Federal Communications Commission
Washington, D. C. 20554

Approved by OMB
3060-0627
Expires 01/31/98

FOR FCC USE ONLY

FCC 302-AM
APPLICATION FOR AM BROADCAST STATION LICENSE

(Please read instructions before filling out form.

FOR COMMISSION USE ONLY

FILE NO.

SECTION I - APPLICANT FEE INFORMATION

1. PAYOR NAME (Last, First, Middle Initial)

First State Communications

MAILING ADDRESS (Line 1) (Maximum 35 characters) 3012 Highwoods Blvd.

MAILING ADDRESS (Line 2) (Maximum 35 characters) Suite 200

CITY	STATE OR COUNTRY (if foreign address)	ZIP CODE
Raleigh	NC	27604

TELEPHONE NUMBER (include area code)	CALL LETTERS	OTHER FCC IDENTIFIER (If applicable)
919 790-9392	WPTF	21630

2. A. Is a fee submitted with this application? [X] Yes [ ] No

B. If No, indicate reason for fee exemption (see 47 C.F.R. Section

[ ] Governmental Entity [ ] Noncommercial educational licensee [ ] Other (Please explain):

C. If Yes, provide the following information:

Enter in Column (A) the correct Fee Type Code for the service you are applying for. Fee Type Codes may be found in the "Mass Media Services Fee Filing Guide." Column (B) lists the Fee Multiple applicable for this application. Enter fee amount due in Column (C).

(A) FEE TYPE CODE	(B) FEE MULTIPLE	(C) FEE DUE FOR FEE TYPE CODE IN COLUMN (A)	FOR FCC USE ONLY
M M R	0 0 0 1	$ 645.00	

To be used only when you are requesting concurrent actions which result in a requirement to list more than one Fee Type Code.

(A)	(B)	(C)	FOR FCC USE ONLY
M O R	0 0 0 1	$ 1260.00	

	TOTAL AMOUNT REMITTED WITH THIS APPLICATION	FOR FCC USE ONLY
ADD ALL AMOUNTS SHOWN IN COLUMN C, AND ENTER THE TOTAL HERE. THIS AMOUNT SHOULD EQUAL YOUR ENCLOSED REMITTANCE.	$ 1905.00	

SECTION II - APPLICANT INFORMATION		
1. NAME OF APPLICANT First State Communications		
MAILING ADDRESS 3012 Highwoods Blvd., Suite 200		
CITY Raleigh	STATE NC	ZIP CODE 27604

2. This application is for:

[X] Commercial [ ] Noncommercial

[X] AM Directional [ ] AM Non-Directional

Call letters	Community of License	Construction Permit File No.	Modification of Construction Permit File No(s).	Expiration Date of Last Construction Permit
WPTF	Raleigh, NC			

3. Is the station now operating pursuant to automatic program test authority in accordance with 47 C.F.R. Section 73.1620?

[ ] Yes [ ] No n/a

If No, explain in an Exhibit.

Exhibit No.

4. Have all the terms, conditions, and obligations set forth in the above described construction permit been fully met?

[ ] Yes [ ] No n/a

If No, state exceptions in an Exhibit.

Exhibit No.

5. Apart from the changes already reported, has any cause or circumstance arisen since the grant of the underlying construction permit which would result in any statement or representation contained in the construction permit application to be now incorrect?

[ ] Yes [ ] No n/a

If Yes, explain in an Exhibit.

Exhibit No.

6. Has the permittee filed its Ownership Report (FCC Form 323) or ownership certification in accordance with 47 C.F.R. Section 73.3615(b)?

[ ] Yes [ ] No n/a

[ ] Does not apply

If No, explain in an Exhibit.

Exhibit No.

7. Has an adverse finding been made or an adverse final action been taken by any court or administrative body with respect to the applicant or parties to the application in a civil or criminal proceeding, brought under the provisions of any law relating to the following: any felony; mass media related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination?

[ ] Yes [X] No

If the answer is Yes, attach as an Exhibit a full disclosure of the persons and matters involved, including an identification of the court or administrative body and the proceeding (by dates and file numbers), and the disposition of the litigation. Where the requisite information has been earlier disclosed in connection with another application or as required by 47 U.S.C. Section 1.65(c), the applicant need only provide: (i) an identification of that previous submission by reference to the file number in the case of an application, the call letters of the station regarding which the application or Section 1.65 information was filed, and the date of filing; and (ii) the disposition of the previously reported matter.

Exhibit No.

8. Does the applicant, or any party to the application, have a petition on file to migrate to the expanded band (1605-1705 kHz) or a permit or license either in the existing band or expanded band that is held in combination (pursuant to the 5 year holding period allowed) with the AM facility proposed to be modified herein?

☐ Yes ☒ No

If Yes, provide particulars as an Exhibit.

Exhibit No.

The APPLICANT hereby waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because use of the same, whether by license or otherwise, and requests and authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended).

The APPLICANT acknowledges that all the statements made in this application and attached exhibits are considered material representations and that all the exhibits are a material part hereof and are incorporated herein as set out in full in

CERTIFICATION

1. By checking Yes, the applicant certifies, that, in the case of an individual applicant, he or she is not subject to a denial of federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862, or, in the case of a non-individual applicant (e.g., corporation, partnership or other unincorporated association), no party to the application is subject to a denial of federal benefits that includes FCC benefits pursuant to that section. For the definition of a "party" for these purposes, see 47 C.F.R. Section 1.2002(b).

☒ Yes ☐ No

2. I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Name	Signature	
Donald W. Curtis		
Title	Date	Telephone Number
President	2/10/2023	919 790-9392

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION

FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT AND THE PAPERWORK REDUCTION ACT

The solicitation of personal information requested in this application is authorized by the Communications Act of 1934, as amended. The Commission will use the information provided in this form to determine whether grant of the application is in the public interest. In reaching that determination, or for law enforcement purposes, it may become necessary to refer personal information contained in this form to another government agency. In addition, all information provided in this form will be available for public inspection. If information requested on the form is not provided, the application may be returned without action having been taken upon it or its processing may be delayed while a request is made to provide the missing information. Your response is required to obtain the requested authorization.

Public reporting burden for this collection of information is estimated to average 639 hours and 53 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, can be sent to the Federal Communications Commission, Records Management Branch, Paperwork Reduction Project (3060-0627), Washington, D. C. 20554. Do NOT send completed forms to this address.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.

Consulting Engineers
CTJC
CARL T. JONES CORPORATION

ENGINEERING EXHIBIT
IN SUPPORT OF AN
APPLICATION FOR STATION LICENSE
STATION WPTF – RALIEGH, NORTH CAROLINA
680 kHz – 50 kW-D, 50 kW-N, U, DA-N
Facility ID: 21630

Applicant: First State Communications, Inc.

FEBRUARY, 2023

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Springfield, VA 22153-2899
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fax: (703) 569-6417
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www.ctjc.com

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SECTION III OF FCC FORM 302-AM

ENGINEERING STATEMENT OF JAMES D. SADLER

FIGURE

SECTION III - LICENSE APPLICATION ENGINEERING DATA

Name of Applicant
First State Communications, Inc.

PURPOSE OF AUTHORIZATION APPLIED FOR: (check one)

☑ Station License ☐ Direct Measurement of Power
BMML -

1. Facilities authorized in construction permit

Call Sign	File No. of Construction Permit (if applicable)	Frequency (kHz)	Hours of Operation	Power in kilowatts	
				Night	Day
WPTF	N/A	680	Unlimited	50.0	50.0

2. Station location

State	City or Town
North Carolina	Raleigh

3. Transmitter location

State	County	City or Town	Street address (or other identification)
NC	Wake	Cary	833 East Chatham Street

4. Main studio location

State	County	City or Town	Street address (or other identification)
NC	Wake	Raleigh	3012 Highwoods Blvd

5. Remote control point location (specify only if authorized directional antenna)

State	County	City or Town	Street address (or other identification)
NC	Wake	Raleigh	3012 Highwoods Blvd

6. Has type-approved stereo generating equipment been installed? ☐ Yes ☑ No

7. Does the sampling system meet the requirements of 47 C.F.R. Section 73.68? ☑ Yes ☐ No ☐ Not Applicable

Attach as an Exhibit a detailed description of the sampling system as installed. Exhibit No. Eng Stmt

8. Operating constants:

RF common point or antenna current (in amperes) without modulation for night system	RF common point or antenna current (in amperes) without modulation for day system
32.45	20.76
Measured antenna or common point resistance (in ohms) at operating frequency	**Measured antenna or common point reactance (in ohms) at operating frequency**
Night: 50.0 Day: 116	Night: +j0.0 Day: +j20.4

Antenna indications for directional operation

Towers	Antenna monitor Phase reading(s) in degrees		Antenna monitor sample current ratio(s)		Antenna base currents	
	Night	Day	Night	Day	Night	Day
1(S) - ASR #1007884	-136.9	------	0.727	------	------	------
2(N) - ASR #1007883	0.0	------	1.000	------	------	------

Manufacturer and type of antenna monitor: Potomac Instruments Model AM-19, Serial No. 1212

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9. Description of antenna system ((f directional antenna is used, the information requested below should be given for each element of the array. Use separate sheets if necessary.)

Type Radiator	Overall height in meters of radiator above base insulator, or above base, if grounded.	Overall height in meters above ground (without obstruction lighting)	Overall height in meters above ground (include obstruction lighting)	If antenna is either top loaded or sectionalized, describe fully in an Exhibit.
tapered, self-supporting, base insulated	#1 & #2 112.8 #3 ND 149.0	#1 & #2 114.0 #3 ND 151.2	#1 & #2 114.0 #3 ND 152.4	Exhibit No. N/A

Excitation ☑ Series ☐ Shunt

Geographic coordinates to nearest second. For directional antenna give coordinates of center of array. For single vertical radiator give tower location.

North Latitude	35 °	47 '	38 "	West Longitude	78 °	45 '	41 "

If not fully described above, attach as an Exhibit further details and dimensions including any other antenna mounted on tower and associated isolation circuits. Exhibit No. Eng Stmt

Also, if necessary for a complete description, attach as an Exhibit a sketch of the details and dimensions of ground system. Exhibit No. On File

10. In what respect, if any, does the apparatus constructed differ from that described in the application for construction permit or in the permit?

N/A

11. Give reasons for the change in antenna or common point resistance.

Installation of triplex filters required for collocation of station WKIX.

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

Name (Please Print or Type)	Signature (check appropriate box below)
James D. Sadler	
Address (include ZIP Code) Carl T. Jones Corporation 7901 Yarnwood Court Springfield, VA 22153	Date February 1, 2023 Telephone No. (Include Area Code) (703) 569-7704

☐ Technical Director ☐ Registered Professional Engineer

☐ Chief Operator ☑ Technical Consultant

☐ Other (specify)

Consulting Engineers
CTJC
CARL T. JONES CORPORATION

ENGINEERING STATEMENT OF JAMES D. SADLER
IN SUPPORT OF AN
APPLICATION FOR STATION LICENSE
STATION WPTF – RALIEGH, NORTH CAROLINA
680 kHz – 50 kW-D, 50 kW-N, U, DA-N
Facility ID: 21630

Licensee: First State Communications, Inc.

I am a Technical Consultant, an employee in the firm of Carl T.Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission.

1.0 GENERAL

This office has been authorized by First State Communications, Inc. ("FSC"), licensee of AM Broadcast Station WPTF, Raleigh, North Carolina, to prepare this engineering statement, Section III of FCC Form 302 and the associated figures and appendices in support of an Application for License. Station WPTF is licensed for operation on 680 kilohertz with power of 50 kilowatts during daytime and nighttime hours employing a directional antenna pattern during nighttime hours (DA-N). The station uses a total of three towers for its daytime and nighttime operations. Tower #1 (south) and #2 (north) are used for the nighttime directional operation and Tower #3 (east) is used for the daytime non-directional operation. Station WQDR is collocated at the site and diplexed on WPTF tower #1 (south). WQDR is licensed to operate non-

directionally on 570 kHz with a daytime power of 1.0 kW and a nighttime power of 0.04 kW.

FCC Construction Permit, File No. BP-20200304AAC, authorizes Station WKIX to collocate and triplex at the WPTF transmitter site. The construction permit specifies non-directional operation on 850 kHz using WPTF tower #2 (north) with a daytime power of 9.0 kW and a nighttime power of 0.12 kW. After completion of the installation and adjustment of the new WKIX triplexing filter networks required for collocating WKIX at the site, it was determined that adjustments to the WPTF daytime non-directional impedance matching network and to the nighttime directional antenna system were necessary to restore licensed operation.

Because the nighttime directional pattern was affected by the triplexing filters, FSC decided to restore and verify the nighttime directional pattern using computer modeling and sample system verification techniques as described in Section 47 CFR 73.151(c) of the FCC's Rules and Regulations. The specific measurement and modeling techniques used in performing the verification of the WPTF nighttime directional pattern are described in detail in this engineeringstatement.

Impedance measurement data, sample system verification measurement data, model derived operating parameters, and reference point field strength measurement data for the WPTF nighttime directional pattern are tabulated in the figures attached to this engineering statement. In addition, new measured daytime non-directional base impedance and base current are provided herein and on FCC Form 302. All pertinent computer model input and output files are contained in the attached Appendices A, B and C.

The WPTF nighttime directional antenna array consists of two, equal height, tapered, square cross-section, base insulated, self-supporting towers. The sampling system employs identical toroidal current transformers that are located at the output of each ATU network. This location corresponds to the input to the triplex filter networks. A detailed description of the impedance and sample system measurements and the computer models employed is contained below.

2.1 INDIVIDUAL TOWER IMPEDANCE MEASUREMENTS

Impedance measurements were performed at the base of each tower by the undersigned at the J-Plug located in the output branch of each ATU network. The location of the impedance measurements is immediately adjacent to the sample system toroidal current transformers. The impedance measurements were performed using a Hewlett-Packard Model 8753C network analyzer; an ENI Model 240L power amplifier; and a Tunwall Radio directional coupler. The base impedance of each tower was measured with the other tower open-circuited at the corresponding J-Plug location. The measured impedances are tabulated in Figure 3.

2.2 INDIVIDUAL TOWER COMPUTER MODELS

A detailed Method of Moments (“MoM”) computer model was developed to model each element in the antenna array using Expert MiniNEC Broadcast Professional (Version 23.0). The two WPTF towers used for the nighttime directional operation are both tapered, wide-based, self-supporting towers with base insulators. Each tower was modeled using multiple wires to represent the tower legs and connecting members.

Physical measurements of each tower, performed by a tower rigger, were used to faithfully replicate the geometry of each individual tower in the model. Only a few of the horizontal members were included in the model and none of the diagonal members were included. Scale drawings of the wireframe model of each of the nighttime towers are contained in Figure 1. In addition to the models of the two towers used in the nighttime directional array, a similar model was developed of the east tower which is used for non-directional daytime operation in order to include this tower, properly detuned, in the nighttime directional model described in Section 2.3.

In order to replicate the individual measured base impedances to within the tolerance specified in the FCC's Rules, each tower's physical height was adjusted in the MiniNEC model and shunt capacitance and series inductance was employed in a separate circuit model. Details of the modeled individual tower adjusted heights are contained in Figure 2.

The values of the lumped shunt capacitance and series inductance used in the circuit model are contained in Figure 3. The measured individual tower impedances, the modeled individual tower impedances, and the adjusted modeled (circuit model) individual tower impedances are also contained in Figure 3. The percentage difference between the adjusted modeled tower heights and the actual physical tower heights are within the tolerances set forth in the FCC's Rules. The magnitude of the lumped shunt capacitances and series inductances that were used in the circuit models are also within the tolerances set forth in the FCC's Rules.

As demonstrated by the data contained in Figure 3, the adjustedmodeled individual tower resistance and reactance for each tower is well within ±2 ohms and ±4

percent tolerance of the corresponding measured individual tower resistance and reactance. The text files containing all pertinent input and output data associated with the individual tower models are contained in Appendix A.

2.3 NIGHTTIME DIRECTIONAL ANTENNA COMPUTER MODEL AND ANTENNA MONITOR PARAMETERS

The WPTF nighttime directional antenna theoretical field parameters and the licensed tower spacings and orientations were used in combination with the adjusted individual tower models to produce the nighttime directional antenna computer model. From the directional computer model, tower currents were derived for each wire segment of each antenna leg. The current in each leg segment at each segment height were added and the combined currents were multiplied by the segment length and numerically integrated and normalized to the appropriate reference tower to verify that the modeled current moments are essentially identical to the authorized relative nighttime directional field parameters. The new nighttime operating parameters were determined from the modeled base currents and are tabulated in Figure 4 and Section III of FCC Form 302. The text files containing all pertinent input and output data associated with the WPTF nighttime directional antenna computer model are contained in Appendix B.

The directional model also includes a detailed wire model of tower #3 (east). Tower #3 was detuned both in the model and at the transmitter site. Details of the detuning of the modeled tower #3 are contained in Appendix C.

2.4 SAMPLE SYSTEM DESCRIPTION AND VERIFICATION MEASURMENTS

The WPTF antenna sampling system is comprised of: 1) Delta Electronics, Model TCT-2-HV toroidal current transformers mounted in an identical manner at the output of each ATU network; 2) equal lengths of Andrew, Type LDF4-50A, 1/2-inch, foam dielectric, coaxial cable between the toroidal current transformer and the transmitter building, short lengths of RG-8 coaxial jumper cables and RFS SCF12-50J superflex coaxial jumper cables connecting the ends of the LDF4-50A coaxial cable to the antenna monitor; and 3) a Potomac Instruments Model AM-19 antenna monitor. Each sample line between the ATU filter enclosure and the transmitter building, including excess lengths, is buried; therefore, each sample line is subjected to the same environmental conditions.

The electrical lengths of the sample system coaxial cables including the short jumper cables were verified to be equal in length by measuring the open-circuit series resonant frequency closest to the carrier frequency. The characteristic impedances of the sample coaxial cables were verified by measuring the impedance at frequencies corresponding to odd multiples of 1/8 wavelength (45 degrees) immediately above and below the open circuit series resonant frequency closest to the carrier frequency, while the line was open-circuited at the sample element end of the line. The characteristic impedance was calculated using the following formula:

$$Z = \sqrt{\sqrt{R_1^2 + X_1^2} \times \sqrt{R_2^2 + X_2^2}}$$

where: Z = Characteristic impedance and

$R_1 + X_1$ and $R_2 + X_2$ are the measured impedances

at 45 degree offset frequencies.

A tabulation of the measured sample line lengths and characteristic impedances is contained in Figure 5. All sample line verification measurements were performed by the undersigned using a Hewlett-Packard Model 8753C network analyzer; an ENI Model 240L power amplifier; and a Tunwall Radio directional coupler. As demonstrated by the measured values in Figure 5, the sample line lengths are well within 1 electrical degree with respect to each other and the measured characteristic impedances are well within 2 Ohms with respect to each other, as required by Section CFR73.151(c)(2)(i) of the FCC's Rules and Regulations.

An impedance measurement was performed at the input to each sample line, at the antenna monitor end of the line, with the toroidal current transformer connected. The measurement was performed at the WPTF operating frequency of 680 kHz. The measured sample line impedances with the current transformers connected are tabulated in Figure 5 under the heading, "Reference Impedance Sample Transformer Connected".

The performance of the Delta Electronics Model TCT-2-HV toroidal current transformers was verified by driving a common reference current through each transformer and a reference transformer and comparing the outputs as observed on the Hewlett-Packard Model 8753C network analyzer. The reference transformer was a Delta Electronics Model TCT-1. The TCT-1 reference transformer performance had been previously verified in the lab prior its use at WPTF. A tabulation of the toroidal current transformer measurement data along with the serial number of each current transformer is contained in Figure 6. The measured ratio and phase values for each of the TCT-2-HV current transformers when compared to the reference transformer were

identical. The magnitude of 0.251 results from the fact that the TCT-1 reference transformer produces 1 volt per ampere while the TCT-2-HV transformers produce 0.25 Volts per ampere. The -1.4 degree phase shift between the reference transformer and both of the TCT-2-HV transformers is believed to be the result of a slight difference in the electrical length of the cables used to perform the test. The important point is that the relative phase measured by both of the WPTF TCT-2-HV toroidal transformers was identical.

The WPTF antenna monitor is a Potomac instruments Model AM-19, Serial Number 1212. The performance of the antenna monitor was verified by the undersigned to be within the manufacture's stated accuracy.

3.0 DAYTIME BASE IMPEDANCE AND CURRENT AND NIGHTTIME COMMON POINT IMPEDANCE AND CURRENT

The daytime non-directional base impedance of tower #3 (east) was measured by the undersigned using a Delta Electronics Model OIB-3 operating impedance bridge and found to be $Z_{ND\#3}$ = 116 + j20.4 Ohms. The transmitter output power level was adjusted for a daytime base current of 20.76 Amperes corresponding to an antenna input power of approximately 50,000 Watts.

The nighttime directional antenna system was adjusted for the new computer derived operating parameters and for proper impedance transformation and the nighttime common point impedance matching network was set for Z_{NCP} = 50 + j0.0 Ohms. The transmitter output power level was adjusted for a nighttime common point current of 32.45 amperes to achieve an input power of approximately 52,650 Watts.

4.0 REFERENCE FIELD STRENGTH MEASUREMENTS

Reference field strength measurements were performed on three radials for the nighttime directional pattern. Measurements were performed on the 161.4º radial bearing, corresponding to the nighttime pattern main radiation lobe; and on the 37.2º, and 285º radial bearings, corresponding to the nighttime directional pattern minima. Three reference field strength measurements were performed on each of the selected radial bearings.

The field strength measurements were performed by Mr. Allen Sherrill, Vice President of Engineering for the licensee. Mr. Sherrill is experienced in performing field strength measurements on AM directional patterns. The field intensity meter used to perform the measurements was a Potomac Instruments, Model FIM-41, Serial Number 1673, last calibrated by the manufacturer in May, 2005. Prior to making the measurements, the field strength readings from this meter were compared to that of another Potomac Instruments, Model FIM-41, field meter (Serial Number 2185, calibrated January 2021) and were found to be within the manufacturers stated accuracy.

The measured field strength value for each established reference point location is tabulated in Figure 7, Sheets 1 and 2. The tabulations contained in Figure 7 also include for each reference location: GPS coordinates (NAD83), distance from the WPTF antenna array center, and a description of the measurement location.

5.0 ANTENNAS MOUNTED ON TOWERS AND ISOLATION CIRCUITS

There are two FM antennas and several VHF/UHF antennas currently located on tower #3. All of the transmission lines for the antennas with the exception of one of the FM's are grounded near the quarter wave point on the tower and then are routed to ground level via a catenary that is supported inside the tower. The single FM transmission line is grounded to the tower and attached to a ground mounted isocoupler.

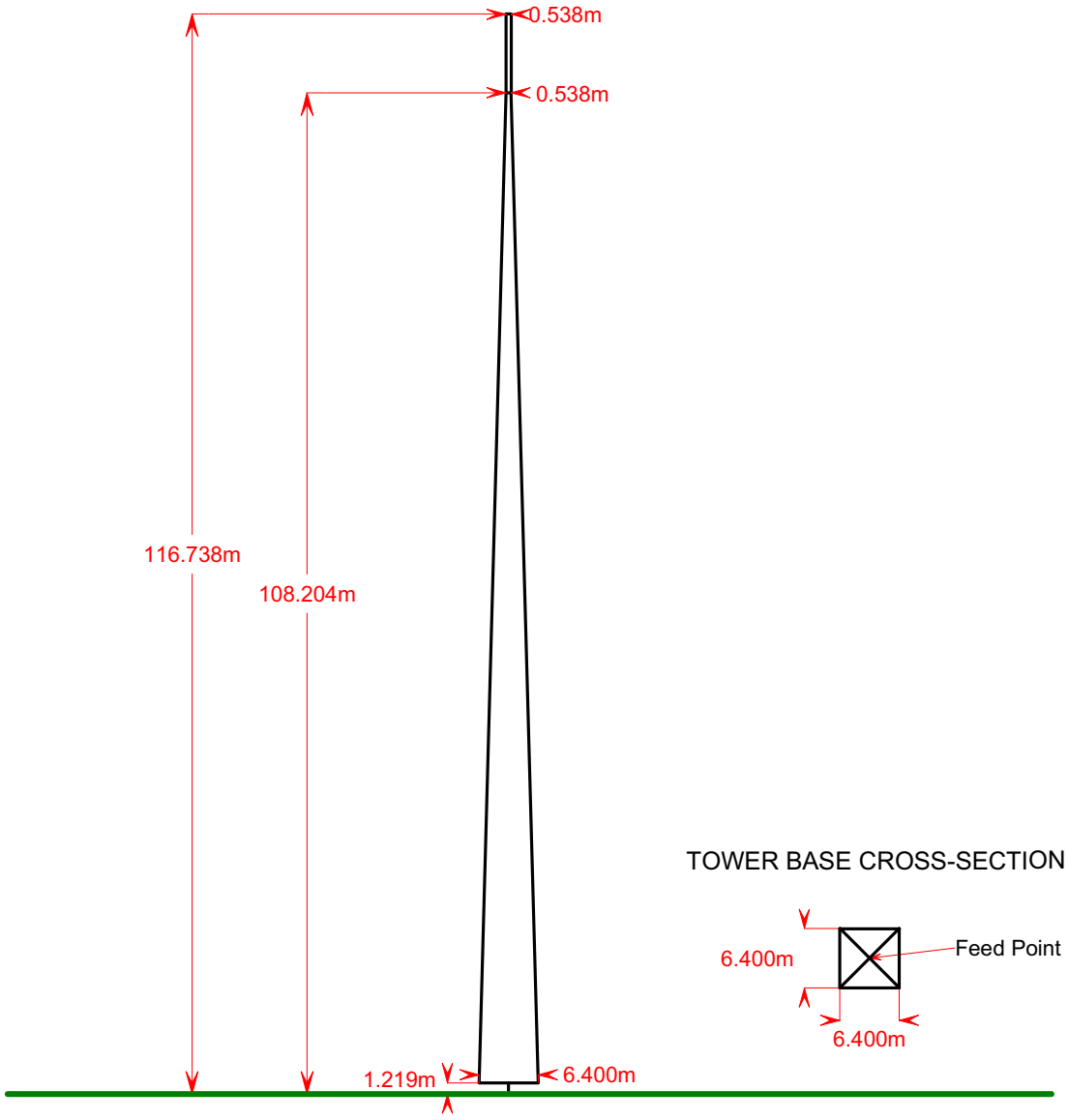
6.0 SUMMARY

It is submitted that the WPTF nighttime directional pattern performance has been verified using computer modeling and sample system verification procedures in accordance with Section 47 CFR 73.151(c) of the FCC's Rules and Regulations. It is believed that the nighttime antenna system, as adjusted, fully complies with the terms of the station's FCC Authorization and all applicable FCC Rules and Regulations. It is requested that a superseding license be issued to FSC reflecting the new model derived directional operating parameters and the new daytime non-directional base impedance and base current as contained herein and on FCC Form 302-AM attached.

This engineering statement, FCC Form 302-AM, Section III, and the attached figures and appendices were prepared by the undersigned or under the direct supervision of the undersigned and are believed to be true and correct.

Dated: February 1, 2023

James D. Sadler



WIREFRAME TOWER MODEL
TOWER #1 (SOUTH)
STATION WPTF - RALEIGH, NORTH CAROLINA
680 kHz - 50 kW-D, 50 kW-N, U, DA-N
FEBRUARY, 2023

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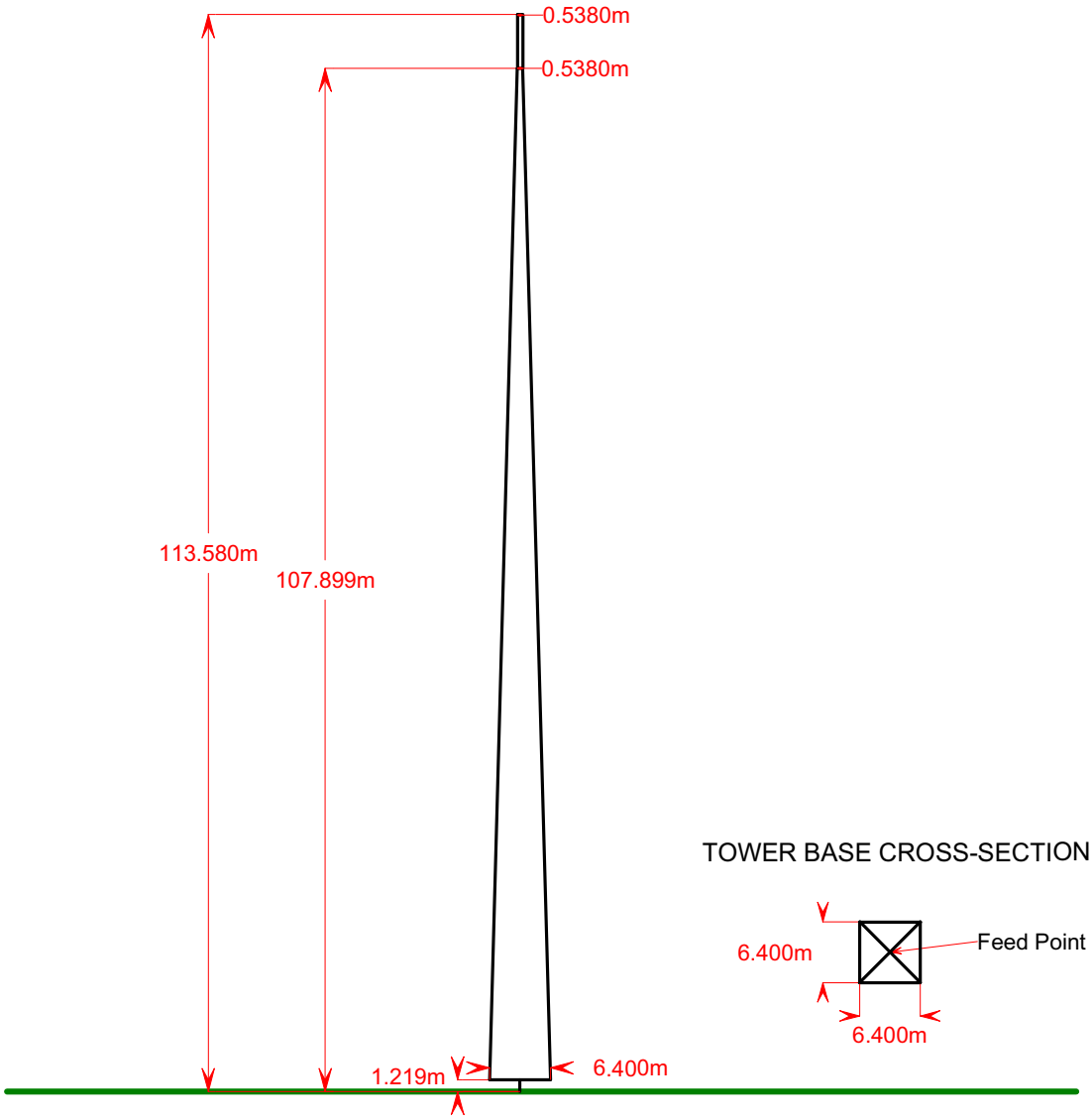
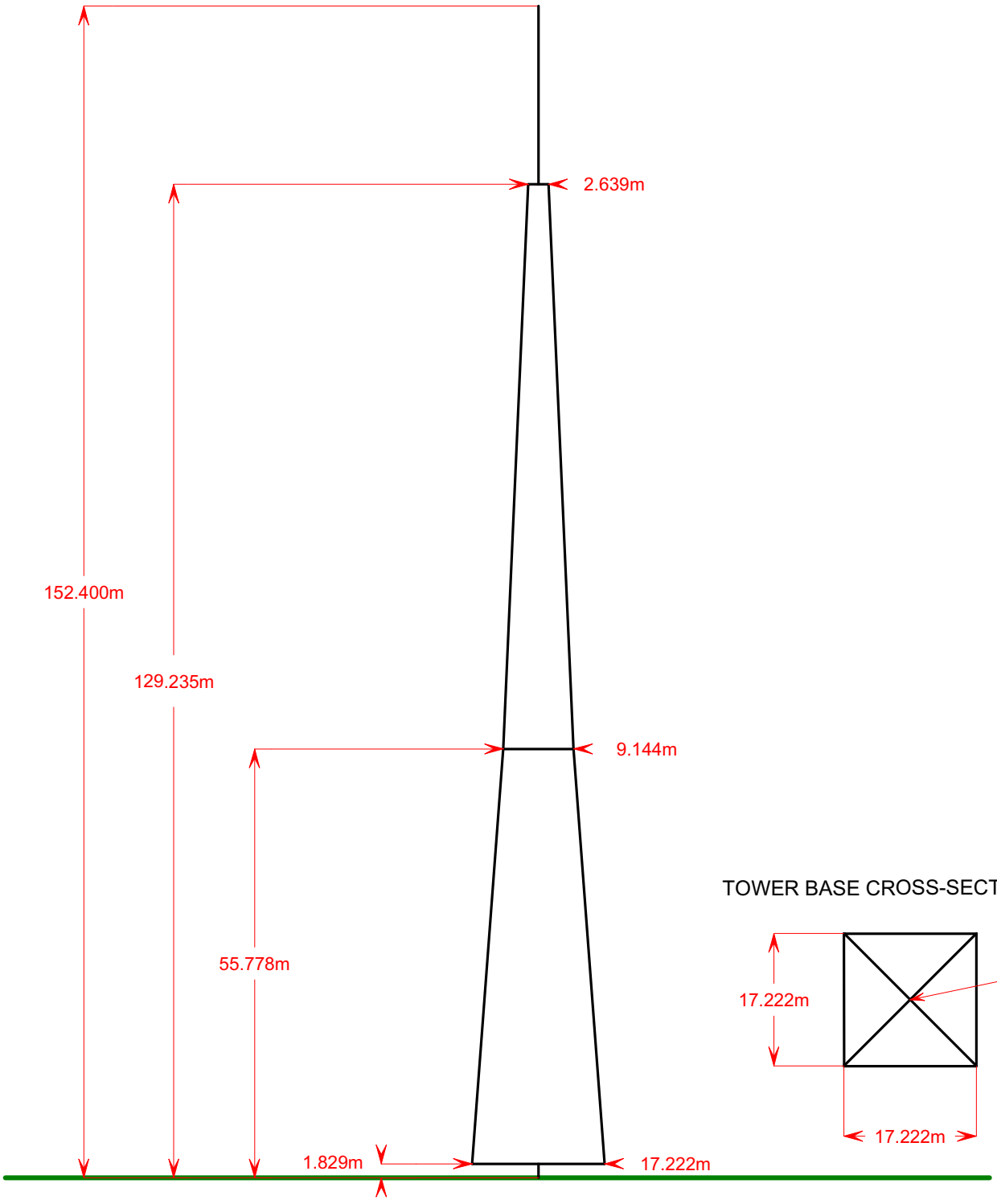


WIREFRAME TOWER MODEL
TOWER #2 (NORTH)
STATION WPTF - RALEIGH, NORTH CAROLINA
680 kHz - 50 kW-D, 50 kW-N, U, DA-N
FEBRUARY, 2023

Consulting Engineers
CTJC
CARL T. JONES CORPORATION



WIREFRAME TOWER MODEL
TOWER #3 (EAST)
STATION WPTF - RALEIGH, NORTH CAROLINA
680 kHz - 50 kW-D, 50 kW-N, U, DA-N
FEBRUARY, 2023

Consulting Engineers
CTJC
CARL T. JONES CORPORATION

Figure 2

TOWER MODEL HEIGHT AND RADIUS

STATION WPTF - RALEIGH, NORTH CAROLINA
680 kHz - 50 kW-D, 50 kW-N, U, DA-N
FEBRUARY, 2023

Tower	Physical Height (meters)	Modeled Height (meters)	Percent of Physical Height	Modeled Radius (meters)	Percent of Equivalent Radius
1	112.79	116.74	103.5	See Note	See Note
2	112.79	113.58	100.7	See Note	See Note

Note: The complete structure of the wide-based, tapered, self-supporting towers was modeled using thin wires of a radius typically found in such construction. The actual radius values for each of the elements that make up each tower are shown in the geometry files contained in the Appendices. The actual tapered tower face widths were replicated as close as possible in the model. A scale drawing based on the actual physical height is contained in Figure 1.

MEASURED AND MODELED IMPEDANCES

STATION WPTF - RALEIGH, NORTH CAROLINA
680 kHz - 50 kW-D, 50 kW-N, U, DA-N
FEBRUARY, 2023

Tower	Measured Tower Base Impedance[1]	Modeled Tower Base Impedance	Shunt Capacitance (pF)	Modeled plus Shunt Reactance	Measured Series Capacitance (pF)	Lumped Series Inductance (uH)	Total Adjusted Tower Base Impedance
1	38.3 +j 20.7	38.4 +j 5.2	15.0	38.4 +j 5.1	0.0	3.6	38.4 +j 20.5
2	33.7 +j 23.3	33.8 -j 2.4	15.0	33.8 -j 2.5	0.0	6.0	33.8 +j 23.2

[1] Measured at output of matching network with other tower open-circuited and unused Tower #3 (east) detuned.

Figure 3

NIGHTTIME ANTENNA MONITOR PARAMETERS AND COMMON POINT DATA

STATION WPTF - RALEIGH, NORTH CAROLINA
680 kHz - 50 kW-D, 50 kW-N, U, DA-N
FEBRUARY, 2023

Tower	Modeled Parameters	
	Ratio	Phase (deg)
1(S) - ASR#1007884	0.727	-136.9
2(N) - ASR#1007883	1.000	0.0
Common Point Impedance = 50 +j 0 ohms Common Point Current = 32.45 amperes Antenna Input Power = 52,650 Watts		

SAMPLE LINE VERIFICATION MEASUREMENTS

STATION WPTF - RALEIGH, NORTH CAROLINA
680 kHz - 50 kW-D, 50 kW-N, U, DA-N
FEBRUARY, 2023

Tower	Open Circuit Series Resonant Frequency[1] (kHz)	Open Circuit Measured Line Length[2] (degrees)	Resonant Frequency -45 degree Offset Frequency (kHz)	Resonant Frequency -45 degree Offset Impedance (Ohms)	Resonant Frequency +45 degree Offset Frequency (kHz)	Resonant Frequency +45 degree Offset Impedance (Ohms)	Calculated Characteristic Impedance (Ohms)	Reference Impedance Sample Toroid Connected[2] (Ohms)
1	987.55	185.9	823.0	3.98 -j 51.16	1152.1	6.40 +j 51.51	51.61	51.28 +j 0.28
2	985.97	186.2	821.6	3.98 -j 51.37	1150.3	6.49 +j 51.58	51.75	51.39 +j 0.30

[1] At this frequency, the sample line electrical length is equal to 270°.

[2] At carrier frequency (680 kHz)

Figure 5

SAMPLE DEVICE VERIFICATION MEASUREMENTS

STATION WPTF - RALEIGH, NORTH CAROLINA
680 kHz - 50 kW-D, 50 kW-N, U, DA-N
FEBRUARY, 2023

Reference Sample Toroid Number	Measured Sample Toroid Number	Measured	
		Field Ratio	Phase (degrees)
Reference Unit	1	0.251	-1.4
Reference Unit	2	0.251	-1.4

Sample Toroid Number	Type	Serial Number
Reference Unit	Delta Electronics, TCT-3	1443
1	Delta Electronics, TCT-2-HV	3094
2	Delta Electronics, TCT-2-HV	3090

REFERENCE FIELD STRENGTH MEASUREMENTS

STATION WPTF - RALIEGH, NORTH CAROLINA
680 kHz - 50 kW-D, 50 kW-N, U, DA-N
FEBRUARY, 2023

37.2 Degree Radial

Point Number	Distance (km)	Nighttime Field (mV/m)	Geographic Coordinates (NAD83)		Description
			Latitude	Longitude	
1	4.14	51	35° 49' 23.2"	78° 44' 01.7"	The point is located on the north side of Windy Woods Drive by mailbox #2208.
2	6.02	38.2	35° 50' 11.7"	78° 43' 16.0"	The point is located at the driveway/culvert on the northeast side of Dewees Court, 0.06 mi. from intersection with Ebenezer Church Road.
3	7.77	14.5	35° 50' 57.3"	78° 42' 33.3"	The point is located on the east side of Kilkenny Place at water valve cover near mailbox #4808.

161.4 Degree Radial

Point Number	Distance (km)	Nighttime Field (mV/m)	Geographic Coordinates (NAD83)		Description
			Latitude	Longitude	
1	3.61	570	35° 45' 46.6"	78° 44' 55.4"	The point is located at the northwest corner of the hotel parking lot on Ledsome Lane 10 feet from the curb corner by retaining wall.
2	5.09	400	35° 45' 00.8"	78° 44' 36.5"	The point is located on Woodfield Lake Road at the west end of crosswalk in front of building #1000.
3	8.77	208	35° 43' 08.0"	78° 43' 49.7"	The point is located on the south side of Pine Drive even with fence 25 feet west of driveway for house #5407.

REFERENCE FIELD STRENGTH MEASUREMENTS

STATION WPTF - RALIEGH, NORTH CAROLINA
680 kHz - 50 kW-D, 50 kW-N, U, DA-N
FEBRUARY, 2023

285 Degree Radial

Point Number	Distance (km)	Nighttime Field (mV/m)	Geographic Coordinates (NAD83)		Description
			Latitude	Longitude	
1	4.12	20.8	35° 48' 10.9"	78° 44' 19.5"	The point is located on Lampwick Lane in front of gazebo, 60 feet southwest of townhouse mailboxes.
2	6.16	22.8	35° 48' 28.3"	78° 49' 38.6"	The point is located on the west side of Kirkeenan Circle in front of #1002.
3	9.09	13.8	35° 48' 52.5"	78° 51' 31.2"	The point is located on the west side of the intersection of Lake Norman Drive and Lake Brandt Drive next to mailbox shelter.

APPENDIX A

INDIVIDUAL TOWER MODEL

IMPEDANCE – TOWER #1
normalization = 50.

freq (MHz)	resist (ohms)	react (ohms)	imped (ohms)	phase (deg)	VSWR	S11 dB	S12 dB
source = 1; node 1, sector 1							
.68	38.392	5.2086	38.743	7.7	1.3356	-16.851	-9.1E-02

GEOMETRY – TOWER #1
Dimensions in meters
Environment: perfect ground

wire	caps	X	Y	Z	radius	segs
1	none	0	0	0	.0508	2
		0	0	1.219		
2	none	0	0	1.219	.0508	4
		3.2	3.2	1.219		
3	none	0	0	1.219	.0508	4
		3.2	-3.2	1.219		
4	none	0	0	1.219	.0508	4
		-3.2	-3.2	1.219		
5	none	0	0	1.219	.0508	4
		-3.2	3.2	1.219		
6	none	3.2	3.2	1.219	.0508	107
		.269	.269	108.204		
7	none	.269	.269	108.204	.0508	9
		.269	.269	116.738		
8	none	3.2	-3.2	1.219	.0508	107
		.269	-.269	108.204		
9	none	.269	-.269	108.204	.0508	9
		.269	-.269	116.738		
10	none	-3.2	-3.2	1.219	.0508	107
		-.269	-.269	108.204		
11	none	-.269	-.269	108.204	.0508	9
		-.269	-.269	116.738		
12	none	-3.2	3.2	1.219	.0508	107
		-.269	.269	108.204		
13	none	-.269	.269	108.204	.0508	9
		-.269	.269	116.738		
14	none	3.2	3.2	1.219	.0508	6
		3.2	-3.2	1.219		
15	none	3.2	-3.2	1.219	.0508	6
		-3.2	-3.2	1.219		
16	none	-3.2	-3.2	1.219	.0508	6
		-3.2	3.2	1.219		
17	none	-3.2	3.2	1.219	.0508	6
		3.2	3.2	1.219		
18	none	.269	.269	108.204	.0508	1
		.269	-.269	108.204		
19	none	.269	-.269	108.204	.0508	1
		-.269	-.269	108.204		
20	none	-.269	-.269	108.204	.0508	1
		-.269	.269	108.204		
21	none	-.269	.269	108.204	.0508	1
		.269	.269	108.204		
22	none	.269	.269	116.738	.0508	1
		.269	-.269	116.738		
23	none	.269	-.269	116.738	.0508	1
		-.269	-.269	116.738		
24	none	-.269	-.269	116.738	.0508	1
		-.269	.269	116.738		
25	none	-.269	.269	116.738	.0508	1

```
          .269          .269          116.738
26   none 83.78         -28.2         0             .0508         2
          83.78         -28.2         1.219
27   none 83.78         -28.2         1.219         .0508         4
          86.98         -25.          .914
28   none 83.78         -28.2         1.219         .0508         4
          86.98         -31.4         .914
29   none 83.78         -28.2         1.219         .0508         4
          80.58         -31.4         .914
30   none 83.78         -28.2         1.219         .0508         4
          80.58         -25.          .914
31   none 86.98         -25.          .914          .0508         107
          84.049        -27.931       107.899
32   none 84.049        -27.931       107.899       .0508         9
          84.049        -27.931       113.58
33   none 86.98         -31.4         .914          .0508         107
          84.049        -28.469       107.899
34   none 84.049        -28.469       107.899       .0508         9
          84.049        -28.469       113.58
35   none 80.58         -31.4         .914          .0508         107
          83.511        -28.469       107.899
36   none 83.511        -28.469       107.899       .0508         9
          83.511        -28.469       113.58
37   none 80.58         -25.          .914          .0508         107
          83.511        -27.931       107.899
38   none 83.511        -27.931       107.899       .0508         9
          83.511        -27.931       113.58
39   none 86.98         -25.          .914          .0508         6
          86.98         -31.4         .914
40   none 86.98         -31.4         .914          .0508         6
          80.58         -31.4         .914
41   none 80.58         -31.4         .914          .0508         6
          80.58         -25.          .914
42   none 80.58         -25.          .914          .0508         6
          86.98         -25.          .914
43   none 84.049        -27.931       107.899       .0508         1
          84.049        -28.469       107.899
44   none 84.049        -28.469       107.899       .0508         1
          83.511        -28.469       107.899
45   none 83.511        -28.469       107.899       .0508         1
          83.511        -27.931       107.899
46   none 83.511        -27.931       107.899       .0508         1
          84.049        -27.931       107.899
47   none 84.049        -27.931       113.58        .0508         1
          84.049        -28.469       113.58
48   none 84.049        -28.469       113.58        .0508         1
          83.511        -28.469       113.58
49   none 83.511        -28.469       113.58        .0508         1
          83.511        -27.931       113.58
50   none 83.511        -27.931       113.58        .0508         1
          84.049        -27.931       113.58
51   none -5.7          85.2          0             .1016         1
          -5.7          85.2          1.829
52   none -5.7          85.2          1.829         .1016         12
          2.911         93.811        1.829
53   none -5.7          85.2          1.829         .1016         12
          2.911         76.589        1.829
54   none -5.7          85.2          1.829         .1016         12
          -14.311       76.589        1.829
55   none -5.7          85.2          1.829         .1016         12
          -14.311       93.811        1.829
```

```
 56   none 2.911        93.811       1.829        .1016        54
           -1.128       89.772       55.778
 57   none -1.128       89.772       55.778       .0762        74
           -4.767       86.133       129.235
 58   none 2.911        76.589       1.829        .1016        54
           -1.128       80.628       55.778
 59   none -1.128       80.628       55.778       .0762        74
           -4.767       84.267       129.235
 60   none -14.311      76.589       1.829        .1016        54
           -10.272      80.628       55.778
 61   none -10.272      80.628       55.778       .0762        74
           -6.633       84.267       129.235
 62   none -14.311      93.811       1.829        .1016        54
           -10.272      89.772       55.778
 63   none -10.272      89.772       55.778       .0762        74
           -6.633       86.133       129.235
 64   none 2.911        93.811       1.829        .1016        17
           2.911        76.589       1.829
 65   none 2.911        76.589       1.829        .1016        17
           -14.311      76.589       1.829
 66   none -14.311      76.589       1.829        .1016        17
           -14.311      93.811       1.829
 67   none -14.311      93.811       1.829        .1016        17
           2.911        93.811       1.829
 68   none -1.128       89.772       55.778       .1016        9
           -1.128       80.628       55.778
 69   none -1.128       80.628       55.778       .1016        9
           -10.272      80.628       55.778
 70   none -10.272      80.628       55.778       .1016        9
           -10.272      89.772       55.778
 71   none -10.272      89.772       55.778       .1016        9
           -1.128       89.772       55.778
 72   none -4.767       86.133       129.235      .0762        1
           -5.7         85.2         129.235
 73   none -4.767       84.267       129.235      .0762        1
           -5.7         85.2         129.235
 74   none -6.633       84.267       129.235      .0762        1
           -5.7         85.2         129.235
 75   none -6.633       86.133       129.235      .0762        1
           -5.7         85.2         129.235
 76   none -5.7         85.2         129.235      .0762        23
           -5.7         85.2         152.4

Number of wires          =  76
          current nodes  =  1755

                         minimum                  maximum
Individual wires      wire    value             wire  value
segment length         18     .538               51   1.829
segment/radius ratio   56     9.88819            27   22.3216
radius                 1      .0508              51   .1016


ELECTRICAL DESCRIPTION – TOWER #1
Frequencies (MHz)
     frequency                 no. of  segment length (wavelengths)
 no. lowest       step         steps   minimum        maximum
 1   .68          0             1      1.22E-03       4.15E-03
```

Sources

source	node	sector	magnitude	phase	type
1	1	1	1.	0	voltage

Lumped loads

load	node	resistance (ohms)	reactance (ohms)	inductance (mH)	capacitance (uF)	passive circuit
1	1	.01	0	0	0	0
2	527	.01	0	0	1.5E-05	0
3	1053	.01	0	.021	0	0

IMPEDANCE – TOWER #2
normalization = 50.

freq (MHz)	resist (ohms)	react (ohms)	imped (ohms)	phase (deg)	VSWR	S11 dB	S12 dB
source = 1; node 527, sector 1							
.68	33.793	-2.4027	33.878	355.9	1.4859	-14.179	-.16917

GEOMETRY – TOWER #2
Dimensions in meters
Environment: perfect ground

wire	caps	X	Y	Z	radius	segs
1	none	0	0	0	.0508	2
		0	0	1.219		
2	none	0	0	1.219	.0508	4
		3.2	3.2	1.219		
3	none	0	0	1.219	.0508	4
		3.2	-3.2	1.219		
4	none	0	0	1.219	.0508	4
		-3.2	-3.2	1.219		
5	none	0	0	1.219	.0508	4
		-3.2	3.2	1.219		
6	none	3.2	3.2	1.219	.0508	107
		.269	.269	108.204		
7	none	.269	.269	108.204	.0508	9
		.269	.269	116.738		
8	none	3.2	-3.2	1.219	.0508	107
		.269	-.269	108.204		
9	none	.269	-.269	108.204	.0508	9
		.269	-.269	116.738		
10	none	-3.2	-3.2	1.219	.0508	107
		-.269	-.269	108.204		
11	none	-.269	-.269	108.204	.0508	9
		-.269	-.269	116.738		
12	none	-3.2	3.2	1.219	.0508	107
		-.269	.269	108.204		
13	none	-.269	.269	108.204	.0508	9
		-.269	.269	116.738		
14	none	3.2	3.2	1.219	.0508	6
		3.2	-3.2	1.219		
15	none	3.2	-3.2	1.219	.0508	6
		-3.2	-3.2	1.219		
16	none	-3.2	-3.2	1.219	.0508	6
		-3.2	3.2	1.219		

```
17   none -3.2        3.2         1.219       .0508       6
          3.2         3.2         1.219
18   none .269        .269        108.204     .0508       1
          .269        -.269       108.204
19   none .269        -.269       108.204     .0508       1
          -.269       -.269       108.204
20   none -.269       -.269       108.204     .0508       1
          -.269       .269        108.204
21   none -.269       .269        108.204     .0508       1
          .269        .269        108.204
22   none .269        .269        116.738     .0508       1
          .269        -.269       116.738
23   none .269        -.269       116.738     .0508       1
          -.269       -.269       116.738
24   none -.269       -.269       116.738     .0508       1
          -.269       .269        116.738
25   none -.269       .269        116.738     .0508       1
          .269        .269        116.738
26   none 83.78       -28.2       0           .0508       2
          83.78       -28.2       1.219
27   none 83.78       -28.2       1.219       .0508       4
          86.98       -25.        .914
28   none 83.78       -28.2       1.219       .0508       4
          86.98       -31.4       .914
29   none 83.78       -28.2       1.219       .0508       4
          80.58       -31.4       .914
30   none 83.78       -28.2       1.219       .0508       4
          80.58       -25.        .914
31   none 86.98       -25.        .914        .0508       107
          84.049      -27.931     107.899
32   none 84.049      -27.931     107.899     .0508       9
          84.049      -27.931     113.58
33   none 86.98       -31.4       .914        .0508       107
          84.049      -28.469     107.899
34   none 84.049      -28.469     107.899     .0508       9
          84.049      -28.469     113.58
35   none 80.58       -31.4       .914        .0508       107
          83.511      -28.469     107.899
36   none 83.511      -28.469     107.899     .0508       9
          83.511      -28.469     113.58
37   none 80.58       -25.        .914        .0508       107
          83.511      -27.931     107.899
38   none 83.511      -27.931     107.899     .0508       9
          83.511      -27.931     113.58
39   none 86.98       -25.        .914        .0508       6
          86.98       -31.4       .914
40   none 86.98       -31.4       .914        .0508       6
          80.58       -31.4       .914
41   none 80.58       -31.4       .914        .0508       6
          80.58       -25.        .914
42   none 80.58       -25.        .914        .0508       6
          86.98       -25.        .914
43   none 84.049      -27.931     107.899     .0508       1
          84.049      -28.469     107.899
44   none 84.049      -28.469     107.899     .0508       1
          83.511      -28.469     107.899
45   none 83.511      -28.469     107.899     .0508       1
          83.511      -27.931     107.899
46   none 83.511      -27.931     107.899     .0508       1
          84.049      -27.931     107.899
47   none 84.049      -27.931     113.58      .0508       1
```

		84.049	-28.469	113.58		
48	none	84.049	-28.469	113.58	.0508	1
		83.511	-28.469	113.58		
49	none	83.511	-28.469	113.58	.0508	1
		83.511	-27.931	113.58		
50	none	83.511	-27.931	113.58	.0508	1
		84.049	-27.931	113.58		
51	none	-5.7	85.2	0	.1016	1
		-5.7	85.2	1.829		
52	none	-5.7	85.2	1.829	.1016	12
		2.911	93.811	1.829		
53	none	-5.7	85.2	1.829	.1016	12
		2.911	76.589	1.829		
54	none	-5.7	85.2	1.829	.1016	12
		-14.311	76.589	1.829		
55	none	-5.7	85.2	1.829	.1016	12
		-14.311	93.811	1.829		
56	none	2.911	93.811	1.829	.1016	54
		-1.128	89.772	55.778		
57	none	-1.128	89.772	55.778	.0762	74
		-4.767	86.133	129.235		
58	none	2.911	76.589	1.829	.1016	54
		-1.128	80.628	55.778		
59	none	-1.128	80.628	55.778	.0762	74
		-4.767	84.267	129.235		
60	none	-14.311	76.589	1.829	.1016	54
		-10.272	80.628	55.778		
61	none	-10.272	80.628	55.778	.0762	74
		-6.633	84.267	129.235		
62	none	-14.311	93.811	1.829	.1016	54
		-10.272	89.772	55.778		
63	none	-10.272	89.772	55.778	.0762	74
		-6.633	86.133	129.235		
64	none	2.911	93.811	1.829	.1016	17
		2.911	76.589	1.829		
65	none	2.911	76.589	1.829	.1016	17
		-14.311	76.589	1.829		
66	none	-14.311	76.589	1.829	.1016	17
		-14.311	93.811	1.829		
67	none	-14.311	93.811	1.829	.1016	17
		2.911	93.811	1.829		
68	none	-1.128	89.772	55.778	.1016	9
		-1.128	80.628	55.778		
69	none	-1.128	80.628	55.778	.1016	9
		-10.272	80.628	55.778		
70	none	-10.272	80.628	55.778	.1016	9
		-10.272	89.772	55.778		
71	none	-10.272	89.772	55.778	.1016	9
		-1.128	89.772	55.778		
72	none	-4.767	86.133	129.235	.0762	1
		-5.7	85.2	129.235		
73	none	-4.767	84.267	129.235	.0762	1
		-5.7	85.2	129.235		
74	none	-6.633	84.267	129.235	.0762	1
		-5.7	85.2	129.235		
75	none	-6.633	86.133	129.235	.0762	1
		-5.7	85.2	129.235		
76	none	-5.7	85.2	129.235	.0762	23
		-5.7	85.2	152.4		

```
Number of wires          =  76
          current nodes  =  1755

                         minimum                   maximum
Individual wires      wire    value             wire  value
segment length         18     .538               51   1.829
segment/radius ratio   56     9.88819            27   22.3216
radius                 1      .0508              51   .1016


ELECTRICAL DESCRIPTION – TOWER #2
Frequencies (MHz)
     frequency                no. of  segment length (wavelengths)
 no. lowest       step         steps   minimum        maximum
 1   .68          0             1      1.22E-03       4.15E-03

Sources
source node    sector  magnitude      phase          type
 1      527     1      1.             0              voltage

Lumped loads
             resistance    reactance     inductance  capacitance passive
load  node   (ohms)        (ohms)        (mH)        (uF)        circuit
 1     1     .01           0             0           1.5E-05      0
 2     527   .01           0             0           0            0
 3     1053  .01           0             .021        0            0
```

APPENDIX B

NIGHTTIME DIRECTIONAL ARRAY MODEL

IMPEDANCE – NIGHTTIME OPERATION
normalization = 50.

freq (MHz)	resist (ohms)	react (ohms)	imped (ohms)	phase (deg)	VSWR	S11 dB	S12 dB
source = 1; node 1, sector 1							
.68	33.124	45.353	56.162	53.9	3.0904	-5.8308	-1.3145
source = 2; node 527, sector 1							
.68	12.36	-3.7831	12.926	343.	4.0698	-4.3576	-1.9835

GEOMETRY – NIGHTTIME OPERATION
Dimensions in meters
Environment: perfect ground

wire	caps	X	Y	Z	radius	segs
1	none	0	0	0	.0508	2
		0	0	1.219		
2	none	0	0	1.219	.0508	4
		3.2	3.2	1.219		
3	none	0	0	1.219	.0508	4
		3.2	-3.2	1.219		
4	none	0	0	1.219	.0508	4
		-3.2	-3.2	1.219		
5	none	0	0	1.219	.0508	4
		-3.2	3.2	1.219		
6	none	3.2	3.2	1.219	.0508	107
		.269	.269	108.204		
7	none	.269	.269	108.204	.0508	9
		.269	.269	116.738		
8	none	3.2	-3.2	1.219	.0508	107
		.269	-.269	108.204		
9	none	.269	-.269	108.204	.0508	9
		.269	-.269	116.738		
10	none	-3.2	-3.2	1.219	.0508	107
		-.269	-.269	108.204		
11	none	-.269	-.269	108.204	.0508	9
		-.269	-.269	116.738		
12	none	-3.2	3.2	1.219	.0508	107
		-.269	.269	108.204		
13	none	-.269	.269	108.204	.0508	9
		-.269	.269	116.738		
14	none	3.2	3.2	1.219	.0508	6
		3.2	-3.2	1.219		
15	none	3.2	-3.2	1.219	.0508	6
		-3.2	-3.2	1.219		
16	none	-3.2	-3.2	1.219	.0508	6
		-3.2	3.2	1.219		
17	none	-3.2	3.2	1.219	.0508	6
		3.2	3.2	1.219		
18	none	.269	.269	108.204	.0508	1
		.269	-.269	108.204		
19	none	.269	-.269	108.204	.0508	1
		-.269	-.269	108.204		
20	none	-.269	-.269	108.204	.0508	1
		-.269	.269	108.204		
21	none	-.269	.269	108.204	.0508	1
		.269	.269	108.204		
22	none	.269	.269	116.738	.0508	1
		.269	-.269	116.738		
23	none	.269	-.269	116.738	.0508	1

		-.269	-.269	116.738		
24	none	-.269	-.269	116.738	.0508	1
		-.269	.269	116.738		
25	none	-.269	.269	116.738	.0508	1
		.269	.269	116.738		
26	none	83.78	-28.2	0	.0508	2
		83.78	-28.2	1.219		
27	none	83.78	-28.2	1.219	.0508	4
		86.98	-25.	.914		
28	none	83.78	-28.2	1.219	.0508	4
		86.98	-31.4	.914		
29	none	83.78	-28.2	1.219	.0508	4
		80.58	-31.4	.914		
30	none	83.78	-28.2	1.219	.0508	4
		80.58	-25.	.914		
31	none	86.98	-25.	.914	.0508	107
		84.049	-27.931	107.899		
32	none	84.049	-27.931	107.899	.0508	9
		84.049	-27.931	113.58		
33	none	86.98	-31.4	.914	.0508	107
		84.049	-28.469	107.899		
34	none	84.049	-28.469	107.899	.0508	9
		84.049	-28.469	113.58		
35	none	80.58	-31.4	.914	.0508	107
		83.511	-28.469	107.899		
36	none	83.511	-28.469	107.899	.0508	9
		83.511	-28.469	113.58		
37	none	80.58	-25.	.914	.0508	107
		83.511	-27.931	107.899		
38	none	83.511	-27.931	107.899	.0508	9
		83.511	-27.931	113.58		
39	none	86.98	-25.	.914	.0508	6
		86.98	-31.4	.914		
40	none	86.98	-31.4	.914	.0508	6
		80.58	-31.4	.914		
41	none	80.58	-31.4	.914	.0508	6
		80.58	-25.	.914		
42	none	80.58	-25.	.914	.0508	6
		86.98	-25.	.914		
43	none	84.049	-27.931	107.899	.0508	1
		84.049	-28.469	107.899		
44	none	84.049	-28.469	107.899	.0508	1
		83.511	-28.469	107.899		
45	none	83.511	-28.469	107.899	.0508	1
		83.511	-27.931	107.899		
46	none	83.511	-27.931	107.899	.0508	1
		84.049	-27.931	107.899		
47	none	84.049	-27.931	113.58	.0508	1
		84.049	-28.469	113.58		
48	none	84.049	-28.469	113.58	.0508	1
		83.511	-28.469	113.58		
49	none	83.511	-28.469	113.58	.0508	1
		83.511	-27.931	113.58		
50	none	83.511	-27.931	113.58	.0508	1
		84.049	-27.931	113.58		
51	none	-5.7	85.2	0	.1016	1
		-5.7	85.2	1.829		
52	none	-5.7	85.2	1.829	.1016	12
		2.911	93.811	1.829		
53	none	-5.7	85.2	1.829	.1016	12

```
           2.911        76.589       1.829
 54   none -5.7         85.2         1.829        .1016        12
           -14.311      76.589       1.829
 55   none -5.7         85.2         1.829        .1016        12
           -14.311      93.811       1.829
 56   none 2.911        93.811       1.829        .1016        54
           -1.128       89.772       55.778
 57   none -1.128       89.772       55.778       .0762        74
           -4.767       86.133       129.235
 58   none 2.911        76.589       1.829        .1016        54
           -1.128       80.628       55.778
 59   none -1.128       80.628       55.778       .0762        74
           -4.767       84.267       129.235
 60   none -14.311      76.589       1.829        .1016        54
           -10.272      80.628       55.778
 61   none -10.272      80.628       55.778       .0762        74
           -6.633       84.267       129.235
 62   none -14.311      93.811       1.829        .1016        54
           -10.272      89.772       55.778
 63   none -10.272      89.772       55.778       .0762        74
           -6.633       86.133       129.235
 64   none 2.911        93.811       1.829        .1016        17
           2.911        76.589       1.829
 65   none 2.911        76.589       1.829        .1016        17
           -14.311      76.589       1.829
 66   none -14.311      76.589       1.829        .1016        17
           -14.311      93.811       1.829
 67   none -14.311      93.811       1.829        .1016        17
           2.911        93.811       1.829
 68   none -1.128       89.772       55.778       .1016        9
           -1.128       80.628       55.778
 69   none -1.128       80.628       55.778       .1016        9
           -10.272      80.628       55.778
 70   none -10.272      80.628       55.778       .1016        9
           -10.272      89.772       55.778
 71   none -10.272      89.772       55.778       .1016        9
           -1.128       89.772       55.778
 72   none -4.767       86.133       129.235      .0762        1
           -5.7         85.2         129.235
 73   none -4.767       84.267       129.235      .0762        1
           -5.7         85.2         129.235
 74   none -6.633       84.267       129.235      .0762        1
           -5.7         85.2         129.235
 75   none -6.633       86.133       129.235      .0762        1
           -5.7         85.2         129.235
 76   none -5.7         85.2         129.235      .0762        23
           -5.7         85.2         152.4

Number of wires          =  76
          current nodes  =  1755

                         minimum                  maximum
Individual wires      wire    value             wire  value
segment length         18     .538               51   1.829
segment/radius ratio   56     9.88819            27   22.3216
radius                 1      .0508              51   .1016
```

ELECTRICAL DESCRIPTION – NIGHTTIME OPERATION

Frequencies (MHz)

no.	frequency lowest	step	no. of steps	segment length (wavelengths) minimum	maximum
1	.68	0	1	1.22E-03	4.15E-03

Sources

source	node	sector	magnitude	phase	type
1	1	1	2,365.39	280.9	voltage
2	527	1	746.666	346.9	voltage

Lumped loads

load	node	resistance (ohms)	reactance (ohms)	inductance (mH)	capacitance (uF)	passive circuit
1	1	.01	0	0	0	0
2	527	.01	0	0	0	0
3	1053	.01	0	.021	0	0

RMS CURRENT – NIGHTTIME OPERATION
Frequency = .68 MHz
Input power = 50,000. watts
Efficiency = 99.94 %
coordinates in meters

current no.	X	Y	Z	mag (amps)	phase (deg)	real (amps)	imaginary (amps)
GND	0	0	0	29.7817	227.	-20.3065	-21.7853
2	0	0	.6095	29.8602	226.9	-20.4019	-21.8035
J1	0	0	1.219	29.8773	226.9	-20.4225	-21.8078
2J1	0	0	1.219	7.48338	226.6	-5.14523	-5.43393
4	.8	.8	1.219	7.52622	226.3	-5.19858	-5.44231
5	1.6	1.6	1.219	7.58623	226.	-5.27371	-5.45333
6	2.4	2.4	1.219	7.64087	225.6	-5.34256	-5.4626
J2	3.2	3.2	1.219	7.67455	225.4	-5.38521	-5.46792
2J1	0	0	1.219	7.49783	226.3	-5.18069	-5.42015
8	.8	-.8	1.219	7.54082	226.	-5.23403	-5.42853
9	1.6	-1.6	1.219	7.60104	225.7	-5.30914	-5.43957
10	2.4	-2.4	1.219	7.65586	225.4	-5.37796	-5.44884
J3	3.2	-3.2	1.219	7.68964	225.2	-5.42058	-5.45416
2J1	0	0	1.219	7.45459	227.2	-5.06452	-5.47006
12	-.8	-.8	1.219	7.49706	226.9	-5.11789	-5.47843
13	-1.6	-1.6	1.219	7.55658	226.6	-5.19307	-5.48944
14	-2.4	-2.4	1.219	7.61078	226.3	-5.26199	-5.49868
J4	-3.2	-3.2	1.219	7.6442	226.1	-5.30471	-5.50398
2J1	0	0	1.219	7.44253	227.5	-5.03202	-5.48362
16	-.8	.8	1.219	7.48486	227.2	-5.08539	-5.49198
17	-1.6	1.6	1.219	7.54417	226.8	-5.16058	-5.50299
18	-2.4	2.4	1.219	7.59819	226.5	-5.22953	-5.51222
J5	-3.2	3.2	1.219	7.6315	226.3	-5.27227	-5.51752
2J1	3.2	3.2	1.219	8.02161	223.2	-5.852	-5.48638
20	3.17261	3.17261	2.21886	8.05848	223.	-5.89838	-5.49074
21	3.14522	3.14522	3.21872	8.09681	222.7	-5.94731	-5.49435
22	3.11782	3.11782	4.21858	8.13137	222.5	-5.99233	-5.49647
23	3.09043	3.09043	5.21844	8.16211	222.3	-6.03336	-5.49714
24	3.06304	3.06304	6.2183	8.18917	222.2	-6.0706	-5.49638
25	3.03565	3.03565	7.21816	8.21273	222.	-6.10428	-5.49424
26	3.00825	3.00825	8.21802	8.23296	221.8	-6.1346	-5.49075
27	2.98086	2.98086	9.21788	8.25001	221.7	-6.16176	-5.48593
28	2.95347	2.95347	10.2177	8.26401	221.5	-6.1859	-5.47981
29	2.92608	2.92608	11.2176	8.27507	221.4	-6.2072	-5.47243
30	2.89868	2.89868	12.2175	8.28329	221.3	-6.22576	-5.46378

31	2.87129	2.87129	13.2173	8.28878	221.1	-6.2417	-5.45391
32	2.8439	2.8439	14.2172	8.29161	221.	-6.25513	-5.44281
33	2.81651	2.81651	15.217	8.29186	220.9	-6.26613	-5.43052
34	2.78911	2.78911	16.2169	8.2896	220.8	-6.2748	-5.41704
35	2.76172	2.76172	17.2168	8.28486	220.7	-6.28117	-5.40239
36	2.73433	2.73433	18.2166	8.27773	220.6	-6.28535	-5.38658
37	2.70694	2.70694	19.2165	8.26823	220.5	-6.28735	-5.36963
38	2.67954	2.67954	20.2163	8.25642	220.4	-6.28726	-5.35152
39	2.65215	2.65215	21.2162	8.24233	220.3	-6.28511	-5.3323
40	2.62476	2.62476	22.2161	8.22601	220.2	-6.28094	-5.31197
41	2.59736	2.59736	23.2159	8.20748	220.1	-6.2748	-5.29052
42	2.56997	2.56997	24.2158	8.18677	220.1	-6.26671	-5.26799
43	2.54258	2.54258	25.2156	8.16393	220.	-6.25671	-5.24436
44	2.51519	2.51519	26.2155	8.13898	219.9	-6.24485	-5.21966
45	2.48779	2.48779	27.2154	8.11195	219.8	-6.23114	-5.1939
46	2.4604	2.4604	28.2152	8.08285	219.7	-6.21561	-5.16708
47	2.43301	2.43301	29.2151	8.05173	219.7	-6.19829	-5.13922
48	2.40562	2.40562	30.2149	8.01859	219.6	-6.1792	-5.11031
49	2.37822	2.37822	31.2148	7.98348	219.5	-6.15838	-5.08039
50	2.35083	2.35083	32.2147	7.9464	219.5	-6.13583	-5.04945
51	2.32344	2.32344	33.2145	7.90738	219.4	-6.11159	-5.01749
52	2.29605	2.29605	34.2144	7.86646	219.3	-6.08568	-4.98455
53	2.26865	2.26865	35.2142	7.82365	219.3	-6.05812	-4.95061
54	2.24126	2.24126	36.2141	7.77896	219.2	-6.02893	-4.9157
55	2.21387	2.21387	37.214	7.73242	219.1	-5.99813	-4.87983
56	2.18648	2.18648	38.2138	7.68405	219.1	-5.96574	-4.84299
57	2.15908	2.15908	39.2137	7.63388	219.	-5.93178	-4.8052
58	2.13169	2.13169	40.2135	7.58191	219.	-5.89627	-4.76648
59	2.1043	2.1043	41.2134	7.52819	218.9	-5.85924	-4.72684
60	2.07691	2.07691	42.2133	7.47273	218.8	-5.8207	-4.68628
61	2.04951	2.04951	43.2131	7.41555	218.8	-5.78066	-4.64481
62	2.02212	2.02212	44.213	7.35667	218.7	-5.73916	-4.60246
63	1.99473	1.99473	45.2128	7.29611	218.7	-5.69621	-4.55922
64	1.96734	1.96734	46.2127	7.2339	218.6	-5.65183	-4.51511
65	1.93994	1.93994	47.2126	7.17007	218.6	-5.60604	-4.47014
66	1.91255	1.91255	48.2124	7.10462	218.5	-5.55886	-4.42434
67	1.88516	1.88516	49.2123	7.03758	218.5	-5.5103	-4.37769
68	1.85777	1.85777	50.2121	6.96897	218.4	-5.46039	-4.33021
69	1.83037	1.83037	51.212	6.89883	218.4	-5.40915	-4.28193
70	1.80298	1.80298	52.2119	6.82717	218.3	-5.3566	-4.23285
71	1.77559	1.77559	53.2117	6.754	218.3	-5.30275	-4.18298
72	1.7482	1.7482	54.2116	6.67936	218.2	-5.24763	-4.13234
73	1.7208	1.7208	55.2114	6.60327	218.2	-5.19126	-4.08094
74	1.69341	1.69341	56.2113	6.52574	218.1	-5.13364	-4.02878
75	1.66602	1.66602	57.2112	6.44682	218.1	-5.07482	-3.97589
76	1.63863	1.63863	58.211	6.36651	218.	-5.0148	-3.92227
77	1.61123	1.61123	59.2109	6.28484	218.	-4.95361	-3.86795
78	1.58384	1.58384	60.2107	6.20184	217.9	-4.89126	-3.81293
79	1.55645	1.55645	61.2106	6.11753	217.9	-4.82778	-3.75722
80	1.52906	1.52906	62.2105	6.03194	217.8	-4.7632	-3.70085
81	1.50166	1.50166	63.2103	5.9451	217.8	-4.69752	-3.64383
82	1.47427	1.47427	64.2102	5.85702	217.8	-4.63078	-3.58616
83	1.44688	1.44688	65.21	5.76772	217.7	-4.56298	-3.52787
84	1.41949	1.41949	66.2099	5.67725	217.7	-4.49415	-3.46896
85	1.39209	1.39209	67.2098	5.58561	217.6	-4.42433	-3.40946
86	1.3647	1.3647	68.2096	5.49285	217.6	-4.35352	-3.34938
87	1.33731	1.33731	69.2095	5.39899	217.5	-4.28175	-3.28872
88	1.30992	1.30992	70.2093	5.30405	217.5	-4.20905	-3.22751
89	1.28252	1.28252	71.2092	5.20806	217.4	-4.13543	-3.16577
90	1.25513	1.25513	72.2091	5.11104	217.4	-4.06091	-3.10351

91	1.22774	1.22774	73.2089	5.01303	217.3	-3.98553	-3.04074
92	1.20035	1.20035	74.2088	4.91405	217.3	-3.90928	-2.97748
93	1.17295	1.17295	75.2086	4.81413	217.2	-3.83222	-2.91374
94	1.14556	1.14556	76.2085	4.7133	217.2	-3.75436	-2.84955
95	1.11817	1.11817	77.2083	4.61158	217.1	-3.67573	-2.78491
96	1.09078	1.09078	78.2082	4.50902	217.1	-3.59634	-2.71985
97	1.06338	1.06338	79.2081	4.40563	217.	-3.51622	-2.65439
98	1.03599	1.03599	80.2079	4.30145	217.	-3.4354	-2.58853
99	1.0086	1.0086	81.2078	4.19651	216.9	-3.3539	-2.52231
100	.981206	.981206	82.2076	4.09082	216.9	-3.27174	-2.45572
101	.953813	.953813	83.2075	3.98445	216.8	-3.18896	-2.3888
102	.926421	.926421	84.2074	3.8774	216.8	-3.10558	-2.32156
103	.899028	.899028	85.2072	3.76972	216.7	-3.02162	-2.25402
104	.871636	.871636	86.2071	3.66143	216.7	-2.9371	-2.1862
105	.844243	.844243	87.207	3.55257	216.6	-2.85207	-2.11812
106	.816851	.816851	88.2068	3.44317	216.5	-2.76654	-2.04979
107	.789458	.789458	89.2067	3.33326	216.5	-2.68054	-1.98125
108	.762066	.762066	90.2065	3.2229	216.4	-2.59411	-1.9125
109	.734673	.734673	91.2064	3.1121	216.3	-2.50727	-1.84357
110	.70728	.70728	92.2063	3.00091	216.3	-2.42005	-1.77449
111	.679888	.679888	93.2061	2.88937	216.2	-2.33249	-1.70527
112	.652495	.652495	94.206	2.77752	216.1	-2.24462	-1.63595
113	.625103	.625103	95.2058	2.6654	216.	-2.15646	-1.56653
114	.59771	.59771	96.2057	2.55305	215.9	-2.06807	-1.49706
115	.570318	.570318	97.2055	2.44053	215.8	-1.97947	-1.42755
116	.542925	.542925	98.2054	2.32788	215.7	-1.8907	-1.35804
117	.515533	.515533	99.2053	2.21515	215.6	-1.80182	-1.28855
118	.48814	.48814	100.205	2.10242	215.4	-1.71286	-1.21913
119	.460748	.460748	101.205	1.98973	215.3	-1.62387	-1.14982
120	.433355	.433355	102.205	1.87717	215.1	-1.53492	-1.08065
121	.405963	.405963	103.205	1.76483	215.	-1.44608	-1.01167
122	.37857	.37857	104.205	1.65281	214.8	-1.35743	-.942957
123	.351178	.351178	105.204	1.54126	214.6	-1.26908	-.874594
124	.323785	.323785	106.204	1.4304	214.3	-1.18121	-.806712
125	.296393	.296393	107.204	1.32041	214.1	-1.09396	-.739416
J6	.269	.269	108.204	1.21931	213.8	-1.01369	-.677604
2J1	.269	.269	108.204	1.177	216.7	-.943219	-.704035
127	.269	.269	109.152	1.08112	216.7	-.867205	-.645589
128	.269	.269	110.1	.97472	216.6	-.782804	-.580773
129	.269	.269	111.049	.865587	216.5	-.696194	-.514348
130	.269	.269	111.997	.753371	216.3	-.607091	-.446103
131	.269	.269	112.945	.637616	216.1	-.51513	-.37576
132	.269	.269	113.893	.51742	215.8	-.419586	-.302772
133	.269	.269	114.842	.391051	215.3	-.319071	-.226086
134	.269	.269	115.79	.254379	214.3	-.21026	-.143176
J7	.269	.269	116.738	.0979204	209.4	-.0853031	-.048081
2J1	3.2	-3.2	1.219	8.06413	222.5	-5.94311	-5.45066
136	3.17261	-3.17261	2.21886	8.10129	222.3	-5.98945	-5.45503
137	3.14522	-3.14522	3.21872	8.13991	222.1	-6.03834	-5.45862
138	3.11782	-3.11782	4.21858	8.17474	221.9	-6.08332	-5.46074
139	3.09043	-3.09043	5.21844	8.20571	221.7	-6.12431	-5.46137
140	3.06304	-3.06304	6.2183	8.23299	221.5	-6.16151	-5.46058
141	3.03565	-3.03565	7.21816	8.25674	221.4	-6.19514	-5.45839
142	3.00825	-3.00825	8.21802	8.27714	221.2	-6.22542	-5.45484
143	2.98086	-2.98086	9.21788	8.29434	221.1	-6.25253	-5.44995
144	2.95347	-2.95347	10.2177	8.30847	220.9	-6.27663	-5.44377
145	2.92608	-2.92608	11.2176	8.31965	220.8	-6.29788	-5.43629
146	2.89868	-2.89868	12.2175	8.32797	220.7	-6.31639	-5.42756
147	2.87129	-2.87129	13.2173	8.33355	220.5	-6.33228	-5.41758
148	2.8439	-2.8439	14.2172	8.33645	220.4	-6.34566	-5.40638

149	2.81651	-2.81651	15.217	8.33675	220.3	-6.35661	-5.39396
150	2.78911	-2.78911	16.2169	8.33452	220.2	-6.36521	-5.38036
151	2.76172	-2.76172	17.2168	8.32982	220.1	-6.37153	-5.36558
152	2.73433	-2.73433	18.2166	8.32269	220.	-6.37564	-5.34962
153	2.70694	-2.70694	19.2165	8.3132	219.9	-6.37758	-5.33252
154	2.67954	-2.67954	20.2163	8.30137	219.8	-6.37742	-5.31426
155	2.65215	-2.65215	21.2162	8.28727	219.7	-6.3752	-5.29488
156	2.62476	-2.62476	22.2161	8.27092	219.6	-6.37096	-5.27437
157	2.59736	-2.59736	23.2159	8.25235	219.5	-6.36474	-5.25276
158	2.56997	-2.56997	24.2158	8.23161	219.4	-6.35658	-5.23004
159	2.54258	-2.54258	25.2156	8.20873	219.4	-6.34652	-5.20624
160	2.51519	-2.51519	26.2155	8.18372	219.3	-6.33457	-5.18136
161	2.48779	-2.48779	27.2154	8.15663	219.2	-6.32079	-5.15541
162	2.4604	-2.4604	28.2152	8.12747	219.1	-6.30517	-5.1284
163	2.43301	-2.43301	29.2151	8.09627	219.	-6.28777	-5.10034
164	2.40562	-2.40562	30.2149	8.06306	219.	-6.2686	-5.07125
165	2.37822	-2.37822	31.2148	8.02786	218.9	-6.24769	-5.04112
166	2.35083	-2.35083	32.2147	7.9907	218.8	-6.22506	-5.00998
167	2.32344	-2.32344	33.2145	7.9516	218.8	-6.20074	-4.97782
168	2.29605	-2.29605	34.2144	7.91058	218.7	-6.17475	-4.94467
169	2.26865	-2.26865	35.2142	7.86767	218.6	-6.1471	-4.91054
170	2.24126	-2.24126	36.2141	7.82288	218.6	-6.11782	-4.87542
171	2.21387	-2.21387	37.214	7.77623	218.5	-6.08692	-4.83934
172	2.18648	-2.18648	38.2138	7.72776	218.4	-6.05445	-4.80229
173	2.15908	-2.15908	39.2137	7.67748	218.4	-6.02039	-4.76431
174	2.13169	-2.13169	40.2135	7.62541	218.3	-5.98479	-4.72538
175	2.1043	-2.1043	41.2134	7.57158	218.2	-5.94766	-4.68553
176	2.07691	-2.07691	42.2133	7.516	218.2	-5.90902	-4.64475
177	2.04951	-2.04951	43.2131	7.45869	218.1	-5.86887	-4.60308
178	2.02212	-2.02212	44.213	7.39969	218.	-5.82727	-4.56052
179	1.99473	-1.99473	45.2128	7.33899	218.	-5.7842	-4.51707
180	1.96734	-1.96734	46.2127	7.27665	217.9	-5.7397	-4.47275
181	1.93994	-1.93994	47.2126	7.21268	217.9	-5.69379	-4.42757
182	1.91255	-1.91255	48.2124	7.14708	217.8	-5.64649	-4.38155
183	1.88516	-1.88516	49.2123	7.0799	217.8	-5.59781	-4.33469
184	1.85777	-1.85777	50.2121	7.01115	217.7	-5.54777	-4.28701
185	1.83037	-1.83037	51.212	6.94085	217.6	-5.4964	-4.23851
186	1.80298	-1.80298	52.2119	6.86903	217.6	-5.4437	-4.18923
187	1.77559	-1.77559	53.2117	6.79571	217.5	-5.38972	-4.13915
188	1.7482	-1.7482	54.2116	6.72092	217.5	-5.33446	-4.08831
189	1.7208	-1.7208	55.2114	6.64467	217.4	-5.27795	-4.0367
190	1.69341	-1.69341	56.2113	6.567	217.4	-5.22019	-3.98435
191	1.66602	-1.66602	57.2112	6.48792	217.3	-5.16123	-3.93126
192	1.63863	-1.63863	58.211	6.40747	217.2	-5.10107	-3.87746
193	1.61123	-1.61123	59.2109	6.32566	217.2	-5.03975	-3.82295
194	1.58384	-1.58384	60.2107	6.24253	217.1	-4.97727	-3.76776
195	1.55645	-1.55645	61.2106	6.15808	217.1	-4.91365	-3.71187
196	1.52906	-1.52906	62.2105	6.07234	217.	-4.84891	-3.65533
197	1.50166	-1.50166	63.2103	5.98536	217.	-4.78309	-3.59813
198	1.47427	-1.47427	64.2102	5.89713	216.9	-4.71619	-3.54029
199	1.44688	-1.44688	65.21	5.8077	216.8	-4.64825	-3.48183
200	1.41949	-1.41949	66.2099	5.71708	216.8	-4.57928	-3.42276
201	1.39209	-1.39209	67.2098	5.62531	216.7	-4.50929	-3.36309
202	1.3647	-1.3647	68.2096	5.53241	216.7	-4.43833	-3.30285
203	1.33731	-1.33731	69.2095	5.43842	216.6	-4.36641	-3.24204
204	1.30992	-1.30992	70.2093	5.34333	216.5	-4.29354	-3.18068
205	1.28252	-1.28252	71.2092	5.24721	216.5	-4.21975	-3.11879
206	1.25513	-1.25513	72.2091	5.15006	216.4	-4.14508	-3.05638
207	1.22774	-1.22774	73.2089	5.05192	216.3	-4.06953	-2.99347
208	1.20035	-1.20035	74.2088	4.95282	216.3	-3.99313	-2.93007

209	1.17295	-1.17295	75.2086	4.85277	216.2	-3.9159	-2.8662
210	1.14556	-1.14556	76.2085	4.75183	216.1	-3.83788	-2.80188
211	1.11817	-1.11817	77.2083	4.64999	216.1	-3.75907	-2.73712
212	1.09078	-1.09078	78.2082	4.54732	216.	-3.67952	-2.67194
213	1.06338	-1.06338	79.2081	4.44382	215.9	-3.59923	-2.60635
214	1.03599	-1.03599	80.2079	4.33953	215.8	-3.51824	-2.54038
215	1.0086	-1.0086	81.2078	4.23448	215.8	-3.43656	-2.47405
216	.981206	-.981206	82.2076	4.12872	215.7	-3.35424	-2.40736
217	.953813	-.953813	83.2075	4.02224	215.6	-3.27128	-2.34033
218	.926421	-.926421	84.2074	3.91511	215.5	-3.18772	-2.27299
219	.899028	-.899028	85.2072	3.80735	215.4	-3.10359	-2.20537
220	.871636	-.871636	86.2071	3.69899	215.3	-3.01891	-2.13745
221	.844243	-.844243	87.207	3.59006	215.2	-2.9337	-2.06929
222	.816851	-.816851	88.2068	3.48061	215.1	-2.848	-2.00089
223	.789458	-.789458	89.2067	3.37067	215.	-2.76183	-1.93227
224	.762066	-.762066	90.2065	3.26027	214.9	-2.67523	-1.86346
225	.734673	-.734673	91.2064	3.14945	214.7	-2.58822	-1.79447
226	.70728	-.70728	92.2063	3.03826	214.6	-2.50084	-1.72534
227	.679888	-.679888	93.2061	2.92672	214.5	-2.41311	-1.65607
228	.652495	-.652495	94.206	2.81488	214.3	-2.32507	-1.5867
229	.625103	-.625103	95.2058	2.70279	214.2	-2.23675	-1.51724
230	.59771	-.59771	96.2057	2.59049	214.	-2.1482	-1.44773
231	.570318	-.570318	97.2055	2.47803	213.8	-2.05943	-1.37819
232	.542925	-.542925	98.2054	2.36547	213.6	-1.97049	-1.30866
233	.515533	-.515533	99.2053	2.25285	213.4	-1.88144	-1.23916
234	.48814	-.48814	100.205	2.14024	213.1	-1.79231	-1.16972
235	.460748	-.460748	101.205	2.02771	212.9	-1.70316	-1.1004
236	.433355	-.433355	102.205	1.91534	212.6	-1.61404	-1.03122
237	.405963	-.405963	103.205	1.80323	212.3	-1.52503	-.962247
238	.37857	-.37857	104.205	1.69147	211.9	-1.4362	-.893538
239	.351178	-.351178	105.204	1.58025	211.5	-1.34769	-.825189
240	.323785	-.323785	106.204	1.46977	211.	-1.25964	-.75732
241	.296393	-.296393	107.204	1.36025	210.5	-1.17222	-.690046
J8	.269	-.269	108.204	1.25965	209.9	-1.09179	-.628262
2J1	.269	-.269	108.204	1.18072	215.9	-.955869	-.693117
243	.269	-.269	109.152	1.08476	215.8	-.879692	-.634701
244	.269	-.269	110.1	.978281	215.6	-.795129	-.569916
245	.269	-.269	111.049	.869079	215.4	-.708353	-.503523
246	.269	-.269	111.997	.756811	215.1	-.619088	-.435309
247	.269	-.269	112.945	.641025	214.7	-.526961	-.364999
248	.269	-.269	113.893	.520835	214.1	-.431253	-.292045
249	.269	-.269	114.842	.394554	213.1	-.330573	-.215394
250	.269	-.269	115.79	.258199	210.9	-.221597	-.132519
J9	.269	-.269	116.738	.103491	201.2	-.0964724	-.0374615
2J1	-3.2	-3.2	1.219	7.93497	224.6	-5.64659	-5.57493
252	-3.17261	-3.17261	2.21886	7.97116	224.4	-5.69309	-5.57926
253	-3.14522	-3.14522	3.21872	8.00879	224.2	-5.74218	-5.58283
254	-3.11782	-3.11782	4.21858	8.04273	224.	-5.7874	-5.58494
255	-3.09043	-3.09043	5.21844	8.07292	223.8	-5.82865	-5.58559
256	-3.06304	-3.06304	6.2183	8.09949	223.6	-5.86614	-5.58482
257	-3.03565	-3.03565	7.21816	8.12263	223.4	-5.90008	-5.58266
258	-3.00825	-3.00825	8.21802	8.1425	223.3	-5.93071	-5.57916
259	-2.98086	-2.98086	9.21788	8.15925	223.1	-5.95819	-5.57435
260	-2.95347	-2.95347	10.2177	8.17299	222.9	-5.98268	-5.56824
261	-2.92608	-2.92608	11.2176	8.18385	222.8	-6.00435	-5.56086
262	-2.89868	-2.89868	12.2175	8.19191	222.7	-6.0233	-5.55223
263	-2.87129	-2.87129	13.2173	8.19728	222.5	-6.03967	-5.54237
264	-2.8439	-2.8439	14.2172	8.20003	222.4	-6.05354	-5.53129
265	-2.81651	-2.81651	15.217	8.20023	222.3	-6.065	-5.51902
266	-2.78911	-2.78911	16.2169	8.19795	222.2	-6.07414	-5.50557

267	-2.76172	-2.76172	17.2168	8.19325	222.1	-6.08102	-5.49094
268	-2.73433	-2.73433	18.2166	8.18616	222.	-6.08571	-5.47516
269	-2.70694	-2.70694	19.2165	8.17675	221.9	-6.08826	-5.45823
270	-2.67954	-2.67954	20.2163	8.16506	221.8	-6.08873	-5.44018
271	-2.65215	-2.65215	21.2162	8.15111	221.7	-6.08715	-5.421
272	-2.62476	-2.62476	22.2161	8.13495	221.6	-6.08357	-5.4007
273	-2.59736	-2.59736	23.2159	8.11662	221.5	-6.07804	-5.37931
274	-2.56997	-2.56997	24.2158	8.09613	221.4	-6.07057	-5.35681
275	-2.54258	-2.54258	25.2156	8.07353	221.3	-6.06122	-5.33325
276	-2.51519	-2.51519	26.2155	8.04884	221.3	-6.05001	-5.3086
277	-2.48779	-2.48779	27.2154	8.02208	221.2	-6.03695	-5.2829
278	-2.4604	-2.4604	28.2152	7.99329	221.1	-6.0221	-5.25614
279	-2.43301	-2.43301	29.2151	7.96249	221.	-6.00547	-5.22834
280	-2.40562	-2.40562	30.2149	7.9297	221.	-5.98709	-5.19951
281	-2.37822	-2.37822	31.2148	7.89494	220.9	-5.96698	-5.16965
282	-2.35083	-2.35083	32.2147	7.85825	220.8	-5.94516	-5.13878
283	-2.32344	-2.32344	33.2145	7.81962	220.8	-5.92165	-5.10691
284	-2.29605	-2.29605	34.2144	7.7791	220.7	-5.89649	-5.07403
285	-2.26865	-2.26865	35.2142	7.7367	220.7	-5.86967	-5.04018
286	-2.24126	-2.24126	36.2141	7.69244	220.6	-5.84124	-5.00535
287	-2.21387	-2.21387	37.214	7.64635	220.5	-5.81121	-4.96956
288	-2.18648	-2.18648	38.2138	7.59845	220.5	-5.77959	-4.93282
289	-2.15908	-2.15908	39.2137	7.54875	220.4	-5.74642	-4.89513
290	-2.13169	-2.13169	40.2135	7.49727	220.4	-5.7117	-4.85651
291	-2.1043	-2.1043	41.2134	7.44406	220.3	-5.67546	-4.81696
292	-2.07691	-2.07691	42.2133	7.38909	220.3	-5.6377	-4.7765
293	-2.04951	-2.04951	43.2131	7.33242	220.2	-5.59847	-4.73514
294	-2.02212	-2.02212	44.213	7.27406	220.2	-5.55776	-4.69289
295	-1.99473	-1.99473	45.2128	7.21402	220.1	-5.51561	-4.64975
296	-1.96734	-1.96734	46.2127	7.15234	220.1	-5.47202	-4.60575
297	-1.93994	-1.93994	47.2126	7.08903	220.	-5.42703	-4.56089
298	-1.91255	-1.91255	48.2124	7.02412	220.	-5.38064	-4.51518
299	-1.88516	-1.88516	49.2123	6.95762	220.	-5.33288	-4.46865
300	-1.85777	-1.85777	50.2121	6.88956	219.9	-5.28378	-4.42128
301	-1.83037	-1.83037	51.212	6.81995	219.9	-5.23332	-4.37311
302	-1.80298	-1.80298	52.2119	6.74883	219.8	-5.18156	-4.32414
303	-1.77559	-1.77559	53.2117	6.67621	219.8	-5.1285	-4.27438
304	-1.7482	-1.7482	54.2116	6.60212	219.8	-5.07416	-4.22384
305	-1.7208	-1.7208	55.2114	6.52657	219.7	-5.01856	-4.17255
306	-1.69341	-1.69341	56.2113	6.44959	219.7	-4.96172	-4.1205
307	-1.66602	-1.66602	57.2112	6.3712	219.7	-4.90366	-4.06771
308	-1.63863	-1.63863	58.211	6.29143	219.6	-4.8444	-4.01421
309	-1.61123	-1.61123	59.2109	6.2103	219.6	-4.78396	-3.95999
310	-1.58384	-1.58384	60.2107	6.12784	219.6	-4.72237	-3.90508
311	-1.55645	-1.55645	61.2106	6.04406	219.6	-4.65964	-3.84948
312	-1.52906	-1.52906	62.2105	5.959	219.5	-4.59579	-3.79321
313	-1.50166	-1.50166	63.2103	5.87268	219.5	-4.53084	-3.73629
314	-1.47427	-1.47427	64.2102	5.78512	219.5	-4.46482	-3.67872
315	-1.44688	-1.44688	65.21	5.69635	219.5	-4.39774	-3.62054
316	-1.41949	-1.41949	66.2099	5.60639	219.4	-4.32963	-3.56173
317	-1.39209	-1.39209	67.2098	5.51529	219.4	-4.26052	-3.50234
318	-1.3647	-1.3647	68.2096	5.42304	219.4	-4.19041	-3.44236
319	-1.33731	-1.33731	69.2095	5.32969	219.4	-4.11934	-3.38181
320	-1.30992	-1.30992	70.2093	5.23526	219.4	-4.04732	-3.32071
321	-1.28252	-1.28252	71.2092	5.13976	219.4	-3.97437	-3.25906
322	-1.25513	-1.25513	72.2091	5.04324	219.3	-3.90053	-3.1969
323	-1.22774	-1.22774	73.2089	4.94572	219.3	-3.8258	-3.13423
324	-1.20035	-1.20035	74.2088	4.84722	219.3	-3.75022	-3.07106
325	-1.17295	-1.17295	75.2086	4.74778	219.3	-3.6738	-3.00742
326	-1.14556	-1.14556	76.2085	4.64742	219.3	-3.59658	-2.94332

327	-1.11817	-1.11817	77.2083	4.54617	219.3	-3.51856	-2.87877
328	-1.09078	-1.09078	78.2082	4.44406	219.3	-3.43979	-2.8138
329	-1.06338	-1.06338	79.2081	4.34111	219.3	-3.36028	-2.74842
330	-1.03599	-1.03599	80.2079	4.23737	219.3	-3.28005	-2.68264
331	-1.0086	-1.0086	81.2078	4.13285	219.3	-3.19914	-2.61649
332	-.981206	-.981206	82.2076	4.0276	219.3	-3.11756	-2.54997
333	-.953813	-.953813	83.2075	3.92163	219.3	-3.03534	-2.48312
334	-.926421	-.926421	84.2074	3.81498	219.3	-2.95251	-2.41594
335	-.899028	-.899028	85.2072	3.70769	219.3	-2.86909	-2.34846
336	-.871636	-.871636	86.2071	3.59979	219.3	-2.78512	-2.2807
337	-.844243	-.844243	87.207	3.4913	219.3	-2.70061	-2.21266
338	-.816851	-.816851	88.2068	3.38227	219.3	-2.61559	-2.14438
339	-.789458	-.789458	89.2067	3.27272	219.4	-2.5301	-2.07587
340	-.762066	-.762066	90.2065	3.1627	219.4	-2.44417	-2.00716
341	-.734673	-.734673	91.2064	3.05224	219.4	-2.35782	-1.93826
342	-.70728	-.70728	92.2063	2.94138	219.5	-2.27108	-1.86921
343	-.679888	-.679888	93.2061	2.83016	219.5	-2.18399	-1.8
344	-.652495	-.652495	94.206	2.71862	219.5	-2.09657	-1.73068
345	-.625103	-.625103	95.2058	2.6068	219.6	-2.00887	-1.66127
346	-.59771	-.59771	96.2057	2.49475	219.6	-1.92092	-1.5918
347	-.570318	-.570318	97.2055	2.38252	219.7	-1.83276	-1.52229
348	-.542925	-.542925	98.2054	2.27015	219.8	-1.74443	-1.45277
349	-.515533	-.515533	99.2053	2.1577	219.9	-1.65596	-1.38327
350	-.48814	-.48814	100.205	2.04523	220.	-1.56742	-1.31384
351	-.460748	-.460748	101.205	1.93281	220.1	-1.47885	-1.24449
352	-.433355	-.433355	102.205	1.8205	220.2	-1.3903	-1.17528
353	-.405963	-.405963	103.205	1.7084	220.4	-1.30185	-1.10626
354	-.37857	-.37857	104.205	1.59662	220.5	-1.21359	-1.0375
355	-.351178	-.351178	105.204	1.4853	220.7	-1.12563	-.969071
356	-.323785	-.323785	106.204	1.37468	221.	-1.03814	-.901118
357	-.296393	-.296393	107.204	1.26493	221.2	-.951266	-.833744
J10	-.269	-.269	108.204	1.16405	221.5	-.871358	-.77185
2J1	-.269	-.269	108.204	1.17112	218.2	-.920613	-.723874
359	-.269	-.269	109.152	1.07545	218.2	-.844931	-.665347
360	-.269	-.269	110.1	.969261	218.3	-.760877	-.600445
361	-.269	-.269	111.049	.86034	218.4	-.674612	-.533933
362	-.269	-.269	111.997	.748335	218.5	-.585853	-.465599
363	-.269	-.269	112.945	.632791	218.6	-.494233	-.395168
364	-.269	-.269	113.893	.512804	218.9	-.399029	-.322092
365	-.269	-.269	114.842	.386644	219.4	-.298852	-.245317
366	-.269	-.269	115.79	.250182	220.5	-.190379	-.162317
J11	-.269	-.269	116.738	.0939737	225.6	-.0657583	-.0671334
2J1	-3.2	3.2	1.219	7.90628	225.2	-5.56961	-5.61148
368	-3.17261	3.17261	2.21886	7.94219	225.	-5.61615	-5.61581
369	-3.14522	3.14522	3.21872	7.97951	224.8	-5.66526	-5.61938
370	-3.11782	3.11782	4.21858	8.01318	224.6	-5.7105	-5.6215
371	-3.09043	3.09043	5.21844	8.04312	224.3	-5.75178	-5.62217
372	-3.06304	3.06304	6.2183	8.06946	224.2	-5.78928	-5.62143
373	-3.03565	3.03565	7.21816	8.09239	224.	-5.82324	-5.61931
374	-3.00825	3.00825	8.21802	8.11206	223.8	-5.85388	-5.61585
375	-2.98086	2.98086	9.21788	8.12863	223.7	-5.88136	-5.61107
376	-2.95347	2.95347	10.2177	8.14221	223.5	-5.90587	-5.60502
377	-2.92608	2.92608	11.2176	8.15292	223.4	-5.92754	-5.5977
378	-2.89868	2.89868	12.2175	8.16085	223.2	-5.94651	-5.58914
379	-2.87129	2.87129	13.2173	8.16608	223.1	-5.96287	-5.57935
380	-2.8439	2.8439	14.2172	8.16872	223.	-5.97674	-5.56835
381	-2.81651	2.81651	15.217	8.16881	222.9	-5.9882	-5.55616
382	-2.78911	2.78911	16.2169	8.16644	222.7	-5.99734	-5.5428
383	-2.76172	2.76172	17.2168	8.16164	222.6	-6.00422	-5.52827
384	-2.73433	2.73433	18.2166	8.15449	222.5	-6.00892	-5.51259

385	-2.70694	2.70694	19.2165	8.14501	222.4	-6.01147	-5.49577
386	-2.67954	2.67954	20.2163	8.13326	222.3	-6.01193	-5.47782
387	-2.65215	2.65215	21.2162	8.11927	222.2	-6.01037	-5.45876
388	-2.62476	2.62476	22.2161	8.10308	222.2	-6.00679	-5.43859
389	-2.59736	2.59736	23.2159	8.08471	222.1	-6.00126	-5.41732
390	-2.56997	2.56997	24.2158	8.06421	222.	-5.99382	-5.39497
391	-2.54258	2.54258	25.2156	8.0416	221.9	-5.98448	-5.37153
392	-2.51519	2.51519	26.2155	8.01691	221.8	-5.97328	-5.34703
393	-2.48779	2.48779	27.2154	7.99016	221.8	-5.96025	-5.32147
394	-2.4604	2.4604	28.2152	7.96137	221.7	-5.94541	-5.29486
395	-2.43301	2.43301	29.2151	7.93058	221.6	-5.9288	-5.26721
396	-2.40562	2.40562	30.2149	7.89781	221.6	-5.91044	-5.23853
397	-2.37822	2.37822	31.2148	7.86308	221.5	-5.89035	-5.20883
398	-2.35083	2.35083	32.2147	7.82642	221.4	-5.86855	-5.17811
399	-2.32344	2.32344	33.2145	7.78784	221.4	-5.84509	-5.14641
400	-2.29605	2.29605	34.2144	7.74737	221.3	-5.81995	-5.1137
401	-2.26865	2.26865	35.2142	7.70502	221.2	-5.79318	-5.08001
402	-2.24126	2.24126	36.2141	7.66082	221.2	-5.76478	-5.04535
403	-2.21387	2.21387	37.214	7.61478	221.1	-5.73478	-5.00972
404	-2.18648	2.18648	38.2138	7.56694	221.1	-5.7032	-4.97314
405	-2.15908	2.15908	39.2137	7.51731	221.	-5.67007	-4.93561
406	-2.13169	2.13169	40.2135	7.4659	221.	-5.63539	-4.89715
407	-2.1043	2.1043	41.2134	7.41275	220.9	-5.5992	-4.85777
408	-2.07691	2.07691	42.2133	7.35788	220.9	-5.5615	-4.81748
409	-2.04951	2.04951	43.2131	7.3013	220.9	-5.52233	-4.77629
410	-2.02212	2.02212	44.213	7.24304	220.8	-5.48169	-4.73421
411	-1.99473	1.99473	45.2128	7.18311	220.8	-5.4396	-4.69125
412	-1.96734	1.96734	46.2127	7.12155	220.7	-5.3961	-4.64742
413	-1.93994	1.93994	47.2126	7.05835	220.7	-5.35118	-4.60274
414	-1.91255	1.91255	48.2124	6.99356	220.7	-5.30488	-4.55721
415	-1.88516	1.88516	49.2123	6.9272	220.6	-5.25722	-4.51084
416	-1.85777	1.85777	50.2121	6.85927	220.6	-5.2082	-4.46366
417	-1.83037	1.83037	51.212	6.78981	220.6	-5.15785	-4.41566
418	-1.80298	1.80298	52.2119	6.71883	220.5	-5.10619	-4.36686
419	-1.77559	1.77559	53.2117	6.64637	220.5	-5.05324	-4.31728
420	-1.7482	1.7482	54.2116	6.57242	220.5	-4.99902	-4.26692
421	-1.7208	1.7208	55.2114	6.49704	220.5	-4.94354	-4.21579
422	-1.69341	1.69341	56.2113	6.42022	220.4	-4.88682	-4.16392
423	-1.66602	1.66602	57.2112	6.34201	220.4	-4.82889	-4.11131
424	-1.63863	1.63863	58.211	6.26242	220.4	-4.76977	-4.05798
425	-1.61123	1.61123	59.2109	6.18147	220.4	-4.70948	-4.00393
426	-1.58384	1.58384	60.2107	6.0992	220.4	-4.64802	-3.94919
427	-1.55645	1.55645	61.2106	6.01561	220.3	-4.58544	-3.89376
428	-1.52906	1.52906	62.2105	5.93074	220.3	-4.52173	-3.83766
429	-1.50166	1.50166	63.2103	5.84462	220.3	-4.45694	-3.7809
430	-1.47427	1.47427	64.2102	5.75725	220.3	-4.39107	-3.7235
431	-1.44688	1.44688	65.21	5.66867	220.3	-4.32414	-3.66547
432	-1.41949	1.41949	66.2099	5.57891	220.3	-4.25619	-3.60681
433	-1.39209	1.39209	67.2098	5.48799	220.3	-4.18723	-3.54756
434	-1.3647	1.3647	68.2096	5.39594	220.3	-4.11728	-3.48772
435	-1.33731	1.33731	69.2095	5.30278	220.3	-4.04636	-3.42731
436	-1.30992	1.30992	70.2093	5.20853	220.3	-3.97449	-3.36634
437	-1.28252	1.28252	71.2092	5.11324	220.3	-3.90171	-3.30483
438	-1.25513	1.25513	72.2091	5.01692	220.3	-3.82803	-3.24279
439	-1.22774	1.22774	73.2089	4.9196	220.3	-3.75347	-3.18024
440	-1.20035	1.20035	74.2088	4.8213	220.3	-3.67805	-3.1172
441	-1.17295	1.17295	75.2086	4.72206	220.3	-3.60181	-3.05367
442	-1.14556	1.14556	76.2085	4.62191	220.3	-3.52475	-2.98968
443	-1.11817	1.11817	77.2083	4.52087	220.3	-3.44691	-2.92525
444	-1.09078	1.09078	78.2082	4.41897	220.3	-3.36831	-2.86038

445	-1.06338	1.06338	79.2081	4.31624	220.4	-3.28897	-2.7951
446	-1.03599	1.03599	80.2079	4.21271	220.4	-3.20892	-2.72942
447	-1.0086	1.0086	81.2078	4.10841	220.4	-3.12818	-2.66337
448	-.981206	.981206	82.2076	4.00338	220.4	-3.04678	-2.59695
449	-.953813	.953813	83.2075	3.89764	220.5	-2.96475	-2.53019
450	-.926421	.926421	84.2074	3.79122	220.5	-2.8821	-2.4631
451	-.899028	.899028	85.2072	3.68416	220.6	-2.79886	-2.3957
452	-.871636	.871636	86.2071	3.57648	220.6	-2.71507	-2.32801
453	-.844243	.844243	87.207	3.46823	220.7	-2.63075	-2.26005
454	-.816851	.816851	88.2068	3.35944	220.7	-2.54592	-2.19184
455	-.789458	.789458	89.2067	3.25014	220.8	-2.46061	-2.1234
456	-.762066	.762066	90.2065	3.14037	220.9	-2.37486	-2.05474
457	-.734673	.734673	91.2064	3.03017	220.9	-2.28869	-1.98591
458	-.70728	.70728	92.2063	2.91958	221.	-2.20214	-1.9169
459	-.679888	.679888	93.2061	2.80863	221.1	-2.11523	-1.84775
460	-.652495	.652495	94.206	2.69736	221.2	-2.028	-1.77848
461	-.625103	.625103	95.2058	2.58584	221.4	-1.94049	-1.70911
462	-.59771	.59771	96.2057	2.47409	221.5	-1.85272	-1.63967
463	-.570318	.570318	97.2055	2.36217	221.7	-1.76474	-1.57019
464	-.542925	.542925	98.2054	2.25012	221.8	-1.67659	-1.5007
465	-.515533	.515533	99.2053	2.13801	222.	-1.5883	-1.43122
466	-.48814	.48814	100.205	2.0259	222.2	-1.49993	-1.36179
467	-.460748	.460748	101.205	1.91386	222.5	-1.41154	-1.29245
468	-.433355	.433355	102.205	1.80198	222.8	-1.32317	-1.22325
469	-.405963	.405963	103.205	1.69033	223.1	-1.23489	-1.15423
470	-.37857	.37857	104.205	1.57905	223.4	-1.14681	-1.08545
471	-.351178	.351178	105.204	1.46828	223.8	-1.05902	-1.01702
472	-.323785	.323785	106.204	1.35827	224.3	-.971701	-.949053
473	-.296393	.296393	107.204	1.24922	224.9	-.885003	-.881651
J12	-.269	.269	108.204	1.14908	225.5	-.805253	-.819732
2J1	-.269	.269	108.204	1.16595	219.	-.906492	-.733293
475	-.269	.269	109.152	1.07041	219.1	-.830966	-.674734
476	-.269	.269	110.1	.964359	219.2	-.747081	-.609801
477	-.269	.269	111.049	.855579	219.4	-.660974	-.543257
478	-.269	.269	111.997	.743733	219.7	-.572377	-.474892
479	-.269	.269	112.945	.628367	220.1	-.480919	-.404428
480	-.269	.269	113.893	.508598	220.6	-.385876	-.331318
481	-.269	.269	114.842	.38274	221.7	-.28586	-.254507
482	-.269	.269	115.79	.246832	224.	-.177548	-.171473
J13	-.269	.269	116.738	.0929133	235.2	-.053092	-.0762505
2J1	3.2	3.2	1.219	.179933	10.8	.176753	.03368
484	3.2	2.13333	1.219	.125804	12.8	.122693	.0278012
485	3.2	1.06667	1.219	.0542343	21.4	.0505035	.0197674
486	3.2	0	1.219	.0287982	157.3	-.0265635	.0111227
487	3.2	-1.06667	1.219	.103652	178.6	-.103623	2.48E-03
488	3.2	-2.13333	1.219	.175877	181.8	-.175789	-5.57E-03
2J2	3.2	-3.2	1.219	.230103	182.9	-.229818	-.0114537
2J1	3.2	-3.2	1.219	.293089	357.1	.292707	-.014957
491	2.13333	-3.2	1.219	.239569	355.	.238661	-.0208406
492	1.06667	-3.2	1.219	.168936	350.2	.166451	-.0288693
493	0	-3.2	1.219	.0968742	337.2	.0893233	-.0374961
494	-1.06667	-3.2	1.219	.0476906	284.8	.0121641	-.0461132
495	-2.13333	-3.2	1.219	.0808974	222.	-.0601343	-.0541133
2J2	-3.2	-3.2	1.219	.129067	207.7	-.114295	-.0599588
2J1	-3.2	-3.2	1.219	.227844	2.8	.227579	.0109865
498	-3.2	-2.13333	1.219	.173469	1.7	.173393	5.15E-03
499	-3.2	-1.06667	1.219	.101068	358.4	.101028	-2.83E-03
500	-3.2	0	1.219	.0263633	334.3	.0237615	-.0114199
501	-3.2	1.06667	1.219	.0571284	200.5	-.0535118	-.0200035
502	-3.2	2.13333	1.219	.128968	192.5	-.125896	-.0279786

2J2	-3.2	3.2	1.219	.183253	190.6	-.180108	-.0338086
2J1	-3.2	3.2	1.219	.131766	27.2	.117234	.0601544
505	-2.13333	3.2	1.219	.0832127	40.8	.0630377	.0543194
506	-1.06667	3.2	1.219	.0472571	101.4	-9.31E-03	.0463318
507	0	3.2	1.219	.0943818	156.4	-.0865133	.0377276
508	1.06667	3.2	1.219	.16626	169.9	-.163691	.0291136
509	2.13333	3.2	1.219	.236891	174.9	-.235949	.0210978
2J2	3.2	3.2	1.219	.290435	177.	-.290036	.0152255
2J1	.269	.269	108.204	.0343194	313.	.0233959	-.0251089
2J2	.269	-.269	108.204	.0401111	339.	.0374574	-.0143471
2J1	.269	-.269	108.204	.110658	152.8	-.0984585	.0505078
2J2	-.269	-.269	108.204	.104351	144.	-.0844584	.0612847
2J1	-.269	-.269	108.204	.0376353	159.3	-.0352035	.0133091
2J2	-.269	.269	108.204	.0321851	131.5	-.0213189	.024112
2J1	-.269	.269	108.204	.101351	322.1	.0799202	-.0623277
2J2	.269	.269	108.204	.107084	331.2	.0938644	-.0515399
2J1	.269	.269	116.738	.046551	226.2	-.0322032	-.0336147
2J2	.269	-.269	116.738	.0491234	28.7	.0430936	.0235807
2J1	.269	-.269	116.738	.0551541	194.6	-.0533788	-.0138808
2J2	-.269	-.269	116.738	.0485247	63.3	.021823	.0433406
2J1	-.269	-.269	116.738	.0499641	208.4	-.0439353	-.0237929
2J2	-.269	.269	116.738	.0456797	47.1	.0310815	.033475
2J1	-.269	.269	116.738	.0481061	242.8	-.0220105	-.0427755
2J2	.269	.269	116.738	.0550352	15.2	.0530999	.0144663
GND	83.78	-28.2	0	40.8448	4.	40.7471	2.82377
528	83.78	-28.2	.6095	40.8358	3.9	40.7401	2.79403
J26	83.78	-28.2	1.219	40.8347	3.9	40.7394	2.78838
2J1	83.78	-28.2	1.219	9.9581	3.9	9.9353	.673481
530	84.58	-27.4	1.14275	9.94827	3.8	9.92667	.655257
531	85.38	-26.6	1.0665	9.93213	3.6	9.91225	.628207
532	86.18	-25.8	.99025	9.91485	3.5	9.89655	.602099
J27	86.98	-25.	.914	9.90304	3.4	9.88572	.585506
2J1	83.78	-28.2	1.219	10.0075	3.8	9.98515	.668005
534	84.58	-29.	1.14275	9.99766	3.7	9.97652	.649782
535	85.38	-29.8	1.0665	9.98154	3.6	9.9621	.622743
536	86.18	-30.6	.99025	9.96428	3.4	9.9464	.596645
J28	86.98	-31.4	.914	9.95253	3.3	9.93561	.580063
2J1	83.78	-28.2	1.219	10.4684	4.	10.4433	.724751
538	82.98	-29.	1.14275	10.4584	3.9	10.4345	.706513
539	82.18	-29.8	1.0665	10.4424	3.7	10.4202	.679461
540	81.38	-30.6	.99025	10.425	3.6	10.4045	.653327
J29	80.58	-31.4	.914	10.4128	3.5	10.3933	.636701
2J1	83.78	-28.2	1.219	10.4008	4.	10.3757	.722142
542	82.98	-27.4	1.14275	10.3909	3.9	10.367	.7039
543	82.18	-26.6	1.0665	10.3747	3.7	10.3526	.67684
544	81.38	-25.8	.99025	10.3572	3.6	10.3367	.650696
J30	80.58	-25.	.914	10.3456	3.5	10.3261	.634092
2J1	86.98	-25.	.914	9.9303	2.4	9.92158	.415951
546	86.9526	-25.0274	1.91386	9.91493	2.3	9.90694	.397896
547	86.9252	-25.0548	2.91372	9.89658	2.2	9.88934	.378539
548	86.8978	-25.0822	3.91358	9.87696	2.1	9.87038	.360254
549	86.8704	-25.1096	4.91344	9.85599	2.	9.85002	.342999
550	86.843	-25.137	5.9133	9.83374	1.9	9.82831	.326665
551	86.8157	-25.1644	6.91316	9.81012	1.8	9.80519	.311148
552	86.7883	-25.1918	7.91302	9.785	1.7	9.78051	.296356
553	86.7609	-25.2191	8.91288	9.75843	1.7	9.75435	.282213
554	86.7335	-25.2465	9.91274	9.73027	1.6	9.72656	.268658
555	86.7061	-25.2739	10.9126	9.70058	1.5	9.69721	.255633
556	86.6787	-25.3013	11.9125	9.66937	1.4	9.66631	.243092
557	86.6513	-25.3287	12.9123	9.63648	1.4	9.63372	.230993

558	86.6239	-25.3561	13.9122	9.602	1.3	9.59949	.219301
559	86.5965	-25.3835	14.912	9.5659	1.2	9.56364	.207986
560	86.5691	-25.4109	15.9119	9.52813	1.2	9.52609	.19702
561	86.5417	-25.4383	16.9118	9.48868	1.1	9.48685	.186381
562	86.5143	-25.4657	17.9116	9.44762	1.1	9.44598	.176048
563	86.4869	-25.4931	18.9115	9.40495	1.	9.40348	.166004
564	86.4596	-25.5205	19.9113	9.36059	1.	9.35929	.156234
565	86.4322	-25.5479	20.9112	9.31455	.9	9.3134	.146724
566	86.4048	-25.5752	21.9111	9.2669	.8	9.26588	.137461
567	86.3774	-25.6026	22.9109	9.21763	.8	9.21673	.128437
568	86.35	-25.63	23.9108	9.16667	.7	9.16589	.119642
569	86.3226	-25.6574	24.9106	9.1141	.7	9.11343	.111067
570	86.2952	-25.6848	25.9105	9.05991	.6	9.05933	.102706
571	86.2678	-25.7122	26.9104	9.00411	.6	9.00361	.0945524
572	86.2404	-25.7396	27.9102	8.94668	.6	8.94626	.0866003
573	86.213	-25.767	28.9101	8.88764	.5	8.88729	.0788447
574	86.1856	-25.7944	29.9099	8.82705	.5	8.82676	.0712808
575	86.1582	-25.8218	30.9098	8.76491	.4	8.76468	.0639051
576	86.1308	-25.8492	31.9097	8.70122	.4	8.70104	.0567136
577	86.1034	-25.8766	32.9095	8.63592	.3	8.63577	.0497032
578	86.0761	-25.904	33.9094	8.56913	.3	8.56902	.0428709
579	86.0487	-25.9313	34.9092	8.50079	.2	8.50072	.036214
580	86.0213	-25.9587	35.9091	8.43098	.2	8.43092	.0297302
581	85.9939	-25.9861	36.909	8.35961	.2	8.35958	.0234174
582	85.9665	-26.0135	37.9088	8.28683	.1	8.28682	.0172735
583	85.9391	-26.0409	38.9087	8.21258	.1	8.21257	.0112968
584	85.9117	-26.0683	39.9085	8.13684	0.0	8.13684	5.49E-03
585	85.8843	-26.0957	40.9084	8.05969	360.	8.05969	-1.61E-04
586	85.8569	-26.1231	41.9083	7.98113	360.	7.98113	-5.65E-03
587	85.8295	-26.1505	42.9081	7.90117	359.9	7.90116	-.0109676
588	85.8021	-26.1779	43.908	7.81979	359.9	7.81977	-.0161295
589	85.7747	-26.2053	44.9078	7.73714	359.8	7.73711	-.0211318
590	85.7473	-26.2327	45.9077	7.65308	359.8	7.65303	-.0259755
591	85.72	-26.2601	46.9076	7.56768	359.8	7.56762	-.0306614
592	85.6926	-26.2875	47.9074	7.48101	359.7	7.48092	-.0351902
593	85.6652	-26.3148	48.9073	7.39307	359.7	7.39296	-.0395628
594	85.6378	-26.3422	49.9071	7.30378	359.7	7.30365	-.0437797
595	85.6104	-26.3696	50.907	7.21337	359.6	7.21321	-.0478416
596	85.583	-26.397	51.9069	7.12162	359.6	7.12143	-.051749
597	85.5556	-26.4244	52.9067	7.02875	359.5	7.02853	-.0555024
598	85.5282	-26.4518	53.9066	6.93466	359.5	6.93441	-.0591025
599	85.5008	-26.4792	54.9064	6.83941	359.5	6.83912	-.0625495
600	85.4734	-26.5066	55.9063	6.74302	359.4	6.7427	-.065844
601	85.446	-26.534	56.9062	6.64551	359.4	6.64515	-.0689864
602	85.4186	-26.5614	57.906	6.5469	359.4	6.5465	-.0719773
603	85.3912	-26.5888	58.9059	6.44722	359.3	6.44679	-.0748163
604	85.3639	-26.6162	59.9057	6.34648	359.3	6.34601	-.0775054
605	85.3365	-26.6436	60.9056	6.24472	359.3	6.24421	-.0800433
606	85.3091	-26.6709	61.9055	6.14195	359.2	6.14139	-.0824312
607	85.2817	-26.6983	62.9053	6.03818	359.2	6.03759	-.0846692
608	85.2543	-26.7257	63.9052	5.93347	359.2	5.93284	-.086758
609	85.2269	-26.7531	64.905	5.82782	359.1	5.82715	-.0886983
610	85.1995	-26.7805	65.9049	5.72126	359.1	5.72054	-.0904894
611	85.1721	-26.8079	66.9048	5.61381	359.1	5.61305	-.0921327
612	85.1447	-26.8353	67.9046	5.5055	359.	5.5047	-.0936282
613	85.1173	-26.8627	68.9045	5.39636	359.	5.39552	-.0949767
614	85.0899	-26.8901	69.9043	5.2864	359.	5.28552	-.0961781
615	85.0625	-26.9175	70.9042	5.17565	358.9	5.17474	-.0972331
616	85.0351	-26.9449	71.9041	5.06415	358.9	5.0632	-.0981417
617	85.0077	-26.9723	72.9039	4.95191	358.9	4.95093	-.0989054

618	84.9804	-26.9997	73.9038	4.83897	358.8	4.83794	-.0995248
619	84.953	-27.0271	74.9036	4.72534	358.8	4.72428	-.0999993
620	84.9256	-27.0544	75.9035	4.61106	358.8	4.60997	-.10033
621	84.8982	-27.0818	76.9033	4.49615	358.7	4.49503	-.100518
622	84.8708	-27.1092	77.9032	4.38064	358.7	4.37949	-.100563
623	84.8434	-27.1366	78.9031	4.26456	358.7	4.26338	-.100466
624	84.816	-27.164	79.9029	4.14793	358.6	4.14672	-.100228
625	84.7886	-27.1914	80.9028	4.03078	358.6	4.02954	-.0998501
626	84.7612	-27.2188	81.9027	3.91314	358.5	3.91188	-.0993325
627	84.7338	-27.2462	82.9025	3.79505	358.5	3.79376	-.0986756
628	84.7064	-27.2736	83.9024	3.67652	358.5	3.67522	-.0978815
629	84.679	-27.301	84.9022	3.55759	358.4	3.55627	-.0969495
630	84.6516	-27.3284	85.9021	3.43829	358.4	3.43695	-.0958818
631	84.6242	-27.3558	86.902	3.31864	358.4	3.31729	-.094679
632	84.5969	-27.3832	87.9018	3.19869	358.3	3.19733	-.0933418
633	84.5695	-27.4105	88.9017	3.07846	358.3	3.07709	-.0918725
634	84.5421	-27.4379	89.9015	2.95798	358.3	2.9566	-.0902702
635	84.5147	-27.4653	90.9014	2.83727	358.2	2.83589	-.0885378
636	84.4873	-27.4927	91.9013	2.71638	358.2	2.71499	-.0866759
637	84.4599	-27.5201	92.9011	2.59532	358.1	2.59394	-.0846854
638	84.4325	-27.5475	93.901	2.47415	358.1	2.47277	-.0825683
639	84.4051	-27.5749	94.9008	2.35289	358.	2.35152	-.0803254
640	84.3777	-27.6023	95.9007	2.23157	358.	2.23021	-.0779594
641	84.3503	-27.6297	96.9005	2.11023	358.	2.10888	-.0754704
642	84.3229	-27.6571	97.9004	1.98891	357.9	1.98758	-.0728605
643	84.2955	-27.6845	98.9003	1.86765	357.8	1.86633	-.0701323
644	84.2681	-27.7119	99.9001	1.74646	357.8	1.74517	-.0672869
645	84.2408	-27.7393	100.9	1.62542	357.7	1.62414	-.0643269
646	84.2134	-27.7667	101.9	1.50455	357.7	1.50331	-.0612537
647	84.186	-27.794	102.9	1.38391	357.6	1.38269	-.05807
648	84.1586	-27.8214	103.9	1.26356	357.5	1.26237	-.0547787
649	84.1312	-27.8488	104.899	1.14359	357.4	1.14243	-.0513835
650	84.1038	-27.8762	105.899	1.02413	357.3	1.02301	-.0478899
651	84.0764	-27.9036	106.899	.90525	357.2	.904165	-.0443011
J31	84.049	-27.931	107.899	.795196	357.1	.794145	-.040876
2J1	84.049	-27.931	107.899	.848112	358.	.847597	-.0295487
653	84.049	-27.931	108.53	.783414	358.	.782932	-.0274801
654	84.049	-27.931	109.161	.707404	358.	.706961	-.0250123
655	84.049	-27.931	109.793	.629293	358.	.628893	-.0224308
656	84.049	-27.931	110.424	.548965	357.9	.54861	-.0197286
657	84.049	-27.931	111.055	.466074	357.9	.465768	-.0168911
658	84.049	-27.931	111.686	.379924	357.9	.37967	-.0138907
659	84.049	-27.931	112.318	.289183	357.9	.288986	-.0106757
660	84.049	-27.931	112.949	.190754	357.9	.190621	-7.13E-03
J32	84.049	-27.931	113.58	.0836228	357.8	.0835615	-3.2E-03
2J1	86.98	-31.4	.914	9.844	2.3	9.83623	.39096
662	86.9526	-31.3726	1.91386	9.82881	2.2	9.82174	.372925
663	86.9252	-31.3452	2.91372	9.8105	2.1	9.80413	.353599
664	86.8978	-31.3178	3.91358	9.79099	2.	9.78525	.335351
665	86.8704	-31.2904	4.91344	9.77014	1.9	9.76496	.318142
666	86.843	-31.263	5.9133	9.74799	1.8	9.74332	.30186
667	86.8157	-31.2357	6.91316	9.72448	1.7	9.72027	.286403
668	86.7883	-31.2083	7.91302	9.69946	1.6	9.69566	.271678
669	86.7609	-31.1809	8.91288	9.673	1.5	9.66957	.25761
670	86.7335	-31.1535	9.91274	9.64494	1.5	9.64185	.244136
671	86.7061	-31.1261	10.9126	9.61535	1.4	9.61257	.231199
672	86.6787	-31.0987	11.9125	9.58424	1.3	9.58174	.218753
673	86.6513	-31.0713	12.9123	9.55145	1.2	9.54922	.206756
674	86.6239	-31.0439	13.9122	9.51706	1.2	9.51506	.195172
675	86.5965	-31.0165	14.912	9.481	1.1	9.47921	.183971

676	86.5691	-30.9891	15.9119	9.44332	1.1	9.44174	.173125
677	86.5417	-30.9617	16.9118	9.40404	1.	9.40263	.162612
678	86.5143	-30.9343	17.9116	9.36307	.9	9.36183	.152412
679	86.4869	-30.9069	18.9115	9.32042	.9	9.31934	.142506
680	86.4596	-30.8795	19.9113	9.27616	.8	9.27521	.13288
681	86.4322	-30.8522	20.9112	9.23022	.8	9.22939	.123519
682	86.4048	-30.8248	21.9111	9.18266	.7	9.18194	.114412
683	86.3774	-30.7974	22.9109	9.13341	.7	9.1328	.105548
684	86.35	-30.77	23.9108	9.08262	.6	9.0821	.0969184
685	86.3226	-30.7426	24.9106	9.03014	.6	9.0297	.0885137
686	86.2952	-30.7152	25.9105	8.97597	.5	8.97561	.0803282
687	86.2678	-30.6878	26.9104	8.92025	.5	8.91996	.0723542
688	86.2404	-30.6604	27.9102	8.86299	.4	8.86276	.0645863
689	86.213	-30.633	28.9101	8.80404	.4	8.80385	.0570193
690	86.1856	-30.6056	29.9099	8.74354	.3	8.7434	.0496485
691	86.1582	-30.5782	30.9098	8.68149	.3	8.68138	.0424696
692	86.1308	-30.5508	31.9097	8.61789	.2	8.61781	.035479
693	86.1034	-30.5234	32.9095	8.55267	.2	8.55262	.0286731
694	86.0761	-30.4961	33.9094	8.48597	.1	8.48594	.0220489
695	86.0487	-30.4687	34.9092	8.41772	.1	8.4177	.0156036
696	86.0213	-30.4413	35.9091	8.34799	.1	8.34798	9.33E-03
697	85.9939	-30.4139	36.909	8.27678	0.0	8.27677	3.24E-03
698	85.9665	-30.3865	37.9088	8.20401	360.	8.20401	-2.68E-03
699	85.9391	-30.3591	38.9087	8.12984	359.9	8.12984	-8.44E-03
700	85.9117	-30.3317	39.9085	8.05426	359.9	8.05425	-.0140219
701	85.8843	-30.3043	40.9084	7.9772	359.9	7.97717	-.0194403
702	85.8569	-30.2769	41.9083	7.89872	359.8	7.89868	-.0246936
703	85.8295	-30.2495	42.9081	7.81884	359.8	7.81878	-.0297832
704	85.8021	-30.2221	43.908	7.73761	359.7	7.73753	-.0347103
705	85.7747	-30.1947	44.9078	7.65505	359.7	7.65494	-.0394762
706	85.7473	-30.1673	45.9077	7.57107	359.7	7.57094	-.0440818
707	85.72	-30.1399	46.9076	7.48582	359.6	7.48566	-.0485283
708	85.6926	-30.1126	47.9074	7.3993	359.6	7.39911	-.0528165
709	85.6652	-30.0852	48.9073	7.31144	359.6	7.31122	-.0569473
710	85.6378	-30.0578	49.9071	7.22231	359.5	7.22205	-.0609214
711	85.6104	-30.0304	50.907	7.13191	359.5	7.13161	-.0647398
712	85.583	-30.003	51.9069	7.04035	359.4	7.04002	-.0684031
713	85.5556	-29.9756	52.9067	6.94756	359.4	6.94719	-.0719122
714	85.5282	-29.9482	53.9066	6.85358	359.4	6.85317	-.0752674
715	85.5008	-29.9208	54.9064	6.75844	359.3	6.75798	-.0784692
716	85.4734	-29.8934	55.9063	6.66215	359.3	6.66165	-.081519
717	85.446	-29.866	56.9062	6.56475	359.3	6.56421	-.0844167
718	85.4186	-29.8386	57.906	6.46625	359.2	6.46567	-.0871631
719	85.3912	-29.8112	58.9059	6.36667	359.2	6.36604	-.0897582
720	85.3639	-29.7838	59.9057	6.26605	359.2	6.26537	-.0922041
721	85.3365	-29.7565	60.9056	6.16439	359.1	6.16367	-.0944994
722	85.3091	-29.7291	61.9055	6.06174	359.1	6.06097	-.0966462
723	85.2817	-29.7017	62.9053	5.95809	359.1	5.95728	-.0986445
724	85.2543	-29.6743	63.9052	5.85349	359.	5.85263	-.100494
725	85.2269	-29.6469	64.905	5.74795	359.	5.74705	-.102196
726	85.1995	-29.6195	65.9049	5.64151	358.9	5.64055	-.103752
727	85.1721	-29.5921	66.9048	5.53418	358.9	5.53318	-.105161
728	85.1447	-29.5647	67.9046	5.42598	358.9	5.42494	-.106424
729	85.1173	-29.5373	68.9045	5.31695	358.8	5.31586	-.107541
730	85.0899	-29.5099	69.9043	5.20711	358.8	5.20598	-.108514
731	85.0625	-29.4825	70.9042	5.09649	358.8	5.09532	-.109343
732	85.0351	-29.4551	71.9041	4.98511	358.7	4.98389	-.110028
733	85.0077	-29.4277	72.9039	4.87298	358.7	4.87173	-.110571
734	84.9804	-29.4003	73.9038	4.76016	358.7	4.75887	-.110971
735	84.953	-29.373	74.9036	4.64666	358.6	4.64533	-.111229

736	84.9256	-29.3456	75.9035	4.5325	358.6	4.53113	-.111346
737	84.8982	-29.3182	76.9033	4.41771	358.6	4.41631	-.111324
738	84.8708	-29.2908	77.9032	4.30233	358.5	4.3009	-.111162
739	84.8434	-29.2634	78.9031	4.18638	358.5	4.18491	-.110861
740	84.816	-29.236	79.9029	4.06988	358.4	4.06838	-.110422
741	84.7886	-29.2086	80.9028	3.95286	358.4	3.95133	-.109846
742	84.7612	-29.1812	81.9027	3.83535	358.4	3.83379	-.109134
743	84.7338	-29.1538	82.9025	3.71738	358.3	3.71581	-.108287
744	84.7064	-29.1264	83.9024	3.59899	358.3	3.59739	-.107305
745	84.679	-29.099	84.9022	3.48018	358.3	3.47856	-.10619
746	84.6516	-29.0716	85.9021	3.36101	358.2	3.35937	-.104942
747	84.6242	-29.0442	86.902	3.2415	358.2	3.23984	-.103563
748	84.5969	-29.0169	87.9018	3.12167	358.1	3.12	-.102054
749	84.5695	-28.9895	88.9017	3.00157	358.1	2.99989	-.100417
750	84.5421	-28.9621	89.9015	2.8812	358.	2.87952	-.0986501
751	84.5147	-28.9347	90.9014	2.76063	358.	2.75893	-.0967579
752	84.4873	-28.9073	91.9013	2.63987	357.9	2.63817	-.0947398
753	84.4599	-28.8799	92.9011	2.51895	357.9	2.51725	-.092598
754	84.4325	-28.8525	93.901	2.39792	357.8	2.39621	-.0903338
755	84.4051	-28.8251	94.9008	2.27679	357.8	2.27509	-.087948
756	84.3777	-28.7977	95.9007	2.1556	357.7	2.15391	-.0854434
757	84.3503	-28.7703	96.9005	2.0344	357.7	2.03272	-.0828201
758	84.3229	-28.7429	97.9004	1.91322	357.6	1.91154	-.0800807
759	84.2955	-28.7155	98.9003	1.79209	357.5	1.79043	-.0772276
760	84.2681	-28.6881	99.9001	1.67105	357.5	1.6694	-.0742612
761	84.2408	-28.6608	100.9	1.55015	357.4	1.54851	-.0711846
762	84.2134	-28.6334	101.9	1.42943	357.3	1.42781	-.0679996
763	84.186	-28.606	102.9	1.30894	357.2	1.30734	-.0647088
764	84.1586	-28.5786	103.9	1.18874	357.	1.18716	-.0613151
765	84.1312	-28.5512	104.899	1.06892	356.9	1.06736	-.057822
766	84.1038	-28.5238	105.899	.949627	356.7	.948077	-.0542352
767	84.0764	-28.4964	106.899	.830914	356.5	.829375	-.0505577
J33	84.049	-28.469	107.899	.721036	356.3	.719499	-.0470514
2J1	84.049	-28.469	107.899	.833517	358.	.832995	-.0294841
769	84.049	-28.469	108.53	.768902	358.	.768415	-.0273685
770	84.049	-28.469	109.161	.69298	357.9	.692534	-.0248498
771	84.049	-28.469	109.793	.614961	357.9	.614559	-.0222176
772	84.049	-28.469	110.424	.534723	357.9	.534368	-.0194649
773	84.049	-28.469	111.055	.451924	357.9	.45162	-.0165771
774	84.049	-28.469	111.686	.365863	357.9	.365613	-.0135265
775	84.049	-28.469	112.318	.275213	357.9	.275022	-.0102616
776	84.049	-28.469	112.949	.176876	357.8	.17675	-6.66E-03
J34	84.049	-28.469	113.58	.0698377	357.8	.069786	-2.69E-03
2J1	80.58	-31.4	.914	10.1168	2.6	10.106	.467696
778	80.6074	-31.3726	1.91386	10.1015	2.6	10.0915	.449618
779	80.6348	-31.3452	2.91372	10.0831	2.4	10.074	.43022
780	80.6622	-31.3178	3.91358	10.0634	2.3	10.055	.411878
781	80.6896	-31.2904	4.91344	10.0425	2.3	10.0348	.394552
782	80.717	-31.263	5.9133	10.0203	2.2	10.0132	.378134
783	80.7444	-31.2357	6.91316	9.9966	2.1	9.99003	.362518
784	80.7718	-31.2083	7.91302	9.97148	2.	9.96542	.347615
785	80.7991	-31.1809	8.91288	9.94485	1.9	9.93926	.333348
786	80.8265	-31.1535	9.91274	9.91676	1.8	9.91161	.319654
787	80.8539	-31.1261	10.9126	9.88702	1.8	9.88226	.306478
788	80.8813	-31.0987	11.9125	9.85574	1.7	9.85136	.293775
789	80.9087	-31.0713	12.9123	9.82287	1.6	9.81884	.2815
790	80.9361	-31.0439	13.9122	9.78833	1.6	9.78461	.269621
791	80.9635	-31.0165	14.912	9.75218	1.5	9.74876	.258107
792	80.9909	-30.9891	15.9119	9.71435	1.5	9.71121	.24693
793	81.0183	-30.9617	16.9118	9.67492	1.4	9.67204	.236069

794	81.0457	-30.9343	17.9116	9.63381	1.3	9.63117	.225503
795	81.0731	-30.9069	18.9115	9.59109	1.3	9.58867	.215215
796	81.1005	-30.8795	19.9113	9.54668	1.2	9.54448	.20519
797	81.1279	-30.8522	20.9112	9.5006	1.2	9.49859	.195415
798	81.1552	-30.8248	21.9111	9.4529	1.1	9.45107	.185879
799	81.1826	-30.7974	22.9109	9.40351	1.1	9.40186	.176571
800	81.21	-30.77	23.9108	9.35251	1.	9.35101	.167482
801	81.2374	-30.7426	24.9106	9.2999	1.	9.29855	.158604
802	81.2648	-30.7152	25.9105	9.2456	.9	9.24438	.149932
803	81.2922	-30.6878	26.9104	9.18975	.9	9.18866	.141458
804	81.3196	-30.6604	27.9102	9.13222	.8	9.13124	.133178
805	81.347	-30.633	28.9101	9.07313	.8	9.07227	.125086
806	81.3744	-30.6056	29.9099	9.01243	.7	9.01167	.117179
807	81.4018	-30.5782	30.9098	8.95019	.7	8.94952	.109452
808	81.4292	-30.5508	31.9097	8.88632	.7	8.88574	.101902
809	81.4566	-30.5234	32.9095	8.82098	.6	8.82047	.0945263
810	81.484	-30.4961	33.9094	8.75401	.6	8.75358	.0873222
811	81.5113	-30.4687	34.9092	8.68557	.5	8.6852	.0802879
812	81.5387	-30.4413	35.9091	8.61558	.5	8.61527	.0734205
813	81.5661	-30.4139	36.909	8.54411	.4	8.54385	.0667185
814	81.5935	-30.3865	37.9088	8.47116	.4	8.47095	.0601803
815	81.6209	-30.3591	38.9087	8.39673	.4	8.39656	.0538044
816	81.6483	-30.3317	39.9085	8.32089	.3	8.32076	.0475895
817	81.6757	-30.3043	40.9084	8.24357	.3	8.24347	.0415344
818	81.7031	-30.2769	41.9083	8.16485	.3	8.16477	.0356383
819	81.7305	-30.2495	42.9081	8.08471	.2	8.08465	.0299
820	81.7579	-30.2221	43.908	8.00323	.2	8.00319	.024319
821	81.7853	-30.1947	44.9078	7.92034	.1	7.92032	.0188944
822	81.8127	-30.1673	45.9077	7.83619	.1	7.83618	.0136258
823	81.8401	-30.1399	46.9076	7.75062	.1	7.75062	8.51E-03
824	81.8675	-30.1126	47.9074	7.66378	0.0	7.66378	3.55E-03
825	81.8948	-30.0852	48.9073	7.57568	360.	7.57568	-1.25E-03
826	81.9222	-30.0578	49.9071	7.4863	360.	7.4863	-5.9E-03
827	81.9496	-30.0304	50.907	7.39565	359.9	7.39565	-.0103963
828	81.977	-30.003	51.9069	7.30374	359.9	7.30372	-.0147389
829	82.0044	-29.9756	52.9067	7.21069	359.8	7.21067	-.0189282
830	82.0318	-29.9482	53.9066	7.11645	359.8	7.11641	-.0229646
831	82.0592	-29.9208	54.9064	7.02102	359.8	7.02096	-.026848
832	82.0866	-29.8934	55.9063	6.92446	359.7	6.92439	-.0305787
833	82.114	-29.866	56.9062	6.82676	359.7	6.82668	-.0341568
834	82.1414	-29.8386	57.906	6.72798	359.7	6.72788	-.0375825
835	82.1688	-29.8112	58.9059	6.62812	359.6	6.62799	-.0408558
836	82.1962	-29.7838	59.9057	6.52719	359.6	6.52704	-.043977
837	82.2236	-29.7565	60.9056	6.42524	359.6	6.42507	-.0469461
838	82.251	-29.7291	61.9055	6.32228	359.5	6.32208	-.0497631
839	82.2783	-29.7017	62.9053	6.21833	359.5	6.21811	-.0524284
840	82.3057	-29.6743	63.9052	6.11343	359.5	6.11318	-.054942
841	82.3331	-29.6469	64.905	6.00758	359.5	6.0073	-.057304
842	82.3605	-29.6195	65.9049	5.90082	359.4	5.90052	-.0595146
843	82.3879	-29.5921	66.9048	5.79317	359.4	5.79284	-.0615739
844	82.4153	-29.5647	67.9046	5.68466	359.4	5.6843	-.0634822
845	82.4427	-29.5373	68.9045	5.57531	359.3	5.57493	-.0652396
846	82.4701	-29.5099	69.9043	5.46515	359.3	5.46474	-.0668463
847	82.4975	-29.4825	70.9042	5.35419	359.3	5.35376	-.0683026
848	82.5249	-29.4551	71.9041	5.24248	359.2	5.24201	-.0696088
849	82.5523	-29.4277	72.9039	5.13002	359.2	5.12953	-.0707653
850	82.5797	-29.4003	73.9038	5.01686	359.2	5.01635	-.0717722
851	82.6071	-29.373	74.9036	4.90302	359.2	4.90248	-.0726292
852	82.6344	-29.3456	75.9035	4.78851	359.1	4.78795	-.0733385
853	82.6618	-29.3182	76.9033	4.67338	359.1	4.6728	-.0738992

854	82.6892	-29.2908	77.9032	4.55765	359.1	4.55705	-.0743114
855	82.7166	-29.2634	78.9031	4.44134	359.	4.44071	-.0745766
856	82.744	-29.236	79.9029	4.32449	359.	4.32384	-.0746947
857	82.7714	-29.2086	80.9028	4.20712	359.	4.20645	-.0746671
858	82.7988	-29.1812	81.9027	4.08926	359.	4.08858	-.0744932
859	82.8262	-29.1538	82.9025	3.97094	358.9	3.97024	-.074175
860	82.8536	-29.1264	83.9024	3.85219	358.9	3.85149	-.0737118
861	82.881	-29.099	84.9022	3.73304	358.9	3.73232	-.0731058
862	82.9084	-29.0716	85.9021	3.61352	358.9	3.61279	-.0723563
863	82.9358	-29.0442	86.902	3.49366	358.8	3.49293	-.071466
864	82.9632	-29.0169	87.9018	3.37347	358.8	3.37274	-.0704339
865	82.9906	-28.9895	88.9017	3.25301	358.8	3.25227	-.0692621
866	83.0179	-28.9621	89.9015	3.1323	358.8	3.13156	-.0679513
867	83.0453	-28.9347	90.9014	3.01136	358.7	3.01063	-.0665027
868	83.0727	-28.9073	91.9013	2.89024	358.7	2.88951	-.0649174
869	83.1001	-28.8799	92.9011	2.76895	358.7	2.76823	-.0631965
870	83.1275	-28.8525	93.901	2.64754	358.7	2.64683	-.0613416
871	83.1549	-28.8251	94.9008	2.52604	358.7	2.52534	-.0593537
872	83.1823	-28.7977	95.9007	2.40448	358.6	2.40379	-.0572344
873	83.2097	-28.7703	96.9005	2.28289	358.6	2.28223	-.0549852
874	83.2371	-28.7429	97.9004	2.16132	358.6	2.16068	-.0526079
875	83.2645	-28.7155	98.9003	2.03979	358.6	2.03917	-.050104
876	83.2919	-28.6881	99.9001	1.91835	358.6	1.91776	-.0474755
877	83.3193	-28.6608	100.9	1.79704	358.6	1.79648	-.0447243
878	83.3467	-28.6334	101.9	1.6759	358.6	1.67538	-.0418525
879	83.374	-28.606	102.9	1.55499	358.6	1.55451	-.0388628
880	83.4014	-28.5786	103.9	1.43436	358.6	1.43392	-.0357578
881	83.4288	-28.5512	104.899	1.3141	358.6	1.31369	-.0325411
882	83.4562	-28.5238	105.899	1.19435	358.6	1.194	-.0292185
883	83.4836	-28.4964	106.899	1.07517	358.6	1.07486	-.025793
J35	83.511	-28.469	107.899	.964819	358.7	.964556	-.0225187
2J1	83.511	-28.469	107.899	.874184	358.1	.873689	-.0294248
885	83.511	-28.469	108.53	.809313	358.1	.808847	-.0274439
886	83.511	-28.469	109.161	.733113	358.	.732685	-.0250707
887	83.511	-28.469	109.793	.654816	358.	.654426	-.0225835
888	83.511	-28.469	110.424	.5743	358.	.573953	-.0199753
889	83.511	-28.469	111.055	.491222	358.	.49092	-.0172313
890	83.511	-28.469	111.686	.404885	358.	.404631	-.0143239
891	83.511	-28.469	112.318	.313957	358.	.313757	-.0112017
892	83.511	-28.469	112.949	.21534	357.9	.215201	-7.75E-03
J36	83.511	-28.469	113.58	.108021	357.9	.107951	-3.91E-03
2J1	80.58	-25.	.914	10.2121	2.8	10.1999	.499211
894	80.6074	-25.0274	1.91386	10.1966	2.7	10.1853	.481105
895	80.6348	-25.0548	2.91372	10.1781	2.6	10.1677	.461671
896	80.6622	-25.0822	3.91358	10.1583	2.5	10.1486	.443285
897	80.6896	-25.1096	4.91344	10.1373	2.4	10.1283	.425907
898	80.717	-25.137	5.9133	10.1149	2.3	10.1066	.409429
899	80.7444	-25.1644	6.91316	10.0911	2.2	10.0834	.393745
900	80.7718	-25.1918	7.91302	10.0659	2.2	10.0588	.378766
901	80.7991	-25.2191	8.91288	10.0391	2.1	10.0325	.364417
902	80.8265	-25.2465	9.91274	10.0109	2.	10.0047	.350633
903	80.8539	-25.2739	10.9126	9.98102	1.9	9.97532	.33736
904	80.8813	-25.3013	11.9125	9.94964	1.9	9.94435	.324552
905	80.9087	-25.3287	12.9123	9.91666	1.8	9.91175	.312167
906	80.9361	-25.3561	13.9122	9.88201	1.7	9.87746	.30017
907	80.9635	-25.3835	14.912	9.84576	1.7	9.84154	.288531
908	80.9909	-25.4109	15.9119	9.80784	1.6	9.80392	.277224
909	81.0183	-25.4383	16.9118	9.76823	1.6	9.7646	.266226
910	81.0457	-25.4657	17.9116	9.72702	1.5	9.72366	.255517
911	81.0731	-25.4931	18.9115	9.68419	1.5	9.68109	.24508

912	81.1005	-25.5205	19.9113	9.63962	1.4	9.63676	.234901
913	81.1279	-25.5479	20.9112	9.59343	1.3	9.59079	.224965
914	81.1552	-25.5752	21.9111	9.54556	1.3	9.54314	.215263
915	81.1826	-25.6026	22.9109	9.49608	1.2	9.49385	.205784
916	81.21	-25.63	23.9108	9.44498	1.2	9.44294	.196519
917	81.2374	-25.6574	24.9106	9.3922	1.1	9.39033	.187462
918	81.2648	-25.6848	25.9105	9.3378	1.1	9.33609	.178603
919	81.2922	-25.7122	26.9104	9.28179	1.	9.28023	.169939
920	81.3196	-25.7396	27.9102	9.22416	1.	9.22274	.161465
921	81.347	-25.767	28.9101	9.16498	1.	9.1637	.153175
922	81.3744	-25.7944	29.9099	9.10419	.9	9.10303	.145064
923	81.4018	-25.8218	30.9098	9.04177	.9	9.04073	.137131
924	81.4292	-25.8492	31.9097	8.97781	.8	8.97688	.129371
925	81.4566	-25.8766	32.9095	8.91231	.8	8.91148	.121782
926	81.484	-25.904	33.9094	8.84532	.7	8.84458	.114362
927	81.5113	-25.9313	34.9092	8.77672	.7	8.77606	.107108
928	81.5387	-25.9587	35.9091	8.70663	.7	8.70606	.100018
929	81.5661	-25.9861	36.909	8.63507	.6	8.63457	.0930908
930	81.5935	-26.0135	37.9088	8.56203	.6	8.5616	.0863252
931	81.6209	-26.0409	38.9087	8.48751	.5	8.48714	.0797187
932	81.6483	-26.0683	39.9085	8.41152	.5	8.4112	.073272
933	81.6757	-26.0957	40.9084	8.33418	.5	8.33391	.0669824
934	81.7031	-26.1231	41.9083	8.25529	.4	8.25507	.06085
935	81.7305	-26.1505	42.9081	8.17514	.4	8.17495	.054874
936	81.7579	-26.1779	43.908	8.0935	.3	8.09335	.0490536
937	81.7853	-26.2053	44.9078	8.01052	.3	8.01041	.0433883
938	81.8127	-26.2327	45.9077	7.92621	.3	7.92612	.0378778
939	81.8401	-26.2601	46.9076	7.84056	.2	7.84049	.0325217
940	81.8675	-26.2875	47.9074	7.75363	.2	7.75359	.0273196
941	81.8948	-26.3148	48.9073	7.66537	.2	7.66534	.0222713
942	81.9222	-26.3422	49.9071	7.57591	.1	7.57589	.0173766
943	81.9496	-26.3696	50.907	7.48511	.1	7.4851	.0126355
944	81.977	-26.397	51.9069	7.39318	.1	7.39317	8.05E-03
945	82.0044	-26.4244	52.9067	7.29998	0.0	7.29998	3.61E-03
946	82.0318	-26.4518	53.9066	7.20558	360.	7.20558	-6.68E-04
947	82.0592	-26.4792	54.9064	7.11005	360.	7.11005	-4.8E-03
948	82.0866	-26.5066	55.9063	7.01335	359.9	7.01334	-8.77E-03
949	82.114	-26.534	56.9062	6.91553	359.9	6.91552	-.0125924
950	82.1414	-26.5614	57.906	6.81661	359.9	6.81659	-.0162607
951	82.1688	-26.5888	58.9059	6.71661	359.8	6.71658	-.0197758
952	82.1962	-26.6162	59.9057	6.61556	359.8	6.61552	-.0231375
953	82.2236	-26.6436	60.9056	6.51347	359.8	6.51342	-.0263459
954	82.251	-26.6709	61.9055	6.41038	359.7	6.41031	-.0294011
955	82.2783	-26.6983	62.9053	6.3063	359.7	6.30621	-.0323028
956	82.3057	-26.7257	63.9052	6.20126	359.7	6.20116	-.0350512
957	82.3331	-26.7531	64.905	6.09528	359.6	6.09517	-.0376463
958	82.3605	-26.7805	65.9049	5.9884	359.6	5.98827	-.0400881
959	82.3879	-26.8079	66.9048	5.88064	359.6	5.88048	-.0423766
960	82.4153	-26.8353	67.9046	5.77201	359.6	5.77184	-.0445119
961	82.4427	-26.8627	68.9045	5.66254	359.5	5.66235	-.0464941
962	82.4701	-26.8901	69.9043	5.55226	359.5	5.55205	-.0483232
963	82.4975	-26.9175	70.9042	5.44119	359.5	5.44096	-.0499995
964	82.5249	-26.9449	71.9041	5.32936	359.4	5.32911	-.051523
965	82.5523	-26.9723	72.9039	5.21679	359.4	5.21652	-.0528939
966	82.5797	-26.9997	73.9038	5.10352	359.4	5.10323	-.0541125
967	82.6071	-27.0271	74.9036	4.98956	359.4	4.98925	-.0551791
968	82.6344	-27.0544	75.9035	4.87494	359.3	4.87461	-.0560938
969	82.6618	-27.0818	76.9033	4.75969	359.3	4.75935	-.0568571
970	82.6892	-27.1092	77.9032	4.64384	359.3	4.64348	-.0574693
971	82.7166	-27.1366	78.9031	4.52741	359.3	4.52704	-.0579309

972	82.744	-27.164	79.9029	4.41044	359.2	4.41006	-.0582423
973	82.7714	-27.1914	80.9028	4.29295	359.2	4.29255	-.0584039
974	82.7988	-27.2188	81.9027	4.17496	359.2	4.17456	-.0584164
975	82.8262	-27.2462	82.9025	4.05653	359.2	4.05611	-.0582804
976	82.8536	-27.2736	83.9024	3.93765	359.2	3.93722	-.0579965
977	82.881	-27.301	84.9022	3.81837	359.1	3.81794	-.0575653
978	82.9084	-27.3284	85.9021	3.69872	359.1	3.69828	-.0569879
979	82.9358	-27.3558	86.902	3.57872	359.1	3.57828	-.0562646
980	82.9632	-27.3832	87.9018	3.45841	359.1	3.45797	-.0553966
981	82.9906	-27.4105	88.9017	3.33781	359.1	3.33737	-.0543849
982	83.0179	-27.4379	89.9015	3.21696	359.1	3.21652	-.0532303
983	83.0453	-27.4653	90.9014	3.09589	359.	3.09545	-.051934
984	83.0727	-27.4927	91.9013	2.97463	359.	2.9742	-.0504971
985	83.1001	-27.5201	92.9011	2.85321	359.	2.85279	-.0489207
986	83.1275	-27.5475	93.901	2.73167	359.	2.73126	-.0472061
987	83.1549	-27.5749	94.9008	2.61003	359.	2.60964	-.0453548
988	83.1823	-27.6023	95.9007	2.48834	359.	2.48796	-.0433682
989	83.2097	-27.6297	96.9005	2.36663	359.	2.36627	-.0412477
990	83.2371	-27.6571	97.9004	2.24493	359.	2.24459	-.038995
991	83.2645	-27.6845	98.9003	2.12327	359.	2.12296	-.0366117
992	83.2919	-27.7119	99.9001	2.00171	359.	2.00142	-.0341
993	83.3193	-27.7393	100.9	1.88027	359.	1.88001	-.0314614
994	83.3467	-27.7667	101.9	1.75901	359.1	1.75878	-.0286985
995	83.374	-27.794	102.9	1.63797	359.1	1.63777	-.0258135
996	83.4014	-27.8214	103.9	1.51722	359.1	1.51705	-.0228093
997	83.4288	-27.8488	104.899	1.39683	359.2	1.39669	-.0196897
998	83.4562	-27.8762	105.899	1.27695	359.3	1.27685	-.01646
999	83.4836	-27.9036	106.899	1.15764	359.4	1.15757	-.0131235
J37	83.511	-27.931	107.899	1.04717	359.5	1.04712	-9.93E-03
2J1	83.511	-27.931	107.899	.888733	358.1	.888248	-.029347
1001	83.511	-27.931	108.53	.823778	358.1	.823322	-.0274142
1002	83.511	-27.931	109.161	.747488	358.1	.747067	-.0250932
1003	83.511	-27.931	109.793	.669095	358.1	.668712	-.0226577
1004	83.511	-27.931	110.424	.588487	358.	.588144	-.0201011
1005	83.511	-27.931	111.055	.505317	358.	.505018	-.0174085
1006	83.511	-27.931	111.686	.418888	358.	.418635	-.0145523
1007	83.511	-27.931	112.318	.327867	358.	.327666	-.0114812
1008	83.511	-27.931	112.949	.229158	358.	.229015	-8.08E-03
J38	83.511	-27.931	113.58	.121744	358.	.121668	-4.29E-03
2J1	86.98	-25.	.914	.0721821	98.8	-.0110152	.0713366
1010	86.98	-26.0667	.914	.0562194	119.	-.0272149	.0491932
1011	86.98	-27.1333	.914	.0522952	157.8	-.0484145	.0197693
1012	86.98	-28.2	.914	.0716853	189.2	-.0707688	-.0114262
1013	86.98	-29.2667	.914	.102398	204.6	-.0931078	-.0426182
1014	86.98	-30.3333	.914	.135072	212.2	-.114262	-.0720324
2J2	86.98	-31.4	.914	.160852	215.8	-.13041	-.0941628
2J1	86.98	-31.4	.914	.0998829	108.1	-.0310322	.0949399
1017	85.9133	-31.4	.914	.0867493	122.9	-.0471658	.0728067
1018	84.8467	-31.4	.914	.0808987	147.6	-.0682803	.0433866
1019	83.78	-31.4	.914	.0913699	172.3	-.0905537	.0121852
1020	82.7133	-31.4	.914	.114411	189.6	-.112818	-.019023
1021	81.6467	-31.4	.914	.142401	199.9	-.133901	-.0484614
2J2	80.58	-31.4	.914	.165729	205.2	-.149933	-.070613
2J1	80.58	-31.4	.914	.169006	35.6	.137412	.098392
1024	80.58	-30.3333	.914	.143296	32.1	.121338	.0762291
1025	80.58	-29.2667	.914	.11061	25.	.100236	.0467686
1026	80.58	-28.2	.914	.079475	11.3	.0779439	.0155253
1027	80.58	-27.1333	.914	.0578118	344.2	.0556326	-.0157231
1028	80.58	-26.0667	.914	.0568418	307.3	.0344686	-.0451985
2J2	80.58	-25.	.914	.0698097	285.1	.0182406	-.0673845

2J1	80.58	-25.	.914	.159452	25.	.144462	.067497
1031	81.6467	-25.	.914	.135999	19.5	.128228	.0453143
1032	82.7133	-25.	.914	.108192	8.4	.107025	.0158461
1033	83.78	-25.	.914	.0860373	349.7	.0846494	-.0153914
1034	84.8467	-25.	.914	.0777871	323.2	.0622681	-.0466209
1035	85.9133	-25.	.914	.0864373	298.4	.0410524	-.0760665
2J2	86.98	-25.	.914	.101312	284.2	.0248465	-.0982181
2J1	84.049	-27.931	107.899	.0413831	5.	.0412282	3.58E-03
2J2	84.049	-28.469	107.899	.0210397	11.7	.0206043	4.26E-03
2J1	84.049	-28.469	107.899	.09384	188.2	-.0928914	-.0133089
2J2	83.511	-28.469	107.899	.114268	186.4	-.113566	-.0126517
2J1	83.511	-28.469	107.899	.0234145	194.2	-.0226987	-5.75E-03
2J2	83.511	-27.931	107.899	.0437751	186.7	-.0434721	-5.14E-03
2J1	83.511	-27.931	107.899	.116282	7.1	.115402	.014274
2J2	84.049	-27.931	107.899	.0958463	8.9	.0946804	.0149039
2J1	84.049	-27.931	113.58	.0542957	357.8	.0542548	-2.11E-03
2J2	84.049	-28.469	113.58	.0413941	178.	-.0413678	1.48E-03
2J1	84.049	-28.469	113.58	.0284441	357.6	.0284183	-1.21E-03
2J2	83.511	-28.469	113.58	.0673306	178.	-.0672901	2.33E-03
2J1	83.511	-28.469	113.58	.040691	357.8	.0406604	-1.58E-03
2J2	83.511	-27.931	113.58	.0552326	178.	-.0552005	1.88E-03
2J1	83.511	-27.931	113.58	.0665115	357.9	.0664678	-2.41E-03
2J2	84.049	-27.931	113.58	.0293271	177.9	-.0293067	1.09E-03
1053	-5.7	85.2	0	14.687	338.5	13.6682	-5.37486
J51	-5.7	85.2	1.829	14.5325	338.5	13.5244	-5.31829
2J1	-5.7	85.2	1.829	3.51007	336.4	3.21727	-1.40349
1055	-4.98242	85.9176	1.829	3.4804	336.4	3.18963	-1.39263
1056	-4.26483	86.6352	1.829	3.41433	336.4	3.12811	-1.36842
1057	-3.54725	87.3528	1.829	3.34082	336.3	3.05967	-1.34146
1058	-2.82967	88.0703	1.829	3.26394	336.3	2.9881	-1.31323
1059	-2.11208	88.7879	1.829	3.18572	336.2	2.9153	-1.28448
1060	-1.3945	89.5055	1.829	3.10745	336.2	2.84244	-1.25568
1061	-.676916	90.2231	1.829	3.03023	336.1	2.77059	-1.22724
1062	.0406669	90.9407	1.829	2.9554	336.1	2.70096	-1.19966
1063	.75825	91.6583	1.829	2.88471	336.	2.6352	-1.17357
1064	1.47583	92.3758	1.829	2.82078	335.9	2.57573	-1.14996
1065	2.19342	93.0934	1.829	2.76749	335.9	2.52617	-1.13025
J52	2.911	93.811	1.829	2.74254	335.9	2.50297	-1.12101
2J1	-5.7	85.2	1.829	3.65451	342.3	3.48198	-1.10964
1067	-4.98242	84.4824	1.829	3.62486	342.4	3.45431	-1.09881
1068	-4.26483	83.7648	1.829	3.55886	342.4	3.39271	-1.07471
1069	-3.54725	83.0473	1.829	3.48538	342.5	3.32411	-1.04792
1070	-2.82967	82.3297	1.829	3.40851	342.6	3.25233	-1.01995
1071	-2.11208	81.6121	1.829	3.33029	342.7	3.17926	-.991522
1072	-1.3945	80.8945	1.829	3.25197	342.8	3.10608	-.96311
1073	-.676916	80.1769	1.829	3.1747	342.9	3.03386	-.935116
1074	.0406669	79.4593	1.829	3.09979	343.	2.96381	-.908026
1075	.75825	78.7417	1.829	3.02901	343.1	2.89761	-.882464
1076	1.47583	78.0242	1.829	2.96497	343.2	2.8377	-.859384
1077	2.19342	77.3066	1.829	2.91158	343.2	2.78772	-.840179
J53	2.911	76.589	1.829	2.88658	343.3	2.76432	-.831179
2J1	-5.7	85.2	1.829	3.77061	340.5	3.5534	-1.26129
1079	-6.41758	84.4824	1.829	3.74089	340.5	3.52571	-1.25045
1080	-7.13517	83.7648	1.829	3.67474	340.5	3.46409	-1.2263
1081	-7.85275	83.0473	1.829	3.60107	340.5	3.39544	-1.19943
1082	-8.57033	82.3297	1.829	3.52397	340.6	3.3236	-1.17135
1083	-9.28792	81.6121	1.829	3.44549	340.6	3.25045	-1.14278
1084	-10.0055	80.8945	1.829	3.36687	340.7	3.17717	-1.11419
1085	-10.7231	80.1769	1.829	3.28929	340.7	3.10484	-1.086
1086	-11.4407	79.4593	1.829	3.21404	340.8	3.03467	-1.05868

1087	-12.1583	78.7417	1.829	3.1429	340.8	2.96833	-1.03288
1088	-12.8758	78.0242	1.829	3.07852	340.9	2.90828	-1.00955
1089	-13.5934	77.3066	1.829	3.02481	340.9	2.85817	-.990114
J54	-14.311	76.589	1.829	2.99966	340.9	2.8347	-.981015
2J1	-5.7	85.2	1.829	3.61769	334.7	3.27172	-1.54387
1091	-6.41758	85.9176	1.829	3.58804	334.7	3.24407	-1.53299
1092	-7.13517	86.6352	1.829	3.52205	334.6	3.18254	-1.50874
1093	-7.85275	87.3528	1.829	3.44859	334.6	3.11405	-1.4817
1094	-8.57033	88.0703	1.829	3.37175	334.5	3.04243	-1.45337
1095	-9.28792	88.7879	1.829	3.29355	334.4	2.96956	-1.42449
1096	-10.0055	89.5055	1.829	3.21526	334.3	2.89662	-1.39553
1097	-10.7231	90.2231	1.829	3.13803	334.2	2.82468	-1.3669
1098	-11.4407	90.9407	1.829	3.06317	334.1	2.75495	-1.33912
1099	-12.1583	91.6583	1.829	2.99242	334.	2.68908	-1.3128
1100	-12.8758	92.3758	1.829	2.92844	333.9	2.62951	-1.28897
1101	-13.5934	93.0934	1.829	2.87508	333.8	2.57985	-1.26905
J55	-14.311	93.811	1.829	2.8501	333.8	2.55659	-1.25971
2J1	2.911	93.811	1.829	1.28433	324.4	1.04423	-.747718
1103	2.8362	93.7362	2.82806	1.23806	323.9	.999922	-.73004
1104	2.76141	93.6614	3.82711	1.18402	323.2	.948027	-.709336
1105	2.68661	93.5866	4.82617	1.13034	322.5	.896302	-.688694
1106	2.61182	93.5118	5.82522	1.07774	321.7	.845454	-.668385
1107	2.53702	93.437	6.82428	1.02658	320.8	.79578	-.648534
1108	2.46222	93.3622	7.82333	.976961	319.9	.747385	-.62918
1109	2.38743	93.2874	8.82239	.928925	318.9	.700285	-.610331
1110	2.31263	93.2126	9.82145	.882476	317.9	.654465	-.591979
1111	2.23783	93.1378	10.8205	.837596	316.7	.609889	-.574111
1112	2.16304	93.063	11.8196	.794268	315.5	.566513	-.556709
1113	2.08824	92.9882	12.8186	.752474	314.2	.524292	-.539755
1114	2.01344	92.9134	13.8177	.712207	312.7	.483183	-.523233
1115	1.93865	92.8387	14.8167	.673464	311.1	.443146	-.507125
1116	1.86385	92.7639	15.8158	.636255	309.4	.404139	-.491418
1117	1.78906	92.6891	16.8148	.600597	307.6	.366129	-.476095
1118	1.71426	92.6143	17.8139	.566522	305.5	.32908	-.461144
1119	1.63946	92.5395	18.8129	.534073	303.3	.292961	-.446551
1120	1.56467	92.4647	19.812	.50331	300.8	.257744	-.432306
1121	1.48987	92.3899	20.8111	.474304	298.1	.223401	-.418397
1122	1.41507	92.3151	21.8101	.447147	295.1	.189907	-.404816
1123	1.34028	92.2403	22.8092	.421943	291.9	.157238	-.391551
1124	1.26548	92.1655	23.8082	.398814	288.3	.125374	-.378594
1125	1.19069	92.0907	24.8073	.377891	284.4	.0942929	-.365938
1126	1.11589	92.0159	25.8063	.359315	280.3	.0639754	-.353573
1127	1.04109	91.9411	26.8054	.343223	275.8	.0344046	-.341494
1128	.966296	91.8663	27.8045	.329739	271.	5.56E-03	-.329692
1129	.8915	91.7915	28.8035	.318961	265.9	-.0225634	-.318162
1130	.816704	91.7167	29.8026	.310943	260.7	-.0499906	-.306899
1131	.741907	91.6419	30.8016	.305682	255.5	-.0767312	-.295895
1132	.667111	91.5671	31.8007	.303111	250.2	-.102799	-.285146
1133	.592315	91.4923	32.7997	.303097	245.	-.128203	-.274648
1134	.517519	91.4175	33.7988	.305451	240.	-.152956	-.264396
1135	.442722	91.3427	34.7978	.309942	235.2	-.177066	-.254384
1136	.367926	91.2679	35.7969	.316311	230.7	-.200544	-.244611
1137	.29313	91.1931	36.7959	.32429	226.5	-.223395	-.235073
1138	.218333	91.1183	37.795	.33362	222.6	-.245627	-.225765
1139	.143537	91.0435	38.7941	.344054	219.	-.267246	-.216686
1140	.0687407	90.9687	39.7931	.355368	215.8	-.288256	-.207833
1141	-6.06E-03	90.8939	40.7922	.367362	212.8	-.308661	-.199205
1142	-.0808519	90.8192	41.7912	.379858	210.2	-.328463	-.1908
1143	-.155648	90.7444	42.7903	.392705	207.7	-.347661	-.182618
1144	-.230445	90.6696	43.7893	.405768	205.5	-.366255	-.174658

1145	-.305241	90.5948	44.7884	.418932	203.5	-.384241	-.166921
1146	-.380037	90.52	45.7875	.432093	201.6	-.401612	-.159411
1147	-.454833	90.4452	46.7865	.44516	200.	-.418359	-.152128
1148	-.52963	90.3704	47.7856	.458051	198.5	-.434468	-.14508
1149	-.604426	90.2956	48.7846	.470686	197.1	-.449918	-.138274
1150	-.679222	90.2208	49.7837	.48299	195.8	-.464681	-.131721
1151	-.754019	90.146	50.7827	.494879	194.7	-.478718	-.125438
1152	-.828815	90.0712	51.7818	.506264	193.6	-.491971	-.119448
1153	-.903611	89.9964	52.7808	.517027	192.7	-.504349	-.113794
1154	-.978407	89.9216	53.7799	.527001	191.9	-.515702	-.108541
1155	-1.0532	89.8468	54.779	.535901	191.2	-.525749	-.10382
J56	-1.128	89.772	55.778	.542096	190.7	-.532704	-.10047
2J1	-1.128	89.772	55.778	.454025	181.4	-.453881	-.0114286
1157	-1.17718	89.7228	56.7707	.459362	181.1	-.459278	-8.77E-03
1158	-1.22635	89.6737	57.7633	.466973	180.6	-.466945	-5.04E-03
1159	-1.27553	89.6245	58.756	.475105	180.1	-.475103	-1.06E-03
1160	-1.3247	89.5753	59.7487	.483455	179.6	-.483446	3.02E-03
1161	-1.37388	89.5261	60.7413	.491863	179.2	-.491811	7.13E-03
1162	-1.42305	89.477	61.734	.500225	178.7	-.5001	.0112113
1163	-1.47223	89.4278	62.7266	.508476	178.3	-.508248	.0152467
1164	-1.52141	89.3786	63.7193	.516563	177.9	-.516205	.0192132
1165	-1.57058	89.3294	64.712	.524446	177.5	-.523937	.0230961
1166	-1.61976	89.2802	65.7046	.532095	177.1	-.531415	.0268843
1167	-1.66893	89.2311	66.6973	.539485	176.8	-.538618	.0305695
1168	-1.71811	89.1819	67.69	.546594	176.4	-.545526	.0341454
1169	-1.76728	89.1327	68.6826	.553406	176.1	-.552127	.0376071
1170	-1.81646	89.0835	69.6753	.559907	175.8	-.558408	.0409508
1171	-1.86564	89.0344	70.6679	.566088	175.5	-.564362	.0441738
1172	-1.91481	88.9852	71.6606	.571937	175.3	-.56998	.047274
1173	-1.96399	88.936	72.6533	.577448	175.	-.575257	.05025
1174	-2.01316	88.8868	73.6459	.582615	174.8	-.58019	.0531007
1175	-2.06234	88.8377	74.6386	.587433	174.5	-.584774	.0558255
1176	-2.11151	88.7885	75.6312	.591898	174.3	-.589008	.0584243
1177	-2.16069	88.7393	76.6239	.596008	174.1	-.592889	.0608967
1178	-2.20987	88.6901	77.6166	.599759	173.9	-.596416	.063243
1179	-2.25904	88.641	78.6092	.603151	173.8	-.599588	.0654636
1180	-2.30822	88.5918	79.6019	.606182	173.6	-.602405	.0675588
1181	-2.35739	88.5426	80.5946	.608851	173.4	-.604868	.0695294
1182	-2.40657	88.4934	81.5872	.611158	173.3	-.606975	.0713762
1183	-2.45574	88.4443	82.5799	.613103	173.2	-.60873	.0730995
1184	-2.50492	88.3951	83.5725	.614687	173.	-.610131	.0747003
1185	-2.5541	88.3459	84.5652	.61591	172.9	-.611181	.0761803
1186	-2.60327	88.2967	85.5579	.616773	172.8	-.611879	.0775394
1187	-2.65245	88.2476	86.5505	.617276	172.7	-.612229	.0787789
1188	-2.70162	88.1984	87.5432	.617422	172.6	-.61223	.0798997
1189	-2.7508	88.1492	88.5359	.61721	172.5	-.611885	.0809038
1190	-2.79997	88.1	89.5285	.616644	172.4	-.611196	.0817912
1191	-2.84915	88.0509	90.5212	.615724	172.3	-.610164	.0825634
1192	-2.89832	88.0017	91.5138	.614453	172.2	-.608791	.0832217
1193	-2.9475	87.9525	92.5065	.612831	172.1	-.607079	.0837669
1194	-2.99668	87.9033	93.4992	.610862	172.1	-.605031	.0842003
1195	-3.04585	87.8542	94.4918	.608547	172.	-.602649	.0845235
1196	-3.09503	87.805	95.4845	.605889	172.	-.599934	.084737
1197	-3.1442	87.7558	96.4772	.602889	171.9	-.596889	.0848424
1198	-3.19338	87.7066	97.4698	.599551	171.9	-.593518	.084841
1199	-3.24255	87.6575	98.4625	.595876	171.8	-.589821	.0847335
1200	-3.29173	87.6083	99.4551	.591868	171.8	-.585802	.0845221
1201	-3.34091	87.5591	100.448	.587528	171.8	-.581462	.0842067
1202	-3.39008	87.5099	101.441	.58286	171.7	-.576806	.0837888
1203	-3.43926	87.4608	102.433	.577866	171.7	-.571835	.0832705

1204	-3.48843	87.4116	103.426	.57255	171.7	-.566552	.0826525
1205	-3.53761	87.3624	104.418	.566913	171.7	-.56096	.0819355
1206	-3.58678	87.3132	105.411	.560958	171.7	-.555062	.0811216
1207	-3.63596	87.2641	106.404	.55469	171.7	-.54886	.0802108
1208	-3.68514	87.2149	107.396	.548111	171.7	-.542358	.0792046
1209	-3.73431	87.1657	108.389	.541224	171.7	-.535558	.0781051
1210	-3.78349	87.1165	109.382	.534031	171.7	-.528463	.0769122
1211	-3.83266	87.0673	110.374	.526535	171.7	-.521075	.0756281
1212	-3.88184	87.0182	111.367	.518739	171.8	-.513398	.074252
1213	-3.93101	86.969	112.36	.510647	171.8	-.505433	.0727869
1214	-3.98019	86.9198	113.352	.502261	171.8	-.497184	.0712327
1215	-4.02937	86.8706	114.345	.493583	171.9	-.488653	.0695901
1216	-4.07854	86.8215	115.338	.484616	172.	-.479842	.0678603
1217	-4.12772	86.7723	116.33	.475362	172.	-.470752	.0660439
1218	-4.17689	86.7231	117.323	.465821	172.1	-.461384	.0641412
1219	-4.22607	86.6739	118.316	.455995	172.2	-.451739	.0621527
1220	-4.27524	86.6248	119.308	.445882	172.3	-.441816	.0600783
1221	-4.32442	86.5756	120.301	.435483	172.4	-.431614	.0579176
1222	-4.3736	86.5264	121.294	.424791	172.5	-.421128	.0556699
1223	-4.42277	86.4772	122.286	.413802	172.6	-.410351	.0533333
1224	-4.47195	86.4281	123.279	.402504	172.7	-.399272	.0509051
1225	-4.52112	86.3789	124.272	.390879	172.9	-.387874	.0483808
1226	-4.5703	86.3297	125.264	.378899	173.1	-.376127	.0457532
1227	-4.61947	86.2805	126.257	.366519	173.3	-.363986	.0430109
1228	-4.66865	86.2314	127.25	.353668	173.5	-.351383	.0401374
1229	-4.71782	86.1822	128.242	.340263	173.7	-.338233	.0371132
J57	-4.767	86.133	129.235	.32553	174.	-.323775	.0337606
2J1	2.911	76.589	1.829	1.67048	359.	1.6702	-.0303004
1231	2.8362	76.6638	2.82806	1.62548	359.5	1.62542	-.0132236
1232	2.76141	76.7386	3.82711	1.57299	.2	1.57298	6.74E-03
1233	2.68661	76.8134	4.82617	1.52092	1.	1.52069	.0265647
1234	2.61182	76.8882	5.82522	1.46996	1.8	1.46924	.0459954
1235	2.53702	76.963	6.82428	1.42045	2.6	1.41896	.0649104
1236	2.46222	77.0378	7.82333	1.37247	3.5	1.36994	.0832705
1237	2.38743	77.1126	8.82239	1.32605	4.4	1.32219	.101069
1238	2.31263	77.1874	9.82145	1.28119	5.3	1.27572	.118315
1239	2.23783	77.2622	10.8205	1.23784	6.3	1.23045	.135021
1240	2.16304	77.337	11.8196	1.19598	7.3	1.18638	.151205
1241	2.08824	77.4118	12.8186	1.15555	8.3	1.14344	.166887
1242	2.01344	77.4866	13.8177	1.11654	9.4	1.10159	.182081
1243	1.93865	77.5614	14.8167	1.07889	10.5	1.06079	.196807
1244	1.86385	77.6362	15.8158	1.04259	11.7	1.02099	.21108
1245	1.78906	77.711	16.8148	1.0076	12.9	.982181	.224914
1246	1.71426	77.7857	17.8139	.973911	14.2	.944301	.238324
1247	1.63946	77.8605	18.8129	.94149	15.5	.907326	.251323
1248	1.56467	77.9353	19.812	.910326	16.9	.871228	.263922
1249	1.48987	78.0101	20.8111	.880403	18.3	.835979	.276133
1250	1.41507	78.0849	21.8101	.851715	19.8	.801557	.287967
1251	1.34028	78.1597	22.8092	.824247	21.3	.767934	.299434
1252	1.26548	78.2345	23.8082	.797993	22.9	.735089	.310544
1253	1.19069	78.3093	24.8073	.772946	24.6	.702999	.321304
1254	1.11589	78.3841	25.8063	.749103	26.3	.67165	.331725
1255	1.04109	78.4589	26.8054	.726458	28.1	.641019	.341813
1256	.966296	78.5337	27.8045	.70501	29.9	.611092	.351576
1257	.8915	78.6085	28.8035	.684753	31.8	.581851	.361022
1258	.816704	78.6833	29.8026	.665686	33.8	.553283	.370157
1259	.741907	78.7581	30.8016	.647803	35.8	.525373	.378988
1260	.667111	78.8329	31.8007	.631098	37.9	.49811	.387519
1261	.592315	78.9077	32.7997	.615564	40.	.471482	.395758
1262	.517519	78.9825	33.7988	.60119	42.2	.445476	.403709

1263	.442722	79.0573	34.7978	.587966	44.4	.420086	.411378
1264	.367926	79.1321	35.7969	.575873	46.7	.395301	.418769
1265	.29313	79.2069	36.7959	.564894	48.9	.371115	.425886
1266	.218333	79.2817	37.795	.555003	51.2	.347518	.432734
1267	.143537	79.3565	38.7941	.546173	53.5	.324508	.439317
1268	.0687407	79.4313	39.7931	.538372	55.9	.30208	.445637
1269	-6.06E-03	79.5061	40.7922	.531563	58.2	.280229	.451698
1270	-.0808519	79.5809	41.7912	.525704	60.5	.258954	.457502
1271	-.155648	79.6557	42.7903	.520751	62.8	.238255	.463051
1272	-.230445	79.7305	43.7893	.516653	65.	.218135	.468346
1273	-.305241	79.8052	44.7884	.51336	67.2	.198597	.473389
1274	-.380037	79.88	45.7875	.510813	69.4	.179649	.47818
1275	-.454833	79.9548	46.7865	.508954	71.5	.161302	.482717
1276	-.52963	80.0296	47.7856	.507723	73.6	.143572	.487
1277	-.604426	80.1044	48.7846	.507053	75.6	.126481	.491025
1278	-.679222	80.1792	49.7837	.506878	77.5	.110061	.494784
1279	-.754019	80.254	50.7827	.507129	79.3	.0943573	.498273
1280	-.828815	80.3288	51.7818	.50773	81.	.0794337	.501478
1281	-.903611	80.4036	52.7808	.508601	82.6	.0653946	.504379
1282	-.978407	80.4784	53.7799	.509648	84.1	.0524139	.506946
1283	-1.0532	80.5532	54.779	.510751	85.4	.0408142	.509117
J58	-1.128	80.628	55.778	.511567	86.3	.0326709	.510522
2J1	-1.128	80.628	55.778	.34446	115.3	-.147479	.311292
1285	-1.17718	80.6772	56.7707	.348157	116.2	-.153885	.312302
1286	-1.22635	80.7264	57.7633	.353543	117.4	-.162955	.313749
1287	-1.27553	80.7755	58.756	.35943	118.7	-.172624	.315264
1288	-1.3247	80.8247	59.7487	.365611	120.	-.182534	.316785
1289	-1.37388	80.8739	60.7413	.371962	121.2	-.192498	.318277
1290	-1.42305	80.9231	61.734	.378403	122.3	-.202401	.319723
1291	-1.47223	80.9722	62.7266	.38487	123.5	-.21217	.321105
1292	-1.52141	81.0214	63.7193	.391311	124.5	-.221749	.322415
1293	-1.57058	81.0706	64.712	.397683	125.5	-.231097	.323646
1294	-1.61976	81.1198	65.7046	.403952	126.5	-.240184	.32479
1295	-1.66893	81.1689	66.6973	.410082	127.4	-.248984	.325844
1296	-1.71811	81.2181	67.69	.416049	128.2	-.25748	.326804
1297	-1.76728	81.2673	68.6826	.421828	129.	-.265654	.327668
1298	-1.81646	81.3165	69.6753	.427398	129.8	-.273496	.328434
1299	-1.86564	81.3656	70.6679	.43274	130.5	-.280995	.329099
1300	-1.91481	81.4148	71.6606	.437842	131.2	-.288143	.329665
1301	-1.96399	81.464	72.6533	.442686	131.8	-.294934	.330128
1302	-2.01316	81.5132	73.6459	.447263	132.4	-.301363	.330492
1303	-2.06234	81.5623	74.6386	.451563	132.9	-.307426	.330755
1304	-2.11151	81.6115	75.6312	.455577	133.4	-.31312	.330917
1305	-2.16069	81.6607	76.6239	.459298	133.9	-.318444	.33098
1306	-2.20987	81.7099	77.6166	.462718	134.3	-.323395	.330944
1307	-2.25904	81.759	78.6092	.465834	134.8	-.327973	.33081
1308	-2.30822	81.8082	79.6019	.468641	135.1	-.332178	.330579
1309	-2.35739	81.8574	80.5946	.471134	135.5	-.336007	.330252
1310	-2.40657	81.9066	81.5872	.473311	135.8	-.339464	.32983
1311	-2.45574	81.9557	82.5799	.475169	136.1	-.342546	.329315
1312	-2.50492	82.0049	83.5725	.476707	136.4	-.345256	.328707
1313	-2.5541	82.0541	84.5652	.477923	136.7	-.347593	.328009
1314	-2.60327	82.1033	85.5579	.478816	136.9	-.34956	.32722
1315	-2.65245	82.1524	86.5505	.479386	137.1	-.351157	.326343
1316	-2.70162	82.2016	87.5432	.479633	137.3	-.352387	.325379
1317	-2.7508	82.2508	88.5359	.479556	137.4	-.353249	.324329
1318	-2.79997	82.3	89.5285	.479156	137.6	-.353747	.323194
1319	-2.84915	82.3491	90.5212	.478436	137.7	-.353882	.321976
1320	-2.89832	82.3983	91.5138	.477394	137.8	-.353655	.320676
1321	-2.9475	82.4475	92.5065	.476033	137.9	-.353069	.319295

1322	-2.99668	82.4967	93.4992	.474354	137.9	-.352127	.317834
1323	-3.04585	82.5459	94.4918	.472359	138.	-.350829	.316295
1324	-3.09503	82.595	95.4845	.470052	138.	-.349179	.314678
1325	-3.1442	82.6442	96.4772	.467433	138.	-.34718	.312985
1326	-3.19338	82.6934	97.4698	.464507	137.9	-.344833	.311218
1327	-3.24255	82.7426	98.4625	.461275	137.9	-.342141	.309377
1328	-3.29173	82.7917	99.4551	.457742	137.8	-.339107	.307463
1329	-3.34091	82.8409	100.448	.453911	137.7	-.335735	.305478
1330	-3.39008	82.8901	101.441	.449785	137.6	-.332026	.303422
1331	-3.43926	82.9393	102.433	.445369	137.4	-.327984	.301297
1332	-3.48843	82.9884	103.426	.440667	137.3	-.323612	.299103
1333	-3.53761	83.0376	104.418	.435683	137.1	-.318912	.296842
1334	-3.58678	83.0868	105.411	.430423	136.8	-.313888	.294514
1335	-3.63596	83.136	106.404	.424892	136.6	-.308543	.29212
1336	-3.68514	83.1851	107.396	.419095	136.3	-.302881	.289661
1337	-3.73431	83.2343	108.389	.413039	136.	-.296906	.287138
1338	-3.78349	83.2835	109.382	.40673	135.6	-.290618	.284552
1339	-3.83266	83.3327	110.374	.400173	135.2	-.284023	.281904
1340	-3.88184	83.3818	111.367	.393378	134.8	-.277124	.279193
1341	-3.93101	83.431	112.36	.38635	134.3	-.269922	.276421
1342	-3.98019	83.4802	113.352	.379098	133.8	-.262423	.273587
1343	-4.02937	83.5294	114.345	.371632	133.2	-.254628	.270692
1344	-4.07854	83.5785	115.338	.363958	132.6	-.24654	.267738
1345	-4.12772	83.6277	116.33	.356089	132.	-.238161	.264723
1346	-4.17689	83.6769	117.323	.348032	131.3	-.229493	.261647
1347	-4.22607	83.7261	118.316	.339801	130.5	-.220538	.258511
1348	-4.27524	83.7752	119.308	.331407	129.6	-.211295	.255314
1349	-4.32442	83.8244	120.301	.322861	128.7	-.201763	.252054
1350	-4.3736	83.8736	121.294	.314177	127.7	-.191939	.24873
1351	-4.42277	83.9228	122.286	.305367	126.5	-.181817	.24534
1352	-4.47195	83.972	123.279	.296443	125.3	-.171386	.241879
1353	-4.52112	84.0211	124.272	.287418	124.	-.16063	.238343
1354	-4.5703	84.0703	125.264	.278301	122.5	-.149521	.234723
1355	-4.61947	84.1195	126.257	.269093	120.9	-.138016	.231004
1356	-4.66865	84.1687	127.25	.259796	119.	-.12605	.227168
1357	-4.71782	84.2178	128.242	.250407	117.	-.113543	.223185
J59	-4.767	84.267	129.235	.240498	114.5	-.0997518	.218835
2J1	-14.311	76.589	1.829	1.89681	347.7	1.85357	-.402686
1359	-14.2362	76.6638	2.82806	1.84922	348.	1.80863	-.385351
1360	-14.1614	76.7386	3.82711	1.79351	348.3	1.75596	-.365108
1361	-14.0866	76.8134	4.82617	1.738	348.6	1.70341	-.344997
1362	-14.0118	76.8882	5.82522	1.68342	348.9	1.65169	-.325288
1363	-13.937	76.963	6.82428	1.63011	349.2	1.60111	-.306098
1364	-13.8622	77.0378	7.82333	1.57817	349.5	1.55176	-.287466
1365	-13.7874	77.1126	8.82239	1.52762	349.8	1.50367	-.269399
1366	-13.7126	77.1874	9.82145	1.47844	350.2	1.45682	-.251888
1367	-13.6378	77.2622	10.8205	1.43058	350.5	1.41116	-.234916
1368	-13.563	77.337	11.8196	1.38402	350.9	1.36667	-.218468
1369	-13.4882	77.4118	12.8186	1.33869	351.3	1.32328	-.202522
1370	-13.4134	77.4866	13.8177	1.29456	351.7	1.28097	-.187063
1371	-13.3387	77.5614	14.8167	1.25157	352.1	1.23968	-.172071
1372	-13.2639	77.6362	15.8158	1.20968	352.5	1.19938	-.157531
1373	-13.1891	77.711	16.8148	1.16887	353.	1.16004	-.143428
1374	-13.1143	77.7857	17.8139	1.12909	353.4	1.12161	-.129746
1375	-13.0395	77.8605	18.8129	1.09031	353.9	1.08407	-.116473
1376	-12.9647	77.9353	19.812	1.05249	354.4	1.04738	-.103596
1377	-12.8899	78.0101	20.8111	1.01563	354.9	1.01153	-.0911017
1378	-12.8151	78.0849	21.8101	.97967	355.4	.976481	-.0789805
1379	-12.7403	78.1597	22.8092	.94461	355.9	.942215	-.0672222
1380	-12.6655	78.2345	23.8082	.910418	356.5	.908705	-.0558159

1381	-12.5907	78.3093	24.8073	.87708	357.1	.875938	-.0447527
1382	-12.5159	78.3841	25.8063	.84457	357.7	.843884	-.0340237
1383	-12.4411	78.4589	26.8054	.812882	358.3	.812538	-.0236205
1384	-12.3663	78.5337	27.8045	.781995	359.	.781878	-.0135352
1385	-12.2915	78.6085	28.8035	.751906	359.7	.751897	-3.76E-03
1386	-12.2167	78.6833	29.8026	.722581	.5	.722559	5.71E-03
1387	-12.1419	78.7581	30.8016	.694034	1.2	.693874	.0148865
1388	-12.0671	78.8329	31.8007	.666242	2.	.665818	.0237714
1389	-11.9923	78.9077	32.7997	.639202	2.9	.638382	.0323723
1390	-11.9175	78.9825	33.7988	.612908	3.8	.611555	.0406948
1391	-11.8427	79.0573	34.7978	.587356	4.8	.58533	.0487443
1392	-11.7679	79.1321	35.7969	.562545	5.8	.559698	.0565258
1393	-11.6931	79.2069	36.7959	.538472	6.8	.53465	.0640441
1394	-11.6183	79.2817	37.795	.51514	8.	.510182	.0713034
1395	-11.5435	79.3565	38.7941	.492552	9.1	.486288	.078308
1396	-11.4687	79.4313	39.7931	.470712	10.4	.462963	.0850616
1397	-11.3939	79.5061	40.7922	.449628	11.8	.440205	.091567
1398	-11.3192	79.5809	41.7912	.429309	13.2	.418014	.097827
1399	-11.2444	79.6557	42.7903	.409766	14.7	.396389	.103845
1400	-11.1696	79.7305	43.7893	.391014	16.3	.375333	.109621
1401	-11.0948	79.8052	44.7884	.37307	18.	.354852	.115157
1402	-11.02	79.88	45.7875	.355952	19.8	.334952	.120453
1403	-10.9452	79.9548	46.7865	.339685	21.7	.315648	.125508
1404	-10.8704	80.0296	47.7856	.324292	23.7	.296954	.130321
1405	-10.7956	80.1044	48.7846	.309801	25.8	.278895	.134887
1406	-10.7208	80.1792	49.7837	.296246	28.	.261505	.1392
1407	-10.646	80.254	50.7827	.283661	30.3	.244832	.143251
1408	-10.5712	80.3288	51.7818	.272089	32.7	.228945	.147026
1409	-10.4964	80.4036	52.7808	.261585	35.1	.213954	.150501
1410	-10.4216	80.4784	53.7799	.252235	37.5	.200045	.153637
1411	-10.3468	80.5532	54.779	.244191	39.8	.187565	.15636
J60	-10.272	80.628	55.778	.238697	41.5	.178749	.158194
2J1	-10.272	80.628	55.778	.154255	119.2	-.0752215	.134672
1413	-10.2228	80.6772	56.7707	.158949	121.1	-.0821957	.136046
1414	-10.1737	80.7264	57.7633	.165882	123.7	-.0920577	.137993
1415	-10.1245	80.7755	58.756	.173589	126.2	-.102578	.140039
1416	-10.0753	80.8247	59.7487	.181789	128.6	-.113374	.142104
1417	-10.0261	80.8739	60.7413	.190299	130.8	-.12424	.144146
1418	-9.97695	80.9231	61.734	.198992	132.7	-.135059	.14614
1419	-9.92777	80.9722	62.7266	.207765	134.5	-.145748	.148068
1420	-9.87859	81.0214	63.7193	.21654	136.2	-.15625	.149918
1421	-9.82942	81.0706	64.712	.22525	137.7	-.166523	.151682
1422	-9.78024	81.1198	65.7046	.23384	139.	-.176533	.153353
1423	-9.73107	81.1689	66.6973	.242265	140.2	-.186255	.154925
1424	-9.68189	81.2181	67.69	.25049	141.4	-.195668	.156395
1425	-9.63272	81.2673	68.6826	.258482	142.4	-.204756	.157759
1426	-9.58354	81.3165	69.6753	.266218	143.3	-.213506	.159018
1427	-9.53437	81.3656	70.6679	.273673	144.2	-.221908	.160168
1428	-9.48519	81.4148	71.6606	.280833	145.	-.229954	.161209
1429	-9.43601	81.464	72.6533	.287681	145.7	-.237637	.16214
1430	-9.38684	81.5132	73.6459	.294206	146.4	-.24495	.162962
1431	-9.33766	81.5623	74.6386	.300398	147.	-.251892	.163674
1432	-9.28849	81.6115	75.6312	.306249	147.6	-.258458	.164279
1433	-9.23931	81.6607	76.6239	.311751	148.1	-.264646	.164776
1434	-9.19014	81.7099	77.6166	.3169	148.6	-.270454	.165166
1435	-9.14096	81.759	78.6092	.32169	149.	-.275882	.165451
1436	-9.09178	81.8082	79.6019	.326119	149.5	-.280927	.16563
1437	-9.04261	81.8574	80.5946	.330184	149.9	-.285591	.165707
1438	-8.99343	81.9066	81.5872	.333881	150.2	-.289873	.165682
1439	-8.94426	81.9557	82.5799	.337211	150.6	-.293772	.165556

1440	-8.89508	82.0049	83.5725	.340171	150.9	-.29729	.165332
1441	-8.84591	82.0541	84.5652	.34276	151.2	-.300428	.165009
1442	-8.79673	82.1033	85.5579	.34498	151.5	-.303186	.16459
1443	-8.74755	82.1524	86.5505	.34683	151.8	-.305565	.164077
1444	-8.69838	82.2016	87.5432	.34831	152.	-.307567	.163471
1445	-8.6492	82.2508	88.5359	.349421	152.2	-.309193	.162772
1446	-8.60003	82.3	89.5285	.350164	152.4	-.310445	.161984
1447	-8.55085	82.3491	90.5212	.35054	152.6	-.311324	.161107
1448	-8.50168	82.3983	91.5138	.35055	152.8	-.311833	.160142
1449	-8.4525	82.4475	92.5065	.350196	153.	-.311972	.159093
1450	-8.40332	82.4967	93.4992	.34948	153.1	-.311745	.157959
1451	-8.35415	82.5459	94.4918	.348403	153.3	-.311153	.156742
1452	-8.30497	82.595	95.4845	.346967	153.4	-.310199	.155444
1453	-8.2558	82.6442	96.4772	.345175	153.5	-.308885	.154066
1454	-8.20662	82.6934	97.4698	.34303	153.6	-.307214	.152609
1455	-8.15745	82.7426	98.4625	.340533	153.7	-.305187	.151075
1456	-8.10827	82.7917	99.4551	.337688	153.7	-.302809	.149466
1457	-8.05909	82.8409	100.448	.334496	153.8	-.300081	.147781
1458	-8.00992	82.8901	101.441	.330962	153.8	-.297006	.146025
1459	-7.96074	82.9393	102.433	.327087	153.8	-.293587	.144196
1460	-7.91157	82.9884	103.426	.322876	153.9	-.289828	.142296
1461	-7.86239	83.0376	104.418	.31833	153.8	-.285731	.140327
1462	-7.81322	83.0868	105.411	.313454	153.8	-.2813	.13829
1463	-7.76404	83.136	106.404	.308252	153.8	-.276537	.136186
1464	-7.71487	83.1851	107.396	.302726	153.7	-.271446	.134015
1465	-7.66569	83.2343	108.389	.29688	153.6	-.26603	.13178
1466	-7.61651	83.2835	109.382	.290718	153.6	-.260292	.129481
1467	-7.56734	83.3327	110.374	.284243	153.4	-.254235	.127118
1468	-7.51816	83.3818	111.367	.277461	153.3	-.247863	.124694
1469	-7.46899	83.431	112.36	.270374	153.1	-.241178	.122208
1470	-7.41981	83.4802	113.352	.262986	152.9	-.234185	.119662
1471	-7.37064	83.5294	114.345	.255301	152.7	-.226885	.117055
1472	-7.32146	83.5785	115.338	.247325	152.5	-.219281	.11439
1473	-7.27228	83.6277	116.33	.239059	152.2	-.211376	.111666
1474	-7.22311	83.6769	117.323	.230507	151.8	-.203171	.108882
1475	-7.17393	83.7261	118.316	.221675	151.4	-.194667	.10604
1476	-7.12476	83.7752	119.308	.212564	151.	-.185865	.103139
1477	-7.07558	83.8244	120.301	.203177	150.5	-.176763	.100178
1478	-7.02641	83.8736	121.294	.193515	149.9	-.167358	.0971567
1479	-6.97723	83.9228	122.286	.183579	149.2	-.157644	.0940716
1480	-6.92805	83.972	123.279	.173366	148.4	-.147612	.09092
1481	-6.87888	84.0211	124.272	.162871	147.4	-.137244	.0876977
1482	-6.8297	84.0703	125.264	.152079	146.3	-.126513	.0843948
1483	-6.78053	84.1195	126.257	.140971	144.9	-.115376	.0810007
1484	-6.73135	84.1687	127.25	.129514	143.2	-.10377	.0774963
1485	-6.68218	84.2178	128.242	.117679	141.1	-.0916172	.0738561
J61	-6.633	84.267	129.235	.10486	138.2	-.0781935	.0698673
2J1	-14.311	93.811	1.829	1.58533	317.2	1.16309	-1.07726
1487	-14.2362	93.7362	2.82806	1.54065	316.6	1.11866	-1.05935
1488	-14.1614	93.6614	3.82711	1.48858	315.8	1.0666	-1.03838
1489	-14.0866	93.5866	4.82617	1.43695	314.9	1.01467	-1.01748
1490	-14.0118	93.5118	5.82522	1.38649	314.	.963598	-.996917
1491	-13.937	93.437	6.82428	1.33752	313.1	.913676	-.976807
1492	-13.8622	93.3622	7.82333	1.29015	312.1	.865013	-.957206
1493	-13.7874	93.2874	8.82239	1.24441	311.1	.817629	-.938107
1494	-13.7126	93.2126	9.82145	1.20029	310.	.771498	-.91951
1495	-13.6378	93.1378	10.8205	1.15778	308.9	.726589	-.901394
1496	-13.563	93.063	11.8196	1.11682	307.7	.682856	-.883744
1497	-13.4882	92.9882	12.8186	1.07742	306.5	.640261	-.86654
1498	-13.4134	92.9134	13.8177	1.03953	305.2	.598758	-.849768

1499	-13.3387	92.8387	14.8167	1.00314	303.8	.558307	-.833412
1500	-13.2639	92.7639	15.8158	.968221	302.4	.518867	-.817453
1501	-13.1891	92.6891	16.8148	.934768	300.9	.480404	-.801875
1502	-13.1143	92.6143	17.8139	.902767	299.4	.442883	-.786665
1503	-13.0395	92.5395	18.8129	.872215	297.8	.406276	-.771816
1504	-12.9647	92.4647	19.812	.843101	296.1	.37055	-.757306
1505	-12.8899	92.3899	20.8111	.815428	294.3	.335683	-.743129
1506	-12.8151	92.3151	21.8101	.789199	292.5	.301646	-.729276
1507	-12.7403	92.2403	22.8092	.764412	290.6	.268418	-.715735
1508	-12.6655	92.1655	23.8082	.741075	288.6	.235978	-.7025
1509	-12.5907	92.0907	24.8073	.719187	286.5	.204305	-.689557
1510	-12.5159	92.0159	25.8063	.698753	284.4	.17338	-.676901
1511	-12.4411	91.9411	26.8054	.679774	282.2	.143187	-.664523
1512	-12.3663	91.8663	27.8045	.662253	279.9	.113708	-.652418
1513	-12.2915	91.7915	28.8035	.646183	277.6	.0849294	-.640577
1514	-12.2167	91.7167	29.8026	.631558	275.2	.0568362	-.628996
1515	-12.1419	91.6419	30.8016	.618367	272.7	.0294158	-.617667
1516	-12.0671	91.5671	31.8007	.606592	270.3	2.66E-03	-.606586
1517	-11.9923	91.4923	32.7997	.596209	267.7	-.0234539	-.595747
1518	-11.9175	91.4175	33.7988	.587188	265.2	-.0489243	-.585146
1519	-11.8427	91.3427	34.7978	.579493	262.7	-.0737641	-.574779
1520	-11.7679	91.2679	35.7969	.573078	260.2	-.0979819	-.56464
1521	-11.6931	91.1931	36.7959	.567894	257.6	-.121585	-.554726
1522	-11.6183	91.1183	37.795	.563884	255.1	-.144579	-.545034
1523	-11.5435	91.0435	38.7941	.560986	252.7	-.16697	-.535562
1524	-11.4687	90.9687	39.7931	.559133	250.3	-.188761	-.526306
1525	-11.3939	90.8939	40.7922	.558252	247.9	-.209957	-.517265
1526	-11.3192	90.8192	41.7912	.55827	245.6	-.230556	-.508438
1527	-11.2444	90.7444	42.7903	.559109	243.4	-.250561	-.499822
1528	-11.1696	90.6696	43.7893	.560692	241.2	-.269968	-.491418
1529	-11.0948	90.5948	44.7884	.562938	239.1	-.288773	-.483228
1530	-11.02	90.52	45.7875	.565769	237.1	-.306969	-.475252
1531	-10.9452	90.4452	46.7865	.569105	235.2	-.324546	-.467494
1532	-10.8704	90.3704	47.7856	.572867	233.4	-.341487	-.459961
1533	-10.7956	90.2956	48.7846	.576974	231.7	-.357771	-.452658
1534	-10.7208	90.2208	49.7837	.581346	230.	-.373368	-.445601
1535	-10.646	90.146	50.7827	.585899	228.5	-.388236	-.438805
1536	-10.5712	90.0712	51.7818	.59054	227.1	-.402312	-.432299
1537	-10.4964	89.9964	52.7808	.595166	225.7	-.415501	-.426123
1538	-10.4216	89.9216	53.7799	.599646	224.5	-.427639	-.420357
1539	-10.3468	89.8468	54.779	.603787	223.4	-.438426	-.41514
J62	-10.272	89.772	55.778	.606728	222.7	-.445942	-.411406
2J1	-10.272	89.772	55.778	.433826	204.2	-.395791	-.177637
1541	-10.2228	89.7228	56.7707	.437992	203.5	-.401662	-.174657
1542	-10.1737	89.6737	57.7633	.444024	202.6	-.409996	-.17047
1543	-10.1245	89.6245	58.756	.450575	201.6	-.418878	-.166011
1544	-10.0753	89.5753	59.7487	.457413	200.7	-.427977	-.161437
1545	-10.0261	89.5261	60.7413	.464405	199.7	-.437121	-.156834
1546	-9.97695	89.477	61.734	.471462	198.8	-.446202	-.152249
1547	-9.92777	89.4278	62.7266	.478521	198.	-.455152	-.147714
1548	-9.87859	89.3786	63.7193	.485531	197.2	-.463918	-.143252
1549	-9.82942	89.3294	64.712	.492449	196.4	-.472461	-.138878
1550	-9.78024	89.2802	65.7046	.499242	195.6	-.480754	-.134603
1551	-9.73107	89.2311	66.6973	.505877	194.9	-.488771	-.130438
1552	-9.68189	89.1819	67.69	.51233	194.3	-.496495	-.126389
1553	-9.63272	89.1327	68.6826	.518578	193.7	-.503912	-.122459
1554	-9.58354	89.0835	69.6753	.524602	193.1	-.511007	-.118655
1555	-9.53437	89.0344	70.6679	.530385	192.5	-.517772	-.114978
1556	-9.48519	88.9852	71.6606	.535914	192.	-.524201	-.111431
1557	-9.43601	88.936	72.6533	.541174	191.5	-.530285	-.108014

1558	-9.38684	88.8868	73.6459	.546158	191.1	-.536022	-.10473
1559	-9.33766	88.8377	74.6386	.550853	190.6	-.541407	-.101578
1560	-9.28849	88.7885	75.6312	.555254	190.2	-.546437	-.0985575
1561	-9.23931	88.7393	76.6239	.559353	189.8	-.55111	-.0956704
1562	-9.19014	88.6901	77.6166	.563143	189.5	-.555425	-.0929162
1563	-9.14096	88.641	78.6092	.566621	189.2	-.559381	-.0902928
1564	-9.09178	88.5918	79.6019	.569783	188.9	-.562977	-.0878016
1565	-9.04261	88.5426	80.5946	.572624	188.6	-.566214	-.0854406
1566	-8.99343	88.4934	81.5872	.575142	188.3	-.569091	-.083209
1567	-8.94426	88.4443	82.5799	.577334	188.1	-.571608	-.081106
1568	-8.89508	88.3951	83.5725	.579198	187.9	-.573767	-.0791318
1569	-8.84591	88.3459	84.5652	.580733	187.6	-.575567	-.0772834
1570	-8.79673	88.2967	85.5579	.581937	187.5	-.577011	-.0755609
1571	-8.74755	88.2476	86.5505	.582811	187.3	-.578099	-.0739628
1572	-8.69838	88.1984	87.5432	.583353	187.1	-.578832	-.0724885
1573	-8.6492	88.1492	88.5359	.583563	187.	-.579212	-.0711351
1574	-8.60003	88.1	89.5285	.583443	186.9	-.57924	-.0699033
1575	-8.55085	88.0509	90.5212	.582991	186.8	-.578918	-.0687907
1576	-8.50168	88.0017	91.5138	.582209	186.7	-.578249	-.0677963
1577	-8.4525	87.9525	92.5065	.581098	186.6	-.577232	-.0669186
1578	-8.40332	87.9033	93.4992	.579659	186.6	-.575871	-.0661564
1579	-8.35415	87.8542	94.4918	.577893	186.5	-.574168	-.0655084
1580	-8.30497	87.805	95.4845	.575802	186.5	-.572124	-.0649732
1581	-8.2558	87.7558	96.4772	.573388	186.5	-.569743	-.0645492
1582	-8.20662	87.7066	97.4698	.570651	186.5	-.567025	-.0642354
1583	-8.15745	87.6575	98.4625	.567597	186.5	-.563973	-.0640301
1584	-8.10827	87.6083	99.4551	.564224	186.5	-.560591	-.063932
1585	-8.05909	87.5591	100.448	.560538	186.5	-.556879	-.0639397
1586	-8.00992	87.5099	101.441	.556539	186.6	-.552841	-.0640519
1587	-7.96074	87.4608	102.433	.552231	186.7	-.548479	-.064267
1588	-7.91157	87.4116	103.426	.547617	186.8	-.543795	-.0645839
1589	-7.86239	87.3624	104.418	.5427	186.9	-.538793	-.0650009
1590	-7.81322	87.3132	105.411	.537484	187.	-.533476	-.0655169
1591	-7.76404	87.2641	106.404	.531971	187.1	-.527844	-.0661305
1592	-7.71487	87.2149	107.396	.526166	187.3	-.521903	-.0668402
1593	-7.66569	87.1657	108.389	.520072	187.5	-.515654	-.0676448
1594	-7.61651	87.1165	109.382	.513692	187.7	-.509099	-.0685429
1595	-7.56734	87.0673	110.374	.507032	187.9	-.502241	-.0695332
1596	-7.51816	87.0182	111.367	.500095	188.1	-.495085	-.0706145
1597	-7.46899	86.969	112.36	.492886	188.4	-.48763	-.0717856
1598	-7.41981	86.9198	113.352	.485409	188.7	-.479881	-.0730457
1599	-7.37064	86.8706	114.345	.477668	189.	-.471839	-.0743928
1600	-7.32146	86.8215	115.338	.469667	189.3	-.463506	-.0758268
1601	-7.27228	86.7723	116.33	.461412	189.7	-.454883	-.0773463
1602	-7.22311	86.7231	117.323	.452907	190.	-.445973	-.0789508
1603	-7.17393	86.6739	118.316	.444156	190.5	-.436774	-.0806401
1604	-7.12476	86.6248	119.308	.435162	190.9	-.427287	-.0824128
1605	-7.07558	86.5756	120.301	.425928	191.4	-.417509	-.0842704
1606	-7.02641	86.5264	121.294	.416458	191.9	-.407437	-.0862121
1607	-6.97723	86.4772	122.286	.40675	192.5	-.397063	-.0882408
1608	-6.92805	86.4281	123.279	.396801	193.2	-.386376	-.0903571
1609	-6.87888	86.3789	124.272	.386604	193.9	-.375359	-.0925669
1610	-6.8297	86.3297	125.264	.376145	194.6	-.363983	-.0948756
1611	-6.78053	86.2805	126.257	.365394	195.4	-.352202	-.0972946
1612	-6.73135	86.2314	127.25	.354309	196.4	-.339952	-.0998388
1613	-6.68218	86.1822	128.242	.342833	197.4	-.327144	-.102523
J63	-6.633	86.133	129.235	.330347	198.6	-.313041	-.105519
2J1	2.911	93.811	1.829	.806969	358.1	.806521	-.026904
1615	2.911	92.7979	1.829	.760572	359.4	.760523	-8.6E-03
1616	2.911	91.7849	1.829	.697883	1.3	.697691	.0163445

1617	2.911	90.7718	1.829	.6293	4.	.627757	.044042
1618	2.911	89.7588	1.829	.558058	7.6	.553196	.0735046
1619	2.911	88.7457	1.829	.486877	12.3	.47562	.104091
1620	2.911	87.7326	1.829	.418569	18.9	.396068	.135389
1621	2.911	86.7196	1.829	.356816	27.9	.315265	.167109
1622	2.911	85.7065	1.829	.307013	40.4	.233752	.199039
1623	2.911	84.6935	1.829	.276513	56.7	.151984	.230999
1624	2.911	83.6804	1.829	.272084	75.	.0703844	.262823
1625	2.911	82.6674	1.829	.294524	92.1	-.0105918	.294334
1626	2.911	81.6543	1.829	.337646	105.5	-.0903982	.325319
1627	2.911	80.6412	1.829	.39333	115.3	-.168309	.3555
1628	2.911	79.6282	1.829	.454974	122.3	-.243274	.384473
1629	2.911	78.6151	1.829	.517507	127.3	-.31367	.411612
1630	2.911	77.6021	1.829	.576362	130.9	-.377003	.43596
2J2	2.911	76.589	1.829	.620629	133.	-.42342	.453757
2J1	2.911	76.589	1.829	.755202	332.6	.670699	-.347121
1633	1.89794	76.589	1.829	.705798	332.2	.624242	-.329351
1634	.884882	76.589	1.829	.63839	331.5	.560793	-.305047
1635	-.128177	76.589	1.829	.563557	330.4	.490221	-.277991
1636	-1.14124	76.589	1.829	.484054	329.	.415015	-.24914
1637	-2.15429	76.589	1.829	.401802	327.	.336799	-.219114
1638	-3.16735	76.589	1.829	.318306	323.7	.256623	-.188316
1639	-4.18041	76.589	1.829	.235283	318.1	.175216	-.157028
1640	-5.19347	76.589	1.829	.156242	306.6	.0931241	-.125457
1641	-6.20653	76.589	1.829	.0943999	276.6	.0108042	-.0937795
1642	-7.21959	76.589	1.829	.0946038	221.1	-.0713161	-.0621601
1643	-8.23265	76.589	1.829	.155849	191.4	-.15278	-.0307751
1644	-9.24571	76.589	1.829	.233039	180.	-.233039	1.64E-04
1645	-10.2588	76.589	1.829	.312841	174.4	-.311363	.0303761
1646	-11.2718	76.589	1.829	.391244	171.3	-.386701	.0594532
1647	-12.2849	76.589	1.829	.465578	169.3	-.457422	.086765
1648	-13.2979	76.589	1.829	.532795	167.9	-.521031	.111346
2J2	-14.311	76.589	1.829	.582172	167.2	-.567618	.129361
2J1	-14.311	76.589	1.829	.610383	312.6	.413515	-.448969
1651	-14.311	77.6021	1.829	.565972	310.4	.366949	-.430898
1652	-14.311	78.6151	1.829	.50701	306.8	.303414	-.406201
1653	-14.311	79.6282	1.829	.444521	301.6	.2328	-.378686
1654	-14.311	80.6412	1.829	.38323	294.3	.157607	-.349321
1655	-14.311	81.6543	1.829	.328495	284.	.0794641	-.318738
1656	-14.311	82.6674	1.829	.287345	269.9	-5.77E-04	-.287345
1657	-14.311	83.6804	1.829	.268199	252.2	-.081787	-.255425
1658	-14.311	84.6935	1.829	.27674	233.8	-.163619	-.223191
1659	-14.311	85.7065	1.829	.311031	217.8	-.245616	-.190822
1660	-14.311	86.7196	1.829	.363701	205.8	-.327353	-.158488
1661	-14.311	87.7326	1.829	.42748	197.2	-.408376	-.126366
1662	-14.311	88.7457	1.829	.497236	191.	-.48814	-.0946747
1663	-14.311	89.7588	1.829	.569494	186.4	-.56592	-.063703
1664	-14.311	90.7718	1.829	.641569	183.	-.640674	-.0338684
1665	-14.311	91.7849	1.829	.710809	180.5	-.710785	-5.82E-03
1666	-14.311	92.7979	1.829	.774026	178.6	-.773782	.0194514
2J2	-14.311	93.811	1.829	.820772	177.3	-.819892	.0380012
2J1	-14.311	93.811	1.829	.591517	345.9	.573608	-.144453
1669	-13.2979	93.811	1.829	.542351	346.6	.527539	-.125885
1670	-12.2849	93.811	1.829	.475371	347.8	.464611	-.10057
1671	-11.2718	93.811	1.829	.401224	349.6	.394629	-.0724468
1672	-10.2588	93.811	1.829	.322878	352.4	.320068	-.042509
1673	-9.24571	93.811	1.829	.242808	357.3	.24254	-.0114038
1674	-8.23265	93.811	1.829	.164368	7.1	.163091	.020451
1675	-7.21959	93.811	1.829	.0978826	32.6	.0824425	.052766
1676	-6.20653	93.811	1.829	.0853315	89.2	1.14E-03	.0853239

1677	-5.19347	93.811	1.829	.142722	124.3	-.0803657	.117945
1678	-4.18041	93.811	1.829	.220834	137.1	-.161648	.150459
1679	-3.16735	93.811	1.829	.303417	143.	-.242255	.182686
1680	-2.15429	93.811	1.829	.386558	146.3	-.321643	.214412
1681	-1.14124	93.811	1.829	.468476	148.4	-.399091	.245349
1682	-.128176	93.811	1.829	.547655	149.8	-.473556	.275082
1683	.884883	93.811	1.829	.62218	150.9	-.543429	.302973
1684	1.89794	93.811	1.829	.689303	151.6	-.606242	.328038
2J2	2.911	93.811	1.829	.738491	152.	-.652217	.346385
2J1	-1.128	89.772	55.778	.172096	237.3	-.0930866	-.144748
1687	-1.128	88.756	55.778	.173034	235.4	-.0981396	-.142511
1688	-1.128	87.74	55.778	.175023	232.7	-.106013	-.139263
1689	-1.128	86.724	55.778	.177849	229.9	-.114625	-.135983
1690	-1.128	85.708	55.778	.181462	227.	-.123657	-.132806
1691	-1.128	84.692	55.778	.185784	224.3	-.132905	-.129815
1692	-1.128	83.676	55.778	.190705	221.8	-.1422	-.127072
1693	-1.128	82.66	55.778	.196051	219.5	-.15133	-.124641
1694	-1.128	81.644	55.778	.201539	217.5	-.15995	-.122613
2J2	-1.128	80.628	55.778	.205396	216.2	-.16565	-.12144
2J1	-1.128	80.628	55.778	.0791309	79.4	.0144996	.0777911
1697	-2.144	80.628	55.778	.0791811	83.8	8.51E-03	.0787224
1698	-3.16	80.628	55.778	.0802284	90.5	-7.37E-04	.080225
1699	-4.176	80.628	55.778	.0825871	97.5	-.0107974	.0818782
1700	-5.192	80.628	55.778	.0862939	104.3	-.0212855	.0836276
1701	-6.208	80.628	55.778	.0912174	110.5	-.031953	.0854378
1702	-7.224	80.628	55.778	.09712	116.	-.0425915	.0872826
1703	-8.24	80.628	55.778	.103665	120.7	-.0529462	.0891239
1704	-9.256	80.628	55.778	.110376	124.6	-.0626154	.090896
2J2	-10.272	80.628	55.778	.115041	126.8	-.0689769	.0920683
2J1	-10.272	80.628	55.778	.218137	32.	.184994	.11559
1707	-10.272	81.644	55.778	.213704	33.2	.178761	.117106
1708	-10.272	82.66	55.778	.207381	35.2	.169384	.11965
1709	-10.272	83.676	55.778	.201142	37.6	.159441	.122625
1710	-10.272	84.692	55.778	.195324	40.1	.149314	.125923
1711	-10.272	85.708	55.778	.190127	42.9	.139237	.129466
1712	-10.272	86.724	55.778	.18569	45.8	.129396	.133182
1713	-10.272	87.74	55.778	.182113	48.8	.120013	.136975
1714	-10.272	88.756	55.778	.179473	51.6	.111435	.140688
2J2	-10.272	89.772	55.778	.178156	53.5	.105924	.143247
2J1	-10.272	89.772	55.778	.106325	301.6	.0557729	-.0905226
1717	-9.256	89.772	55.778	.101279	299.9	.0504603	-.087813
1718	-8.24	89.772	55.778	.09384	296.8	.0423406	-.083745
1719	-7.224	89.772	55.778	.0862474	293.	.0336492	-.0794125
1720	-6.208	89.772	55.778	.0789502	288.2	.0247222	-.0749797
1721	-5.192	89.772	55.778	.0722891	282.6	.0157711	-.0705477
1722	-4.176	89.772	55.778	.0665653	276.	6.97E-03	-.0661996
1723	-3.16	89.772	55.778	.0620513	268.6	-1.48E-03	-.0620336
1724	-2.144	89.772	55.778	.0589355	261.	-9.25E-03	-.0582044
2J2	-1.128	89.772	55.778	.057504	255.6	-.0142632	-.055707
2J1	-4.767	86.133	129.235	.32553	174.	-.323775	.0337606
J72	-5.7	85.2	129.235	.313145	174.3	-.311624	.03083
2J1	-4.767	84.267	129.235	.240498	114.5	-.0997518	.218835
2J2	-5.7	85.2	129.235	.232622	112.2	-.0880371	.215319
2J1	-6.633	84.267	129.235	.10486	138.2	-.0781935	.0698673
2J2	-5.7	85.2	129.235	.0942318	135.1	-.0666932	.0665707
2J1	-6.633	86.133	129.235	.330347	198.6	-.313041	-.105519
2J2	-5.7	85.2	129.235	.31999	199.8	-.301134	-.10822
2J1	-5.7	85.2	129.235	.794266	165.1	-.767488	.2045
1734	-5.7	85.2	130.242	.78593	165.1	-.759427	.202375
1735	-5.7	85.2	131.249	.766992	165.1	-.741113	.197553

1736	-5.7	85.2	132.257	.74455	165.1	-.719412	.191835
1737	-5.7	85.2	133.264	.719859	165.1	-.695536	.185545
1738	-5.7	85.2	134.271	.693488	165.1	-.670036	.178823
1739	-5.7	85.2	135.278	.665714	165.	-.64318	.17174
1740	-5.7	85.2	136.285	.636697	165.	-.615124	.164336
1741	-5.7	85.2	137.292	.606536	165.	-.585962	.156634
1742	-5.7	85.2	138.3	.575294	165.	-.555757	.148651
1743	-5.7	85.2	139.307	.543008	165.	-.524545	.140394
1744	-5.7	85.2	140.314	.509702	165.	-.492348	.131867
1745	-5.7	85.2	141.321	.475383	165.	-.459176	.123072
1746	-5.7	85.2	142.328	.440048	165.	-.425023	.114006
1747	-5.7	85.2	143.335	.40368	165.	-.389876	.104663
1748	-5.7	85.2	144.343	.366248	165.	-.353703	.0950332
1749	-5.7	85.2	145.35	.327702	164.9	-.316459	.0851019
1750	-5.7	85.2	146.357	.287966	164.9	-.278069	.0748474
1751	-5.7	85.2	147.364	.246927	164.9	-.238425	.0642393
1752	-5.7	85.2	148.371	.204407	164.9	-.197355	.0532278
1753	-5.7	85.2	149.379	.160107	164.9	-.154573	.0417333
1754	-5.7	85.2	150.386	.113464	164.9	-.109533	.0296061
1755	-5.7	85.2	151.393	.0632832	164.9	-.061086	.0165307
END	-5.7	85.2	152.4	0	0	0	0

APPENDIX C

TOWER 3 DETUNE MODEL

ELECTRICAL DESCRIPTION – UNMODIFIED TOWER #3 DETUNE
Frequencies (MHz)

no.	frequency lowest	step	no. of steps	segment length (wavelengths) minimum	maximum
1	.68	0	1	2.26E-03	4.15E-03

Plane wave source

zenith angle (deg)	= 90
increment (deg)	= 0
number of angles	= 1
azimuth angle (deg)	= 0
increment (deg)	= 0
number of angles	= 1
polarization angle (deg)	= 0
magnitude (v/m)	= 1

Lumped loads

load	node	resistance (ohms)	reactance (ohms)	inductance (mH)	capacitance (uF)	passive circuit
1	1	.01	0	.021	0	0

GEOMETRY - UNMODIFIED TOWER #3 DETUNE
Dimensions in meters
Environment: perfect ground

wire	caps	X	Y	Z	radius	segs
1	none	0	0	0	.1016	1
		0	0	1.829		
2	none	0	0	1.829	.1016	12
		8.611	8.611	1.829		
3	none	0	0	1.829	.1016	12
		8.611	-8.611	1.829		
4	none	0	0	1.829	.1016	12
		-8.611	-8.611	1.829		
5	none	0	0	1.829	.1016	12
		-8.611	8.611	1.829		
6	none	8.611	8.611	1.829	.1016	54
		4.572	4.572	55.778		
7	none	4.572	4.572	55.778	.1016	74
		.933	.933	129.235		
8	none	8.611	-8.611	1.829	.1016	54
		4.572	-4.572	55.778		
9	none	4.572	-4.572	55.778	.1016	74
		.933	-.933	129.235		
10	none	-8.611	-8.611	1.829	.1016	54
		-4.572	-4.572	55.778		
11	none	-4.572	-4.572	55.778	.1016	74
		-.933	-.933	129.235		
12	none	-8.611	8.611	1.829	.1016	54
		-4.572	4.572	55.778		
13	none	-4.572	4.572	55.778	.1016	74
		-.933	.933	129.235		
14	none	8.611	8.611	1.829	.1016	17
		8.611	-8.611	1.829		
15	none	8.611	-8.611	1.829	.1016	17
		-8.611	-8.611	1.829		
16	none	-8.611	-8.611	1.829	.1016	17
		-8.611	8.611	1.829		
17	none	-8.611	8.611	1.829	.1016	17
		8.611	8.611	1.829		
18	none	4.572	4.572	55.778	.1016	9

```
           4.572        -4.572       55.778
 19   none 4.572        -4.572       55.778       .1016        9
           -4.572       -4.572       55.778
 20   none -4.572       -4.572       55.778       .1016        9
           -4.572       4.572        55.778
 21   none -4.572       4.572        55.778       .1016        9
           4.572        4.572        55.778
 22   none .933         .933         129.235      .0762        1
           0            0            129.235
 23   none .933         -.933        129.235      .0762        1
           0            0            129.235
 24   none -.933        -.933        129.235      .0762        1
           0            0            129.235
 25   none -.933        .933         129.235      .0762        1
           0            0            129.235
 26   none 0            0            129.235      .0762        23
           0            0            152.4

Number of wires          =  26
          current nodes  =  703

                         minimum                  maximum
Individual wires      wire    value             wire  value
segment length         7      .995095            1    1.829
segment/radius ratio   7      9.79425            1    18.002
radius                 22     .0762              1    .1016


PEAK CURRENTS - UNMODIFIED TOWER #3 DETUNE
Frequency   = .68 MHz
Plane wave zenith (deg)  =  90
Plane wave azimuth (deg) =  0
Polarization angle (deg) =  0
coordinates in meters
current                                  mag      phase  real      imaginary
no.    X         Y         Z           (amps)   (deg)  (amps)    (amps)
 1     0         0         0           1.75031  270.   1.42E-03  -1.75031
J1     0         0         1.829       1.7319   270.   1.41E-03  -1.7319
2J1    0         0         1.829       .433164  272.1  .0160364  -.432867
 3     .717583   .717583   1.829       .429628  272.1  .0160324  -.429329
 4     1.43517   1.43517   1.829       .421735  272.2  .0160223  -.42143
 5     2.15275   2.15275   1.829       .412951  272.2  .0160084  -.412641
 6     2.87033   2.87033   1.829       .403764  272.3  .0159913  -.403447
 7     3.58792   3.58792   1.829       .394415  272.3  .0159711  -.394091
 8     4.3055    4.3055    1.829       .385053  272.4  .0159482  -.384723
 9     5.02308   5.02308   1.829       .375819  272.4  .0159228  -.375482
 10    5.74067   5.74067   1.829       .366867  272.5  .0158955  -.366522
 11    6.45825   6.45825   1.829       .358408  272.5  .015867   -.358057
 12    7.17583   7.17583   1.829       .350758  272.6  .0158386  -.3504
 13    7.89342   7.89342   1.829       .344382  272.6  .0158123  -.344019
J2     8.611     8.611     1.829       .341394  272.7  .0157985  -.341028
2J1    0         0         1.829       .433151  272.1  .0158119  -.432862
 15    .717583   -.717583  1.829       .429614  272.1  .0158079  -.429323
 16    1.43517   -1.43517  1.829       .42172   272.1  .0157978  -.421424
 17    2.15275   -2.15275  1.829       .412937  272.2  .0157841  -.412635
 18    2.87033   -2.87033  1.829       .403749  272.2  .0157671  -.403441
 19    3.58792   -3.58792  1.829       .3944    272.3  .0157471  -.394085
 20    4.3055    -4.3055   1.829       .385038  272.3  .0157243  -.384717
 21    5.02308   -5.02308  1.829       .375804  272.4  .0156991  -.375476
 22    5.74067   -5.74067  1.829       .366851  272.4  .015672   -.366516
 23    6.45825   -6.45825  1.829       .358393  272.5  .0156437  -.358051
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24	7.17583	-7.17583	1.829	.350742	272.6	.0156155	-.350394
25	7.89342	-7.89342	1.829	.344365	272.6	.0155895	-.344012
J3	8.611	-8.611	1.829	.341378	272.6	.0155757	-.341022
2J1	0	0	1.829	.433345	268.	-.0153305	-.433074
27	-.717583	-.717583	1.829	.429809	268.	-.0153314	-.429535
28	-1.43517	-1.43517	1.829	.421915	267.9	-.0153322	-.421636
29	-2.15275	-2.15275	1.829	.413132	267.9	-.0153306	-.412847
30	-2.87033	-2.87033	1.829	.403944	267.8	-.0153263	-.403653
31	-3.58792	-3.58792	1.829	.394595	267.8	-.0153192	-.394297
32	-4.3055	-4.3055	1.829	.385234	267.7	-.0153094	-.38493
33	-5.02308	-5.02308	1.829	.375999	267.7	-.0152969	-.375688
34	-5.74067	-5.74067	1.829	.367047	267.6	-.0152821	-.366729
35	-6.45825	-6.45825	1.829	.358588	267.6	-.0152655	-.358263
36	-7.17583	-7.17583	1.829	.350937	267.5	-.0152479	-.350606
37	-7.89342	-7.89342	1.829	.344562	267.5	-.0152306	-.344225
J4	-8.611	-8.611	1.829	.341573	267.4	-.0152211	-.341234
2J1	0	0	1.829	.433358	268.	-.0151097	-.433094
39	-.717583	.717583	1.829	.429822	268.	-.0151106	-.429556
40	-1.43517	1.43517	1.829	.421928	267.9	-.0151115	-.421657
41	-2.15275	2.15275	1.829	.413144	267.9	-.01511	-.412868
42	-2.87033	2.87033	1.829	.403957	267.9	-.0151058	-.403674
43	-3.58792	3.58792	1.829	.394607	267.8	-.0150988	-.394318
44	-4.3055	4.3055	1.829	.385246	267.8	-.0150891	-.38495
45	-5.02308	5.02308	1.829	.376011	267.7	-.0150769	-.375709
46	-5.74067	5.74067	1.829	.367058	267.6	-.0150623	-.366749
47	-6.45825	6.45825	1.829	.3586	267.6	-.0150459	-.358284
48	-7.17583	7.17583	1.829	.350948	267.5	-.0150285	-.350626
49	-7.89342	7.89342	1.829	.344572	267.5	-.0150114	-.344245
J5	-8.611	8.611	1.829	.341584	267.5	-.0150019	-.341254
2J1	8.611	8.611	1.829	.186874	281.8	.0383218	-.182902
51	8.5362	8.5362	2.82806	.181268	282.2	.0382959	-.177176
52	8.46141	8.46141	3.82711	.174708	282.7	.0382704	-.170465
53	8.38661	8.38661	4.82617	.168177	283.1	.0382482	-.16377
54	8.31182	8.31182	5.82522	.161763	283.7	.0382296	-.157181
55	8.23702	8.23702	6.82428	.155507	284.2	.0382143	-.150738
56	8.16222	8.16222	7.82333	.14942	284.8	.0382023	-.144454
57	8.08743	8.08743	8.82239	.143508	285.4	.0381935	-.138332
58	8.01263	8.01263	9.82145	.137766	286.1	.0381876	-.132368
59	7.93783	7.93783	10.8205	.132194	286.8	.0381845	-.126559
60	7.86304	7.86304	11.8196	.126786	287.5	.0381842	-.120899
61	7.78824	7.78824	12.8186	.121537	288.3	.0381864	-.115382
62	7.71345	7.71345	13.8177	.116445	289.1	.0381911	-.110004
63	7.63865	7.63865	14.8167	.111504	290.	.0381982	-.104757
64	7.56385	7.56385	15.8158	.106713	291.	.0382075	-.0996384
65	7.48906	7.48906	16.8148	.102068	292.	.0382189	-.0946426
66	7.41426	7.41426	17.8139	.0975682	293.1	.0382324	-.0897655
67	7.33946	7.33946	18.8129	.0932118	294.2	.0382477	-.0850032
68	7.26467	7.26467	19.812	.088998	295.5	.0382649	-.080352
69	7.18987	7.18987	20.8111	.0849269	296.8	.0382838	-.0758085
70	7.11507	7.11507	21.8101	.0809989	298.2	.0383042	-.0713695
71	7.04028	7.04028	22.8092	.0772153	299.8	.0383262	-.0670321
72	6.96548	6.96548	23.8082	.073578	301.4	.0383496	-.0627936
73	6.89069	6.89069	24.8073	.0700898	303.2	.0383743	-.0586515
74	6.81589	6.81589	25.8063	.0667541	305.1	.0384002	-.0546034
75	6.74109	6.74109	26.8054	.0635749	307.2	.0384272	-.050647
76	6.6663	6.6663	27.8045	.0605575	309.4	.0384552	-.0467804
77	6.5915	6.5915	28.8035	.0577077	311.8	.0384842	-.0430017
78	6.5167	6.5167	29.8026	.0550321	314.4	.038514	-.0393091
79	6.44191	6.44191	30.8016	.0525381	317.2	.0385445	-.0357011
80	6.36711	6.36711	31.8007	.0502333	320.2	.0385757	-.032176
81	6.29232	6.29232	32.7997	.0481259	323.3	.0386075	-.0287326

82	6.21752	6.21752	33.7988	.0462239	326.7	.0386397	-.0253697
83	6.14272	6.14272	34.7978	.0445347	330.3	.0386723	-.0220861
84	6.06793	6.06793	35.7969	.0430648	334.	.0387051	-.0188809
85	5.99313	5.99313	36.7959	.0418188	337.9	.0387382	-.0157532
86	5.91833	5.91833	37.795	.0407991	341.9	.0387713	-.0127023
87	5.84354	5.84354	38.7941	.0400051	345.9	.0388044	-9.73E-03
88	5.76874	5.76874	39.7931	.0394332	350.	.0388374	-6.83E-03
89	5.69394	5.69394	40.7922	.0390761	354.1	.0388703	-4.01E-03
90	5.61915	5.61915	41.7912	.0389231	358.1	.0389028	-1.26E-03
91	5.54435	5.54435	42.7903	.0389607	2.1	.038935	1.41E-03
92	5.46956	5.46956	43.7893	.0391725	5.9	.0389667	4.01E-03
93	5.39476	5.39476	44.7884	.0395405	9.5	.0389978	6.53E-03
94	5.31996	5.31996	45.7875	.0400455	12.9	.0390282	8.97E-03
95	5.24517	5.24517	46.7865	.0406679	16.2	.0390579	.0113296
96	5.17037	5.17037	47.7856	.0413877	19.2	.0390867	.0136078
97	5.09557	5.09557	48.7846	.0421853	22.	.0391145	.0158005
98	5.02078	5.02078	49.7837	.0430413	24.6	.0391412	.017903
99	4.94598	4.94598	50.7827	.0439363	26.9	.0391667	.019909
100	4.87119	4.87119	51.7818	.0448505	29.1	.0391908	.0218093
101	4.79639	4.79639	52.7808	.0457619	31.	.0392134	.0235895
102	4.72159	4.72159	53.7799	.0466437	32.7	.0392343	.0252251
103	4.6468	4.6468	54.779	.0474569	34.2	.0392532	.0266711
J6	4.572	4.572	55.778	.048015	35.1	.0392691	.0276292
2J1	4.572	4.572	55.778	.0432863	61.3	.0208096	.0379561
105	4.52282	4.52282	56.7707	.0440259	61.8	.0208253	.038789
106	4.47365	4.47365	57.7633	.0451107	62.5	.0208445	.040006
107	4.42447	4.42447	58.756	.0462724	63.2	.0208661	.0413006
108	4.3753	4.3753	59.7487	.0474706	63.9	.02089	.0426271
109	4.32612	4.32612	60.7413	.0486821	64.6	.0209159	.0439599
110	4.27695	4.27695	61.734	.0498927	65.2	.0209438	.045284
111	4.22777	4.22777	62.7266	.0510927	65.8	.0209735	.0465894
112	4.1786	4.1786	63.7193	.0522747	66.3	.021005	.0478689
113	4.12942	4.12942	64.712	.053433	66.8	.0210381	.049117
114	4.08024	4.08024	65.7046	.0545633	67.3	.021073	.0503297
115	4.03107	4.03107	66.6973	.0556618	67.7	.0211094	.0515037
116	3.98189	3.98189	67.69	.0567257	68.1	.0211473	.0526365
117	3.93272	3.93272	68.6826	.0577525	68.5	.0211866	.053726
118	3.88354	3.88354	69.6753	.0587403	68.8	.0212273	.0547707
119	3.83437	3.83437	70.6679	.0596875	69.1	.0212694	.0557692
120	3.78519	3.78519	71.6606	.0605926	69.4	.0213127	.0567206
121	3.73601	3.73601	72.6533	.0614545	69.7	.0213572	.057624
122	3.68684	3.68684	73.6459	.0622724	69.9	.0214028	.0584788
123	3.63766	3.63766	74.6386	.0630454	70.1	.0214495	.0592844
124	3.58849	3.58849	75.6312	.0637731	70.3	.0214973	.0600406
125	3.53931	3.53931	76.6239	.0644549	70.5	.021546	.0607471
126	3.49014	3.49014	77.6166	.0650904	70.6	.0215955	.0614035
127	3.44096	3.44096	78.6092	.0656793	70.8	.0216459	.0620099
128	3.39178	3.39178	79.6019	.0662215	70.9	.0216971	.0625661
129	3.34261	3.34261	80.5946	.0667166	71.	.021749	.0630721
130	3.29343	3.29343	81.5872	.0671646	71.1	.0218015	.0635278
131	3.24426	3.24426	82.5799	.0675656	71.1	.0218546	.0639334
132	3.19508	3.19508	83.5725	.0679193	71.2	.0219083	.0642888
133	3.14591	3.14591	84.5652	.0682258	71.2	.0219623	.0645942
134	3.09673	3.09673	85.5579	.0684851	71.2	.0220168	.0648496
135	3.04755	3.04755	86.5505	.0686975	71.3	.0220715	.0650553
136	2.99838	2.99838	87.5432	.0688628	71.3	.0221266	.0652112
137	2.9492	2.9492	88.5359	.0689814	71.2	.0221818	.0653177
138	2.90003	2.90003	89.5285	.0690533	71.2	.0222371	.0653748
139	2.85085	2.85085	90.5212	.0690786	71.2	.0222925	.0653827
140	2.80168	2.80168	91.5138	.0690577	71.1	.0223479	.0653417
141	2.7525	2.7525	92.5065	.0689907	71.1	.0224033	.0652519

142	2.70332	2.70332	93.4992	.0688778	71.	.0224584	.0651135
143	2.65415	2.65415	94.4918	.0687194	70.9	.0225134	.0649269
144	2.60497	2.60497	95.4845	.0685156	70.8	.0225681	.0646921
145	2.5558	2.5558	96.4772	.0682669	70.6	.0226225	.0644096
146	2.50662	2.50662	97.4698	.0679734	70.5	.0226764	.0640794
147	2.45745	2.45745	98.4625	.0676356	70.4	.0227299	.0637019
148	2.40827	2.40827	99.4551	.0672539	70.2	.0227829	.0632774
149	2.3591	2.3591	100.448	.0668284	70.	.0228352	.062806
150	2.30992	2.30992	101.441	.0663599	69.8	.0228869	.0622882
151	2.26074	2.26074	102.433	.0658484	69.6	.0229378	.0617241
152	2.21157	2.21157	103.426	.0652944	69.4	.0229879	.061114
153	2.16239	2.16239	104.418	.0646987	69.1	.0230372	.0604583
154	2.11322	2.11322	105.411	.0640615	68.9	.0230854	.0597573
155	2.06404	2.06404	106.404	.0633832	68.6	.0231327	.0590111
156	2.01487	2.01487	107.396	.0626647	68.3	.0231789	.0582203
157	1.96569	1.96569	108.389	.0619062	68.	.0232239	.0573849
158	1.91651	1.91651	109.382	.0611084	67.6	.0232677	.0565053
159	1.86734	1.86734	110.374	.0602719	67.2	.0233102	.0555818
160	1.81816	1.81816	111.367	.0593973	66.9	.0233513	.0546146
161	1.76899	1.76899	112.36	.0584853	66.4	.023391	.053604
162	1.71981	1.71981	113.352	.0575366	66.	.0234292	.0525503
163	1.67064	1.67064	114.345	.0565518	65.5	.0234658	.0514535
164	1.62146	1.62146	115.338	.0555317	65.	.0235007	.0503139
165	1.57228	1.57228	116.33	.0544771	64.4	.0235339	.0491316
166	1.52311	1.52311	117.323	.0533886	63.8	.0235653	.0479064
167	1.47393	1.47393	118.316	.0522672	63.2	.0235948	.0466385
168	1.42476	1.42476	119.308	.0511135	62.5	.0236224	.0453274
169	1.37558	1.37558	120.301	.0499283	61.7	.0236479	.0439728
170	1.32641	1.32641	121.294	.0487119	60.9	.0236713	.0425737
171	1.27723	1.27723	122.286	.0474651	60.1	.0236925	.0411291
172	1.22805	1.22805	123.279	.0461877	59.1	.0237114	.0396368
173	1.17888	1.17888	124.272	.0448793	58.1	.0237279	.0380938
174	1.1297	1.1297	125.264	.0435382	57.	.023742	.0364951
175	1.08053	1.08053	126.257	.042161	55.7	.0237535	.0348327
176	1.03135	1.03135	127.25	.0407406	54.3	.0237623	.0330931
177	.982176	.982176	128.242	.0392672	52.8	.0237681	.0312568
J7	.933	.933	129.235	.0376129	50.8	.0237735	.0291471
2J1	8.611	-8.611	1.829	.186753	281.7	.0377792	-.182892
179	8.5362	-8.5362	2.82806	.181144	282.	.0377536	-.177166
180	8.46141	-8.46141	3.82711	.17458	282.5	.0377285	-.170454
181	8.38661	-8.38661	4.82617	.168044	283.	.037707	-.163759
182	8.31182	-8.31182	5.82522	.161627	283.5	.037689	-.157171
183	8.23702	-8.23702	6.82428	.155365	284.	.0376746	-.150728
184	8.16222	-8.16222	7.82333	.149274	284.6	.0376635	-.144444
185	8.08743	-8.08743	8.82239	.143355	285.2	.0376557	-.138321
186	8.01263	-8.01263	9.82145	.137609	285.9	.0376509	-.132358
187	7.93783	-7.93783	10.8205	.13203	286.6	.0376491	-.126548
188	7.86304	-7.86304	11.8196	.126615	287.3	.0376501	-.120888
189	7.78824	-7.78824	12.8186	.12136	288.1	.0376538	-.115371
190	7.71345	-7.71345	13.8177	.116261	288.9	.0376601	-.109992
191	7.63865	-7.63865	14.8167	.111313	289.8	.0376689	-.104746
192	7.56385	-7.56385	15.8158	.106515	290.7	.03768	-.0996271
193	7.48906	-7.48906	16.8148	.101862	291.7	.0376933	-.0946311
194	7.41426	-7.41426	17.8139	.0973536	292.8	.0377088	-.0897539
195	7.33946	-7.33946	18.8129	.0929883	293.9	.0377262	-.0849915
196	7.26467	-7.26467	19.812	.0887653	295.2	.0377456	-.0803402
197	7.18987	-7.18987	20.8111	.0846845	296.5	.0377668	-.0757966
198	7.11507	-7.11507	21.8101	.0807463	297.9	.0377898	-.0713575
199	7.04028	-7.04028	22.8092	.0769519	299.4	.0378143	-.06702
200	6.96548	-6.96548	23.8082	.0733036	301.1	.0378404	-.0627815
201	6.89069	-6.89069	24.8073	.0698035	302.9	.0378679	-.0586392

202	6.81589	-6.81589	25.8063	.0664555	304.8	.0378967	-.054591
203	6.74109	-6.74109	26.8054	.0632637	306.8	.0379267	-.0506346
204	6.6663	-6.6663	27.8045	.0602332	309.1	.0379578	-.046768
205	6.5915	-6.5915	28.8035	.05737	311.5	.03799	-.0429892
206	6.5167	-6.5167	29.8026	.0546806	314.1	.0380231	-.0392965
207	6.44191	-6.44191	30.8016	.0521728	316.8	.0380571	-.0356883
208	6.36711	-6.36711	31.8007	.0498544	319.8	.0380919	-.0321632
209	6.29232	-6.29232	32.7997	.0477338	323.	.0381273	-.0287198
210	6.21752	-6.21752	33.7988	.0458192	326.4	.0381632	-.0253568
211	6.14272	-6.14272	34.7978	.0441185	330.	.0381997	-.0220731
212	6.06793	-6.06793	35.7969	.0426383	333.7	.0382365	-.0188679
213	5.99313	-5.99313	36.7959	.0413838	337.6	.0382736	-.0157401
214	5.91833	-5.91833	37.795	.0403575	341.7	.0383108	-.0126891
215	5.84354	-5.84354	38.7941	.0395595	345.8	.0383482	-9.71E-03
216	5.76874	-5.76874	39.7931	.038986	349.9	.0383856	-6.82E-03
217	5.69394	-5.69394	40.7922	.0386296	354.1	.0384228	-3.99E-03
218	5.61915	-5.61915	41.7912	.03848	358.1	.0384599	-1.24E-03
219	5.54435	-5.54435	42.7903	.0385232	2.1	.0384967	1.43E-03
220	5.46956	-5.46956	43.7893	.0387426	6.	.0385331	4.02E-03
221	5.39476	-5.39476	44.7884	.0391199	9.6	.038569	6.54E-03
222	5.31996	-5.31996	45.7875	.0396356	13.1	.0386043	8.98E-03
223	5.24517	-5.24517	46.7865	.0402695	16.4	.0386389	.0113431
224	5.17037	-5.17037	47.7856	.0410015	19.4	.0386727	.0136214
225	5.09557	-5.09557	48.7846	.0418116	22.2	.0387056	.0158141
226	5.02078	-5.02078	49.7837	.0426801	24.8	.0387373	.0179167
227	4.94598	-4.94598	50.7827	.0435874	27.2	.0387679	.0199227
228	4.87119	-4.87119	51.7818	.0445136	29.4	.0387971	.021823
229	4.79639	-4.79639	52.7808	.0454363	31.3	.0388246	.0236032
230	4.72159	-4.72159	53.7799	.0463286	33.	.0388502	.0252389
231	4.6468	-4.6468	54.779	.0471511	34.5	.0388734	.0266849
J8	4.572	-4.572	55.778	.0477152	35.4	.0388923	.027643
2J1	4.572	-4.572	55.778	.0434477	60.9	.0211242	.0379667
233	4.52282	-4.52282	56.7707	.0441862	61.4	.0211427	.0387996
234	4.47365	-4.47365	57.7633	.0452696	62.1	.0211661	.0400166
235	4.42447	-4.42447	58.756	.0464299	62.8	.0211924	.0413112
236	4.3753	-4.3753	59.7487	.0476268	63.5	.0212212	.0426377
237	4.32612	-4.32612	60.7413	.0488371	64.2	.0212523	.0439705
238	4.27695	-4.27695	61.734	.0500468	64.8	.0212854	.0452947
239	4.22777	-4.22777	62.7266	.0512458	65.4	.0213204	.0466001
240	4.1786	-4.1786	63.7193	.0524269	66.	.0213573	.0478795
241	4.12942	-4.12942	64.712	.0535846	66.5	.0213958	.0491277
242	4.08024	-4.08024	65.7046	.0547143	66.9	.021436	.0503404
243	4.03107	-4.03107	66.6973	.0558124	67.4	.0214777	.0515144
244	3.98189	-3.98189	67.69	.056876	67.8	.0215209	.0526472
245	3.93272	-3.93272	68.6826	.0579025	68.1	.0215655	.0537367
246	3.88354	-3.88354	69.6753	.0588901	68.5	.0216114	.0547813
247	3.83437	-3.83437	70.6679	.0598372	68.8	.0216586	.0557799
248	3.78519	-3.78519	71.6606	.0607424	69.1	.021707	.0567313
249	3.73601	-3.73601	72.6533	.0616045	69.3	.0217566	.0576347
250	3.68684	-3.68684	73.6459	.0624225	69.6	.0218072	.0584894
251	3.63766	-3.63766	74.6386	.0631959	69.8	.0218589	.0592951
252	3.58849	-3.58849	75.6312	.0639241	70.	.0219115	.0600514
253	3.53931	-3.53931	76.6239	.0646063	70.1	.021965	.0607578
254	3.49014	-3.49014	77.6166	.0652424	70.3	.0220193	.0614143
255	3.44096	-3.44096	78.6092	.0658319	70.4	.0220744	.0620206
256	3.39178	-3.39178	79.6019	.0663747	70.5	.0221301	.0625768
257	3.34261	-3.34261	80.5946	.0668706	70.6	.0221865	.0630828
258	3.29343	-3.29343	81.5872	.0673195	70.7	.0222435	.0635385
259	3.24426	-3.24426	82.5799	.0677213	70.8	.022301	.063944
260	3.19508	-3.19508	83.5725	.0680759	70.8	.0223589	.0642994
261	3.14591	-3.14591	84.5652	.0683836	70.9	.0224172	.0646048

262	3.09673	-3.09673	85.5579	.0686441	70.9	.0224758	.0648602
263	3.04755	-3.04755	86.5505	.0688576	70.9	.0225346	.0650658
264	2.99838	-2.99838	87.5432	.0690242	70.9	.0225936	.0652217
265	2.9492	-2.9492	88.5359	.0691441	70.9	.0226528	.0653281
266	2.90003	-2.90003	89.5285	.0692174	70.8	.0227119	.0653851
267	2.85085	-2.85085	90.5212	.0692443	70.8	.0227711	.065393
268	2.80168	-2.80168	91.5138	.069225	70.7	.0228302	.065352
269	2.7525	-2.7525	92.5065	.0691596	70.7	.0228891	.0652621
270	2.70332	-2.70332	93.4992	.0690486	70.6	.0229478	.0651238
271	2.65415	-2.65415	94.4918	.068892	70.5	.0230062	.0649371
272	2.60497	-2.60497	95.4845	.0686903	70.4	.0230643	.0647024
273	2.5558	-2.5558	96.4772	.0684437	70.3	.0231219	.0644198
274	2.50662	-2.50662	97.4698	.0681524	70.1	.0231791	.0640896
275	2.45745	-2.45745	98.4625	.0678169	70.	.0232356	.0637121
276	2.40827	-2.40827	99.4551	.0674375	69.8	.0232916	.0632876
277	2.3591	-2.3591	100.448	.0670146	69.6	.0233469	.0628162
278	2.30992	-2.30992	101.441	.0665485	69.4	.0234014	.0622983
279	2.26074	-2.26074	102.433	.0660398	69.2	.0234551	.0617342
280	2.21157	-2.21157	103.426	.0654888	69.	.0235078	.0611242
281	2.16239	-2.16239	104.418	.0648961	68.7	.0235597	.0604685
282	2.11322	-2.11322	105.411	.0642619	68.4	.0236104	.0597674
283	2.06404	-2.06404	106.404	.063587	68.2	.0236601	.0590212
284	2.01487	-2.01487	107.396	.0628718	67.8	.0237085	.0582303
285	1.96569	-1.96569	108.389	.0621169	67.5	.0237558	.0573949
286	1.91651	-1.91651	109.382	.0613229	67.2	.0238017	.0565153
287	1.86734	-1.86734	110.374	.0604903	66.8	.0238462	.0555917
288	1.81816	-1.81816	111.367	.05962	66.4	.0238892	.0546246
289	1.76899	-1.76899	112.36	.0587124	65.9	.0239308	.053614
290	1.71981	-1.71981	113.352	.0577682	65.5	.0239707	.0525602
291	1.67064	-1.67064	114.345	.0567883	65.	.0240089	.0514634
292	1.62146	-1.62146	115.338	.0557733	64.5	.0240454	.0503238
293	1.57228	-1.57228	116.33	.0547241	63.9	.02408	.0491414
294	1.52311	-1.52311	117.323	.0536413	63.3	.0241128	.0479162
295	1.47393	-1.47393	118.316	.0525258	62.6	.0241435	.0466482
296	1.42476	-1.42476	119.308	.0513785	61.9	.0241722	.0453371
297	1.37558	-1.37558	120.301	.0501999	61.2	.0241988	.0439824
298	1.32641	-1.32641	121.294	.0489909	60.4	.0242231	.0425834
299	1.27723	-1.27723	122.286	.0477517	59.5	.0242452	.0411387
300	1.22805	-1.22805	123.279	.0464826	58.5	.0242649	.0396465
301	1.17888	-1.17888	124.272	.0451828	57.5	.024282	.0381034
302	1.1297	-1.1297	125.264	.0438512	56.4	.0242967	.0365048
303	1.08053	-1.08053	126.257	.0424841	55.1	.0243086	.0348424
304	1.03135	-1.03135	127.25	.0410749	53.7	.0243178	.0331028
305	.982176	-.982176	128.242	.0396136	52.1	.0243238	.0312664
J9	.933	-.933	129.235	.0379742	50.2	.0243294	.0291568
2J1	-8.611	-8.611	1.829	.187112	258.3	-.0379688	-.183219
307	-8.5362	-8.5362	2.82806	.181505	257.9	-.0379509	-.177493
308	-8.46141	-8.46141	3.82711	.174944	257.5	-.0379346	-.170782
309	-8.38661	-8.38661	4.82617	.168411	257.	-.0379216	-.164086
310	-8.31182	-8.31182	5.82522	.161997	256.5	-.0379117	-.157498
311	-8.23702	-8.23702	6.82428	.155738	255.9	-.0379049	-.151055
312	-8.16222	-8.16222	7.82333	.149649	255.3	-.0379011	-.14477
313	-8.08743	-8.08743	8.82239	.143734	254.7	-.0378999	-.138647
314	-8.01263	-8.01263	9.82145	.13799	254.1	-.0379015	-.132683
315	-7.93783	-7.93783	10.8205	.132415	253.4	-.0379055	-.126874
316	-7.86304	-7.86304	11.8196	.127004	252.6	-.0379119	-.121213
317	-7.78824	-7.78824	12.8186	.121752	251.9	-.0379206	-.115696
318	-7.71345	-7.71345	13.8177	.116656	251.	-.0379315	-.110317
319	-7.63865	-7.63865	14.8167	.111712	250.1	-.0379444	-.10507
320	-7.56385	-7.56385	15.8158	.106916	249.2	-.0379593	-.0999509
321	-7.48906	-7.48906	16.8148	.102267	248.2	-.037976	-.0949546

322	-7.41426	-7.41426	17.8139	.0977623	247.1	-.0379945	-.0900771
323	-7.33946	-7.33946	18.8129	.0934003	246.	-.0380146	-.0853142
324	-7.26467	-7.26467	19.812	.0891807	244.8	-.0380363	-.0806625
325	-7.18987	-7.18987	20.8111	.0851031	243.4	-.0380594	-.0761184
326	-7.11507	-7.11507	21.8101	.081168	242.	-.0380839	-.0716789
327	-7.04028	-7.04028	22.8092	.0773767	240.5	-.0381097	-.0673409
328	-6.96548	-6.96548	23.8082	.073731	238.9	-.0381367	-.0631019
329	-6.89069	-6.89069	24.8073	.0702334	237.1	-.0381648	-.0589591
330	-6.81589	-6.81589	25.8063	.0668874	235.2	-.0381939	-.0549104
331	-6.74109	-6.74109	26.8054	.0636971	233.1	-.0382239	-.0509534
332	-6.6663	-6.6663	27.8045	.0606674	230.9	-.0382547	-.0470862
333	-6.5915	-6.5915	28.8035	.0578041	228.5	-.0382862	-.0433068
334	-6.5167	-6.5167	29.8026	.0551139	226.	-.0383185	-.0396135
335	-6.44191	-6.44191	30.8016	.0526038	223.2	-.0383512	-.0360048
336	-6.36711	-6.36711	31.8007	.0502818	220.2	-.0383845	-.032479
337	-6.29232	-6.29232	32.7997	.0481557	217.1	-.0384181	-.0290349
338	-6.21752	-6.21752	33.7988	.0462339	213.7	-.0384521	-.0256712
339	-6.14272	-6.14272	34.7978	.0445237	210.2	-.0384862	-.0223869
340	-6.06793	-6.06793	35.7969	.0430317	206.5	-.0385204	-.0191808
341	-5.99313	-5.99313	36.7959	.0417629	202.6	-.0385547	-.0160523
342	-5.91833	-5.91833	37.795	.04072	198.6	-.0385889	-.0130006
343	-5.84354	-5.84354	38.7941	.0399028	194.6	-.038623	-.010025
344	-5.76874	-5.76874	39.7931	.039308	190.4	-.0386568	-7.13E-03
345	-5.69394	-5.69394	40.7922	.0389287	186.3	-.0386903	-4.3E-03
346	-5.61915	-5.61915	41.7912	.0387545	182.3	-.0387234	-1.55E-03
347	-5.54435	-5.54435	42.7903	.0387722	178.3	-.038756	1.12E-03
348	-5.46956	-5.46956	43.7893	.0389657	174.5	-.038788	3.72E-03
349	-5.39476	-5.39476	44.7884	.0393172	170.9	-.0388194	6.24E-03
350	-5.31996	-5.31996	45.7875	.0398073	167.4	-.0388499	8.68E-03
351	-5.24517	-5.24517	46.7865	.0404166	164.1	-.0388796	.0110397
352	-5.17037	-5.17037	47.7856	.0411248	161.1	-.0389083	.0133189
353	-5.09557	-5.09557	48.7846	.0419124	158.3	-.0389359	.0155126
354	-5.02078	-5.02078	49.7837	.0427598	155.7	-.0389624	.0176162
355	-4.94598	-4.94598	50.7827	.0436475	153.3	-.0389876	.0196232
356	-4.87119	-4.87119	51.7818	.0445554	151.1	-.0390113	.0215245
357	-4.79639	-4.79639	52.7808	.0454619	149.2	-.0390336	.0233058
358	-4.72159	-4.72159	53.7799	.0463394	147.4	-.039054	.0249425
359	-4.6468	-4.6468	54.779	.0471493	146.	-.0390724	.0263894
J10	-4.572	-4.572	55.778	.0477053	145.	-.039088	.0273483
2J1	-4.572	-4.572	55.778	.0430645	118.6	-.0206267	.0378033
361	-4.52282	-4.52282	56.7707	.0438053	118.1	-.020642	.0386369
362	-4.47365	-4.47365	57.7633	.0448918	117.4	-.0206606	.0398549
363	-4.42447	-4.42447	58.756	.0460553	116.7	-.0206815	.0411505
364	-4.3753	-4.3753	59.7487	.0472552	116.	-.0207045	.042478
365	-4.32612	-4.32612	60.7413	.0484685	115.3	-.0207296	.0438119
366	-4.27695	-4.27695	61.734	.049681	114.7	-.0207565	.0451372
367	-4.22777	-4.22777	62.7266	.0508827	114.1	-.0207853	.0464437
368	-4.1786	-4.1786	63.7193	.0520664	113.6	-.0208158	.0477243
369	-4.12942	-4.12942	64.712	.0532264	113.1	-.0208479	.0489736
370	-4.08024	-4.08024	65.7046	.0543583	112.6	-.0208817	.0501874
371	-4.03107	-4.03107	66.6973	.0554583	112.2	-.020917	.0513625
372	-3.98189	-3.98189	67.69	.0565238	111.8	-.0209538	.0524965
373	-3.93272	-3.93272	68.6826	.0575521	111.4	-.020992	.0535871
374	-3.88354	-3.88354	69.6753	.0585414	111.1	-.0210317	.054633
375	-3.83437	-3.83437	70.6679	.0594898	110.7	-.0210726	.0556326
376	-3.78519	-3.78519	71.6606	.0603963	110.5	-.0211148	.0565851
377	-3.73601	-3.73601	72.6533	.0612594	110.2	-.0211582	.0574895
378	-3.68684	-3.68684	73.6459	.0620785	110.	-.0212027	.0583454
379	-3.63766	-3.63766	74.6386	.0628527	109.8	-.0212483	.0591521
380	-3.58849	-3.58849	75.6312	.0635816	109.6	-.021295	.0599094
381	-3.53931	-3.53931	76.6239	.0642644	109.4	-.0213426	.0606169

382	-3.49014	-3.49014	77.6166	.0649011	109.2	-.0213912	.0612745
383	-3.44096	-3.44096	78.6092	.065491	109.1	-.0214406	.0618819
384	-3.39178	-3.39178	79.6019	.0660341	109.	-.0214908	.0624391
385	-3.34261	-3.34261	80.5946	.0665302	108.9	-.0215418	.0629461
386	-3.29343	-3.29343	81.5872	.0669791	108.8	-.0215934	.0634029
387	-3.24426	-3.24426	82.5799	.0673809	108.7	-.0216457	.0638095
388	-3.19508	-3.19508	83.5725	.0677356	108.7	-.0216986	.064166
389	-3.14591	-3.14591	84.5652	.0680429	108.6	-.0217519	.0644724
390	-3.09673	-3.09673	85.5579	.068303	108.6	-.0218057	.0647288
391	-3.04755	-3.04755	86.5505	.0685162	108.6	-.0218599	.0649355
392	-2.99838	-2.99838	87.5432	.0686823	108.6	-.0219144	.0650924
393	-2.9492	-2.9492	88.5359	.0688016	108.6	-.0219692	.0651998
394	-2.90003	-2.90003	89.5285	.0688742	108.6	-.0220241	.0652579
395	-2.85085	-2.85085	90.5212	.0689004	108.7	-.0220793	.0652669
396	-2.80168	-2.80168	91.5138	.0688801	108.7	-.0221345	.0652268
397	-2.7525	-2.7525	92.5065	.0688138	108.8	-.0221897	.065138
398	-2.70332	-2.70332	93.4992	.0687017	108.9	-.0222449	.0650007
399	-2.65415	-2.65415	94.4918	.0685439	109.	-.0222999	.064815
400	-2.60497	-2.60497	95.4845	.0683408	109.1	-.0223548	.0645812
401	-2.5558	-2.5558	96.4772	.0680928	109.2	-.0224095	.0642996
402	-2.50662	-2.50662	97.4698	.0677999	109.3	-.0224638	.0639703
403	-2.45745	-2.45745	98.4625	.0674628	109.5	-.0225178	.0635938
404	-2.40827	-2.40827	99.4551	.0670815	109.7	-.0225714	.0631701
405	-2.3591	-2.3591	100.448	.0666567	109.8	-.0226245	.0626997
406	-2.30992	-2.30992	101.441	.0661886	110.	-.022677	.0621827
407	-2.26074	-2.26074	102.433	.0656778	110.2	-.022729	.0616195
408	-2.21157	-2.21157	103.426	.0651246	110.5	-.0227802	.0610104
409	-2.16239	-2.16239	104.418	.0645294	110.7	-.0228307	.0603556
410	-2.11322	-2.11322	105.411	.0638927	111.	-.0228804	.0596554
411	-2.06404	-2.06404	106.404	.0632151	111.3	-.0229292	.0589101
412	-2.01487	-2.01487	107.396	.0624972	111.6	-.0229771	.0581201
413	-1.96569	-1.96569	108.389	.0617392	111.9	-.0230239	.0572855
414	-1.91651	-1.91651	109.382	.060942	112.2	-.0230697	.0564067
415	-1.86734	-1.86734	110.374	.0601061	112.6	-.0231143	.055484
416	-1.81816	-1.81816	111.367	.0592323	113.	-.0231578	.0545177
417	-1.76899	-1.76899	112.36	.0583209	113.4	-.0231999	.0535079
418	-1.71981	-1.71981	113.352	.0573729	113.9	-.0232407	.0524549
419	-1.67064	-1.67064	114.345	.0563888	114.4	-.0232801	.0513589
420	-1.62146	-1.62146	115.338	.0553695	114.9	-.0233181	.05022
421	-1.57228	-1.57228	116.33	.0543157	115.5	-.0233544	.0490384
422	-1.52311	-1.52311	117.323	.0532282	116.1	-.0233891	.0478141
423	-1.47393	-1.47393	118.316	.0521076	116.7	-.0234222	.0465468
424	-1.42476	-1.42476	119.308	.050955	117.4	-.0234535	.0452365
425	-1.37558	-1.37558	120.301	.0497708	118.2	-.0234829	.0438826
426	-1.32641	-1.32641	121.294	.0485557	119.	-.0235104	.0424843
427	-1.27723	-1.27723	122.286	.0473101	119.8	-.023536	.0410403
428	-1.22805	-1.22805	123.279	.0460342	120.8	-.0235595	.0395487
429	-1.17888	-1.17888	124.272	.0447274	121.8	-.0235808	.0380064
430	-1.1297	-1.1297	125.264	.0433881	123.	-.0235999	.0364084
431	-1.08053	-1.08053	126.257	.0420129	124.2	-.0236168	.0347467
432	-1.03135	-1.03135	127.25	.0405951	125.6	-.0236314	.0330078
433	-.982176	-.982176	128.242	.0391243	127.2	-.0236434	.0311721
J11	-.933	-.933	129.235	.0374737	129.1	-.023656	.0290632
2J1	-8.611	8.611	1.829	.187007	258.5	-.0374261	-.183224
435	-8.5362	8.5362	2.82806	.181397	258.1	-.0374085	-.177498
436	-8.46141	8.46141	3.82711	.174832	257.7	-.0373926	-.170786
437	-8.38661	8.38661	4.82617	.168295	257.2	-.0373802	-.164091
438	-8.31182	8.31182	5.82522	.161875	256.7	-.0373711	-.157502
439	-8.23702	8.23702	6.82428	.155612	256.1	-.0373651	-.151059
440	-8.16222	8.16222	7.82333	.149518	255.5	-.0373621	-.144775
441	-8.08743	8.08743	8.82239	.143598	254.9	-.0373621	-.138652

442	-8.01263	8.01263	9.82145	.137849	254.3	-.0373647	-.132688
443	-7.93783	7.93783	10.8205	.132267	253.6	-.0373701	-.126878
444	-7.86304	7.86304	11.8196	.12685	252.9	-.0373779	-.121218
445	-7.78824	7.78824	12.8186	.121592	252.1	-.0373881	-.115701
446	-7.71345	7.71345	13.8177	.116489	251.3	-.0374006	-.110322
447	-7.63865	7.63865	14.8167	.111538	250.4	-.0374152	-.105075
448	-7.56385	7.56385	15.8158	.106735	249.5	-.037432	-.0999558
449	-7.48906	7.48906	16.8148	.102078	248.5	-.0374507	-.0949597
450	-7.41426	7.41426	17.8139	.0975648	247.4	-.0374712	-.0900822
451	-7.33946	7.33946	18.8129	.0931944	246.3	-.0374936	-.0853195
452	-7.26467	7.26467	19.812	.0889656	245.1	-.0375176	-.0806679
453	-7.18987	7.18987	20.8111	.0848784	243.7	-.0375432	-.0761239
454	-7.11507	7.11507	21.8101	.0809332	242.3	-.0375702	-.0716845
455	-7.04028	7.04028	22.8092	.0771312	240.8	-.0375986	-.0673466
456	-6.96548	6.96548	23.8082	.0734742	239.2	-.0376283	-.0631076
457	-6.89069	6.89069	24.8073	.069965	237.4	-.0376593	-.058965
458	-6.81589	6.81589	25.8063	.0666066	235.5	-.0376913	-.0549163
459	-6.74109	6.74109	26.8054	.0634033	233.5	-.0377243	-.0509594
460	-6.6663	6.6663	27.8045	.0603603	231.3	-.0377583	-.0470922
461	-6.5915	6.5915	28.8035	.0574832	228.9	-.0377931	-.0433128
462	-6.5167	6.5167	29.8026	.0547788	226.3	-.0378286	-.0396196
463	-6.44191	6.44191	30.8016	.0522545	223.6	-.0378649	-.0360108
464	-6.36711	6.36711	31.8007	.0499181	220.6	-.0379017	-.032485
465	-6.29232	6.29232	32.7997	.0477781	217.4	-.037939	-.029041
466	-6.21752	6.21752	33.7988	.0458427	214.1	-.0379767	-.0256773
467	-6.14272	6.14272	34.7978	.0441198	210.5	-.0380147	-.0223929
468	-6.06793	6.06793	35.7969	.0426164	206.8	-.0380529	-.0191869
469	-5.99313	5.99313	36.7959	.0413379	202.9	-.0380913	-.0160584
470	-5.91833	5.91833	37.795	.0402871	198.8	-.0381297	-.0130067
471	-5.84354	5.84354	38.7941	.0394643	194.7	-.0381681	-.0100312
472	-5.76874	5.76874	39.7931	.0388662	190.6	-.0382063	-7.13E-03
473	-5.69394	5.69394	40.7922	.0384862	186.4	-.0382444	-4.31E-03
474	-5.61915	5.61915	41.7912	.0383137	182.3	-.038282	-1.56E-03
475	-5.54435	5.54435	42.7903	.0383355	178.3	-.0383193	1.11E-03
476	-5.46956	5.46956	43.7893	.0385352	174.5	-.0383561	3.71E-03
477	-5.39476	5.39476	44.7884	.0388946	170.8	-.0383923	6.23E-03
478	-5.31996	5.31996	45.7875	.039394	167.3	-.0384277	8.67E-03
479	-5.24517	5.24517	46.7865	.0400137	164.	-.0384624	.0110334
480	-5.17037	5.17037	47.7856	.040733	160.9	-.0384961	.0133126
481	-5.09557	5.09557	48.7846	.0415321	158.1	-.0385288	.0155063
482	-5.02078	5.02078	49.7837	.0423912	155.5	-.0385604	.0176099
483	-4.94598	4.94598	50.7827	.0432905	153.1	-.0385907	.0196169
484	-4.87119	4.87119	51.7818	.0442097	150.9	-.0386195	.0215182
485	-4.79639	4.79639	52.7808	.0451268	148.9	-.0386466	.0232995
486	-4.72159	4.72159	53.7799	.0460142	147.2	-.0386717	.0249361
487	-4.6468	4.6468	54.779	.046833	145.7	-.0386944	.0263831
J12	-4.572	4.572	55.778	.0473948	144.8	-.038713	.0273418
2J1	-4.572	4.572	55.778	.0432218	119.	-.020939	.0378111
489	-4.52282	4.52282	56.7707	.0439615	118.5	-.020957	.0386447
490	-4.47365	4.47365	57.7633	.0450465	117.8	-.0209798	.0398627
491	-4.42447	4.42447	58.756	.0462087	117.	-.0210054	.0411584
492	-4.3753	4.3753	59.7487	.0474073	116.3	-.0210334	.0424859
493	-4.32612	4.32612	60.7413	.0486194	115.7	-.0210636	.0438198
494	-4.27695	4.27695	61.734	.0498308	115.	-.0210958	.0451451
495	-4.22777	4.22777	62.7266	.0510316	114.5	-.0211299	.0464516
496	-4.1786	4.1786	63.7193	.0522145	113.9	-.0211657	.0477322
497	-4.12942	4.12942	64.712	.0533737	113.4	-.0212032	.0489814
498	-4.08024	4.08024	65.7046	.054505	112.9	-.0212423	.0501952
499	-4.03107	4.03107	66.6973	.0556046	112.5	-.021283	.0513703
500	-3.98189	3.98189	67.69	.0566696	112.1	-.021325	.0525042
501	-3.93272	3.93272	68.6826	.0576977	111.7	-.0213685	.0535949

502	-3.88354	3.88354	69.6753	.0586868	111.4	-.0214133	.0546407
503	-3.83437	3.83437	70.6679	.0596351	111.1	-.0214594	.0556403
504	-3.78519	3.78519	71.6606	.0605416	110.8	-.0215067	.0565928
505	-3.73601	3.73601	72.6533	.0614049	110.6	-.0215552	.0574973
506	-3.68684	3.68684	73.6459	.0622243	110.3	-.0216047	.0583532
507	-3.63766	3.63766	74.6386	.0629989	110.1	-.0216553	.05916
508	-3.58849	3.58849	75.6312	.0637281	109.9	-.0217068	.0599173
509	-3.53931	3.53931	76.6239	.0644114	109.7	-.0217593	.0606248
510	-3.49014	3.49014	77.6166	.0650486	109.6	-.0218126	.0612824
511	-3.44096	3.44096	78.6092	.0656392	109.5	-.0218667	.0618898
512	-3.39178	3.39178	79.6019	.066183	109.3	-.0219215	.0624471
513	-3.34261	3.34261	80.5946	.0666799	109.2	-.021977	.0629541
514	-3.29343	3.29343	81.5872	.0671297	109.2	-.0220331	.0634109
515	-3.24426	3.24426	82.5799	.0675325	109.1	-.0220898	.0638175
516	-3.19508	3.19508	83.5725	.0678881	109.	-.022147	.064174
517	-3.14591	3.14591	84.5652	.0681965	109.	-.0222046	.0644804
518	-3.09673	3.09673	85.5579	.068458	109.	-.0222626	.0647369
519	-3.04755	3.04755	86.5505	.0686724	109.	-.0223209	.0649436
520	-2.99838	2.99838	87.5432	.0688399	109.	-.0223794	.0651006
521	-2.9492	2.9492	88.5359	.0689606	109.	-.0224381	.0652081
522	-2.90003	2.90003	89.5285	.0690347	109.	-.022497	.0652662
523	-2.85085	2.85085	90.5212	.0690624	109.1	-.0225559	.0652752
524	-2.80168	2.80168	91.5138	.0690439	109.1	-.0226148	.0652352
525	-2.7525	2.7525	92.5065	.0689794	109.2	-.0226737	.0651464
526	-2.70332	2.70332	93.4992	.0688691	109.3	-.0227324	.0650091
527	-2.65415	2.65415	94.4918	.0687132	109.4	-.0227909	.0648234
528	-2.60497	2.60497	95.4845	.0685122	109.5	-.0228492	.0645897
529	-2.5558	2.5558	96.4772	.0682662	109.6	-.0229072	.0643081
530	-2.50662	2.50662	97.4698	.0679756	109.7	-.0229647	.0639789
531	-2.45745	2.45745	98.4625	.0676407	109.9	-.0230219	.0636023
532	-2.40827	2.40827	99.4551	.0672619	110.1	-.0230785	.0631787
533	-2.3591	2.3591	100.448	.0668396	110.3	-.0231345	.0627083
534	-2.30992	2.30992	101.441	.0663743	110.4	-.0231899	.0621914
535	-2.26074	2.26074	102.433	.0658662	110.7	-.0232446	.0616283
536	-2.21157	2.21157	103.426	.0653158	110.9	-.0232986	.0610191
537	-2.16239	2.16239	104.418	.0647237	111.1	-.0233517	.0603644
538	-2.11322	2.11322	105.411	.0640902	111.4	-.0234039	.0596642
539	-2.06404	2.06404	106.404	.063416	111.7	-.0234551	.058919
540	-2.01487	2.01487	107.396	.0627014	112.	-.0235053	.0581289
541	-1.96569	1.96569	108.389	.0619472	112.3	-.0235544	.0572944
542	-1.91651	1.91651	109.382	.0611539	112.7	-.0236023	.0564157
543	-1.86734	1.86734	110.374	.060322	113.1	-.023649	.055493
544	-1.81816	1.81816	111.367	.0594524	113.5	-.0236944	.0545267
545	-1.76899	1.76899	112.36	.0585455	113.9	-.0237385	.0535169
546	-1.71981	1.71981	113.352	.0576022	114.4	-.0237811	.052464
547	-1.67064	1.67064	114.345	.056623	114.9	-.0238221	.051368
548	-1.62146	1.62146	115.338	.0556089	115.4	-.0238616	.0502292
549	-1.57228	1.57228	116.33	.0545606	116.	-.0238995	.0490476
550	-1.52311	1.52311	117.323	.0534788	116.6	-.0239356	.0478233
551	-1.47393	1.47393	118.316	.0523643	117.2	-.0239699	.046556
552	-1.42476	1.42476	119.308	.0512181	117.9	-.0240024	.0452457
553	-1.37558	1.37558	120.301	.0500407	118.7	-.0240329	.0438918
554	-1.32641	1.32641	121.294	.0488329	119.5	-.0240614	.0424935
555	-1.27723	1.27723	122.286	.0475951	120.4	-.0240878	.0410496
556	-1.22805	1.22805	123.279	.0463274	121.4	-.0241121	.039558
557	-1.17888	1.17888	124.272	.0450294	122.4	-.0241341	.0380157
558	-1.1297	1.1297	125.264	.0436997	123.6	-.0241538	.0364178
559	-1.08053	1.08053	126.257	.0423348	124.8	-.0241712	.0347561
560	-1.03135	1.03135	127.25	.040928	126.2	-.0241861	.0330172
561	-.982176	.982176	128.242	.0394695	127.8	-.0241983	.0311815
J13	-.933	.933	129.235	.0378338	129.8	-.0242111	.0290726

2J1	8.611	8.611	1.829	.0789357	270.1	1.93E-04	-.0789355
563	8.611	7.59794	1.829	.0729984	270.1	1.64E-04	-.0729982
564	8.611	6.58488	1.829	.0648886	270.1	1.25E-04	-.0648885
565	8.611	5.57182	1.829	.0558703	270.1	8.39E-05	-.0558702
566	8.611	4.55877	1.829	.0462615	270.1	4.05E-05	-.0462615
567	8.611	3.54571	1.829	.0362699	270.	-4.09E-06	-.0362699
568	8.611	2.53265	1.829	.0260299	269.9	-4.94E-05	-.0260298
569	8.611	1.51959	1.829	.0156344	269.7	-9.51E-05	-.0156341
570	8.611	.506529	1.829	5.15E-03	268.4	-1.41E-04	-5.15E-03
571	8.611	-.506529	1.829	5.36E-03	92.	-1.87E-04	5.36E-03
572	8.611	-1.51959	1.829	.0158387	90.8	-2.33E-04	.015837
573	8.611	-2.53265	1.829	.026234	90.6	-2.79E-04	.0262325
574	8.611	-3.54571	1.829	.036474	90.5	-3.24E-04	.0364726
575	8.611	-4.55877	1.829	.0464654	90.5	-3.68E-04	.0464639
576	8.611	-5.57182	1.829	.0560739	90.4	-4.11E-04	.0560724
577	8.611	-6.58488	1.829	.065092	90.4	-4.53E-04	.0650904
578	8.611	-7.59794	1.829	.0732013	90.4	-4.91E-04	.0731997
2J2	8.611	-8.611	1.829	.0791389	90.4	-5.2E-04	.0791372
2J1	8.611	-8.611	1.829	.0821962	254.	-.0227235	-.0789928
581	7.59794	-8.611	1.829	.0765159	252.7	-.0227503	-.0730555
582	6.58488	-8.611	1.829	.0688255	250.7	-.0227817	-.0649457
583	5.57182	-8.611	1.829	.0604008	247.8	-.0228118	-.0559274
584	4.55877	-8.611	1.829	.0516434	243.8	-.0228392	-.0463186
585	3.54571	-8.611	1.829	.0429229	237.8	-.0228633	-.0363269
586	2.53265	-8.611	1.829	.034701	228.7	-.0228834	-.0260866
587	1.51959	-8.611	1.829	.0277594	214.4	-.0228994	-.0156908
588	.506529	-8.611	1.829	.0234958	192.8	-.022911	-5.21E-03
589	-.506529	-8.611	1.829	.0235228	167.	-.0229181	5.3E-03
590	-1.51959	-8.611	1.829	.027828	145.5	-.0229207	.0157809
591	-2.53265	-8.611	1.829	.0347921	131.2	-.0229188	.0261767
592	-3.54571	-8.611	1.829	.0430254	122.2	-.0229126	.036417
593	-4.55877	-8.611	1.829	.051752	116.3	-.0229021	.0464086
594	-5.57182	-8.611	1.829	.0605126	112.2	-.0228876	.0560173
595	-6.58488	-8.611	1.829	.0689394	109.4	-.0228697	.0650355
596	-7.59794	-8.611	1.829	.0766309	107.3	-.0228493	.0731451
2J2	-8.611	-8.611	1.829	.0823124	106.1	-.0228306	.0790828
2J1	-8.611	-8.611	1.829	.0789319	269.9	-8.29E-05	-.0789319
599	-8.611	-7.59794	1.829	.0729944	270.	-6.16E-05	-.0729944
600	-8.611	-6.58488	1.829	.0648844	270.	-3.47E-05	-.0648844
601	-8.611	-5.57182	1.829	.0558659	270.	-5.95E-06	-.0558659
602	-8.611	-4.55877	1.829	.0462569	270.	2.39E-05	-.0462569
603	-8.611	-3.54571	1.829	.036265	270.1	5.45E-05	-.036265
604	-8.611	-2.53265	1.829	.0260246	270.2	8.54E-05	-.0260245
605	-8.611	-1.51959	1.829	.0156289	270.4	1.16E-04	-.0156285
606	-8.611	-.506529	1.829	5.15E-03	271.6	1.48E-04	-5.15E-03
607	-8.611	.506529	1.829	5.37E-03	88.1	1.79E-04	5.36E-03
608	-8.611	1.51959	1.829	.015845	89.2	2.1E-04	.0158436
609	-8.611	2.53265	1.829	.0262406	89.5	2.41E-04	.0262395
610	-8.611	3.54571	1.829	.0364809	89.6	2.72E-04	.0364799
611	-8.611	4.55877	1.829	.0464725	89.6	3.02E-04	.0464715
612	-8.611	5.57182	1.829	.0560813	89.7	3.32E-04	.0560803
613	-8.611	6.58488	1.829	.0650996	89.7	3.6E-04	.0650986
614	-8.611	7.59794	1.829	.0732092	89.7	3.87E-04	.0732082
2J2	-8.611	8.611	1.829	.0791469	89.7	4.08E-04	.0791458
2J1	-8.611	8.611	1.829	.0821222	286.1	.0228321	-.0788844
617	-7.59794	8.611	1.829	.0764421	287.4	.0228506	-.0729469
618	-6.58488	8.611	1.829	.0687523	289.4	.0228705	-.0648369
619	-5.57182	8.611	1.829	.0603288	292.3	.0228879	-.0558185
620	-4.55877	8.611	1.829	.0515734	296.4	.0229018	-.0462095
621	-3.54571	8.611	1.829	.0428565	302.3	.0229118	-.0362178
622	-2.53265	8.611	1.829	.0346416	311.4	.0229176	-.0259774

623	-1.51959	8.611	1.829	.0277139	325.8	.0229189	-.0155816
624	-.506529	8.611	1.829	.0234765	347.5	.0229158	-5.1E-03
625	.506529	8.611	1.829	.023538	13.3	.0229081	5.41E-03
626	1.51959	8.611	1.829	.0278697	34.8	.022896	.0158901
627	2.53265	8.611	1.829	.0348485	49.	.0228795	.0262858
628	3.54571	8.611	1.829	.0430891	58.	.0228588	.036526
629	4.55877	8.611	1.829	.0518196	63.9	.0228342	.0465174
630	5.57182	8.611	1.829	.0605826	67.9	.0228062	.056126
631	6.58488	8.611	1.829	.0690107	70.7	.0227756	.065144
632	7.59794	8.611	1.829	.0767028	72.8	.0227438	.0732533
2J2	8.611	8.611	1.829	.0823847	74.	.0227167	.0791908
2J1	4.572	4.572	55.778	.0728087	270.2	2.6E-04	-.0728082
635	4.572	3.556	55.778	.0721454	270.2	2.72E-04	-.0721449
636	4.572	2.54	55.778	.0710296	270.2	2.86E-04	-.071029
637	4.572	1.524	55.778	.0698026	270.2	3.01E-04	-.0698019
638	4.572	.508	55.778	.0685146	270.3	3.15E-04	-.0685139
639	4.572	-.508	55.778	.0671966	270.3	3.29E-04	-.0671958
640	4.572	-1.524	55.778	.0658731	270.3	3.42E-04	-.0658722
641	4.572	-2.54	55.778	.064572	270.3	3.53E-04	-.064571
642	4.572	-3.556	55.778	.0633362	270.3	3.62E-04	-.0633352
2J2	4.572	-4.572	55.778	.0624192	270.3	3.58E-04	-.0624182
2J1	4.572	-4.572	55.778	.0749663	284.	.0181262	-.0727419
645	3.556	-4.572	55.778	.0743256	284.1	.018138	-.0720785
646	2.54	-4.572	55.778	.073247	284.3	.0181511	-.0709624
647	1.524	-4.572	55.778	.0720614	284.6	.0181625	-.069735
648	.508	-4.572	55.778	.0708177	284.9	.0181717	-.0684466
649	-.508	-4.572	55.778	.069546	285.2	.0181787	-.0671281
650	-1.524	-4.572	55.778	.06827	285.4	.0181836	-.0658039
651	-2.54	-4.572	55.778	.0670169	285.7	.0181865	-.0645021
652	-3.556	-4.572	55.778	.0658282	286.	.0181884	-.0632656
2J2	-4.572	-4.572	55.778	.0649493	286.3	.018197	-.0623481
2J1	-4.572	-4.572	55.778	.0728036	269.8	-2.64E-04	-.0728031
655	-4.572	-3.556	55.778	.0721397	269.8	-2.76E-04	-.0721392
656	-4.572	-2.54	55.778	.0710231	269.8	-2.89E-04	-.0710225
657	-4.572	-1.524	55.778	.0697951	269.8	-3.03E-04	-.0697944
658	-4.572	-.508	55.778	.0685062	269.7	-3.17E-04	-.0685055
659	-4.572	.508	55.778	.0671873	269.7	-3.31E-04	-.0671865
660	-4.572	1.524	55.778	.0658628	269.7	-3.43E-04	-.0658619
661	-4.572	2.54	55.778	.0645608	269.7	-3.54E-04	-.0645598
662	-4.572	3.556	55.778	.0633242	269.7	-3.62E-04	-.0633232
2J2	-4.572	4.572	55.778	.0624065	269.7	-3.58E-04	-.0624055
2J1	-4.572	4.572	55.778	.0750967	256.	-.0181321	-.0728748
665	-3.556	4.572	55.778	.0744555	255.9	-.0181436	-.072211
666	-2.54	4.572	55.778	.0733763	255.7	-.0181563	-.0710945
667	-1.524	4.572	55.778	.0721901	255.4	-.0181672	-.0698668
668	-.508	4.572	55.778	.0709461	255.2	-.0181759	-.0685783
669	.508	4.572	55.778	.0696741	254.9	-.0181825	-.0672598
670	1.524	4.572	55.778	.068398	254.6	-.0181868	-.0659358
671	2.54	4.572	55.778	.067145	254.3	-.0181893	-.0646343
672	3.556	4.572	55.778	.0659565	254.	-.0181907	-.0633984
2J2	4.572	4.572	55.778	.0650778	253.8	-.0181991	-.0624813
2J1	.933	.933	129.235	.0376129	50.8	.0237735	.0291471
J22	0	0	129.235	.0364336	49.3	.0237746	.0276075
2J1	.933	-.933	129.235	.0379742	50.2	.0243294	.0291568
2J2	0	0	129.235	.0368061	48.6	.0243306	.0276172
2J1	-.933	-.933	129.235	.0374737	129.1	-.023656	.0290632
2J2	0	0	129.235	.036297	130.7	-.0236623	.0275239
2J1	-.933	.933	129.235	.0378338	129.8	-.0242111	.0290726
2J2	0	0	129.235	.0366685	131.3	-.0242176	.0275334
2J1	0	0	129.235	.110282	89.9	2.25E-04	.110282
682	0	0	130.242	.109175	89.9	2.23E-04	.109175

683	0	0	131.249	.106652	89.9	2.19E-04	.106652
684	0	0	132.257	.103636	89.9	2.14E-04	.103636
685	0	0	133.264	.100303	89.9	2.07E-04	.100303
686	0	0	134.271	.0967282	89.9	2.01E-04	.096728
687	0	0	135.278	.0929508	89.9	1.94E-04	.0929506
688	0	0	136.285	.0889926	89.9	1.87E-04	.0889924
689	0	0	137.292	.0848667	89.9	1.79E-04	.0848665
690	0	0	138.3	.0805813	89.9	1.71E-04	.0805811
691	0	0	139.307	.0761413	89.9	1.62E-04	.0761411
692	0	0	140.314	.0715492	89.9	1.53E-04	.071549
693	0	0	141.321	.0668056	89.9	1.44E-04	.0668054
694	0	0	142.328	.0619092	89.9	1.34E-04	.0619091
695	0	0	143.335	.0568571	89.9	1.23E-04	.056857
696	0	0	144.343	.0516441	89.9	1.13E-04	.051644
697	0	0	145.35	.0462626	89.9	1.01E-04	.0462625
698	0	0	146.357	.040701	89.9	8.97E-05	.0407009
699	0	0	147.364	.0349423	89.9	7.74E-05	.0349422
700	0	0	148.371	.0289605	89.9	6.45E-05	.0289604
701	0	0	149.379	.0227121	89.9	5.09E-05	.022712
702	0	0	150.386	.0161157	89.9	3.63E-05	.0161157
703	0	0	151.393	9.E-03	89.9	2.04E-05	9.E-03
END	0	0	152.4	0	0	0	0