	-8.895	8.080	1.923

613.000	-2.262	-16.752	-19.014	-6.804	8.094	2.038
613.010	-3.351	-16.757	-20.108	-7.898	8.108	2.153
613.020	-3.545	-16.758	-20.303	-8.093	8.121	2.268
613.030	-4.573	-16.741	-21.314	-9.104	8.135	2.383
613.040	-6.062	-16.771	-22.833	-10.623	8.148	2.498
613.050	-4.979	-16.801	-21.780	-9.570	8.162	2.613
613.060	-4.860	-16.831	-21.691	-9.481	8.175	2.728
613.070	-4.550	-16.845	-21.395	-9.185	8.188	2.843
613.080	-6.229	-16.883	-23.112	-10.902	8.201	2.958
613.090	-2.835	-16.885	-19.720	-7.510	8.213	3.073
613.100	-5.391	-16.935	-22.326	-10.116	8.226	3.188
613.110	-4.735	-16.986	-21.721	-9.511	8.238	3.303
613.120	-5.428	-17.023	-22.451	-10.241	8.251	3.418
613.130	-3.725	-17.072	-20.797	-8.587	8.263	3.533
613.140	-3.909	-17.142	-21.051	-8.841	8.275	3.648
613.150	-5.967	-17.2	-23.167	-10.957	8.287	3.763
613.160	-5.314	-17.273	-22.587	-10.377	8.298	3.878
613.170	-3.285	-17.336	-20.621	-8.411	8.310	3.993
613.180	-4.428	-17.406	-21.834	-9.624	8.321	4.108
613.190	-4.383	-17.487	-21.870	-9.660	8.333	4.223
613.200	-4.288	-17.592	-21.880	-9.670	8.344	4.338
613.210	-3.492	-17.682	-21.174	-8.964	8.355	4.453
613.220	-5.861	-17.76	-23.621	-11.411	8.366	4.568
613.230	-4.768	-17.875	-22.643	-10.433	8.377	4.683
613.240	-4.643	-17.98	-22.623	-10.413	8.387	4.798
613.250	-3.746	-18.108	-21.854	-9.644	8.398	4.913
613.260	-5.604	-18.254	-23.858	-11.648	8.408	5.028
613.270	-5.594	-18.386	-23.980	-11.770	8.418	5.143
613.280	-4.098	-18.517	-22.615	-10.405	8.428	5.258
613.290	-6.189	-18.655	-24.844	-12.634	8.438	5.373
613.300	-5.666	-18.817	-24.483	-12.273	8.448	5.488
613.310	-4.704	-18.957	-23.661	-11.451	8.458	5.603
613.320	-5.411	-19.126	-24.537	-12.327	8.467	5.718
613.330	-4.481	-19.268	-23.749	-11.539	8.477	5.833
613.340	-6.949	-19.41	-26.359	-14.149	8.486	5.948
613.350	-6.070	-19.559	-25.629	-13.419	8.495	6.063
613.360	-6.116	-19.697	-25.813	-13.603	8.504	6.178
613.370	-3.880	-19.783	-23.663	-11.453	8.513	6.293
613.380	-4.432	-19.884	-24.316	-12.106	8.521	6.408
613.390	-5.244	-19.959	-25.203	-12.993	8.530	6.523
613.400	-6.060	-19.979	-26.039	-13.829	8.538	6.638
613.410	-4.875	-19.968	-24.843	-12.633	8.547	6.753
613.420	-4.152	-19.905	-24.057	-11.847	8.555	6.868
613.430	-4.758	-19.8	-24.558	-12.348	8.563	6.983
613.440	-5.701	-19.607	-25.308	-13.098	8.571	7.098
613.450	-5.921	-19.408	-25.329	-13.119	8.578	7.213

613.460	-5.417	-19.14	-24.557	-12.347	8.586	7.328
613.470	-4.900	-18.787	-23.687	-11.477	8.593	7.443
613.480	-4.560	-18.414	-22.974	-10.764	8.601	7.558
613.490	-4.354	-17.991	-22.345	-10.135	8.608	7.673
613.500	-5.205	-17.544	-22.749	-10.539	8.615	7.788
613.510	-6.595	-17.098	-23.693	-11.483	8.622	7.788
613.520	-6.800	-16.584	-23.384	-11.174	8.628	7.788
613.530	-6.207	-16.063	-22.270	-10.060	8.635	7.788
613.540	-3.484	-15.552	-19.036	-6.826	8.641	7.788
613.550	-4.044	-15.033	-19.077	-6.867	8.648	7.788
613.560	-5.028	-14.515	-19.543	-7.333	8.654	7.788
613.570	-4.404	-14	-18.404	-6.194	8.660	7.788
613.580	-6.637	-13.508	-20.145	-7.935	8.666	7.788
613.590	-5.162	-13.006	-18.168	-5.958	8.672	7.788
613.600	-3.332	-12.515	-15.847	-3.637	8.677	7.788
613.610	-4.029	-12.045	-16.074	-3.864	8.683	7.788
613.620	-4.507	-11.588	-16.095	-3.885	8.688	7.788
613.630	-6.531	-11.151	-17.682	-5.472	8.693	7.788
613.640	-5.480	-10.709	-16.189	-3.979	8.698	7.788
613.650	-4.744	-10.262	-15.006	-2.796	8.703	7.788
613.660	-5.784	-9.87	-15.654	-3.444	8.708	7.788
613.670	-5.712	-9.475	-15.187	-2.977	8.713	7.788
613.680	-4.769	-9.08	-13.849	-1.639	8.717	7.788
613.690	-5.544	-8.736	-14.280	-2.070	8.722	7.788
613.700	-3.975	-8.396	-12.371	-0.161	8.726	7.788
613.710	-6.904	-8.043	-14.947	-2.737	8.730	7.788
613.720	-7.619	-7.713	-15.332	-3.122	8.734	7.788
613.730	-8.075	-7.4	-15.475	-3.265	8.738	7.788
613.740	-5.065	-7.135	-12.200	0.010	8.741	7.788
613.750	-6.050	-6.857	-12.907	-0.697	8.745	7.788
613.760	-5.732	-6.593	-12.325	-0.115	8.788	7.788
613.770	-5.488	-6.35	-11.838	0.372	8.788	7.788
613.780	-4.491	-6.112	-10.603	1.607	8.788	7.788
613.790	-4.674	-5.893	-10.567	1.643	8.788	7.788
613.800	-3.787	-5.654	-9.441	2.769	8.788	7.788
613.810	-4.204	-5.459	-9.663	2.547	8.788	7.788
613.820	-5.698	-5.278	-10.976	1.234	8.788	7.788
613.830	-4.250	-5.12	-9.370	2.840	8.788	7.788
613.840	-2.165	-4.933	-7.098	5.112	8.788	7.788
613.850	-5.388	-4.77	-10.158	2.052	8.788	7.788
613.860	-5.250	-4.6	-9.850	2.360	8.788	7.788
613.870	-3.284	-4.463	-7.747	4.463	8.788	7.788
613.880	-5.107	-4.339	-9.446	2.764	8.788	7.788
613.890	-3.889	-4.215	-8.104	4.106	8.788	7.788
613.900	-2.240	-4.1	-6.340	5.870	8.788	7.788
613.910	-3.226	-3.95	-7.176	5.034	8.788	7.788

613.920	-2.223	-3.857	-6.080	6.130	8.788	7.788
613.930	-3.649	-3.771	-7.420	4.790	8.788	7.788
613.940	-4.506	-3.693	-8.199	4.011	8.788	7.788
613.950	-3.705	-3.595	-7.300	4.910	8.788	7.788
613.960	-3.544	-3.498	-7.042	5.168	8.788	7.788
613.970	-3.763	-3.416	-7.179	5.031	8.788	7.788
613.980	-1.653	-3.343	-4.996	7.214	8.788	7.788
613.990	-1.373	-3.277	-4.650	7.560	8.788	7.788
614.000	-4.63	-3.218	-7.846	4.364	8.788	7.788
614.010	-1.37	-3.158	-4.527	7.683	54.788	54.788
614.020	1.65	-3.079	-1.428	10.782	54.788	54.788
614.030	5.11	-3.044	2.062	14.272	54.788	54.788
614.040	7.82	-2.977	4.838	17.048	54.788	54.788
614.050	11.58	-2.898	8.685	20.895	54.788	54.788
614.060	13.46	-2.849	10.607	22.817	54.788	54.788
614.070	14.86	-2.818	12.043	24.253	54.788	54.788
614.080	15.48	-2.796	12.687	24.897	54.788	54.788
614.090	18.33	-2.732	15.602	27.812	54.788	54.788
614.100	18.36	-2.698	15.664	27.874	54.788	54.788
614.110	19.64	-2.637	16.999	29.209	54.788	54.788
614.120	20.04	-2.611	17.424	29.634	54.788	54.788
614.130	22.49	-2.576	19.916	32.126	54.788	54.788
614.140	22.87	-2.562	20.307	32.517	54.788	54.788
614.150	21.11	-2.527	18.581	30.791	54.788	54.788
614.160	21.43	-2.47	18.958	31.168	54.788	54.788
614.170	23.00	-2.455	20.546	32.756	54.788	54.788
614.180	25.03	-2.428	22.605	34.815	54.788	54.788
614.190	26.11	-2.397	23.708	35.918	54.788	54.788
614.200	26.26	-2.375	23.886	36.096	54.788	54.788
614.210	25.11	-2.341	22.773	34.983	54.788	54.788
614.220	26.24	-2.322	23.913	36.123	54.788	54.788
614.230	25.91	-2.298	23.616	35.826	54.788	54.788
614.240	27.44	-2.259	25.183	37.393	54.788	54.788
614.250	27.82	-2.237	25.580	37.790	54.788	54.788
614.260	29.06	-2.22	26.839	39.049	54.788	54.788
614.270	31.81	-2.198	29.615	41.825	54.788	54.788
614.280	36.57	-2.189	34.379	46.589	54.788	54.788
614.290	39.98	-2.165	37.816	50.026	54.788	54.788
614.300	43.48	-2.155	41.329	53.539	54.788	54.788
614.310	44.22	-2.125	42.093	54.303	54.788	54.788
614.320	44.07	-2.112	41.956	54.166	54.788	54.788
614.330	42.06	-2.108	39.948	52.158	54.788	54.788
614.340	38.71	-2.078	36.633	48.843	54.788	54.788
614.350	33.76	-2.049	31.708	43.918	54.788	54.788
614.360	30.67	-2.034	28.633	40.843	54.788	54.788
614.370	31.72	-2.016	29.708	41.918	54.788	54.788

614.380	31.35	-2.003	29.343	41.553	54.788	54.788
614.390	30.74	-1.986	28.751	40.961	54.788	54.788
614.400	32.07	-1.966	30.105	42.315	54.788	54.788
614.410	29.70	-1.958	27.742	39.952	54.788	54.788
614.420	30.89	-1.952	28.942	41.152	54.788	54.788
614.430	29.69	-1.942	27.747	39.957	54.788	54.788
614.440	30.42	-1.914	28.502	40.712	54.788	54.788
614.450	31.09	-1.908	29.181	41.391	54.788	54.788
614.460	31.24	-1.893	29.349	41.559	54.788	54.788
614.470	32.26	-1.873	30.383	42.593	54.788	54.788
614.480	31.30	-1.884	29.419	41.629	54.788	54.788
614.490	29.95	-1.858	28.089	40.299	54.788	54.788
614.500	32.17	-1.846	30.319	42.529	54.788	54.788
614.510	32.09	-1.843	30.247	42.457	54.788	54.788
614.520	32.86	-1.825	31.039	43.249	54.788	54.788
614.530	31.65	-1.812	29.834	42.044	54.788	54.788
614.540	31.24	-1.812	29.423	41.633	54.788	54.788
614.550	32.80	-1.802	31.001	43.211	54.788	54.788
614.560	32.70	-1.792	30.912	43.122	54.788	54.788
614.570	32.05	-1.775	30.278	42.488	54.788	54.788
614.580	32.70	-1.741	30.963	43.173	54.788	54.788
614.590	32.34	-1.742	30.595	42.805	54.788	54.788
614.600	32.16	-1.715	30.446	42.656	54.788	54.788
614.610	32.05	-1.721	30.325	42.535	54.788	54.788
614.620	31.83	-1.725	30.100	42.310	54.788	54.788
614.630	31.78	-1.698	30.085	42.295	54.788	54.788
614.640	32.62	-1.694	30.922	43.132	54.788	54.788
614.650	32.82	-1.679	31.142	43.352	54.788	54.788
614.660	32.26	-1.674	30.582	42.792	54.788	54.788
614.670	31.35	-1.668	29.680	41.890	54.788	54.788
614.680	31.37	-1.661	29.705	41.915	54.788	54.788
614.690	31.50	-1.64	29.861	42.071	54.788	54.788
614.700	32.36	-1.626	30.736	42.946	54.788	54.788
614.710	32.84	-1.632	31.211	43.421	54.788	54.788
614.720	33.32	-1.623	31.697	43.907	54.788	54.788
614.730	31.47	-1.624	29.849	42.059	54.788	54.788
614.740	32.07	-1.616	30.453	42.663	54.788	54.788
614.750	31.90	-1.598	30.302	42.512	54.788	54.788
614.760	32.16	-1.586	30.578	42.788	54.788	54.788
614.770	30.60	-1.593	29.011	41.221	54.788	54.788
614.780	31.83	-1.593	30.232	42.442	54.788	54.788
614.790	32.51	-1.586	30.919	43.129	54.788	54.788
614.800	32.00	-1.581	30.421	42.631	54.788	54.788
614.810	33.37	-1.562	31.810	44.020	54.788	54.788
614.820	32.03	-1.563	30.468	42.678	54.788	54.788
614.830	31.79	-1.55	30.244	42.454	54.788	54.788

614.840	32.23	-1.536	30.689	42.899	54.788	54.788
614.850	33.99	-1.526	32.467	44.677	54.788	54.788
614.860	32.53	-1.523	31.011	43.221	54.788	54.788
614.870	33.56	-1.515	32.046	44.256	54.788	54.788
614.880	33.35	-1.513	31.836	44.046	54.788	54.788
614.890	31.41	-1.51	29.904	42.114	54.788	54.788
614.900	32.79	-1.492	31.298	43.508	54.788	54.788
614.910	32.74	-1.485	31.256	43.466	54.788	54.788
614.920	31.72	-1.496	30.223	42.433	54.788	54.788
614.930	33.37	-1.496	31.873	44.083	54.788	54.788
614.940	33.17	-1.49	31.677	43.887	54.788	54.788
614.950	31.67	-1.467	30.198	42.408	54.788	54.788
614.960	32.44	-1.45	30.988	43.198	54.788	54.788
614.970	33.15	-1.453	31.701	43.911	54.788	54.788
614.980	33.43	-1.455	31.975	44.185	54.788	54.788
614.990	32.74	-1.439	31.303	43.513	54.788	54.788
615.000	32.56	-1.44	31.118	43.328	54.788	54.788
615.010	32.82	-1.42	31.395	43.605	54.788	54.788
615.020	31.11	-1.433	29.677	41.887	54.788	54.788
615.030	30.27	-1.441	28.828	41.038	54.788	54.788
615.040	31.45	-1.417	30.034	42.244	54.788	54.788
615.050	33.47	-1.418	32.051	44.261	54.788	54.788
615.060	32.83	-1.395	31.437	43.647	54.788	54.788
615.070	32.97	-1.402	31.564	43.774	54.788	54.788
615.080	34.00	-1.375	32.628	44.838	54.788	54.788
615.090	34.44	-1.357	33.084	45.294	54.788	54.788
615.100	32.95	-1.373	31.572	43.782	54.788	54.788
615.110	30.51	-1.374	29.131	41.341	54.788	54.788
615.120	32.46	-1.357	31.099	43.309	54.788	54.788
615.130	33.03	-1.355	31.674	43.884	54.788	54.788
615.140	31.89	-1.374	30.517	42.727	54.788	54.788
615.150	32.58	-1.355	31.222	43.432	54.788	54.788
615.160	31.04	-1.335	29.702	41.912	54.788	54.788
615.170	34.33	-1.341	32.984	45.194	54.788	54.788
615.180	35.05	-1.348	33.703	45.913	54.788	54.788
615.190	32.18	-1.345	30.833	43.043	54.788	54.788
615.200	31.70	-1.333	30.364	42.574	54.788	54.788
615.210	32.05	-1.324	30.722	42.932	54.788	54.788
615.220	31.71	-1.313	30.398	42.608	54.788	54.788
615.230	33.06	-1.305	31.751	43.961	54.788	54.788
615.240	33.62	-1.312	32.305	44.515	54.788	54.788
615.250	31.36	-1.301	30.055	42.265	54.788	54.788
615.260	31.54	-1.313	30.225	42.435	54.788	54.788
615.270	31.36	-1.305	30.053	42.263	54.788	54.788
615.280	32.71	-1.292	31.421	43.631	54.788	54.788
615.290	33.40	-1.282	32.113	44.323	54.788	54.788

615.300	32.22	-1.285	30.932	43.142	54.788	54.788
615.310	33.25	-1.29	31.964	44.174	54.788	54.788
615.320	32.98	-1.291	31.688	43.898	54.788	54.788
615.330	31.62	-1.281	30.334	42.544	54.788	54.788
615.340	32.63	-1.285	31.343	43.553	54.788	54.788
615.350	32.73	-1.248	31.480	43.690	54.788	54.788
615.360	31.35	-1.275	30.077	42.287	54.788	54.788
615.370	31.56	-1.283	30.281	42.491	54.788	54.788
615.380	31.26	-1.267	29.994	42.204	54.788	54.788
615.390	34.12	-1.255	32.867	45.077	54.788	54.788
615.400	33.97	-1.27	32.703	44.913	54.788	54.788
615.410	33.58	-1.269	32.311	44.521	54.788	54.788
615.420	33.30	-1.249	32.050	44.260	54.788	54.788
615.430	32.78	-1.271	31.509	43.719	54.788	54.788
615.440	30.89	-1.256	29.633	41.843	54.788	54.788
615.450	32.22	-1.245	30.971	43.181	54.788	54.788
615.460	32.29	-1.241	31.052	43.262	54.788	54.788
615.470	32.00	-1.232	30.764	42.974	54.788	54.788
615.480	32.78	-1.241	31.541	43.751	54.788	54.788
615.490	32.77	-1.252	31.516	43.726	54.788	54.788
615.500	31.81	-1.243	30.565	42.775	54.788	54.788
615.510	32.00	-1.264	30.731	42.941	54.788	54.788
615.520	31.91	-1.241	30.668	42.878	54.788	54.788
615.530	31.74	-1.234	30.510	42.720	54.788	54.788
615.540	32.56	-1.221	31.336	43.546	54.788	54.788
615.550	32.50	-1.239	31.260	43.470	54.788	54.788
615.560	31.22	-1.251	29.969	42.179	54.788	54.788
615.570	31.22	-1.229	29.994	42.204	54.788	54.788
615.580	31.25	-1.209	30.039	42.249	54.788	54.788
615.590	32.67	-1.222	31.451	43.661	54.788	54.788
615.600	31.44	-1.204	30.237	42.447	54.788	54.788
615.610	32.27	-1.215	31.052	43.262	54.788	54.788
615.620	32.43	-1.218	31.215	43.425	54.788	54.788
615.630	32.00	-1.222	30.779	42.989	54.788	54.788
615.640	30.62	-1.214	29.405	41.615	54.788	54.788
615.650	34.07	-1.224	32.844	45.054	54.788	54.788
615.660	32.76	-1.195	31.569	43.779	54.788	54.788
615.670	31.06	-1.197	29.866	42.076	54.788	54.788
615.680	33.46	-1.203	32.257	44.467	54.788	54.788
615.690	32.65	-1.221	31.428	43.638	54.788	54.788
615.700	32.45	-1.226	31.222	43.432	54.788	54.788
615.710	33.09	-1.2	31.894	44.104	54.788	54.788
615.720	32.99	-1.196	31.792	44.002	54.788	54.788
615.730	33.80	-1.189	32.607	44.817	54.788	54.788
615.740	33.83	-1.196	32.635	44.845	54.788	54.788
615.750	32.97	-1.21	31.764	43.974	54.788	54.788

615.760	32.22	-1.213	31.010	43.220	54.788	54.788
615.770	34.07	-1.197	32.874	45.084	54.788	54.788
615.780	33.54	-1.158	32.381	44.591	54.788	54.788
615.790	32.51	-1.166	31.342	43.552	54.788	54.788
615.800	33.45	-1.193	32.259	44.469	54.788	54.788
615.810	33.56	-1.197	32.363	44.573	54.788	54.788
615.820	31.02	-1.197	29.824	42.034	54.788	54.788
615.830	32.89	-1.204	31.686	43.896	54.788	54.788
615.840	33.14	-1.194	31.950	44.160	54.788	54.788
615.850	32.76	-1.191	31.572	43.782	54.788	54.788
615.860	32.40	-1.209	31.193	43.403	54.788	54.788
615.870	34.11	-1.178	32.931	45.141	54.788	54.788
615.880	34.23	-1.196	33.029	45.239	54.788	54.788
615.890	33.50	-1.2	32.302	44.512	54.788	54.788
615.900	31.61	-1.2	30.410	42.620	54.788	54.788
615.910	32.25	-1.203	31.042	43.252	54.788	54.788
615.920	33.30	-1.191	32.106	44.316	54.788	54.788
615.930	33.03	-1.218	31.816	44.026	54.788	54.788
615.940	32.77	-1.2	31.573	43.783	54.788	54.788
615.950	33.36	-1.208	32.153	44.363	54.788	54.788
615.960	33.86	-1.21	32.650	44.860	54.788	54.788
615.970	34.60	-1.212	33.383	45.593	54.788	54.788
615.980	33.11	-1.211	31.899	44.109	54.788	54.788
615.990	32.72	-1.199	31.518	43.728	54.788	54.788
616.000	33.61	-1.207	32.404	44.614	54.788	54.788
616.010	34.55	-1.209	33.342	45.552	54.788	54.788
616.020	32.66	-1.195	31.468	43.678	54.788	54.788
616.030	34.72	-1.216	33.502	45.712	54.788	54.788
616.040	35.53	-1.197	34.329	46.539	54.788	54.788
616.050	31.92	-1.191	30.732	42.942	54.788	54.788
616.060	34.05	-1.2	32.852	45.062	54.788	54.788
616.070	34.34	-1.208	33.136	45.346	54.788	54.788
616.080	31.76	-1.203	30.557	42.767	54.788	54.788
616.090	33.05	-1.206	31.846	44.056	54.788	54.788
616.100	33.34	-1.233	32.108	44.318	54.788	54.788
616.110	34.06	-1.219	32.845	45.055	54.788	54.788
616.120	32.97	-1.236	31.729	43.939	54.788	54.788
616.130	33.54	-1.231	32.307	44.517	54.788	54.788
616.140	33.63	-1.216	32.411	44.621	54.788	54.788
616.150	33.84	-1.205	32.630	44.840	54.788	54.788
616.160	32.49	-1.225	31.269	43.479	54.788	54.788
616.170	34.17	-1.212	32.958	45.168	54.788	54.788
616.180	34.21	-1.221	32.986	45.196	54.788	54.788
616.190	33.07	-1.216	31.854	44.064	54.788	54.788
616.200	33.15	-1.241	31.907	44.117	54.788	54.788
616.210	33.59	-1.233	32.353	44.563	54.788	54.788

616.220	31.12	-1.236	29.885	42.095	54.788	54.788
616.230	31.31	-1.236	30.073	42.283	54.788	54.788
616.240	32.39	-1.235	31.157	43.367	54.788	54.788
616.250	33.09	-1.235	31.857	44.067	54.788	54.788
616.260	33.14	-1.239	31.901	44.111	54.788	54.788
616.270	33.05	-1.25	31.801	44.011	54.788	54.788
616.280	31.84	-1.246	30.598	42.808	54.788	54.788
616.290	32.29	-1.217	31.076	43.286	54.788	54.788
616.300	30.93	-1.224	29.701	41.911	54.788	54.788
616.310	33.06	-1.241	31.818	44.028	54.788	54.788
616.320	33.03	-1.233	31.799	44.009	54.788	54.788
616.330	33.22	-1.231	31.984	44.194	54.788	54.788
616.340	32.53	-1.248	31.278	43.488	54.788	54.788
616.350	32.49	-1.243	31.250	43.460	54.788	54.788
616.360	32.47	-1.243	31.231	43.441	54.788	54.788
616.370	32.02	-1.254	30.762	42.972	54.788	54.788
616.380	32.58	-1.252	31.327	43.537	54.788	54.788
616.390	33.06	-1.246	31.814	44.024	54.788	54.788
616.400	31.96	-1.261	30.694	42.904	54.788	54.788
616.410	33.03	-1.256	31.774	43.984	54.788	54.788
616.420	33.64	-1.266	32.369	44.579	54.788	54.788
616.430	32.92	-1.258	31.660	43.870	54.788	54.788
616.440	32.98	-1.245	31.732	43.942	54.788	54.788
616.450	31.93	-1.245	30.688	42.898	54.788	54.788
616.460	33.71	-1.265	32.440	44.650	54.788	54.788
616.470	35.10	-1.267	33.833	46.043	54.788	54.788
616.480	34.32	-1.262	33.058	45.268	54.788	54.788
616.490	32.87	-1.274	31.595	43.805	54.788	54.788
616.500	32.34	-1.272	31.067	43.277	54.788	54.788
616.510	33.23	-1.259	31.972	44.182	54.788	54.788
616.520	33.55	-1.247	32.300	44.510	54.788	54.788
616.530	33.74	-1.261	32.478	44.688	54.788	54.788
616.540	32.67	-1.251	31.419	43.629	54.788	54.788
616.550	32.43	-1.265	31.163	43.373	54.788	54.788
616.560	32.92	-1.269	31.651	43.861	54.788	54.788
616.570	34.06	-1.268	32.788	44.998	54.788	54.788
616.580	32.10	-1.303	30.793	43.003	54.788	54.788
616.590	33.15	-1.279	31.868	44.078	54.788	54.788
616.600	32.76	-1.267	31.489	43.699	54.788	54.788
616.610	34.91	-1.275	33.639	45.849	54.788	54.788
616.620	34.00	-1.266	32.734	44.944	54.788	54.788
616.630	34.02	-1.277	32.740	44.950	54.788	54.788
616.640	33.49	-1.259	32.226	44.436	54.788	54.788
616.650	32.42	-1.251	31.172	43.382	54.788	54.788
616.660	32.70	-1.27	31.433	43.643	54.788	54.788
616.670	34.46	-1.267	33.188	45.398	54.788	54.788

616.680	33.70	-1.258	32.445	44.655	54.788	54.788
616.690	32.76	-1.254	31.510	43.720	54.788	54.788
616.700	34.00	-1.266	32.733	44.943	54.788	54.788
616.710	32.90	-1.291	31.613	43.823	54.788	54.788
616.720	32.79	-1.324	31.465	43.675	54.788	54.788
616.730	31.76	-1.296	30.468	42.678	54.788	54.788
616.740	33.25	-1.288	31.957	44.167	54.788	54.788
616.750	34.27	-1.285	32.982	45.192	54.788	54.788
616.760	34.55	-1.286	33.259	45.469	54.788	54.788
616.770	34.87	-1.274	33.591	45.801	54.788	54.788
616.780	33.11	-1.279	31.826	44.036	54.788	54.788
616.790	34.00	-1.298	32.697	44.907	54.788	54.788
616.800	35.13	-1.301	33.833	46.043	54.788	54.788
616.810	35.25	-1.286	33.961	46.171	54.788	54.788
616.820	35.46	-1.275	34.181	46.391	54.788	54.788
616.830	33.00	-1.272	31.732	43.942	54.788	54.788
616.840	33.30	-1.27	32.025	44.235	54.788	54.788
616.850	34.18	-1.289	32.895	45.105	54.788	54.788
616.860	35.34	-1.286	34.051	46.261	54.788	54.788
616.870	35.16	-1.286	33.876	46.086	54.788	54.788
616.880	33.74	-1.284	32.452	44.662	54.788	54.788
616.890	33.66	-1.271	32.387	44.597	54.788	54.788
616.900	33.13	-1.281	31.845	44.055	54.788	54.788
616.910	32.47	-1.285	31.187	43.397	54.788	54.788
616.920	33.61	-1.283	32.326	44.536	54.788	54.788
616.930	33.45	-1.285	32.167	44.377	54.788	54.788
616.940	33.70	-1.289	32.407	44.617	54.788	54.788
616.950	34.28	-1.278	32.998	45.208	54.788	54.788
616.960	35.28	-1.276	34.000	46.210	54.788	54.788
616.970	33.38	-1.277	32.107	44.317	54.788	54.788
616.980	32.49	-1.301	31.192	43.402	54.788	54.788
616.990	34.94	-1.298	33.646	45.856	54.788	54.788
617.000	34.04	-1.294	32.747	44.957	54.788	54.788
617.010	32.34	-1.286	31.053	43.263	54.788	54.788
617.020	34.10	-1.268	32.832	45.042	54.788	54.788
617.030	33.93	-1.267	32.661	44.871	54.788	54.788
617.040	33.73	-1.28	32.446	44.656	54.788	54.788
617.050	32.04	-1.277	30.765	42.975	54.788	54.788
617.060	32.29	-1.281	31.007	43.217	54.788	54.788
617.070	31.91	-1.297	30.614	42.824	54.788	54.788
617.080	34.08	-1.297	32.786	44.996	54.788	54.788
617.090	34.21	-1.289	32.921	45.131	54.788	54.788
617.100	31.98	-1.294	30.683	42.893	54.788	54.788
617.110	32.90	-1.299	31.604	43.814	54.788	54.788
617.120	32.86	-1.3	31.556	43.766	54.788	54.788
617.130	32.47	-1.276	31.198	43.408	54.788	54.788

617.140	31.91	-1.282	30.626	42.836	54.788	54.788
617.150	33.23	-1.279	31.950	44.160	54.788	54.788
617.160	33.29	-1.299	31.995	44.205	54.788	54.788
617.170	33.48	-1.289	32.195	44.405	54.788	54.788
617.180	32.88	-1.275	31.605	43.815	54.788	54.788
617.190	33.57	-1.273	32.293	44.503	54.788	54.788
617.200	34.20	-1.266	32.937	45.147	54.788	54.788
617.210	34.13	-1.272	32.858	45.068	54.788	54.788
617.220	32.70	-1.26	31.442	43.652	54.788	54.788
617.230	33.90	-1.277	32.625	44.835	54.788	54.788
617.240	33.71	-1.27	32.444	44.654	54.788	54.788
617.250	32.29	-1.273	31.017	43.227	54.788	54.788
617.260	32.26	-1.27	30.990	43.200	54.788	54.788
617.270	32.45	-1.261	31.187	43.397	54.788	54.788
617.280	33.06	-1.256	31.803	44.013	54.788	54.788
617.290	34.66	-1.27	33.393	45.603	54.788	54.788
617.300	34.79	-1.272	33.522	45.732	54.788	54.788
617.310	33.35	-1.266	32.079	44.289	54.788	54.788
617.320	33.39	-1.267	32.119	44.329	54.788	54.788
617.330	32.48	-1.252	31.227	43.437	54.788	54.788
617.340	33.47	-1.261	32.211	44.421	54.788	54.788
617.350	33.60	-1.25	32.348	44.558	54.788	54.788
617.360	33.69	-1.276	32.409	44.619	54.788	54.788
617.370	33.54	-1.262	32.279	44.489	54.788	54.788
617.380	34.39	-1.256	33.130	45.340	54.788	54.788
617.390	31.17	-1.254	29.918	42.128	54.788	54.788
617.400	31.67	-1.247	30.427	42.637	54.788	54.788
617.410	33.00	-1.248	31.754	43.964	54.788	54.788
617.420	33.21	-1.259	31.948	44.158	54.788	54.788
617.430	33.31	-1.26	32.052	44.262	54.788	54.788
617.440	32.92	-1.252	31.667	43.877	54.788	54.788
617.450	33.57	-1.255	32.312	44.522	54.788	54.788
617.460	33.47	-1.239	32.235	44.445	54.788	54.788
617.470	33.29	-1.236	32.058	44.268	54.788	54.788
617.480	33.31	-1.234	32.073	44.283	54.788	54.788
617.490	32.19	-1.24	30.947	43.157	54.788	54.788
617.500	34.61	-1.236	33.377	45.587	54.788	54.788
617.510	32.86	-1.235	31.629	43.839	54.788	54.788
617.520	32.06	-1.247	30.814	43.024	54.788	54.788
617.530	33.66	-1.24	32.423	44.633	54.788	54.788
617.540	32.98	-1.219	31.760	43.970	54.788	54.788
617.550	33.86	-1.247	32.615	44.825	54.788	54.788
617.560	34.89	-1.234	33.654	45.864	54.788	54.788
617.570	35.29	-1.233	34.060	46.270	54.788	54.788
617.580	34.38	-1.239	33.138	45.348	54.788	54.788
617.590	33.82	-1.249	32.566	44.776	54.788	54.788

617.600	33.95	-1.264	32.686	44.896	54.788	54.788
617.610	33.87	-1.246	32.623	44.833	54.788	54.788
617.620	34.29	-1.217	33.077	45.287	54.788	54.788
617.630	32.67	-1.235	31.435	43.645	54.788	54.788
617.640	33.32	-1.235	32.083	44.293	54.788	54.788
617.650	34.70	-1.226	33.470	45.680	54.788	54.788
617.660	33.73	-1.216	32.512	44.722	54.788	54.788
617.670	33.42	-1.235	32.180	44.390	54.788	54.788
617.680	34.00	-1.231	32.770	44.980	54.788	54.788
617.690	33.31	-1.231	32.083	44.293	54.788	54.788
617.700	34.70	-1.235	33.467	45.677	54.788	54.788
617.710	34.21	-1.208	32.998	45.208	54.788	54.788
617.720	33.81	-1.21	32.600	44.810	54.788	54.788
617.730	33.96	-1.201	32.756	44.966	54.788	54.788
617.740	33.22	-1.218	32.005	44.215	54.788	54.788
617.750	33.53	-1.223	32.309	44.519	54.788	54.788
617.760	35.30	-1.218	34.077	46.287	54.788	54.788
617.770	35.92	-1.217	34.704	46.914	54.788	54.788
617.780	33.76	-1.216	32.545	44.755	54.788	54.788
617.790	30.96	-1.235	29.723	41.933	54.788	54.788
617.800	31.59	-1.224	30.369	42.579	54.788	54.788
617.810	33.22	-1.232	31.990	44.200	54.788	54.788
617.820	33.66	-1.217	32.440	44.650	54.788	54.788
617.830	33.35	-1.212	32.139	44.349	54.788	54.788
617.840	33.61	-1.221	32.388	44.598	54.788	54.788
617.850	33.27	-1.214	32.056	44.266	54.788	54.788
617.860	32.36	-1.201	31.158	43.368	54.788	54.788
617.870	32.81	-1.21	31.597	43.807	54.788	54.788
617.880	32.07	-1.212	30.859	43.069	54.788	54.788
617.890	34.40	-1.21	33.188	45.398	54.788	54.788
617.900	34.17	-1.217	32.949	45.159	54.788	54.788
617.910	34.92	-1.207	33.708	45.918	54.788	54.788
617.920	31.34	-1.198	30.139	42.349	54.788	54.788
617.930	32.50	-1.201	31.297	43.507	54.788	54.788
617.940	34.39	-1.23	33.163	45.373	54.788	54.788
617.950	34.15	-1.224	32.927	45.137	54.788	54.788
617.960	33.76	-1.212	32.551	44.761	54.788	54.788
617.970	33.34	-1.208	32.127	44.337	54.788	54.788
617.980	33.59	-1.202	32.383	44.593	54.788	54.788
617.990	33.14	-1.197	31.942	44.152	54.788	54.788
618.000	32.67	-1.22	31.451	43.661	54.788	54.788
618.010	32.84	-1.217	31.627	43.837	54.788	54.788
618.020	33.51	-1.214	32.298	44.508	54.788	54.788
618.030	34.50	-1.215	33.282	45.492	54.788	54.788
618.040	35.37	-1.208	34.165	46.375	54.788	54.788
618.050	34.91	-1.199	33.713	45.923	54.788	54.788

618.060	35.51	-1.218	34.290	46.500	54.788	54.788
618.070	34.34	-1.227	33.110	45.320	54.788	54.788
618.080	32.08	-1.216	30.860	43.070	54.788	54.788
618.090	31.25	-1.209	30.039	42.249	54.788	54.788
618.100	31.62	-1.224	30.396	42.606	54.788	54.788
618.110	33.20	-1.22	31.981	44.191	54.788	54.788
618.120	34.73	-1.211	33.520	45.730	54.788	54.788
618.130	34.48	-1.215	33.266	45.476	54.788	54.788
618.140	34.15	-1.223	32.926	45.136	54.788	54.788
618.150	32.39	-1.227	31.165	43.375	54.788	54.788
618.160	34.59	-1.227	33.360	45.570	54.788	54.788
618.170	35.08	-1.231	33.844	46.054	54.788	54.788
618.180	34.64	-1.219	33.419	45.629	54.788	54.788
618.190	34.95	-1.231	33.723	45.933	54.788	54.788
618.200	32.81	-1.229	31.582	43.792	54.788	54.788
618.210	31.83	-1.227	30.602	42.812	54.788	54.788
618.220	33.83	-1.234	32.594	44.804	54.788	54.788
618.230	33.95	-1.241	32.707	44.917	54.788	54.788
618.240	34.60	-1.245	33.351	45.561	54.788	54.788
618.250	34.11	-1.239	32.870	45.080	54.788	54.788
618.260	34.43	-1.239	33.189	45.399	54.788	54.788
618.270	34.57	-1.252	33.317	45.527	54.788	54.788
618.280	34.77	-1.248	33.525	45.735	54.788	54.788
618.290	32.66	-1.25	31.414	43.624	54.788	54.788
618.300	32.91	-1.254	31.658	43.868	54.788	54.788
618.310	32.62	-1.231	31.392	43.602	54.788	54.788
618.320	32.77	-1.24	31.528	43.738	54.788	54.788
618.330	33.36	-1.268	32.093	44.303	54.788	54.788
618.340	32.24	-1.26	30.980	43.190	54.788	54.788
618.350	34.16	-1.262	32.893	45.103	54.788	54.788
618.360	34.20	-1.263	32.936	45.146	54.788	54.788
618.370	33.56	-1.259	32.297	44.507	54.788	54.788
618.380	34.33	-1.261	33.064	45.274	54.788	54.788
618.390	33.60	-1.258	32.340	44.550	54.788	54.788
618.400	33.46	-1.281	32.179	44.389	54.788	54.788
618.410	34.10	-1.295	32.809	45.019	54.788	54.788
618.420	34.39	-1.271	33.123	45.333	54.788	54.788
618.430	33.33	-1.249	32.084	44.294	54.788	54.788
618.440	33.46	-1.272	32.187	44.397	54.788	54.788
618.450	33.24	-1.283	31.952	44.162	54.788	54.788
618.460	33.24	-1.291	31.946	44.156	54.788	54.788
618.470	31.84	-1.287	30.549	42.759	54.788	54.788
618.480	33.71	-1.297	32.417	44.627	54.788	54.788
618.490	34.48	-1.298	33.177	45.387	54.788	54.788
618.500	33.37	-1.303	32.063	44.273	54.788	54.788
618.510	34.27	-1.294	32.977	45.187	54.788	54.788

618.520	34.81	-1.29	33.515	45.725	54.788	54.788
618.530	32.80	-1.321	31.475	43.685	54.788	54.788
618.540	33.49	-1.321	32.171	44.381	54.788	54.788
618.550	33.12	-1.33	31.793	44.003	54.788	54.788
618.560	34.35	-1.326	33.025	45.235	54.788	54.788
618.570	31.99	-1.333	30.652	42.862	54.788	54.788
618.580	33.88	-1.325	32.554	44.764	54.788	54.788
618.590	33.00	-1.349	31.649	43.859	54.788	54.788
618.600	32.46	-1.343	31.117	43.327	54.788	54.788
618.610	31.16	-1.313	29.843	42.053	54.788	54.788
618.620	33.38	-1.344	32.034	44.244	54.788	54.788
618.630	33.75	-1.359	32.394	44.604	54.788	54.788
618.640	33.56	-1.375	32.184	44.394	54.788	54.788
618.650	34.08	-1.368	32.711	44.921	54.788	54.788
618.660	34.36	-1.377	32.984	45.194	54.788	54.788
618.670	32.92	-1.361	31.558	43.768	54.788	54.788
618.680	32.98	-1.381	31.598	43.808	54.788	54.788
618.690	33.34	-1.382	31.956	44.166	54.788	54.788
618.700	34.95	-1.385	33.569	45.779	54.788	54.788
618.710	34.07	-1.389	32.679	44.889	54.788	54.788
618.720	32.31	-1.381	30.924	43.134	54.788	54.788
618.730	33.79	-1.381	32.411	44.621	54.788	54.788
618.740	34.58	-1.382	33.197	45.407	54.788	54.788
618.750	33.74	-1.402	32.337	44.547	54.788	54.788
618.760	32.63	-1.396	31.238	43.448	54.788	54.788
618.770	33.26	-1.422	31.838	44.048	54.788	54.788
618.780	33.77	-1.425	32.344	44.554	54.788	54.788
618.790	34.02	-1.413	32.602	44.812	54.788	54.788
618.800	34.01	-1.437	32.573	44.783	54.788	54.788
618.810	35.15	-1.435	33.718	45.928	54.788	54.788
618.820	35.86	-1.432	34.432	46.642	54.788	54.788
618.830	34.92	-1.446	33.470	45.680	54.788	54.788
618.840	35.15	-1.427	33.726	45.936	54.788	54.788
618.850	34.97	-1.443	33.528	45.738	54.788	54.788
618.860	34.86	-1.456	33.404	45.614	54.788	54.788
618.870	33.88	-1.456	32.428	44.638	54.788	54.788
618.880	33.63	-1.472	32.158	44.368	54.788	54.788
618.890	34.41	-1.454	32.958	45.168	54.788	54.788
618.900	34.46	-1.467	32.988	45.198	54.788	54.788
618.910	34.02	-1.476	32.544	44.754	54.788	54.788
618.920	32.45	-1.475	30.972	43.182	54.788	54.788
618.930	34.83	-1.51	33.315	45.525	54.788	54.788
618.940	35.83	-1.507	34.325	46.535	54.788	54.788
618.950	32.57	-1.505	31.069	43.279	54.788	54.788
618.960	35.22	-1.516	33.702	45.912	54.788	54.788
618.970	34.39	-1.502	32.890	45.100	54.788	54.788

618.980	34.33	-1.514	32.813	45.023	54.788	54.788
618.990	31.72	-1.523	30.194	42.404	54.788	54.788
619.000	33.65	-1.524	32.125	44.335	54.788	54.788
619.010	33.65	-1.537	32.113	44.323	54.788	54.788
619.020	33.33	-1.534	31.795	44.005	54.788	54.788
619.030	30.71	-1.569	29.142	41.352	54.788	54.788
619.040	31.98	-1.578	30.406	42.616	54.788	54.788
619.050	34.33	-1.57	32.762	44.972	54.788	54.788
619.060	35.23	-1.566	33.663	45.873	54.788	54.788
619.070	33.32	-1.563	31.755	43.965	54.788	54.788
619.080	32.36	-1.573	30.788	42.998	54.788	54.788
619.090	32.68	-1.584	31.096	43.306	54.788	54.788
619.100	34.40	-1.6	32.802	45.012	54.788	54.788
619.110	32.98	-1.6	31.384	43.594	54.788	54.788
619.120	33.67	-1.598	32.069	44.279	54.788	54.788
619.130	33.53	-1.607	31.923	44.133	54.788	54.788
619.140	33.72	-1.625	32.090	44.300	54.788	54.788
619.150	34.37	-1.64	32.727	44.937	54.788	54.788
619.160	33.15	-1.645	31.502	43.712	54.788	54.788
619.170	33.04	-1.669	31.368	43.578	54.788	54.788
619.180	34.23	-1.659	32.566	44.776	54.788	54.788
619.190	33.53	-1.663	31.866	44.076	54.788	54.788
619.200	33.69	-1.658	32.034	44.244	54.788	54.788
619.210	34.07	-1.681	32.393	44.603	54.788	54.788
619.220	33.69	-1.681	32.012	44.222	54.788	54.788
619.230	34.77	-1.675	33.099	45.309	54.788	54.788
619.240	34.56	-1.7	32.861	45.071	54.788	54.788
619.250	33.75	-1.704	32.045	44.255	54.788	54.788
619.260	33.58	-1.71	31.867	44.077	54.788	54.788
619.270	32.65	-1.727	30.924	43.134	54.788	54.788
619.280	34.33	-1.722	32.604	44.814	54.788	54.788
619.290	34.23	-1.752	32.477	44.687	54.788	54.788
619.300	34.31	-1.759	32.550	44.760	54.788	54.788
619.310	35.11	-1.753	33.355	45.565	54.788	54.788
619.320	33.47	-1.763	31.703	43.913	54.788	54.788
619.330	34.98	-1.776	33.204	45.414	54.788	54.788
619.340	33.88	-1.787	32.095	44.305	54.788	54.788
619.350	32.80	-1.799	31.005	43.215	54.788	54.788
619.360	32.45	-1.808	30.638	42.848	54.788	54.788
619.370	32.34	-1.812	30.532	42.742	54.788	54.788
619.380	33.43	-1.835	31.596	43.806	54.788	54.788
619.390	32.88	-1.84	31.038	43.248	54.788	54.788
619.400	33.34	-1.839	31.499	43.709	54.788	54.788
619.410	32.46	-1.854	30.601	42.811	54.788	54.788
619.420	33.27	-1.876	31.395	43.605	54.788	54.788
619.430	33.80	-1.895	31.904	44.114	54.788	54.788

619.440	34.14	-1.898	32.245	44.455	54.788	54.788
619.450	34.06	-1.913	32.144	44.354	54.788	54.788
619.460	33.35	-1.904	31.449	43.659	54.788	54.788
619.470	34.21	-1.925	32.282	44.492	54.788	54.788
619.480	35.02	-1.948	33.067	45.277	54.788	54.788
619.490	35.52	-1.967	33.556	45.766	54.788	54.788
619.500	34.23	-1.968	32.258	44.468	54.788	54.788
619.510	34.28	-1.978	32.301	44.511	54.788	54.788
619.520	32.14	-1.994	30.147	42.357	54.788	54.788
619.530	33.80	-2.025	31.775	43.985	54.788	54.788
619.540	34.27	-2.051	32.216	44.426	54.788	54.788
619.550	34.21	-2.052	32.154	44.364	54.788	54.788
619.560	33.10	-2.049	31.052	43.262	54.788	54.788
619.570	31.58	-2.081	29.495	41.705	54.788	54.788
619.580	32.21	-2.085	30.124	42.334	54.788	54.788
619.590	32.37	-2.1	30.271	42.481	54.788	54.788
619.600	32.17	-2.099	30.073	42.283	54.788	54.788
619.610	31.92	-2.105	29.813	42.023	54.788	54.788
619.620	31.25	-2.144	29.107	41.317	54.788	54.788
619.630	31.94	-2.154	29.790	42.000	54.788	54.788
619.640	30.41	-2.174	28.233	40.443	54.788	54.788
619.650	30.00	-2.207	27.795	40.005	54.788	54.788
619.660	31.77	-2.205	29.564	41.774	54.788	54.788
619.670	31.43	-2.234	29.198	41.408	54.788	54.788
619.680	29.37	-2.26	27.107	39.317	54.788	54.788
619.690	29.11	-2.286	26.822	39.032	54.788	54.788
619.700	29.89	-2.312	27.573	39.783	54.788	54.788
619.710	29.23	-2.313	26.915	39.125	54.788	54.788
619.720	29.41	-2.35	27.057	39.267	54.788	54.788
619.730	30.35	-2.374	27.976	40.186	54.788	54.788
619.740	28.58	-2.385	26.195	38.405	54.788	54.788
619.750	28.53	-2.42	26.107	38.317	54.788	54.788
619.760	28.86	-2.459	26.396	38.606	54.788	54.788
619.770	29.62	-2.448	27.169	39.379	54.788	54.788
619.780	28.62	-2.471	26.149	38.359	54.788	54.788
619.790	27.02	-2.499	24.525	36.735	54.788	54.788
619.800	26.67	-2.532	24.140	36.350	54.788	54.788
619.810	26.20	-2.584	23.616	35.826	54.788	54.788
619.820	27.82	-2.621	25.198	37.408	54.788	54.788
619.830	26.70	-2.627	24.073	36.283	54.788	54.788
619.840	26.07	-2.656	23.415	35.625	54.788	54.788
619.850	23.68	-2.701	20.981	33.191	54.788	54.788
619.860	24.65	-2.735	21.914	34.124	54.788	54.788
619.870	22.35	-2.769	19.578	31.788	54.788	54.788
619.880	21.90	-2.818	19.077	31.287	54.788	54.788
619.890	20.94	-2.889	18.050	30.260	54.788	54.788

619.900	19.46	-2.902	16.562	28.772	54.788	54.788
619.910	19.87	-2.925	16.944	29.154	54.788	54.788
619.920	19.82	-2.992	16.830	29.040	54.788	54.788
619.930	16.77	-3.051	13.716	25.926	54.788	54.788
619.940	15.20	-3.109	12.093	24.303	54.788	54.788
619.950	15.09	-3.173	11.913	24.123	54.788	54.788
619.960	11.94	-3.228	8.714	20.924	54.788	54.788
619.970	9.57	-3.291	6.277	18.487	54.788	54.788
619.980	6.50	-3.366	3.135	15.345	54.788	54.788
619.990	2.14	-3.439	-1.299	10.911	54.788	54.788
620.000	-1.02	-3.51	-4.534	7.676	54.788	7.788
620.010	-1.174	-3.597	-4.771	7.439	8.788	7.788
620.020	-1.536	-3.671	-5.207	7.003	8.788	7.788
620.030	-1.258	-3.752	-5.010	7.200	8.788	7.788
620.040	-1.819	-3.86	-5.679	6.531	8.788	7.788
620.050	-2.374	-3.953	-6.327	5.883	8.788	7.788
620.060	-3.038	-4.062	-7.100	5.110	8.788	7.788
620.070	-1.621	-4.194	-5.815	6.395	8.788	7.788
620.080	-3.180	-4.326	-7.506	4.704	8.788	7.788
620.090	-3.225	-4.45	-7.675	4.535	8.788	7.788
620.100	-3.960	-4.598	-8.558	3.652	8.788	7.788
620.110	-1.825	-4.735	-6.560	5.650	8.788	7.788
620.120	-2.749	-4.928	-7.677	4.533	8.788	7.788
620.130	-2.745	-5.115	-7.860	4.350	8.788	7.788
620.140	-3.956	-5.3	-9.256	2.954	8.788	7.788
620.150	-0.999	-5.477	-6.476	5.734	8.788	7.788
620.160	-2.556	-5.676	-8.232	3.978	8.788	7.788
620.170	-3.298	-5.9	-9.198	3.012	8.788	7.788
620.180	-2.706	-6.151	-8.857	3.353	8.788	7.788
620.190	-3.121	-6.417	-9.538	2.672	8.788	7.788
620.200	-2.009	-6.719	-8.728	3.482	8.788	7.788
620.210	-5.522	-6.992	-12.514	-0.304	8.788	7.788
620.220	-2.742	-7.296	-10.038	2.172	8.788	7.788
620.230	-4.584	-7.603	-12.187	0.023	8.788	7.788
620.240	-2.072	-7.94	-10.012	2.198	8.788	7.788
620.250	-3.643	-8.288	-11.931	0.279	8.745	7.788
620.260	-3.956	-8.682	-12.638	-0.428	8.741	7.788
620.270	-3.438	-9.052	-12.490	-0.280	8.738	7.788
620.280	-3.672	-9.464	-13.136	-0.926	8.734	7.788
620.290	-2.317	-9.879	-12.196	0.014	8.730	7.788
620.300	-3.444	-10.325	-13.769	-1.559	8.726	7.788
620.310	-2.151	-10.783	-12.934	-0.724	8.722	7.788
620.320	-1.595	-11.234	-12.829	-0.619	8.717	7.788
620.330	-4.470	-11.748	-16.218	-4.008	8.713	7.788
620.340	-4.586	-12.236	-16.822	-4.612	8.708	7.788
620.350	-3.122	-12.737	-15.859	-3.649	8.703	7.788

620.360	-2.431	-13.262	-15.693	-3.483	8.698	7.788
620.370	-4.893	-13.819	-18.712	-6.502	8.693	7.788
620.380	-3.871	-14.353	-18.224	-6.014	8.688	7.788
620.390	-1.951	-14.839	-16.790	-4.580	8.683	7.788
620.400	-3.367	-15.388	-18.755	-6.545	8.677	7.788
620.410	-3.599	-15.935	-19.534	-7.324	8.672	7.788
620.420	-3.001	-16.439	-19.440	-7.230	8.666	7.788
620.430	-2.735	-16.973	-19.708	-7.498	8.660	7.788
620.440	-4.112	-17.445	-21.557	-9.347	8.654	7.788
620.450	-3.289	-17.922	-21.211	-9.001	8.648	7.788
620.460	-3.327	-18.341	-21.668	-9.458	8.641	7.788
620.470	-1.580	-18.728	-20.308	-8.098	8.635	7.788
620.480	-2.367	-19.059	-21.426	-9.216	8.628	7.788
620.490	-4.928	-19.35	-24.278	-12.068	8.622	7.788
620.500	-1.666	-19.585	-21.251	-9.041	8.615	7.788
620.510	-2.893	-19.774	-22.667	-10.457	8.608	7.673
620.520	-1.364	-19.88	-21.244	-9.034	8.601	7.558
620.530	-4.094	-19.951	-24.045	-11.835	8.593	7.443
620.540	-3.975	-19.997	-23.972	-11.762	8.586	7.328
620.550	-4.635	-19.972	-24.607	-12.397	8.578	7.213
620.560	-3.009	-19.911	-22.920	-10.710	8.571	7.098
620.570	-3.359	-19.849	-23.208	-10.998	8.563	6.983
620.580	-3.445	-19.764	-23.209	-10.999	8.555	6.868
620.590	-2.338	-19.643	-21.981	-9.771	8.547	6.753
620.600	-3.855	-19.543	-23.398	-11.188	8.538	6.638
620.610	-2.311	-19.403	-21.714	-9.504	8.530	6.523
620.620	-5.039	-19.274	-24.313	-12.103	8.521	6.408
620.630	-4.279	-19.161	-23.440	-11.230	8.513	6.293
620.640	-5.052	-19.03	-24.082	-11.872	8.504	6.178
620.650	-2.713	-18.908	-21.621	-9.411	8.495	6.063
620.660	-3.461	-18.784	-22.245	-10.035	8.486	5.948
620.670	-2.664	-18.659	-21.323	-9.113	8.477	5.833
620.680	-4.214	-18.562	-22.776	-10.566	8.467	5.718
620.690	-4.961	-18.479	-23.440	-11.230	8.458	5.603
620.700	-2.176	-18.368	-20.544	-8.334	8.448	5.488
620.710	-3.901	-18.273	-22.174	-9.964	8.438	5.373
620.720	-2.544	-18.201	-20.745	-8.535	8.428	5.258
620.730	-3.872	-18.092	-21.964	-9.754	8.418	5.143
620.740	-2.787	-18.035	-20.822	-8.612	8.408	5.028
620.750	-2.607	-17.963	-20.570	-8.360	8.398	4.913
620.760	-4.316	-17.886	-22.202	-9.992	8.387	4.798
620.770	-1.541	-17.83	-19.371	-7.161	8.377	4.683
620.780	-2.971	-17.777	-20.748	-8.538	8.366	4.568
620.790	-2.512	-17.733	-20.245	-8.035	8.355	4.453
620.800	-4.598	-17.691	-22.289	-10.079	8.344	4.338
620.810	-3.491	-17.63	-21.121	-8.911	8.333	4.223

620.820	-2.767	-17.607	-20.374	-8.164	8.321	4.108
620.830	-1.426	-17.589	-19.015	-6.805	8.310	3.993
620.840	-0.950	-17.569	-18.519	-6.309	8.298	3.878
620.850	-2.847	-17.54	-20.387	-8.177	8.287	3.763
620.860	-4.998	-17.497	-22.495	-10.285	8.275	3.648
620.870	-4.363	-17.494	-21.857	-9.647	8.263	3.533
620.880	-1.679	-17.49	-19.169	-6.959	8.251	3.418
620.890	-3.361	-17.504	-20.865	-8.655	8.238	3.303
620.900	-2.922	-17.491	-20.413	-8.203	8.226	3.188
620.910	-2.622	-17.496	-20.118	-7.908	8.213	3.073
620.920	-2.465	-17.478	-19.943	-7.733	8.201	2.958
620.930	-3.024	-17.465	-20.489	-8.279	8.188	2.843
620.940	-2.780	-17.479	-20.259	-8.049	8.175	2.728
620.950	-2.334	-17.513	-19.847	-7.637	8.162	2.613
620.960	-4.772	-17.527	-22.299	-10.089	8.148	2.498
620.970	-4.069	-17.538	-21.607	-9.397	8.135	2.383
620.980	-0.723	-17.547	-18.270	-6.060	8.121	2.268
620.990	-2.453	-17.58	-20.033	-7.823	8.108	2.153
621.000	-1.823	-17.577	-19.400	-7.190	8.094	2.038
621.010	-2.263	-17.605	-19.868	-7.658	8.080	1.923
621.020	-3.054	-17.63	-20.684	-8.474	8.066	1.808
621.030	-2.212	-17.678	-19.890	-7.680	8.052	1.693
621.040	-5.156	-17.694	-22.850	-10.640	8.037	1.578
621.050	-3.506	-17.714	-21.220	-9.010	8.023	1.463
621.060	-3.444	-17.739	-21.183	-8.973	8.008	1.348
621.070	-3.470	-17.772	-21.242	-9.032	7.993	1.233
621.080	-3.531	-17.822	-21.353	-9.143	7.978	1.118
621.090	-4.337	-17.846	-22.183	-9.973	7.963	1.003
621.100	-1.869	-17.885	-19.754	-7.544	7.948	0.888
621.110	-6.283	-17.911	-24.194	-11.984	7.933	0.773
621.120	-3.682	-17.93	-21.612	-9.402	7.917	0.658
621.130	-4.759	-17.993	-22.752	-10.542	7.902	0.543
621.140	-3.346	-18.044	-21.390	-9.180	7.886	0.428
621.150	-3.296	-18.09	-21.386	-9.176	7.870	0.313
621.160	-2.167	-18.112	-20.279	-8.069	7.854	0.198
621.170	-4.484	-18.17	-22.654	-10.444	7.838	0.083
621.180	-4.377	-18.225	-22.602	-10.392	7.821	-0.032
621.190	-4.032	-18.256	-22.288	-10.078	7.805	-0.147
621.200	-2.724	-18.294	-21.018	-8.808	7.788	-0.262
621.210	-1.880	-18.339	-20.219	-8.009	7.772	-0.377
621.220	-3.946	-18.391	-22.337	-10.127	7.755	-0.492
621.230	-5.021	-18.434	-23.455	-11.245	7.738	-0.607
621.240	-4.935	-18.499	-23.434	-11.224	7.721	-0.722
621.250	-5.264	-18.524	-23.788	-11.578	7.703	-0.837
621.260	-4.329	-18.597	-22.926	-10.716	7.686	-0.952
621.270	-3.576	-18.641	-22.217	-10.007	7.668	-1.067

621.280	-6.717	-18.694	-25.411	-13.201	7.651	-1.182
621.290	-2.957	-18.745	-21.702	-9.492	7.633	-1.297
621.300	-4.733	-18.798	-23.531	-11.321	7.615	-1.412
621.310	-3.794	-18.835	-22.629	-10.419	7.597	-1.527
621.320	-3.876	-18.909	-22.785	-10.575	7.578	-1.642
621.330	-3.371	-18.971	-22.342	-10.132	7.560	-1.757
621.340	-3.328	-19.035	-22.363	-10.153	7.541	-1.872
621.350	-5.348	-19.084	-24.432	-12.222	7.523	-1.987
621.360	-4.694	-19.131	-23.825	-11.615	7.504	-2.102
621.370	-4.645	-19.191	-23.836	-11.626	7.485	-2.217
621.380	-5.225	-19.218	-24.443	-12.233	7.466	-2.332
621.390	-2.114	-19.3	-21.414	-9.204	7.447	-2.447
621.400	-3.797	-19.341	-23.138	-10.928	7.427	-2.562
621.410	-1.802	-19.401	-21.203	-8.993	7.408	-2.677
621.420	-4.124	-19.477	-23.601	-11.391	7.388	-2.792
621.430	-4.885	-19.552	-24.437	-12.227	7.368	-2.907
621.440	-2.380	-19.6	-21.980	-9.770	7.348	-3.022
621.450	-4.336	-19.666	-24.002	-11.792	7.328	-3.137
621.460	-3.812	-19.696	-23.508	-11.298	7.308	-3.252
621.470	-4.769	-19.776	-24.545	-12.335	7.288	-3.367
621.480	-2.001	-19.822	-21.823	-9.613	7.267	-3.482
621.490	-4.563	-19.884	-24.447	-12.237	7.247	-3.597
621.500	-4.637	-19.941	-24.578	-12.368	7.226	-3.712
621.510	-5.071	-20.013	-25.084	-12.874	7.205	-3.827
621.520	-3.824	-20.072	-23.896	-11.686	7.184	-3.942
621.530	-2.700	-20.145	-22.845	-10.635	7.163	-4.057
621.540	-4.490	-20.217	-24.707	-12.497	7.141	-4.172
621.550	-3.467	-20.275	-23.742	-11.532	7.120	-4.287
621.560	-2.467	-20.335	-22.802	-10.592	7.098	-4.402
621.570	-4.310	-20.384	-24.694	-12.484	7.077	-4.517
621.580	-4.971	-20.435	-25.406	-13.196	7.055	-4.632
621.590	-3.459	-20.487	-23.946	-11.736	7.033	-4.747
621.600	-4.178	-20.549	-24.727	-12.517	7.011	-4.862
621.610	-3.130	-20.639	-23.769	-11.559	6.988	-4.977
621.620	-3.726	-20.703	-24.429	-12.219	6.966	-5.092
621.630	-2.565	-20.738	-23.303	-11.093	6.943	-5.207
621.640	-6.864	-20.813	-27.677	-15.467	6.921	-5.322
621.650	-3.008	-20.883	-23.891	-11.681	6.898	-5.437
621.660	-2.119	-20.922	-23.041	-10.831	6.875	-5.552
621.670	-1.286	-21.007	-22.293	-10.083	6.852	-5.667
621.680	-2.981	-21.066	-24.047	-11.837	6.828	-5.782
621.690	-5.244	-21.162	-26.406	-14.196	6.805	-5.897
621.700	-2.811	-21.209	-24.020	-11.810	6.781	-6.012
621.710	-5.442	-21.269	-26.711	-14.501	6.758	-6.127
621.720	-2.028	-21.324	-23.352	-11.142	6.734	-6.242
621.730	-5.157	-21.409	-26.566	-14.356	6.710	-6.357

621.740	-6.316	-21.463	-27.779	-15.569	6.686	-6.472
621.750	-3.488	-21.553	-25.041	-12.831	6.662	-6.587
621.760	-2.463	-21.598	-24.061	-11.851	6.637	-6.702
621.770	-4.533	-21.661	-26.194	-13.984	6.613	-6.817
621.780	-3.708	-21.705	-25.413	-13.203	6.588	-6.932
621.790	-4.683	-21.787	-26.470	-14.260	6.563	-7.047
621.800	-4.079	-21.853	-25.932	-13.722	6.538	-7.162
621.810	-3.854	-21.902	-25.756	-13.546	6.513	-7.277
621.820	-4.816	-21.972	-26.788	-14.578	6.488	-7.392
621.830	-4.061	-22.034	-26.095	-13.885	6.463	-7.507
621.840	-2.987	-22.095	-25.082	-12.872	6.437	-7.622
621.850	-3.425	-22.166	-25.591	-13.381	6.412	-7.737
621.860	-2.036	-22.25	-24.286	-12.076	6.386	-7.852
621.870	-3.729	-22.3	-26.029	-13.819	6.360	-7.967
621.880	-4.042	-22.358	-26.400	-14.190	6.334	-8.082
621.890	-4.253	-22.462	-26.715	-14.505	6.308	-8.197
621.900	-4.427	-22.518	-26.945	-14.735	6.281	-8.312
621.910	-2.360	-22.566	-24.926	-12.716	6.255	-8.427
621.920	-3.428	-22.627	-26.055	-13.845	6.228	-8.542
621.930	-3.824	-22.69	-26.514	-14.304	6.202	-8.657
621.940	-3.183	-22.779	-25.962	-13.752	6.175	-8.772
621.950	-4.023	-22.826	-26.849	-14.639	6.148	-8.887
621.960	-5.360	-22.871	-28.231	-16.021	6.121	-9.002
621.970	-4.747	-22.931	-27.678	-15.468	6.093	-9.117
621.980	-2.326	-23.017	-25.343	-13.133	6.066	-9.232
621.990	-3.793	-23.072	-26.865	-14.655	6.038	-9.347
622.000	-4.811	-23.149	-27.960	-15.750	6.011	-9.462
622.010	-3.641	-23.211	-26.852	-14.642	5.983	-9.577
622.020	-4.441	-23.272	-27.713	-15.503	5.955	-9.692
622.030	-3.591	-23.332	-26.923	-14.713	5.927	-9.807
622.040	-4.697	-23.39	-28.087	-15.877	5.898	-9.922
622.050	-5.094	-23.44	-28.534	-16.324	5.870	-10.037
622.060	-5.290	-23.539	-28.829	-16.619	5.841	-10.152
622.070	-7.612	-23.574	-31.186	-18.976	5.813	-10.267
622.080	-4.871	-23.647	-28.518	-16.308	5.784	-10.382
622.090	-7.384	-23.73	-31.114	-18.904	5.755	-10.497
622.100	-4.062	-23.776	-27.838	-15.628	5.726	-10.612
622.110	-4.993	-23.834	-28.827	-16.617	5.697	-10.727
622.120	-5.856	-23.903	-29.759	-17.549	5.667	-10.842
622.130	-4.444	-23.976	-28.420	-16.210	5.638	-10.957
622.140	-5.112	-24.06	-29.172	-16.962	5.608	-11.072
622.150	-5.622	-24.11	-29.732	-17.522	5.578	-11.187
622.160	-5.351	-24.169	-29.520	-17.310	5.548	-11.302
622.170	-3.921	-24.217	-28.138	-15.928	5.518	-11.417
622.180	-4.762	-24.313	-29.075	-16.865	5.488	-11.532
622.190	-4.934	-24.368	-29.302	-17.092	5.458	-11.647

622.200	-4.653	-24.42	-29.073	-16.863	5.427	-11.762
622.210	-5.904	-24.479	-30.383	-18.173	5.397	-11.877
622.220	-4.745	-24.556	-29.301	-17.091	5.366	-11.992
622.230	-7.699	-24.608	-32.307	-20.097	5.335	-12.107
622.240	-7.441	-24.687	-32.128	-19.918	5.304	-12.222
622.250	-4.846	-24.746	-29.592	-17.382	5.273	-12.337
622.260	-4.694	-24.826	-29.520	-17.310	5.241	-12.452
622.270	-6.802	-24.902	-31.704	-19.494	5.210	-12.567
622.280	-6.335	-24.943	-31.278	-19.068	5.178	-12.682
622.290	-8.329	-24.982	-33.311	-21.101	5.147	-12.797
622.300	-5.998	-25.067	-31.065	-18.855	5.115	-12.912
622.310	-4.403	-25.148	-29.551	-17.341	5.083	-13.027
622.320	-3.739	-25.202	-28.941	-16.731	5.051	-13.142
622.330	-4.862	-25.252	-30.114	-17.904	5.018	-13.257
622.340	-7.644	-25.29	-32.934	-20.724	4.986	-13.372
622.350	-6.764	-25.397	-32.161	-19.951	4.953	-13.487
622.360	-5.016	-25.449	-30.465	-18.255	4.921	-13.602
622.370	-4.764	-25.523	-30.287	-18.077	4.888	-13.717
622.380	-4.214	-25.573	-29.787	-17.577	4.855	-13.832
622.390	-7.723	-25.649	-33.372	-21.162	4.822	-13.947
622.400	-7.069	-25.706	-32.775	-20.565	4.788	-14.062
622.410	-6.850	-25.751	-32.601	-20.391	4.755	-14.177
622.420	-4.211	-25.829	-30.040	-17.830	4.721	-14.292
622.430	-7.136	-25.885	-33.021	-20.811	4.688	-14.407
622.440	-7.691	-25.965	-33.656	-21.446	4.654	-14.522
622.450	-4.470	-26.002	-30.472	-18.262	4.620	-14.637
622.460	-6.146	-26.093	-32.239	-20.029	4.586	-14.752
622.470	-4.349	-26.138	-30.487	-18.277	4.552	-14.867
622.480	-6.050	-26.202	-32.252	-20.042	4.517	-14.982
622.490	-4.274	-26.268	-30.542	-18.332	4.483	-15.097
622.500	-6.479	-26.294	-32.773	-20.563	4.448	-15.212
622.510	-7.059	-26.409	-33.468	-21.258	4.413	-15.327
622.520	-6.265	-26.446	-32.711	-20.501	4.378	-15.442
622.530	-5.215	-26.52	-31.735	-19.525	4.343	-15.557
622.540	-6.499	-26.55	-33.049	-20.839	4.308	-15.672
622.550	-6.405	-26.603	-33.008	-20.798	4.273	-15.787
622.560	-5.428	-26.698	-32.126	-19.916	4.237	-15.902
622.570	-8.418	-26.763	-35.181	-22.971	4.202	-16.017
622.580	-4.372	-26.827	-31.199	-18.989	4.166	-16.132
622.590	-5.592	-26.892	-32.484	-20.274	4.130	-16.247
622.600	-5.255	-26.945	-32.200	-19.990	4.094	-16.362
622.610	-5.707	-26.997	-32.704	-20.494	4.058	-16.477
622.620	-6.567	-27.063	-33.630	-21.420	4.021	-16.592
622.630	-5.023	-27.133	-32.156	-19.946	3.985	-16.707
622.640	-6.011	-27.188	-33.199	-20.989	3.948	-16.822
622.650	-6.283	-27.231	-33.514	-21.304	3.912	-16.937

622.660	-4.074	-27.311	-31.385	-19.175	3.875	-17.052
622.670	-4.746	-27.367	-32.113	-19.903	3.838	-17.167
622.680	-5.995	-27.428	-33.423	-21.213	3.801	-17.282
622.690	-3.728	-27.491	-31.219	-19.009	3.763	-17.397
622.700	-3.583	-27.53	-31.113	-18.903	3.726	-17.512
622.710	-4.995	-27.614	-32.609	-20.399	3.688	-17.627
622.720	-7.310	-27.686	-34.996	-22.786	3.651	-17.742
622.730	-4.880	-27.724	-32.604	-20.394	3.613	-17.857
622.740	-4.912	-27.758	-32.670	-20.460	3.575	-17.972
622.750	-5.067	-27.819	-32.886	-20.676	3.537	-18.087
622.760	-5.928	-27.905	-33.833	-21.623	3.498	-18.202
622.770	-5.087	-27.95	-33.037	-20.827	3.460	-18.317
622.780	-6.253	-28.038	-34.291	-22.081	3.421	-18.432
622.790	-5.346	-28.083	-33.429	-21.219	3.383	-18.547
622.800	-6.930	-28.146	-35.076	-22.866	3.344	-18.662
622.810	-5.157	-28.208	-33.365	-21.155	3.305	-18.777
622.820	-5.045	-28.253	-33.298	-21.088	3.266	-18.892
622.830	-6.797	-28.324	-35.121	-22.911	3.227	-19.007
622.840	-5.385	-28.382	-33.767	-21.557	3.187	-19.122
622.850	-4.822	-28.446	-33.268	-21.058	3.148	-19.237
622.860	-7.838	-28.494	-36.332	-24.122	3.108	-19.352
622.870	-7.168	-28.543	-35.711	-23.501	3.068	-19.467
622.880	-5.244	-28.62	-33.864	-21.654	3.028	-19.582
622.890	-6.268	-28.678	-34.946	-22.736	2.988	-19.697
622.900	-5.593	-28.758	-34.351	-22.141	2.948	-19.812
622.910	-5.489	-28.778	-34.267	-22.057	2.908	-19.927
622.920	-5.837	-28.835	-34.672	-22.462	2.867	-20.042
622.930	-4.970	-28.893	-33.863	-21.653	2.827	-20.157
622.940	-4.909	-28.97	-33.879	-21.669	2.786	-20.272
622.950	-5.119	-29.024	-34.143	-21.933	2.745	-20.387
622.960	-5.462	-29.099	-34.561	-22.351	2.704	-20.502
622.970	-7.253	-29.176	-36.429	-24.219	2.663	-20.617
622.980	-7.283	-29.232	-36.515	-24.305	2.621	-20.732
622.990	-6.288	-29.277	-35.565	-23.355	2.580	-20.847
623.000	-7.731	-29.319	-37.050	-24.840	2.538	-21.212
623.010	-7.123	-29.395	-36.518	-24.308	2.497	-21.212
623.020	-5.641	-29.452	-35.093	-22.883	2.455	-21.212
623.030	-6.120	-29.517	-35.637	-23.427	2.413	-21.212
623.040	-6.179	-29.555	-35.734	-23.524	2.371	-21.212
623.050	-5.855	-29.594	-35.449	-23.239	2.328	-21.212
623.060	-7.156	-29.661	-36.817	-24.607	2.286	-21.212
623.070	-7.873	-29.747	-37.620	-25.410	2.243	-21.212
623.080	-6.133	-29.799	-35.932	-23.722	2.201	-21.212
623.090	-6.801	-29.855	-36.656	-24.446	2.158	-21.212
623.100	-5.899	-29.91	-35.809	-23.599	2.115	-21.212
623.110	-7.573	-29.975	-37.548	-25.338	2.072	-21.212

623.120	-5.273	-30.025	-35.298	-23.088	2.028	-21.212
623.130	-6.550	-30.091	-36.641	-24.431	1.985	-21.212
623.140	-6.684	-30.133	-36.817	-24.607	1.941	-21.212
623.150	-7.760	-30.173	-37.933	-25.723	1.898	-21.212
623.160	-5.812	-30.238	-36.050	-23.840	1.854	-21.212
623.170	-5.980	-30.318	-36.298	-24.088	1.810	-21.212
623.180	-6.378	-30.351	-36.729	-24.519	1.766	-21.212
623.190	-8.169	-30.393	-38.562	-26.352	1.722	-21.212
623.200	-6.969	-30.444	-37.413	-25.203	1.677	-21.212
623.210	-7.238	-30.528	-37.766	-25.556	1.633	-21.212
623.220	-6.145	-30.582	-36.727	-24.517	1.588	-21.212
623.230	-5.535	-30.635	-36.170	-23.960	1.543	-21.212
623.240	-5.838	-30.683	-36.521	-24.311	1.498	-21.212
623.250	-5.951	-30.74	-36.691	-24.481	1.453	-21.212
623.260	-6.273	-30.826	-37.099	-24.889	1.408	-21.212
623.270	-7.475	-30.896	-38.371	-26.161	1.363	-21.212
623.280	-6.720	-30.905	-37.625	-25.415	1.317	-21.212
623.290	-6.290	-30.958	-37.248	-25.038	1.272	-21.212
623.300	-7.694	-31.033	-38.727	-26.517	1.226	-21.212
623.310	-7.785	-31.096	-38.881	-26.671	1.180	-21.212
623.320	-7.471	-31.17	-38.641	-26.431	1.134	-21.212
623.330	-7.019	-31.216	-38.235	-26.025	1.088	-21.212
623.340	-7.918	-31.247	-39.165	-26.955	1.041	-21.212
623.350	-5.815	-31.305	-37.120	-24.910	0.995	-21.212
623.360	-5.783	-31.412	-37.195	-24.985	0.948	-21.212
623.370	-7.837	-31.426	-39.263	-27.053	0.902	-21.212
623.380	-7.630	-31.468	-39.098	-26.888	0.855	-21.212
623.390	-7.516	-31.528	-39.044	-26.834	0.808	-21.212
623.400	-6.041	-31.593	-37.634	-25.424	0.761	-21.212
623.410	-8.569	-31.645	-40.214	-28.004	0.713	-21.212
623.420	-7.323	-31.703	-39.026	-26.816	0.666	-21.212
623.430	-6.531	-31.756	-38.287	-26.077	0.618	-21.212
623.440	-5.518	-31.8	-37.318	-25.108	0.571	-21.212
623.450	-8.149	-31.864	-40.013	-27.803	0.523	-21.212
623.460	-7.951	-31.932	-39.883	-27.673	0.475	-21.212
623.470	-6.749	-31.976	-38.725	-26.515	0.427	-21.212
623.480	-6.351	-32.029	-38.380	-26.170	0.378	-21.212
623.490	-7.324	-32.088	-39.412	-27.202	0.330	-21.212
623.500	-7.120	-32.163	-39.283	-27.073	0.281	-21.212
623.510	-7.516	-32.205	-39.721	-27.511	0.233	-21.212
623.520	-7.657	-32.236	-39.893	-27.683	0.184	-21.212
623.530	-8.042	-32.303	-40.345	-28.135	0.135	-21.212
623.540	-7.568	-32.341	-39.909	-27.699	0.086	-21.212
623.550	-8.296	-32.403	-40.699	-28.489	0.037	-21.212
623.560	-8.343	-32.461	-40.804	-28.594	-0.013	-21.212
623.570	-7.623	-32.521	-40.144	-27.934	-0.062	-21.212

623.580	-7.411	-32.56	-39.971	-27.761	-0.112	-21.212
623.590	-7.269	-32.623	-39.892	-27.682	-0.162	-21.212
623.600	-7.238	-32.675	-39.913	-27.703	-0.212	-21.212
623.610	-8.547	-32.722	-41.269	-29.059	-0.262	-21.212
623.620	-7.084	-32.795	-39.879	-27.669	-0.312	-21.212
623.630	-6.984	-32.841	-39.825	-27.615	-0.362	-21.212
623.640	-6.568	-32.908	-39.476	-27.266	-0.413	-21.212
623.650	-6.769	-32.962	-39.731	-27.521	-0.463	-21.212
623.660	-6.464	-32.991	-39.455	-27.245	-0.514	-21.212
623.670	-7.953	-33.067	-41.020	-28.810	-0.565	-21.212
623.680	-7.403	-33.098	-40.501	-28.291	-0.616	-21.212
623.690	-7.701	-33.15	-40.851	-28.641	-0.667	-21.212
623.700	-7.189	-33.2	-40.389	-28.179	-0.719	-21.212
623.710	-6.651	-33.249	-39.900	-27.690	-0.770	-21.212
623.720	-6.751	-33.292	-40.043	-27.833	-0.822	-21.212
623.730	-6.875	-33.355	-40.230	-28.020	-0.873	-21.212
623.740	-7.656	-33.419	-41.075	-28.865	-0.925	-21.212
623.750	-5.911	-33.467	-39.378	-27.168	-0.977	-21.212
623.760	-8.336	-33.549	-41.885	-29.675	-1.029	-21.212
623.770	-6.078	-33.579	-39.657	-27.447	-1.082	-21.212
623.780	-8.567	-33.615	-42.182	-29.972	-1.134	-21.212
623.790	-7.770	-33.697	-41.467	-29.257	-1.187	-21.212
623.800	-9.411	-33.743	-43.154	-30.944	-1.239	-21.212
623.810	-9.935	-33.779	-43.714	-31.504	-1.292	-21.212
623.820	-7.470	-33.811	-41.281	-29.071	-1.345	-21.212
623.830	-9.485	-33.891	-43.376	-31.166	-1.398	-21.212
623.840	-7.956	-33.955	-41.911	-29.701	-1.452	-21.212
623.850	-8.389	-33.989	-42.378	-30.168	-1.505	-21.212
623.860	-8.015	-34.04	-42.055	-29.845	-1.559	-21.212
623.870	-6.678	-34.08	-40.758	-28.548	-1.612	-21.212
623.880	-6.551	-34.13	-40.681	-28.471	-1.666	-21.212
623.890	-8.829	-34.212	-43.041	-30.831	-1.720	-21.212
623.900	-8.573	-34.24	-42.813	-30.603	-1.774	-21.212
623.910	-8.170	-34.314	-42.484	-30.274	-1.828	-21.212
623.920	-6.921	-34.356	-41.277	-29.067	-1.883	-21.212
623.930	-8.565	-34.428	-42.993	-30.783	-1.937	-21.212
623.940	-8.221	-34.455	-42.676	-30.466	-1.992	-21.212
623.950	-8.588	-34.51	-43.098	-30.888	-2.047	-21.212
623.960	-9.254	-34.553	-43.807	-31.597	-2.102	-21.212
623.970	-8.600	-34.611	-43.211	-31.001	-2.157	-21.212
623.980	-8.812	-34.664	-43.476	-31.266	-2.212	-21.212
623.990	-8.170	-34.702	-42.872	-30.662	-2.267	-21.212
624.000	-6.882	-34.766	-41.648	-29.438	-2.323	-21.212
624.010	-8.319	-34.806	-43.125	-30.915	-2.378	-21.212
624.020	-7.926	-34.856	-42.782	-30.572	-2.434	-21.212
624.030	-9.331	-34.912	-44.243	-32.033	-2.490	-21.212

624.040	-5.855	-34.948	-40.803	-28.593	-2.546	-21.212
624.050	-8.231	-35.027	-43.258	-31.048	-2.602	-21.212
624.060	-6.129	-35.055	-41.184	-28.974	-2.659	-21.212
624.070	-8.004	-35.118	-43.122	-30.912	-2.715	-21.212
624.080	-8.153	-35.172	-43.325	-31.115	-2.772	-21.212
624.090	-8.260	-35.216	-43.476	-31.266	-2.828	-21.212
624.100	-8.778	-35.28	-44.058	-31.848	-2.885	-21.212
624.110	-8.904	-35.301	-44.205	-31.995	-2.942	-21.212
624.120	-8.147	-35.362	-43.509	-31.299	-2.999	-21.212
624.130	-8.233	-35.426	-43.659	-31.449	-3.057	-21.212
624.140	-6.947	-35.464	-42.411	-30.201	-3.114	-21.212
624.150	-6.814	-35.521	-42.335	-30.125	-3.172	-21.212
624.160	-9.059	-35.555	-44.614	-32.404	-3.229	-21.212
624.170	-8.629	-35.616	-44.245	-32.035	-3.287	-21.212
624.180	-6.737	-35.671	-42.408	-30.198	-3.345	-21.212
624.190	-8.992	-35.711	-44.703	-32.493	-3.403	-21.212
624.200	-11.001	-35.741	-46.742	-34.532	-3.462	-21.212
624.210	-11.648	-35.793	-47.441	-35.231	-3.520	-21.212
624.220	-8.356	-35.855	-44.211	-32.001	-3.579	-21.212
624.230	-9.513	-35.914	-45.427	-33.217	-3.637	-21.212
624.240	-10.239	-35.955	-46.194	-33.984	-3.696	-21.212
624.250	-9.187	-36.003	-45.190	-32.980	-3.755	-21.212
624.260	-9.555	-36.05	-45.605	-33.395	-3.814	-21.212
624.270	-10.720	-36.081	-46.801	-34.591	-3.873	-21.212
624.280	-10.530	-36.132	-46.662	-34.452	-3.933	-21.212
624.290	-9.632	-36.173	-45.805	-33.595	-3.992	-21.212
624.300	-9.109	-36.246	-45.355	-33.145	-4.052	-21.212
624.310	-7.845	-36.303	-44.148	-31.938	-4.112	-21.212
624.320	-7.646	-36.356	-44.002	-31.792	-4.172	-21.212
624.330	-8.647	-36.382	-45.029	-32.819	-4.232	-21.212
624.340	-9.994	-36.447	-46.441	-34.231	-4.292	-21.212
624.350	-9.180	-36.485	-45.665	-33.455	-4.352	-21.212
624.360	-8.155	-36.542	-44.697	-32.487	-4.413	-21.212
624.370	-11.130	-36.585	-47.715	-35.505	-4.473	-21.212
624.380	-8.999	-36.627	-45.626	-33.416	-4.534	-21.212
624.390	-9.865	-36.723	-46.588	-34.378	-4.595	-21.212
624.400	-8.465	-36.735	-45.200	-32.990	-4.656	-21.212
624.410	-11.467	-36.793	-48.260	-36.050	-4.717	-21.212
624.420	-9.234	-36.815	-46.049	-33.839	-4.779	-21.212
624.430	-8.594	-36.878	-45.472	-33.262	-4.840	-21.212
624.440	-9.151	-36.925	-46.076	-33.866	-4.902	-21.212
624.450	-11.385	-36.952	-48.337	-36.127	-4.963	-21.212
624.460	-12.374	-37.06	-49.434	-37.224	-5.025	-21.212
624.470	-8.243	-37.078	-45.321	-33.111	-5.087	-21.212
624.480	-11.524	-37.096	-48.620	-36.410	-5.149	-21.212
624.490	-9.019	-37.174	-46.193	-33.983	-5.212	-21.212

624.500	-10.601	-37.211	-47.812	-35.602	-5.274	-21.212
624.510	-8.625	-37.274	-45.899	-33.689	-5.337	-21.212
624.520	-8.988	-37.306	-46.294	-34.084	-5.399	-21.212
624.530	-10.394	-37.369	-47.763	-35.553	-5.462	-21.212
624.540	-10.988	-37.396	-48.384	-36.174	-5.525	-21.212
624.550	-12.243	-37.422	-49.665	-37.455	-5.588	-21.212
624.560	-10.548	-37.49	-48.038	-35.828	-5.652	-21.212
624.570	-9.460	-37.554	-47.014	-34.804	-5.715	-21.212
624.580	-10.099	-37.591	-47.690	-35.480	-5.779	-21.212
624.590	-10.580	-37.674	-48.254	-36.044	-5.842	-21.212
624.600	-10.276	-37.689	-47.965	-35.755	-5.906	-21.212
624.610	-9.790	-37.732	-47.522	-35.312	-5.970	-21.212
624.620	-9.143	-37.774	-46.917	-34.707	-6.034	-21.212
624.630	-11.898	-37.822	-49.720	-37.510	-6.098	-21.212
624.640	-9.393	-37.878	-47.271	-35.061	-6.163	-21.212
624.650	-10.452	-37.909	-48.361	-36.151	-6.227	-21.212
624.660	-12.903	-37.97	-50.873	-38.663	-6.292	-21.212
624.670	-11.026	-37.972	-48.998	-36.788	-6.357	-21.212
624.680	-10.718	-38.012	-48.730	-36.520	-6.422	-21.212
624.690	-11.868	-38.097	-49.965	-37.755	-6.487	-21.212
624.700	-11.455	-38.144	-49.599	-37.389	-6.552	-21.212
624.710	-11.531	-38.203	-49.734	-37.524	-6.617	-21.212
624.720	-8.485	-38.236	-46.721	-34.511	-6.683	-21.212
624.730	-8.912	-38.295	-47.207	-34.997	-6.748	-21.212
624.740	-12.048	-38.303	-50.351	-38.141	-6.814	-21.212
624.750	-11.817	-38.367	-50.184	-37.974	-6.880	-21.212
624.760	-9.403	-38.404	-47.807	-35.597	-6.946	-21.212
624.770	-11.772	-38.463	-50.235	-38.025	-7.012	-21.212
624.780	-12.169	-38.499	-50.668	-38.458	-7.079	-21.212
624.790	-10.563	-38.593	-49.156	-36.946	-7.145	-21.212
624.800	-10.115	-38.619	-48.734	-36.524	-7.212	-21.212
624.810	-11.994	-38.658	-50.652	-38.442	-7.278	-21.212
624.820	-10.727	-38.698	-49.425	-37.215	-7.345	-21.212
624.830	-10.082	-38.745	-48.827	-36.617	-7.412	-21.212
624.840	-11.126	-38.799	-49.925	-37.715	-7.479	-21.212
624.850	-11.598	-38.824	-50.422	-38.212	-7.547	-21.212
624.860	-12.598	-38.859	-51.457	-39.247	-7.614	-21.212
624.870	-12.032	-38.949	-50.981	-38.771	-7.682	-21.212
624.880	-13.492	-38.978	-52.470	-40.260	-7.749	-21.212
624.890	-10.551	-39.041	-49.592	-37.382	-7.817	-21.212
624.900	-11.298	-39.02	-50.318	-38.108	-7.885	-21.212
624.910	-11.275	-39.105	-50.380	-38.170	-7.953	-21.212
624.920	-12.402	-39.147	-51.549	-39.339	-8.022	-21.212
624.930	-11.958	-39.204	-51.162	-38.952	-8.090	-21.212
624.940	-12.545	-39.231	-51.776	-39.566	-8.159	-21.212
624.950	-11.591	-39.287	-50.878	-38.668	-8.227	-21.212

624.960	-11.925	-39.324	-51.249	-39.039	-8.296	-21.212
624.970	-10.968	-39.373	-50.341	-38.131	-8.365	-21.212
624.980	-10.125	-39.391	-49.516	-37.306	-8.434	-21.212
624.990	-10.861	-39.489	-50.350	-38.140	-8.503	-21.212
625.000	-12.158	-39.68	-51.838	-39.628	-8.573	-21.212
625.010	-10.815	-39.544	-50.359	-38.149	-8.642	-21.212
625.020	-13.209	-39.573	-52.782	-40.572	-8.712	-21.212
625.030	-11.356	-39.626	-50.982	-38.772	-8.782	-21.212
625.040	-11.218	-39.674	-50.892	-38.682	-8.852	-21.212
625.050	-11.502	-39.751	-51.253	-39.043	-8.922	-21.212
625.060	-9.650	-39.833	-49.483	-37.273	-8.992	-21.212
625.070	-10.272	-39.795	-50.067	-37.857	-9.062	-21.212
625.080	-9.860	-39.877	-49.737	-37.527	-9.133	-21.212
625.090	-10.879	-39.923	-50.802	-38.592	-9.203	-21.212
625.100	-12.654	-39.934	-52.588	-40.378	-9.274	-21.212
625.110	-14.413	-39.974	-54.387	-42.177	-9.345	-21.212
625.120	-13.365	-40.041	-53.406	-41.196	-9.416	-21.212
625.130	-14.494	-40.067	-54.561	-42.351	-9.487	-21.212
625.140	-12.439	-40.112	-52.551	-40.341	-9.559	-21.212
625.150	-13.833	-40.16	-53.993	-41.783	-9.630	-21.212
625.160	-12.779	-40.234	-53.013	-40.803	-9.702	-21.212
625.170	-11.532	-40.294	-51.826	-39.616	-9.773	-21.212
625.180	-14.005	-40.31	-54.315	-42.105	-9.845	-21.212
625.190	-12.980	-40.325	-53.305	-41.095	-9.917	-21.212
625.200	-12.700	-40.407	-53.107	-40.897	-9.989	-21.212
625.210	-13.561	-40.398	-53.959	-41.749	-10.062	-21.212
625.220	-12.923	-40.472	-53.395	-41.185	-10.134	-21.212
625.230	-14.497	-40.5	-54.997	-42.787	-10.207	-21.212
625.240	-12.143	-40.53	-52.673	-40.463	-10.279	-21.212
625.250	-14.394	-40.623	-55.017	-42.807	-10.352	-21.212
625.260	-12.491	-40.651	-53.142	-40.932	-10.425	-21.212
625.270	-14.054	-40.705	-54.759	-42.549	-10.498	-21.212
625.280	-12.121	-40.734	-52.855	-40.645	-10.572	-21.212
625.290	-13.590	-40.78	-54.370	-42.160	-10.645	-21.212
625.300	-13.912	-40.857	-54.769	-42.559	-10.719	-21.212
625.310	-13.051	-40.838	-53.889	-41.679	-10.792	-21.212
625.320	-14.597	-40.893	-55.490	-43.280	-10.866	-21.212
625.330	-14.091	-40.932	-55.023	-42.813	-10.940	-21.212
625.340	-12.453	-40.958	-53.411	-41.201	-11.014	-21.212
625.350	-14.872	-41.047	-55.919	-43.709	-11.088	-21.212
625.360	-13.211	-41.06	-54.271	-42.061	-11.163	-21.212
625.370	-14.491	-41.13	-55.621	-43.411	-11.237	-21.212
625.380	-14.165	-41.135	-55.300	-43.090	-11.312	-21.212
625.390	-13.487	-41.23	-54.717	-42.507	-11.387	-21.212
625.400	-14.560	-41.274	-55.834	-43.624	-11.462	-21.212
625.410	-16.222	-41.3	-57.522	-45.312	-11.537	-21.212

625.420	-16.215	-41.35	-57.565	-45.355	-11.612	-21.212
625.430	-15.504	-41.339	-56.843	-44.633	-11.687	-21.212
625.440	-14.300	-41.441	-55.741	-43.531	-11.763	-21.212
625.450	-13.352	-41.444	-54.796	-42.586	-11.838	-21.212
625.460	-16.470	-41.502	-57.972	-45.762	-11.914	-21.212
625.470	-15.301	-41.514	-56.815	-44.605	-11.990	-21.212
625.480	-15.177	-41.585	-56.762	-44.552	-12.066	-21.212
625.490	-14.878	-41.628	-56.506	-44.296	-12.142	-21.212
625.500	-15.339	-41.649	-56.988	-44.778	-12.219	-21.212
625.510	-14.504	-41.669	-56.173	-43.963	-12.295	-21.212
625.520	-15.783	-41.71	-57.493	-45.283	-12.372	-21.212
625.530	-13.830	-41.773	-55.603	-43.393	-12.448	-21.212
625.540	-14.690	-41.822	-56.512	-44.302	-12.525	-21.212
625.550	-14.775	-41.843	-56.618	-44.408	-12.602	-21.212
625.560	-14.833	-41.912	-56.745	-44.535	-12.679	-21.212
625.570	-13.767	-41.968	-55.735	-43.525	-12.757	-21.212
625.580	-14.920	-42.001	-56.921	-44.711	-12.834	-21.212
625.590	-13.676	-42.021	-55.697	-43.487	-12.912	-21.212
625.600	-15.223	-42.058	-57.281	-45.071	-12.989	-21.212
625.610	-13.089	-42.124	-55.213	-43.003	-13.067	-21.212
625.620	-16.046	-42.167	-58.213	-46.003	-13.145	-21.212
625.630	-15.792	-42.203	-57.995	-45.785	-13.223	-21.212
625.640	-15.461	-42.278	-57.739	-45.529	-13.302	-21.212
625.650	-12.643	-42.305	-54.948	-42.738	-13.380	-21.212
625.660	-15.620	-42.326	-57.946	-45.736	-13.459	-21.212
625.670	-14.560	-42.396	-56.956	-44.746	-13.537	-21.212
625.680	-14.106	-42.393	-56.499	-44.289	-13.616	-21.212
625.690	-14.796	-42.431	-57.227	-45.017	-13.695	-21.212
625.700	-14.421	-42.485	-56.906	-44.696	-13.774	-21.212
625.710	-15.177	-42.486	-57.663	-45.453	-13.853	-21.212
625.720	-12.309	-42.568	-54.877	-42.667	-13.933	-21.212
625.730	-13.996	-42.63	-56.626	-44.416	-14.012	-21.212
625.740	-15.698	-42.66	-58.358	-46.148	-14.092	-21.212
625.750	-13.853	-42.707	-56.560	-44.350	-14.172	-21.212
625.760	-14.667	-42.738	-57.405	-45.195	-14.252	-21.212
625.770	-13.992	-42.809	-56.801	-44.591	-14.332	-21.212
625.780	-14.889	-42.82	-57.709	-45.499	-14.412	-21.212
625.790	-15.469	-42.913	-58.382	-46.172	-14.492	-21.212
625.800	-13.397	-42.928	-56.325	-44.115	-14.573	-21.212
625.810	-13.691	-42.919	-56.610	-44.400	-14.653	-21.212
625.820	-16.998	-42.976	-59.974	-47.764	-14.734	-21.212
625.830	-15.688	-42.994	-58.682	-46.472	-14.815	-21.212
625.840	-14.915	-43.035	-57.950	-45.740	-14.896	-21.212
625.850	-15.990	-43.084	-59.074	-46.864	-14.977	-21.212
625.860	-15.693	-43.111	-58.804	-46.594	-15.059	-21.212
625.870	-16.563	-43.16	-59.723	-47.513	-15.140	-21.212

625.880	-15.319	-43.255	-58.574	-46.364	-15.222	-21.212
625.890	-14.408	-43.265	-57.673	-45.463	-15.303	-21.212
625.900	-14.935	-43.309	-58.244	-46.034	-15.385	-21.212
625.910	-14.845	-43.312	-58.157	-45.947	-15.467	-21.212
625.920	-14.564	-43.352	-57.916	-45.706	-15.549	-21.212
625.930	-13.296	-43.428	-56.724	-44.514	-15.632	-21.212
625.940	-15.615	-43.395	-59.010	-46.800	-15.714	-21.212
625.950	-12.827	-43.473	-56.300	-44.090	-15.797	-21.212
625.960	-16.843	-43.587	-60.430	-48.220	-15.879	-21.212
625.970	-15.430	-43.559	-58.989	-46.779	-15.962	-21.212
625.980	-14.712	-43.579	-58.291	-46.081	-16.045	-21.212
625.990	-16.341	-43.686	-60.027	-47.817	-16.128	-21.212
626.000	-16.304	-43.68	-59.984	-47.774	-16.212	-21.212
626.010	-15.441	-43.704	-59.145	-46.935	-16.212	-21.212
626.020	-15.935	-43.772	-59.707	-47.497	-16.212	-21.212
626.030	-17.524	-43.8	-61.324	-49.114	-16.212	-21.212
626.040	-13.939	-43.863	-57.802	-45.592	-16.212	-21.212
626.050	-12.833	-43.885	-56.718	-44.508	-16.212	-21.212
626.060	-13.075	-43.925	-57.000	-44.790	-16.212	-21.212
626.070	-14.960	-43.984	-58.944	-46.734	-16.212	-21.212
626.080	-15.440	-44.026	-59.466	-47.256	-16.212	-21.212
626.090	-15.576	-44.059	-59.635	-47.425	-16.212	-21.212
626.100	-16.194	-44.097	-60.291	-48.081	-16.212	-21.212
626.110	-15.869	-44.108	-59.977	-47.767	-16.212	-21.212
626.120	-16.802	-44.197	-60.999	-48.789	-16.212	-21.212
626.130	-15.204	-44.244	-59.448	-47.238	-16.212	-21.212
626.140	-13.523	-44.22	-57.743	-45.533	-16.212	-21.212
626.150	-15.438	-44.285	-59.723	-47.513	-16.212	-21.212
626.160	-14.431	-44.253	-58.684	-46.474	-16.212	-21.212
626.170	-15.512	-44.36	-59.872	-47.662	-16.212	-21.212
626.180	-13.984	-44.413	-58.397	-46.187	-16.212	-21.212
626.190	-16.283	-44.403	-60.686	-48.476	-16.212	-21.212
626.200	-14.824	-44.457	-59.281	-47.071	-16.212	-21.212
626.210	-13.956	-44.506	-58.462	-46.252	-16.212	-21.212
626.220	-16.142	-44.576	-60.718	-48.508	-16.212	-21.212
626.230	-18.042	-44.591	-62.633	-50.423	-16.212	-21.212
626.240	-17.524	-44.664	-62.188	-49.978	-16.212	-21.212
626.250	-14.461	-44.7	-59.161	-46.951	-16.212	-21.212
626.260	-14.828	-44.721	-59.549	-47.339	-16.212	-21.212
626.270	-15.527	-44.753	-60.280	-48.070	-16.212	-21.212
626.280	-16.119	-44.763	-60.882	-48.672	-16.212	-21.212
626.290	-14.061	-44.824	-58.885	-46.675	-16.212	-21.212
626.300	-15.974	-44.834	-60.808	-48.598	-16.212	-21.212
626.310	-15.190	-44.913	-60.103	-47.893	-16.212	-21.212
626.320	-14.163	-44.975	-59.138	-46.928	-16.212	-21.212
626.330	-13.580	-44.973	-58.553	-46.343	-16.212	-21.212

626.340	-16.120	-45.031	-61.151	-48.941	-16.212	-21.212
626.350	-17.609	-45.037	-62.646	-50.436	-16.212	-21.212
626.360	-17.727	-45.06	-62.787	-50.577	-16.212	-21.212
626.370	-15.383	-45.074	-60.457	-48.247	-16.212	-21.212
626.380	-15.651	-45.143	-60.794	-48.584	-16.212	-21.212
626.390	-15.267	-45.2	-60.467	-48.257	-16.212	-21.212
626.400	-15.945	-45.271	-61.216	-49.006	-16.212	-21.212
626.410	-16.843	-45.323	-62.166	-49.956	-16.212	-21.212
626.420	-16.957	-45.295	-62.252	-50.042	-16.212	-21.212
626.430	-17.283	-45.375	-62.658	-50.448	-16.212	-21.212
626.440	-16.322	-45.419	-61.741	-49.531	-16.212	-21.212
626.450	-15.714	-45.418	-61.132	-48.922	-16.212	-21.212
626.460	-15.931	-45.457	-61.388	-49.178	-16.212	-21.212
626.470	-16.335	-45.497	-61.832	-49.622	-16.212	-21.212
626.480	-16.147	-45.561	-61.708	-49.498	-16.212	-21.212
626.490	-15.527	-45.549	-61.076	-48.866	-16.212	-21.212
626.500	-15.340	-45.628	-60.968	-48.758	-16.212	-21.212
626.510	-14.564	-45.623	-60.187	-47.977	-16.212	-21.212
626.520	-16.140	-45.692	-61.832	-49.622	-16.212	-21.212
626.530	-15.959	-45.716	-61.675	-49.465	-16.212	-21.212
626.540	-16.407	-45.722	-62.129	-49.919	-16.212	-21.212
626.550	-14.726	-45.79	-60.516	-48.306	-16.212	-21.212
626.560	-14.798	-45.823	-60.621	-48.411	-16.212	-21.212
626.570	-15.455	-45.865	-61.320	-49.110	-16.212	-21.212
626.580	-17.204	-45.888	-63.092	-50.882	-16.212	-21.212
626.590	-16.717	-45.938	-62.655	-50.445	-16.212	-21.212
626.600	-15.819	-46.008	-61.827	-49.617	-16.212	-21.212
626.610	-16.750	-46.011	-62.761	-50.551	-16.212	-21.212
626.620	-14.588	-46.047	-60.635	-48.425	-16.212	-21.212
626.630	-18.655	-46.121	-64.776	-52.566	-16.212	-21.212
626.640	-16.752	-46.166	-62.918	-50.708	-16.212	-21.212
626.650	-16.382	-46.166	-62.548	-50.338	-16.212	-21.212
626.660	-15.241	-46.204	-61.445	-49.235	-16.212	-21.212
626.670	-15.724	-46.245	-61.969	-49.759	-16.212	-21.212
626.680	-15.299	-46.298	-61.597	-49.387	-16.212	-21.212
626.690	-17.699	-46.328	-64.027	-51.817	-16.212	-21.212
626.700	-15.308	-46.298	-61.606	-49.396	-16.212	-21.212
626.710	-15.144	-46.4	-61.544	-49.334	-16.212	-21.212
626.720	-17.629	-46.405	-64.034	-51.824	-16.212	-21.212
626.730	-16.199	-46.399	-62.598	-50.388	-16.212	-21.212
626.740	-17.308	-46.489	-63.797	-51.587	-16.212	-21.212
626.750	-16.695	-46.561	-63.256	-51.046	-16.212	-21.212
626.760	-15.704	-46.584	-62.288	-50.078	-16.212	-21.212
626.770	-16.255	-46.634	-62.889	-50.679	-16.212	-21.212
626.780	-15.320	-46.678	-61.998	-49.788	-16.212	-21.212
626.790	-16.880	-46.657	-63.537	-51.327	-16.212	-21.212

626.800	-15.699	-46.691	-62.390	-50.180	-16.212	-21.212
626.810	-17.291	-46.795	-64.086	-51.876	-16.212	-21.212
626.820	-17.522	-46.834	-64.356	-52.146	-16.212	-21.212
626.830	-18.268	-46.828	-65.096	-52.886	-16.212	-21.212
626.840	-17.074	-46.896	-63.970	-51.760	-16.212	-21.212
626.850	-16.528	-46.876	-63.404	-51.194	-16.212	-21.212
626.860	-17.046	-46.916	-63.962	-51.752	-16.212	-21.212
626.870	-15.851	-47.005	-62.856	-50.646	-16.212	-21.212
626.880	-16.342	-47.018	-63.360	-51.150	-16.212	-21.212
626.890	-16.348	-47.01	-63.358	-51.148	-16.212	-21.212
626.900	-16.320	-47.076	-63.396	-51.186	-16.212	-21.212
626.910	-16.474	-47.118	-63.592	-51.382	-16.212	-21.212
626.920	-17.255	-47.131	-64.386	-52.176	-16.212	-21.212
626.930	-17.011	-47.218	-64.229	-52.019	-16.212	-21.212
626.940	-17.545	-47.238	-64.783	-52.573	-16.212	-21.212
626.950	-16.767	-47.292	-64.059	-51.849	-16.212	-21.212
626.960	-17.548	-47.301	-64.849	-52.639	-16.212	-21.212
626.970	-16.177	-47.306	-63.483	-51.273	-16.212	-21.212
626.980	-16.317	-47.403	-63.720	-51.510	-16.212	-21.212
626.990	-15.638	-47.355	-62.993	-50.783	-16.212	-21.212
627.000	-14.399	-47.376	-61.775	-49.565	-16.212	-21.212
627.010	-16.204	-47.504	-63.708	-51.498	-16.212	-21.212
627.020	-15.602	-47.566	-63.168	-50.958	-16.212	-21.212
627.030	-17.105	-47.497	-64.602	-52.392	-16.212	-21.212
627.040	-16.031	-47.607	-63.638	-51.428	-16.212	-21.212
627.050	-19.625	-47.624	-67.249	-55.039	-16.212	-21.212
627.060	-16.643	-47.604	-64.247	-52.037	-16.212	-21.212
627.070	-18.419	-47.745	-66.164	-53.954	-16.212	-21.212
627.080	-17.543	-47.737	-65.280	-53.070	-16.212	-21.212
627.090	-16.040	-47.806	-63.846	-51.636	-16.212	-21.212
627.100	-17.563	-47.79	-65.353	-53.143	-16.212	-21.212
627.110	-16.920	-47.879	-64.799	-52.589	-16.212	-21.212
627.120	-17.037	-47.912	-64.949	-52.739	-16.212	-21.212
627.130	-16.404	-47.914	-64.318	-52.108	-16.212	-21.212
627.140	-15.470	-47.917	-63.387	-51.177	-16.212	-21.212
627.150	-17.417	-47.955	-65.372	-53.162	-16.212	-21.212
627.160	-16.321	-47.983	-64.304	-52.094	-16.212	-21.212
627.170	-16.617	-48.01	-64.627	-52.417	-16.212	-21.212
627.180	-17.821	-48.047	-65.868	-53.658	-16.212	-21.212
627.190	-16.139	-48.103	-64.242	-52.032	-16.212	-21.212
627.200	-17.095	-48.185	-65.280	-53.070	-16.212	-21.212
627.210	-17.703	-48.087	-65.790	-53.580	-16.212	-21.212
627.220	-17.221	-48.227	-65.448	-53.238	-16.212	-21.212
627.230	-17.414	-48.206	-65.620	-53.410	-16.212	-21.212
627.240	-15.621	-48.264	-63.885	-51.675	-16.212	-21.212
627.250	-17.662	-48.213	-65.875	-53.665	-16.212	-21.212

627.260	-16.929	-48.429	-65.358	-53.148	-16.212	-21.212
627.270	-15.791	-48.389	-64.180	-51.970	-16.212	-21.212
627.280	-16.958	-48.416	-65.374	-53.164	-16.212	-21.212
627.290	-17.164	-48.468	-65.632	-53.422	-16.212	-21.212
627.300	-16.658	-48.553	-65.211	-53.001	-16.212	-21.212
627.310	-19.720	-48.574	-68.294	-56.084	-16.212	-21.212
627.320	-18.459	-48.597	-67.056	-54.846	-16.212	-21.212
627.330	-17.091	-48.624	-65.715	-53.505	-16.212	-21.212
627.340	-16.221	-48.556	-64.777	-52.567	-16.212	-21.212
627.350	-18.128	-48.597	-66.725	-54.515	-16.212	-21.212
627.360	-18.812	-48.707	-67.519	-55.309	-16.212	-21.212
627.370	-14.742	-48.691	-63.433	-51.223	-16.212	-21.212
627.380	-17.279	-48.744	-66.023	-53.813	-16.212	-21.212
627.390	-17.407	-48.815	-66.222	-54.012	-16.212	-21.212
627.400	-17.397	-48.866	-66.263	-54.053	-16.212	-21.212
627.410	-17.034	-48.785	-65.819	-53.609	-16.212	-21.212
627.420	-18.856	-48.874	-67.730	-55.520	-16.212	-21.212
627.430	-18.560	-48.986	-67.546	-55.336	-16.212	-21.212
627.440	-16.333	-48.957	-65.290	-53.080	-16.212	-21.212
627.450	-16.915	-49.103	-66.018	-53.808	-16.212	-21.212
627.460	-17.609	-49.023	-66.632	-54.422	-16.212	-21.212
627.470	-19.870	-49.14	-69.010	-56.800	-16.212	-21.212
627.480	-18.597	-49.117	-67.714	-55.504	-16.212	-21.212
627.490	-16.724	-49.131	-65.855	-53.645	-16.212	-21.212
627.500	-16.540	-49.188	-65.728	-53.518	-16.212	-21.212
627.510	-17.769	-49.235	-67.004	-54.794	-16.212	-21.212
627.520	-17.020	-49.25	-66.270	-54.060	-16.212	-21.212
627.530	-16.629	-49.234	-65.863	-53.653	-16.212	-21.212
627.540	-14.815	-49.351	-64.166	-51.956	-16.212	-21.212
627.550	-17.206	-49.374	-66.580	-54.370	-16.212	-21.212
627.560	-16.443	-49.398	-65.841	-53.631	-16.212	-21.212
627.570	-17.732	-49.395	-67.127	-54.917	-16.212	-21.212
627.580	-17.365	-49.449	-66.814	-54.604	-16.212	-21.212
627.590	-17.853	-49.51	-67.363	-55.153	-16.212	-21.212
627.600	-16.518	-49.515	-66.033	-53.823	-16.212	-21.212
627.610	-17.981	-49.53	-67.511	-55.301	-16.212	-21.212
627.620	-16.709	-49.592	-66.301	-54.091	-16.212	-21.212
627.630	-17.550	-49.586	-67.136	-54.926	-16.212	-21.212
627.640	-17.296	-49.689	-66.985	-54.775	-16.212	-21.212
627.650	-19.687	-49.648	-69.335	-57.125	-16.212	-21.212
627.660	-17.833	-49.786	-67.619	-55.409	-16.212	-21.212
627.670	-17.724	-49.783	-67.507	-55.297	-16.212	-21.212
627.680	-17.758	-49.806	-67.564	-55.354	-16.212	-21.212
627.690	-17.931	-49.833	-67.764	-55.554	-16.212	-21.212
627.700	-17.806	-49.867	-67.673	-55.463	-16.212	-21.212
627.710	-16.864	-49.848	-66.712	-54.502	-16.212	-21.212

627.720	-17.459	-49.934	-67.393	-55.183	-16.212	-21.212
627.730	-17.367	-49.962	-67.329	-55.119	-16.212	-21.212
627.740	-16.388	-50.021	-66.409	-54.199	-16.212	-21.212
627.750	-16.013	-50.026	-66.039	-53.829	-16.212	-21.212
627.760	-16.160	-50.098	-66.258	-54.048	-16.212	-21.212
627.770	-17.964	-50.072	-68.036	-55.826	-16.212	-21.212
627.780	-18.219	-50.084	-68.303	-56.093	-16.212	-21.212
627.790	-17.563	-50.202	-67.765	-55.555	-16.212	-21.212
627.800	-19.632	-50.206	-69.838	-57.628	-16.212	-21.212
627.810	-18.109	-50.267	-68.376	-56.166	-16.212	-21.212
627.820	-17.765	-50.265	-68.030	-55.820	-16.212	-21.212
627.830	-18.702	-50.293	-68.995	-56.785	-16.212	-21.212
627.840	-16.383	-50.281	-66.664	-54.454	-16.212	-21.212
627.850	-18.650	-50.43	-69.080	-56.870	-16.212	-21.212
627.860	-16.122	-50.475	-66.597	-54.387	-16.212	-21.212
627.870	-16.790	-50.414	-67.204	-54.994	-16.212	-21.212
627.880	-17.991	-50.421	-68.412	-56.202	-16.212	-21.212
627.890	-16.915	-50.48	-67.395	-55.185	-16.212	-21.212
627.900	-15.674	-50.532	-66.206	-53.996	-16.212	-21.212
627.910	-17.754	-50.573	-68.327	-56.117	-16.212	-21.212
627.920	-15.760	-50.64	-66.400	-54.190	-16.212	-21.212
627.930	-16.732	-50.627	-67.359	-55.149	-16.212	-21.212
627.940	-16.074	-50.655	-66.729	-54.519	-16.212	-21.212
627.950	-16.585	-50.713	-67.298	-55.088	-16.212	-21.212
627.960	-16.607	-50.623	-67.230	-55.020	-16.212	-21.212
627.970	-17.220	-50.696	-67.916	-55.706	-16.212	-21.212
627.980	-17.538	-50.776	-68.314	-56.104	-16.212	-21.212
627.990	-18.010	-50.787	-68.797	-56.587	-16.212	-21.212
628.000	-16.814	-50.72	-67.534	-55.324	-16.212	-21.212
628.010	-16.348	-50.81	-67.158	-54.948	-16.212	-21.212
628.020	-16.805	-50.918	-67.723	-55.513	-16.212	-21.212
628.030	-18.894	-50.886	-69.780	-57.570	-16.212	-21.212
628.040	-17.260	-51.064	-68.324	-56.114	-16.212	-21.212
628.050	-16.336	-50.983	-67.319	-55.109	-16.212	-21.212
628.060	-16.589	-51	-67.589	-55.379	-16.212	-21.212
628.070	-16.370	-51.135	-67.505	-55.295	-16.212	-21.212
628.080	-16.708	-51.135	-67.843	-55.633	-16.212	-21.212
628.090	-16.510	-51.099	-67.609	-55.399	-16.212	-21.212
628.100	-17.335	-51.102	-68.437	-56.227	-16.212	-21.212
628.110	-16.228	-51.271	-67.499	-55.289	-16.212	-21.212
628.120	-16.725	-51.299	-68.024	-55.814	-16.212	-21.212
628.130	-18.406	-51.232	-69.638	-57.428	-16.212	-21.212
628.140	-18.050	-51.277	-69.327	-57.117	-16.212	-21.212
628.150	-18.134	-51.251	-69.385	-57.175	-16.212	-21.212
628.160	-16.357	-51.406	-67.763	-55.553	-16.212	-21.212
628.170	-18.273	-51.389	-69.662	-57.452	-16.212	-21.212

628.180	-17.478	-51.354	-68.832	-56.622	-16.212	-21.212
628.190	-18.229	-51.388	-69.617	-57.407	-16.212	-21.212
628.200	-15.394	-51.477	-66.871	-54.661	-16.212	-21.212
628.210	-19.151	-51.503	-70.654	-58.444	-16.212	-21.212
628.220	-18.077	-51.512	-69.589	-57.379	-16.212	-21.212
628.230	-17.437	-51.531	-68.968	-56.758	-16.212	-21.212
628.240	-16.700	-51.589	-68.289	-56.079	-16.212	-21.212
628.250	-17.400	-51.698	-69.098	-56.888	-16.212	-21.212
628.260	-17.993	-51.714	-69.707	-57.497	-16.212	-21.212
628.270	-18.882	-51.714	-70.596	-58.386	-16.212	-21.212
628.280	-17.020	-51.696	-68.716	-56.506	-16.212	-21.212
628.290	-16.331	-51.735	-68.066	-55.856	-16.212	-21.212
628.300	-16.921	-51.72	-68.641	-56.431	-16.212	-21.212
628.310	-17.179	-51.84	-69.019	-56.809	-16.212	-21.212
628.320	-18.451	-51.938	-70.389	-58.179	-16.212	-21.212
628.330	-17.119	-51.852	-68.971	-56.761	-16.212	-21.212
628.340	-18.356	-51.894	-70.250	-58.040	-16.212	-21.212
628.350	-19.167	-52.013	-71.180	-58.970	-16.212	-21.212
628.360	-16.540	-51.948	-68.488	-56.278	-16.212	-21.212
628.370	-17.882	-52.066	-69.948	-57.738	-16.212	-21.212
628.380	-19.389	-52.012	-71.401	-59.191	-16.212	-21.212
628.390	-19.251	-52.078	-71.329	-59.119	-16.212	-21.212
628.400	-18.644	-52.216	-70.860	-58.650	-16.212	-21.212
628.410	-16.710	-52.149	-68.859	-56.649	-16.212	-21.212
628.420	-17.449	-52.343	-69.792	-57.582	-16.212	-21.212
628.430	-18.659	-52.234	-70.893	-58.683	-16.212	-21.212
628.440	-17.774	-52.338	-70.112	-57.902	-16.212	-21.212
628.450	-20.239	-52.344	-72.583	-60.373	-16.212	-21.212
628.460	-17.865	-52.296	-70.161	-57.951	-16.212	-21.212
628.470	-18.908	-52.235	-71.143	-58.933	-16.212	-21.212
628.480	-16.751	-52.394	-69.145	-56.935	-16.212	-21.212
628.490	-18.825	-52.281	-71.106	-58.896	-16.212	-21.212
628.500	-18.332	-52.382	-70.714	-58.504	-16.212	-21.212
628.510	-19.155	-52.572	-71.727	-59.517	-16.212	-21.212
628.520	-17.002	-52.491	-69.493	-57.283	-16.212	-21.212
628.530	-18.495	-52.438	-70.933	-58.723	-16.212	-21.212
628.540	-22.086	-52.542	-74.628	-62.418	-16.212	-21.212
628.550	-19.212	-52.442	-71.654	-59.444	-16.212	-21.212
628.560	-18.608	-52.563	-71.171	-58.961	-16.212	-21.212
628.570	-20.985	-52.546	-73.531	-61.321	-16.212	-21.212
628.580	-19.253	-52.706	-71.959	-59.749	-16.212	-21.212
628.590	-20.526	-52.804	-73.330	-61.120	-16.212	-21.212
628.600	-18.838	-52.716	-71.554	-59.344	-16.212	-21.212
628.610	-17.682	-52.78	-70.462	-58.252	-16.212	-21.212
628.620	-20.338	-52.793	-73.131	-60.921	-16.212	-21.212
628.630	-20.519	-52.823	-73.342	-61.132	-16.212	-21.212

628.640	-16.979	-52.893	-69.872	-57.662	-16.212	-21.212
628.650	-18.826	-52.936	-71.762	-59.552	-16.212	-21.212
628.660	-18.794	-52.913	-71.707	-59.497	-16.212	-21.212
628.670	-19.817	-52.911	-72.728	-60.518	-16.212	-21.212
628.680	-17.975	-52.967	-70.942	-58.732	-16.212	-21.212
628.690	-17.845	-52.954	-70.799	-58.589	-16.212	-21.212
628.700	-18.167	-53.121	-71.288	-59.078	-16.212	-21.212
628.710	-18.109	-53.055	-71.164	-58.954	-16.212	-21.212
628.720	-17.569	-53.169	-70.738	-58.528	-16.212	-21.212
628.730	-19.123	-53.263	-72.386	-60.176	-16.212	-21.212
628.740	-20.045	-53.176	-73.221	-61.011	-16.212	-21.212
628.750	-19.652	-53.109	-72.761	-60.551	-16.212	-21.212
628.760	-19.114	-53.332	-72.446	-60.236	-16.212	-21.212
628.770	-18.869	-53.343	-72.212	-60.002	-16.212	-21.212
628.780	-18.125	-53.25	-71.375	-59.165	-16.212	-21.212
628.790	-19.357	-53.336	-72.693	-60.483	-16.212	-21.212
628.800	-19.705	-53.307	-73.012	-60.802	-16.212	-21.212
628.810	-20.069	-53.4	-73.469	-61.259	-16.212	-21.212
628.820	-18.539	-53.399	-71.938	-59.728	-16.212	-21.212
628.830	-19.345	-53.42	-72.765	-60.555	-16.212	-21.212
628.840	-20.413	-53.458	-73.871	-61.661	-16.212	-21.212
628.850	-17.547	-53.54	-71.087	-58.877	-16.212	-21.212
628.860	-19.168	-53.468	-72.636	-60.426	-16.212	-21.212
628.870	-18.100	-53.559	-71.659	-59.449	-16.212	-21.212
628.880	-18.695	-53.598	-72.293	-60.083	-16.212	-21.212
628.890	-20.451	-53.732	-74.183	-61.973	-16.212	-21.212
628.900	-19.698	-53.642	-73.340	-61.130	-16.212	-21.212
628.910	-20.749	-53.736	-74.485	-62.275	-16.212	-21.212
628.920	-18.247	-53.687	-71.934	-59.724	-16.212	-21.212
628.930	-18.570	-53.702	-72.272	-60.062	-16.212	-21.212
628.940	-20.102	-53.938	-74.040	-61.830	-16.212	-21.212
628.950	-19.350	-53.748	-73.098	-60.888	-16.212	-21.212
628.960	-18.502	-53.927	-72.429	-60.219	-16.212	-21.212
628.970	-16.858	-53.975	-70.833	-58.623	-16.212	-21.212
628.980	-18.468	-53.853	-72.321	-60.111	-16.212	-21.212
628.990	-19.763	-53.868	-73.631	-61.421	-16.212	-21.212
629.000	-17.564	-53.859	-71.423	-59.213	-16.212	-21.212
629.010	-18.614	-53.895	-72.509	-60.299	-16.212	-21.212
629.020	-19.495	-53.887	-73.382	-61.172	-16.212	-21.212
629.030	-20.339	-54.032	-74.371	-62.161	-16.212	-21.212
629.040	-19.709	-53.94	-73.649	-61.439	-16.212	-21.212
629.050	-19.611	-53.988	-73.599	-61.389	-16.212	-21.212
629.060	-20.662	-54.254	-74.916	-62.706	-16.212	-21.212
629.070	-20.461	-54.14	-74.601	-62.391	-16.212	-21.212
629.080	-21.720	-54.162	-75.882	-63.672	-16.212	-21.212
629.090	-20.165	-54.196	-74.361	-62.151	-16.212	-21.212

629.100	-21.371	-54.113	-75.484	-63.274	-16.212	-21.212
629.110	-17.812	-54.356	-72.168	-59.958	-16.212	-21.212
629.120	-19.549	-54.264	-73.813	-61.603	-16.212	-21.212
629.130	-18.550	-54.404	-72.954	-60.744	-16.212	-21.212
629.140	-20.747	-54.344	-75.091	-62.881	-16.212	-21.212
629.150	-21.422	-54.403	-75.825	-63.615	-16.212	-21.212
629.160	-20.967	-54.388	-75.355	-63.145	-16.212	-21.212
629.170	-19.769	-54.501	-74.270	-62.060	-16.212	-21.212
629.180	-20.994	-54.506	-75.500	-63.290	-16.212	-21.212
629.190	-20.677	-54.424	-75.101	-62.891	-16.212	-21.212
629.200	-18.910	-54.474	-73.384	-61.174	-16.212	-21.212
629.210	-19.384	-54.497	-73.881	-61.671	-16.212	-21.212
629.220	-22.491	-54.554	-77.045	-64.835	-16.212	-21.212
629.230	-20.684	-54.635	-75.319	-63.109	-16.212	-21.212
629.240	-19.414	-54.757	-74.171	-61.961	-16.212	-21.212
629.250	-19.900	-54.748	-74.648	-62.438	-16.212	-21.212
629.260	-18.187	-54.612	-72.799	-60.589	-16.212	-21.212
629.270	-20.681	-54.646	-75.327	-63.117	-16.212	-21.212
629.280	-22.799	-54.759	-77.558	-65.348	-16.212	-21.212
629.290	-20.122	-54.813	-74.935	-62.725	-16.212	-21.212
629.300	-19.865	-54.791	-74.656	-62.446	-16.212	-21.212
629.310	-19.795	-54.706	-74.501	-62.291	-16.212	-21.212
629.320	-21.836	-54.965	-76.801	-64.591	-16.212	-21.212
629.330	-22.010	-54.74	-76.750	-64.540	-16.212	-21.212
629.340	-20.970	-54.956	-75.926	-63.716	-16.212	-21.212
629.350	-20.897	-55.103	-76.000	-63.790	-16.212	-21.212
629.360	-20.519	-54.979	-75.498	-63.288	-16.212	-21.212
629.370	-19.854	-55.044	-74.898	-62.688	-16.212	-21.212
629.380	-20.146	-55.057	-75.203	-62.993	-16.212	-21.212
629.390	-19.611	-55.05	-74.661	-62.451	-16.212	-21.212
629.400	-21.716	-55.144	-76.860	-64.650	-16.212	-21.212
629.410	-21.598	-55.185	-76.783	-64.573	-16.212	-21.212
629.420	-20.658	-55.224	-75.882	-63.672	-16.212	-21.212
629.430	-19.218	-55.14	-74.358	-62.148	-16.212	-21.212
629.440	-20.220	-55.023	-75.243	-63.033	-16.212	-21.212
629.450	-21.026	-55.271	-76.297	-64.087	-16.212	-21.212
629.460	-20.672	-55.212	-75.884	-63.674	-16.212	-21.212
629.470	-23.612	-55.42	-79.032	-66.822	-16.212	-21.212
629.480	-19.994	-55.496	-75.490	-63.280	-16.212	-21.212
629.490	-22.033	-55.328	-77.361	-65.151	-16.212	-21.212
629.500	-21.459	-55.314	-76.773	-64.563	-16.212	-21.212
629.510	-20.427	-55.377	-75.804	-63.594	-16.212	-21.212
629.520	-21.155	-55.403	-76.558	-64.348	-16.212	-21.212
629.530	-22.663	-55.52	-78.183	-65.973	-16.212	-21.212
629.540	-22.332	-55.577	-77.909	-65.699	-16.212	-21.212
629.550	-19.209	-55.627	-74.836	-62.626	-16.212	-21.212

629.560	-20.313	-55.596	-75.909	-63.699	-16.212	-21.212
629.570	-20.928	-55.646	-76.574	-64.364	-16.212	-21.212
629.580	-21.888	-55.712	-77.600	-65.390	-16.212	-21.212
629.590	-19.962	-55.679	-75.641	-63.431	-16.212	-21.212
629.600	-20.974	-55.667	-76.641	-64.431	-16.212	-21.212
629.610	-21.846	-55.519	-77.365	-65.155	-16.212	-21.212
629.620	-21.555	-55.691	-77.246	-65.036	-16.212	-21.212
629.630	-22.478	-55.8	-78.278	-66.068	-16.212	-21.212
629.640	-21.322	-55.736	-77.058	-64.848	-16.212	-21.212
629.650	-21.213	-55.719	-76.932	-64.722	-16.212	-21.212
629.660	-21.951	-55.743	-77.694	-65.484	-16.212	-21.212
629.670	-20.242	-55.786	-76.028	-63.818	-16.212	-21.212
629.680	-21.756	-55.911	-77.667	-65.457	-16.212	-21.212
629.690	-20.156	-55.961	-76.117	-63.907	-16.212	-21.212
629.700	-22.609	-56.029	-78.638	-66.428	-16.212	-21.212
629.710	-21.456	-55.931	-77.387	-65.177	-16.212	-21.212
629.720	-19.933	-55.99	-75.923	-63.713	-16.212	-21.212
629.730	-24.000	-56.109	-80.109	-67.899	-16.212	-21.212
629.740	-22.854	-56.066	-78.920	-66.710	-16.212	-21.212
629.750	-21.671	-56.114	-77.785	-65.575	-16.212	-21.212
629.760	-22.231	-56.21	-78.441	-66.231	-16.212	-21.212
629.770	-21.227	-56.257	-77.484	-65.274	-16.212	-21.212
629.780	-22.161	-56.238	-78.399	-66.189	-16.212	-21.212
629.790	-21.542	-56.216	-77.758	-65.548	-16.212	-21.212
629.800	-24.191	-56.282	-80.473	-68.263	-16.212	-21.212
629.810	-21.572	-56.288	-77.860	-65.650	-16.212	-21.212
629.820	-21.421	-56.2	-77.621	-65.411	-16.212	-21.212
629.830	-23.321	-56.309	-79.630	-67.420	-16.212	-21.212
629.840	-21.200	-56.351	-77.551	-65.341	-16.212	-21.212
629.850	-21.031	-56.355	-77.386	-65.176	-16.212	-21.212
629.860	-22.349	-56.456	-78.805	-66.595	-16.212	-21.212
629.870	-22.112	-56.461	-78.573	-66.363	-16.212	-21.212
629.880	-22.639	-56.265	-78.904	-66.694	-16.212	-21.212
629.890	-20.410	-56.498	-76.908	-64.698	-16.212	-21.212
629.900	-21.606	-56.556	-78.162	-65.952	-16.212	-21.212
629.910	-20.855	-56.529	-77.384	-65.174	-16.212	-21.212
629.920	-22.222	-56.646	-78.868	-66.658	-16.212	-21.212
629.930	-19.418	-56.493	-75.911	-63.701	-16.212	-21.212
629.940	-19.687	-56.734	-76.421	-64.211	-16.212	-21.212
629.950	-19.498	-56.683	-76.181	-63.971	-16.212	-21.212
629.960	-21.092	-56.821	-77.913	-65.703	-16.212	-21.212
629.970	-21.670	-56.836	-78.506	-66.296	-16.212	-21.212
629.980	-22.506	-56.733	-79.239	-67.029	-16.212	-21.212
629.990	-22.343	-56.786	-79.129	-66.919	-16.212	-21.212
630.000	-19.707	-56.815	-76.522	-64.312	-16.212	-21.212
630.010	-20.361	-56.877	-77.238	-65.028	-16.212	-21.212

630.020	-23.465	-56.876	-80.341	-68.131	-16.212	-21.212
630.030	-21.818	-56.899	-78.717	-66.507	-16.212	-21.212
630.040	-21.153	-57.064	-78.217	-66.007	-16.212	-21.212
630.050	-21.784	-56.975	-78.759	-66.549	-16.212	-21.212
630.060	-21.064	-56.822	-77.886	-65.676	-16.212	-21.212
630.070	-21.553	-57.01	-78.563	-66.353	-16.212	-21.212
630.080	-21.502	-56.908	-78.410	-66.200	-16.212	-21.212
630.090	-19.207	-57.034	-76.241	-64.031	-16.212	-21.212
630.100	-22.214	-57.22	-79.434	-67.224	-16.212	-21.212
630.110	-21.341	-57.038	-78.379	-66.169	-16.212	-21.212
630.120	-24.029	-57.088	-81.117	-68.907	-16.212	-21.212
630.130	-23.410	-57.171	-80.581	-68.371	-16.212	-21.212
630.140	-23.108	-57.177	-80.285	-68.075	-16.212	-21.212
630.150	-22.932	-57.191	-80.123	-67.913	-16.212	-21.212
630.160	-21.355	-57.299	-78.654	-66.444	-16.212	-21.212
630.170	-22.410	-57.274	-79.684	-67.474	-16.212	-21.212
630.180	-22.964	-57.319	-80.283	-68.073	-16.212	-21.212
630.190	-22.546	-57.31	-79.856	-67.646	-16.212	-21.212
630.200	-22.517	-57.217	-79.734	-67.524	-16.212	-21.212
630.210	-24.788	-57.213	-82.001	-69.791	-16.212	-21.212
630.220	-22.166	-57.525	-79.691	-67.481	-16.212	-21.212
630.230	-21.878	-57.392	-79.270	-67.060	-16.212	-21.212
630.240	-25.193	-57.484	-82.677	-70.467	-16.212	-21.212
630.250	-21.721	-57.574	-79.295	-67.085	-16.212	-21.212
630.260	-20.826	-57.46	-78.286	-66.076	-16.212	-21.212
630.270	-21.077	-57.63	-78.707	-66.497	-16.212	-21.212
630.280	-20.981	-57.542	-78.523	-66.313	-16.212	-21.212
630.290	-22.963	-57.61	-80.573	-68.363	-16.212	-21.212
630.300	-23.488	-57.626	-81.114	-68.904	-16.212	-21.212
630.310	-22.430	-57.613	-80.043	-67.833	-16.212	-21.212
630.320	-24.043	-57.697	-81.740	-69.530	-16.212	-21.212
630.330	-22.576	-57.552	-80.128	-67.918	-16.212	-21.212
630.340	-22.301	-57.859	-80.160	-67.950	-16.212	-21.212
630.350	-23.145	-57.737	-80.882	-68.672	-16.212	-21.212
630.360	-22.232	-57.648	-79.880	-67.670	-16.212	-21.212
630.370	-23.171	-57.988	-81.159	-68.949	-16.212	-21.212
630.380	-23.150	-57.798	-80.948	-68.738	-16.212	-21.212
630.390	-24.256	-57.962	-82.218	-70.008	-16.212	-21.212
630.400	-23.779	-57.914	-81.693	-69.483	-16.212	-21.212
630.410	-23.032	-58.001	-81.033	-68.823	-16.212	-21.212
630.420	-23.149	-57.84	-80.989	-68.779	-16.212	-21.212
630.430	-23.346	-58.071	-81.417	-69.207	-16.212	-21.212
630.440	-22.729	-57.924	-80.653	-68.443	-16.212	-21.212
630.450	-23.961	-57.938	-81.899	-69.689	-16.212	-21.212
630.460	-22.428	-57.894	-80.322	-68.112	-16.212	-21.212
630.470	-22.934	-57.937	-80.871	-68.661	-16.212	-21.212

630.480	-23.015	-58.211	-81.226	-69.016	-16.212	-21.212
630.490	-25.660	-58.326	-83.986	-71.776	-16.212	-21.212
630.500	-22.373	-58.267	-80.640	-68.430	-16.212	-21.212
630.510	-24.091	-58.101	-82.192	-69.982	-16.212	-21.212
630.520	-22.792	-58.201	-80.993	-68.783	-16.212	-21.212
630.530	-22.642	-58.236	-80.878	-68.668	-16.212	-21.212
630.540	-21.763	-58.198	-79.961	-67.751	-16.212	-21.212
630.550	-23.370	-58.295	-81.665	-69.455	-16.212	-21.212
630.560	-22.720	-58.254	-80.974	-68.764	-16.212	-21.212
630.570	-23.592	-58.287	-81.879	-69.669	-16.212	-21.212
630.580	-23.973	-58.135	-82.108	-69.898	-16.212	-21.212
630.590	-23.187	-58.394	-81.581	-69.371	-16.212	-21.212
630.600	-23.773	-58.371	-82.144	-69.934	-16.212	-21.212
630.610	-22.027	-58.391	-80.418	-68.208	-16.212	-21.212
630.620	-22.867	-58.531	-81.398	-69.188	-16.212	-21.212
630.630	-24.198	-58.536	-82.734	-70.524	-16.212	-21.212
630.640	-22.990	-58.583	-81.573	-69.363	-16.212	-21.212
630.650	-22.481	-58.621	-81.102	-68.892	-16.212	-21.212
630.660	-23.626	-58.384	-82.010	-69.800	-16.212	-21.212
630.670	-23.043	-58.618	-81.661	-69.451	-16.212	-21.212
630.680	-21.983	-58.63	-80.613	-68.403	-16.212	-21.212
630.690	-22.828	-58.582	-81.410	-69.200	-16.212	-21.212
630.700	-25.447	-58.589	-84.036	-71.826	-16.212	-21.212
630.710	-23.284	-58.911	-82.195	-69.985	-16.212	-21.212
630.720	-24.504	-58.813	-83.317	-71.107	-16.212	-21.212
630.730	-23.667	-58.867	-82.534	-70.324	-16.212	-21.212
630.740	-25.094	-58.776	-83.870	-71.660	-16.212	-21.212
630.750	-22.608	-58.666	-81.274	-69.064	-16.212	-21.212
630.760	-23.431	-58.958	-82.389	-70.179	-16.212	-21.212
630.770	-24.687	-58.849	-83.536	-71.326	-16.212	-21.212
630.780	-23.632	-59.007	-82.639	-70.429	-16.212	-21.212
630.790	-22.470	-58.808	-81.278	-69.068	-16.212	-21.212
630.800	-20.878	-58.966	-79.844	-67.634	-16.212	-21.212
630.810	-23.381	-58.867	-82.248	-70.038	-16.212	-21.212
630.820	-23.185	-59.103	-82.288	-70.078	-16.212	-21.212
630.830	-25.292	-58.856	-84.148	-71.938	-16.212	-21.212
630.840	-25.145	-59.016	-84.161	-71.951	-16.212	-21.212
630.850	-23.316	-58.93	-82.246	-70.036	-16.212	-21.212
630.860	-24.567	-59.174	-83.741	-71.531	-16.212	-21.212
630.870	-23.452	-58.966	-82.418	-70.208	-16.212	-21.212
630.880	-26.123	-59.289	-85.412	-73.202	-16.212	-21.212
630.890	-23.529	-59.193	-82.722	-70.512	-16.212	-21.212
630.900	-23.482	-59.075	-82.557	-70.347	-16.212	-21.212
630.910	-24.827	-59.28	-84.107	-71.897	-16.212	-21.212
630.920	-23.824	-59.098	-82.922	-70.712	-16.212	-21.212
630.930	-25.577	-59.373	-84.950	-72.740	-16.212	-21.212

630.940	-22.571	-58.929	-81.500	-69.290	-16.212	-21.212
630.950	-22.832	-59.377	-82.209	-69.999	-16.212	-21.212
630.960	-23.974	-59.417	-83.391	-71.181	-16.212	-21.212
630.970	-21.934	-59.304	-81.238	-69.028	-16.212	-21.212
630.980	-23.655	-59.529	-83.184	-70.974	-16.212	-21.212
630.990	-24.393	-59.231	-83.624	-71.414	-16.212	-21.212
631.000	-21.753	-59.519	-81.272	-69.062	-16.212	-21.212
631.010	-22.483	-59.399	-81.882	-69.672	-16.212	-21.212
631.020	-24.959	-59.444	-84.403	-72.193	-16.212	-21.212
631.030	-23.696	-59.751	-83.447	-71.237	-16.212	-21.212
631.040	-25.821	-59.713	-85.534	-73.324	-16.212	-21.212
631.050	-24.033	-59.836	-83.869	-71.659	-16.212	-21.212
631.060	-25.376	-59.53	-84.906	-72.696	-16.212	-21.212
631.070	-23.000	-59.857	-82.857	-70.647	-16.212	-21.212
631.080	-25.388	-59.63	-85.018	-72.808	-16.212	-21.212
631.090	-24.452	-59.81	-84.262	-72.052	-16.212	-21.212
631.100	-24.211	-59.803	-84.014	-71.804	-16.212	-21.212
631.110	-23.172	-59.667	-82.839	-70.629	-16.212	-21.212
631.120	-24.024	-59.792	-83.816	-71.606	-16.212	-21.212
631.130	-25.707	-59.9	-85.607	-73.397	-16.212	-21.212
631.140	-25.962	-59.789	-85.751	-73.541	-16.212	-21.212
631.150	-25.182	-59.872	-85.054	-72.844	-16.212	-21.212
631.160	-25.163	-60.077	-85.240	-73.030	-16.212	-21.212
631.170	-23.315	-60.034	-83.349	-71.139	-16.212	-21.212
631.180	-24.352	-59.779	-84.131	-71.921	-16.212	-21.212
631.190	-23.718	-59.906	-83.624	-71.414	-16.212	-21.212
631.200	-23.587	-59.915	-83.502	-71.292	-16.212	-21.212
631.210	-22.647	-60.005	-82.652	-70.442	-16.212	-21.212
631.220	-26.288	-60.022	-86.310	-74.100	-16.212	-21.212
631.230	-25.818	-59.794	-85.612	-73.402	-16.212	-21.212
631.240	-23.680	-60.204	-83.884	-71.674	-16.212	-21.212
631.250	-25.343	-60.183	-85.526	-73.316	-16.212	-21.212
631.260	-25.923	-60.055	-85.978	-73.768	-16.212	-21.212
631.270	-27.769	-60.118	-87.887	-75.677	-16.212	-21.212
631.280	-25.182	-60.231	-85.413	-73.203	-16.212	-21.212
631.290	-23.948	-60.438	-84.386	-72.176	-16.212	-21.212
631.300	-26.055	-60.242	-86.297	-74.087	-16.212	-21.212
631.310	-25.598	-60.03	-85.628	-73.418	-16.212	-21.212
631.320	-25.372	-60.471	-85.843	-73.633	-16.212	-21.212
631.330	-24.075	-60.31	-84.385	-72.175	-16.212	-21.212
631.340	-23.714	-60.308	-84.022	-71.812	-16.212	-21.212
631.350	-23.275	-60.313	-83.588	-71.378	-16.212	-21.212
631.360	-24.081	-60.485	-84.566	-72.356	-16.212	-21.212
631.370	-24.749	-60.339	-85.088	-72.878	-16.212	-21.212
631.380	-24.038	-60.678	-84.716	-72.506	-16.212	-21.212
631.390	-23.720	-60.236	-83.956	-71.746	-16.212	-21.212

631.400	-23.714	-60.344	-84.058	-71.848	-16.212	-21.212
631.410	-23.302	-60.568	-83.870	-71.660	-16.212	-21.212
631.420	-23.581	-60.333	-83.914	-71.704	-16.212	-21.212
631.430	-25.814	-60.694	-86.508	-74.298	-16.212	-21.212
631.440	-22.429	-60.497	-82.926	-70.716	-16.212	-21.212
631.450	-24.054	-60.57	-84.624	-72.414	-16.212	-21.212
631.460	-25.278	-60.634	-85.912	-73.702	-16.212	-21.212
631.470	-25.926	-60.824	-86.750	-74.540	-16.212	-21.212
631.480	-23.832	-60.576	-84.408	-72.198	-16.212	-21.212
631.490	-26.753	-60.342	-87.095	-74.885	-16.212	-21.212
631.500	-23.525	-60.725	-84.250	-72.040	-16.212	-21.212
631.510	-23.512	-60.804	-84.316	-72.106	-16.212	-21.212
631.520	-24.304	-60.843	-85.147	-72.937	-16.212	-21.212
631.530	-24.471	-60.924	-85.395	-73.185	-16.212	-21.212
631.540	-26.369	-60.928	-87.297	-75.087	-16.212	-21.212
631.550	-22.784	-60.84	-83.624	-71.414	-16.212	-21.212
631.560	-23.962	-60.777	-84.739	-72.529	-16.212	-21.212
631.570	-24.606	-61.022	-85.628	-73.418	-16.212	-21.212
631.580	-25.208	-60.775	-85.983	-73.773	-16.212	-21.212
631.590	-23.474	-60.991	-84.465	-72.255	-16.212	-21.212
631.600	-22.942	-61.234	-84.176	-71.966	-16.212	-21.212
631.610	-24.150	-61.071	-85.221	-73.011	-16.212	-21.212
631.620	-23.277	-61.025	-84.302	-72.092	-16.212	-21.212
631.630	-23.422	-60.944	-84.366	-72.156	-16.212	-21.212
631.640	-26.294	-61.093	-87.387	-75.177	-16.212	-21.212
631.650	-25.295	-61.109	-86.404	-74.194	-16.212	-21.212
631.660	-25.820	-61.29	-87.110	-74.900	-16.212	-21.212
631.670	-25.591	-61.072	-86.663	-74.453	-16.212	-21.212
631.680	-27.281	-61.411	-88.692	-76.482	-16.212	-21.212
631.690	-26.044	-61.259	-87.303	-75.093	-16.212	-21.212
631.700	-23.753	-61.347	-85.100	-72.890	-16.212	-21.212
631.710	-21.789	-61.299	-83.088	-70.878	-16.212	-21.212
631.720	-22.895	-61.236	-84.131	-71.921	-16.212	-21.212
631.730	-23.408	-61.321	-84.729	-72.519	-16.212	-21.212
631.740	-24.340	-61.321	-85.661	-73.451	-16.212	-21.212
631.750	-24.285	-61.378	-85.663	-73.453	-16.212	-21.212
631.760	-23.108	-61.404	-84.512	-72.302	-16.212	-21.212
631.770	-25.060	-61.621	-86.681	-74.471	-16.212	-21.212
631.780	-25.693	-61.509	-87.202	-74.992	-16.212	-21.212
631.790	-24.905	-61.412	-86.317	-74.107	-16.212	-21.212
631.800	-25.013	-61.528	-86.541	-74.331	-16.212	-21.212
631.810	-25.053	-61.609	-86.662	-74.452	-16.212	-21.212
631.820	-25.644	-61.763	-87.407	-75.197	-16.212	-21.212
631.830	-24.247	-61.555	-85.802	-73.592	-16.212	-21.212
631.840	-26.691	-61.241	-87.932	-75.722	-16.212	-21.212
631.850	-25.580	-61.475	-87.055	-74.845	-16.212	-21.212

631.860	-23.292	-61.588	-84.880	-72.670	-16.212	-21.212
631.870	-24.411	-61.631	-86.042	-73.832	-16.212	-21.212
631.880	-27.372	-61.747	-89.119	-76.909	-16.212	-21.212
631.890	-25.260	-61.63	-86.890	-74.680	-16.212	-21.212
631.900	-24.964	-61.663	-86.627	-74.417	-16.212	-21.212
631.910	-24.169	-61.569	-85.738	-73.528	-16.212	-21.212
631.920	-23.888	-61.698	-85.586	-73.376	-16.212	-21.212
631.930	-25.230	-61.914	-87.144	-74.934	-16.212	-21.212
631.940	-24.975	-61.808	-86.783	-74.573	-16.212	-21.212
631.950	-24.229	-61.785	-86.014	-73.804	-16.212	-21.212
631.960	-23.695	-61.761	-85.456	-73.246	-16.212	-21.212
631.970	-23.848	-61.852	-85.700	-73.490	-16.212	-21.212
631.980	-25.313	-62.035	-87.348	-75.138	-16.212	-21.212
631.990	-26.387	-61.925	-88.312	-76.102	-16.212	-21.212
632.000	-26.743	-62.14	-88.883	-76.673	-16.212	-21.212

4.4.2 Protection to Radio Navigation Satellite Services

Method of Measurement:

Tests were performed to ensure compliance with FCC Rule §74.794(a)(3)(b)(1), as listed above, that spurious output in the GPS band must be attenuated at least 85dB. To confirm compliance with this rule section the test setup depicted in Figure 4-3 was used. The TTHDU250, modulated with a ATSC compliant 8-VSB modulator, was adjusted to obtain a 300 Watt average channel power (54.75dBm) measurement on the spectrum analyzer at the output of the mask filter. The metering circuit was adjusted to obtain a 100% reading on the forward power meter. With the transmitter properly configured for digital operation and the average power set to 300 Watts, spurious emissions into the GPS band were measured. Results of the measurements are shown in the spectrum analyzer plot displayed in Figure 4-13. In no case were spurious emissions observed above the -85dB threshold.

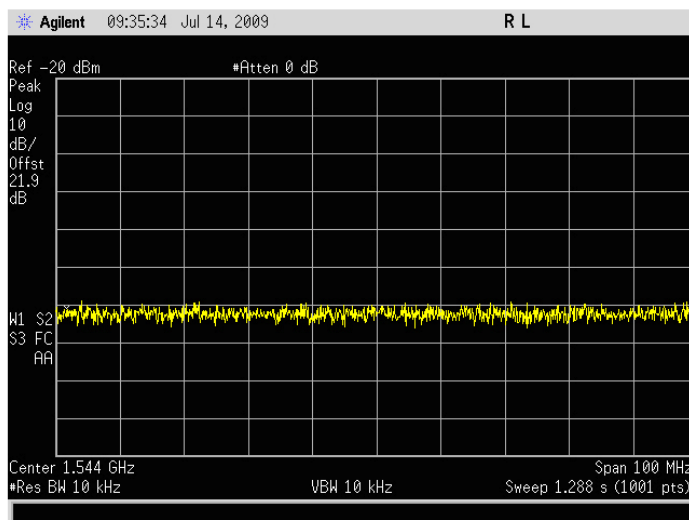


Figure 4-11: Spurious Emissions in GPS Band

4.5 FREQUENCY STABILITY

The TTHDU250 transmitter series utilizes a triple conversion architecture to generate the output channel frequency from the 44 MHz IF input. The first conversion mixes the 44 MHz signal with the first Local Oscillator (LO1) and creates a second IF (IF2) centered at 466 MHz. The IF2 signal is then mixed with a second local oscillator (LO2) to produce the third IF (IF3) centered at 2154 MHz. The IF3 signal is then mixed with the third local oscillator to produce the desired output channel. The local oscillators are locked to a 10 MHz ovenized crystal oscillator (F_{ref}) which provides the required frequency stability.

The first converter, first local oscillator frequency is 422 MHz and is generated in the following way. The 10 MHz oscillator reference input is divided by 5 and is used as the reference for a phase locked loop. The divide ratio of the loop is 844, so when locked the VCO output is at 1688 MHz which is fed to the 2nd mixer in the first converter and also divided by 4 and fed to the 1st in the first converter. The resultant mix at the second mixer provides a 2154 MHz output. The output frequency is derived at the output of the output converter by mixing the 2154 MHz input from the first converter with a 1 MHz step tuned PPL tuned LO (LO3) which has an output of between 2627 and 2957 MHz. The resultant high side mix produces a desired output frequency of between 473 to 803 MHz in 1 MHz steps.

The equation for the output frequency of LO1= $((F_{ref}/5)*844)/4 = F_{ref}*42.2$.

Therefore, LO1= $42.2*F_{ref}$

The equation for the output frequency of LO2= $((F_{ref}/5)*844) = F_{ref}*168.8$.

The third local oscillator (LO3) is variable and generates frequencies between 2627 and 2957 MHz in the following way. The 10 MHz oscillator is divided by 10 and used as the reference in a phase locked loop circuit. The VCO output is divided by N with N variable between 2627 and 2957 MHz and this is fed to the phase detector. The frequency of the VCO will be N MHz.

The equation for the output frequency of LO3= $(F_{ref}/10)*N = F_{ref}*(N/10)$.

The transmitter output frequency (F_{out}) is determined by the following equations:

$$IF2 = LO1 + IF$$

$$IF3 = LO2 + IF2$$

$$F_{out} = LO3 - IF3$$

$$F_{out} = LO3 - LO2 - LO1 - IF$$

$$F_{out} = F_{ref}*((N/10) - 168.8 - 42.2) - IF$$

$$F_{out} = F_{ref}*((N/10) - 211) - IF \quad N = 2627 \text{ to } 2957$$

$F_{ref} = 10\text{MHz} \pm dF$, where dF is frequency Variance of 10 MHz oscillator.

So for the frequency stability term of the output is $dF_{out} = \pm dF*((N/10) - 211)$.

The frequency stability of the 10 MHz oscillator over temperature is $\pm 2 \times 10^{-7}$ so for the 10 MHz oscillator $dF = 2$ Hz. The worst case frequency is when $N=2957$ so worst case stability is:

$$dF_{out} = \pm 2 \left(\frac{N}{10} - 211 \right) = \pm 169.4 \text{ Hz.}$$

Alternatively, the 10MHz reference oscillator may be locked to an external precision 10 MHz reference source such as a GPS or LORAN receiver to provide an even higher stability.

4.6 FIELD STRENGTH OF SPURIOUS EMISSIONS

8-VSB Average Output Power: 300 Watts Average Power

Modulation: 8-VSB Modulated Carrier

Spectrum Analyzer Settings:

Frequency Span:	1 MHz/Division
Center Frequency:	Adjusted Continuously from 10 MHz to 26 GHz
Resolution Bandwidth:	100 KHz
Video Bandwidth:	100 KHz
Analyzer Noise Floor	<-89dBm

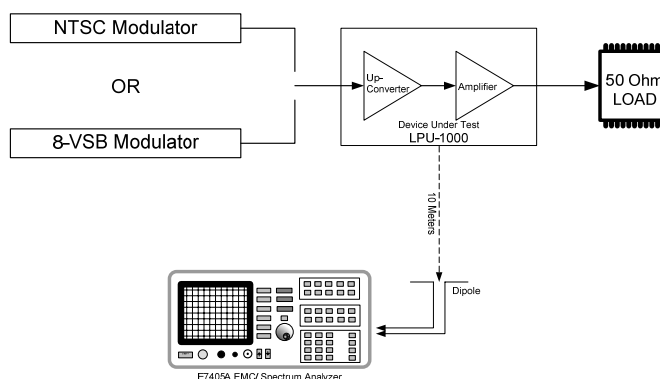


Figure 4-12: Test Setup for Measuring Radiated Emissions

Method of Measurement:

Using the test setup in Figure 4-12, the transmitter was driven to full power (54.75dBm) with analog visual and aural modulation. The test was repeated using 8-VSB modulation at an average power of 54.75dBm on the channel, and no difference was noted. A center frequency of 617 MHz was used as a reference. The spectrum analyzer was moved 10 meters from the unit under test. A dipole antenna was cut to the 10 MHz reference oscillator frequency and oriented to maximize the received level and the data was recorded into Table 4-8. Then the dipole was cut to the 44 MHz IF frequency, then the 1st, 2nd, and 3rd LO frequencies, where each time the antenna was oriented to achieve the maximum signal and the data then recorded. Then the antenna was cut to the 617 MHz output reference frequency and then the 2nd through 10th harmonic frequencies where each time the antenna was connected to the spectrum analyzer and oriented to achieve a maximum receive level and the data recorded.

Table 4-3: Radiated Emissions Data

FREQUENCY (MHz)	SOURCE	PEAK LEVEL (dB)
10	10 MHz Reference	None Observed
44	IF Frequency	None Observed
422	1 st LO	None Observed
1688	2 nd LO	None Observed
2771	3 rd LO	
617	Reference Channel	None Observed
1234	2 nd Harmonic	None Observed
1851	3 rd Harmonic	None Observed
2468	4 th Harmonic	None Observed
3085	5 th Harmonic	None Observed
3702	6 th Harmonic	None Observed
4319	7 th Harmonic	None Observed
4936	8 th Harmonic	None Observed
5553	9 th Harmonic	None Observed
6170	10 th Harmonic	None Observed

Spurious Radiation:

The transmitter system is comprised of fully enclosed modules, encapsulated in a doubly enclosed casing. Due to the design techniques employed for the very high gain of the system and the mitigation of signal leakage, no radiated signals were detected to the threshold of the Spectrum Analyzer of -89dB.

5.0 SUMMARY

This report demonstrates that the TTHDU250 transmitter system meets or exceeds the FCC Type Acceptance Criteria for devices utilized under FCC Rule Part 74. Peak and average power outputs were verified with direct power measurements at UHF. Measurements of spurious emissions at the RF output indicated no emissions above that specified in the applicable rules. Field strength measurements of spurious emissions revealed no detectable emissions down to the measurement equipment threshold of <-89 dBm.