



**FCC ID: BMTTTHDU500
Confirmation # EA390372**

FCC TYPE ACCEPTANCE REPORT

**For the
EMCEE TTHDU-500 UHF Transmitter**

17 July, 2009

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1.0 INTRODUCTION

This test report contains the required information for type acceptance of the EMCEE Model TTHDU-500 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 500.0 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.

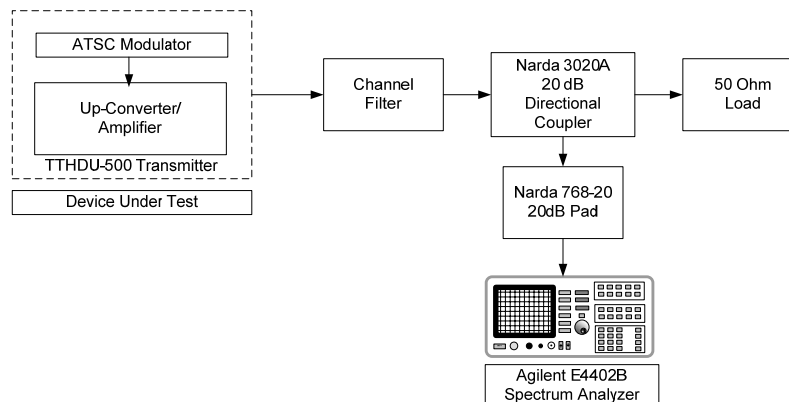


Figure 4-1: Test Setup for Digital Power Measurement

Method of Measurement:

The TTHDU-500, modulated with a ATSC compliant 8VSB modulator, was adjusted to obtain a 500 Watt average channel power (57 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 500 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.

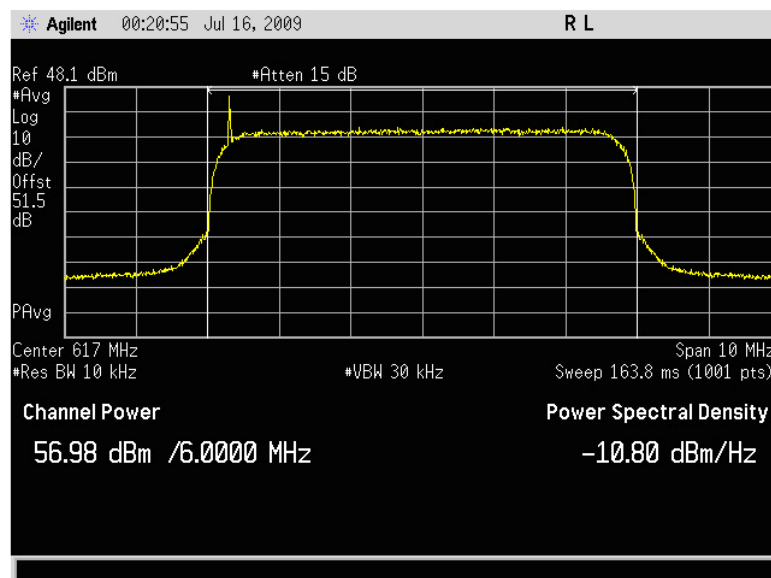


Figure 4-2: Digital Power Measurement Test

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.

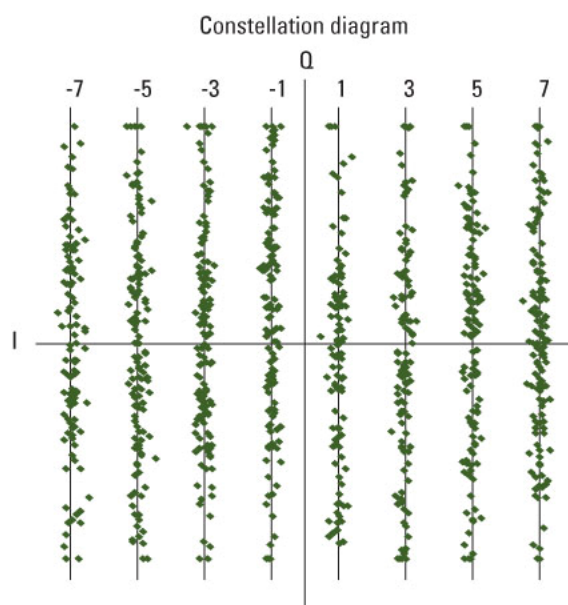


Figure 4-3: 8-VSB Constellation Diagram

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.

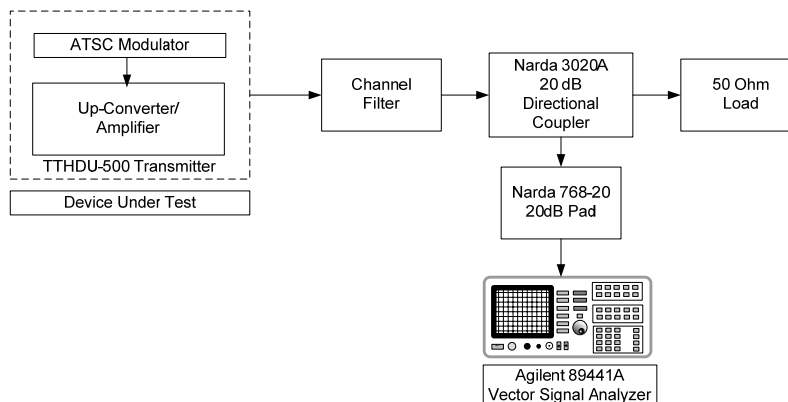


Figure 4-4: Digital Demodulation Test Setup

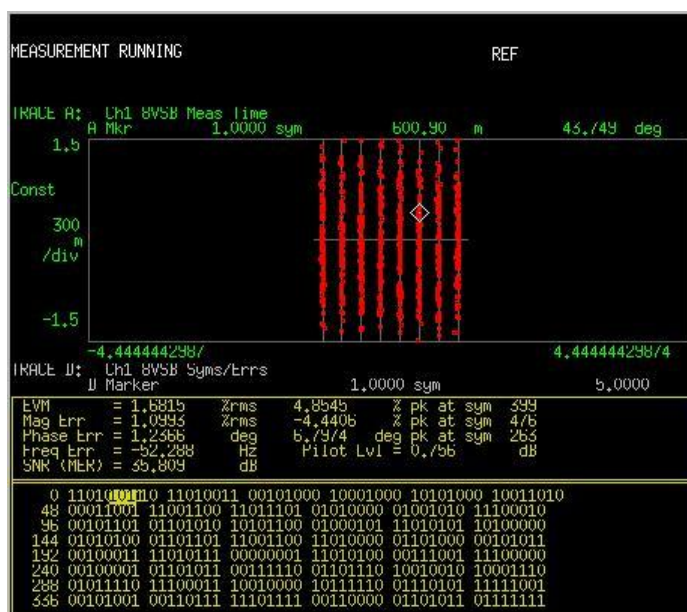


Figure 4-13: Digital Demodulation Test Results

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.

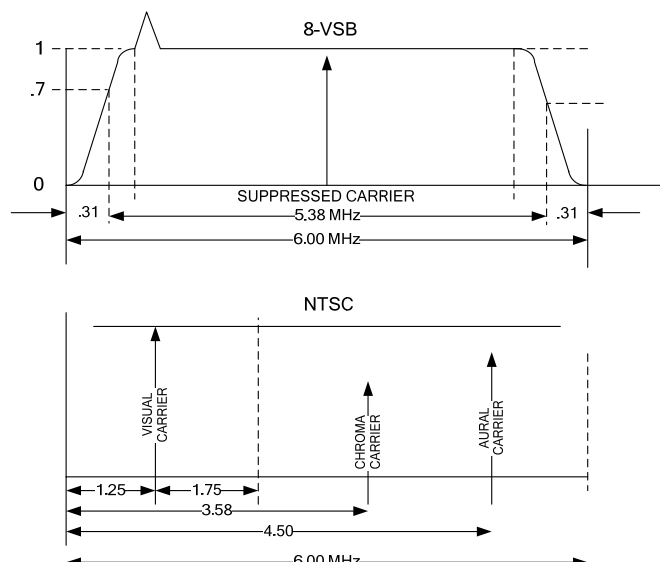


Figure 4-5: Digital & Analog modulation occupancy

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.

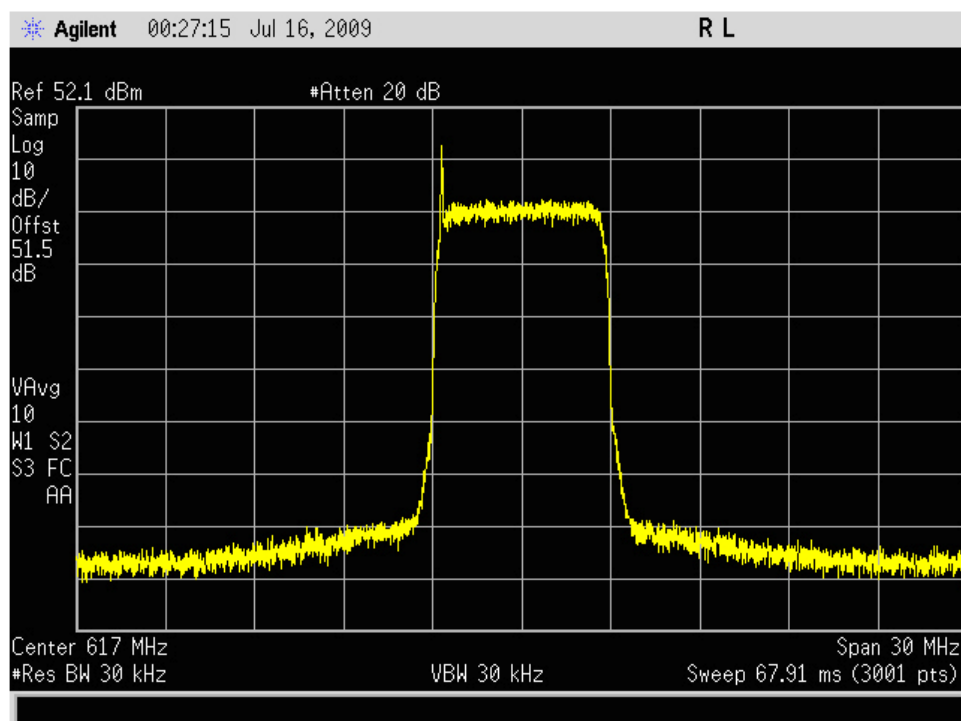


Figure 4-6: Occupied Bandwidth Plot in Digital Operation

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.

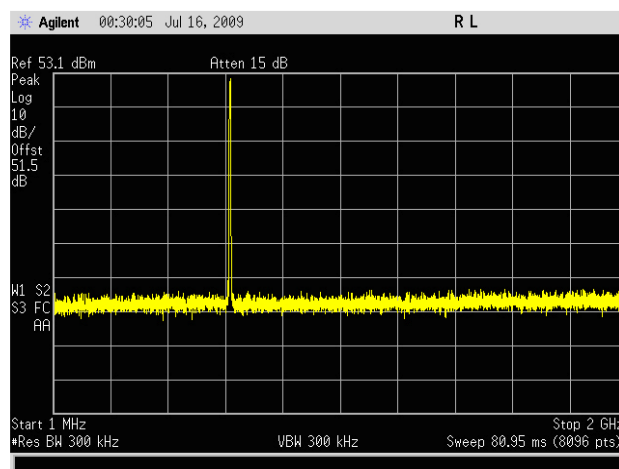


Figure 4-7: Spurious Emissions Spectrum Analyzer Plot

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.

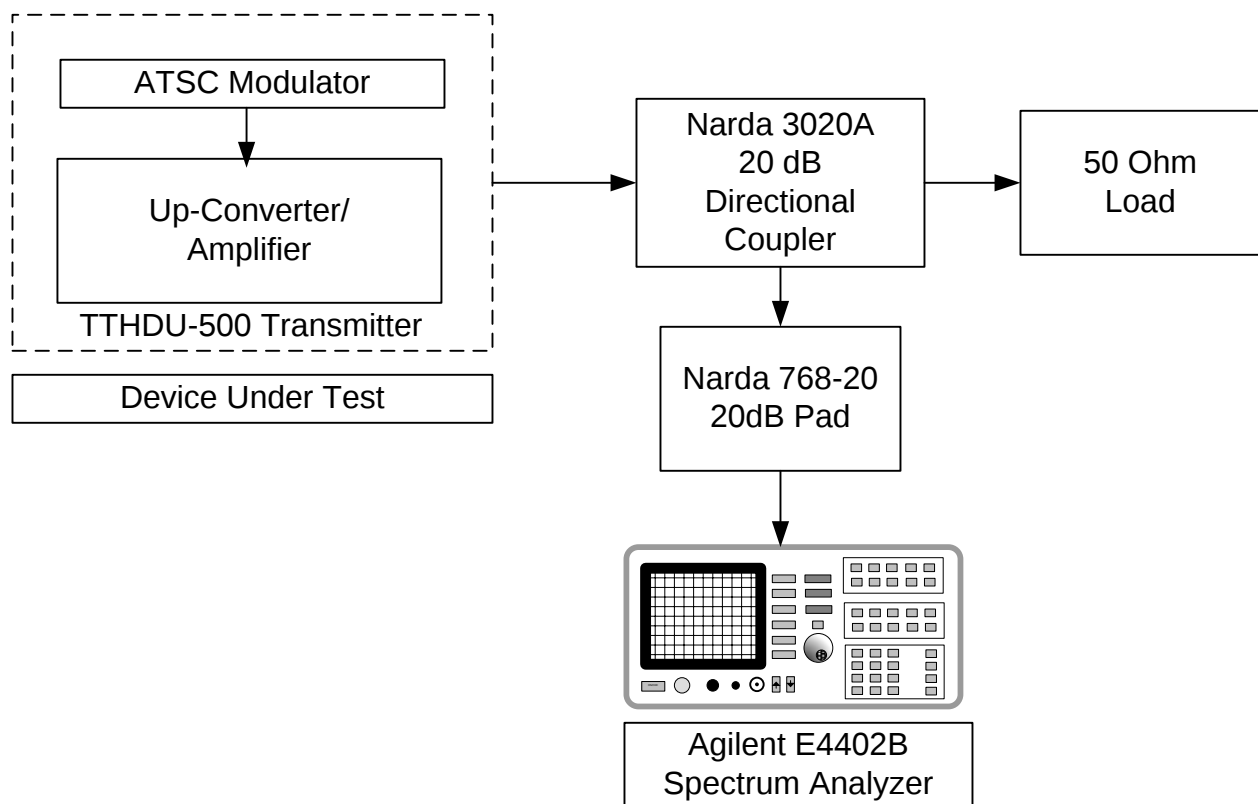


Figure 4-8: Spurious Emissions Measurement Setup

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.

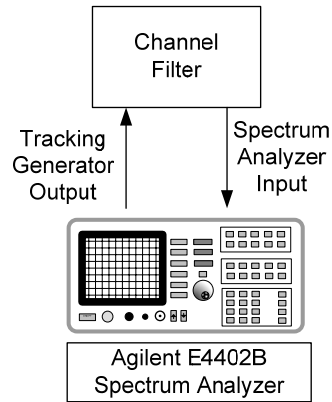


Figure 4-9: Output Filter Measurement Setup

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 57dBm 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.

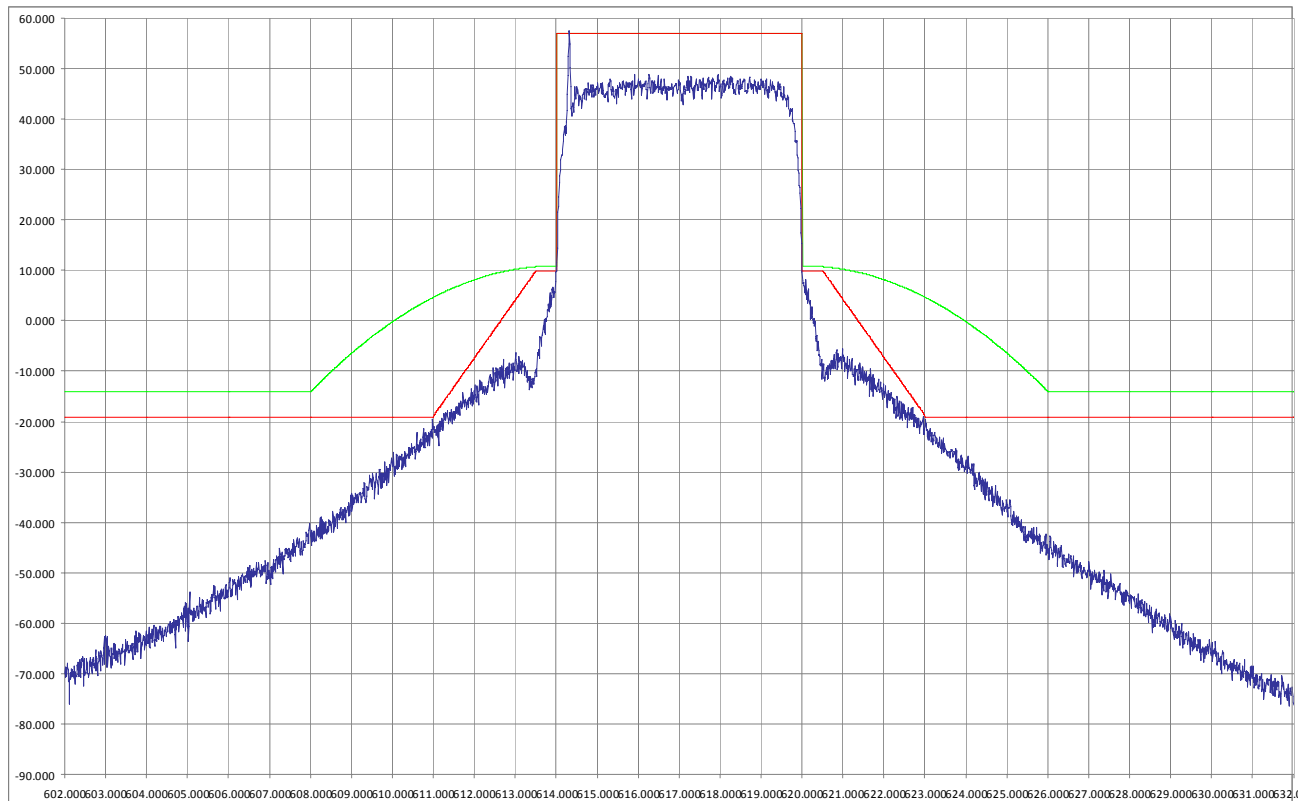


Figure 4-10: Spectral Output Compared To Mask Boundaries

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
-12 MHz From Channel Edge						
602.000	-23.210	-58.983	-82.193	-69.983	-14.090	-19.090
602.010	-21.906	-59.004	-80.910	-68.700	-14.090	-19.090
602.020	-24.019	-58.885	-82.904	-70.694	-14.090	-19.090
602.030	-22.072	-59.068	-81.140	-68.930	-14.090	-19.090
602.040	-22.932	-58.749	-81.681	-69.471	-14.090	-19.090
602.050	-23.972	-58.737	-82.709	-70.499	-14.090	-19.090
602.060	-21.281	-58.829	-80.110	-67.900	-14.090	-19.090
602.070	-21.887	-58.998	-80.885	-68.675	-14.090	-19.090
602.080	-22.713	-58.721	-81.434	-69.224	-14.090	-19.090
602.090	-24.909	-58.872	-83.781	-71.571	-14.090	-19.090
602.100	-25.179	-58.828	-84.007	-71.797	-14.090	-19.090
602.110	-29.336	-58.962	-88.298	-76.088	-14.090	-19.090
602.120	-25.065	-58.760	-83.825	-71.615	-14.090	-19.090
602.130	-23.129	-58.904	-82.033	-69.823	-14.090	-19.090
602.140	-24.800	-58.621	-83.421	-71.211	-14.090	-19.090
602.150	-24.306	-58.570	-82.876	-70.666	-14.090	-19.090
602.160	-22.652	-58.675	-81.327	-69.117	-14.090	-19.090
602.170	-22.998	-58.467	-81.465	-69.255	-14.090	-19.090
602.180	-24.162	-58.563	-82.725	-70.515	-14.090	-19.090
602.190	-23.151	-58.388	-81.539	-69.329	-14.090	-19.090
602.200	-24.267	-58.535	-82.802	-70.592	-14.090	-19.090
602.210	-23.347	-58.469	-81.816	-69.606	-14.090	-19.090
602.220	-24.745	-58.384	-83.129	-70.919	-14.090	-19.090
602.230	-22.284	-58.497	-80.781	-68.571	-14.090	-19.090
602.240	-25.973	-58.423	-84.396	-72.186	-14.090	-19.090
602.250	-23.355	-58.474	-81.829	-69.619	-14.090	-19.090
602.260	-23.913	-58.263	-82.176	-69.966	-14.090	-19.090
602.270	-24.229	-58.543	-82.772	-70.562	-14.090	-19.090
602.280	-24.472	-58.405	-82.877	-70.667	-14.090	-19.090
602.290	-24.011	-58.481	-82.492	-70.282	-14.090	-19.090
602.300	-22.040	-58.412	-80.452	-68.242	-14.090	-19.090
602.310	-22.887	-58.450	-81.337	-69.127	-14.090	-19.090
602.320	-23.016	-58.379	-81.395	-69.185	-14.090	-19.090
602.330	-21.617	-58.337	-79.954	-67.744	-14.090	-19.090
602.340	-24.879	-57.966	-82.845	-70.635	-14.090	-19.090
602.350	-22.866	-58.271	-81.137	-68.927	-14.090	-19.090
602.360	-21.365	-58.113	-79.478	-67.268	-14.090	-19.090
602.370	-23.168	-58.180	-81.348	-69.138	-14.090	-19.090

602.380	-24.813	-58.195	-83.008	-70.798	-14.090	-19.090
602.390	-21.936	-58.087	-80.023	-67.813	-14.090	-19.090
602.400	-23.012	-58.120	-81.132	-68.922	-14.090	-19.090
602.410	-22.280	-58.178	-80.458	-68.248	-14.090	-19.090
602.420	-21.303	-57.945	-79.248	-67.038	-14.090	-19.090
602.430	-21.601	-58.094	-79.695	-67.485	-14.090	-19.090
602.440	-20.857	-57.907	-78.764	-66.554	-14.090	-19.090
602.450	-21.905	-58.082	-79.987	-67.777	-14.090	-19.090
602.460	-26.604	-58.056	-84.660	-72.450	-14.090	-19.090
602.470	-23.976	-58.023	-81.999	-69.789	-14.090	-19.090
602.480	-21.155	-58.103	-79.258	-67.048	-14.090	-19.090
602.490	-24.642	-57.912	-82.554	-70.344	-14.090	-19.090
602.500	-24.123	-57.902	-82.025	-69.815	-14.090	-19.090
602.510	-24.193	-57.860	-82.053	-69.843	-14.090	-19.090
602.520	-23.545	-57.769	-81.314	-69.104	-14.090	-19.090
602.530	-21.594	-57.623	-79.217	-67.007	-14.090	-19.090
602.540	-21.840	-57.782	-79.622	-67.412	-14.090	-19.090
602.550	-22.434	-57.793	-80.227	-68.017	-14.090	-19.090
602.560	-24.285	-57.991	-82.276	-70.066	-14.090	-19.090
602.570	-24.396	-57.843	-82.239	-70.029	-14.090	-19.090
602.580	-25.249	-57.707	-82.956	-70.746	-14.090	-19.090
602.590	-24.409	-57.718	-82.127	-69.917	-14.090	-19.090
602.600	-22.297	-57.683	-79.980	-67.770	-14.090	-19.090
602.610	-21.744	-57.755	-79.499	-67.289	-14.090	-19.090
602.620	-21.455	-57.524	-78.979	-66.769	-14.090	-19.090
602.630	-23.029	-57.744	-80.773	-68.563	-14.090	-19.090
602.640	-22.473	-57.566	-80.039	-67.829	-14.090	-19.090
602.650	-23.643	-57.510	-81.153	-68.943	-14.090	-19.090
602.660	-24.557	-57.606	-82.163	-69.953	-14.090	-19.090
602.670	-21.882	-57.590	-79.472	-67.262	-14.090	-19.090
602.680	-22.420	-57.457	-79.877	-67.667	-14.090	-19.090
602.690	-21.695	-57.308	-79.003	-66.793	-14.090	-19.090
602.700	-23.085	-57.409	-80.494	-68.284	-14.090	-19.090
602.710	-22.849	-57.317	-80.166	-67.956	-14.090	-19.090
602.720	-23.938	-57.238	-81.176	-68.966	-14.090	-19.090
602.730	-23.179	-57.376	-80.555	-68.345	-14.090	-19.090
602.740	-22.473	-57.207	-79.680	-67.470	-14.090	-19.090
602.750	-20.285	-57.307	-77.592	-65.382	-14.090	-19.090
602.760	-24.243	-57.463	-81.706	-69.496	-14.090	-19.090
602.770	-21.546	-57.318	-78.864	-66.654	-14.090	-19.090
602.780	-21.993	-57.280	-79.273	-67.063	-14.090	-19.090
602.790	-23.398	-57.237	-80.635	-68.425	-14.090	-19.090
602.800	-25.586	-57.090	-82.676	-70.466	-14.090	-19.090
602.810	-22.875	-57.245	-80.120	-67.910	-14.090	-19.090
602.820	-22.731	-57.148	-79.879	-67.669	-14.090	-19.090
602.830	-20.801	-57.148	-77.949	-65.739	-14.090	-19.090

602.840	-21.283	-57.051	-78.334	-66.124	-14.090	-19.090
602.850	-22.490	-57.086	-79.576	-67.366	-14.090	-19.090
602.860	-21.447	-57.141	-78.588	-66.378	-14.090	-19.090
602.870	-24.815	-56.876	-81.691	-69.481	-14.090	-19.090
602.880	-20.788	-56.888	-77.676	-65.466	-14.090	-19.090
602.890	-21.523	-57.066	-78.589	-66.379	-14.090	-19.090
602.900	-21.456	-57.103	-78.559	-66.349	-14.090	-19.090
602.910	-21.871	-56.972	-78.843	-66.633	-14.090	-19.090
602.920	-22.233	-56.965	-79.198	-66.988	-14.090	-19.090
602.930	-23.793	-56.757	-80.550	-68.340	-14.090	-19.090
602.940	-21.220	-56.843	-78.063	-65.853	-14.090	-19.090
602.950	-20.317	-56.882	-77.199	-64.989	-14.090	-19.090
602.960	-18.008	-56.912	-74.920	-62.710	-14.090	-19.090
602.970	-23.730	-56.632	-80.362	-68.152	-14.090	-19.090
602.980	-20.554	-56.724	-77.278	-65.068	-14.090	-19.090
602.990	-18.413	-56.790	-75.203	-62.993	-14.090	-19.090
603.000	-17.946	-56.823	-74.769	-62.559	-14.090	-19.090
603.010	-18.718	-56.764	-75.482	-63.272	-14.090	-19.090
603.020	-24.259	-56.649	-80.908	-68.698	-14.090	-19.090
603.030	-18.452	-56.501	-74.953	-62.743	-14.090	-19.090
603.040	-21.918	-56.642	-78.560	-66.350	-14.090	-19.090
603.050	-24.358	-56.620	-80.978	-68.768	-14.090	-19.090
603.060	-21.764	-56.607	-78.371	-66.161	-14.090	-19.090
603.070	-20.174	-56.564	-76.738	-64.528	-14.090	-19.090
603.080	-21.193	-56.479	-77.672	-65.462	-14.090	-19.090
603.090	-22.064	-56.501	-78.565	-66.355	-14.090	-19.090
603.100	-22.507	-56.396	-78.903	-66.693	-14.090	-19.090
603.110	-22.373	-56.524	-78.897	-66.687	-14.090	-19.090
603.120	-24.696	-56.350	-81.046	-68.836	-14.090	-19.090
603.130	-22.400	-56.417	-78.817	-66.607	-14.090	-19.090
603.140	-20.703	-56.407	-77.110	-64.900	-14.090	-19.090
603.150	-24.097	-56.535	-80.632	-68.422	-14.090	-19.090
603.160	-21.768	-56.445	-78.213	-66.003	-14.090	-19.090
603.170	-22.105	-56.357	-78.462	-66.252	-14.090	-19.090
603.180	-21.118	-56.302	-77.420	-65.210	-14.090	-19.090
603.190	-20.152	-56.118	-76.270	-64.060	-14.090	-19.090
603.200	-21.801	-56.177	-77.978	-65.768	-14.090	-19.090
603.210	-23.173	-56.087	-79.260	-67.050	-14.090	-19.090
603.220	-22.088	-56.143	-78.231	-66.021	-14.090	-19.090
603.230	-20.249	-56.183	-76.432	-64.222	-14.090	-19.090
603.240	-23.803	-55.873	-79.676	-67.466	-14.090	-19.090
603.250	-22.292	-56.090	-78.382	-66.172	-14.090	-19.090
603.260	-23.241	-56.078	-79.319	-67.109	-14.090	-19.090
603.270	-22.158	-56.031	-78.189	-65.979	-14.090	-19.090
603.280	-21.692	-56.036	-77.728	-65.518	-14.090	-19.090
603.290	-24.032	-55.998	-80.030	-67.820	-14.090	-19.090

603.300	-22.819	-56.042	-78.861	-66.651	-14.090	-19.090
603.310	-22.040	-55.929	-77.969	-65.759	-14.090	-19.090
603.320	-21.251	-55.991	-77.242	-65.032	-14.090	-19.090
603.330	-21.841	-55.908	-77.749	-65.539	-14.090	-19.090
603.340	-21.652	-55.976	-77.628	-65.418	-14.090	-19.090
603.350	-22.318	-55.912	-78.230	-66.020	-14.090	-19.090
603.360	-24.539	-55.760	-80.299	-68.089	-14.090	-19.090
603.370	-22.352	-55.965	-78.317	-66.107	-14.090	-19.090
603.380	-21.524	-55.760	-77.284	-65.074	-14.090	-19.090
603.390	-22.527	-55.682	-78.209	-65.999	-14.090	-19.090
603.400	-20.679	-55.781	-76.460	-64.250	-14.090	-19.090
603.410	-20.891	-55.815	-76.706	-64.496	-14.090	-19.090
603.420	-22.066	-55.774	-77.840	-65.630	-14.090	-19.090
603.430	-22.183	-55.797	-77.980	-65.770	-14.090	-19.090
603.440	-22.253	-55.640	-77.893	-65.683	-14.090	-19.090
603.450	-21.936	-55.596	-77.532	-65.322	-14.090	-19.090
603.460	-24.950	-55.595	-80.545	-68.335	-14.090	-19.090
603.470	-22.715	-55.625	-78.340	-66.130	-14.090	-19.090
603.480	-19.685	-55.711	-75.396	-63.186	-14.090	-19.090
603.490	-22.256	-55.586	-77.842	-65.632	-14.090	-19.090
603.500	-22.245	-55.532	-77.777	-65.567	-14.090	-19.090
603.510	-21.824	-55.507	-77.331	-65.121	-14.090	-19.090
603.520	-20.244	-55.490	-75.734	-63.524	-14.090	-19.090
603.530	-22.110	-55.469	-77.579	-65.369	-14.090	-19.090
603.540	-21.165	-55.480	-76.645	-64.435	-14.090	-19.090
603.550	-22.261	-55.339	-77.600	-65.390	-14.090	-19.090
603.560	-22.751	-55.395	-78.146	-65.936	-14.090	-19.090
603.570	-22.268	-55.389	-77.657	-65.447	-14.090	-19.090
603.580	-22.811	-55.336	-78.147	-65.937	-14.090	-19.090
603.590	-22.051	-55.277	-77.328	-65.118	-14.090	-19.090
603.600	-21.292	-55.213	-76.505	-64.295	-14.090	-19.090
603.610	-22.102	-55.158	-77.260	-65.050	-14.090	-19.090
603.620	-21.781	-55.150	-76.931	-64.721	-14.090	-19.090
603.630	-22.525	-55.227	-77.752	-65.542	-14.090	-19.090
603.640	-21.048	-55.178	-76.226	-64.016	-14.090	-19.090
603.650	-22.588	-55.224	-77.812	-65.602	-14.090	-19.090
603.660	-24.198	-55.149	-79.347	-67.137	-14.090	-19.090
603.670	-22.093	-54.984	-77.077	-64.867	-14.090	-19.090
603.680	-21.559	-55.181	-76.740	-64.530	-14.090	-19.090
603.690	-21.206	-55.022	-76.228	-64.018	-14.090	-19.090
603.700	-22.819	-55.056	-77.875	-65.665	-14.090	-19.090
603.710	-19.680	-55.022	-74.702	-62.492	-14.090	-19.090
603.720	-23.438	-55.009	-78.447	-66.237	-14.090	-19.090
603.730	-22.041	-54.999	-77.040	-64.830	-14.090	-19.090
603.740	-18.816	-54.865	-73.681	-61.471	-14.090	-19.090
603.750	-21.540	-54.911	-76.451	-64.241	-14.090	-19.090

603.760	-23.047	-54.826	-77.873	-65.663	-14.090	-19.090
603.770	-23.020	-54.948	-77.968	-65.758	-14.090	-19.090
603.780	-20.313	-54.685	-74.998	-62.788	-14.090	-19.090
603.790	-20.803	-54.755	-75.558	-63.348	-14.090	-19.090
603.800	-21.231	-54.767	-75.998	-63.788	-14.090	-19.090
603.810	-19.436	-54.683	-74.119	-61.909	-14.090	-19.090
603.820	-21.095	-54.765	-75.860	-63.650	-14.090	-19.090
603.830	-19.646	-54.680	-74.326	-62.116	-14.090	-19.090
603.840	-20.236	-54.522	-74.758	-62.548	-14.090	-19.090
603.850	-22.157	-54.719	-76.876	-64.666	-14.090	-19.090
603.860	-24.601	-54.664	-79.265	-67.055	-14.090	-19.090
603.870	-21.479	-54.605	-76.084	-63.874	-14.090	-19.090
603.880	-22.456	-54.574	-77.030	-64.820	-14.090	-19.090
603.890	-21.926	-54.492	-76.418	-64.208	-14.090	-19.090
603.900	-21.673	-54.423	-76.096	-63.886	-14.090	-19.090
603.910	-20.202	-54.483	-74.685	-62.475	-14.090	-19.090
603.920	-21.265	-54.441	-75.706	-63.496	-14.090	-19.090
603.930	-20.590	-54.466	-75.056	-62.846	-14.090	-19.090
603.940	-20.404	-54.464	-74.868	-62.658	-14.090	-19.090
603.950	-23.197	-54.288	-77.485	-65.275	-14.090	-19.090
603.960	-21.817	-54.301	-76.118	-63.908	-14.090	-19.090
603.970	-21.632	-54.320	-75.952	-63.742	-14.090	-19.090
603.980	-19.595	-54.209	-73.804	-61.594	-14.090	-19.090
603.990	-22.394	-54.270	-76.664	-64.454	-14.090	-19.090
604.000	-21.686	-54.218	-75.904	-63.694	-14.090	-19.090
604.010	-20.246	-54.210	-74.456	-62.246	-14.090	-19.090
604.020	-21.908	-54.257	-76.165	-63.955	-14.090	-19.090
604.030	-22.039	-54.246	-76.285	-64.075	-14.090	-19.090
604.040	-21.871	-54.179	-76.050	-63.840	-14.090	-19.090
604.050	-18.745	-54.249	-72.994	-60.784	-14.090	-19.090
604.060	-20.810	-54.134	-74.944	-62.734	-14.090	-19.090
604.070	-22.847	-53.948	-76.795	-64.585	-14.090	-19.090
604.080	-23.029	-54.065	-77.094	-64.884	-14.090	-19.090
604.090	-20.299	-53.989	-74.288	-62.078	-14.090	-19.090
604.100	-20.632	-53.978	-74.610	-62.400	-14.090	-19.090
604.110	-21.335	-53.888	-75.223	-63.013	-14.090	-19.090
604.120	-20.046	-53.855	-73.901	-61.691	-14.090	-19.090
604.130	-19.454	-53.916	-73.370	-61.160	-14.090	-19.090
604.140	-22.110	-53.833	-75.943	-63.733	-14.090	-19.090
604.150	-20.563	-53.850	-74.413	-62.203	-14.090	-19.090
604.160	-20.343	-53.798	-74.141	-61.931	-14.090	-19.090
604.170	-18.766	-53.832	-72.598	-60.388	-14.090	-19.090
604.180	-21.782	-53.793	-75.575	-63.365	-14.090	-19.090
604.190	-22.821	-53.876	-76.697	-64.487	-14.090	-19.090
604.200	-21.616	-53.788	-75.404	-63.194	-14.090	-19.090
604.210	-21.960	-53.612	-75.572	-63.362	-14.090	-19.090

604.220	-19.420	-53.609	-73.029	-60.819	-14.090	-19.090
604.230	-21.240	-53.706	-74.946	-62.736	-14.090	-19.090
604.240	-22.170	-53.680	-75.850	-63.640	-14.090	-19.090
604.250	-19.806	-53.614	-73.420	-61.210	-14.090	-19.090
604.260	-21.216	-53.417	-74.633	-62.423	-14.090	-19.090
604.270	-21.777	-53.478	-75.255	-63.045	-14.090	-19.090
604.280	-19.956	-53.593	-73.549	-61.339	-14.090	-19.090
604.290	-22.002	-53.500	-75.502	-63.292	-14.090	-19.090
604.300	-21.079	-53.652	-74.731	-62.521	-14.090	-19.090
604.310	-19.308	-53.436	-72.744	-60.534	-14.090	-19.090
604.320	-20.182	-53.451	-73.633	-61.423	-14.090	-19.090
604.330	-21.279	-53.272	-74.551	-62.341	-14.090	-19.090
604.340	-19.354	-53.419	-72.773	-60.563	-14.090	-19.090
604.350	-22.291	-53.273	-75.564	-63.354	-14.090	-19.090
604.360	-20.699	-53.190	-73.889	-61.679	-14.090	-19.090
604.370	-22.003	-53.267	-75.270	-63.060	-14.090	-19.090
604.380	-21.159	-53.379	-74.538	-62.328	-14.090	-19.090
604.390	-19.979	-53.193	-73.172	-60.962	-14.090	-19.090
604.400	-22.604	-53.228	-75.832	-63.622	-14.090	-19.090
604.410	-21.534	-53.124	-74.658	-62.448	-14.090	-19.090
604.420	-21.524	-53.121	-74.645	-62.435	-14.090	-19.090
604.430	-20.475	-53.033	-73.508	-61.298	-14.090	-19.090
604.440	-20.889	-53.089	-73.978	-61.768	-14.090	-19.090
604.450	-20.780	-53.046	-73.826	-61.616	-14.090	-19.090
604.460	-19.905	-53.026	-72.931	-60.721	-14.090	-19.090
604.470	-21.850	-52.948	-74.798	-62.588	-14.090	-19.090
604.480	-21.132	-52.918	-74.050	-61.840	-14.090	-19.090
604.490	-20.944	-52.936	-73.880	-61.670	-14.090	-19.090
604.500	-20.188	-52.850	-73.038	-60.828	-14.090	-19.090
604.510	-20.675	-52.858	-73.533	-61.323	-14.090	-19.090
604.520	-19.480	-52.932	-72.412	-60.202	-14.090	-19.090
604.530	-19.540	-52.860	-72.400	-60.190	-14.090	-19.090
604.540	-19.605	-52.910	-72.515	-60.305	-14.090	-19.090
604.550	-21.003	-52.849	-73.852	-61.642	-14.090	-19.090
604.560	-19.187	-52.747	-71.934	-59.724	-14.090	-19.090
604.570	-21.512	-52.782	-74.294	-62.084	-14.090	-19.090
604.580	-19.924	-52.657	-72.581	-60.371	-14.090	-19.090
604.590	-19.615	-52.598	-72.213	-60.003	-14.090	-19.090
604.600	-21.138	-52.722	-73.860	-61.650	-14.090	-19.090
604.610	-19.986	-52.712	-72.698	-60.488	-14.090	-19.090
604.620	-21.565	-52.576	-74.141	-61.931	-14.090	-19.090
604.630	-19.728	-52.597	-72.325	-60.115	-14.090	-19.090
604.640	-19.446	-52.531	-71.977	-59.767	-14.090	-19.090
604.650	-20.760	-52.461	-73.221	-61.011	-14.090	-19.090
604.660	-19.982	-52.445	-72.427	-60.217	-14.090	-19.090
604.670	-19.195	-52.366	-71.561	-59.351	-14.090	-19.090

604.680	-21.006	-52.473	-73.479	-61.269	-14.090	-19.090
604.690	-22.047	-52.479	-74.526	-62.316	-14.090	-19.090
604.700	-24.736	-52.382	-77.118	-64.908	-14.090	-19.090
604.710	-19.463	-52.272	-71.735	-59.525	-14.090	-19.090
604.720	-21.261	-52.384	-73.645	-61.435	-14.090	-19.090
604.730	-19.481	-52.227	-71.708	-59.498	-14.090	-19.090
604.740	-19.933	-52.265	-72.198	-59.988	-14.090	-19.090
604.750	-20.411	-52.247	-72.658	-60.448	-14.090	-19.090
604.760	-18.773	-52.217	-70.990	-58.780	-14.090	-19.090
604.770	-18.634	-52.238	-70.872	-58.662	-14.090	-19.090
604.780	-21.755	-52.163	-73.918	-61.708	-14.090	-19.090
604.790	-19.622	-52.173	-71.795	-59.585	-14.090	-19.090
604.800	-19.584	-52.041	-71.625	-59.415	-14.090	-19.090
604.810	-19.358	-52.042	-71.400	-59.190	-14.090	-19.090
604.820	-18.941	-52.024	-70.965	-58.755	-14.090	-19.090
604.830	-19.109	-52.079	-71.188	-58.978	-14.090	-19.090
604.840	-19.382	-52.066	-71.448	-59.238	-14.090	-19.090
604.850	-18.296	-51.943	-70.239	-58.029	-14.090	-19.090
604.860	-19.717	-51.901	-71.618	-59.408	-14.090	-19.090
604.870	-18.710	-51.952	-70.662	-58.452	-14.090	-19.090
604.880	-19.617	-51.956	-71.573	-59.363	-14.090	-19.090
604.890	-21.129	-51.870	-72.999	-60.789	-14.090	-19.090
604.900	-17.716	-51.790	-69.506	-57.296	-14.090	-19.090
604.910	-17.160	-51.787	-68.947	-56.737	-14.090	-19.090
604.920	-19.430	-51.768	-71.198	-58.988	-14.090	-19.090
604.930	-16.851	-51.740	-68.591	-56.381	-14.090	-19.090
604.940	-16.484	-51.707	-68.191	-55.981	-14.090	-19.090
604.950	-22.034	-51.665	-73.699	-61.489	-14.090	-19.090
604.960	-17.644	-51.665	-69.309	-57.099	-14.090	-19.090
604.970	-16.628	-51.613	-68.241	-56.031	-14.090	-19.090
604.980	-20.185	-51.652	-71.837	-59.627	-14.090	-19.090
604.990	-21.134	-51.619	-72.753	-60.543	-14.090	-19.090
605.000	-21.621	-51.585	-73.206	-60.996	-14.090	-19.090
605.010	-17.684	-51.479	-69.163	-56.953	-14.090	-19.090
605.020	-24.449	-51.444	-75.893	-63.683	-14.090	-19.090
605.030	-21.321	-51.457	-72.778	-60.568	-14.090	-19.090
605.040	-18.121	-51.327	-69.448	-57.238	-14.090	-19.090
605.050	-14.635	-51.404	-66.039	-53.829	-14.090	-19.090
605.060	-18.772	-51.395	-70.167	-57.957	-14.090	-19.090
605.070	-19.170	-51.377	-70.547	-58.337	-14.090	-19.090
605.080	-18.386	-51.286	-69.672	-57.462	-14.090	-19.090
605.090	-18.825	-51.343	-70.168	-57.958	-14.090	-19.090
605.100	-19.242	-51.263	-70.505	-58.295	-14.090	-19.090
605.110	-18.568	-51.226	-69.794	-57.584	-14.090	-19.090
605.120	-18.938	-51.233	-70.171	-57.961	-14.090	-19.090
605.130	-20.815	-51.133	-71.948	-59.738	-14.090	-19.090

605.140	-17.978	-51.168	-69.146	-56.936	-14.090	-19.090
605.150	-19.073	-51.185	-70.258	-58.048	-14.090	-19.090
605.160	-20.508	-51.120	-71.628	-59.418	-14.090	-19.090
605.170	-19.510	-51.010	-70.520	-58.310	-14.090	-19.090
605.180	-18.812	-51.043	-69.855	-57.645	-14.090	-19.090
605.190	-20.160	-51.013	-71.173	-58.963	-14.090	-19.090
605.200	-19.656	-51.026	-70.682	-58.472	-14.090	-19.090
605.210	-18.059	-50.890	-68.949	-56.739	-14.090	-19.090
605.220	-18.055	-50.885	-68.940	-56.730	-14.090	-19.090
605.230	-18.098	-50.821	-68.919	-56.709	-14.090	-19.090
605.240	-17.983	-50.790	-68.773	-56.563	-14.090	-19.090
605.250	-19.805	-50.843	-70.648	-58.438	-14.090	-19.090
605.260	-18.953	-50.870	-69.823	-57.613	-14.090	-19.090
605.270	-20.646	-50.745	-71.391	-59.181	-14.090	-19.090
605.280	-16.587	-50.666	-67.253	-55.043	-14.090	-19.090
605.290	-18.040	-50.762	-68.802	-56.592	-14.090	-19.090
605.300	-17.924	-50.626	-68.550	-56.340	-14.090	-19.090
605.310	-19.366	-50.677	-70.043	-57.833	-14.090	-19.090
605.320	-18.491	-50.644	-69.135	-56.925	-14.090	-19.090
605.330	-19.682	-50.570	-70.252	-58.042	-14.090	-19.090
605.340	-18.643	-50.521	-69.164	-56.954	-14.090	-19.090
605.350	-17.020	-50.499	-67.519	-55.309	-14.090	-19.090
605.360	-19.778	-50.539	-70.317	-58.107	-14.090	-19.090
605.370	-18.170	-50.413	-68.583	-56.373	-14.090	-19.090
605.380	-17.242	-50.417	-67.659	-55.449	-14.090	-19.090
605.390	-17.874	-50.530	-68.404	-56.194	-14.090	-19.090
605.400	-19.415	-50.367	-69.782	-57.572	-14.090	-19.090
605.410	-18.823	-50.401	-69.224	-57.014	-14.090	-19.090
605.420	-18.783	-50.302	-69.085	-56.875	-14.090	-19.090
605.430	-18.866	-50.267	-69.133	-56.923	-14.090	-19.090
605.440	-20.875	-50.270	-71.145	-58.935	-14.090	-19.090
605.450	-20.264	-50.279	-70.543	-58.333	-14.090	-19.090
605.460	-17.983	-50.176	-68.159	-55.949	-14.090	-19.090
605.470	-18.054	-50.202	-68.256	-56.046	-14.090	-19.090
605.480	-17.301	-50.195	-67.496	-55.286	-14.090	-19.090
605.490	-17.844	-50.169	-68.013	-55.803	-14.090	-19.090
605.500	-19.035	-50.027	-69.062	-56.852	-14.090	-19.090
605.510	-17.865	-50.138	-68.003	-55.793	-14.090	-19.090
605.520	-18.199	-49.997	-68.196	-55.986	-14.090	-19.090
605.530	-17.939	-50.000	-67.939	-55.729	-14.090	-19.090
605.540	-17.663	-49.989	-67.652	-55.442	-14.090	-19.090
605.550	-20.330	-49.974	-70.304	-58.094	-14.090	-19.090
605.560	-19.967	-49.877	-69.844	-57.634	-14.090	-19.090
605.570	-17.307	-49.863	-67.170	-54.960	-14.090	-19.090
605.580	-16.718	-49.891	-66.609	-54.399	-14.090	-19.090
605.590	-18.083	-49.786	-67.869	-55.659	-14.090	-19.090

605.600	-16.798	-49.810	-66.608	-54.398	-14.090	-19.090
605.610	-17.414	-49.791	-67.205	-54.995	-14.090	-19.090
605.620	-17.051	-49.772	-66.823	-54.613	-14.090	-19.090
605.630	-15.001	-49.692	-64.693	-52.483	-14.090	-19.090
605.640	-16.979	-49.670	-66.649	-54.439	-14.090	-19.090
605.650	-16.819	-49.641	-66.460	-54.250	-14.090	-19.090
605.660	-15.174	-49.640	-64.814	-52.604	-14.090	-19.090
605.670	-17.564	-49.544	-67.108	-54.898	-14.090	-19.090
605.680	-19.969	-49.530	-69.499	-57.289	-14.090	-19.090
605.690	-17.310	-49.556	-66.866	-54.656	-14.090	-19.090
605.700	-17.465	-49.549	-67.014	-54.804	-14.090	-19.090
605.710	-18.319	-49.498	-67.817	-55.607	-14.090	-19.090
605.720	-16.866	-49.447	-66.313	-54.103	-14.090	-19.090
605.730	-16.363	-49.424	-65.787	-53.577	-14.090	-19.090
605.740	-16.886	-49.409	-66.295	-54.085	-14.090	-19.090
605.750	-17.376	-49.332	-66.708	-54.498	-14.090	-19.090
605.760	-19.563	-49.375	-68.938	-56.728	-14.090	-19.090
605.770	-17.412	-49.317	-66.729	-54.519	-14.090	-19.090
605.780	-17.190	-49.224	-66.414	-54.204	-14.090	-19.090
605.790	-20.500	-49.264	-69.764	-57.554	-14.090	-19.090
605.800	-16.604	-49.177	-65.781	-53.571	-14.090	-19.090
605.810	-18.339	-49.167	-67.506	-55.296	-14.090	-19.090
605.820	-16.421	-49.076	-65.497	-53.287	-14.090	-19.090
605.830	-18.306	-49.104	-67.410	-55.200	-14.090	-19.090
605.840	-17.769	-49.087	-66.856	-54.646	-14.090	-19.090
605.850	-17.318	-49.063	-66.381	-54.171	-14.090	-19.090
605.860	-16.458	-49.008	-65.466	-53.256	-14.090	-19.090
605.870	-17.240	-48.970	-66.210	-54.000	-14.090	-19.090
605.880	-18.383	-48.994	-67.377	-55.167	-14.090	-19.090
605.890	-18.167	-48.906	-67.073	-54.863	-14.090	-19.090
605.900	-18.333	-48.936	-67.269	-55.059	-14.090	-19.090
605.910	-18.556	-48.852	-67.408	-55.198	-14.090	-19.090
605.920	-16.306	-48.816	-65.122	-52.912	-14.090	-19.090
605.930	-15.712	-48.884	-64.596	-52.386	-14.090	-19.090
605.940	-18.513	-48.714	-67.227	-55.017	-14.090	-19.090
605.950	-17.614	-48.766	-66.380	-54.170	-14.090	-19.090
605.960	-17.052	-48.650	-65.702	-53.492	-14.090	-19.090
605.970	-18.481	-48.643	-67.124	-54.914	-14.090	-19.090
605.980	-18.404	-48.603	-67.007	-54.797	-14.090	-19.090
605.990	-17.455	-48.664	-66.119	-53.909	-14.090	-19.090
606.000	-16.473	-48.599	-65.072	-52.862	-14.090	-19.090
606.010	-15.653	-48.538	-64.191	-51.981	-14.090	-19.090
606.020	-15.289	-48.537	-63.826	-51.616	-14.090	-19.090
606.030	-14.638	-48.488	-63.126	-50.916	-14.090	-19.090
606.040	-16.876	-48.456	-65.332	-53.122	-14.090	-19.090
606.050	-18.554	-48.417	-66.971	-54.761	-14.090	-19.090

606.060	-17.495	-48.376	-65.871	-53.661	-14.090	-19.090
606.070	-17.127	-48.378	-65.505	-53.295	-14.090	-19.090
606.080	-18.416	-48.344	-66.760	-54.550	-14.090	-19.090
606.090	-16.406	-48.238	-64.644	-52.434	-14.090	-19.090
606.100	-15.375	-48.248	-63.623	-51.413	-14.090	-19.090
606.110	-15.311	-48.207	-63.518	-51.308	-14.090	-19.090
606.120	-16.074	-48.220	-64.294	-52.084	-14.090	-19.090
606.130	-16.255	-48.229	-64.484	-52.274	-14.090	-19.090
606.140	-15.463	-48.176	-63.639	-51.429	-14.090	-19.090
606.150	-16.078	-48.146	-64.224	-52.014	-14.090	-19.090
606.160	-16.377	-48.104	-64.481	-52.271	-14.090	-19.090
606.170	-18.599	-48.057	-66.656	-54.446	-14.090	-19.090
606.180	-16.156	-48.041	-64.197	-51.987	-14.090	-19.090
606.190	-17.215	-47.957	-65.172	-52.962	-14.090	-19.090
606.200	-16.816	-47.924	-64.740	-52.530	-14.090	-19.090
606.210	-19.584	-47.912	-67.496	-55.286	-14.090	-19.090
606.220	-15.749	-47.952	-63.701	-51.491	-14.090	-19.090
606.230	-15.462	-47.858	-63.320	-51.110	-14.090	-19.090
606.240	-17.107	-47.801	-64.908	-52.698	-14.090	-19.090
606.250	-15.203	-47.839	-63.042	-50.832	-14.090	-19.090
606.260	-16.811	-47.762	-64.573	-52.363	-14.090	-19.090
606.270	-17.832	-47.652	-65.484	-53.274	-14.090	-19.090
606.280	-15.438	-47.696	-63.134	-50.924	-14.090	-19.090
606.290	-16.230	-47.679	-63.909	-51.699	-14.090	-19.090
606.300	-17.952	-47.634	-65.586	-53.376	-14.090	-19.090
606.310	-15.300	-47.622	-62.922	-50.712	-14.090	-19.090
606.320	-15.200	-47.594	-62.794	-50.584	-14.090	-19.090
606.330	-15.250	-47.564	-62.814	-50.604	-14.090	-19.090
606.340	-15.070	-47.434	-62.504	-50.294	-14.090	-19.090
606.350	-15.719	-47.517	-63.236	-51.026	-14.090	-19.090
606.360	-16.895	-47.448	-64.343	-52.133	-14.090	-19.090
606.370	-15.617	-47.431	-63.048	-50.838	-14.090	-19.090
606.380	-15.792	-47.424	-63.216	-51.006	-14.090	-19.090
606.390	-16.554	-47.329	-63.883	-51.673	-14.090	-19.090
606.400	-16.844	-47.295	-64.139	-51.929	-14.090	-19.090
606.410	-15.505	-47.271	-62.776	-50.566	-14.090	-19.090
606.420	-15.828	-47.218	-63.046	-50.836	-14.090	-19.090
606.430	-15.792	-47.287	-63.079	-50.869	-14.090	-19.090
606.440	-14.751	-47.222	-61.973	-49.763	-14.090	-19.090
606.450	-17.092	-47.134	-64.226	-52.016	-14.090	-19.090
606.460	-15.481	-47.120	-62.601	-50.391	-14.090	-19.090
606.470	-16.228	-47.174	-63.402	-51.192	-14.090	-19.090
606.480	-14.025	-47.072	-61.097	-48.887	-14.090	-19.090
606.490	-16.452	-47.041	-63.493	-51.283	-14.090	-19.090
606.500	-15.824	-47.000	-62.824	-50.614	-14.090	-19.090
606.510	-13.811	-46.977	-60.788	-48.578	-14.090	-19.090

606.520	-16.775	-46.925	-63.700	-51.490	-14.090	-19.090
606.530	-17.721	-46.908	-64.629	-52.419	-14.090	-19.090
606.540	-15.082	-46.888	-61.970	-49.760	-14.090	-19.090
606.550	-18.293	-46.866	-65.159	-52.949	-14.090	-19.090
606.560	-14.677	-46.756	-61.433	-49.223	-14.090	-19.090
606.570	-16.234	-46.714	-62.948	-50.738	-14.090	-19.090
606.580	-16.414	-46.674	-63.088	-50.878	-14.090	-19.090
606.590	-15.535	-46.692	-62.227	-50.017	-14.090	-19.090
606.600	-14.696	-46.650	-61.346	-49.136	-14.090	-19.090
606.610	-16.315	-46.676	-62.991	-50.781	-14.090	-19.090
606.620	-15.992	-46.626	-62.618	-50.408	-14.090	-19.090
606.630	-16.183	-46.547	-62.730	-50.520	-14.090	-19.090
606.640	-15.265	-46.575	-61.840	-49.630	-14.090	-19.090
606.650	-16.117	-46.496	-62.613	-50.403	-14.090	-19.090
606.660	-15.856	-46.485	-62.341	-50.131	-14.090	-19.090
606.670	-13.800	-46.417	-60.217	-48.007	-14.090	-19.090
606.680	-16.518	-46.404	-62.922	-50.712	-14.090	-19.090
606.690	-16.397	-46.394	-62.791	-50.581	-14.090	-19.090
606.700	-15.047	-46.370	-61.417	-49.207	-14.090	-19.090
606.710	-15.315	-46.273	-61.588	-49.378	-14.090	-19.090
606.720	-14.662	-46.310	-60.972	-48.762	-14.090	-19.090
606.730	-13.974	-46.252	-60.226	-48.016	-14.090	-19.090
606.740	-15.783	-46.234	-62.017	-49.807	-14.090	-19.090
606.750	-16.051	-46.191	-62.242	-50.032	-14.090	-19.090
606.760	-16.167	-46.146	-62.313	-50.103	-14.090	-19.090
606.770	-15.644	-46.070	-61.714	-49.504	-14.090	-19.090
606.780	-16.973	-46.028	-63.001	-50.791	-14.090	-19.090
606.790	-16.546	-46.026	-62.572	-50.362	-14.090	-19.090
606.800	-14.585	-46.002	-60.587	-48.377	-14.090	-19.090
606.810	-16.613	-46.003	-62.616	-50.406	-14.090	-19.090
606.820	-15.196	-45.887	-61.083	-48.873	-14.090	-19.090
606.830	-15.502	-45.879	-61.381	-49.171	-14.090	-19.090
606.840	-15.100	-45.862	-60.962	-48.752	-14.090	-19.090
606.850	-15.376	-45.871	-61.247	-49.037	-14.090	-19.090
606.860	-16.269	-45.783	-62.052	-49.842	-14.090	-19.090
606.870	-15.044	-45.766	-60.810	-48.600	-14.090	-19.090
606.880	-15.375	-45.735	-61.110	-48.900	-14.090	-19.090
606.890	-16.181	-45.646	-61.827	-49.617	-14.090	-19.090
606.900	-14.196	-45.601	-59.797	-47.587	-14.090	-19.090
606.910	-15.129	-45.588	-60.717	-48.507	-14.090	-19.090
606.920	-18.744	-45.562	-64.306	-52.096	-14.090	-19.090
606.930	-17.419	-45.578	-62.997	-50.787	-14.090	-19.090
606.940	-18.010	-45.496	-63.506	-51.296	-14.090	-19.090
606.950	-14.686	-45.506	-60.192	-47.982	-14.090	-19.090
606.960	-16.825	-45.459	-62.284	-50.074	-14.090	-19.090
606.970	-17.975	-45.490	-63.465	-51.255	-14.090	-19.090

606.980	-16.398	-45.357	-61.755	-49.545	-14.090	-19.090
606.990	-16.929	-45.349	-62.278	-50.068	-14.090	-19.090
607.000	-17.100	-45.344	-62.444	-50.234	-14.090	-19.090
607.010	-18.101	-45.225	-63.326	-51.116	-14.090	-19.090
607.020	-19.219	-45.236	-64.455	-52.245	-14.090	-19.090
607.030	-15.900	-45.245	-61.145	-48.935	-14.090	-19.090
607.040	-15.739	-45.186	-60.925	-48.715	-14.090	-19.090
607.050	-17.976	-45.139	-63.115	-50.905	-14.090	-19.090
607.060	-16.593	-45.110	-61.703	-49.493	-14.090	-19.090
607.070	-18.328	-45.084	-63.412	-51.202	-14.090	-19.090
607.080	-16.321	-45.042	-61.363	-49.153	-14.090	-19.090
607.090	-14.555	-45.027	-59.582	-47.372	-14.090	-19.090
607.100	-16.914	-44.947	-61.861	-49.651	-14.090	-19.090
607.110	-16.282	-44.932	-61.214	-49.004	-14.090	-19.090
607.120	-15.994	-44.887	-60.881	-48.671	-14.090	-19.090
607.130	-15.603	-44.859	-60.462	-48.252	-14.090	-19.090
607.140	-17.260	-44.834	-62.094	-49.884	-14.090	-19.090
607.150	-14.938	-44.769	-59.707	-47.497	-14.090	-19.090
607.160	-14.929	-44.760	-59.689	-47.479	-14.090	-19.090
607.170	-14.248	-44.692	-58.940	-46.730	-14.090	-19.090
607.180	-16.579	-44.697	-61.276	-49.066	-14.090	-19.090
607.190	-14.581	-44.681	-59.262	-47.052	-14.090	-19.090
607.200	-14.967	-44.617	-59.584	-47.374	-14.090	-19.090
607.210	-14.554	-44.595	-59.149	-46.939	-14.090	-19.090
607.220	-15.843	-44.523	-60.366	-48.156	-14.090	-19.090
607.230	-16.144	-44.511	-60.655	-48.445	-14.090	-19.090
607.240	-12.789	-44.492	-57.281	-45.071	-14.090	-19.090
607.250	-14.019	-44.447	-58.466	-46.256	-14.090	-19.090
607.260	-14.596	-44.381	-58.977	-46.767	-14.090	-19.090
607.270	-16.749	-44.392	-61.141	-48.931	-14.090	-19.090
607.280	-15.129	-44.291	-59.420	-47.210	-14.090	-19.090
607.290	-14.817	-44.300	-59.117	-46.907	-14.090	-19.090
607.300	-13.902	-44.289	-58.191	-45.981	-14.090	-19.090
607.310	-15.653	-44.238	-59.891	-47.681	-14.090	-19.090
607.320	-18.176	-44.225	-62.401	-50.191	-14.090	-19.090
607.330	-15.681	-44.154	-59.835	-47.625	-14.090	-19.090
607.340	-14.748	-44.133	-58.881	-46.671	-14.090	-19.090
607.350	-15.476	-44.120	-59.596	-47.386	-14.090	-19.090
607.360	-14.761	-44.068	-58.829	-46.619	-14.090	-19.090
607.370	-14.878	-44.001	-58.879	-46.669	-14.090	-19.090
607.380	-13.573	-43.965	-57.538	-45.328	-14.090	-19.090
607.390	-14.281	-44.003	-58.284	-46.074	-14.090	-19.090
607.400	-13.473	-43.919	-57.392	-45.182	-14.090	-19.090
607.410	-14.082	-43.862	-57.944	-45.734	-14.090	-19.090
607.420	-14.681	-43.796	-58.477	-46.267	-14.090	-19.090
607.430	-13.846	-43.761	-57.607	-45.397	-14.090	-19.090

607.440	-14.420	-43.789	-58.209	-45.999	-14.090	-19.090
607.450	-15.407	-43.756	-59.163	-46.953	-14.090	-19.090
607.460	-15.183	-43.717	-58.900	-46.690	-14.090	-19.090
607.470	-13.686	-43.636	-57.322	-45.112	-14.090	-19.090
607.480	-14.673	-43.616	-58.289	-46.079	-14.090	-19.090
607.490	-14.811	-43.575	-58.386	-46.176	-14.090	-19.090
607.500	-16.094	-43.532	-59.626	-47.416	-14.090	-19.090
607.510	-16.539	-43.512	-60.051	-47.841	-14.090	-19.090
607.520	-14.447	-43.457	-57.904	-45.694	-14.090	-19.090
607.530	-14.060	-43.422	-57.482	-45.272	-14.090	-19.090
607.540	-15.034	-43.383	-58.417	-46.207	-14.090	-19.090
607.550	-13.454	-43.371	-56.825	-44.615	-14.090	-19.090
607.560	-15.587	-43.354	-58.941	-46.731	-14.090	-19.090
607.570	-13.087	-43.270	-56.357	-44.147	-14.090	-19.090
607.580	-15.569	-43.245	-58.814	-46.604	-14.090	-19.090
607.590	-12.500	-43.228	-55.728	-43.518	-14.090	-19.090
607.600	-13.868	-43.152	-57.020	-44.810	-14.090	-19.090
607.610	-14.946	-43.112	-58.058	-45.848	-14.090	-19.090
607.620	-13.967	-43.111	-57.078	-44.868	-14.090	-19.090
607.630	-15.836	-43.119	-58.955	-46.745	-14.090	-19.090
607.640	-14.141	-43.011	-57.152	-44.942	-14.090	-19.090
607.650	-14.019	-42.974	-56.993	-44.783	-14.090	-19.090
607.660	-12.901	-42.981	-55.882	-43.672	-14.090	-19.090
607.670	-12.420	-42.885	-55.305	-43.095	-14.090	-19.090
607.680	-13.458	-42.879	-56.337	-44.127	-14.090	-19.090
607.690	-13.831	-42.851	-56.682	-44.472	-14.090	-19.090
607.700	-14.298	-42.788	-57.086	-44.876	-14.090	-19.090
607.710	-13.572	-42.748	-56.320	-44.110	-14.090	-19.090
607.720	-13.017	-42.726	-55.743	-43.533	-14.090	-19.090
607.730	-12.704	-42.689	-55.393	-43.183	-14.090	-19.090
607.740	-16.036	-42.693	-58.729	-46.519	-14.090	-19.090
607.750	-15.090	-42.640	-57.730	-45.520	-14.090	-19.090
607.760	-14.795	-42.565	-57.360	-45.150	-14.090	-19.090
607.770	-14.371	-42.528	-56.899	-44.689	-14.090	-19.090
607.780	-13.488	-42.483	-55.971	-43.761	-14.090	-19.090
607.790	-16.225	-42.497	-58.722	-46.512	-14.090	-19.090
607.800	-15.542	-42.401	-57.943	-45.733	-14.090	-19.090
607.810	-15.265	-42.409	-57.674	-45.464	-14.090	-19.090
607.820	-13.472	-42.356	-55.828	-43.618	-14.090	-19.090
607.830	-14.523	-42.323	-56.846	-44.636	-14.090	-19.090
607.840	-14.198	-42.311	-56.509	-44.299	-14.090	-19.090
607.850	-14.919	-42.259	-57.178	-44.968	-14.090	-19.090
607.860	-14.905	-42.207	-57.112	-44.902	-14.090	-19.090
607.870	-14.423	-42.163	-56.586	-44.376	-14.090	-19.090
607.880	-13.796	-42.144	-55.940	-43.730	-14.090	-19.090
607.890	-12.077	-42.097	-54.174	-41.964	-14.090	-19.090

607.900	-12.799	-42.045	-54.844	-42.634	-14.090	-19.090
607.910	-12.612	-42.013	-54.625	-42.415	-14.090	-19.090
607.920	-12.892	-41.997	-54.889	-42.679	-14.090	-19.090
607.930	-12.553	-41.937	-54.490	-42.280	-14.090	-19.090
607.940	-14.446	-41.929	-56.375	-44.165	-14.090	-19.090
607.950	-14.563	-41.867	-56.430	-44.220	-14.090	-19.090
607.960	-12.002	-41.811	-53.813	-41.603	-14.090	-19.090
607.970	-10.702	-41.782	-52.484	-40.274	-14.090	-19.090
607.980	-10.662	-41.748	-52.410	-40.200	-14.090	-19.090
607.990	-11.172	-41.676	-52.848	-40.638	-14.090	-19.090
608.000	-13.226	-41.657	-54.883	-42.673	-14.090	-19.090
608.010	-13.200	-41.650	-54.850	-42.640	-14.007	-19.090
608.020	-15.237	-41.590	-56.827	-44.617	-13.924	-19.090
608.030	-12.295	-41.543	-53.838	-41.628	-13.841	-19.090
608.040	-14.601	-41.530	-56.131	-43.921	-13.758	-19.090
608.050	-12.958	-41.460	-54.418	-42.208	-13.675	-19.090
608.060	-13.850	-41.443	-55.293	-43.083	-13.593	-19.090
608.070	-14.529	-41.382	-55.911	-43.701	-13.510	-19.090
608.080	-12.568	-41.396	-53.964	-41.754	-13.428	-19.090
608.090	-14.660	-41.325	-55.985	-43.775	-13.346	-19.090
608.100	-12.671	-41.280	-53.951	-41.741	-13.264	-19.090
608.110	-14.565	-41.232	-55.797	-43.587	-13.182	-19.090
608.120	-14.611	-41.171	-55.782	-43.572	-13.100	-19.090
608.130	-14.679	-41.151	-55.830	-43.620	-13.018	-19.090
608.140	-13.316	-41.143	-54.459	-42.249	-12.937	-19.090
608.150	-11.710	-41.108	-52.818	-40.608	-12.856	-19.090
608.160	-13.646	-41.070	-54.716	-42.506	-12.774	-19.090
608.170	-13.313	-41.043	-54.356	-42.146	-12.693	-19.090
608.180	-12.295	-40.959	-53.254	-41.044	-12.613	-19.090
608.190	-14.240	-40.936	-55.176	-42.966	-12.532	-19.090
608.200	-12.338	-40.883	-53.221	-41.011	-12.451	-19.090
608.210	-13.999	-40.860	-54.859	-42.649	-12.371	-19.090
608.220	-13.938	-40.832	-54.770	-42.560	-12.290	-19.090
608.230	-10.647	-40.754	-51.401	-39.191	-12.210	-19.090
608.240	-14.783	-40.702	-55.485	-43.275	-12.130	-19.090
608.250	-10.528	-40.681	-51.209	-38.999	-12.050	-19.090
608.260	-14.480	-40.660	-55.140	-42.930	-11.970	-19.090
608.270	-11.065	-40.603	-51.668	-39.458	-11.891	-19.090
608.280	-14.886	-40.570	-55.456	-43.246	-11.811	-19.090
608.290	-12.148	-40.538	-52.686	-40.476	-11.732	-19.090
608.300	-13.971	-40.502	-54.473	-42.263	-11.653	-19.090
608.310	-11.659	-40.446	-52.105	-39.895	-11.573	-19.090
608.320	-13.872	-40.419	-54.291	-42.081	-11.494	-19.090
608.330	-13.191	-40.373	-53.564	-41.354	-11.416	-19.090
608.340	-11.937	-40.320	-52.257	-40.047	-11.337	-19.090
608.350	-12.387	-40.300	-52.687	-40.477	-11.258	-19.090

608.360	-14.135	-40.249	-54.384	-42.174	-11.180	-19.090
608.370	-11.834	-40.184	-52.018	-39.808	-11.102	-19.090
608.380	-13.575	-40.176	-53.751	-41.541	-11.024	-19.090
608.390	-14.425	-40.115	-54.540	-42.330	-10.946	-19.090
608.400	-13.686	-40.072	-53.758	-41.548	-10.868	-19.090
608.410	-12.898	-40.038	-52.936	-40.726	-10.790	-19.090
608.420	-13.169	-39.985	-53.154	-40.944	-10.713	-19.090
608.430	-14.257	-39.968	-54.225	-42.015	-10.635	-19.090
608.440	-13.767	-39.945	-53.712	-41.502	-10.558	-19.090
608.450	-11.732	-39.898	-51.630	-39.420	-10.481	-19.090
608.460	-12.970	-39.850	-52.820	-40.610	-10.404	-19.090
608.470	-12.150	-39.793	-51.943	-39.733	-10.327	-19.090
608.480	-12.367	-39.758	-52.125	-39.915	-10.250	-19.090
608.490	-12.262	-39.731	-51.993	-39.783	-10.173	-19.090
608.500	-13.017	-39.684	-52.701	-40.491	-10.097	-19.090
608.510	-14.542	-39.604	-54.146	-41.936	-10.021	-19.090
608.520	-12.980	-39.598	-52.578	-40.368	-9.944	-19.090
608.530	-12.455	-39.561	-52.016	-39.806	-9.868	-19.090
608.540	-10.479	-39.518	-49.997	-37.787	-9.793	-19.090
608.550	-11.638	-39.497	-51.135	-38.925	-9.717	-19.090
608.560	-14.661	-39.427	-54.088	-41.878	-9.641	-19.090
608.570	-13.911	-39.390	-53.301	-41.091	-9.566	-19.090
608.580	-12.857	-39.364	-52.221	-40.011	-9.490	-19.090
608.590	-11.836	-39.322	-51.158	-38.948	-9.415	-19.090
608.600	-12.633	-39.287	-51.920	-39.710	-9.340	-19.090
608.610	-13.795	-39.235	-53.030	-40.820	-9.265	-19.090
608.620	-11.357	-39.213	-50.570	-38.360	-9.190	-19.090
608.630	-12.018	-39.160	-51.178	-38.968	-9.116	-19.090
608.640	-11.427	-39.093	-50.520	-38.310	-9.041	-19.090
608.650	-14.339	-39.067	-53.406	-41.196	-8.967	-19.090
608.660	-11.592	-39.037	-50.629	-38.419	-8.893	-19.090
608.670	-11.787	-38.975	-50.762	-38.552	-8.818	-19.090
608.680	-12.115	-38.938	-51.053	-38.843	-8.744	-19.090
608.690	-11.916	-38.908	-50.824	-38.614	-8.671	-19.090
608.700	-12.856	-38.866	-51.722	-39.512	-8.597	-19.090
608.710	-11.330	-38.804	-50.134	-37.924	-8.523	-19.090
608.720	-12.593	-38.773	-51.366	-39.156	-8.450	-19.090
608.730	-10.863	-38.759	-49.622	-37.412	-8.377	-19.090
608.740	-10.652	-38.696	-49.348	-37.138	-8.304	-19.090
608.750	-12.088	-38.635	-50.723	-38.513	-8.231	-19.090
608.760	-11.614	-38.597	-50.211	-38.001	-8.158	-19.090
608.770	-13.120	-38.561	-51.681	-39.471	-8.085	-19.090
608.780	-11.457	-38.501	-49.958	-37.748	-8.013	-19.090
608.790	-13.153	-38.466	-51.619	-39.409	-7.940	-19.090
608.800	-11.166	-38.433	-49.599	-37.389	-7.868	-19.090
608.810	-12.457	-38.404	-50.861	-38.651	-7.796	-19.090

608.820	-12.674	-38.320	-50.994	-38.784	-7.724	-19.090
608.830	-12.968	-38.305	-51.273	-39.063	-7.652	-19.090
608.840	-11.070	-38.253	-49.323	-37.113	-7.580	-19.090
608.850	-13.974	-38.226	-52.200	-39.990	-7.508	-19.090
608.860	-11.913	-38.179	-50.092	-37.882	-7.437	-19.090
608.870	-11.951	-38.141	-50.092	-37.882	-7.366	-19.090
608.880	-12.087	-38.122	-50.209	-37.999	-7.294	-19.090
608.890	-11.713	-38.078	-49.791	-37.581	-7.223	-19.090
608.900	-11.052	-38.007	-49.059	-36.849	-7.153	-19.090
608.910	-11.011	-37.990	-49.001	-36.791	-7.082	-19.090
608.920	-12.503	-37.911	-50.414	-38.204	-7.011	-19.090
608.930	-12.993	-37.895	-50.888	-38.678	-6.941	-19.090
608.940	-10.487	-37.825	-48.312	-36.102	-6.870	-19.090
608.950	-11.986	-37.778	-49.764	-37.554	-6.800	-19.090
608.960	-13.069	-37.740	-50.809	-38.599	-6.730	-19.090
608.970	-10.706	-37.705	-48.411	-36.201	-6.660	-19.090
608.980	-9.140	-37.665	-46.805	-34.595	-6.590	-19.090
608.990	-11.208	-37.616	-48.824	-36.614	-6.521	-19.090
609.000	-8.800	-37.602	-46.402	-34.192	-6.451	-19.090
609.010	-12.443	-37.535	-49.978	-37.768	-6.382	-19.090
609.020	-11.529	-37.489	-49.018	-36.808	-6.313	-19.090
609.030	-9.428	-37.453	-46.881	-34.671	-6.243	-19.090
609.040	-10.059	-37.409	-47.468	-35.258	-6.174	-19.090
609.050	-11.371	-37.369	-48.740	-36.530	-6.106	-19.090
609.060	-10.707	-37.315	-48.022	-35.812	-6.037	-19.090
609.070	-11.056	-37.284	-48.340	-36.130	-5.968	-19.090
609.080	-10.186	-37.243	-47.429	-35.219	-5.900	-19.090
609.090	-10.430	-37.187	-47.617	-35.407	-5.832	-19.090
609.100	-9.274	-37.133	-46.407	-34.197	-5.764	-19.090
609.110	-9.950	-37.100	-47.050	-34.840	-5.696	-19.090
609.120	-11.217	-37.043	-48.260	-36.050	-5.628	-19.090
609.130	-10.257	-37.007	-47.264	-35.054	-5.560	-19.090
609.140	-9.757	-36.951	-46.708	-34.498	-5.493	-19.090
609.150	-11.440	-36.910	-48.350	-36.140	-5.425	-19.090
609.160	-10.941	-36.884	-47.825	-35.615	-5.358	-19.090
609.170	-10.710	-36.834	-47.544	-35.334	-5.291	-19.090
609.180	-9.780	-36.770	-46.550	-34.340	-5.224	-19.090
609.190	-9.593	-36.765	-46.358	-34.148	-5.157	-19.090
609.200	-9.911	-36.693	-46.604	-34.394	-5.090	-19.090
609.210	-9.569	-36.639	-46.208	-33.998	-5.023	-19.090
609.220	-10.737	-36.607	-47.344	-35.134	-4.957	-19.090
609.230	-10.821	-36.554	-47.375	-35.165	-4.891	-19.090
609.240	-11.711	-36.522	-48.233	-36.023	-4.824	-19.090
609.250	-10.653	-36.466	-47.119	-34.909	-4.758	-19.090
609.260	-9.936	-36.425	-46.361	-34.151	-4.693	-19.090
609.270	-9.880	-36.375	-46.255	-34.045	-4.627	-19.090

609.280	-9.218	-36.335	-45.553	-33.343	-4.561	-19.090
609.290	-9.184	-36.286	-45.470	-33.260	-4.496	-19.090
609.300	-10.709	-36.237	-46.946	-34.736	-4.430	-19.090
609.310	-8.193	-36.189	-44.382	-32.172	-4.365	-19.090
609.320	-8.478	-36.137	-44.615	-32.405	-4.300	-19.090
609.330	-11.496	-36.097	-47.593	-35.383	-4.235	-19.090
609.340	-11.853	-36.065	-47.918	-35.708	-4.170	-19.090
609.350	-12.310	-36.028	-48.338	-36.128	-4.106	-19.090
609.360	-11.063	-35.962	-47.025	-34.815	-4.041	-19.090
609.370	-9.610	-35.918	-45.528	-33.318	-3.977	-19.090
609.380	-9.201	-35.872	-45.073	-32.863	-3.913	-19.090
609.390	-9.589	-35.835	-45.424	-33.214	-3.848	-19.090
609.400	-9.991	-35.795	-45.786	-33.576	-3.784	-19.090
609.410	-10.016	-35.724	-45.740	-33.530	-3.721	-19.090
609.420	-9.561	-35.706	-45.267	-33.057	-3.657	-19.090
609.430	-8.096	-35.661	-43.757	-31.547	-3.593	-19.090
609.440	-7.233	-35.606	-42.839	-30.629	-3.530	-19.090
609.450	-8.836	-35.571	-44.407	-32.197	-3.467	-19.090
609.460	-8.038	-35.495	-43.533	-31.323	-3.404	-19.090
609.470	-8.068	-35.463	-43.531	-31.321	-3.341	-19.090
609.480	-9.740	-35.412	-45.152	-32.942	-3.278	-19.090
609.490	-8.478	-35.366	-43.844	-31.634	-3.215	-19.090
609.500	-9.227	-35.341	-44.568	-32.358	-3.153	-19.090
609.510	-10.368	-35.286	-45.654	-33.444	-3.090	-19.090
609.520	-7.180	-35.255	-42.435	-30.225	-3.028	-19.090
609.530	-8.261	-35.198	-43.459	-31.249	-2.966	-19.090
609.540	-8.507	-35.131	-43.638	-31.428	-2.904	-19.090
609.550	-9.403	-35.091	-44.494	-32.284	-2.842	-19.090
609.560	-12.620	-35.034	-47.654	-35.444	-2.780	-19.090
609.570	-9.706	-34.983	-44.689	-32.479	-2.718	-19.090
609.580	-9.213	-34.947	-44.160	-31.950	-2.657	-19.090
609.590	-10.449	-34.894	-45.343	-33.133	-2.596	-19.090
609.600	-7.681	-34.839	-42.520	-30.310	-2.534	-19.090
609.610	-8.460	-34.772	-43.232	-31.022	-2.473	-19.090
609.620	-9.159	-34.777	-43.936	-31.726	-2.413	-19.090
609.630	-9.625	-34.731	-44.356	-32.146	-2.352	-19.090
609.640	-10.381	-34.659	-45.040	-32.830	-2.291	-19.090
609.650	-12.015	-34.613	-46.628	-34.418	-2.231	-19.090
609.660	-8.514	-34.582	-43.096	-30.886	-2.170	-19.090
609.670	-8.943	-34.523	-43.466	-31.256	-2.110	-19.090
609.680	-7.244	-34.469	-41.713	-29.503	-2.050	-19.090
609.690	-7.260	-34.418	-41.678	-29.468	-1.990	-19.090
609.700	-9.266	-34.367	-43.633	-31.423	-1.930	-19.090
609.710	-11.111	-34.335	-45.446	-33.236	-1.871	-19.090
609.720	-8.223	-34.281	-42.504	-30.294	-1.811	-19.090
609.730	-8.157	-34.248	-42.405	-30.195	-1.752	-19.090

609.740	-8.911	-34.199	-43.110	-30.900	-1.693	-19.090
609.750	-11.146	-34.165	-45.311	-33.101	-1.633	-19.090
609.760	-8.366	-34.122	-42.488	-30.278	-1.574	-19.090
609.770	-9.039	-34.035	-43.074	-30.864	-1.516	-19.090
609.780	-8.407	-33.989	-42.396	-30.186	-1.457	-19.090
609.790	-10.421	-33.954	-44.375	-32.165	-1.398	-19.090
609.800	-8.483	-33.900	-42.383	-30.173	-1.340	-19.090
609.810	-6.462	-33.832	-40.294	-28.084	-1.282	-19.090
609.820	-9.459	-33.803	-43.262	-31.052	-1.224	-19.090
609.830	-10.143	-33.736	-43.879	-31.669	-1.166	-19.090
609.840	-9.278	-33.685	-42.963	-30.753	-1.108	-19.090
609.850	-7.511	-33.636	-41.147	-28.937	-1.050	-19.090
609.860	-11.270	-33.590	-44.860	-32.650	-0.993	-19.090
609.870	-8.940	-33.558	-42.498	-30.288	-0.935	-19.090
609.880	-7.994	-33.517	-41.511	-29.301	-0.878	-19.090
609.890	-8.638	-33.453	-42.091	-29.881	-0.821	-19.090
609.900	-8.114	-33.403	-41.517	-29.307	-0.764	-19.090
609.910	-10.929	-33.356	-44.285	-32.075	-0.707	-19.090
609.920	-7.730	-33.307	-41.037	-28.827	-0.650	-19.090
609.930	-7.622	-33.236	-40.858	-28.648	-0.593	-19.090
609.940	-8.778	-33.215	-41.993	-29.783	-0.537	-19.090
609.950	-7.777	-33.147	-40.924	-28.714	-0.481	-19.090
609.960	-7.982	-33.114	-41.096	-28.886	-0.424	-19.090
609.970	-6.578	-33.083	-39.661	-27.451	-0.368	-19.090
609.980	-6.363	-33.011	-39.374	-27.164	-0.313	-19.090
609.990	-8.085	-32.954	-41.039	-28.829	-0.257	-19.090
610.000	-8.342	-32.905	-41.247	-29.037	-0.201	-19.090
610.010	-6.671	-32.850	-39.521	-27.311	-0.146	-19.090
610.020	-8.098	-32.794	-40.892	-28.682	-0.090	-19.090
610.030	-5.578	-32.768	-38.346	-26.136	-0.035	-19.090
610.040	-10.258	-32.708	-42.966	-30.756	0.020	-19.090
610.050	-8.436	-32.648	-41.084	-28.874	0.075	-19.090
610.060	-10.014	-32.592	-42.606	-30.396	0.130	-19.090
610.070	-9.011	-32.542	-41.553	-29.343	0.184	-19.090
610.080	-8.406	-32.496	-40.902	-28.692	0.239	-19.090
610.090	-9.098	-32.457	-41.555	-29.345	0.293	-19.090
610.100	-6.198	-32.421	-38.619	-26.409	0.347	-19.090
610.110	-6.469	-32.356	-38.825	-26.615	0.402	-19.090
610.120	-9.325	-32.310	-41.635	-29.425	0.456	-19.090
610.130	-7.768	-32.257	-40.025	-27.815	0.509	-19.090
610.140	-9.282	-32.203	-41.485	-29.275	0.563	-19.090
610.150	-7.023	-32.148	-39.171	-26.961	0.617	-19.090
610.160	-9.005	-32.104	-41.109	-28.899	0.670	-19.090
610.170	-7.442	-32.046	-39.488	-27.278	0.723	-19.090
610.180	-7.238	-32.002	-39.240	-27.030	0.776	-19.090
610.190	-7.059	-31.944	-39.003	-26.793	0.829	-19.090

610.200	-7.497	-31.892	-39.389	-27.179	0.882	-19.090
610.210	-7.907	-31.856	-39.763	-27.553	0.935	-19.090
610.220	-7.001	-31.788	-38.789	-26.579	0.987	-19.090
610.230	-9.972	-31.750	-41.722	-29.512	1.040	-19.090
610.240	-8.022	-31.686	-39.708	-27.498	1.092	-19.090
610.250	-9.743	-31.639	-41.382	-29.172	1.144	-19.090
610.260	-7.864	-31.568	-39.432	-27.222	1.196	-19.090
610.270	-7.788	-31.514	-39.302	-27.092	1.248	-19.090
610.280	-9.396	-31.489	-40.885	-28.675	1.300	-19.090
610.290	-8.396	-31.440	-39.836	-27.626	1.352	-19.090
610.300	-6.827	-31.394	-38.221	-26.011	1.403	-19.090
610.310	-9.861	-31.332	-41.193	-28.983	1.454	-19.090
610.320	-7.211	-31.270	-38.481	-26.271	1.506	-19.090
610.330	-7.795	-31.236	-39.031	-26.821	1.557	-19.090
610.340	-8.290	-31.154	-39.444	-27.234	1.607	-19.090
610.350	-7.962	-31.124	-39.086	-26.876	1.658	-19.090
610.360	-7.619	-31.055	-38.674	-26.464	1.709	-19.090
610.370	-7.743	-31.006	-38.749	-26.539	1.759	-19.090
610.380	-8.420	-30.960	-39.380	-27.170	1.810	-19.090
610.390	-6.423	-30.907	-37.330	-25.120	1.860	-19.090
610.400	-7.423	-30.839	-38.262	-26.052	1.910	-19.090
610.410	-8.680	-30.799	-39.479	-27.269	1.960	-19.090
610.420	-6.625	-30.755	-37.380	-25.170	2.010	-19.090
610.430	-6.945	-30.708	-37.653	-25.443	2.059	-19.090
610.440	-8.155	-30.652	-38.807	-26.597	2.109	-19.090
610.450	-7.347	-30.584	-37.931	-25.721	2.158	-19.090
610.460	-6.829	-30.509	-37.338	-25.128	2.207	-19.090
610.470	-6.167	-30.485	-36.652	-24.442	2.257	-19.090
610.480	-8.211	-30.435	-38.646	-26.436	2.306	-19.090
610.490	-7.077	-30.376	-37.453	-25.243	2.354	-19.090
610.500	-7.320	-30.323	-37.643	-25.433	2.403	-19.090
610.510	-7.202	-30.260	-37.462	-25.252	2.452	-19.090
610.520	-6.892	-30.213	-37.105	-24.895	2.500	-19.090
610.530	-6.985	-30.134	-37.119	-24.909	2.548	-19.090
610.540	-8.181	-30.097	-38.278	-26.068	2.596	-19.090
610.550	-7.804	-30.032	-37.836	-25.626	2.644	-19.090
610.560	-9.717	-29.986	-39.703	-27.493	2.692	-19.090
610.570	-8.137	-29.933	-38.070	-25.860	2.740	-19.090
610.580	-7.638	-29.899	-37.537	-25.327	2.787	-19.090
610.590	-4.575	-29.839	-34.414	-22.204	2.835	-19.090
610.600	-7.947	-29.764	-37.711	-25.501	2.882	-19.090
610.610	-7.293	-29.722	-37.015	-24.805	2.929	-19.090
610.620	-7.159	-29.681	-36.840	-24.630	2.976	-19.090
610.630	-8.244	-29.623	-37.867	-25.657	3.023	-19.090
610.640	-7.477	-29.558	-37.035	-24.825	3.070	-19.090
610.650	-8.759	-29.486	-38.245	-26.035	3.117	-19.090

610.660	-6.958	-29.429	-36.387	-24.177	3.163	-19.090
610.670	-8.612	-29.392	-38.004	-25.794	3.209	-19.090
610.680	-6.703	-29.329	-36.032	-23.822	3.256	-19.090
610.690	-6.393	-29.271	-35.664	-23.454	3.302	-19.090
610.700	-8.000	-29.217	-37.217	-25.007	3.347	-19.090
610.710	-7.354	-29.179	-36.533	-24.323	3.393	-19.090
610.720	-7.575	-29.153	-36.728	-24.518	3.439	-19.090
610.730	-7.727	-29.063	-36.790	-24.580	3.484	-19.090
610.740	-6.405	-28.998	-35.403	-23.193	3.530	-19.090
610.750	-4.740	-28.956	-33.696	-21.486	3.575	-19.090
610.760	-8.546	-28.899	-37.445	-25.235	3.620	-19.090
610.770	-5.596	-28.842	-34.438	-22.228	3.665	-19.090
610.780	-8.544	-28.774	-37.318	-25.108	3.710	-19.090
610.790	-8.738	-28.717	-37.455	-25.245	3.754	-19.090
610.800	-7.060	-28.666	-35.726	-23.516	3.799	-19.090
610.810	-5.747	-28.602	-34.349	-22.139	3.843	-19.090
610.820	-6.836	-28.570	-35.406	-23.196	3.887	-19.090
610.830	-7.531	-28.546	-36.077	-23.867	3.932	-19.090
610.840	-7.834	-28.459	-36.293	-24.083	3.976	-19.090
610.850	-6.602	-28.381	-34.983	-22.773	4.019	-19.090
610.860	-8.591	-28.324	-36.915	-24.705	4.063	-19.090
610.870	-7.500	-28.267	-35.767	-23.557	4.107	-19.090
610.880	-6.206	-28.233	-34.439	-22.229	4.150	-19.090
610.890	-6.915	-28.188	-35.103	-22.893	4.193	-19.090
610.900	-6.485	-28.127	-34.612	-22.402	4.236	-19.090
610.910	-8.962	-28.027	-36.989	-24.779	4.279	-19.090
610.920	-6.322	-27.983	-34.305	-22.095	4.322	-19.090
610.930	-6.306	-27.939	-34.245	-22.035	4.365	-19.090
610.940	-7.279	-27.871	-35.150	-22.940	4.407	-19.090
610.950	-6.018	-27.842	-33.860	-21.650	4.450	-19.090
610.960	-7.662	-27.785	-35.447	-23.237	4.492	-19.090
610.970	-6.740	-27.687	-34.427	-22.217	4.534	-19.090
610.980	-3.990	-27.658	-31.648	-19.438	4.576	-19.090
610.990	-5.553	-27.603	-33.156	-20.946	4.618	-19.090
611.000	-6.198	-27.546	-33.744	-21.534	4.660	-19.090
611.010	-5.830	-27.469	-33.299	-21.089	4.702	-18.725
611.020	-6.925	-27.412	-34.337	-22.127	4.743	-18.610
611.030	-6.516	-27.360	-33.876	-21.666	4.784	-18.495
611.040	-6.712	-27.338	-34.050	-21.840	4.826	-18.380
611.050	-6.960	-27.236	-34.196	-21.986	4.867	-18.265
611.060	-7.226	-27.198	-34.424	-22.214	4.907	-18.150
611.070	-7.825	-27.149	-34.974	-22.764	4.948	-18.035
611.080	-5.890	-27.087	-32.977	-20.767	4.989	-17.920
611.090	-7.818	-27.010	-34.828	-22.618	5.029	-17.805
611.100	-5.847	-26.954	-32.801	-20.591	5.070	-17.690
611.110	-8.432	-26.889	-35.321	-23.111	5.110	-17.575

611.120	-8.095	-26.833	-34.928	-22.718	5.150	-17.460
611.130	-10.281	-26.762	-37.043	-24.833	5.190	-17.345
611.140	-5.965	-26.727	-32.692	-20.482	5.230	-17.230
611.150	-7.555	-26.695	-34.250	-22.040	5.269	-17.115
611.160	-5.431	-26.592	-32.023	-19.813	5.309	-17.000
611.170	-7.334	-26.564	-33.898	-21.688	5.348	-16.885
611.180	-7.061	-26.504	-33.565	-21.355	5.387	-16.770
611.190	-5.742	-26.464	-32.206	-19.996	5.427	-16.655
611.200	-6.865	-26.380	-33.245	-21.035	5.466	-16.540
611.210	-5.281	-26.330	-31.611	-19.401	5.504	-16.425
611.220	-6.696	-26.264	-32.960	-20.750	5.543	-16.310
611.230	-7.781	-26.182	-33.963	-21.753	5.582	-16.195
611.240	-5.884	-26.131	-32.015	-19.805	5.620	-16.080
611.250	-4.886	-26.074	-30.960	-18.750	5.658	-15.965
611.260	-4.608	-26.024	-30.632	-18.422	5.696	-15.850
611.270	-5.866	-25.942	-31.808	-19.598	5.734	-15.735
611.280	-5.110	-25.902	-31.012	-18.802	5.772	-15.620
611.290	-4.583	-25.856	-30.439	-18.229	5.810	-15.505
611.300	-6.146	-25.786	-31.932	-19.722	5.847	-15.390
611.310	-5.063	-25.727	-30.790	-18.580	5.885	-15.275
611.320	-4.829	-25.680	-30.509	-18.299	5.922	-15.160
611.330	-4.826	-25.604	-30.430	-18.220	5.959	-15.045
611.340	-4.441	-25.547	-29.988	-17.778	5.996	-14.930
611.350	-5.589	-25.490	-31.079	-18.869	6.033	-14.815
611.360	-6.593	-25.421	-32.014	-19.804	6.070	-14.700
611.370	-7.365	-25.355	-32.720	-20.510	6.107	-14.585
611.380	-5.791	-25.306	-31.097	-18.887	6.143	-14.470
611.390	-5.141	-25.251	-30.392	-18.182	6.179	-14.355
611.400	-6.895	-25.161	-32.056	-19.846	6.216	-14.240
611.410	-5.389	-25.112	-30.501	-18.291	6.252	-14.125
611.420	-6.700	-25.062	-31.762	-19.552	6.287	-14.010
611.430	-5.003	-25.005	-30.008	-17.798	6.323	-13.895
611.440	-4.943	-24.944	-29.887	-17.677	6.359	-13.780
611.450	-7.741	-24.881	-32.622	-20.412	6.394	-13.665
611.460	-6.008	-24.806	-30.814	-18.604	6.430	-13.550
611.470	-5.752	-24.742	-30.494	-18.284	6.465	-13.435
611.480	-5.578	-24.690	-30.268	-18.058	6.500	-13.320
611.490	-6.296	-24.630	-30.926	-18.716	6.535	-13.205
611.500	-7.358	-24.566	-31.924	-19.714	6.570	-13.090
611.510	-5.742	-24.493	-30.235	-18.025	6.604	-12.975
611.520	-7.043	-24.456	-31.499	-19.289	6.639	-12.860
611.530	-6.733	-24.401	-31.134	-18.924	6.673	-12.745
611.540	-4.984	-24.354	-29.338	-17.128	6.707	-12.630
611.550	-6.385	-24.268	-30.653	-18.443	6.742	-12.515
611.560	-6.139	-24.199	-30.338	-18.128	6.776	-12.400
611.570	-6.199	-24.145	-30.344	-18.134	6.809	-12.285

611.580	-5.196	-24.100	-29.296	-17.086	6.843	-12.170
611.590	-5.410	-24.020	-29.430	-17.220	6.877	-12.055
611.600	-6.843	-23.973	-30.816	-18.606	6.910	-11.940
611.610	-5.244	-23.887	-29.131	-16.921	6.943	-11.825
611.620	-6.005	-23.830	-29.835	-17.625	6.976	-11.710
611.630	-4.760	-23.753	-28.513	-16.303	7.009	-11.595
611.640	-7.226	-23.709	-30.935	-18.725	7.042	-11.480
611.650	-5.377	-23.651	-29.028	-16.818	7.075	-11.365
611.660	-5.767	-23.585	-29.352	-17.142	7.107	-11.250
611.670	-4.564	-23.523	-28.087	-15.877	7.140	-11.135
611.680	-5.845	-23.454	-29.299	-17.089	7.172	-11.020
611.690	-5.529	-23.400	-28.929	-16.719	7.204	-10.905
611.700	-6.368	-23.351	-29.719	-17.509	7.236	-10.790
611.710	-5.268	-23.298	-28.566	-16.356	7.268	-10.675
611.720	-3.246	-23.231	-26.477	-14.267	7.300	-10.560
611.730	-4.874	-23.146	-28.020	-15.810	7.332	-10.445
611.740	-5.278	-23.075	-28.353	-16.143	7.363	-10.330
611.750	-6.093	-23.040	-29.133	-16.923	7.394	-10.215
611.760	-4.962	-22.980	-27.942	-15.732	7.426	-10.100
611.770	-6.293	-22.916	-29.209	-16.999	7.457	-9.985
611.780	-4.896	-22.843	-27.739	-15.529	7.487	-9.870
611.790	-5.296	-22.776	-28.072	-15.862	7.518	-9.755
611.800	-5.734	-22.729	-28.463	-16.253	7.549	-9.640
611.810	-7.080	-22.676	-29.756	-17.546	7.579	-9.525
611.820	-5.477	-22.564	-28.041	-15.831	7.610	-9.410
611.830	-6.110	-22.538	-28.648	-16.438	7.640	-9.295
611.840	-5.679	-22.443	-28.122	-15.912	7.670	-9.180
611.850	-7.027	-22.412	-29.439	-17.229	7.700	-9.065
611.860	-5.452	-22.351	-27.803	-15.593	7.730	-8.950
611.870	-5.096	-22.270	-27.366	-15.156	7.759	-8.835
611.880	-5.774	-22.198	-27.972	-15.762	7.789	-8.720
611.890	-6.020	-22.138	-28.158	-15.948	7.818	-8.605
611.900	-6.610	-22.087	-28.697	-16.487	7.847	-8.490
611.910	-4.446	-22.030	-26.476	-14.266	7.877	-8.375
611.920	-6.318	-21.996	-28.314	-16.104	7.906	-8.260
611.930	-3.851	-21.901	-25.752	-13.542	7.934	-8.145
611.940	-7.304	-21.839	-29.143	-16.933	7.963	-8.030
611.950	-4.641	-21.770	-26.411	-14.201	7.992	-7.915
611.960	-7.056	-21.727	-28.783	-16.573	8.020	-7.800
611.970	-5.387	-21.662	-27.049	-14.839	8.048	-7.685
611.980	-6.100	-21.582	-27.682	-15.472	8.076	-7.570
611.990	-4.562	-21.544	-26.106	-13.896	8.104	-7.455
612.000	-5.929	-21.456	-27.385	-15.175	8.132	-7.340
612.010	-3.468	-21.414	-24.882	-12.672	8.160	-7.225
612.020	-5.416	-21.325	-26.741	-14.531	8.187	-7.110
612.030	-6.218	-21.273	-27.491	-15.281	8.215	-6.995

612.040	-6.935	-21.220	-28.155	-15.945	8.242	-6.880
612.050	-7.124	-21.178	-28.302	-16.092	8.269	-6.765
612.060	-4.244	-21.073	-25.317	-13.107	8.296	-6.650
612.070	-4.058	-21.007	-25.065	-12.855	8.323	-6.535
612.080	-6.492	-20.968	-27.460	-15.250	8.350	-6.420
612.090	-5.967	-20.890	-26.857	-14.647	8.377	-6.305
612.100	-8.045	-20.837	-28.882	-16.672	8.403	-6.190
612.110	-5.427	-20.797	-26.224	-14.014	8.429	-6.075
612.120	-3.294	-20.738	-24.032	-11.822	8.456	-5.960
612.130	-5.465	-20.646	-26.111	-13.901	8.482	-5.845
612.140	-3.625	-20.598	-24.223	-12.013	8.507	-5.730
612.150	-4.370	-20.546	-24.916	-12.706	8.533	-5.615
612.160	-5.207	-20.465	-25.672	-13.462	8.559	-5.500
612.170	-5.528	-20.399	-25.927	-13.717	8.584	-5.385
612.180	-3.946	-20.354	-24.300	-12.090	8.610	-5.270
612.190	-6.163	-20.271	-26.434	-14.224	8.635	-5.155
612.200	-5.410	-20.227	-25.637	-13.427	8.660	-5.040
612.210	-6.552	-20.171	-26.723	-14.513	8.685	-4.925
612.220	-5.223	-20.121	-25.344	-13.134	8.710	-4.810
612.230	-5.253	-20.035	-25.288	-13.078	8.734	-4.695
612.240	-6.378	-19.988	-26.366	-14.156	8.759	-4.580
612.250	-6.985	-19.925	-26.910	-14.700	8.783	-4.465
612.260	-5.506	-19.861	-25.367	-13.157	8.807	-4.350
612.270	-6.030	-19.799	-25.829	-13.619	8.832	-4.235
612.280	-5.791	-19.753	-25.544	-13.334	8.856	-4.120
612.290	-7.117	-19.682	-26.799	-14.589	8.879	-4.005
612.300	-6.387	-19.614	-26.001	-13.791	8.903	-3.890
612.310	-5.638	-19.531	-25.169	-12.959	8.927	-3.775
612.320	-7.014	-19.478	-26.492	-14.282	8.950	-3.660
612.330	-5.741	-19.441	-25.182	-12.972	8.973	-3.545
612.340	-5.044	-19.371	-24.415	-12.205	8.996	-3.430
612.350	-5.346	-19.322	-24.668	-12.458	9.019	-3.315
612.360	-4.153	-19.257	-23.410	-11.200	9.042	-3.200
612.370	-4.250	-19.217	-23.467	-11.257	9.065	-3.085
612.380	-3.729	-19.154	-22.883	-10.673	9.087	-2.970
612.390	-5.499	-19.084	-24.583	-12.373	9.110	-2.855
612.400	-4.319	-19.028	-23.347	-11.137	9.132	-2.740
612.410	-5.649	-18.966	-24.615	-12.405	9.154	-2.625
612.420	-4.863	-18.915	-23.778	-11.568	9.176	-2.510
612.430	-6.376	-18.861	-25.237	-13.027	9.198	-2.395
612.440	-5.327	-18.818	-24.145	-11.935	9.220	-2.280
612.450	-5.701	-18.730	-24.431	-12.221	9.242	-2.165
612.460	-2.935	-18.695	-21.630	-9.420	9.263	-2.050
612.470	-7.172	-18.638	-25.810	-13.600	9.284	-1.935
612.480	-7.468	-18.572	-26.040	-13.830	9.306	-1.820
612.490	-5.912	-18.522	-24.434	-12.224	9.327	-1.705

612.500	-4.599	-18.469	-23.068	-10.858	9.347	-1.590
612.510	-4.145	-18.400	-22.545	-10.335	9.368	-1.475
612.520	-5.902	-18.353	-24.255	-12.045	9.389	-1.360
612.530	-3.268	-18.315	-21.583	-9.373	9.409	-1.245
612.540	-4.245	-18.240	-22.485	-10.275	9.430	-1.130
612.550	-5.253	-18.193	-23.446	-11.236	9.450	-1.015
612.560	-3.629	-18.139	-21.768	-9.558	9.470	-0.900
612.570	-6.987	-18.079	-25.066	-12.856	9.490	-0.785
612.580	-4.710	-18.050	-22.760	-10.550	9.510	-0.670
612.590	-4.347	-17.984	-22.331	-10.121	9.529	-0.555
612.600	-4.394	-17.954	-22.348	-10.138	9.549	-0.440
612.610	-5.670	-17.916	-23.586	-11.376	9.568	-0.325
612.620	-3.788	-17.851	-21.639	-9.429	9.587	-0.210
612.630	-3.772	-17.807	-21.579	-9.369	9.607	-0.095
612.640	-5.665	-17.757	-23.422	-11.212	9.626	0.020
612.650	-6.048	-17.682	-23.730	-11.520	9.644	0.135
612.660	-5.073	-17.654	-22.727	-10.517	9.663	0.250
612.670	-3.600	-17.612	-21.212	-9.002	9.682	0.365
612.680	-6.143	-17.556	-23.699	-11.489	9.700	0.480
612.690	-6.221	-17.511	-23.732	-11.522	9.718	0.595
612.700	-2.339	-17.473	-19.812	-7.602	9.736	0.710
612.710	-4.224	-17.426	-21.650	-9.440	9.754	0.825
612.720	-7.171	-17.379	-24.550	-12.340	9.772	0.940
612.730	-6.187	-17.355	-23.542	-11.332	9.790	1.055
612.740	-8.235	-17.322	-25.557	-13.347	9.807	1.170
612.750	-4.379	-17.279	-21.658	-9.448	9.825	1.285
612.760	-6.311	-17.238	-23.549	-11.339	9.842	1.400
612.770	-4.445	-17.200	-21.645	-9.435	9.859	1.515
612.780	-5.318	-17.159	-22.477	-10.267	9.876	1.630
612.790	-4.814	-17.134	-21.948	-9.738	9.893	1.745
612.800	-6.490	-17.086	-23.576	-11.366	9.910	1.860
612.810	-4.332	-17.070	-21.402	-9.192	9.927	1.975
612.820	-4.672	-17.040	-21.712	-9.502	9.943	2.090
612.830	-5.912	-16.988	-22.900	-10.690	9.959	2.205
612.840	-3.635	-16.966	-20.601	-8.391	9.976	2.320
612.850	-5.294	-16.950	-22.244	-10.034	9.992	2.435
612.860	-6.743	-16.905	-23.648	-11.438	10.007	2.550
612.870	-5.235	-16.912	-22.147	-9.937	10.023	2.665
612.880	-5.696	-16.884	-22.580	-10.370	10.039	2.780
612.890	-5.183	-16.829	-22.012	-9.802	10.054	2.895
612.900	-3.944	-16.826	-20.770	-8.560	10.070	3.010
612.910	-5.116	-16.815	-21.931	-9.721	10.085	3.125
612.920	-5.772	-16.795	-22.567	-10.357	10.100	3.240
612.930	-5.114	-16.795	-21.909	-9.699	10.115	3.355
612.940	-3.773	-16.763	-20.536	-8.326	10.130	3.470
612.950	-7.312	-16.752	-24.064	-11.854	10.144	3.585

612.960	-4.918	-16.754	-21.672	-9.462	10.159	3.700
612.970	-4.696	-16.744	-21.440	-9.230	10.173	3.815
612.980	-5.379	-16.760	-22.139	-9.929	10.187	3.930
612.990	-3.868	-16.737	-20.605	-8.395	10.202	4.045
613.000	-1.762	-16.752	-18.514	-6.304	10.216	4.160
613.010	-2.851	-16.757	-19.608	-7.398	10.229	4.275
613.020	-3.045	-16.758	-19.803	-7.593	10.243	4.390
613.030	-4.073	-16.741	-20.814	-8.604	10.257	4.505
613.040	-5.562	-16.771	-22.333	-10.123	10.270	4.620
613.050	-4.479	-16.801	-21.280	-9.070	10.283	4.735
613.060	-4.360	-16.831	-21.191	-8.981	10.296	4.850
613.070	-4.050	-16.845	-20.895	-8.685	10.309	4.965
613.080	-5.729	-16.883	-22.612	-10.402	10.322	5.080
613.090	-2.335	-16.885	-19.220	-7.010	10.335	5.195
613.100	-4.891	-16.935	-21.826	-9.616	10.347	5.310
613.110	-4.235	-16.986	-21.221	-9.011	10.360	5.425
613.120	-4.928	-17.023	-21.951	-9.741	10.372	5.540
613.130	-3.225	-17.072	-20.297	-8.087	10.384	5.655
613.140	-3.409	-17.142	-20.551	-8.341	10.396	5.770
613.150	-5.467	-17.200	-22.667	-10.457	10.408	5.885
613.160	-4.814	-17.273	-22.087	-9.877	10.420	6.000
613.170	-2.785	-17.336	-20.121	-7.911	10.432	6.115
613.180	-3.928	-17.406	-21.334	-9.124	10.443	6.230
613.190	-3.883	-17.487	-21.370	-9.160	10.454	6.345
613.200	-3.788	-17.592	-21.380	-9.170	10.466	6.460
613.210	-2.992	-17.682	-20.674	-8.464	10.477	6.575
613.220	-5.361	-17.760	-23.121	-10.911	10.487	6.690
613.230	-4.268	-17.875	-22.143	-9.933	10.498	6.805
613.240	-4.143	-17.980	-22.123	-9.913	10.509	6.920
613.250	-3.246	-18.108	-21.354	-9.144	10.519	7.035
613.260	-5.104	-18.254	-23.358	-11.148	10.530	7.150
613.270	-5.094	-18.386	-23.480	-11.270	10.540	7.265
613.280	-3.598	-18.517	-22.115	-9.905	10.550	7.380
613.290	-5.689	-18.655	-24.344	-12.134	10.560	7.495
613.300	-5.166	-18.817	-23.983	-11.773	10.570	7.610
613.310	-4.204	-18.957	-23.161	-10.951	10.579	7.725
613.320	-4.911	-19.126	-24.037	-11.827	10.589	7.840
613.330	-3.981	-19.268	-23.249	-11.039	10.598	7.955
613.340	-6.449	-19.410	-25.859	-13.649	10.607	8.070
613.350	-5.570	-19.559	-25.129	-12.919	10.617	8.185
613.360	-5.616	-19.697	-25.313	-13.103	10.626	8.300
613.370	-3.380	-19.783	-23.163	-10.953	10.634	8.415
613.380	-3.932	-19.884	-23.816	-11.606	10.643	8.530
613.390	-4.744	-19.959	-24.703	-12.493	10.652	8.645
613.400	-5.560	-19.979	-25.539	-13.329	10.660	8.760
613.410	-4.375	-19.968	-24.343	-12.133	10.668	8.875

613.420	-3.652	-19.905	-23.557	-11.347	10.676	8.990
613.430	-4.258	-19.800	-24.058	-11.848	10.684	9.105
613.440	-5.201	-19.607	-24.808	-12.598	10.692	9.220
613.450	-5.421	-19.408	-24.829	-12.619	10.700	9.335
613.460	-4.917	-19.140	-24.057	-11.847	10.707	9.450
613.470	-4.400	-18.787	-23.187	-10.977	10.715	9.565
613.480	-4.060	-18.414	-22.474	-10.264	10.722	9.680
613.490	-3.854	-17.991	-21.845	-9.635	10.729	9.795
613.500	-4.705	-17.544	-22.249	-10.039	10.736	9.910
613.510	-6.095	-17.098	-23.193	-10.983	10.743	9.910
613.520	-6.300	-16.584	-22.884	-10.674	10.750	9.910
613.530	-5.707	-16.063	-21.770	-9.560	10.757	9.910
613.540	-2.984	-15.552	-18.536	-6.326	10.763	9.910
613.550	-3.544	-15.033	-18.577	-6.367	10.769	9.910
613.560	-4.528	-14.515	-19.043	-6.833	10.776	9.910
613.570	-3.904	-14.000	-17.904	-5.694	10.782	9.910
613.580	-6.137	-13.508	-19.645	-7.435	10.787	9.910
613.590	-4.662	-13.006	-17.668	-5.458	10.793	9.910
613.600	-2.832	-12.515	-15.347	-3.137	10.799	9.910
613.610	-3.529	-12.045	-15.574	-3.364	10.804	9.910
613.620	-4.007	-11.588	-15.595	-3.385	10.810	9.910
613.630	-6.031	-11.151	-17.182	-4.972	10.815	9.910
613.640	-4.980	-10.709	-15.689	-3.479	10.820	9.910
613.650	-4.244	-10.262	-14.506	-2.296	10.825	9.910
613.660	-5.284	-9.870	-15.154	-2.944	10.830	9.910
613.670	-5.212	-9.475	-14.687	-2.477	10.834	9.910
613.680	-4.269	-9.080	-13.349	-1.139	10.839	9.910
613.690	-5.044	-8.736	-13.780	-1.570	10.843	9.910
613.700	-3.475	-8.396	-11.871	0.339	10.847	9.910
613.710	-6.404	-8.043	-14.447	-2.237	10.852	9.910
613.720	-7.119	-7.713	-14.832	-2.622	10.856	9.910
613.730	-7.575	-7.400	-14.975	-2.765	10.859	9.910
613.740	-4.565	-7.135	-11.700	0.510	10.863	9.910
613.750	-5.550	-6.857	-12.407	-0.197	10.867	9.910
613.760	-5.232	-6.593	-11.825	0.385	10.910	9.910
613.770	-4.988	-6.350	-11.338	0.872	10.910	9.910
613.780	-3.991	-6.112	-10.103	2.107	10.910	9.910
613.790	-4.174	-5.893	-10.067	2.143	10.910	9.910
613.800	-3.287	-5.654	-8.941	3.269	10.910	9.910
613.810	-3.704	-5.459	-9.163	3.047	10.910	9.910
613.820	-5.198	-5.278	-10.476	1.734	10.910	9.910
613.830	-3.750	-5.120	-8.870	3.340	10.910	9.910
613.840	-1.665	-4.933	-6.598	5.612	10.910	9.910
613.850	-4.888	-4.770	-9.658	2.552	10.910	9.910
613.860	-4.750	-4.600	-9.350	2.860	10.910	9.910
613.870	-2.784	-4.463	-7.247	4.963	10.910	9.910

613.880	-4.607	-4.339	-8.946	3.264	10.910	9.910
613.890	-3.389	-4.215	-7.604	4.606	10.910	9.910
613.900	-1.740	-4.100	-5.840	6.370	10.910	9.910
613.910	-2.726	-3.950	-6.676	5.534	10.910	9.910
613.920	-1.723	-3.857	-5.580	6.630	10.910	9.910
613.930	-3.149	-3.771	-6.920	5.290	10.910	9.910
613.940	-4.006	-3.693	-7.699	4.511	10.910	9.910
613.950	-3.205	-3.595	-6.800	5.410	10.910	9.910
613.960	-3.044	-3.498	-6.542	5.668	10.910	9.910
613.970	-3.263	-3.416	-6.679	5.531	10.910	9.910
613.980	-1.153	-3.343	-4.496	7.714	10.910	9.910
613.990	0.774	-3.277	-2.503	9.707	10.910	9.910

**Lower
Band Edge**

614.000	0.908	-3.218	-2.310	9.900	10.910	9.910
614.010	2.599	-3.158	-0.559	11.651	56.910	56.910
614.020	5.356	-3.079	2.277	14.487	56.910	56.910
614.030	8.804	-3.044	5.760	17.970	56.910	56.910
614.040	12.245	-2.977	9.268	21.478	56.910	56.910
614.050	13.304	-2.898	10.406	22.616	56.910	56.910
614.060	15.287	-2.849	12.438	24.648	56.910	56.910
614.070	18.011	-2.818	15.193	27.403	56.910	56.910
614.080	19.261	-2.796	16.465	28.675	56.910	56.910
614.090	20.387	-2.732	17.655	29.865	56.910	56.910
614.100	21.252	-2.698	18.554	30.764	56.910	56.910
614.110	22.394	-2.637	19.757	31.967	56.910	56.910
614.120	23.130	-2.611	20.519	32.729	56.910	56.910
614.130	23.283	-2.576	20.707	32.917	56.910	56.910
614.140	23.309	-2.562	20.747	32.957	56.910	56.910
614.150	24.331	-2.527	21.804	34.014	56.910	56.910
614.160	25.937	-2.470	23.467	35.677	56.910	56.910
614.170	26.746	-2.455	24.291	36.501	56.910	56.910
614.180	27.085	-2.428	24.657	36.867	56.910	56.910
614.190	28.168	-2.397	25.771	37.981	56.910	56.910
614.200	28.596	-2.375	26.221	38.431	56.910	56.910
614.210	27.001	-2.341	24.660	36.870	56.910	56.910
614.220	28.781	-2.322	26.459	38.669	56.910	56.910
614.230	27.250	-2.298	24.952	37.162	56.910	56.910
614.240	29.279	-2.259	27.020	39.230	56.910	56.910
614.250	29.514	-2.237	27.277	39.487	56.910	56.910
614.260	31.756	-2.220	29.536	41.746	56.910	56.910
614.270	34.993	-2.198	32.795	45.005	56.910	56.910
614.280	38.593	-2.189	36.404	48.614	56.910	56.910
614.290	42.397	-2.165	40.232	52.442	56.910	56.910
614.300	44.771	-2.155	42.616	54.826	56.910	56.910
614.310	47.448	-2.125	45.323	57.533	56.910	56.910
614.320	47.356	-2.112	45.244	57.454	56.910	56.910

614.330	44.878	-2.108	42.770	54.980	56.910	56.910
614.340	40.094	-2.078	38.016	50.226	56.910	56.910
614.350	36.184	-2.049	34.135	46.345	56.910	56.910
614.360	31.964	-2.034	29.930	42.140	56.910	56.910
614.370	31.024	-2.016	29.008	41.218	56.910	56.910
614.380	30.435	-2.003	28.432	40.642	56.910	56.910
614.390	32.247	-1.986	30.261	42.471	56.910	56.910
614.400	32.573	-1.966	30.607	42.817	56.910	56.910
614.410	33.036	-1.958	31.078	43.288	56.910	56.910
614.420	31.157	-1.952	29.205	41.415	56.910	56.910
614.430	32.003	-1.942	30.061	42.271	56.910	56.910
614.440	34.359	-1.914	32.445	44.655	56.910	56.910
614.450	36.110	-1.908	34.202	46.412	56.910	56.910
614.460	34.637	-1.893	32.744	44.954	56.910	56.910
614.470	33.924	-1.873	32.051	44.261	56.910	56.910
614.480	33.603	-1.884	31.719	43.929	56.910	56.910
614.490	35.697	-1.858	33.839	46.049	56.910	56.910
614.500	36.123	-1.846	34.277	46.487	56.910	56.910
614.510	34.814	-1.843	32.971	45.181	56.910	56.910
614.520	35.554	-1.825	33.729	45.939	56.910	56.910
614.530	35.146	-1.812	33.334	45.544	56.910	56.910
614.540	33.735	-1.812	31.923	44.133	56.910	56.910
614.550	32.217	-1.802	30.415	42.625	56.910	56.910
614.560	34.060	-1.792	32.268	44.478	56.910	56.910
614.570	34.391	-1.775	32.616	44.826	56.910	56.910
614.580	33.496	-1.741	31.755	43.965	56.910	56.910
614.590	33.857	-1.742	32.115	44.325	56.910	56.910
614.600	32.805	-1.715	31.090	43.300	56.910	56.910
614.610	33.141	-1.721	31.420	43.630	56.910	56.910
614.620	31.597	-1.725	29.872	42.082	56.910	56.910
614.630	33.100	-1.698	31.402	43.612	56.910	56.910
614.640	34.171	-1.694	32.477	44.687	56.910	56.910
614.650	34.319	-1.679	32.640	44.850	56.910	56.910
614.660	34.644	-1.674	32.970	45.180	56.910	56.910
614.670	34.672	-1.668	33.004	45.214	56.910	56.910
614.680	35.277	-1.661	33.616	45.826	56.910	56.910
614.690	33.391	-1.640	31.751	43.961	56.910	56.910
614.700	35.502	-1.626	33.876	46.086	56.910	56.910
614.710	35.394	-1.632	33.762	45.972	56.910	56.910
614.720	35.539	-1.623	33.916	46.126	56.910	56.910
614.730	33.299	-1.624	31.675	43.885	56.910	56.910
614.740	34.936	-1.616	33.320	45.530	56.910	56.910
614.750	34.698	-1.598	33.100	45.310	56.910	56.910
614.760	35.327	-1.586	33.741	45.951	56.910	56.910
614.770	35.356	-1.593	33.763	45.973	56.910	56.910
614.780	36.484	-1.593	34.891	47.101	56.910	56.910

614.790	34.194	-1.586	32.608	44.818	56.910	56.910
614.800	34.730	-1.581	33.149	45.359	56.910	56.910
614.810	35.158	-1.562	33.596	45.806	56.910	56.910
614.820	35.293	-1.563	33.730	45.940	56.910	56.910
614.830	34.651	-1.550	33.101	45.311	56.910	56.910
614.840	35.966	-1.536	34.430	46.640	56.910	56.910
614.850	36.093	-1.526	34.567	46.777	56.910	56.910
614.860	33.715	-1.523	32.192	44.402	56.910	56.910
614.870	34.697	-1.515	33.182	45.392	56.910	56.910
614.880	35.474	-1.513	33.961	46.171	56.910	56.910
614.890	34.769	-1.510	33.259	45.469	56.910	56.910
614.900	36.114	-1.492	34.622	46.832	56.910	56.910
614.910	35.282	-1.485	33.797	46.007	56.910	56.910
614.920	33.624	-1.496	32.128	44.338	56.910	56.910
614.930	35.046	-1.496	33.550	45.760	56.910	56.910
614.940	35.223	-1.490	33.733	45.943	56.910	56.910
614.950	33.940	-1.467	32.473	44.683	56.910	56.910
614.960	34.171	-1.450	32.721	44.931	56.910	56.910
614.970	35.372	-1.453	33.919	46.129	56.910	56.910
614.980	35.205	-1.455	33.750	45.960	56.910	56.910
614.990	35.684	-1.439	34.245	46.455	56.910	56.910
615.000	35.324	-1.440	33.884	46.094	56.910	56.910
615.010	36.336	-1.420	34.916	47.126	56.910	56.910
615.020	34.688	-1.433	33.255	45.465	56.910	56.910
615.030	34.358	-1.441	32.917	45.127	56.910	56.910
615.040	34.397	-1.417	32.980	45.190	56.910	56.910
615.050	34.938	-1.418	33.520	45.730	56.910	56.910
615.060	35.272	-1.395	33.877	46.087	56.910	56.910
615.070	35.393	-1.402	33.991	46.201	56.910	56.910
615.080	36.104	-1.375	34.729	46.939	56.910	56.910
615.090	36.067	-1.357	34.710	46.920	56.910	56.910
615.100	34.212	-1.373	32.839	45.049	56.910	56.910
615.110	34.146	-1.374	32.772	44.982	56.910	56.910
615.120	35.264	-1.357	33.907	46.117	56.910	56.910
615.130	36.252	-1.355	34.897	47.107	56.910	56.910
615.140	34.824	-1.374	33.450	45.660	56.910	56.910
615.150	34.221	-1.355	32.866	45.076	56.910	56.910
615.160	33.439	-1.335	32.104	44.314	56.910	56.910
615.170	33.593	-1.341	32.252	44.462	56.910	56.910
615.180	33.574	-1.348	32.226	44.436	56.910	56.910
615.190	34.003	-1.345	32.658	44.868	56.910	56.910
615.200	33.536	-1.333	32.203	44.413	56.910	56.910
615.210	34.305	-1.324	32.981	45.191	56.910	56.910
615.220	34.085	-1.313	32.772	44.982	56.910	56.910
615.230	34.604	-1.305	33.299	45.509	56.910	56.910
615.240	34.258	-1.312	32.946	45.156	56.910	56.910

615.250	32.570	-1.301	31.269	43.479	56.910	56.910
615.260	34.150	-1.313	32.837	45.047	56.910	56.910
615.270	35.958	-1.305	34.653	46.863	56.910	56.910
615.280	36.303	-1.292	35.011	47.221	56.910	56.910
615.290	35.439	-1.282	34.157	46.367	56.910	56.910
615.300	36.901	-1.285	35.616	47.826	56.910	56.910
615.310	37.098	-1.290	35.808	48.018	56.910	56.910
615.320	36.666	-1.291	35.375	47.585	56.910	56.910
615.330	36.428	-1.281	35.147	47.357	56.910	56.910
615.340	34.858	-1.285	33.573	45.783	56.910	56.910
615.350	33.815	-1.248	32.567	44.777	56.910	56.910
615.360	34.937	-1.275	33.662	45.872	56.910	56.910
615.370	34.536	-1.283	33.253	45.463	56.910	56.910
615.380	35.496	-1.267	34.229	46.439	56.910	56.910
615.390	34.601	-1.255	33.346	45.556	56.910	56.910
615.400	34.648	-1.270	33.378	45.588	56.910	56.910
615.410	33.664	-1.269	32.395	44.605	56.910	56.910
615.420	33.299	-1.249	32.050	44.260	56.910	56.910
615.430	33.461	-1.271	32.190	44.400	56.910	56.910
615.440	33.999	-1.256	32.743	44.953	56.910	56.910
615.450	34.953	-1.245	33.708	45.918	56.910	56.910
615.460	34.834	-1.241	33.593	45.803	56.910	56.910
615.470	32.086	-1.232	30.854	43.064	56.910	56.910
615.480	33.095	-1.241	31.854	44.064	56.910	56.910
615.490	35.511	-1.252	34.259	46.469	56.910	56.910
615.500	35.592	-1.243	34.349	46.559	56.910	56.910
615.510	33.326	-1.264	32.062	44.272	56.910	56.910
615.520	35.228	-1.241	33.987	46.197	56.910	56.910
615.530	35.438	-1.234	34.204	46.414	56.910	56.910
615.540	35.226	-1.221	34.005	46.215	56.910	56.910
615.550	36.178	-1.239	34.939	47.149	56.910	56.910
615.560	35.941	-1.251	34.690	46.900	56.910	56.910
615.570	35.023	-1.229	33.794	46.004	56.910	56.910
615.580	34.998	-1.209	33.789	45.999	56.910	56.910
615.590	35.000	-1.222	33.778	45.988	56.910	56.910
615.600	35.611	-1.204	34.407	46.617	56.910	56.910
615.610	36.353	-1.215	35.138	47.348	56.910	56.910
615.620	34.811	-1.218	33.593	45.803	56.910	56.910
615.630	36.501	-1.222	35.279	47.489	56.910	56.910
615.640	36.289	-1.214	35.075	47.285	56.910	56.910
615.650	35.698	-1.224	34.474	46.684	56.910	56.910
615.660	35.203	-1.195	34.008	46.218	56.910	56.910
615.670	35.363	-1.197	34.166	46.376	56.910	56.910
615.680	33.799	-1.203	32.596	44.806	56.910	56.910
615.690	35.617	-1.221	34.396	46.606	56.910	56.910
615.700	36.396	-1.226	35.170	47.380	56.910	56.910

615.710	34.456	-1.200	33.256	45.466	56.910	56.910
615.720	36.249	-1.196	35.053	47.263	56.910	56.910
615.730	35.361	-1.189	34.172	46.382	56.910	56.910
615.740	35.415	-1.196	34.219	46.429	56.910	56.910
615.750	35.977	-1.210	34.767	46.977	56.910	56.910
615.760	36.205	-1.213	34.992	47.202	56.910	56.910
615.770	35.861	-1.197	34.664	46.874	56.910	56.910
615.780	35.259	-1.158	34.101	46.311	56.910	56.910
615.790	36.014	-1.166	34.848	47.058	56.910	56.910
615.800	36.244	-1.193	35.051	47.261	56.910	56.910
615.810	36.069	-1.197	34.872	47.082	56.910	56.910
615.820	34.773	-1.197	33.576	45.786	56.910	56.910
615.830	32.934	-1.204	31.730	43.940	56.910	56.910
615.840	35.700	-1.194	34.506	46.716	56.910	56.910
615.850	36.374	-1.191	35.183	47.393	56.910	56.910
615.860	36.557	-1.209	35.348	47.558	56.910	56.910
615.870	35.727	-1.178	34.549	46.759	56.910	56.910
615.880	34.594	-1.196	33.398	45.608	56.910	56.910
615.890	33.669	-1.200	32.469	44.679	56.910	56.910
615.900	35.410	-1.200	34.210	46.420	56.910	56.910
615.910	37.843	-1.203	36.640	48.850	56.910	56.910
615.920	35.338	-1.191	34.147	46.357	56.910	56.910
615.930	35.006	-1.218	33.788	45.998	56.910	56.910
615.940	35.534	-1.200	34.334	46.544	56.910	56.910
615.950	35.664	-1.208	34.456	46.666	56.910	56.910
615.960	35.284	-1.210	34.074	46.284	56.910	56.910
615.970	35.675	-1.212	34.463	46.673	56.910	56.910
615.980	35.647	-1.211	34.436	46.646	56.910	56.910
615.990	35.795	-1.199	34.596	46.806	56.910	56.910
616.000	36.990	-1.207	35.783	47.993	56.910	56.910
616.010	36.248	-1.209	35.039	47.249	56.910	56.910
616.020	36.408	-1.195	35.213	47.423	56.910	56.910
616.030	35.727	-1.216	34.511	46.721	56.910	56.910
616.040	35.279	-1.197	34.082	46.292	56.910	56.910
616.050	35.955	-1.191	34.764	46.974	56.910	56.910
616.060	36.560	-1.200	35.360	47.570	56.910	56.910
616.070	35.619	-1.208	34.411	46.621	56.910	56.910
616.080	33.734	-1.203	32.531	44.741	56.910	56.910
616.090	35.091	-1.206	33.885	46.095	56.910	56.910
616.100	35.741	-1.233	34.508	46.718	56.910	56.910
616.110	35.522	-1.219	34.303	46.513	56.910	56.910
616.120	35.448	-1.236	34.212	46.422	56.910	56.910
616.130	35.508	-1.231	34.277	46.487	56.910	56.910
616.140	36.037	-1.216	34.821	47.031	56.910	56.910
616.150	35.385	-1.205	34.180	46.390	56.910	56.910
616.160	35.959	-1.225	34.734	46.944	56.910	56.910

616.170	36.398	-1.212	35.186	47.396	56.910	56.910
616.180	36.597	-1.221	35.376	47.586	56.910	56.910
616.190	34.941	-1.216	33.725	45.935	56.910	56.910
616.200	34.852	-1.241	33.611	45.821	56.910	56.910
616.210	34.322	-1.233	33.089	45.299	56.910	56.910
616.220	33.092	-1.236	31.856	44.066	56.910	56.910
616.230	35.336	-1.236	34.100	46.310	56.910	56.910
616.240	36.043	-1.235	34.808	47.018	56.910	56.910
616.250	37.188	-1.235	35.953	48.163	56.910	56.910
616.260	37.949	-1.239	36.710	48.920	56.910	56.910
616.270	37.150	-1.250	35.900	48.110	56.910	56.910
616.280	35.229	-1.246	33.983	46.193	56.910	56.910
616.290	35.258	-1.217	34.041	46.251	56.910	56.910
616.300	34.075	-1.224	32.851	45.061	56.910	56.910
616.310	34.556	-1.241	33.315	45.525	56.910	56.910
616.320	36.536	-1.233	35.303	47.513	56.910	56.910
616.330	36.391	-1.231	35.160	47.370	56.910	56.910
616.340	36.627	-1.248	35.379	47.589	56.910	56.910
616.350	35.764	-1.243	34.521	46.731	56.910	56.910
616.360	34.053	-1.243	32.810	45.020	56.910	56.910
616.370	34.294	-1.254	33.040	45.250	56.910	56.910
616.380	36.256	-1.252	35.004	47.214	56.910	56.910
616.390	36.631	-1.246	35.385	47.595	56.910	56.910
616.400	34.544	-1.261	33.283	45.493	56.910	56.910
616.410	35.910	-1.256	34.654	46.864	56.910	56.910
616.420	35.762	-1.266	34.496	46.706	56.910	56.910
616.430	34.871	-1.258	33.613	45.823	56.910	56.910
616.440	35.216	-1.245	33.971	46.181	56.910	56.910
616.450	35.451	-1.245	34.206	46.416	56.910	56.910
616.460	35.225	-1.265	33.960	46.170	56.910	56.910
616.470	36.038	-1.267	34.771	46.981	56.910	56.910
616.480	37.725	-1.262	36.463	48.673	56.910	56.910
616.490	34.359	-1.274	33.085	45.295	56.910	56.910
616.500	34.346	-1.272	33.074	45.284	56.910	56.910
616.510	35.417	-1.259	34.158	46.368	56.910	56.910
616.520	35.095	-1.247	33.848	46.058	56.910	56.910
616.530	34.904	-1.261	33.643	45.853	56.910	56.910
616.540	35.923	-1.251	34.672	46.882	56.910	56.910
616.550	36.960	-1.265	35.695	47.905	56.910	56.910
616.560	34.236	-1.269	32.967	45.177	56.910	56.910
616.570	35.138	-1.268	33.870	46.080	56.910	56.910
616.580	34.099	-1.303	32.796	45.006	56.910	56.910
616.590	34.688	-1.279	33.409	45.619	56.910	56.910
616.600	35.514	-1.267	34.247	46.457	56.910	56.910
616.610	34.698	-1.275	33.423	45.633	56.910	56.910
616.620	35.404	-1.266	34.138	46.348	56.910	56.910

616.630	36.524	-1.277	35.247	47.457	56.910	56.910
616.640	36.948	-1.259	35.689	47.899	56.910	56.910
616.650	35.046	-1.251	33.795	46.005	56.910	56.910
616.660	34.185	-1.270	32.915	45.125	56.910	56.910
616.670	34.634	-1.267	33.367	45.577	56.910	56.910
616.680	35.400	-1.258	34.142	46.352	56.910	56.910
616.690	34.309	-1.254	33.055	45.265	56.910	56.910
616.700	32.876	-1.266	31.610	43.820	56.910	56.910
616.710	35.053	-1.291	33.762	45.972	56.910	56.910
616.720	34.987	-1.324	33.663	45.873	56.910	56.910
616.730	35.470	-1.296	34.174	46.384	56.910	56.910
616.740	35.441	-1.288	34.153	46.363	56.910	56.910
616.750	34.735	-1.285	33.450	45.660	56.910	56.910
616.760	35.357	-1.286	34.071	46.281	56.910	56.910
616.770	35.236	-1.274	33.962	46.172	56.910	56.910
616.780	34.844	-1.279	33.565	45.775	56.910	56.910
616.790	35.147	-1.298	33.849	46.059	56.910	56.910
616.800	34.934	-1.301	33.633	45.843	56.910	56.910
616.810	35.991	-1.286	34.705	46.915	56.910	56.910
616.820	35.837	-1.275	34.562	46.772	56.910	56.910
616.830	35.115	-1.272	33.843	46.053	56.910	56.910
616.840	33.650	-1.270	32.380	44.590	56.910	56.910
616.850	34.639	-1.289	33.350	45.560	56.910	56.910
616.860	35.071	-1.286	33.785	45.995	56.910	56.910
616.870	35.240	-1.286	33.954	46.164	56.910	56.910
616.880	35.670	-1.284	34.386	46.596	56.910	56.910
616.890	35.731	-1.271	34.460	46.670	56.910	56.910
616.900	35.807	-1.281	34.526	46.736	56.910	56.910
616.910	36.009	-1.285	34.724	46.934	56.910	56.910
616.920	35.979	-1.283	34.696	46.906	56.910	56.910
616.930	35.377	-1.285	34.092	46.302	56.910	56.910
616.940	35.230	-1.289	33.941	46.151	56.910	56.910
616.950	34.106	-1.278	32.828	45.038	56.910	56.910
616.960	34.806	-1.276	33.530	45.740	56.910	56.910
616.970	34.966	-1.277	33.689	45.899	56.910	56.910
616.980	36.866	-1.301	35.565	47.775	56.910	56.910
616.990	36.256	-1.298	34.958	47.168	56.910	56.910
617.000	36.519	-1.294	35.225	47.435	56.910	56.910
617.010	35.603	-1.286	34.317	46.527	56.910	56.910
617.020	36.195	-1.268	34.927	47.137	56.910	56.910
617.030	34.730	-1.267	33.463	45.673	56.910	56.910
617.040	33.876	-1.280	32.596	44.806	56.910	56.910
617.050	32.735	-1.277	31.458	43.668	56.910	56.910
617.060	33.295	-1.281	32.014	44.224	56.910	56.910
617.070	33.020	-1.297	31.723	43.933	56.910	56.910
617.080	34.046	-1.297	32.749	44.959	56.910	56.910

617.090	31.999	-1.289	30.710	42.920	56.910	56.910
617.100	34.161	-1.294	32.867	45.077	56.910	56.910
617.110	35.699	-1.299	34.400	46.610	56.910	56.910
617.120	34.879	-1.300	33.579	45.789	56.910	56.910
617.130	34.957	-1.276	33.681	45.891	56.910	56.910
617.140	34.057	-1.282	32.775	44.985	56.910	56.910
617.150	34.549	-1.279	33.270	45.480	56.910	56.910
617.160	34.732	-1.299	33.433	45.643	56.910	56.910
617.170	35.316	-1.289	34.027	46.237	56.910	56.910
617.180	36.184	-1.275	34.909	47.119	56.910	56.910
617.190	36.652	-1.273	35.379	47.589	56.910	56.910
617.200	34.696	-1.266	33.430	45.640	56.910	56.910
617.210	34.651	-1.272	33.379	45.589	56.910	56.910
617.220	37.520	-1.260	36.260	48.470	56.910	56.910
617.230	36.031	-1.277	34.754	46.964	56.910	56.910
617.240	35.470	-1.270	34.200	46.410	56.910	56.910
617.250	34.311	-1.273	33.038	45.248	56.910	56.910
617.260	36.696	-1.270	35.426	47.636	56.910	56.910
617.270	35.426	-1.261	34.165	46.375	56.910	56.910
617.280	37.572	-1.256	36.316	48.526	56.910	56.910
617.290	37.327	-1.270	36.057	48.267	56.910	56.910
617.300	35.069	-1.272	33.797	46.007	56.910	56.910
617.310	35.359	-1.266	34.093	46.303	56.910	56.910
617.320	34.659	-1.267	33.392	45.602	56.910	56.910
617.330	35.022	-1.252	33.770	45.980	56.910	56.910
617.340	33.111	-1.261	31.850	44.060	56.910	56.910
617.350	35.262	-1.250	34.012	46.222	56.910	56.910
617.360	35.697	-1.276	34.421	46.631	56.910	56.910
617.370	33.285	-1.262	32.023	44.233	56.910	56.910
617.380	34.094	-1.256	32.838	45.048	56.910	56.910
617.390	35.746	-1.254	34.492	46.702	56.910	56.910
617.400	36.075	-1.247	34.828	47.038	56.910	56.910
617.410	37.065	-1.248	35.817	48.027	56.910	56.910
617.420	35.905	-1.259	34.646	46.856	56.910	56.910
617.430	35.846	-1.260	34.586	46.796	56.910	56.910
617.440	34.770	-1.252	33.518	45.728	56.910	56.910
617.450	35.604	-1.255	34.349	46.559	56.910	56.910
617.460	34.662	-1.239	33.423	45.633	56.910	56.910
617.470	34.954	-1.236	33.718	45.928	56.910	56.910
617.480	36.545	-1.234	35.311	47.521	56.910	56.910
617.490	36.824	-1.240	35.584	47.794	56.910	56.910
617.500	36.739	-1.236	35.503	47.713	56.910	56.910
617.510	36.579	-1.235	35.344	47.554	56.910	56.910
617.520	35.211	-1.247	33.964	46.174	56.910	56.910
617.530	36.441	-1.240	35.201	47.411	56.910	56.910
617.540	36.206	-1.219	34.987	47.197	56.910	56.910

617.550	32.986	-1.247	31.739	43.949	56.910	56.910
617.560	33.813	-1.234	32.579	44.789	56.910	56.910
617.570	37.134	-1.233	35.901	48.111	56.910	56.910
617.580	36.631	-1.239	35.392	47.602	56.910	56.910
617.590	35.943	-1.249	34.694	46.904	56.910	56.910
617.600	34.952	-1.264	33.688	45.898	56.910	56.910
617.610	35.565	-1.246	34.319	46.529	56.910	56.910
617.620	36.069	-1.217	34.852	47.062	56.910	56.910
617.630	35.604	-1.235	34.369	46.579	56.910	56.910
617.640	35.706	-1.235	34.471	46.681	56.910	56.910
617.650	35.864	-1.226	34.638	46.848	56.910	56.910
617.660	34.483	-1.216	33.267	45.477	56.910	56.910
617.670	35.128	-1.235	33.893	46.103	56.910	56.910
617.680	36.038	-1.231	34.807	47.017	56.910	56.910
617.690	36.656	-1.231	35.425	47.635	56.910	56.910
617.700	36.890	-1.235	35.655	47.865	56.910	56.910
617.710	37.300	-1.208	36.092	48.302	56.910	56.910
617.720	37.396	-1.210	36.186	48.396	56.910	56.910
617.730	35.298	-1.201	34.097	46.307	56.910	56.910
617.740	36.642	-1.218	35.424	47.634	56.910	56.910
617.750	36.173	-1.223	34.950	47.160	56.910	56.910
617.760	36.144	-1.218	34.926	47.136	56.910	56.910
617.770	36.033	-1.217	34.816	47.026	56.910	56.910
617.780	36.729	-1.216	35.513	47.723	56.910	56.910
617.790	35.983	-1.235	34.748	46.958	56.910	56.910
617.800	32.998	-1.224	31.774	43.984	56.910	56.910
617.810	37.004	-1.232	35.772	47.982	56.910	56.910
617.820	37.048	-1.217	35.831	48.041	56.910	56.910
617.830	36.804	-1.212	35.592	47.802	56.910	56.910
617.840	36.646	-1.221	35.425	47.635	56.910	56.910
617.850	36.305	-1.214	35.091	47.301	56.910	56.910
617.860	34.697	-1.201	33.496	45.706	56.910	56.910
617.870	34.491	-1.210	33.281	45.491	56.910	56.910
617.880	34.769	-1.212	33.557	45.767	56.910	56.910
617.890	35.544	-1.210	34.334	46.544	56.910	56.910
617.900	35.318	-1.217	34.101	46.311	56.910	56.910
617.910	36.103	-1.207	34.896	47.106	56.910	56.910
617.920	36.059	-1.198	34.861	47.071	56.910	56.910
617.930	37.566	-1.201	36.365	48.575	56.910	56.910
617.940	37.889	-1.230	36.659	48.869	56.910	56.910
617.950	36.242	-1.224	35.018	47.228	56.910	56.910
617.960	36.255	-1.212	35.043	47.253	56.910	56.910
617.970	36.674	-1.208	35.466	47.676	56.910	56.910
617.980	34.406	-1.202	33.204	45.414	56.910	56.910
617.990	35.337	-1.197	34.140	46.350	56.910	56.910
618.000	35.402	-1.220	34.182	46.392	56.910	56.910

618.010	35.951	-1.217	34.734	46.944	56.910	56.910
618.020	33.819	-1.214	32.605	44.815	56.910	56.910
618.030	33.091	-1.215	31.876	44.086	56.910	56.910
618.040	33.760	-1.208	32.552	44.762	56.910	56.910
618.050	34.170	-1.199	32.971	45.181	56.910	56.910
618.060	36.640	-1.218	35.422	47.632	56.910	56.910
618.070	36.074	-1.227	34.847	47.057	56.910	56.910
618.080	36.722	-1.216	35.506	47.716	56.910	56.910
618.090	36.365	-1.209	35.156	47.366	56.910	56.910
618.100	34.253	-1.224	33.029	45.239	56.910	56.910
618.110	35.919	-1.220	34.699	46.909	56.910	56.910
618.120	34.748	-1.211	33.537	45.747	56.910	56.910
618.130	35.447	-1.215	34.232	46.442	56.910	56.910
618.140	35.641	-1.223	34.418	46.628	56.910	56.910
618.150	36.034	-1.227	34.807	47.017	56.910	56.910
618.160	36.437	-1.227	35.210	47.420	56.910	56.910
618.170	35.915	-1.231	34.684	46.894	56.910	56.910
618.180	37.052	-1.219	35.833	48.043	56.910	56.910
618.190	37.034	-1.231	35.803	48.013	56.910	56.910
618.200	35.005	-1.229	33.776	45.986	56.910	56.910
618.210	35.524	-1.227	34.297	46.507	56.910	56.910
618.220	35.203	-1.234	33.969	46.179	56.910	56.910
618.230	37.088	-1.241	35.847	48.057	56.910	56.910
618.240	36.847	-1.245	35.602	47.812	56.910	56.910
618.250	35.836	-1.239	34.597	46.807	56.910	56.910
618.260	37.596	-1.239	36.357	48.567	56.910	56.910
618.270	37.135	-1.252	35.883	48.093	56.910	56.910
618.280	36.380	-1.248	35.132	47.342	56.910	56.910
618.290	36.724	-1.250	35.474	47.684	56.910	56.910
618.300	37.113	-1.254	35.859	48.069	56.910	56.910
618.310	35.130	-1.231	33.899	46.109	56.910	56.910
618.320	36.019	-1.240	34.779	46.989	56.910	56.910
618.330	34.110	-1.268	32.842	45.052	56.910	56.910
618.340	34.901	-1.260	33.641	45.851	56.910	56.910
618.350	34.496	-1.262	33.234	45.444	56.910	56.910
618.360	33.910	-1.263	32.647	44.857	56.910	56.910
618.370	34.041	-1.259	32.782	44.992	56.910	56.910
618.380	35.824	-1.261	34.563	46.773	56.910	56.910
618.390	35.881	-1.258	34.623	46.833	56.910	56.910
618.400	35.938	-1.281	34.657	46.867	56.910	56.910
618.410	36.352	-1.295	35.057	47.267	56.910	56.910
618.420	36.545	-1.271	35.274	47.484	56.910	56.910
618.430	36.614	-1.249	35.365	47.575	56.910	56.910
618.440	35.115	-1.272	33.843	46.053	56.910	56.910
618.450	34.066	-1.283	32.783	44.993	56.910	56.910
618.460	35.412	-1.291	34.121	46.331	56.910	56.910

618.470	35.775	-1.287	34.488	46.698	56.910	56.910
618.480	34.974	-1.297	33.677	45.887	56.910	56.910
618.490	37.051	-1.298	35.753	47.963	56.910	56.910
618.500	35.935	-1.303	34.632	46.842	56.910	56.910
618.510	35.180	-1.294	33.886	46.096	56.910	56.910
618.520	35.088	-1.290	33.798	46.008	56.910	56.910
618.530	35.387	-1.321	34.066	46.276	56.910	56.910
618.540	35.559	-1.321	34.238	46.448	56.910	56.910
618.550	36.680	-1.330	35.350	47.560	56.910	56.910
618.560	36.456	-1.326	35.130	47.340	56.910	56.910
618.570	36.710	-1.333	35.377	47.587	56.910	56.910
618.580	37.004	-1.325	35.679	47.889	56.910	56.910
618.590	36.816	-1.349	35.467	47.677	56.910	56.910
618.600	35.614	-1.343	34.271	46.481	56.910	56.910
618.610	34.662	-1.313	33.349	45.559	56.910	56.910
618.620	34.906	-1.344	33.562	45.772	56.910	56.910
618.630	34.905	-1.359	33.546	45.756	56.910	56.910
618.640	34.210	-1.375	32.835	45.045	56.910	56.910
618.650	34.497	-1.368	33.129	45.339	56.910	56.910
618.660	34.679	-1.377	33.302	45.512	56.910	56.910
618.670	36.211	-1.361	34.850	47.060	56.910	56.910
618.680	35.188	-1.381	33.807	46.017	56.910	56.910
618.690	35.483	-1.382	34.101	46.311	56.910	56.910
618.700	36.050	-1.385	34.665	46.875	56.910	56.910
618.710	37.479	-1.389	36.090	48.300	56.910	56.910
618.720	37.415	-1.381	36.034	48.244	56.910	56.910
618.730	36.097	-1.381	34.716	46.926	56.910	56.910
618.740	36.007	-1.382	34.625	46.835	56.910	56.910
618.750	35.796	-1.402	34.394	46.604	56.910	56.910
618.760	34.996	-1.396	33.600	45.810	56.910	56.910
618.770	36.277	-1.422	34.855	47.065	56.910	56.910
618.780	35.352	-1.425	33.927	46.137	56.910	56.910
618.790	35.939	-1.413	34.526	46.736	56.910	56.910
618.800	35.991	-1.437	34.554	46.764	56.910	56.910
618.810	34.390	-1.435	32.955	45.165	56.910	56.910
618.820	35.443	-1.432	34.011	46.221	56.910	56.910
618.830	36.093	-1.446	34.647	46.857	56.910	56.910
618.840	36.894	-1.427	35.467	47.677	56.910	56.910
618.850	36.586	-1.443	35.143	47.353	56.910	56.910
618.860	35.891	-1.456	34.435	46.645	56.910	56.910
618.870	34.676	-1.456	33.220	45.430	56.910	56.910
618.880	35.071	-1.472	33.599	45.809	56.910	56.910
618.890	35.671	-1.454	34.217	46.427	56.910	56.910
618.900	35.183	-1.467	33.716	45.926	56.910	56.910
618.910	34.415	-1.476	32.939	45.149	56.910	56.910
618.920	36.569	-1.475	35.094	47.304	56.910	56.910

618.930	36.147	-1.510	34.637	46.847	56.910	56.910
618.940	35.087	-1.507	33.580	45.790	56.910	56.910
618.950	35.822	-1.505	34.317	46.527	56.910	56.910
618.960	35.375	-1.516	33.859	46.069	56.910	56.910
618.970	35.318	-1.502	33.816	46.026	56.910	56.910
618.980	35.115	-1.514	33.601	45.811	56.910	56.910
618.990	37.049	-1.523	35.526	47.736	56.910	56.910
619.000	37.232	-1.524	35.708	47.918	56.910	56.910
619.010	35.994	-1.537	34.457	46.667	56.910	56.910
619.020	36.457	-1.534	34.923	47.133	56.910	56.910
619.030	35.671	-1.569	34.102	46.312	56.910	56.910
619.040	36.848	-1.578	35.270	47.480	56.910	56.910
619.050	36.377	-1.570	34.807	47.017	56.910	56.910
619.060	36.367	-1.566	34.801	47.011	56.910	56.910
619.070	35.960	-1.563	34.397	46.607	56.910	56.910
619.080	34.342	-1.573	32.769	44.979	56.910	56.910
619.090	34.638	-1.584	33.054	45.264	56.910	56.910
619.100	35.644	-1.600	34.044	46.254	56.910	56.910
619.110	36.503	-1.600	34.903	47.113	56.910	56.910
619.120	36.867	-1.598	35.269	47.479	56.910	56.910
619.130	37.400	-1.607	35.793	48.003	56.910	56.910
619.140	35.170	-1.625	33.545	45.755	56.910	56.910
619.150	33.860	-1.640	32.220	44.430	56.910	56.910
619.160	35.372	-1.645	33.727	45.937	56.910	56.910
619.170	34.261	-1.669	32.592	44.802	56.910	56.910
619.180	33.539	-1.659	31.880	44.090	56.910	56.910
619.190	35.807	-1.663	34.144	46.354	56.910	56.910
619.200	35.710	-1.658	34.052	46.262	56.910	56.910
619.210	34.810	-1.681	33.129	45.339	56.910	56.910
619.220	37.233	-1.681	35.552	47.762	56.910	56.910
619.230	36.701	-1.675	35.026	47.236	56.910	56.910
619.240	35.960	-1.700	34.260	46.470	56.910	56.910
619.250	35.898	-1.704	34.194	46.404	56.910	56.910
619.260	35.108	-1.710	33.398	45.608	56.910	56.910
619.270	36.043	-1.727	34.316	46.526	56.910	56.910
619.280	36.944	-1.722	35.222	47.432	56.910	56.910
619.290	35.445	-1.752	33.693	45.903	56.910	56.910
619.300	36.237	-1.759	34.478	46.688	56.910	56.910
619.310	35.983	-1.753	34.230	46.440	56.910	56.910
619.320	35.484	-1.763	33.721	45.931	56.910	56.910
619.330	35.912	-1.776	34.136	46.346	56.910	56.910
619.340	34.689	-1.787	32.902	45.112	56.910	56.910
619.350	35.035	-1.799	33.236	45.446	56.910	56.910
619.360	33.168	-1.808	31.360	43.570	56.910	56.910
619.370	34.492	-1.812	32.680	44.890	56.910	56.910
619.380	35.327	-1.835	33.492	45.702	56.910	56.910

619.390	34.217	-1.840	32.377	44.587	56.910	56.910
619.400	34.672	-1.839	32.833	45.043	56.910	56.910
619.410	36.969	-1.854	35.115	47.325	56.910	56.910
619.420	36.124	-1.876	34.248	46.458	56.910	56.910
619.430	35.490	-1.895	33.595	45.805	56.910	56.910
619.440	35.599	-1.898	33.701	45.911	56.910	56.910
619.450	36.760	-1.913	34.847	47.057	56.910	56.910
619.460	35.856	-1.904	33.952	46.162	56.910	56.910
619.470	36.176	-1.925	34.251	46.461	56.910	56.910
619.480	34.340	-1.948	32.392	44.602	56.910	56.910
619.490	34.970	-1.967	33.003	45.213	56.910	56.910
619.500	34.795	-1.968	32.827	45.037	56.910	56.910
619.510	34.152	-1.978	32.174	44.384	56.910	56.910
619.520	34.192	-1.994	32.198	44.408	56.910	56.910
619.530	33.671	-2.025	31.646	43.856	56.910	56.910
619.540	34.693	-2.051	32.642	44.852	56.910	56.910
619.550	36.275	-2.052	34.223	46.433	56.910	56.910
619.560	34.402	-2.049	32.353	44.563	56.910	56.910
619.570	34.671	-2.081	32.590	44.800	56.910	56.910
619.580	34.248	-2.085	32.163	44.373	56.910	56.910
619.590	33.610	-2.100	31.510	43.720	56.910	56.910
619.600	33.944	-2.099	31.845	44.055	56.910	56.910
619.610	33.893	-2.105	31.788	43.998	56.910	56.910
619.620	32.422	-2.144	30.278	42.488	56.910	56.910
619.630	33.605	-2.154	31.451	43.661	56.910	56.910
619.640	34.676	-2.174	32.502	44.712	56.910	56.910
619.650	34.033	-2.207	31.826	44.036	56.910	56.910
619.660	34.322	-2.205	32.117	44.327	56.910	56.910
619.670	32.076	-2.234	29.842	42.052	56.910	56.910
619.680	31.809	-2.260	29.549	41.759	56.910	56.910
619.690	31.365	-2.286	29.079	41.289	56.910	56.910
619.700	30.732	-2.312	28.420	40.630	56.910	56.910
619.710	31.258	-2.313	28.945	41.155	56.910	56.910
619.720	32.230	-2.350	29.880	42.090	56.910	56.910
619.730	31.757	-2.374	29.383	41.593	56.910	56.910
619.740	31.953	-2.385	29.568	41.778	56.910	56.910
619.750	32.337	-2.420	29.917	42.127	56.910	56.910
619.760	29.870	-2.459	27.411	39.621	56.910	56.910
619.770	30.438	-2.448	27.990	40.200	56.910	56.910
619.780	29.323	-2.471	26.852	39.062	56.910	56.910
619.790	29.379	-2.499	26.880	39.090	56.910	56.910
619.800	29.492	-2.532	26.960	39.170	56.910	56.910
619.810	29.014	-2.584	26.430	38.640	56.910	56.910
619.820	28.012	-2.621	25.391	37.601	56.910	56.910
619.830	25.972	-2.627	23.345	35.555	56.910	56.910
619.840	26.202	-2.656	23.546	35.756	56.910	56.910

619.850	26.153	-2.701	23.452	35.662	56.910	56.910
619.860	25.789	-2.735	23.054	35.264	56.910	56.910
619.870	26.234	-2.769	23.465	35.675	56.910	56.910
619.880	23.394	-2.818	20.576	32.786	56.910	56.910
619.890	23.068	-2.889	20.179	32.389	56.910	56.910
619.900	21.923	-2.902	19.021	31.231	56.910	56.910
619.910	20.543	-2.925	17.618	29.828	56.910	56.910
619.920	19.989	-2.992	16.997	29.207	56.910	56.910
619.930	17.697	-3.051	14.646	26.856	56.910	56.910
619.940	17.437	-3.109	14.328	26.538	56.910	56.910
619.950	16.373	-3.173	13.200	25.410	56.910	56.910
619.960	13.278	-3.228	10.050	22.260	56.910	56.910
619.970	10.768	-3.291	7.477	19.687	56.910	56.910
619.980	8.586	-3.366	5.220	17.430	56.910	56.910
619.990	6.496	-3.439	3.057	15.267	56.910	56.910
Upper Band Edge						
620.000	0.922	-3.510	-2.588	9.622	56.910	9.910
620.010	-0.674	-3.597	-4.271	7.939	10.910	9.910
620.020	-1.036	-3.671	-4.707	7.503	10.910	9.910
620.030	-0.758	-3.752	-4.510	7.700	10.910	9.910
620.040	-1.319	-3.860	-5.179	7.031	10.910	9.910
620.050	-1.874	-3.953	-5.827	6.383	10.910	9.910
620.060	-2.538	-4.062	-6.600	5.610	10.910	9.910
620.070	-1.121	-4.194	-5.315	6.895	10.910	9.910
620.080	-2.680	-4.326	-7.006	5.204	10.910	9.910
620.090	0.460	-4.450	-3.990	8.220	10.910	9.910
620.100	-3.460	-4.598	-8.058	4.152	10.910	9.910
620.110	-1.325	-4.735	-6.060	6.150	10.910	9.910
620.120	-2.249	-4.928	-7.177	5.033	10.910	9.910
620.130	-2.245	-5.115	-7.360	4.850	10.910	9.910
620.140	-3.456	-5.300	-8.756	3.454	10.910	9.910
620.150	-0.499	-5.477	-5.976	6.234	10.910	9.910
620.160	-2.056	-5.676	-7.732	4.478	10.910	9.910
620.170	-2.798	-5.900	-8.698	3.512	10.910	9.910
620.180	-2.206	-6.151	-8.357	3.853	10.910	9.910
620.190	-2.621	-6.417	-9.038	3.172	10.910	9.910
620.200	-1.509	-6.719	-8.228	3.982	10.910	9.910
620.210	-5.022	-6.992	-12.014	0.196	10.910	9.910
620.220	-2.242	-7.296	-9.538	2.672	10.910	9.910
620.230	-4.084	-7.603	-11.687	0.523	10.910	9.910
620.240	-1.572	-7.940	-9.512	2.698	10.910	9.910
620.250	-3.143	-8.288	-11.431	0.779	10.867	9.910
620.260	-3.456	-8.682	-12.138	0.072	10.863	9.910
620.270	-2.938	-9.052	-11.990	0.220	10.859	9.910
620.280	-3.172	-9.464	-12.636	-0.426	10.856	9.910
620.290	-1.817	-9.879	-11.696	0.514	10.852	9.910

620.300	-2.944	-10.325	-13.269	-1.059	10.847	9.910
620.310	-1.651	-10.783	-12.434	-0.224	10.843	9.910
620.320	-1.095	-11.234	-12.329	-0.119	10.839	9.910
620.330	-3.970	-11.748	-15.718	-3.508	10.834	9.910
620.340	-4.086	-12.236	-16.322	-4.112	10.830	9.910
620.350	-2.622	-12.737	-15.359	-3.149	10.825	9.910
620.360	-1.931	-13.262	-15.193	-2.983	10.820	9.910
620.370	-4.393	-13.819	-18.212	-6.002	10.815	9.910
620.380	-3.371	-14.353	-17.724	-5.514	10.810	9.910
620.390	-1.451	-14.839	-16.290	-4.080	10.804	9.910
620.400	-2.867	-15.388	-18.255	-6.045	10.799	9.910
620.410	-3.099	-15.935	-19.034	-6.824	10.793	9.910
620.420	-2.501	-16.439	-18.940	-6.730	10.787	9.910
620.430	-2.235	-16.973	-19.208	-6.998	10.782	9.910
620.440	-3.612	-17.445	-21.057	-8.847	10.776	9.910
620.450	-2.789	-17.922	-20.711	-8.501	10.769	9.910
620.460	-2.827	-18.341	-21.168	-8.958	10.763	9.910
620.470	-1.080	-18.728	-19.808	-7.598	10.757	9.910
620.480	-1.867	-19.059	-20.926	-8.716	10.750	9.910
620.490	-4.428	-19.350	-23.778	-11.568	10.743	9.910
620.500	-1.166	-19.585	-20.751	-8.541	10.736	9.910
620.510	-2.393	-19.774	-22.167	-9.957	10.729	9.795
620.520	-0.864	-19.880	-20.744	-8.534	10.722	9.680
620.530	-3.594	-19.951	-23.545	-11.335	10.715	9.565
620.540	-3.475	-19.997	-23.472	-11.262	10.707	9.450
620.550	-4.135	-19.972	-24.107	-11.897	10.700	9.335
620.560	-2.509	-19.911	-22.420	-10.210	10.692	9.220
620.570	-2.859	-19.849	-22.708	-10.498	10.684	9.105
620.580	-2.945	-19.764	-22.709	-10.499	10.676	8.990
620.590	-1.838	-19.643	-21.481	-9.271	10.668	8.875
620.600	-3.355	-19.543	-22.898	-10.688	10.660	8.760
620.610	-1.811	-19.403	-21.214	-9.004	10.652	8.645
620.620	-4.539	-19.274	-23.813	-11.603	10.643	8.530
620.630	-3.779	-19.161	-22.940	-10.730	10.634	8.415
620.640	-4.552	-19.030	-23.582	-11.372	10.626	8.300
620.650	-2.213	-18.908	-21.121	-8.911	10.617	8.185
620.660	-2.961	-18.784	-21.745	-9.535	10.607	8.070
620.670	-2.164	-18.659	-20.823	-8.613	10.598	7.955
620.680	-3.714	-18.562	-22.276	-10.066	10.589	7.840
620.690	-4.461	-18.479	-22.940	-10.730	10.579	7.725
620.700	-1.676	-18.368	-20.044	-7.834	10.570	7.610
620.710	-3.401	-18.273	-21.674	-9.464	10.560	7.495
620.720	-2.044	-18.201	-20.245	-8.035	10.550	7.380
620.730	-3.372	-18.092	-21.464	-9.254	10.540	7.265
620.740	-2.287	-18.035	-20.322	-8.112	10.530	7.150
620.750	-2.107	-17.963	-20.070	-7.860	10.519	7.035

620.760	-3.816	-17.886	-21.702	-9.492	10.509	6.920
620.770	-1.041	-17.830	-18.871	-6.661	10.498	6.805
620.780	-2.471	-17.777	-20.248	-8.038	10.487	6.690
620.790	-2.012	-17.733	-19.745	-7.535	10.477	6.575
620.800	-4.098	-17.691	-21.789	-9.579	10.466	6.460
620.810	-2.991	-17.630	-20.621	-8.411	10.454	6.345
620.820	-2.267	-17.607	-19.874	-7.664	10.443	6.230
620.830	-0.926	-17.589	-18.515	-6.305	10.432	6.115
620.840	-0.450	-17.569	-18.019	-5.809	10.420	6.000
620.850	-2.347	-17.540	-19.887	-7.677	10.408	5.885
620.860	-4.498	-17.497	-21.995	-9.785	10.396	5.770
620.870	-3.863	-17.494	-21.357	-9.147	10.384	5.655
620.880	-1.179	-17.490	-18.669	-6.459	10.372	5.540
620.890	-2.861	-17.504	-20.365	-8.155	10.360	5.425
620.900	-2.422	-17.491	-19.913	-7.703	10.347	5.310
620.910	-2.122	-17.496	-19.618	-7.408	10.335	5.195
620.920	-1.965	-17.478	-19.443	-7.233	10.322	5.080
620.930	-2.524	-17.465	-19.989	-7.779	10.309	4.965
620.940	-2.280	-17.479	-19.759	-7.549	10.296	4.850
620.950	-1.834	-17.513	-19.347	-7.137	10.283	4.735
620.960	-4.272	-17.527	-21.799	-9.589	10.270	4.620
620.970	-3.569	-17.538	-21.107	-8.897	10.257	4.505
620.980	-0.223	-17.547	-17.770	-5.560	10.243	4.390
620.990	-1.953	-17.580	-19.533	-7.323	10.229	4.275
621.000	-1.323	-17.577	-18.900	-6.690	10.216	4.160
621.010	-1.763	-17.605	-19.368	-7.158	10.202	4.045
621.020	-2.554	-17.630	-20.184	-7.974	10.187	3.930
621.030	-1.712	-17.678	-19.390	-7.180	10.173	3.815
621.040	-4.656	-17.694	-22.350	-10.140	10.159	3.700
621.050	-3.006	-17.714	-20.720	-8.510	10.144	3.585
621.060	-2.944	-17.739	-20.683	-8.473	10.130	3.470
621.070	-2.970	-17.772	-20.742	-8.532	10.115	3.355
621.080	-3.031	-17.822	-20.853	-8.643	10.100	3.240
621.090	-3.837	-17.846	-21.683	-9.473	10.085	3.125
621.100	-1.369	-17.885	-19.254	-7.044	10.070	3.010
621.110	-5.783	-17.911	-23.694	-11.484	10.054	2.895
621.120	-3.182	-17.930	-21.112	-8.902	10.039	2.780
621.130	-4.259	-17.993	-22.252	-10.042	10.023	2.665
621.140	-2.846	-18.044	-20.890	-8.680	10.007	2.550
621.150	-2.796	-18.090	-20.886	-8.676	9.992	2.435
621.160	-1.667	-18.112	-19.779	-7.569	9.976	2.320
621.170	-3.984	-18.170	-22.154	-9.944	9.959	2.205
621.180	-3.877	-18.225	-22.102	-9.892	9.943	2.090
621.190	-3.532	-18.256	-21.788	-9.578	9.927	1.975
621.200	-2.224	-18.294	-20.518	-8.308	9.910	1.860
621.210	-1.380	-18.339	-19.719	-7.509	9.893	1.745

621.220	-3.446	-18.391	-21.837	-9.627	9.876	1.630
621.230	-4.521	-18.434	-22.955	-10.745	9.859	1.515
621.240	-4.435	-18.499	-22.934	-10.724	9.842	1.400
621.250	-4.764	-18.524	-23.288	-11.078	9.825	1.285
621.260	-3.829	-18.597	-22.426	-10.216	9.807	1.170
621.270	-3.076	-18.641	-21.717	-9.507	9.790	1.055
621.280	-6.217	-18.694	-24.911	-12.701	9.772	0.940
621.290	-2.457	-18.745	-21.202	-8.992	9.754	0.825
621.300	-4.233	-18.798	-23.031	-10.821	9.736	0.710
621.310	-3.294	-18.835	-22.129	-9.919	9.718	0.595
621.320	-3.376	-18.909	-22.285	-10.075	9.700	0.480
621.330	-2.871	-18.971	-21.842	-9.632	9.682	0.365
621.340	-2.828	-19.035	-21.863	-9.653	9.663	0.250
621.350	-4.848	-19.084	-23.932	-11.722	9.644	0.135
621.360	-4.194	-19.131	-23.325	-11.115	9.626	0.020
621.370	-4.145	-19.191	-23.336	-11.126	9.607	-0.095
621.380	-4.725	-19.218	-23.943	-11.733	9.587	-0.210
621.390	-1.614	-19.300	-20.914	-8.704	9.568	-0.325
621.400	-3.297	-19.341	-22.638	-10.428	9.549	-0.440
621.410	-1.302	-19.401	-20.703	-8.493	9.529	-0.555
621.420	-3.624	-19.477	-23.101	-10.891	9.510	-0.670
621.430	-4.385	-19.552	-23.937	-11.727	9.490	-0.785
621.440	-1.880	-19.600	-21.480	-9.270	9.470	-0.900
621.450	-3.836	-19.666	-23.502	-11.292	9.450	-1.015
621.460	-3.312	-19.696	-23.008	-10.798	9.430	-1.130
621.470	-4.269	-19.776	-24.045	-11.835	9.409	-1.245
621.480	-1.501	-19.822	-21.323	-9.113	9.389	-1.360
621.490	-4.063	-19.884	-23.947	-11.737	9.368	-1.475
621.500	-4.137	-19.941	-24.078	-11.868	9.347	-1.590
621.510	-4.571	-20.013	-24.584	-12.374	9.327	-1.705
621.520	-3.324	-20.072	-23.396	-11.186	9.306	-1.820
621.530	-2.200	-20.145	-22.345	-10.135	9.284	-1.935
621.540	-3.990	-20.217	-24.207	-11.997	9.263	-2.050
621.550	-2.967	-20.275	-23.242	-11.032	9.242	-2.165
621.560	-1.967	-20.335	-22.302	-10.092	9.220	-2.280
621.570	-3.810	-20.384	-24.194	-11.984	9.198	-2.395
621.580	-4.471	-20.435	-24.906	-12.696	9.176	-2.510
621.590	-2.959	-20.487	-23.446	-11.236	9.154	-2.625
621.600	-3.678	-20.549	-24.227	-12.017	9.132	-2.740
621.610	-2.630	-20.639	-23.269	-11.059	9.110	-2.855
621.620	-3.226	-20.703	-23.929	-11.719	9.087	-2.970
621.630	-2.065	-20.738	-22.803	-10.593	9.065	-3.085
621.640	-6.364	-20.813	-27.177	-14.967	9.042	-3.200
621.650	-2.508	-20.883	-23.391	-11.181	9.019	-3.315
621.660	-1.619	-20.922	-22.541	-10.331	8.996	-3.430
621.670	-0.786	-21.007	-21.793	-9.583	8.973	-3.545

621.680	-2.481	-21.066	-23.547	-11.337	8.950	-3.660
621.690	-4.744	-21.162	-25.906	-13.696	8.927	-3.775
621.700	-2.311	-21.209	-23.520	-11.310	8.903	-3.890
621.710	-4.942	-21.269	-26.211	-14.001	8.879	-4.005
621.720	-1.528	-21.324	-22.852	-10.642	8.856	-4.120
621.730	-4.657	-21.409	-26.066	-13.856	8.832	-4.235
621.740	-5.816	-21.463	-27.279	-15.069	8.807	-4.350
621.750	-2.988	-21.553	-24.541	-12.331	8.783	-4.465
621.760	-1.963	-21.598	-23.561	-11.351	8.759	-4.580
621.770	-4.033	-21.661	-25.694	-13.484	8.734	-4.695
621.780	-3.208	-21.705	-24.913	-12.703	8.710	-4.810
621.790	-4.183	-21.787	-25.970	-13.760	8.685	-4.925
621.800	-3.579	-21.853	-25.432	-13.222	8.660	-5.040
621.810	-3.354	-21.902	-25.256	-13.046	8.635	-5.155
621.820	-4.316	-21.972	-26.288	-14.078	8.610	-5.270
621.830	-3.561	-22.034	-25.595	-13.385	8.584	-5.385
621.840	-2.487	-22.095	-24.582	-12.372	8.559	-5.500
621.850	-2.925	-22.166	-25.091	-12.881	8.533	-5.615
621.860	-1.536	-22.250	-23.786	-11.576	8.507	-5.730
621.870	-3.229	-22.300	-25.529	-13.319	8.482	-5.845
621.880	-3.542	-22.358	-25.900	-13.690	8.456	-5.960
621.890	-3.753	-22.462	-26.215	-14.005	8.429	-6.075
621.900	-3.927	-22.518	-26.445	-14.235	8.403	-6.190
621.910	-1.860	-22.566	-24.426	-12.216	8.377	-6.305
621.920	-2.928	-22.627	-25.555	-13.345	8.350	-6.420
621.930	-3.324	-22.690	-26.014	-13.804	8.323	-6.535
621.940	-2.683	-22.779	-25.462	-13.252	8.296	-6.650
621.950	-3.523	-22.826	-26.349	-14.139	8.269	-6.765
621.960	-4.860	-22.871	-27.731	-15.521	8.242	-6.880
621.970	-4.247	-22.931	-27.178	-14.968	8.215	-6.995
621.980	-1.826	-23.017	-24.843	-12.633	8.187	-7.110
621.990	-3.293	-23.072	-26.365	-14.155	8.160	-7.225
622.000	-4.311	-23.149	-27.460	-15.250	8.132	-7.340
622.010	-3.141	-23.211	-26.352	-14.142	8.104	-7.455
622.020	-3.941	-23.272	-27.213	-15.003	8.076	-7.570
622.030	-1.866	-23.332	-25.198	-12.988	8.048	-7.685
622.040	-2.972	-23.390	-26.362	-14.152	8.020	-7.800
622.050	-3.369	-23.440	-26.809	-14.599	7.992	-7.915
622.060	-3.565	-23.539	-27.104	-14.894	7.963	-8.030
622.070	-5.887	-23.574	-29.461	-17.251	7.934	-8.145
622.080	-3.146	-23.647	-26.793	-14.583	7.906	-8.260
622.090	-5.659	-23.730	-29.389	-17.179	7.877	-8.375
622.100	-2.337	-23.776	-26.113	-13.903	7.847	-8.490
622.110	-3.268	-23.834	-27.102	-14.892	7.818	-8.605
622.120	-4.131	-23.903	-28.034	-15.824	7.789	-8.720
622.130	-2.719	-23.976	-26.695	-14.485	7.759	-8.835

622.140	-3.387	-24.060	-27.447	-15.237	7.730	-8.950
622.150	-3.897	-24.110	-28.007	-15.797	7.700	-9.065
622.160	-3.626	-24.169	-27.795	-15.585	7.670	-9.180
622.170	-2.196	-24.217	-26.413	-14.203	7.640	-9.295
622.180	-3.037	-24.313	-27.350	-15.140	7.610	-9.410
622.190	-3.209	-24.368	-27.577	-15.367	7.579	-9.525
622.200	-2.928	-24.420	-27.348	-15.138	7.549	-9.640
622.210	-4.179	-24.479	-28.658	-16.448	7.518	-9.755
622.220	-3.020	-24.556	-27.576	-15.366	7.487	-9.870
622.230	-5.974	-24.608	-30.582	-18.372	7.457	-9.985
622.240	-5.716	-24.687	-30.403	-18.193	7.426	-10.100
622.250	-3.121	-24.746	-27.867	-15.657	7.394	-10.215
622.260	-2.969	-24.826	-27.795	-15.585	7.363	-10.330
622.270	-5.077	-24.902	-29.979	-17.769	7.332	-10.445
622.280	-4.610	-24.943	-29.553	-17.343	7.300	-10.560
622.290	-6.604	-24.982	-31.586	-19.376	7.268	-10.675
622.300	-4.273	-25.067	-29.340	-17.130	7.236	-10.790
622.310	-2.678	-25.148	-27.826	-15.616	7.204	-10.905
622.320	-2.014	-25.202	-27.216	-15.006	7.172	-11.020
622.330	-3.137	-25.252	-28.389	-16.179	7.140	-11.135
622.340	-5.919	-25.290	-31.209	-18.999	7.107	-11.250
622.350	-5.039	-25.397	-30.436	-18.226	7.075	-11.365
622.360	-3.291	-25.449	-28.740	-16.530	7.042	-11.480
622.370	-3.039	-25.523	-28.562	-16.352	7.009	-11.595
622.380	-2.489	-25.573	-28.062	-15.852	6.976	-11.710
622.390	-5.998	-25.649	-31.647	-19.437	6.943	-11.825
622.400	-5.344	-25.706	-31.050	-18.840	6.910	-11.940
622.410	-5.125	-25.751	-30.876	-18.666	6.877	-12.055
622.420	-2.486	-25.829	-28.315	-16.105	6.843	-12.170
622.430	-5.411	-25.885	-31.296	-19.086	6.809	-12.285
622.440	-5.966	-25.965	-31.931	-19.721	6.776	-12.400
622.450	-2.745	-26.002	-28.747	-16.537	6.742	-12.515
622.460	-4.421	-26.093	-30.514	-18.304	6.707	-12.630
622.470	-2.624	-26.138	-28.762	-16.552	6.673	-12.745
622.480	-4.325	-26.202	-30.527	-18.317	6.639	-12.860
622.490	-2.549	-26.268	-28.817	-16.607	6.604	-12.975
622.500	-4.754	-26.294	-31.048	-18.838	6.570	-13.090
622.510	-5.334	-26.409	-31.743	-19.533	6.535	-13.205
622.520	-4.540	-26.446	-30.986	-18.776	6.500	-13.320
622.530	-3.490	-26.520	-30.010	-17.800	6.465	-13.435
622.540	-4.774	-26.550	-31.324	-19.114	6.430	-13.550
622.550	-4.680	-26.603	-31.283	-19.073	6.394	-13.665
622.560	-3.703	-26.698	-30.401	-18.191	6.359	-13.780
622.570	-6.693	-26.763	-33.456	-21.246	6.323	-13.895
622.580	-2.647	-26.827	-29.474	-17.264	6.287	-14.010
622.590	-3.867	-26.892	-30.759	-18.549	6.252	-14.125

622.600	-3.530	-26.945	-30.475	-18.265	6.216	-14.240
622.610	-3.982	-26.997	-30.979	-18.769	6.179	-14.355
622.620	-4.842	-27.063	-31.905	-19.695	6.143	-14.470
622.630	-3.298	-27.133	-30.431	-18.221	6.107	-14.585
622.640	-4.286	-27.188	-31.474	-19.264	6.070	-14.700
622.650	-4.558	-27.231	-31.789	-19.579	6.033	-14.815
622.660	-2.349	-27.311	-29.660	-17.450	5.996	-14.930
622.670	-3.021	-27.367	-30.388	-18.178	5.959	-15.045
622.680	-4.270	-27.428	-31.698	-19.488	5.922	-15.160
622.690	-2.003	-27.491	-29.494	-17.284	5.885	-15.275
622.700	-1.858	-27.530	-29.388	-17.178	5.847	-15.390
622.710	-3.270	-27.614	-30.884	-18.674	5.810	-15.505
622.720	-5.585	-27.686	-33.271	-21.061	5.772	-15.620
622.730	-3.155	-27.724	-30.879	-18.669	5.734	-15.735
622.740	-3.187	-27.758	-30.945	-18.735	5.696	-15.850
622.750	-3.342	-27.819	-31.161	-18.951	5.658	-15.965
622.760	-4.203	-27.905	-32.108	-19.898	5.620	-16.080
622.770	-3.362	-27.950	-31.312	-19.102	5.582	-16.195
622.780	-4.528	-28.038	-32.566	-20.356	5.543	-16.310
622.790	-3.621	-28.083	-31.704	-19.494	5.504	-16.425
622.800	-5.205	-28.146	-33.351	-21.141	5.466	-16.540
622.810	-3.432	-28.208	-31.640	-19.430	5.427	-16.655
622.820	-3.320	-28.253	-31.573	-19.363	5.387	-16.770
622.830	-5.072	-28.324	-33.396	-21.186	5.348	-16.885
622.840	-3.660	-28.382	-32.042	-19.832	5.309	-17.000
622.850	-3.097	-28.446	-31.543	-19.333	5.269	-17.115
622.860	-6.113	-28.494	-34.607	-22.397	5.230	-17.230
622.870	-5.443	-28.543	-33.986	-21.776	5.190	-17.345
622.880	-3.519	-28.620	-32.139	-19.929	5.150	-17.460
622.890	-4.543	-28.678	-33.221	-21.011	5.110	-17.575
622.900	-3.868	-28.758	-32.626	-20.416	5.070	-17.690
622.910	-3.764	-28.778	-32.542	-20.332	5.029	-17.805
622.920	-4.112	-28.835	-32.947	-20.737	4.989	-17.920
622.930	-3.245	-28.893	-32.138	-19.928	4.948	-18.035
622.940	-3.184	-28.970	-32.154	-19.944	4.907	-18.150
622.950	-2.094	-29.024	-31.118	-18.908	4.867	-18.265
622.960	-3.737	-29.099	-32.836	-20.626	4.826	-18.380
622.970	-5.528	-29.176	-34.704	-22.494	4.784	-18.495
622.980	-5.558	-29.232	-34.790	-22.580	4.743	-18.610
622.990	-4.563	-29.277	-33.840	-21.630	4.702	-18.725
623.000	-3.006	-29.319	-32.325	-20.115	4.660	-19.090
623.010	-2.382	-29.395	-31.777	-19.567	4.618	-19.090
623.020	-3.916	-29.452	-33.368	-21.158	4.576	-19.090
623.030	-3.085	-29.517	-32.602	-20.392	4.534	-19.090
623.040	-4.454	-29.555	-34.009	-21.799	4.492	-19.090
623.050	-4.130	-29.594	-33.724	-21.514	4.450	-19.090

623.060	-5.431	-29.661	-35.092	-22.882	4.407	-19.090
623.070	-6.148	-29.747	-35.895	-23.685	4.365	-19.090
623.080	-4.408	-29.799	-34.207	-21.997	4.322	-19.090
623.090	-5.076	-29.855	-34.931	-22.721	4.279	-19.090
623.100	-4.174	-29.910	-34.084	-21.874	4.236	-19.090
623.110	-5.848	-29.975	-35.823	-23.613	4.193	-19.090
623.120	-3.548	-30.025	-33.573	-21.363	4.150	-19.090
623.130	-4.825	-30.091	-34.916	-22.706	4.107	-19.090
623.140	-4.959	-30.133	-35.092	-22.882	4.063	-19.090
623.150	-6.035	-30.173	-36.208	-23.998	4.019	-19.090
623.160	-4.087	-30.238	-34.325	-22.115	3.976	-19.090
623.170	-4.255	-30.318	-34.573	-22.363	3.932	-19.090
623.180	-4.653	-30.351	-35.004	-22.794	3.887	-19.090
623.190	-6.444	-30.393	-36.837	-24.627	3.843	-19.090
623.200	-5.244	-30.444	-35.688	-23.478	3.799	-19.090
623.210	-5.513	-30.528	-36.041	-23.831	3.754	-19.090
623.220	-4.420	-30.582	-35.002	-22.792	3.710	-19.090
623.230	-3.810	-30.635	-34.445	-22.235	3.665	-19.090
623.240	-4.113	-30.683	-34.796	-22.586	3.620	-19.090
623.250	-4.226	-30.740	-34.966	-22.756	3.575	-19.090
623.260	-4.548	-30.826	-35.374	-23.164	3.530	-19.090
623.270	-5.750	-30.896	-36.646	-24.436	3.484	-19.090
623.280	-4.995	-30.905	-35.900	-23.690	3.439	-19.090
623.290	-4.565	-30.958	-35.523	-23.313	3.393	-19.090
623.300	-5.969	-31.033	-37.002	-24.792	3.347	-19.090
623.310	-6.060	-31.096	-37.156	-24.946	3.302	-19.090
623.320	-5.746	-31.170	-36.916	-24.706	3.256	-19.090
623.330	-5.294	-31.216	-36.510	-24.300	3.209	-19.090
623.340	-6.193	-31.247	-37.440	-25.230	3.163	-19.090
623.350	-4.090	-31.305	-35.395	-23.185	3.117	-19.090
623.360	-4.058	-31.412	-35.470	-23.260	3.070	-19.090
623.370	-6.112	-31.426	-37.538	-25.328	3.023	-19.090
623.380	-5.905	-31.468	-37.373	-25.163	2.976	-19.090
623.390	-5.791	-31.528	-37.319	-25.109	2.929	-19.090
623.400	-4.316	-31.593	-35.909	-23.699	2.882	-19.090
623.410	-6.844	-31.645	-38.489	-26.279	2.835	-19.090
623.420	-5.598	-31.703	-37.301	-25.091	2.787	-19.090
623.430	-4.806	-31.756	-36.562	-24.352	2.740	-19.090
623.440	-3.793	-31.800	-35.593	-23.383	2.692	-19.090
623.450	-6.424	-31.864	-38.288	-26.078	2.644	-19.090
623.460	-6.226	-31.932	-38.158	-25.948	2.596	-19.090
623.470	-5.024	-31.976	-37.000	-24.790	2.548	-19.090
623.480	-4.626	-32.029	-36.655	-24.445	2.500	-19.090
623.490	-5.599	-32.088	-37.687	-25.477	2.452	-19.090
623.500	-5.395	-32.163	-37.558	-25.348	2.403	-19.090
623.510	-5.791	-32.205	-37.996	-25.786	2.354	-19.090

623.520	-5.932	-32.236	-38.168	-25.958	2.306	-19.090
623.530	-6.317	-32.303	-38.620	-26.410	2.257	-19.090
623.540	-5.843	-32.341	-38.184	-25.974	2.207	-19.090
623.550	-6.571	-32.403	-38.974	-26.764	2.158	-19.090
623.560	-6.618	-32.461	-39.079	-26.869	2.109	-19.090
623.570	-5.898	-32.521	-38.419	-26.209	2.059	-19.090
623.580	-5.686	-32.560	-38.246	-26.036	2.010	-19.090
623.590	-5.544	-32.623	-38.167	-25.957	1.960	-19.090
623.600	-5.513	-32.675	-38.188	-25.978	1.910	-19.090
623.610	-6.822	-32.722	-39.544	-27.334	1.860	-19.090
623.620	-5.359	-32.795	-38.154	-25.944	1.810	-19.090
623.630	-5.259	-32.841	-38.100	-25.890	1.759	-19.090
623.640	-4.843	-32.908	-37.751	-25.541	1.709	-19.090
623.650	-5.044	-32.962	-38.006	-25.796	1.658	-19.090
623.660	-4.739	-32.991	-37.730	-25.520	1.607	-19.090
623.670	-6.228	-33.067	-39.295	-27.085	1.557	-19.090
623.680	-5.678	-33.098	-38.776	-26.566	1.506	-19.090
623.690	-5.976	-33.150	-39.126	-26.916	1.454	-19.090
623.700	-5.464	-33.200	-38.664	-26.454	1.403	-19.090
623.710	-4.926	-33.249	-38.175	-25.965	1.352	-19.090
623.720	-5.026	-33.292	-38.318	-26.108	1.300	-19.090
623.730	-5.150	-33.355	-38.505	-26.295	1.248	-19.090
623.740	-5.931	-33.419	-39.350	-27.140	1.196	-19.090
623.750	-4.186	-33.467	-37.653	-25.443	1.144	-19.090
623.760	-6.611	-33.549	-40.160	-27.950	1.092	-19.090
623.770	-4.353	-33.579	-37.932	-25.722	1.040	-19.090
623.780	-6.842	-33.615	-40.457	-28.247	0.987	-19.090
623.790	-6.045	-33.697	-39.742	-27.532	0.935	-19.090
623.800	-7.686	-33.743	-41.429	-29.219	0.882	-19.090
623.810	-8.210	-33.779	-41.989	-29.779	0.829	-19.090
623.820	-5.745	-33.811	-39.556	-27.346	0.776	-19.090
623.830	-7.760	-33.891	-41.651	-29.441	0.723	-19.090
623.840	-6.231	-33.955	-40.186	-27.976	0.670	-19.090
623.850	-6.664	-33.989	-40.653	-28.443	0.617	-19.090
623.860	-6.290	-34.040	-40.330	-28.120	0.563	-19.090
623.870	-4.953	-34.080	-39.033	-26.823	0.509	-19.090
623.880	-4.826	-34.130	-38.956	-26.746	0.456	-19.090
623.890	-7.104	-34.212	-41.316	-29.106	0.402	-19.090
623.900	-6.848	-34.240	-41.088	-28.878	0.347	-19.090
623.910	-6.445	-34.314	-40.759	-28.549	0.293	-19.090
623.920	-5.196	-34.356	-39.552	-27.342	0.239	-19.090
623.930	-6.840	-34.428	-41.268	-29.058	0.184	-19.090
623.940	-6.496	-34.455	-40.951	-28.741	0.130	-19.090
623.950	-6.863	-34.510	-41.373	-29.163	0.075	-19.090
623.960	-7.529	-34.553	-42.082	-29.872	0.020	-19.090
623.970	-6.875	-34.611	-41.486	-29.276	-0.035	-19.090

623.980	-7.087	-34.664	-41.751	-29.541	-0.090	-19.090
623.990	-6.445	-34.702	-41.147	-28.937	-0.146	-19.090
624.000	-5.157	-34.766	-39.923	-27.713	-0.201	-19.090
624.010	-6.594	-34.806	-41.400	-29.190	-0.257	-19.090
624.020	-6.201	-34.856	-41.057	-28.847	-0.313	-19.090
624.030	-7.606	-34.912	-42.518	-30.308	-0.368	-19.090
624.040	-4.130	-34.948	-39.078	-26.868	-0.424	-19.090
624.050	-6.506	-35.027	-41.533	-29.323	-0.481	-19.090
624.060	-4.404	-35.055	-39.459	-27.249	-0.537	-19.090
624.070	-6.279	-35.118	-41.397	-29.187	-0.593	-19.090
624.080	-6.428	-35.172	-41.600	-29.390	-0.650	-19.090
624.090	-6.535	-35.216	-41.751	-29.541	-0.707	-19.090
624.100	-7.053	-35.280	-42.333	-30.123	-0.764	-19.090
624.110	-7.179	-35.301	-42.480	-30.270	-0.821	-19.090
624.120	-6.422	-35.362	-41.784	-29.574	-0.878	-19.090
624.130	-6.508	-35.426	-41.934	-29.724	-0.935	-19.090
624.140	-5.222	-35.464	-40.686	-28.476	-0.993	-19.090
624.150	-5.089	-35.521	-40.610	-28.400	-1.050	-19.090
624.160	-7.334	-35.555	-42.889	-30.679	-1.108	-19.090
624.170	-6.904	-35.616	-42.520	-30.310	-1.166	-19.090
624.180	-5.012	-35.671	-40.683	-28.473	-1.224	-19.090
624.190	-7.267	-35.711	-42.978	-30.768	-1.282	-19.090
624.200	-9.276	-35.741	-45.017	-32.807	-1.340	-19.090
624.210	-9.923	-35.793	-45.716	-33.506	-1.398	-19.090
624.220	-6.631	-35.855	-42.486	-30.276	-1.457	-19.090
624.230	-7.788	-35.914	-43.702	-31.492	-1.516	-19.090
624.240	-8.514	-35.955	-44.469	-32.259	-1.574	-19.090
624.250	-7.462	-36.003	-43.465	-31.255	-1.633	-19.090
624.260	-7.830	-36.050	-43.880	-31.670	-1.693	-19.090
624.270	-8.995	-36.081	-45.076	-32.866	-1.752	-19.090
624.280	-8.805	-36.132	-44.937	-32.727	-1.811	-19.090
624.290	-7.907	-36.173	-44.080	-31.870	-1.871	-19.090
624.300	-7.384	-36.246	-43.630	-31.420	-1.930	-19.090
624.310	-6.120	-36.303	-42.423	-30.213	-1.990	-19.090
624.320	-5.921	-36.356	-42.277	-30.067	-2.050	-19.090
624.330	-6.922	-36.382	-43.304	-31.094	-2.110	-19.090
624.340	-8.269	-36.447	-44.716	-32.506	-2.170	-19.090
624.350	-7.455	-36.485	-43.940	-31.730	-2.231	-19.090
624.360	-6.430	-36.542	-42.972	-30.762	-2.291	-19.090
624.370	-9.405	-36.585	-45.990	-33.780	-2.352	-19.090
624.380	-7.274	-36.627	-43.901	-31.691	-2.413	-19.090
624.390	-8.140	-36.723	-44.863	-32.653	-2.473	-19.090
624.400	-6.740	-36.735	-43.475	-31.265	-2.534	-19.090
624.410	-9.742	-36.793	-46.535	-34.325	-2.596	-19.090
624.420	-7.509	-36.815	-44.324	-32.114	-2.657	-19.090
624.430	-6.869	-36.878	-43.747	-31.537	-2.718	-19.090

624.440	-7.426	-36.925	-44.351	-32.141	-2.780	-19.090
624.450	-9.660	-36.952	-46.612	-34.402	-2.842	-19.090
624.460	-10.649	-37.060	-47.709	-35.499	-2.904	-19.090
624.470	-6.518	-37.078	-43.596	-31.386	-2.966	-19.090
624.480	-9.799	-37.096	-46.895	-34.685	-3.028	-19.090
624.490	-7.294	-37.174	-44.468	-32.258	-3.090	-19.090
624.500	-8.876	-37.211	-46.087	-33.877	-3.153	-19.090
624.510	-6.900	-37.274	-44.174	-31.964	-3.215	-19.090
624.520	-7.263	-37.306	-44.569	-32.359	-3.278	-19.090
624.530	-8.669	-37.369	-46.038	-33.828	-3.341	-19.090
624.540	-9.263	-37.396	-46.659	-34.449	-3.404	-19.090
624.550	-10.518	-37.422	-47.940	-35.730	-3.467	-19.090
624.560	-8.823	-37.490	-46.313	-34.103	-3.530	-19.090
624.570	-7.735	-37.554	-45.289	-33.079	-3.593	-19.090
624.580	-8.374	-37.591	-45.965	-33.755	-3.657	-19.090
624.590	-8.855	-37.674	-46.529	-34.319	-3.721	-19.090
624.600	-8.551	-37.689	-46.240	-34.030	-3.784	-19.090
624.610	-8.065	-37.732	-45.797	-33.587	-3.848	-19.090
624.620	-7.418	-37.774	-45.192	-32.982	-3.913	-19.090
624.630	-10.173	-37.822	-47.995	-35.785	-3.977	-19.090
624.640	-7.668	-37.878	-45.546	-33.336	-4.041	-19.090
624.650	-8.727	-37.909	-46.636	-34.426	-4.106	-19.090
624.660	-11.178	-37.970	-49.148	-36.938	-4.170	-19.090
624.670	-9.301	-37.972	-47.273	-35.063	-4.235	-19.090
624.680	-8.993	-38.012	-47.005	-34.795	-4.300	-19.090
624.690	-10.143	-38.097	-48.240	-36.030	-4.365	-19.090
624.700	-9.730	-38.144	-47.874	-35.664	-4.430	-19.090
624.710	-9.806	-38.203	-48.009	-35.799	-4.496	-19.090
624.720	-6.760	-38.236	-44.996	-32.786	-4.561	-19.090
624.730	-7.187	-38.295	-45.482	-33.272	-4.627	-19.090
624.740	-10.323	-38.303	-48.626	-36.416	-4.693	-19.090
624.750	-10.092	-38.367	-48.459	-36.249	-4.758	-19.090
624.760	-7.678	-38.404	-46.082	-33.872	-4.824	-19.090
624.770	-10.047	-38.463	-48.510	-36.300	-4.891	-19.090
624.780	-10.444	-38.499	-48.943	-36.733	-4.957	-19.090
624.790	-8.838	-38.593	-47.431	-35.221	-5.023	-19.090
624.800	-8.390	-38.619	-47.009	-34.799	-5.090	-19.090
624.810	-10.269	-38.658	-48.927	-36.717	-5.157	-19.090
624.820	-9.002	-38.698	-47.700	-35.490	-5.224	-19.090
624.830	-8.357	-38.745	-47.102	-34.892	-5.291	-19.090
624.840	-9.401	-38.799	-48.200	-35.990	-5.358	-19.090
624.850	-9.873	-38.824	-48.697	-36.487	-5.425	-19.090
624.860	-10.873	-38.859	-49.732	-37.522	-5.493	-19.090
624.870	-10.307	-38.949	-49.256	-37.046	-5.560	-19.090
624.880	-11.767	-38.978	-50.745	-38.535	-5.628	-19.090
624.890	-8.826	-39.041	-47.867	-35.657	-5.696	-19.090

624.900	-9.573	-39.020	-48.593	-36.383	-5.764	-19.090
624.910	-9.550	-39.105	-48.655	-36.445	-5.832	-19.090
624.920	-10.677	-39.147	-49.824	-37.614	-5.900	-19.090
624.930	-10.233	-39.204	-49.437	-37.227	-5.968	-19.090
624.940	-10.820	-39.231	-50.051	-37.841	-6.037	-19.090
624.950	-9.866	-39.287	-49.153	-36.943	-6.106	-19.090
624.960	-10.200	-39.324	-49.524	-37.314	-6.174	-19.090
624.970	-9.243	-39.373	-48.616	-36.406	-6.243	-19.090
624.980	-8.400	-39.391	-47.791	-35.581	-6.313	-19.090
624.990	-9.136	-39.489	-48.625	-36.415	-6.382	-19.090
625.000	-10.433	-39.680	-50.113	-37.903	-6.451	-19.090
625.010	-9.090	-39.544	-48.634	-36.424	-6.521	-19.090
625.020	-11.484	-39.573	-51.057	-38.847	-6.590	-19.090
625.030	-9.631	-39.626	-49.257	-37.047	-6.660	-19.090
625.040	-9.493	-39.674	-49.167	-36.957	-6.730	-19.090
625.050	-9.777	-39.751	-49.528	-37.318	-6.800	-19.090
625.060	-7.925	-39.833	-47.758	-35.548	-6.870	-19.090
625.070	-8.547	-39.795	-48.342	-36.132	-6.941	-19.090
625.080	-8.135	-39.877	-48.012	-35.802	-7.011	-19.090
625.090	-9.154	-39.923	-49.077	-36.867	-7.082	-19.090
625.100	-10.929	-39.934	-50.863	-38.653	-7.153	-19.090
625.110	-12.688	-39.974	-52.662	-40.452	-7.223	-19.090
625.120	-11.640	-40.041	-51.681	-39.471	-7.294	-19.090
625.130	-12.769	-40.067	-52.836	-40.626	-7.366	-19.090
625.140	-10.714	-40.112	-50.826	-38.616	-7.437	-19.090
625.150	-12.108	-40.160	-52.268	-40.058	-7.508	-19.090
625.160	-11.054	-40.234	-51.288	-39.078	-7.580	-19.090
625.170	-9.807	-40.294	-50.101	-37.891	-7.652	-19.090
625.180	-12.280	-40.310	-52.590	-40.380	-7.724	-19.090
625.190	-11.255	-40.325	-51.580	-39.370	-7.796	-19.090
625.200	-10.975	-40.407	-51.382	-39.172	-7.868	-19.090
625.210	-11.836	-40.398	-52.234	-40.024	-7.940	-19.090
625.220	-11.198	-40.472	-51.670	-39.460	-8.013	-19.090
625.230	-12.772	-40.500	-53.272	-41.062	-8.085	-19.090
625.240	-10.418	-40.530	-50.948	-38.738	-8.158	-19.090
625.250	-12.669	-40.623	-53.292	-41.082	-8.231	-19.090
625.260	-10.766	-40.651	-51.417	-39.207	-8.304	-19.090
625.270	-12.329	-40.705	-53.034	-40.824	-8.377	-19.090
625.280	-10.396	-40.734	-51.130	-38.920	-8.450	-19.090
625.290	-11.865	-40.780	-52.645	-40.435	-8.523	-19.090
625.300	-12.187	-40.857	-53.044	-40.834	-8.597	-19.090
625.310	-11.326	-40.838	-52.164	-39.954	-8.671	-19.090
625.320	-12.872	-40.893	-53.765	-41.555	-8.744	-19.090
625.330	-12.366	-40.932	-53.298	-41.088	-8.818	-19.090
625.340	-10.728	-40.958	-51.686	-39.476	-8.893	-19.090
625.350	-13.147	-41.047	-54.194	-41.984	-8.967	-19.090

625.360	-11.486	-41.060	-52.546	-40.336	-9.041	-19.090
625.370	-12.766	-41.130	-53.896	-41.686	-9.116	-19.090
625.380	-12.440	-41.135	-53.575	-41.365	-9.190	-19.090
625.390	-11.762	-41.230	-52.992	-40.782	-9.265	-19.090
625.400	-12.835	-41.274	-54.109	-41.899	-9.340	-19.090
625.410	-14.497	-41.300	-55.797	-43.587	-9.415	-19.090
625.420	-14.490	-41.350	-55.840	-43.630	-9.490	-19.090
625.430	-13.779	-41.339	-55.118	-42.908	-9.566	-19.090
625.440	-12.575	-41.441	-54.016	-41.806	-9.641	-19.090
625.450	-11.627	-41.444	-53.071	-40.861	-9.717	-19.090
625.460	-14.745	-41.502	-56.247	-44.037	-9.793	-19.090
625.470	-13.576	-41.514	-55.090	-42.880	-9.868	-19.090
625.480	-13.452	-41.585	-55.037	-42.827	-9.944	-19.090
625.490	-13.153	-41.628	-54.781	-42.571	-10.021	-19.090
625.500	-13.614	-41.649	-55.263	-43.053	-10.097	-19.090
625.510	-12.779	-41.669	-54.448	-42.238	-10.173	-19.090
625.520	-14.058	-41.710	-55.768	-43.558	-10.250	-19.090
625.530	-12.105	-41.773	-53.878	-41.668	-10.327	-19.090
625.540	-12.965	-41.822	-54.787	-42.577	-10.404	-19.090
625.550	-13.050	-41.843	-54.893	-42.683	-10.481	-19.090
625.560	-13.108	-41.912	-55.020	-42.810	-10.558	-19.090
625.570	-12.042	-41.968	-54.010	-41.800	-10.635	-19.090
625.580	-13.195	-42.001	-55.196	-42.986	-10.713	-19.090
625.590	-11.951	-42.021	-53.972	-41.762	-10.790	-19.090
625.600	-13.498	-42.058	-55.556	-43.346	-10.868	-19.090
625.610	-11.364	-42.124	-53.488	-41.278	-10.946	-19.090
625.620	-14.321	-42.167	-56.488	-44.278	-11.024	-19.090
625.630	-14.067	-42.203	-56.270	-44.060	-11.102	-19.090
625.640	-13.736	-42.278	-56.014	-43.804	-11.180	-19.090
625.650	-10.918	-42.305	-53.223	-41.013	-11.258	-19.090
625.660	-13.895	-42.326	-56.221	-44.011	-11.337	-19.090
625.670	-12.835	-42.396	-55.231	-43.021	-11.416	-19.090
625.680	-12.381	-42.393	-54.774	-42.564	-11.494	-19.090
625.690	-13.071	-42.431	-55.502	-43.292	-11.573	-19.090
625.700	-12.696	-42.485	-55.181	-42.971	-11.653	-19.090
625.710	-13.452	-42.486	-55.938	-43.728	-11.732	-19.090
625.720	-10.584	-42.568	-53.152	-40.942	-11.811	-19.090
625.730	-12.271	-42.630	-54.901	-42.691	-11.891	-19.090
625.740	-13.973	-42.660	-56.633	-44.423	-11.970	-19.090
625.750	-12.128	-42.707	-54.835	-42.625	-12.050	-19.090
625.760	-12.942	-42.738	-55.680	-43.470	-12.130	-19.090
625.770	-12.267	-42.809	-55.076	-42.866	-12.210	-19.090
625.780	-13.164	-42.820	-55.984	-43.774	-12.290	-19.090
625.790	-13.744	-42.913	-56.657	-44.447	-12.371	-19.090
625.800	-11.672	-42.928	-54.600	-42.390	-12.451	-19.090
625.810	-11.966	-42.919	-54.885	-42.675	-12.532	-19.090

625.820	-15.273	-42.976	-58.249	-46.039	-12.613	-19.090
625.830	-13.963	-42.994	-56.957	-44.747	-12.693	-19.090
625.840	-13.190	-43.035	-56.225	-44.015	-12.774	-19.090
625.850	-14.265	-43.084	-57.349	-45.139	-12.856	-19.090
625.860	-13.968	-43.111	-57.079	-44.869	-12.937	-19.090
625.870	-14.838	-43.160	-57.998	-45.788	-13.018	-19.090
625.880	-13.594	-43.255	-56.849	-44.639	-13.100	-19.090
625.890	-12.683	-43.265	-55.948	-43.738	-13.182	-19.090
625.900	-13.210	-43.309	-56.519	-44.309	-13.264	-19.090
625.910	-13.120	-43.312	-56.432	-44.222	-13.346	-19.090
625.920	-12.839	-43.352	-56.191	-43.981	-13.428	-19.090
625.930	-11.571	-43.428	-54.999	-42.789	-13.510	-19.090
625.940	-13.890	-43.395	-57.285	-45.075	-13.593	-19.090
625.950	-11.102	-43.473	-54.575	-42.365	-13.675	-19.090
625.960	-15.118	-43.587	-58.705	-46.495	-13.758	-19.090
625.970	-13.705	-43.559	-57.264	-45.054	-13.841	-19.090
625.980	-12.987	-43.579	-56.566	-44.356	-13.924	-19.090
625.990	-14.616	-43.686	-58.302	-46.092	-14.007	-19.090
626.000	-14.579	-43.680	-58.259	-46.049	-14.090	-19.090
626.010	-13.716	-43.704	-57.420	-45.210	-14.090	-19.090
626.020	-14.210	-43.772	-57.982	-45.772	-14.090	-19.090
626.030	-15.799	-43.800	-59.599	-47.389	-14.090	-19.090
626.040	-12.214	-43.863	-56.077	-43.867	-14.090	-19.090
626.050	-11.108	-43.885	-54.993	-42.783	-14.090	-19.090
626.060	-11.350	-43.925	-55.275	-43.065	-14.090	-19.090
626.070	-13.235	-43.984	-57.219	-45.009	-14.090	-19.090
626.080	-13.715	-44.026	-57.741	-45.531	-14.090	-19.090
626.090	-13.851	-44.059	-57.910	-45.700	-14.090	-19.090
626.100	-14.469	-44.097	-58.566	-46.356	-14.090	-19.090
626.110	-14.144	-44.108	-58.252	-46.042	-14.090	-19.090
626.120	-15.077	-44.197	-59.274	-47.064	-14.090	-19.090
626.130	-13.479	-44.244	-57.723	-45.513	-14.090	-19.090
626.140	-11.798	-44.220	-56.018	-43.808	-14.090	-19.090
626.150	-13.713	-44.285	-57.998	-45.788	-14.090	-19.090
626.160	-12.706	-44.253	-56.959	-44.749	-14.090	-19.090
626.170	-13.787	-44.360	-58.147	-45.937	-14.090	-19.090
626.180	-12.259	-44.413	-56.672	-44.462	-14.090	-19.090
626.190	-14.558	-44.403	-58.961	-46.751	-14.090	-19.090
626.200	-13.099	-44.457	-57.556	-45.346	-14.090	-19.090
626.210	-12.231	-44.506	-56.737	-44.527	-14.090	-19.090
626.220	-14.417	-44.576	-58.993	-46.783	-14.090	-19.090
626.230	-16.317	-44.591	-60.908	-48.698	-14.090	-19.090
626.240	-15.799	-44.664	-60.463	-48.253	-14.090	-19.090
626.250	-12.736	-44.700	-57.436	-45.226	-14.090	-19.090
626.260	-13.103	-44.721	-57.824	-45.614	-14.090	-19.090
626.270	-13.802	-44.753	-58.555	-46.345	-14.090	-19.090

626.280	-14.394	-44.763	-59.157	-46.947	-14.090	-19.090
626.290	-12.336	-44.824	-57.160	-44.950	-14.090	-19.090
626.300	-14.249	-44.834	-59.083	-46.873	-14.090	-19.090
626.310	-13.465	-44.913	-58.378	-46.168	-14.090	-19.090
626.320	-12.438	-44.975	-57.413	-45.203	-14.090	-19.090
626.330	-11.855	-44.973	-56.828	-44.618	-14.090	-19.090
626.340	-14.395	-45.031	-59.426	-47.216	-14.090	-19.090
626.350	-15.884	-45.037	-60.921	-48.711	-14.090	-19.090
626.360	-16.002	-45.060	-61.062	-48.852	-14.090	-19.090
626.370	-13.658	-45.074	-58.732	-46.522	-14.090	-19.090
626.380	-13.926	-45.143	-59.069	-46.859	-14.090	-19.090
626.390	-13.542	-45.200	-58.742	-46.532	-14.090	-19.090
626.400	-14.220	-45.271	-59.491	-47.281	-14.090	-19.090
626.410	-15.118	-45.323	-60.441	-48.231	-14.090	-19.090
626.420	-15.232	-45.295	-60.527	-48.317	-14.090	-19.090
626.430	-15.558	-45.375	-60.933	-48.723	-14.090	-19.090
626.440	-14.597	-45.419	-60.016	-47.806	-14.090	-19.090
626.450	-13.989	-45.418	-59.407	-47.197	-14.090	-19.090
626.460	-14.206	-45.457	-59.663	-47.453	-14.090	-19.090
626.470	-14.610	-45.497	-60.107	-47.897	-14.090	-19.090
626.480	-14.422	-45.561	-59.983	-47.773	-14.090	-19.090
626.490	-13.802	-45.549	-59.351	-47.141	-14.090	-19.090
626.500	-13.615	-45.628	-59.243	-47.033	-14.090	-19.090
626.510	-12.839	-45.623	-58.462	-46.252	-14.090	-19.090
626.520	-14.415	-45.692	-60.107	-47.897	-14.090	-19.090
626.530	-14.234	-45.716	-59.950	-47.740	-14.090	-19.090
626.540	-14.682	-45.722	-60.404	-48.194	-14.090	-19.090
626.550	-13.001	-45.790	-58.791	-46.581	-14.090	-19.090
626.560	-13.073	-45.823	-58.896	-46.686	-14.090	-19.090
626.570	-13.730	-45.865	-59.595	-47.385	-14.090	-19.090
626.580	-15.479	-45.888	-61.367	-49.157	-14.090	-19.090
626.590	-14.992	-45.938	-60.930	-48.720	-14.090	-19.090
626.600	-14.094	-46.008	-60.102	-47.892	-14.090	-19.090
626.610	-15.025	-46.011	-61.036	-48.826	-14.090	-19.090
626.620	-12.863	-46.047	-58.910	-46.700	-14.090	-19.090
626.630	-16.930	-46.121	-63.051	-50.841	-14.090	-19.090
626.640	-15.027	-46.166	-61.193	-48.983	-14.090	-19.090
626.650	-14.657	-46.166	-60.823	-48.613	-14.090	-19.090
626.660	-13.516	-46.204	-59.720	-47.510	-14.090	-19.090
626.670	-13.999	-46.245	-60.244	-48.034	-14.090	-19.090
626.680	-13.574	-46.298	-59.872	-47.662	-14.090	-19.090
626.690	-15.974	-46.328	-62.302	-50.092	-14.090	-19.090
626.700	-13.583	-46.298	-59.881	-47.671	-14.090	-19.090
626.710	-13.419	-46.400	-59.819	-47.609	-14.090	-19.090
626.720	-15.904	-46.405	-62.309	-50.099	-14.090	-19.090
626.730	-14.474	-46.399	-60.873	-48.663	-14.090	-19.090

626.740	-15.583	-46.489	-62.072	-49.862	-14.090	-19.090
626.750	-14.970	-46.561	-61.531	-49.321	-14.090	-19.090
626.760	-13.979	-46.584	-60.563	-48.353	-14.090	-19.090
626.770	-14.530	-46.634	-61.164	-48.954	-14.090	-19.090
626.780	-13.595	-46.678	-60.273	-48.063	-14.090	-19.090
626.790	-15.155	-46.657	-61.812	-49.602	-14.090	-19.090
626.800	-13.974	-46.691	-60.665	-48.455	-14.090	-19.090
626.810	-15.566	-46.795	-62.361	-50.151	-14.090	-19.090
626.820	-15.797	-46.834	-62.631	-50.421	-14.090	-19.090
626.830	-16.543	-46.828	-63.371	-51.161	-14.090	-19.090
626.840	-15.349	-46.896	-62.245	-50.035	-14.090	-19.090
626.850	-14.803	-46.876	-61.679	-49.469	-14.090	-19.090
626.860	-15.321	-46.916	-62.237	-50.027	-14.090	-19.090
626.870	-14.126	-47.005	-61.131	-48.921	-14.090	-19.090
626.880	-14.617	-47.018	-61.635	-49.425	-14.090	-19.090
626.890	-14.623	-47.010	-61.633	-49.423	-14.090	-19.090
626.900	-14.595	-47.076	-61.671	-49.461	-14.090	-19.090
626.910	-14.749	-47.118	-61.867	-49.657	-14.090	-19.090
626.920	-15.530	-47.131	-62.661	-50.451	-14.090	-19.090
626.930	-15.286	-47.218	-62.504	-50.294	-14.090	-19.090
626.940	-15.820	-47.238	-63.058	-50.848	-14.090	-19.090
626.950	-15.042	-47.292	-62.334	-50.124	-14.090	-19.090
626.960	-15.823	-47.301	-63.124	-50.914	-14.090	-19.090
626.970	-14.452	-47.306	-61.758	-49.548	-14.090	-19.090
626.980	-14.592	-47.403	-61.995	-49.785	-14.090	-19.090
626.990	-13.913	-47.355	-61.268	-49.058	-14.090	-19.090
627.000	-12.674	-47.376	-60.050	-47.840	-14.090	-19.090
627.010	-14.479	-47.504	-61.983	-49.773	-14.090	-19.090
627.020	-13.877	-47.566	-61.443	-49.233	-14.090	-19.090
627.030	-15.380	-47.497	-62.877	-50.667	-14.090	-19.090
627.040	-14.306	-47.607	-61.913	-49.703	-14.090	-19.090
627.050	-17.900	-47.624	-65.524	-53.314	-14.090	-19.090
627.060	-14.918	-47.604	-62.522	-50.312	-14.090	-19.090
627.070	-16.694	-47.745	-64.439	-52.229	-14.090	-19.090
627.080	-15.818	-47.737	-63.555	-51.345	-14.090	-19.090
627.090	-14.315	-47.806	-62.121	-49.911	-14.090	-19.090
627.100	-15.838	-47.790	-63.628	-51.418	-14.090	-19.090
627.110	-15.195	-47.879	-63.074	-50.864	-14.090	-19.090
627.120	-15.312	-47.912	-63.224	-51.014	-14.090	-19.090
627.130	-14.679	-47.914	-62.593	-50.383	-14.090	-19.090
627.140	-13.745	-47.917	-61.662	-49.452	-14.090	-19.090
627.150	-15.692	-47.955	-63.647	-51.437	-14.090	-19.090
627.160	-14.596	-47.983	-62.579	-50.369	-14.090	-19.090
627.170	-14.892	-48.010	-62.902	-50.692	-14.090	-19.090
627.180	-16.096	-48.047	-64.143	-51.933	-14.090	-19.090
627.190	-14.414	-48.103	-62.517	-50.307	-14.090	-19.090

627.200	-15.370	-48.185	-63.555	-51.345	-14.090	-19.090
627.210	-15.978	-48.087	-64.065	-51.855	-14.090	-19.090
627.220	-15.496	-48.227	-63.723	-51.513	-14.090	-19.090
627.230	-15.689	-48.206	-63.895	-51.685	-14.090	-19.090
627.240	-13.896	-48.264	-62.160	-49.950	-14.090	-19.090
627.250	-15.937	-48.213	-64.150	-51.940	-14.090	-19.090
627.260	-15.204	-48.429	-63.633	-51.423	-14.090	-19.090
627.270	-14.066	-48.389	-62.455	-50.245	-14.090	-19.090
627.280	-15.233	-48.416	-63.649	-51.439	-14.090	-19.090
627.290	-15.439	-48.468	-63.907	-51.697	-14.090	-19.090
627.300	-14.933	-48.553	-63.486	-51.276	-14.090	-19.090
627.310	-17.995	-48.574	-66.569	-54.359	-14.090	-19.090
627.320	-16.734	-48.597	-65.331	-53.121	-14.090	-19.090
627.330	-15.366	-48.624	-63.990	-51.780	-14.090	-19.090
627.340	-14.496	-48.556	-63.052	-50.842	-14.090	-19.090
627.350	-16.403	-48.597	-65.000	-52.790	-14.090	-19.090
627.360	-17.087	-48.707	-65.794	-53.584	-14.090	-19.090
627.370	-13.017	-48.691	-61.708	-49.498	-14.090	-19.090
627.380	-15.554	-48.744	-64.298	-52.088	-14.090	-19.090
627.390	-15.682	-48.815	-64.497	-52.287	-14.090	-19.090
627.400	-15.672	-48.866	-64.538	-52.328	-14.090	-19.090
627.410	-15.309	-48.785	-64.094	-51.884	-14.090	-19.090
627.420	-17.131	-48.874	-66.005	-53.795	-14.090	-19.090
627.430	-16.835	-48.986	-65.821	-53.611	-14.090	-19.090
627.440	-14.608	-48.957	-63.565	-51.355	-14.090	-19.090
627.450	-15.190	-49.103	-64.293	-52.083	-14.090	-19.090
627.460	-15.884	-49.023	-64.907	-52.697	-14.090	-19.090
627.470	-18.145	-49.140	-67.285	-55.075	-14.090	-19.090
627.480	-16.872	-49.117	-65.989	-53.779	-14.090	-19.090
627.490	-14.999	-49.131	-64.130	-51.920	-14.090	-19.090
627.500	-14.815	-49.188	-64.003	-51.793	-14.090	-19.090
627.510	-16.044	-49.235	-65.279	-53.069	-14.090	-19.090
627.520	-15.295	-49.250	-64.545	-52.335	-14.090	-19.090
627.530	-14.904	-49.234	-64.138	-51.928	-14.090	-19.090
627.540	-13.090	-49.351	-62.441	-50.231	-14.090	-19.090
627.550	-15.481	-49.374	-64.855	-52.645	-14.090	-19.090
627.560	-14.718	-49.398	-64.116	-51.906	-14.090	-19.090
627.570	-16.007	-49.395	-65.402	-53.192	-14.090	-19.090
627.580	-15.640	-49.449	-65.089	-52.879	-14.090	-19.090
627.590	-16.128	-49.510	-65.638	-53.428	-14.090	-19.090
627.600	-14.793	-49.515	-64.308	-52.098	-14.090	-19.090
627.610	-16.256	-49.530	-65.786	-53.576	-14.090	-19.090
627.620	-14.984	-49.592	-64.576	-52.366	-14.090	-19.090
627.630	-15.825	-49.586	-65.411	-53.201	-14.090	-19.090
627.640	-15.571	-49.689	-65.260	-53.050	-14.090	-19.090
627.650	-17.962	-49.648	-67.610	-55.400	-14.090	-19.090

627.660	-16.108	-49.786	-65.894	-53.684	-14.090	-19.090
627.670	-15.999	-49.783	-65.782	-53.572	-14.090	-19.090
627.680	-16.033	-49.806	-65.839	-53.629	-14.090	-19.090
627.690	-16.206	-49.833	-66.039	-53.829	-14.090	-19.090
627.700	-16.081	-49.867	-65.948	-53.738	-14.090	-19.090
627.710	-15.139	-49.848	-64.987	-52.777	-14.090	-19.090
627.720	-15.734	-49.934	-65.668	-53.458	-14.090	-19.090
627.730	-15.642	-49.962	-65.604	-53.394	-14.090	-19.090
627.740	-14.663	-50.021	-64.684	-52.474	-14.090	-19.090
627.750	-14.288	-50.026	-64.314	-52.104	-14.090	-19.090
627.760	-14.435	-50.098	-64.533	-52.323	-14.090	-19.090
627.770	-16.239	-50.072	-66.311	-54.101	-14.090	-19.090
627.780	-16.494	-50.084	-66.578	-54.368	-14.090	-19.090
627.790	-15.838	-50.202	-66.040	-53.830	-14.090	-19.090
627.800	-17.907	-50.206	-68.113	-55.903	-14.090	-19.090
627.810	-16.384	-50.267	-66.651	-54.441	-14.090	-19.090
627.820	-17.265	-50.265	-67.530	-55.320	-14.090	-19.090
627.830	-18.202	-50.293	-68.495	-56.285	-14.090	-19.090
627.840	-15.883	-50.281	-66.164	-53.954	-14.090	-19.090
627.850	-18.150	-50.430	-68.580	-56.370	-14.090	-19.090
627.860	-15.622	-50.475	-66.097	-53.887	-14.090	-19.090
627.870	-16.290	-50.414	-66.704	-54.494	-14.090	-19.090
627.880	-17.491	-50.421	-67.912	-55.702	-14.090	-19.090
627.890	-16.415	-50.480	-66.895	-54.685	-14.090	-19.090
627.900	-15.174	-50.532	-65.706	-53.496	-14.090	-19.090
627.910	-17.254	-50.573	-67.827	-55.617	-14.090	-19.090
627.920	-15.260	-50.640	-65.900	-53.690	-14.090	-19.090
627.930	-16.232	-50.627	-66.859	-54.649	-14.090	-19.090
627.940	-15.574	-50.655	-66.229	-54.019	-14.090	-19.090
627.950	-16.085	-50.713	-66.798	-54.588	-14.090	-19.090
627.960	-16.107	-50.623	-66.730	-54.520	-14.090	-19.090
627.970	-16.720	-50.696	-67.416	-55.206	-14.090	-19.090
627.980	-17.038	-50.776	-67.814	-55.604	-14.090	-19.090
627.990	-17.510	-50.787	-68.297	-56.087	-14.090	-19.090
628.000	-16.314	-50.720	-67.034	-54.824	-14.090	-19.090
628.010	-15.848	-50.810	-66.658	-54.448	-14.090	-19.090
628.020	-16.305	-50.918	-67.223	-55.013	-14.090	-19.090
628.030	-18.394	-50.886	-69.280	-57.070	-14.090	-19.090
628.040	-16.760	-51.064	-67.824	-55.614	-14.090	-19.090
628.050	-15.836	-50.983	-66.819	-54.609	-14.090	-19.090
628.060	-16.089	-51.000	-67.089	-54.879	-14.090	-19.090
628.070	-15.870	-51.135	-67.005	-54.795	-14.090	-19.090
628.080	-16.208	-51.135	-67.343	-55.133	-14.090	-19.090
628.090	-16.010	-51.099	-67.109	-54.899	-14.090	-19.090
628.100	-16.835	-51.102	-67.937	-55.727	-14.090	-19.090
628.110	-15.728	-51.271	-66.999	-54.789	-14.090	-19.090

628.120	-16.225	-51.299	-67.524	-55.314	-14.090	-19.090
628.130	-17.906	-51.232	-69.138	-56.928	-14.090	-19.090
628.140	-17.550	-51.277	-68.827	-56.617	-14.090	-19.090
628.150	-17.634	-51.251	-68.885	-56.675	-14.090	-19.090
628.160	-15.857	-51.406	-67.263	-55.053	-14.090	-19.090
628.170	-17.773	-51.389	-69.162	-56.952	-14.090	-19.090
628.180	-16.978	-51.354	-68.332	-56.122	-14.090	-19.090
628.190	-17.729	-51.388	-69.117	-56.907	-14.090	-19.090
628.200	-14.894	-51.477	-66.371	-54.161	-14.090	-19.090
628.210	-18.651	-51.503	-70.154	-57.944	-14.090	-19.090
628.220	-17.577	-51.512	-69.089	-56.879	-14.090	-19.090
628.230	-16.937	-51.531	-68.468	-56.258	-14.090	-19.090
628.240	-16.200	-51.589	-67.789	-55.579	-14.090	-19.090
628.250	-16.900	-51.698	-68.598	-56.388	-14.090	-19.090
628.260	-17.493	-51.714	-69.207	-56.997	-14.090	-19.090
628.270	-18.382	-51.714	-70.096	-57.886	-14.090	-19.090
628.280	-16.520	-51.696	-68.216	-56.006	-14.090	-19.090
628.290	-15.831	-51.735	-67.566	-55.356	-14.090	-19.090
628.300	-16.421	-51.720	-68.141	-55.931	-14.090	-19.090
628.310	-16.679	-51.840	-68.519	-56.309	-14.090	-19.090
628.320	-17.951	-51.938	-69.889	-57.679	-14.090	-19.090
628.330	-16.619	-51.852	-68.471	-56.261	-14.090	-19.090
628.340	-17.856	-51.894	-69.750	-57.540	-14.090	-19.090
628.350	-18.667	-52.013	-70.680	-58.470	-14.090	-19.090
628.360	-16.040	-51.948	-67.988	-55.778	-14.090	-19.090
628.370	-17.382	-52.066	-69.448	-57.238	-14.090	-19.090
628.380	-18.889	-52.012	-70.901	-58.691	-14.090	-19.090
628.390	-18.751	-52.078	-70.829	-58.619	-14.090	-19.090
628.400	-18.144	-52.216	-70.360	-58.150	-14.090	-19.090
628.410	-16.210	-52.149	-68.359	-56.149	-14.090	-19.090
628.420	-16.949	-52.343	-69.292	-57.082	-14.090	-19.090
628.430	-18.159	-52.234	-70.393	-58.183	-14.090	-19.090
628.440	-17.274	-52.338	-69.612	-57.402	-14.090	-19.090
628.450	-19.739	-52.344	-72.083	-59.873	-14.090	-19.090
628.460	-17.365	-52.296	-69.661	-57.451	-14.090	-19.090
628.470	-18.408	-52.235	-70.643	-58.433	-14.090	-19.090
628.480	-16.251	-52.394	-68.645	-56.435	-14.090	-19.090
628.490	-18.325	-52.281	-70.606	-58.396	-14.090	-19.090
628.500	-17.832	-52.382	-70.214	-58.004	-14.090	-19.090
628.510	-18.655	-52.572	-71.227	-59.017	-14.090	-19.090
628.520	-16.502	-52.491	-68.993	-56.783	-14.090	-19.090
628.530	-17.995	-52.438	-70.433	-58.223	-14.090	-19.090
628.540	-21.586	-52.542	-74.128	-61.918	-14.090	-19.090
628.550	-18.712	-52.442	-71.154	-58.944	-14.090	-19.090
628.560	-18.108	-52.563	-70.671	-58.461	-14.090	-19.090
628.570	-20.485	-52.546	-73.031	-60.821	-14.090	-19.090

628.580	-18.753	-52.706	-71.459	-59.249	-14.090	-19.090
628.590	-20.026	-52.804	-72.830	-60.620	-14.090	-19.090
628.600	-18.338	-52.716	-71.054	-58.844	-14.090	-19.090
628.610	-17.182	-52.780	-69.962	-57.752	-14.090	-19.090
628.620	-19.838	-52.793	-72.631	-60.421	-14.090	-19.090
628.630	-20.019	-52.823	-72.842	-60.632	-14.090	-19.090
628.640	-16.479	-52.893	-69.372	-57.162	-14.090	-19.090
628.650	-18.326	-52.936	-71.262	-59.052	-14.090	-19.090
628.660	-18.294	-52.913	-71.207	-58.997	-14.090	-19.090
628.670	-19.317	-52.911	-72.228	-60.018	-14.090	-19.090
628.680	-17.475	-52.967	-70.442	-58.232	-14.090	-19.090
628.690	-17.345	-52.954	-70.299	-58.089	-14.090	-19.090
628.700	-17.667	-53.121	-70.788	-58.578	-14.090	-19.090
628.710	-17.609	-53.055	-70.664	-58.454	-14.090	-19.090
628.720	-17.069	-53.169	-70.238	-58.028	-14.090	-19.090
628.730	-18.623	-53.263	-71.886	-59.676	-14.090	-19.090
628.740	-19.545	-53.176	-72.721	-60.511	-14.090	-19.090
628.750	-19.152	-53.109	-72.261	-60.051	-14.090	-19.090
628.760	-18.614	-53.332	-71.946	-59.736	-14.090	-19.090
628.770	-18.369	-53.343	-71.712	-59.502	-14.090	-19.090
628.780	-17.625	-53.250	-70.875	-58.665	-14.090	-19.090
628.790	-18.857	-53.336	-72.193	-59.983	-14.090	-19.090
628.800	-19.205	-53.307	-72.512	-60.302	-14.090	-19.090
628.810	-19.569	-53.400	-72.969	-60.759	-14.090	-19.090
628.820	-18.039	-53.399	-71.438	-59.228	-14.090	-19.090
628.830	-18.845	-53.420	-72.265	-60.055	-14.090	-19.090
628.840	-19.913	-53.458	-73.371	-61.161	-14.090	-19.090
628.850	-17.047	-53.540	-70.587	-58.377	-14.090	-19.090
628.860	-18.668	-53.468	-72.136	-59.926	-14.090	-19.090
628.870	-17.600	-53.559	-71.159	-58.949	-14.090	-19.090
628.880	-18.195	-53.598	-71.793	-59.583	-14.090	-19.090
628.890	-19.951	-53.732	-73.683	-61.473	-14.090	-19.090
628.900	-19.198	-53.642	-72.840	-60.630	-14.090	-19.090
628.910	-20.249	-53.736	-73.985	-61.775	-14.090	-19.090
628.920	-17.747	-53.687	-71.434	-59.224	-14.090	-19.090
628.930	-18.070	-53.702	-71.772	-59.562	-14.090	-19.090
628.940	-19.602	-53.938	-73.540	-61.330	-14.090	-19.090
628.950	-18.850	-53.748	-72.598	-60.388	-14.090	-19.090
628.960	-18.002	-53.927	-71.929	-59.719	-14.090	-19.090
628.970	-16.358	-53.975	-70.333	-58.123	-14.090	-19.090
628.980	-17.968	-53.853	-71.821	-59.611	-14.090	-19.090
628.990	-19.263	-53.868	-73.131	-60.921	-14.090	-19.090
629.000	-17.064	-53.859	-70.923	-58.713	-14.090	-19.090
629.010	-18.114	-53.895	-72.009	-59.799	-14.090	-19.090
629.020	-18.995	-53.887	-72.882	-60.672	-14.090	-19.090
629.030	-19.839	-54.032	-73.871	-61.661	-14.090	-19.090

629.040	-19.209	-53.940	-73.149	-60.939	-14.090	-19.090
629.050	-19.111	-53.988	-73.099	-60.889	-14.090	-19.090
629.060	-20.162	-54.254	-74.416	-62.206	-14.090	-19.090
629.070	-19.961	-54.140	-74.101	-61.891	-14.090	-19.090
629.080	-21.220	-54.162	-75.382	-63.172	-14.090	-19.090
629.090	-19.665	-54.196	-73.861	-61.651	-14.090	-19.090
629.100	-20.871	-54.113	-74.984	-62.774	-14.090	-19.090
629.110	-17.312	-54.356	-71.668	-59.458	-14.090	-19.090
629.120	-19.049	-54.264	-73.313	-61.103	-14.090	-19.090
629.130	-18.050	-54.404	-72.454	-60.244	-14.090	-19.090
629.140	-20.247	-54.344	-74.591	-62.381	-14.090	-19.090
629.150	-20.922	-54.403	-75.325	-63.115	-14.090	-19.090
629.160	-20.467	-54.388	-74.855	-62.645	-14.090	-19.090
629.170	-19.269	-54.501	-73.770	-61.560	-14.090	-19.090
629.180	-20.494	-54.506	-75.000	-62.790	-14.090	-19.090
629.190	-20.177	-54.424	-74.601	-62.391	-14.090	-19.090
629.200	-18.410	-54.474	-72.884	-60.674	-14.090	-19.090
629.210	-18.884	-54.497	-73.381	-61.171	-14.090	-19.090
629.220	-21.991	-54.554	-76.545	-64.335	-14.090	-19.090
629.230	-20.184	-54.635	-74.819	-62.609	-14.090	-19.090
629.240	-18.914	-54.757	-73.671	-61.461	-14.090	-19.090
629.250	-19.400	-54.748	-74.148	-61.938	-14.090	-19.090
629.260	-17.687	-54.612	-72.299	-60.089	-14.090	-19.090
629.270	-20.181	-54.646	-74.827	-62.617	-14.090	-19.090
629.280	-22.299	-54.759	-77.058	-64.848	-14.090	-19.090
629.290	-19.622	-54.813	-74.435	-62.225	-14.090	-19.090
629.300	-19.365	-54.791	-74.156	-61.946	-14.090	-19.090
629.310	-19.295	-54.706	-74.001	-61.791	-14.090	-19.090
629.320	-21.336	-54.965	-76.301	-64.091	-14.090	-19.090
629.330	-21.510	-54.740	-76.250	-64.040	-14.090	-19.090
629.340	-20.470	-54.956	-75.426	-63.216	-14.090	-19.090
629.350	-20.397	-55.103	-75.500	-63.290	-14.090	-19.090
629.360	-20.019	-54.979	-74.998	-62.788	-14.090	-19.090
629.370	-19.354	-55.044	-74.398	-62.188	-14.090	-19.090
629.380	-19.646	-55.057	-74.703	-62.493	-14.090	-19.090
629.390	-19.111	-55.050	-74.161	-61.951	-14.090	-19.090
629.400	-21.216	-55.144	-76.360	-64.150	-14.090	-19.090
629.410	-21.098	-55.185	-76.283	-64.073	-14.090	-19.090
629.420	-20.158	-55.224	-75.382	-63.172	-14.090	-19.090
629.430	-18.718	-55.140	-73.858	-61.648	-14.090	-19.090
629.440	-19.720	-55.023	-74.743	-62.533	-14.090	-19.090
629.450	-20.526	-55.271	-75.797	-63.587	-14.090	-19.090
629.460	-20.172	-55.212	-75.384	-63.174	-14.090	-19.090
629.470	-23.112	-55.420	-78.532	-66.322	-14.090	-19.090
629.480	-19.494	-55.496	-74.990	-62.780	-14.090	-19.090
629.490	-21.533	-55.328	-76.861	-64.651	-14.090	-19.090

629.500	-20.959	-55.314	-76.273	-64.063	-14.090	-19.090
629.510	-19.927	-55.377	-75.304	-63.094	-14.090	-19.090
629.520	-20.655	-55.403	-76.058	-63.848	-14.090	-19.090
629.530	-22.163	-55.520	-77.683	-65.473	-14.090	-19.090
629.540	-21.832	-55.577	-77.409	-65.199	-14.090	-19.090
629.550	-18.709	-55.627	-74.336	-62.126	-14.090	-19.090
629.560	-19.813	-55.596	-75.409	-63.199	-14.090	-19.090
629.570	-20.428	-55.646	-76.074	-63.864	-14.090	-19.090
629.580	-21.388	-55.712	-77.100	-64.890	-14.090	-19.090
629.590	-19.462	-55.679	-75.141	-62.931	-14.090	-19.090
629.600	-20.474	-55.667	-76.141	-63.931	-14.090	-19.090
629.610	-21.346	-55.519	-76.865	-64.655	-14.090	-19.090
629.620	-21.055	-55.691	-76.746	-64.536	-14.090	-19.090
629.630	-21.978	-55.800	-77.778	-65.568	-14.090	-19.090
629.640	-20.822	-55.736	-76.558	-64.348	-14.090	-19.090
629.650	-20.713	-55.719	-76.432	-64.222	-14.090	-19.090
629.660	-21.451	-55.743	-77.194	-64.984	-14.090	-19.090
629.670	-19.742	-55.786	-75.528	-63.318	-14.090	-19.090
629.680	-21.256	-55.911	-77.167	-64.957	-14.090	-19.090
629.690	-19.656	-55.961	-75.617	-63.407	-14.090	-19.090
629.700	-22.109	-56.029	-78.138	-65.928	-14.090	-19.090
629.710	-20.956	-55.931	-76.887	-64.677	-14.090	-19.090
629.720	-19.433	-55.990	-75.423	-63.213	-14.090	-19.090
629.730	-23.500	-56.109	-79.609	-67.399	-14.090	-19.090
629.740	-22.354	-56.066	-78.420	-66.210	-14.090	-19.090
629.750	-21.171	-56.114	-77.285	-65.075	-14.090	-19.090
629.760	-21.731	-56.210	-77.941	-65.731	-14.090	-19.090
629.770	-20.727	-56.257	-76.984	-64.774	-14.090	-19.090
629.780	-21.661	-56.238	-77.899	-65.689	-14.090	-19.090
629.790	-21.042	-56.216	-77.258	-65.048	-14.090	-19.090
629.800	-23.691	-56.282	-79.973	-67.763	-14.090	-19.090
629.810	-21.072	-56.288	-77.360	-65.150	-14.090	-19.090
629.820	-20.921	-56.200	-77.121	-64.911	-14.090	-19.090
629.830	-22.821	-56.309	-79.130	-66.920	-14.090	-19.090
629.840	-20.700	-56.351	-77.051	-64.841	-14.090	-19.090
629.850	-20.531	-56.355	-76.886	-64.676	-14.090	-19.090
629.860	-21.849	-56.456	-78.305	-66.095	-14.090	-19.090
629.870	-21.612	-56.461	-78.073	-65.863	-14.090	-19.090
629.880	-22.139	-56.265	-78.404	-66.194	-14.090	-19.090
629.890	-19.910	-56.498	-76.408	-64.198	-14.090	-19.090
629.900	-21.106	-56.556	-77.662	-65.452	-14.090	-19.090
629.910	-20.355	-56.529	-76.884	-64.674	-14.090	-19.090
629.920	-21.722	-56.646	-78.368	-66.158	-14.090	-19.090
629.930	-18.918	-56.493	-75.411	-63.201	-14.090	-19.090
629.940	-19.187	-56.734	-75.921	-63.711	-14.090	-19.090
629.950	-18.998	-56.683	-75.681	-63.471	-14.090	-19.090

629.960	-20.592	-56.821	-77.413	-65.203	-14.090	-19.090
629.970	-21.170	-56.836	-78.006	-65.796	-14.090	-19.090
629.980	-22.006	-56.733	-78.739	-66.529	-14.090	-19.090
629.990	-21.843	-56.786	-78.629	-66.419	-14.090	-19.090
630.000	-19.207	-56.815	-76.022	-63.812	-14.090	-19.090
630.010	-19.861	-56.877	-76.738	-64.528	-14.090	-19.090
630.020	-22.965	-56.876	-79.841	-67.631	-14.090	-19.090
630.030	-21.318	-56.899	-78.217	-66.007	-14.090	-19.090
630.040	-20.653	-57.064	-77.717	-65.507	-14.090	-19.090
630.050	-21.284	-56.975	-78.259	-66.049	-14.090	-19.090
630.060	-20.564	-56.822	-77.386	-65.176	-14.090	-19.090
630.070	-21.053	-57.010	-78.063	-65.853	-14.090	-19.090
630.080	-21.002	-56.908	-77.910	-65.700	-14.090	-19.090
630.090	-18.707	-57.034	-75.741	-63.531	-14.090	-19.090
630.100	-21.714	-57.220	-78.934	-66.724	-14.090	-19.090
630.110	-20.841	-57.038	-77.879	-65.669	-14.090	-19.090
630.120	-23.529	-57.088	-80.617	-68.407	-14.090	-19.090
630.130	-22.910	-57.171	-80.081	-67.871	-14.090	-19.090
630.140	-22.608	-57.177	-79.785	-67.575	-14.090	-19.090
630.150	-22.432	-57.191	-79.623	-67.413	-14.090	-19.090
630.160	-20.855	-57.299	-78.154	-65.944	-14.090	-19.090
630.170	-21.910	-57.274	-79.184	-66.974	-14.090	-19.090
630.180	-22.464	-57.319	-79.783	-67.573	-14.090	-19.090
630.190	-22.046	-57.310	-79.356	-67.146	-14.090	-19.090
630.200	-22.017	-57.217	-79.234	-67.024	-14.090	-19.090
630.210	-24.288	-57.213	-81.501	-69.291	-14.090	-19.090
630.220	-21.666	-57.525	-79.191	-66.981	-14.090	-19.090
630.230	-21.378	-57.392	-78.770	-66.560	-14.090	-19.090
630.240	-24.693	-57.484	-82.177	-69.967	-14.090	-19.090
630.250	-21.221	-57.574	-78.795	-66.585	-14.090	-19.090
630.260	-20.326	-57.460	-77.786	-65.576	-14.090	-19.090
630.270	-20.577	-57.630	-78.207	-65.997	-14.090	-19.090
630.280	-20.481	-57.542	-78.023	-65.813	-14.090	-19.090
630.290	-22.463	-57.610	-80.073	-67.863	-14.090	-19.090
630.300	-22.988	-57.626	-80.614	-68.404	-14.090	-19.090
630.310	-21.930	-57.613	-79.543	-67.333	-14.090	-19.090
630.320	-23.543	-57.697	-81.240	-69.030	-14.090	-19.090
630.330	-22.076	-57.552	-79.628	-67.418	-14.090	-19.090
630.340	-21.801	-57.859	-79.660	-67.450	-14.090	-19.090
630.350	-22.645	-57.737	-80.382	-68.172	-14.090	-19.090
630.360	-21.732	-57.648	-79.380	-67.170	-14.090	-19.090
630.370	-22.671	-57.988	-80.659	-68.449	-14.090	-19.090
630.380	-22.650	-57.798	-80.448	-68.238	-14.090	-19.090
630.390	-23.756	-57.962	-81.718	-69.508	-14.090	-19.090
630.400	-23.279	-57.914	-81.193	-68.983	-14.090	-19.090
630.410	-22.532	-58.001	-80.533	-68.323	-14.090	-19.090

630.420	-22.649	-57.840	-80.489	-68.279	-14.090	-19.090
630.430	-22.846	-58.071	-80.917	-68.707	-14.090	-19.090
630.440	-22.229	-57.924	-80.153	-67.943	-14.090	-19.090
630.450	-23.461	-57.938	-81.399	-69.189	-14.090	-19.090
630.460	-21.928	-57.894	-79.822	-67.612	-14.090	-19.090
630.470	-22.434	-57.937	-80.371	-68.161	-14.090	-19.090
630.480	-22.515	-58.211	-80.726	-68.516	-14.090	-19.090
630.490	-25.160	-58.326	-83.486	-71.276	-14.090	-19.090
630.500	-21.873	-58.267	-80.140	-67.930	-14.090	-19.090
630.510	-23.591	-58.101	-81.692	-69.482	-14.090	-19.090
630.520	-22.292	-58.201	-80.493	-68.283	-14.090	-19.090
630.530	-22.142	-58.236	-80.378	-68.168	-14.090	-19.090
630.540	-21.263	-58.198	-79.461	-67.251	-14.090	-19.090
630.550	-22.870	-58.295	-81.165	-68.955	-14.090	-19.090
630.560	-22.220	-58.254	-80.474	-68.264	-14.090	-19.090
630.570	-23.092	-58.287	-81.379	-69.169	-14.090	-19.090
630.580	-23.473	-58.135	-81.608	-69.398	-14.090	-19.090
630.590	-22.687	-58.394	-81.081	-68.871	-14.090	-19.090
630.600	-23.273	-58.371	-81.644	-69.434	-14.090	-19.090
630.610	-21.527	-58.391	-79.918	-67.708	-14.090	-19.090
630.620	-22.367	-58.531	-80.898	-68.688	-14.090	-19.090
630.630	-23.698	-58.536	-82.234	-70.024	-14.090	-19.090
630.640	-22.490	-58.583	-81.073	-68.863	-14.090	-19.090
630.650	-21.981	-58.621	-80.602	-68.392	-14.090	-19.090
630.660	-23.126	-58.384	-81.510	-69.300	-14.090	-19.090
630.670	-22.543	-58.618	-81.161	-68.951	-14.090	-19.090
630.680	-21.483	-58.630	-80.113	-67.903	-14.090	-19.090
630.690	-22.328	-58.582	-80.910	-68.700	-14.090	-19.090
630.700	-24.947	-58.589	-83.536	-71.326	-14.090	-19.090
630.710	-22.784	-58.911	-81.695	-69.485	-14.090	-19.090
630.720	-24.004	-58.813	-82.817	-70.607	-14.090	-19.090
630.730	-23.167	-58.867	-82.034	-69.824	-14.090	-19.090
630.740	-24.594	-58.776	-83.370	-71.160	-14.090	-19.090
630.750	-22.108	-58.666	-80.774	-68.564	-14.090	-19.090
630.760	-22.931	-58.958	-81.889	-69.679	-14.090	-19.090
630.770	-24.187	-58.849	-83.036	-70.826	-14.090	-19.090
630.780	-23.132	-59.007	-82.139	-69.929	-14.090	-19.090
630.790	-21.970	-58.808	-80.778	-68.568	-14.090	-19.090
630.800	-20.378	-58.966	-79.344	-67.134	-14.090	-19.090
630.810	-22.881	-58.867	-81.748	-69.538	-14.090	-19.090
630.820	-22.685	-59.103	-81.788	-69.578	-14.090	-19.090
630.830	-24.792	-58.856	-83.648	-71.438	-14.090	-19.090
630.840	-24.645	-59.016	-83.661	-71.451	-14.090	-19.090
630.850	-22.816	-58.930	-81.746	-69.536	-14.090	-19.090
630.860	-24.067	-59.174	-83.241	-71.031	-14.090	-19.090
630.870	-22.952	-58.966	-81.918	-69.708	-14.090	-19.090

630.880	-25.623	-59.289	-84.912	-72.702	-14.090	-19.090
630.890	-23.029	-59.193	-82.222	-70.012	-14.090	-19.090
630.900	-22.982	-59.075	-82.057	-69.847	-14.090	-19.090
630.910	-24.327	-59.280	-83.607	-71.397	-14.090	-19.090
630.920	-23.324	-59.098	-82.422	-70.212	-14.090	-19.090
630.930	-25.077	-59.373	-84.450	-72.240	-14.090	-19.090
630.940	-22.071	-58.929	-81.000	-68.790	-14.090	-19.090
630.950	-22.332	-59.377	-81.709	-69.499	-14.090	-19.090
630.960	-23.474	-59.417	-82.891	-70.681	-14.090	-19.090
630.970	-21.434	-59.304	-80.738	-68.528	-14.090	-19.090
630.980	-23.155	-59.529	-82.684	-70.474	-14.090	-19.090
630.990	-23.893	-59.231	-83.124	-70.914	-14.090	-19.090
631.000	-21.253	-59.519	-80.772	-68.562	-14.090	-19.090
631.010	-21.983	-59.399	-81.382	-69.172	-14.090	-19.090
631.020	-24.459	-59.444	-83.903	-71.693	-14.090	-19.090
631.030	-23.196	-59.751	-82.947	-70.737	-14.090	-19.090
631.040	-25.321	-59.713	-85.034	-72.824	-14.090	-19.090
631.050	-23.533	-59.836	-83.369	-71.159	-14.090	-19.090
631.060	-24.876	-59.530	-84.406	-72.196	-14.090	-19.090
631.070	-22.500	-59.857	-82.357	-70.147	-14.090	-19.090
631.080	-24.888	-59.630	-84.518	-72.308	-14.090	-19.090
631.090	-23.952	-59.810	-83.762	-71.552	-14.090	-19.090
631.100	-23.711	-59.803	-83.514	-71.304	-14.090	-19.090
631.110	-22.672	-59.667	-82.339	-70.129	-14.090	-19.090
631.120	-23.524	-59.792	-83.316	-71.106	-14.090	-19.090
631.130	-25.207	-59.900	-85.107	-72.897	-14.090	-19.090
631.140	-25.462	-59.789	-85.251	-73.041	-14.090	-19.090
631.150	-24.682	-59.872	-84.554	-72.344	-14.090	-19.090
631.160	-24.663	-60.077	-84.740	-72.530	-14.090	-19.090
631.170	-22.815	-60.034	-82.849	-70.639	-14.090	-19.090
631.180	-23.852	-59.779	-83.631	-71.421	-14.090	-19.090
631.190	-23.218	-59.906	-83.124	-70.914	-14.090	-19.090
631.200	-23.087	-59.915	-83.002	-70.792	-14.090	-19.090
631.210	-22.147	-60.005	-82.152	-69.942	-14.090	-19.090
631.220	-25.788	-60.022	-85.810	-73.600	-14.090	-19.090
631.230	-25.318	-59.794	-85.112	-72.902	-14.090	-19.090
631.240	-23.180	-60.204	-83.384	-71.174	-14.090	-19.090
631.250	-24.843	-60.183	-85.026	-72.816	-14.090	-19.090
631.260	-25.423	-60.055	-85.478	-73.268	-14.090	-19.090
631.270	-27.269	-60.118	-87.387	-75.177	-14.090	-19.090
631.280	-24.682	-60.231	-84.913	-72.703	-14.090	-19.090
631.290	-23.448	-60.438	-83.886	-71.676	-14.090	-19.090
631.300	-25.555	-60.242	-85.797	-73.587	-14.090	-19.090
631.310	-25.098	-60.030	-85.128	-72.918	-14.090	-19.090
631.320	-24.872	-60.471	-85.343	-73.133	-14.090	-19.090
631.330	-23.575	-60.310	-83.885	-71.675	-14.090	-19.090

631.340	-23.214	-60.308	-83.522	-71.312	-14.090	-19.090
631.350	-22.775	-60.313	-83.088	-70.878	-14.090	-19.090
631.360	-23.581	-60.485	-84.066	-71.856	-14.090	-19.090
631.370	-24.249	-60.339	-84.588	-72.378	-14.090	-19.090
631.380	-23.538	-60.678	-84.216	-72.006	-14.090	-19.090
631.390	-23.220	-60.236	-83.456	-71.246	-14.090	-19.090
631.400	-23.214	-60.344	-83.558	-71.348	-14.090	-19.090
631.410	-22.802	-60.568	-83.370	-71.160	-14.090	-19.090
631.420	-23.081	-60.333	-83.414	-71.204	-14.090	-19.090
631.430	-25.314	-60.694	-86.008	-73.798	-14.090	-19.090
631.440	-21.929	-60.497	-82.426	-70.216	-14.090	-19.090
631.450	-23.554	-60.570	-84.124	-71.914	-14.090	-19.090
631.460	-24.778	-60.634	-85.412	-73.202	-14.090	-19.090
631.470	-25.426	-60.824	-86.250	-74.040	-14.090	-19.090
631.480	-23.332	-60.576	-83.908	-71.698	-14.090	-19.090
631.490	-26.253	-60.342	-86.595	-74.385	-14.090	-19.090
631.500	-23.025	-60.725	-83.750	-71.540	-14.090	-19.090
631.510	-23.012	-60.804	-83.816	-71.606	-14.090	-19.090
631.520	-23.804	-60.843	-84.647	-72.437	-14.090	-19.090
631.530	-23.971	-60.924	-84.895	-72.685	-14.090	-19.090
631.540	-25.869	-60.928	-86.797	-74.587	-14.090	-19.090
631.550	-22.284	-60.840	-83.124	-70.914	-14.090	-19.090
631.560	-23.462	-60.777	-84.239	-72.029	-14.090	-19.090
631.570	-24.106	-61.022	-85.128	-72.918	-14.090	-19.090
631.580	-24.708	-60.775	-85.483	-73.273	-14.090	-19.090
631.590	-22.974	-60.991	-83.965	-71.755	-14.090	-19.090
631.600	-22.442	-61.234	-83.676	-71.466	-14.090	-19.090
631.610	-23.650	-61.071	-84.721	-72.511	-14.090	-19.090
631.620	-22.777	-61.025	-83.802	-71.592	-14.090	-19.090
631.630	-22.922	-60.944	-83.866	-71.656	-14.090	-19.090
631.640	-25.794	-61.093	-86.887	-74.677	-14.090	-19.090
631.650	-24.795	-61.109	-85.904	-73.694	-14.090	-19.090
631.660	-25.320	-61.290	-86.610	-74.400	-14.090	-19.090
631.670	-25.091	-61.072	-86.163	-73.953	-14.090	-19.090
631.680	-26.781	-61.411	-88.192	-75.982	-14.090	-19.090
631.690	-25.544	-61.259	-86.803	-74.593	-14.090	-19.090
631.700	-23.253	-61.347	-84.600	-72.390	-14.090	-19.090
631.710	-21.289	-61.299	-82.588	-70.378	-14.090	-19.090
631.720	-22.395	-61.236	-83.631	-71.421	-14.090	-19.090
631.730	-22.908	-61.321	-84.229	-72.019	-14.090	-19.090
631.740	-23.840	-61.321	-85.161	-72.951	-14.090	-19.090
631.750	-23.785	-61.378	-85.163	-72.953	-14.090	-19.090
631.760	-22.608	-61.404	-84.012	-71.802	-14.090	-19.090
631.770	-24.560	-61.621	-86.181	-73.971	-14.090	-19.090
631.780	-25.193	-61.509	-86.702	-74.492	-14.090	-19.090
631.790	-24.405	-61.412	-85.817	-73.607	-14.090	-19.090

631.800	-24.513	-61.528	-86.041	-73.831	-14.090	-19.090
631.810	-24.553	-61.609	-86.162	-73.952	-14.090	-19.090
631.820	-25.144	-61.763	-86.907	-74.697	-14.090	-19.090
631.830	-23.747	-61.555	-85.302	-73.092	-14.090	-19.090
631.840	-26.191	-61.241	-87.432	-75.222	-14.090	-19.090
631.850	-25.080	-61.475	-86.555	-74.345	-14.090	-19.090
631.860	-22.792	-61.588	-84.380	-72.170	-14.090	-19.090
631.870	-23.911	-61.631	-85.542	-73.332	-14.090	-19.090
631.880	-26.872	-61.747	-88.619	-76.409	-14.090	-19.090
631.890	-24.760	-61.630	-86.390	-74.180	-14.090	-19.090
631.900	-24.464	-61.663	-86.127	-73.917	-14.090	-19.090
631.910	-23.669	-61.569	-85.238	-73.028	-14.090	-19.090
631.920	-23.388	-61.698	-85.086	-72.876	-14.090	-19.090
631.930	-24.730	-61.914	-86.644	-74.434	-14.090	-19.090
631.940	-24.475	-61.808	-86.283	-74.073	-14.090	-19.090
631.950	-23.729	-61.785	-85.514	-73.304	-14.090	-19.090
631.960	-23.195	-61.761	-84.956	-72.746	-14.090	-19.090
631.970	-23.348	-61.852	-85.200	-72.990	-14.090	-19.090
631.980	-24.813	-62.035	-86.848	-74.638	-14.090	-19.090
631.990	-25.887	-61.925	-87.812	-75.602	-14.090	-19.090
+12 MHz From Channel Edge						
632.000	-26.243	-62.140	-88.383	-76.173	-14.090	-19.090

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 LPU-1000, modulated with a ATSC compliant 8-VSB modulator, was adjusted to obtain a 100 Watt average channel power (50dBm) 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 100 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.

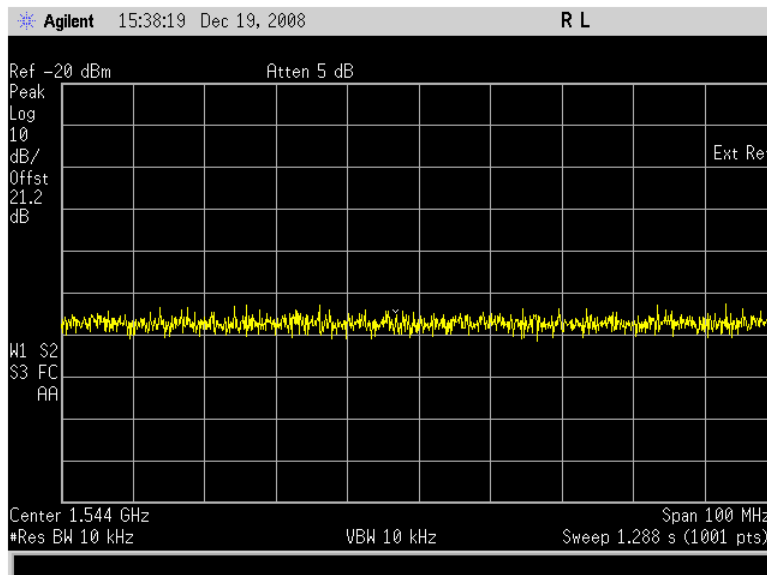


Figure 4-11: Spurious Emissions in GPS Band

4.5 FREQUENCY STABILITY

The LPU 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:

$$IF2 = LO1 + IF$$

$$IF3 = LO2 + IF2$$

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

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

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

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

$F_{ref} = 10\text{MHz} \pm dF$, 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 $\pm 2e-7$ so for the 10 MHz oscillator $dF = 2 \text{ Hz}$. The worst case frequency is when $N = 2957$ so worst case stability is:

$$dF_{out} = \pm 2*((N/10) - 211) = \pm 169.4 \text{ Hz.}$$

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

Visual Carrier or 8-VSB Output Power: 250 Watts Peak or 100 Watts Average Power

Modulation: NTSC Composite Television Signals or 8-VSB Modulated Carriers

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

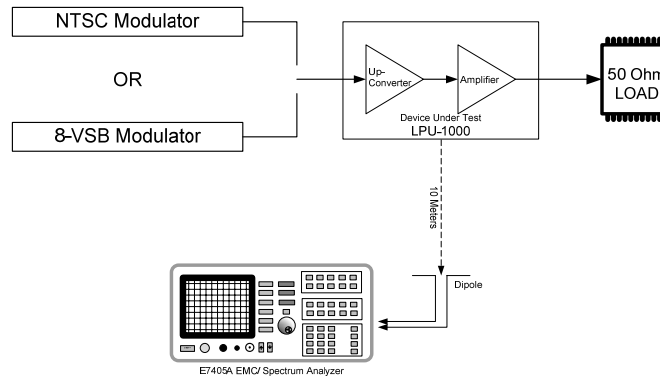


Figure 4-12: Test Setup for Measuring Radiated Emissions

Method of Measurement:

Using the test setup in Figure 4-12, the transmitter was driven to full power (57dBm) with analog visual and aural modulation. The test was repeated using 8-VSB modulation at an average power of 45dBm 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 LPU-1000 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.