

FRANTIC 5

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FRANTIC 5 (A Version of FRANTIC II)
A Computer Code for Evaluating
System Aging Effect

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ABSTRACT

The FRANTIC 5 code is a modification of the FRANTIC II code for time dependent unavailability analysis. FRANTIC 5 is specially adapted for modeling the aging effects on system and component performance. The FRANTIC 5 code uses the linear aging model, i.e., based on the assumption that component failure rates increase linearly in time. The constant failure rate and the aging acceleration rate for a component can be changed during the plant life, which allows the creation of different time scales for components as a function of the replacement or any significant maintenance or repair action on the component. FRANTIC 5 preserves most of the unique features of FRANTIC II, for example the modeling of periodic testing.

The output from FRANTIC 5 consists of the system mean unavailabilities, tables of the system unavailabilities at designated time points and the system mean unavailabilities between consecutive tests. The code is applied for evaluation of aging effects of the Auxiliary Feedwater System of Arkansas Nuclear Unit 1. The usefulness of the method will depend upon the availability of the component aging data needed to develop the model parameters.

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1. INTRODUCTION

The adaptation of the FRANTIC II code for studying the aging effects on component and system unavailabilities is done as part of the work on a Ph.D. thesis, "Effects of Plant Aging on PRA", under the supervision of Professor Norman C. Rasmussen and Dr. William E. Vesely.

The FRANTIC II code evaluates the time dependent and average unavailabilities for any general system model. The code is applicable to non-repairable, monitored and periodically tested components, with the possibility of very detailed time-dependent modeling for periodic testing. The FRANTIC II code uses hazard rates in the Weibull form, and unavailabilities associated with that form. This implies that hazard rates are equal to zero at $t = 0$ and increase with time to the $(\beta - 1)$ power ($\beta \equiv$ Weibull parameter). Mean times to failure are kept constant in the model. Therefore, FRANTIC II is not suitable for studying an aging process.

The model for component failure rates, developed from basic phenomenological considerations in reference [1], suggested the linear aging model may be a good approximation. The checks in reference [2] indicate the consistency of the linear aging model with the data. In order to apply the linear failure rate aging model in calculating the aging contribution in a system unavailability, FRANTIC II had to be modified. The result of this modification is a new version, named FRANTIC 5.

FRANTIC 5 is based on the linear failure rate model. Therefore the analytical model of the code is different. FRANTIC 5 preserves

most of the useful features available in FRANTIC II. In addition, FRANTIC 5 allows for changes in component parameters during the plant life and gives the possibility of getting average unavailabilities for every test interval. Changes in the average unavailabilities between tests is a very good indicator of the influence of aging on the system performance.

The linear aging model is applied to a model of the auxiliary feedwater system for Arkansas Nuclear Unit 1, to demonstrate the aging contribution to the calculated system unavailability. The data are taken from ASEP data base and reference [3]. The demonstration shows the significant effects the aging mechanism can have on component and system unavailabilities.

The report is arranged as follows: Chapter 2 covers changes and adaptations in FRANTIC 5, Chapter 3 describes INPUT parameters, Chapter 4 describes OUTPUT. Application and results are given in Chapter 5.

The results indicate that the developed model is practical for evaluating and studying the aging impact on the system performance for cases where the hazard function can be approximated as a linearly increasing function.

2. CHANGES IN FRANTIC II

The original FRANTIC II code uses hazard rates in the Weibull form and unavailabilities associated with that form. The hazard rates are equal to zero at $t = 0$ and increase with time to the $(\beta - 1)$ power ($\beta \equiv$ Weibull parameter). Mean times to failure (MTTF) are kept constant in the code model. Therefore, FRANTIC II is not applicable for studying the aging process.

The model for component failure rates developed from basic phenomenological considerations, suggested the linear aging model [1]. In order to apply the linear aging failure rate model in calculating the aging contribution in system unavailability, FRANTIC II had to be modified. Descriptions of analytical changes and other adaptations are given in this chapter.

2.1 The Linear Hazard Rate Model

In general, the hazard rate for a renewable component can be expressed as:

$$H(t) = H(t - t_r),$$

and the instantaneous unavailability by

$$q(t, t_w) = q(t - t_r, t_w - t_r),$$

where:

t_r = the time when the component was last restored to Good-as-New condition,

t_w = the time when the component was last known to be working.

For a linear hazard rate distribution, the hazard rate equation takes the following form:

$$H(t) = \lambda_0 + 2\beta(t - t_r)$$

where:

λ = the constant failure rate,

$2\beta(t-t_r)$ is the aging failure rate,

2β = the aging acceleration rate, or simply, the aging rate*. (Note: the units of 2β are per unit time squared as for a standard acceleration.)

From basic reliability relations, the failure probability, in terms of the constant and aging failure rate, is given by the relation,

$$F(t) = 1 - \exp(-\lambda t - \beta(t - t_r)^2) .$$

The expression for the instantaneous unavailability can be derived from the following analysis:

If $P(t_w)$ is the probability that the system is working at time t_w , the probability that the system will work at time t is:

$$P(t) = [P(t_w)][P(t/t_w)],$$

where $P(t/t_w)$ is the conditional probability that the system works at time t , given that it was working at time t_w .

It follows that:

$$P(t/t_w) = P(t)/P(t_w),$$

or, introducing the time when the component was last restored to Good-as-New condition, (t_r):

$$P(t-t_r/t_w-t_r) = P(t-t_r)/P(t_w-t_r).$$

*Note that this β is different than the Weibull parameter β .

According to the definition of instantaneous unavailability

$$[1 - q(t-t_r, t_w-t_r)] = \frac{1 - q(t-t_r)}{1 - q(t_w-t_r)}$$

or:

$$q(t, t_w) \equiv q(t-t_r, t_w-t_r) = 1 - \exp\{-\lambda_0(t-t_w) - \beta[(t-t_r)^2 - (t_w-t_r)^2]\}$$

The above form of instantaneous unavailability has been incorporated in equations for components and system unavailabilities in a new version of the FRANTIC II code designated FRANTIC 5.

There are four possible forms the expression for instantaneous unavailability can take. They are combinations of the facts that failure is or is not detected during a test, and that after a test or repair, the component is restored to Good-as-New or Good-as-Old condition.

	Good-as-New restoration	Good-as-Old restoration
Failure is not detected during the test	$t_w = t_r = t_n + \tau$	t_r - optional $t_w = t_n + \tau$
Failure is detected during the test	$t_w = t_r = t_n + \tau + T_R$	t_r - optional $t_w = t_n + \tau + T_R$

where:

t_n = the start time of the n^{th} test;

τ = the average time required to perform a test;

T_R = the average repair time.

As in the original FRANTIC II, the three options are available for modeling periodically tested compounds:

1. CASE NN -- both the test and repair restores component to Good-as-New condition;
2. CASE OO -- both the test and repair restores component to Good-as-Old condition;
3. CASE ON -- a test restores component to Good-as-Old, while a repair restores component to Good-as-New.

This version of the FRANTIC code preserves all other options given by the original code, except that it doesn't allow application of the linear aging model to monitored components. Like the original code, this version gives the possibility of staggering the test intervals for different components and taking into account the override capabilities, the probability of test-caused failures, the detection inefficiencies, the residual unavailabilities, and the test-interval dependent failure rates.

2.2 Changes in Component Parameters During Plant Life

During the operation of a nuclear plant it is possible that the hazard rate parameters; the constant failure rate (λ_0) and the aging acceleration rate (2β), can be changed as a result of some maintenance and repair action, or simply, as a result of the replacement of a component. The possibility of changing those parameters during the plant life is therefore essential for a realistic aging model. This makes possible the modeling of different time scales for every component, as a function of the time when the component was introduced in service, or a function of any relevant maintenance or repair action. The significance of the change can be illustrated in the next example:

Assume the component history is as follows:

1. The component shows a significant aging mechanism and has a negligible constant failure rate contribution; (i.e., $\lambda_0 \cong 0$)
2. At time T_1 the component is replaced by a new one;
3. At time T_2 , after a significant repair action, the hazard rate of the component is reset to one half of the value it had at time T_2 , and continues to increase with the same aging acceleration rate, (2β).

Using the hazard rates parameters, the component history can be described in the following way:

1. In period $[0, T_1]$ the constant failure rate is equal to 0, and the aging rate is 2β . The hazard rate is given by $H(t) = 2\beta t$.
2. At time T_1 an artificial constant rate equal to $(-2\beta T_1)$ is

introduced, while the aging rate remains the same. Therefore, in the period $[T_1, T_2]$ the hazard rate is given by

$$H(t) = 2\beta(t-T_1) \quad (T_1 \leq t \leq T_2)$$

The time scale for the component is "shifted" by the time at which the component was replaced.

3. At time T_2 , a new artificial constant rate $(-\beta(T_1+T_2))$ is introduced, while the aging rate still remains the same. The result is the next hazard rate:

$$H(t) = 2 [t - (1/2)(T_1+T_2)] \quad (t \geq T_2)$$

The significant maintenance action, which results in a lowering of the current failure rate by one half, defines the new aging scale for the component.

The component history with given parameters and forms of hazard rates, is given in Fig. 2.1.

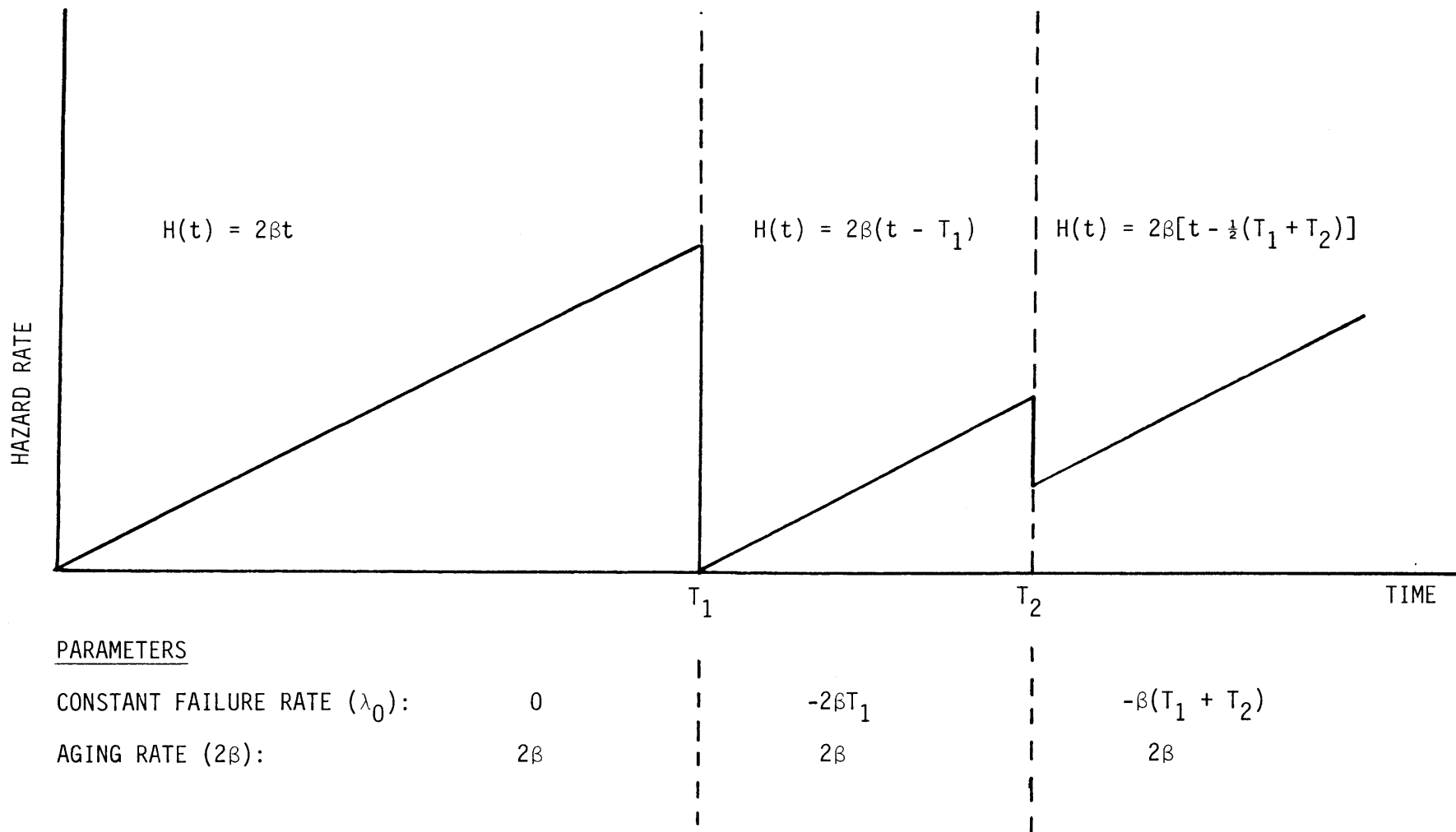


Figure 2.1 COMPONENT HISTORY FOR GIVEN PARAMETERS

2.3 Average Unavailabilities Between Tests

In order to understand and follow an aging process, we need to know not only the time-dependent component (or system) unavailabilities, but also average unavailabilities over certain time periods. The original code calculates average unavailabilities from $t = 0$ to any time t , but not between the points t_i and t_j . As an indicator of aging, such values have significance only when compared with an identical component which doesn't show aging (constant failure rate). In order to follow an aging process, the FRANTIC 5 code is modified to allow the calculation of the average unavailability between tests. If system components are tested in different times, the code calculates the average system unavailabilities between any two consecutive tests of any components. To be able to better understand the aging effects the code averages the unavailability which excludes the test and repair contribution. Thus, the result calculates the hardware contribution. Changes of the average unavailabilities between tests are the best indicator of the basic influence, that the aging of components has on the system performance.

3. INPUT DESCRIPTION

The FRANTIC computer codes can calculate the time dependent system unavailabilities for any general system model. Subroutine SYSCOM, provided as input by the user, contains the equations for the system unavailability in terms of the component unavailabilities. SYSCOM also can contain equations for subsystem unavailabilities to be calculated. Equations are obtained using the standard Boolean techniques.

Any FRANTIC run consists of one or more cases. A case is described by the following data:

- a set of components which make up the system,
- an index number designating the system or subsystem unavailabilities to be calculated,
- titles and print options*.

Cases are described by five sets of data which are called "data groups". FRANTIC 5 uses the same data groups as FRANTIC II except that the second data group ("COMPONENTS") is changed.

* FRANTIC II provides PLOT options, which are not preserved in FRANTIC 5, because of the nature of the problems which are analyzed with FRANTIC V (long time periods).

3.1 Changes in Input Parameters (Data Group 2: Components)

This data group describes the components which make up the system to be evaluated. Since FRANTIC 5 allows for changes in component parameters during a plant's life, only options NEW for component are preserved in the code. Therefore, options UPDATE is not available in the FRANTIC 5 data group.

After "NEW" information, one line is entered for each component. This line contains the component number, the component name and 13 parameters describing the reliability data for component. The 13 parameters are listed in the Table 3.1.

The described 13 parameters allow the user to specify next types of components, as defined in [4]:

- periodically tested,
- nonrepairable,
- constant unavailability.

The last "line" of the component data group contain "-1" in the component number field, what indicates the end of data for component parameters. The maximum number of components is 100.

TABLE 3.1: COMPONENT PARAMETERS

SYMBOL	FORTRAN VAR- IABLE NAME	DESCRIPTION	DEFAULT VALUE
			IF LEFT BLANK
λ	LAMDA	Constant failure rate in multiples of $10^{-6}(\text{hr}^{-1})$	0.0
T_2	TEST2	Periodic test interval in days	0.0
T_1	TEST1	First test interval in days	T_2
τ	TAU	Average test period in hours	0.0
T_R	REPAIR	Average repair period in hours	0.0
q_0	QOVRD	Test override unavailability	0.0
P_f	PTCF	Probability of test-caused failure	0.0
p	INEFF	Detection inefficiency (probability of not detecting a failure)	0.0
λ_u	ULAMDA	Undetected constant failure rate in multiples of $10^{-6}(\text{hr}^{-1})$	p
q_D	QRESID	Constant unavailability per demand	0.0
β	BETA	1/2 of the aging acceleration rate in multiples of $10^{-12}(\text{hr}^{-2})$	0.0
f	FN	Test factor	1.0
-	ITYPE	Renewal type	1.

The component data group is given in Table 3.3.

This information is followed by the additional line for every component, containing the component number and the number of changes which the component undergoes during the plant life. The maximum number of changes for every component is 20. If the number of changes is different from zero, the line should be followed by the three additional lines, describing changes in component parameters:

- times in which changes occur,
- a new value of the aging acceleration rate after a change in multiples of $10^{-12}(\text{hr}^{-2})$,
- a new value of the constant failure rate after a change, in multiples of $10^{-6}(\text{hr}^{-1})$.

The 4 parameters describing a component change are listed in TABLE 3.2:

TABLE 3.2: COMPONENT CHANGE PARAMETERS

<u>SYMBOL</u>	<u>FORTTRAN VAR- IABLE NAME</u>	<u>DESCRIPTION</u>
L	LMAX	The number of changes.
	TIMECH	The time points at which changes occur.
β	BETACH	The new value after change, of 1/2 of the aging acceleration rate, in multiples of $10^{-12}(\text{hr}^{-2})$.
λ	CLAMDA	The new value of the constant failure rate after change, in multiples of $10^{-6}(\text{hr}^{-1})$.

TABLE 3.3: DATA GROUP 2: COMPONENTS

<u>LINE</u>	<u>COLS</u>	<u>PROGRAM VARIABLE</u>	<u>FORMAT</u>	<u>DESCRIPTION</u>
LINE A	1-4	ANAME	A4	Keyword "COMP"
LINE B	1-4	TYPE	A4	Option "NEW" or "UPDATE"
LINE C	1-3	INDX	I3	Component number
	4-11	NAME	A8	Component name
	12-17	LAMDA	E6.1	Constant failure rate in multiples of $10^{-6}(\text{hr}^{-1})$
	18-23	TEST2	F6.0	Test interval in days
	24-29	TEST1	F6.0	First test interval in days
	30-35	TAU	F6.0	Ave. testing time in hrs
	36-41	REPAIR	F6.0	Ave. repair time in hrs
	42-47	QOVRD	F6.0	Test override unavailability
	48-53	PTCF	F6.0	Probability of test-caused failure
	54-58	INEFF	F5.0	Detection inefficiency
	59-64	ULAMDA	E6.1	Undetected constant failure rate in multiples of $10^{-6}(\text{hr}^{-1})$
	65-70	QRESID	F6.0	Residual unavailability
	71-76	BETA	E6.1	1/2 of the aging acceleration rate in multiples of $10^{-12}(\text{hr}^{-2})$
	77-79	FN	F3.2	Test Factor
	80	ITYPE	I1	Renewal Type
LINE D	1-3	INDX	I3	End of data for comp. parameters (-1)
LINE E	1-6	INDC	I6	Component number
	7-12	LMAX	I6	Number of changes
LINE F	1-8,9-16...	TIMECH	F8.0	Time points at which changes occur
LINE G	1-8,9-16...	BETACH	E8.2	New value of 1/2 of the aging acceleration rate in multiples of $10^{-12}(\text{hr}^{-2})$
LINE H	1-8,9-16...	CLAMDA	E8.2	New value of the constant failure rate in multiples of $10^{-6}(\text{hr}^{-1})$
LINE I	1-3	INDC	I3	End of data for comp. change parameters (-1)

Data groups: TITLE, TIMES, PRINT and RUN are the same as in FRANTIC II.

4. OUTPUT DESCRIPTION

The FRANTIC V code produces 3 main output sections, which are described below:

4.1 Output Section 1 -- INPUT COMPONENT PARAMETERS

This output is a table containing the parameters for each component input in the components data group. The table also prints changes in component parameters, during the plant life, if any. The table is printed each time a components data group is input. An example of this section is given on Figure 4.1.

4.2 Output Section 2 -- TIME POINT DATA

This output lists the number of time points generated by the program, the total time period in hours, the smoothing times which are inserted, and the final number of time points after insertion. The time points are recomputed whenever a TIMES data group is input. An example of this section is given in Figure 4.2.

4.3 Output Section 3 -- SYSTEM UNAVAILABILITY DATA

This output is printed every time a RUN data group is input. It consists of five main sections which are described below.

SAMPLE CASE AUX-FEED SYSTEM

***** INPUT COMPONENT PARAMETERS *****

COMP NUMB	COMP NAME	FAILURE RATE (PER HR)	TEST INTERVAL (DAYS)	FIRST INTERVAL (DAYS)	TIME FOR TESTING (HRS)	TIME FOR REPAIRS (HRS)	OVERRIDE UNAVAIL	PROB OF TEST-CAUSED FAILURE	TEST INEFF	UNDETECT FAIL RATE (PER HR)	RESID UNAVAIL	BETA (PER HR*2)	TEST TYP FAC
1	VALVE	3.00E-07	1.80E+02	1.80E+02	1.50E+00	7.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00 2
2	VALVE	3.00E-07	1.80E+02	1.80E+02	1.50E+00	7.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00 2
3	PUMP	3.00E-06	1.80E+02	1.80E+02	1.50E+00	1.90E+01	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00 2
4	DIESEL	4.20E-05	1.80E+02	1.80E+02	1.50E+00	2.10E+01	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00 2
5	DIESEL	4.20E-05	1.80E+02	1.80E+02	1.50E+00	2.10E+01	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00 2

CHANGES IN COMPONENT PARAMETERS

COMP. NO. OF CH.

1 0
2 0
3 3

TIMES IN WHICH CHANGES OCCURS (HRS)

8663. 17303. 25943.

CHANGES IN BETA (1/HR**2)

1.20E-12 1.30E-12 1.50E-12

CHANGES IN LAMDA (1/HR)

3.10E-06 2.20E-06 2.00E-06

4 0
5 0

Figure 4.1 OUTPUT: INPUT COMPONENT PARAMETERS

THE NUMBER OF POINTS GENERATED = 37
TOTAL TIME PERIOD IN HOURS (DEFAULT=1 YR) = 34560.000

SMOOTHING TIMES INSERTED WITH TDEL = 720.000
TOTAL NUMBER OF POINTS NOW = 78

Figure 4.2 OUTPUT: TIME POINT DATA

4.3.1 System Mean Unavailabilities in Total Time

The output lists the average system unavailability averaged over the total time. The average unavailability is broken into three contributions: due to failures, due to testing and due to repairs according to the following rules [4]:

1. If at least one component is under test then the instantaneous system unavailability is counted as the test contribution;
2. If no components are under test, and at least one component is down for repair, then the instantaneous system unavailability is counted as the repair contribution;
3. If no components are under test or repair, the instantaneous system unavailability is counted as the failure contribution (i.e., between test contribution).

Percentage of total, for every contribution are also printed. An example is given in Fig. 4.3.

4.3.2. Peak system unavailabilities

In this output section, the n highest instantansous unavailabilities are printed. Values of n are specified in data group PRINT. The default value for n is 12. An example of this section is given on Fig. 4.4.

SAMPLE CASE AUX-FEED SYSTEM

 ***** SYSTEM UNAVAILABILITY DATA *****

 RUN OPTIONS:

SYSTEM DESCRIPTION	EQUATION NUMBER	UNAVAIL. OPTION	PLOT OPTIONS		CUTOFF OPTION
			X	Y	
BASE CASE	1	TOTL	NONE	NONE	-7

 SYSTEM MEAN UNAVAILABILITIES BETWEEN ZERO AND 1440.00 DAYS:

TOTAL MEAN UNAVAIL	UNAVAIL DUE TO FAILURES	= OF TOTAL	UNAVAIL DUE TO TESTING	= OF TOTAL	UNAVAIL DUE TO REPAIRS	= OF TOTAL
6.043E-03	5.694E-03	94.22	3.038E-04	5.03	4.524E-05	0.75

Figure 4.3 OUTPUT: SYSTEM MEAN UNAVAILABILITIES

 PEAK SYSTEM UNAVAILABILITIES:

POINT NUMBER	TIME (DAYS)	TIME (HOURS)	SYSTEM UNAVAIL
9	1.8006E+02	4.3215E+03	1.0000E+00
19	3.6006E+02	8.6415E+03	1.0000E+00
29	5.4006E+02	1.2962E+04	1.0000E+00
39	7.2006E+02	1.7282E+04	1.0000E+00
49	9.0006E+02	2.1602E+04	1.0000E+00
59	1.0801E+03	2.5922E+04	1.0000E+00
69	1.2601E+03	3.0242E+04	1.0000E+00
40	7.2035E+02	1.7289E+04	1.3735E-02
38	7.2000E+02	1.7280E+04	1.3705E-02
30	5.4035E+02	1.2969E+04	1.3689E-02
41	7.2085E+02	1.7301E+04	1.3661E-02
28	5.4000E+02	1.2960E+04	1.3659E-02

Figure 4.4 OUTPUT: PEAK SYSTEM UNAVAILABILITIES

4.3.3. System Unavailabilities in Total Time

The output lists for any time t_i , the number of a time point, the time both in days and hours, the system unavailability in $(t_i - \epsilon)$ and $(t_i + \epsilon)$, the unavailability increment, percent of total, the area type and the average unavailability up to the given time. The value under the heading "UNAVAIL. INCREMENT" for t_i is the area under the system unavailability function between points t_i and t_{i-1} , divided by the length of total time. That is the increment in the system average unavailability. The percentage contribution to the average unavailability over the total time period is given in the next column. Area type defines the contribution type: T for testing, R for repair, blank for failures. The average unavailability up to the t_i is shown in the last column. An example of this section is given on Fig. 4.5.

4.3.4 System Unavailabilities in the Specified Interval

In the PRINT data group, a maximum of four intervals may be specified, and they may overlap.

The output lists for any time point inside the interval the system unavailability in $(t_i - \epsilon)$ and $(t_i + \epsilon)$, the unavailability increment, the percent of total, the area type and the average unavailability up to the given time, everything defined according to the specified time interval. (In FRANTIC II those values are defined according to the total time period.) The output also lists the average system unavailability (with three contributions) averaged over the specified interval. An example is given in Fig. 4.6.

 SYSTEM UNAVAILABILITIES BETWEEN 0.00 AND 1440.00 DAYS

POINT NUMBER	TIME (DAYS)	TIME (HOURS)	UNAVAIL AT T-EPSILON	UNAVAIL AT T+EPSILON	UNAVAIL. INCREMENT	PERCENT OF TOTAL	AREA TYPE	AV. UNAVAIL UP TO T
1	0.0000E+00	0.0000E+00		3.0000E-10				
2	2.5708E+01	6.1700E+02	1.8542E-03	1.8542E-03	1.6552E-05	0.2739		9.2710E-04
3	5.1417E+01	1.2340E+03	3.7147E-03	3.7147E-03	4.9711E-05	0.8226		1.8558E-03
4	7.7125E+01	1.8510E+03	5.5815E-03	5.5815E-03	8.2983E-05	1.3731		2.7866E-03
5	1.0283E+02	2.4680E+03	7.4543E-03	7.4543E-03	1.1636E-04	1.9255		3.7194E-03
6	1.2854E+02	3.0850E+03	9.3332E-03	9.3332E-03	1.4985E-04	2.4796		4.6543E-03
7	1.5425E+02	3.7020E+03	1.1218E-02	1.1218E-02	1.8345E-04	3.0355		5.5911E-03
8	1.8000E+02	4.3200E+03	1.3111E-02	1.0000E+00	2.1753E-04	3.5994		6.5315E-03
9	1.8006E+02	4.3215E+03	1.0000E+00	1.3140E-02	4.3403E-05	0.7182	T	6.8763E-03
10	1.8035E+02	4.3285E+03	1.3140E-02	1.3069E-02	2.6616E-06	0.0440	R	6.8865E-03
11	1.8085E+02	4.3405E+03	1.3069E-02	5.6269E-05	4.5379E-06	0.0751	R	6.9036E-03
12	1.8094E+02	4.3425E+03	6.2269E-05	6.2270E-05	3.4299E-09	0.0001	R	6.9004E-03
13	2.1077E+02	5.0585E+03	2.2148E-03	2.2148E-03	2.3588E-05	0.3903		6.0849E-03
14	2.4060E+02	5.7745E+03	4.3759E-03	4.3759E-03	6.8272E-05	1.1297		5.7390E-03
15	2.7044E+02	6.4905E+03	6.5452E-03	6.5452E-03	1.1313E-04	1.8720		5.7083E-03
16	3.0027E+02	7.2065E+03	8.7227E-03	8.7227E-03	1.5816E-04	2.6170		5.8996E-03
17	3.3010E+02	7.9225E+03	1.0908E-02	1.0908E-02	2.0335E-04	3.3649		6.2535E-03
18	3.6000E+02	8.6400E+03	1.3106E-02	1.0000E+00	2.4928E-04	4.1248		6.7313E-03
19	3.6006E+02	8.6415E+03	1.0000E+00	1.3135E-02	4.3403E-05	0.7182	T	6.9037E-03
20	3.6035E+02	8.6485E+03	1.3135E-02	1.3064E-02	2.6605E-06	0.0440	R	6.9087E-03
21	3.6085E+02	8.6605E+03	1.3064E-02	5.6270E-05	4.5360E-06	0.0751	R	6.9173E-03
22	3.6094E+02	8.6625E+03	6.2270E-05	6.2270E-05	3.4300E-09	0.0001	R	6.9157E-03
23	3.9077E+02	9.3785E+03	2.3047E-03	2.3047E-03	2.4519E-05	0.4057		6.4781E-03
24	4.2060E+02	1.0095E+04	4.5549E-03	4.5549E-03	7.1057E-05	1.1758		6.2619E-03
25	4.5044E+02	1.0811E+04	6.8151E-03	6.8151E-03	1.1778E-04	1.9489		6.2236E-03
26	4.8027E+02	1.1527E+04	9.0852E-03	9.0852E-03	1.6471E-04	2.7254		6.3309E-03
27	5.1010E+02	1.2243E+04	1.1365E-02	1.1365E-02	2.1184E-04	3.5053		6.5586E-03
28	5.4000E+02	1.2960E+04	1.3659E-02	1.0000E+00	2.5976E-04	4.2983		6.8882E-03
29	5.4006E+02	1.2962E+04	1.0000E+00	1.3689E-02	4.3403E-05	0.7182	T	7.0032E-03
30	5.4035E+02	1.2969E+04	1.3689E-02	1.3615E-02	2.7728E-06	0.0459	R	7.0068E-03
31	5.4085E+02	1.2981E+04	1.3616E-02	5.8697E-05	4.7276E-06	0.0782	R	7.0129E-03
32	5.4094E+02	1.2983E+04	6.4960E-05	6.4960E-05	3.5780E-09	0.0001	R	7.0118E-03
33	5.7077E+02	1.3699E+04	2.3123E-03	2.3123E-03	2.4626E-05	0.4075		6.7074E-03
34	6.0060E+02	1.4415E+04	4.5700E-03	4.5700E-03	7.1293E-05	1.1797		6.5452E-03
35	6.3044E+02	1.5131E+04	6.8378E-03	6.8378E-03	1.1817E-04	1.9554		6.5054E-03
36	6.6027E+02	1.5847E+04	9.1155E-03	9.1155E-03	1.6526E-04	2.7345		6.5719E-03
37	6.9010E+02	1.6563E+04	1.1403E-02	1.1403E-02	2.1255E-04	3.5170		6.7313E-03
38	7.2000E+02	1.7280E+04	1.3705E-02	1.0000E+00	2.6063E-04	4.3126		6.9730E-03
39	7.2006E+02	1.7282E+04	1.0000E+00	1.3735E-02	4.3403E-05	0.7182	T	7.0592E-03
40	7.2035E+02	1.7289E+04	1.3735E-02	1.3661E-02	2.7820E-06	0.0460	R	7.0619E-03

Figure 4.5 OUTPUT: SYSTEM UNAVAILABILITIES IN TOTAL TIME

SYSTEM UNAVAILABILITIES BETWEEN 0.00 AND 180.00 DAYS:

POINT NUMBER	TIME (DAYS)	TIME (HOURS)	UNAVAIL AT T-EPSILON	UNAVAIL AT T+EPSILON	UNAVAIL. INCREMENT	PERCENT OF TOTAL	AREA TYPE	AV. UNAVAIL UP TO T
1	0.0000E+00	0.0000E+00		3.0000E-10				
2	2.5708E+01	6.1700E+02	1.8542E-03	1.8542E-03	1.3241E-04	2.0273		9.2710E-04
3	5.1417E+01	1.2340E+03	3.7147E-03	3.7147E-03	3.9769E-04	6.0888		1.8558E-03
4	7.7125E+01	1.8510E+03	5.5815E-03	5.5815E-03	6.6386E-04	10.1640		2.7866E-03
5	1.0283E+02	2.4680E+03	7.4543E-03	7.4543E-03	9.3091E-04	14.2526		3.7194E-03
6	1.2854E+02	3.0850E+03	9.3332E-03	9.3332E-03	1.1988E-03	18.3545		4.6543E-03
7	1.5425E+02	3.7020E+03	1.1218E-02	1.1218E-02	1.4676E-03	22.4694		5.5911E-03
8	1.8000E+02	4.3200E+03	1.3111E-02	1.0000E+00	1.7402E-03	26.6435		6.5315E-03

SYSTEM MEAN UNAVAILABILITIES BETWEEN 0.0 AND 180.0 DAYS:

TOTAL MEAN UNAVAIL	UNAVAIL DUE TO FAILURES	= OF TOTAL	UNAVAIL DUE TO TESTING	= OF TOTAL	UNAVAIL DUE TO REPAIRS	= OF TOTAL
6.532E-03	6.532E-03	100.00	0.000E+00	0.00	0.000E+00	0.00

SYSTEM UNAVAILABILITIES BETWEEN 720.00 AND 900.00 DAYS:

POINT NUMBER	TIME (DAYS)	TIME (HOURS)	UNAVAIL AT T-EPSILON	UNAVAIL AT T+EPSILON	UNAVAIL. INCREMENT	PERCENT OF TOTAL	AREA TYPE	AV. UNAVAIL UP TO T
38	7.2000E+02	1.7280E+04		1.0000E+00			T	1.0000E+00
39	7.2006E+02	1.7282E+04	1.0000E+00	1.3735E-02	3.4722E-04	6.5556	R	1.8778E-01
40	7.2035E+02	1.7289E+04	1.3735E-02	1.3661E-02	2.2256E-05	0.4202	R	8.5857E-02
41	7.2085E+02	1.7301E+04	1.3661E-02	5.8889E-05	3.7947E-05	0.7164	R	7.8231E-02
42	7.2094E+02	1.7303E+04	6.5172E-05	6.5173E-05	2.8718E-08	0.0005	R	3.2187E-03
43	7.5077E+02	1.8019E+04	1.6577E-03	1.6577E-03	1.4277E-04	2.6955		2.8485E-03
44	7.8060E+02	1.8735E+04	3.2757E-03	3.2757E-03	4.0883E-04	7.7188		3.2574E-03
45	8.1044E+02	1.9451E+04	4.9007E-03	4.9007E-03	6.7758E-04	12.7928		3.8674E-03
46	8.4027E+02	2.0167E+04	6.5324E-03	6.5324E-03	9.4746E-04	17.8882		4.5599E-03
47	8.7010E+02	2.0883E+04	8.1709E-03	8.1709E-03	1.2185E-03	23.0049		5.2966E-03
48	9.0000E+02	2.1600E+04	9.8196E-03	1.0000E+00	1.4940E-03	28.2070		

SYSTEM MEAN UNAVAILABILITIES BETWEEN 720.0 AND 900.0 DAYS:

TOTAL MEAN UNAVAIL	UNAVAIL DUE TO FAILURES	= OF TOTAL	UNAVAIL DUE TO TESTING	= OF TOTAL	UNAVAIL DUE TO REPAIRS	= OF TOTAL
5.297E-03	4.889E-03	92.31	3.472E-04	6.56	6.023E-05	1.14

Figure 4.6 OUTPUT: SYSTEM UNAVAILABILITIES IN THE SPECIFIED INTERVAL

4.3.5. The System Mean Unavailabilities Between Tests

The output list the interval number, the time of the first test, the time of the second (forthcoming) test, the time interval between those two consecutive test (everything in hours), and the average unavailability between those two tests. An example is shown on Fig. 4.7.

Figure 4.7 OUTPUT: SYSTEM MEAN UNAVAILABILITIES BETWEEN TESTS

SYSTEM MEAN UNAVAILABILITIES BETWEEN TESTS

INTR. NO.	FIRST TEST TIME (HRS)	SECOND TEST TIME (HRS)	TIME BETWEEN TESTS (HRS)	AVERAGE UNAVAILABILITY BETWEEN TESTS
1.	0.	4320	4320.	6.5315E-03
2.	4320.	8640	4320.	6.5315E-03
3.	8640.	12960	4320.	6.8030E-03
4.	12960.	17280	4320.	6.8256E-03
5.	17280.	21600	4320.	4.8915E-03
6.	21600.	25920	4320.	4.9160E-03
7.	25920.	30240	4320.	4.5283E-03
8.	30240.	34560	4320.	4.5565E-03

 END OF FRANTIC RUN

5. APPLICATION

This section describes a demonstration case, which was run on FRANTIC 5. The case is not specially chosen to demonstrate all the new features in FRANTIC 5, but it is a good illustration for the real type of study, which can be done by the code. The linear aging model is applied to a model of the auxiliary feedwater system for Arkansas Nuclear Unit 1 to demonstrate the handling of the aging contribution in calculating system unavailability. An assumption that the aging is not detected and corrected by testing and maintenance is made (that is, both test and repair restore a component to Good-as-Old condition). Since data for changes in component parameters were not available, it is assumed that no changes occurred. This assumption is unrealistic, but when information on parameter changes become available it can be easily incorporated into the FRANTIC 5 data group for components. This example is done in order to study the aging effect on the system performance. The demonstration shows that aging mechanisms can have significant effects on components and system unavailabilities. The results indicate that the developed model is practical for evaluating and studying the aging effects.

5.1 Model for the System

The system used for demonstration is the auxiliary feedwater (aux-feed) system of Arkansas Nuclear Unit 1, as modeled in the Interim

Reliability Evaluation Program (IREP) conducted by the NRC [5]. The schematic diagram for the system is shown in Figure 5.1. The simplified logic diagram, with the major components except for the water storage tank, are shown in Figure 5.2. The system consists of two trains, with turbine driven pumps (TDP), motor operated valves (MOV) and piping (PIP). There is also piping (PIP) to the storage tank. The storage tank is not included because of the unavailability of aging data.

The systems equations in the subroutine SYSCOM are shown in Figure 5.3. The system unavailabilities are studied in a proposed extended plant life of 60 years. The linear aging model is applied to all components; in other words, all components are assumed to have a linearly increasing failure rate.

5.2 Data for the System

Data that is used for the aging evaluations are given in Table 5.1.

The dominant failure modes are chosen for every component: failure to start for turbine driven pumps, failure to open for motor operated valves, and rupture for piping. The total failure rates are taken from ASEP data base (Accident Sequence Evaluation Program) [6].

Test periods of 30 days as indicated by the technical specifications are used for the pumps and valves. The piping is assumed not to be

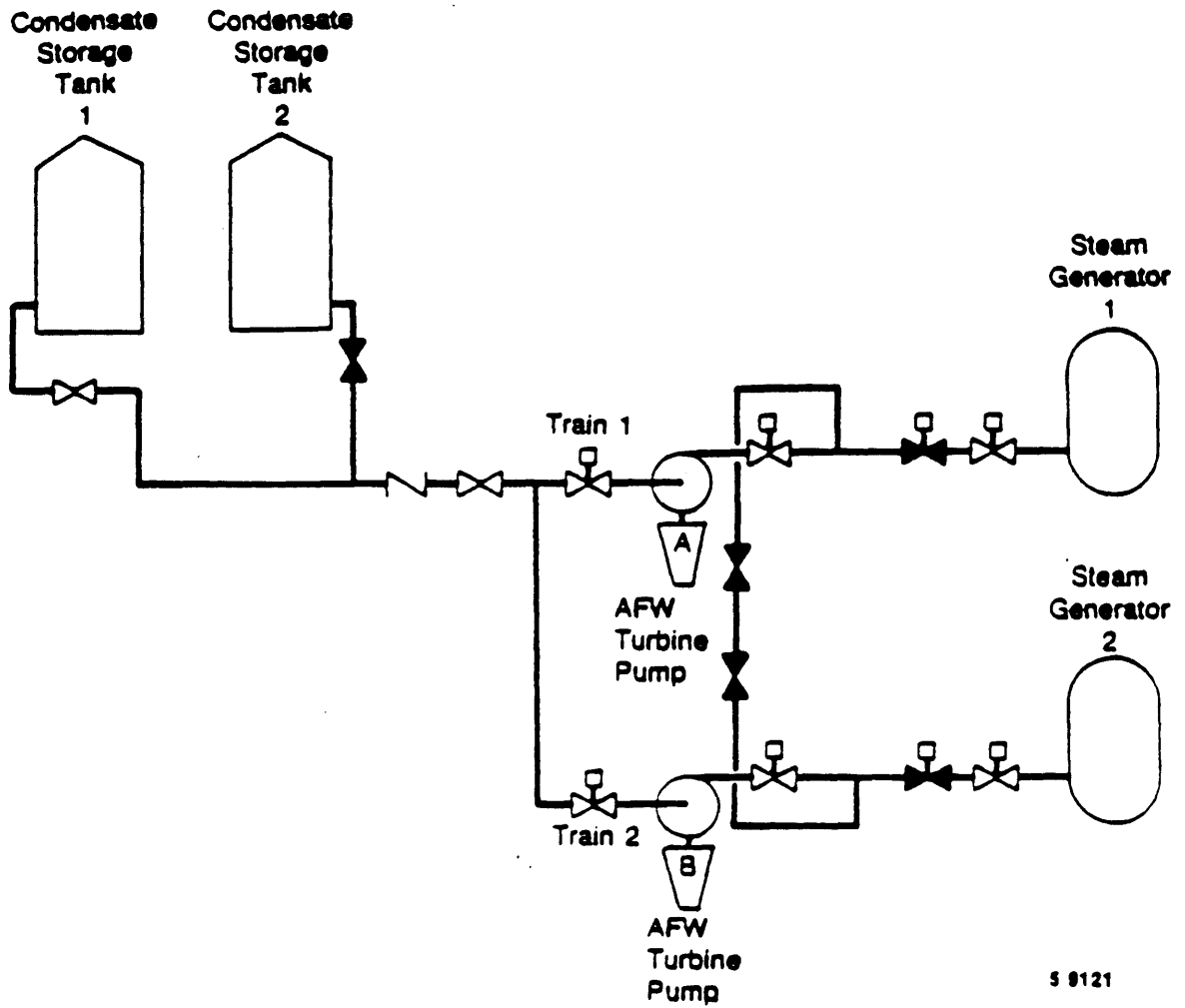
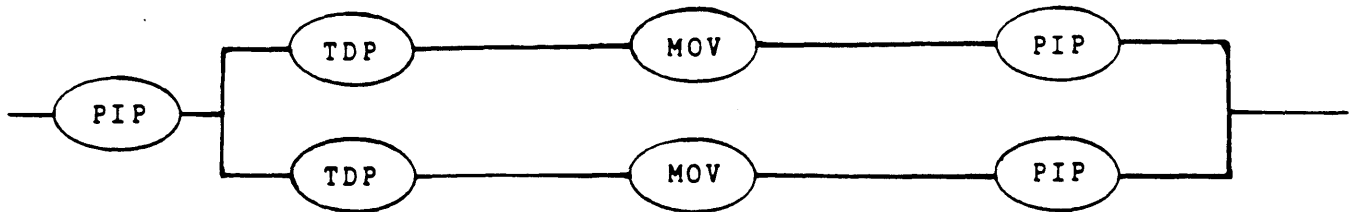


Figure 5.1 AUXILIARY FEEDWATER SYSTEM, SCHEMATIC DIAGRAM

SYSTEM DIAGRAM



TDP = TURBINE DRIVEN PUMP
 MOV = MOTOR OPERATED VALVE
 PIP = CONNECTING PIPING

Figure 5.2 AUXILIARY FEEDWATER SYSTEM, SYSTEM LOGIC DIAGRAM

```

SUBROUTINE SYSCOM(QC,QS,NSYS)
C
  DIMENSION QC(100)
  DOUBLE PRECISION QC
C
  GO TO (1,2,3),NSYS
C AUX FEED SYSTEM
  1 QS=(1.-(1.-QC(3))*(1.-(1.-(1.-QC(1))*(1.-QC(2))*(1.-QC(3))))**2.)
  RETURN
C PUMP AND VALVE
  2 QS=(1.-(1.-QC(1))*(1.-QC(2)))**2.
  RETURN
C PIPING ONLY, COMPONENT 3
  3 QS=(QC(3))
C
  RETURN
  END
  
```

Figure 5.3 SYSTEM EQUATIONS (SUBROUTINE SYSCOM)

TABLE 5.1
DATA FOR COMPONENTS

COMPONENT	FAILURE MODE	TOTAL FAILURE RATE (1/hr)	TEST PERIOD (days)	AGING FRACTION	AVERAGE AGE AT FAILURE (days)	CONSTANT FAILURE RATE (λ_0) (1/hr)	AGING ACCELERATION RATE (2β)(1/hr ²)
TURBINE DRIVEN PUMP (TDP)	FAILURE TO START	5×10^{-5}	30	0.11	~4000	4.5×10^{-5}	5.8×10^{-11}
MOTOR OPERATED VALVE (MOV)	FAILURE TO OPEN	8×10^{-6}	30	0.147	3576	6.8×10^{-6}	1.38×10^{-11}
PIPING (PIP)	RUPTURE	1×10^{-10}	-	0.75	4347	2.5×10^{-11}	7.2×10^{-16}

tested, particularly for aging mechanisms. This is a conservative assumption, but since the piping failure rate is so small, its failure probability has little overall effect. Test and repair times are neglected, which is, in the long run, a reasonable assumption. The tests are not staggered. The test and repair effects are therefore neglected in the example, and only the hardware contributions are examined.

The remaining data in Table 5.1 are aging parameters for the components. The aging fractions and average exposure times (average ages) are taken from reference [3]. The data apply to pumps and valves in service water systems and are assumed to be applicable for the auxiliary feedwater system. The ASEP failure rates adjusted for the aging contribution, are used as the constant failure rates λ_0 [1], i.e.,

$$(\text{constant failure rate } \lambda_0) = (1 - \text{aging fraction}) \times (\text{total failure rate})$$

The aging acceleration rates (2β) are computed according to the linear aging model [1]:

$$(\text{aging rate}) = \frac{(\text{aging fraction}) \times (\text{total failure rate})}{(\text{average age at failure})}$$

The major aging mechanisms identified for this data, were erosion, wear (on the pumps) and binding (on the valves). Input data for system are shown in Figure 5.4.

Figure 5.4 INPUT DATA FOR AUXILIARY FEEDWATER SYSTEM

 ***** INPUT COMPONENT PARAMETERS *****

COMP NUMB	COMP NAME	FAILURE RATE (PER HR)	TEST INTERVAL (DAYS)	FIRST INTERVAL (DAYS)	TIME FOR TESTING (HRS)	TIME FOR REPAIRS (HRS)	OVERRIDE UNAVAIL	PROB OF TEST-CAUSED FAILURE	TEST INFEFF	UNDETECT FAIL RATE (PER HR)	RESID UNAVAIL	BETA (PER HR*2)	TEST TYP FAC
1	VALVE	6.80E-06	3.00E+01	3.00E+01	0.00E+00	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.90E-12	1.00 2
2	PUMP	4.50E-05	3.00E+01	3.00E+01	0.00E+00	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E-11	1.00 2
3	PIPING	2.50E-11	2.30E+04	2.30E+04	0.00E+00	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-16	1.00 2

CHANGES IN COMPONENT PARAMETERS

COMP. NO. OF CH.

1	0
2	0
3	0

5.3 Results

The FRANTIC 5 OUTPUT for the Auxiliary Feedwater System and data, is given in Appendix 3.

To illustrate a possible use of the code in studying the aging effect, the following cases were run with FRANTIC 5:

1. the system with aging data;
2. the system with constant failure rate, equal to the total failure rate from ASEP data base;
3. the subsystem, based on pump contributions only;
4. the subsystem, based on valve contributions only;
5. the subsystem, based on combined valve and pump contributions;
6. the subsystem, based on piping contributions only.

Results for selected time points (every 5 years) are given in Table 5.2. To illustrate the results, the graphs are plotted on an IBM PC, by transferring data from OUTPUT file.

Figures 5.6 and 5.7 show system unavailability and system mean unavailability versus age of the plant, for two cases:

- the linear aging model,
- the standard PRA calculations, assuming constant failure rates.
(the constant failure rate is equal with the total failure rate, which involves aging fraction of failures)

The system unavailabilities are calculated at the end of a test interval (just before a test), the system mean unavailabilities are calculated in intervals between tests. Both the system unavailability and the system mean unavailability change by a factor of 3. The slow increase in the system unavailabilities with constant failure rates is due to the influence of piping, which is assumed not to be tested.

Figure 5.7 shows Minimal Cut Sets unavailabilities plotted on ln scale, versus time. The figure illustrates the contribution of components to the system unavailability. After 40 years the contribution of piping and valves becomes comparable, despite a very low failure rate for piping. This is due to significant aging effect of piping (no testing).

The increase factor in the system unavailability may seem small, but the combination of effects from different systems can result in a significant increase in core melt frequency. Therefore, the results show that aging, if not detected by testing, and corrected by appropriate maintenance action, can have a significant effect on a plant's performance.

In the evaluation of aging effects, using FRANTIC 5 provides numerous possibilities. In such a simplified case, as in the example given, FRANTIC 5 output gives too many details. In cases where it is necessary to study a system with no negligible test and repair times, or a system with different test effects, or especially a system in which components undergo changes during the plant life (and therefore follow different time scales), FRANTIC 5 is currently the best tool. More specific aging data, would of course improve the accuracy of the code.

Table 5.2 SELECTED RESULTS FOR AUXILIARY FEEDWATER SYSTEM

TIME (YRS)	SYSTEM UNAVAIL. (LINEAR H(t)) BEFORE TEST	SYSTEM UNAVAIL. (CONSTANT H(t)) BEFORE TEST	MCS* UNAVAIL. (PUMPS)	MCS UNAVAIL. (VALVES)	MCS UNAVAIL. (PUMPS & VALVES)	MCS UNAVAIL. (PIPING)	SYSTEM MEAN UNAVAIL. (LINEAR H(t)) BETWEEN TESTS	SYSTEM MEAN UNAVAIL. (CONST. H(t)) BETW. TESTS
0	1.3416E-03	1.6729E-03	1.0173E-03	2.3889E-05	3.1178E-04	1.8187E-08	4.6500E-04	5.8054E-04
5	1.5055E-03	1.6775E-03	1.1317E-03	2.8245E-05	3.5757E-04	1.7924E-06	5.2320E-04	5.8498E-04
10	1.6828E-03	1.6823E-03	1.2539E-03	3.3047E-05	4.0713E-04	4.9737E-06	5.8600E-04	5.8956E-04
15	1.8706E-03	1.6870E-03	1.3822E-03	3.8222E-05	4.5970E-04	9.5438E-06	6.5560E-04	5.9114E-04
20	2.0690E-03	1.6917E-03	1.5165E-03	4.3771E-05	5.1529E-04	1.5503E-05	7.2880E-04	5.9867E-04
25	2.2744E-03	1.6964E-03	1.6545E-03	4.9594E-05	5.7289E-04	2.2719E-05	8.0540E-04	6.0319E-04
30	2.4936E-03	1.7011E-03	1.8006E-03	5.5883E-05	6.3442E-04	3.1432E-05	8.8780E-04	6.0774E-04
35	2.7232E-03	1.7058E-03	1.9525E-03	6.2545E-05	6.9892E-04	4.1535E-05	9.7490E-04	6.1228E-04
40	2.9632E-03	1.7106E-03	2.1104E-03	6.9579E-05	7.6639E-04	5.3026E-05	1.0660E-03	6.1690E-04
45	3.2093E-03	1.7152E-03	2.2713E-03	7.6860E-05	8.3564E-04	6.5683E-05	1.1610E-03	6.2135E-04
50	3.4697E-03	1.7200E-03	2.4407E-03	8.4629E-05	9.0897E-04	7.9929E-05	1.2620E-03	6.2527E-04
55	3.7403E-03	1.7247E-03	2.6159E-03	9.2770E-05	9.8524E-04	9.5563E-05	1.3670E-03	6.3002E-04
60	4.0211E-03	1.7294E-03	2.7967E-03	1.0128E-04	1.0644E-03	1.1259E-04	1.4770E-03	6.3443E-04

*MCS - Minimal Cut Sets

Figure 5.5

SYSTEM UNAVAILABILITY BEFORE TEST

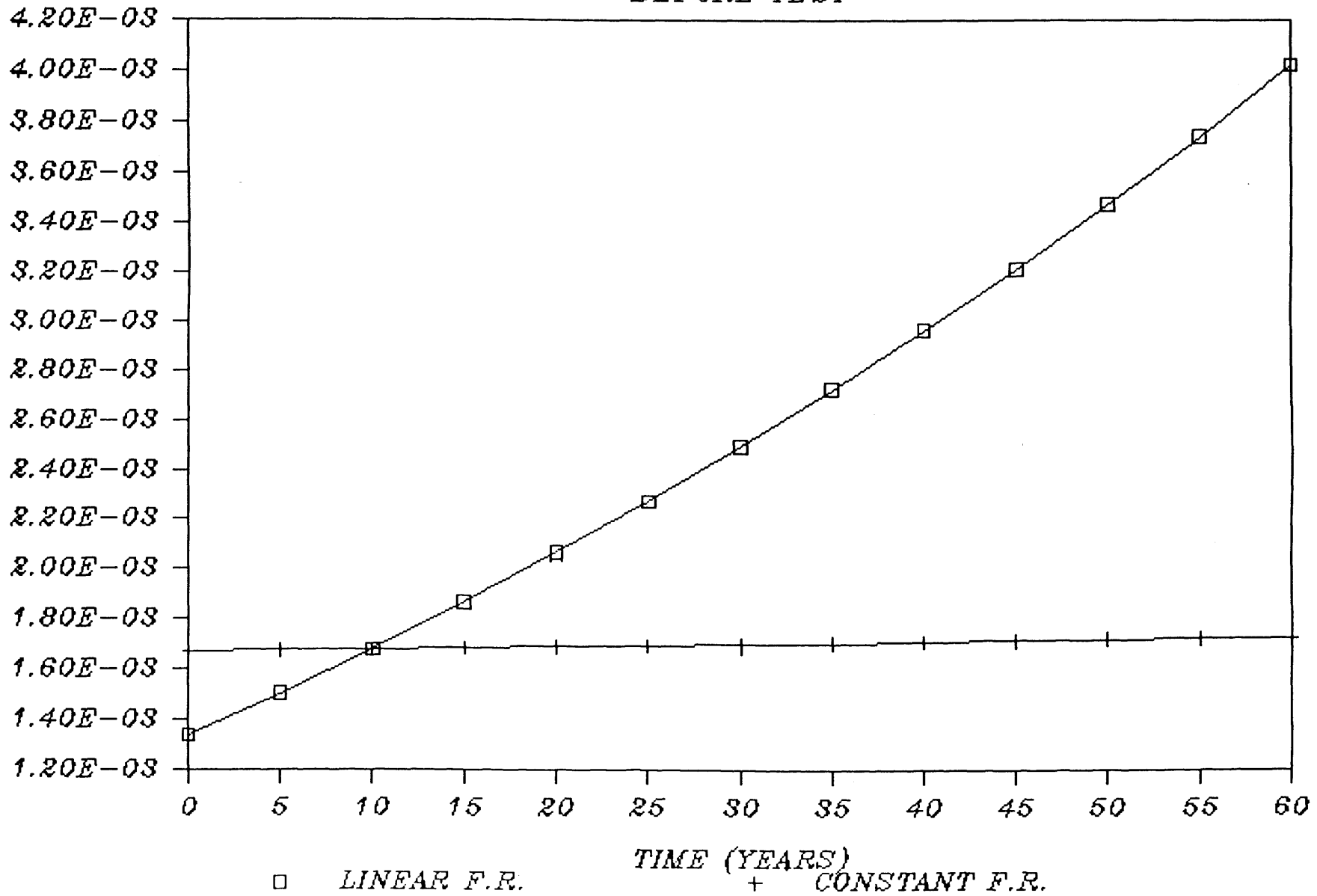


Figure 5.6

SYSTEM MEAN UNAVAILABILITY BETWEEN TESTS

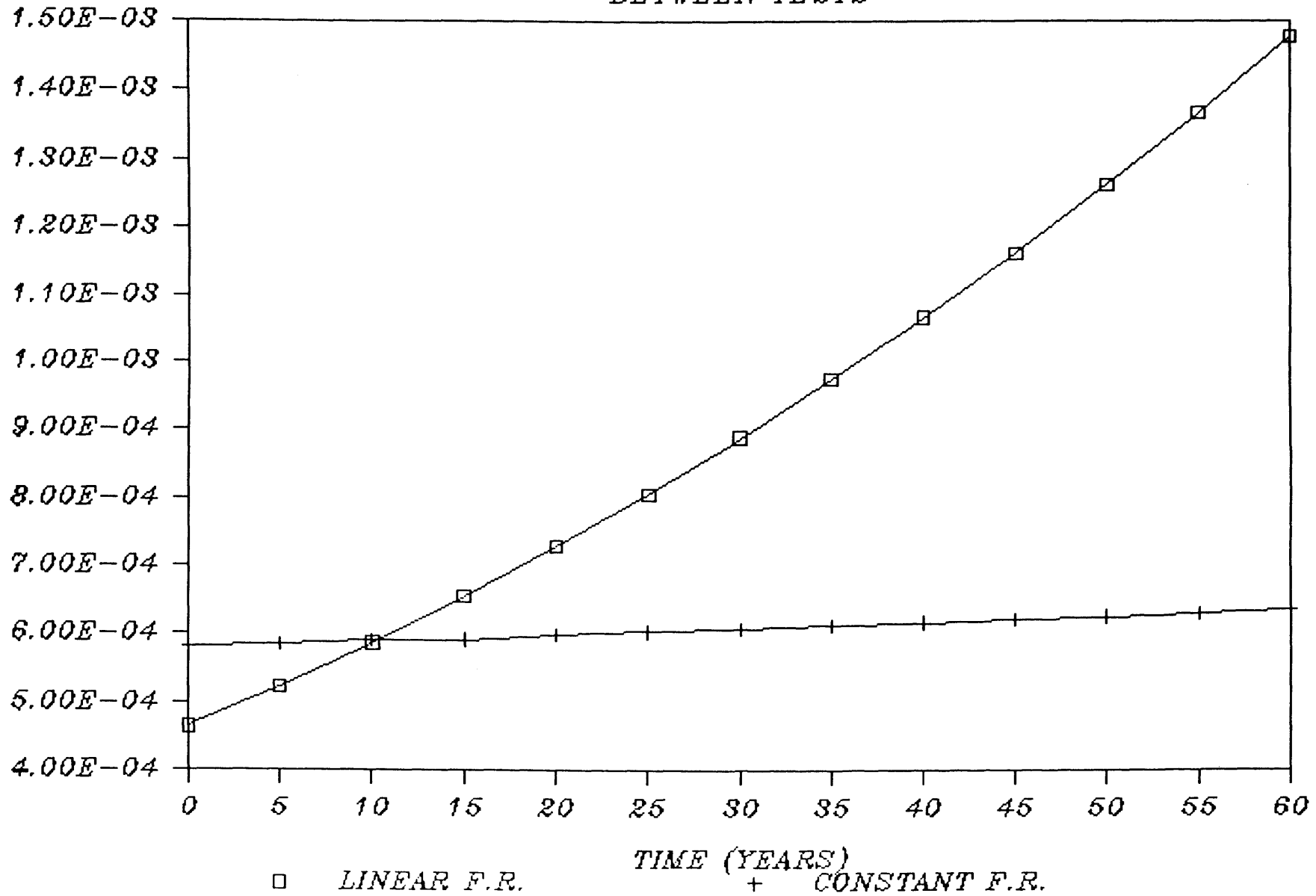
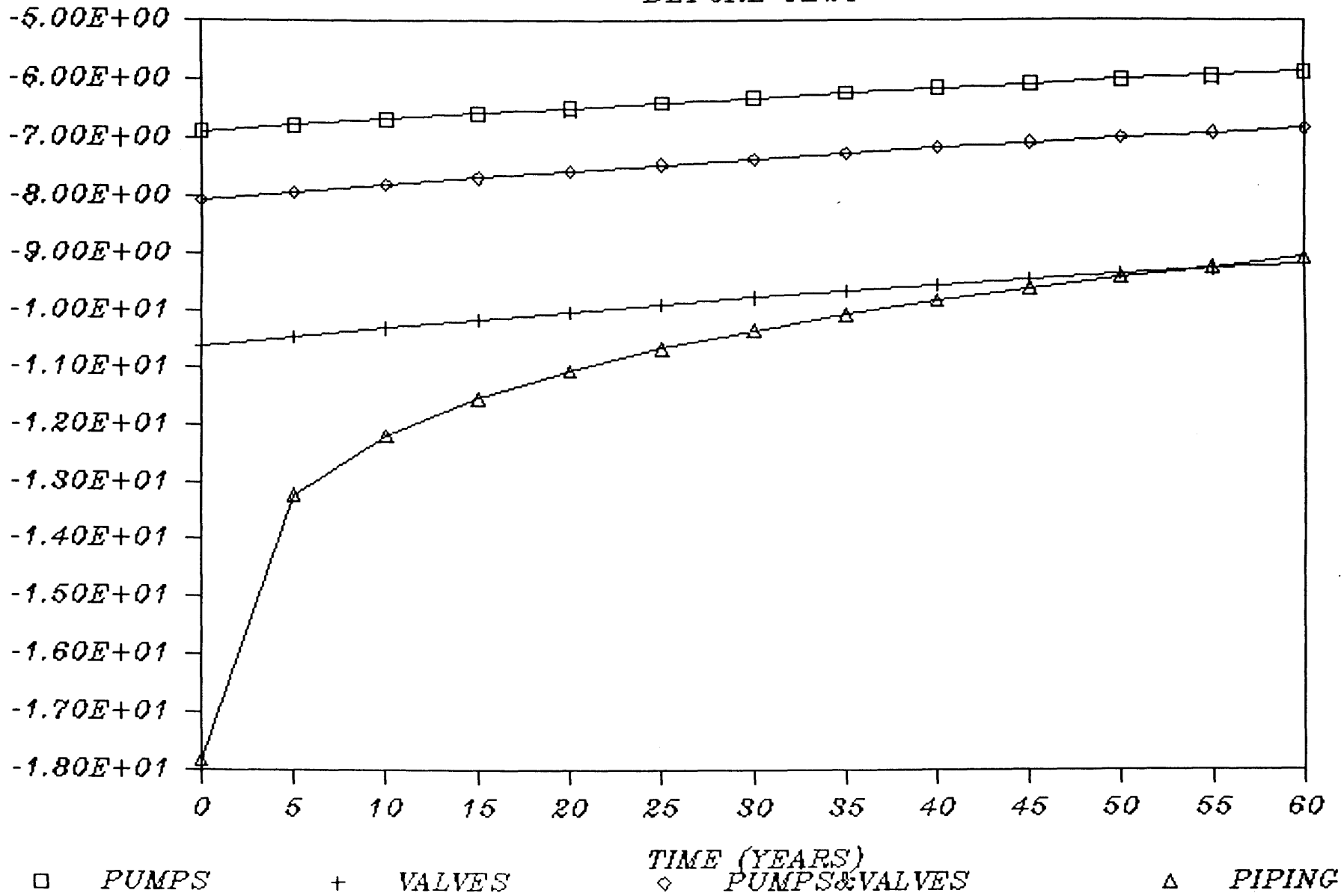


Figure 5.7

MINIMAL CUT SETS UNAVAILABILITIES BEFORE TEST



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APPENDIX I

FRANTIC 5 LISTING

C			FRA00010
C			FRA00020
C			FRA00030
C			FRA00040
C			FRA00050
C			FRA00060
C			FRA00070
C			FRA00080
C			FRA00090
C			FRA00100
C			FRA00110
C			FRA00120
C			FRA00130
C			FRA00140
C			FRA00150
C			FRA00160
C			FRA00170
C			FRA00180
C			FRA00190
C			FRA00200
C			FRA00210
C			FRA00220
C			FRA00230
C			FRA00240
C			FRA00250
C			FRA00260
C			FRA00270
C			FRA00280
C			FRA00290
C			FRA00300
C			FRA00310
C			FRA00320
C			FRA00330
C			FRA00340
C			FRA00350
C			FRA00360
C			FRA00370
C			FRA00380
C			FRA00390
C			FRA00400
C			FRA00410
C			FRA00420
C			FRA00430
C			FRA00440
C			FRA00450
C			FRA00460
C			FRA00470
C			FRA00480
C			FRA00490
C			FRA00500
C			FRA00510
C			FRA00520
C			FRA00530
C			FRA00540
C			FRA00550

C	COMMON	VARIABLE	DESCRIPTION	
C	BLOCK	NAME		
C			DESCRIPTION OF MAJOR VARIABLES	FRA00200
C				FRA00210
C	/HEADER/	TITLE1(22)	HEADING FOR OUTPUT AND PLOTS	FRA00250
C		TITLE2(16)	SUBHEADING FOR PLOTS	FRA00260
C	/IO/	IN	INPUT UNIT NUMBER (SET TO 5)	FRA00270
C		OUT	OUTPUT UNIT NUMBER (SET TO 6)	FRA00280
C		STPRT(4)	STARTING POINTS FOR PRINT INTERVALS (IN DAYS)	FRA00290
C		FINPRT(4)	END POINTS FOR PRINT INTERVALS (IN DAYS)	FRA00300
C		NPRT	NUMBER OF PRINT INTERVALS	FRA00310
C		NPEAK	NUMBER OF PEAKS TO BE PRINTED	FRA00320
C	/QCON/	NTEST(1000)	CURRENT TEST INTERVAL	FRA00330
C		PTCF1(1000)	1.0-PTCF	FRA00340
C		QRES1(1000)	1.0-QRESID	FRA00350
C		QN(1000)	DETECTABLE UNAVAILABILITY AT BEGINNING OF NTH TEST INTERVAL	FRA00360
C		QUN(1000)	UNDETECTABLE UNAVAILABILITY AT BEGINNING OF NTH TEST INTERVAL	FRA00370
C		PK(100,1000)	PROBABILITY OF LAST DETECTABLE FAILURE AT KTH TEST WITH RESPECT TO NTH INTERVAL	FRA00380
C	/QPARAM/	NAME(100)	COMPONENT NAME	FRA00390
C		LAMDA(100)	DETECTABLE CONSTANT FAILURE RATE IN MULTIPLES OF 10**-6 (LAMDA=OLDLAM*(1-INEFF))	FRA00400
C		OLDLAM(100)	INPUT CONSTANT FAILURE RATE IN MULTIPLES OF 10**-6	FRA00410
C		TEST2(100)	LENGTH OF SECOND AND SUBSEQUENT TEST INTERVAL INCLUDING TEST AND REPAIR TIME (INPUT IN DAYS, CONVERTED TO INTEGRAL HOURS BY THE PROGRAM)	FRA00420
C		TEST1(100)	LENGTH OF THE FIRST TEST INTERVAL (INPUT IN DAYS, CONVERTED TO INTEGRAL HOURS BY THE PROGRAM)	FRA00430
C		TAU(100)	AVERAGE TESTING TIME IN HOURS	FRA00440
C		REPAIR(100)	AVERAGE REPAIR TIME IN HOURS	FRA00450

C	QOVRD(100)	UNAVAILABILITY OF THE OVERRIDE CAPABILITY	FRA00560
C	PTCF(100)	PROBABILITY OF TEST-CAUSED FAILURE	FRA00570
C	INEFF(100)	DETECTION INEFFICIENCY (PROBABILITY OF NOT	FRA00580
C		DETECTING A FAILURE)	FRA00590
C	ULAMDA(100)	UNDETECTED CONSTANT FAILURE RATE IN	FRA00600
C		MULTIPLES OF 10**-6 (INPUT OR ULAMDA=	FRA00610
C		OLDLAM*INEFF)	FRA00620
C	QRESID(100)	CONSTANT RESIDUAL UNAVAILABILITY	FRA00630
C	BETA(100)	1/2 OF THE AGING ACCELERATION RATE IN	FRA00640
C		MULTIPLES OF 10**-12	FRA00650
C	FN(100)	MULTIPLICATIVE TEST FACTOR	FRA00660
C	ITYPE(100)	RENEWAL TYPE	FRA00670
C		PERIODICALLY TESTED COMPONENTS	FRA00680
C		ITYPE=1, CASE NN	FRA00690
C		ITYPE=2, CASE OO	FRA00700
C		ITYPE=3, CASE ON	FRA00710
C		MONITORED COMPONENTS	FRA00720
C		ITYPE=1, GOOD AS NEW REPAIR	FRA00730
C		ITYPE=2, GOOD AS OLD REPAIR	FRA00740
C	NCOMP	THE NUMBER OF COMPONENTS INPUT	FRA00750
C	DIFF	EPSILON DIFFERENCE FOR EQUALITY RELATIONS	FRA00760
C		(DIFF=.0001)	FRA00770
C	/QSVALS/ QSYSM(9000)	SYSTEM UNAVAILABILITY AT TIME POINT VALUES	FRA00780
C		MINUS EPSILON (I.E., AT TI(I)-EPSILON)	FRA00790
C	QSYSP(9000)	SYSTEM UNAVAILABILITY AT TIME POINT VALUES	FRA00800
C		PLUS EPSILON (I.E., AT TI(I)+EPSILON)	FRA00810
C	PDUMMY(2000)	DUMMY ARRAY INSERTED TO ALLOW ARRAY TPOINT TO	FRA00820
C		BE EQUIVALENCED TO QYSM AND QSYSP	FRA00830
C	TPOINT(2200)	ARRAY OF POINT NUMBERS CORRESPONDING TO THE	FRA00840
C		VALUES IN ARRAY TPLT AND QPLT (USED FOR MAG	FRA00850
C		PLOTS)	FRA00860
C	/SYSAVG/ QSAVG	AVERAGE SYSTEM UNAVAILABILITY OVER TOTAL TIME	FRA00870
C	QFAVG	AVERAGE SYSTEM UNAVAILABILITY DUE TO FAILURES	FRA00880
C	QTAVG	AVERAGE SYSTEM UNAVAILABILITY DUE TO TESTING	FRA00890
C	QRAVG	AVERAGE SYSTEM UNAVAILABILITY DUE TO REPAIRS	FRA00900
C	ITOPT	UNAVAILABILITY OPTION (0=COMPUTE UNAVAIL DUE	FRA00910
C		TO FAILURES ONLY, 1=COMPUTE UNAVAIL DUES TO	FRA00920
C		FAILURES, TESTING, AND REPAIRS)	FRA00930
C	/TIMDAT/ TI(9000)	TIME POINTS AT WHICH THE COMPONENT AND SYSTEM	FRA00940
C		UNAVAILABILITIES ARE TO BE COMPUTED	FRA00950
C	IAREA(9000)	CODE INDICATING WHETHER AREA FOR TIME INTERVAL	FRA00960
C		IS DUE TO FAILURES, TESTING, OR REPAIRS	FRA00970
C		(1=FAILURES, 2=REPAIRS, 3=TESTING)	FRA00980
C	TEND	VALUE OF THE LAST TIME POINT	FRA00990
C	NTIME	THE NUMBER OF TIME POINTS	FRA01000
C	NEWTIM	SWITCH SET TO 1 WHEN NEW TIME POINTS ARE TO BE	FRA01010
C		COMPUTED	FRA01020
C	TDEL	MAXIMUM TIME IN DAYS BETWEEN INSERTED TIME	FRA01030
C		POINTS FOR SMOOTHING THE ACCURACY OF BETWEEN	FRA01040
C		FAILURE CURVE EVALUATION.	FRA01050
C		DEFAULT - NO TIMES ADDED	FRA01060
C			FRA01070
C	/UPDAT/ LMAX(100)	THE NUMBER OF CHANGES	FRA01080
C	TIMECH(100,20)	THE TIME POINTS AT WHICH CHANGES OCCUR	FRA01090
C	BETACH(100,20)	THE CHANGED BETA IN MULTIPLES OF 10**-12	FRA01100

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C          CLAMDA(100,20) THE CHANGED LAMDA IN MULTIPLES OF 10**-6      FRAO1110
C          FRAO1120
C /AVTEST/ T          THE NUMBER OF A TEST INTERVAL                      FRAO1130
C          TMAX        THE TOTAL NUMBER OF TEST INTERVALS                FRAO1140
C          TIT(1000)   THE TIME POINT IN WICH A TEST IS PERFORMED        FRAO1150
C          TBT(1000)   THE TIME BETWEEN TWO TESTS                        FRAO1160
C          QCUT(1000)  THE CUMULATIVE UNAVAILABILITY BETWEEN TWO TEST    FRAO1170
C          QAVT(1000)  THE AVERAGE UNAVAILABILITY BETWEEN TWO TESTS     FRAO1180
C          FRAO1190
C          COMMON /IO/ IN, OUT                                           FRAO1200
C          COMMON /HEADER/ TITLE1(22),TITLE2(16)                         FRAO1210
C          COMMON /OUTIMS/ STPRT(4),FINPRT(4),NPRT,NPEAK                 FRAO1220
C          COMMON /TIMDAT/ TI(9000),IAREA(9000),TEND,NTIME,NEWTIM,TDEL    FRAO1230
C          COMMON /SYSAVG/ QSAVG,QFAVG,QTAVG,QRAVG,ITOPT                  FRAO1240
C          COMMON /UPDAT/ LMAX(100),TIMECH(100,20),BETACH(100,20),       FRAO1250
1          CLAMDA(100,20)                                               FRAO1260
C          COMMON /AVTEST/ T,TMAX,TIT(1000),TBT(1000),QCUT(1000),      FRAO1270
1          QAVT(1000)                                                  FRAO1280
C          INTEGER OUT                                                  FRAO1290
C          FRAO1300
C          DATA ATITLE,ACOMP,ATIME,ARUN,APlot,APRINT                    FRAO1310
1          /4HTITL,4HCOMP,4HTIME,3HRUN,4HPLOT,4HPRIN/                  FRAO1320
C          DATA ADOLLR,BLANK,ANONE,ABOTH,ALIN,ALOG,AFAIL,ATOTL          FRAO1330
1          /1H$,1H ,4HNONE,4HBTOT,3HLIN,3HLOG,4HFALL,4HTOTL/          FRAO1340
C          FRAO1350
C          TITLE1(22)=ADOLLR                                             FRAO1360
C          TITLE2(16)=ADOLLR                                             FRAO1370
C          TITLE1(1)=ADOLLR                                              FRAO1380
C          TITLE2(1)=ADOLLR                                              FRAO1390
C          FRAO1400
C SET DEFAULT VALUES                                                  FRAO1410
C          TEND=0.0                                                       FRAO1420
C          NEWTIM=1                                                       FRAO1430
C          NPRT=0                                                         FRAO1440
C          NPEAK=12                                                       FRAO1450
C          FRAO1460
C          IN=5                                                           FRAO1470
C          OUT = 6                                                         FRAO1480
C          FRAO1490
C READ DATA GROUP KEYWORD CARD                                       FRAO1500
1 READ(IN,800,END=60) ANAME                                             FRAO1510
C          FRAO1520
C TEST FOR TITLE KEYWORD CARD                                         FRAO1530
C          IF(ANAME.NE.ATITLE) GO TO 10                                   FRAO1540
C          READ(IN,805) (TITLE1(I),I=2,21)                               FRAO1550
C          GO TO 1                                                         FRAO1560
C          FRAO1570
C TEST FOR COMPONENTS KEYWORD CARD                                     FRAO1580
10 IF(ANAME.NE.ACOMP) GO TO 20                                           FRAO1590
C CALL COMPON TO READ THE COMPONENTS DATA GROUP                       FRAO1600
C          CALL COMPON                                                  FRAO1610
C          GO TO 1                                                         FRAO1620
C          FRAO1630
C TEST FOR TIME KEYWORD CARD                                           FRAO1640
20 IF(ANAME.NE.ATIME) GO TO 21                                           FRAO1650

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C READ TOTAL TIME PERIOD FOR COMPUTATIONS          FRAO1660
  READ(IN,820) TEND,TDEL                            FRAO1670
C CONVERT TO INTEGRAL HOURS                        FRAO1680
  TEND=INT(TEND*24.0+0.5)                          FRAO1690
  NEWTIM=1                                          FRAO1700
  TDEL = INT(TDEL*24.0 + 0.5)                     FRAO1710
  GO TO 1                                           FRAO1720
C                                                  FRAO1730
C TEST FOR PRINT KEYWORD CARD                    FRAO1740
  21 IF(ANAME.NE.APRINT) GO TO 30                 FRAO1750
C READ NUMBER OF PRINT INTERVALS, NUMBER OF PEAKS TO BE PRINTED FRAO1760
  READ(IN,815) NPRT,NPEAK                         FRAO1770
  IF(NPEAK.EQ.0) NPEAK=12                        FRAO1780
  IF(NPRT.LE.0) GO TO 1                          FRAO1790
C READ START AND END OF INTERVALS                FRAO1800
  READ(IN,820) (STPRT(I),FINPRT(I),I=1,NPRT)     FRAO1810
  GO TO 1                                           FRAO1820
C                                                  FRAO1830
C TEST FOR RUN KEYWORD CARD                      FRAO1840
  30 IF(ANAME.NE.ARUN) GO TO 40                  FRAO1850
C IF NEW TIME POINTS ARE TO BE COMPUTED, CALL TIMES FRAO1860
  IF(NEWTIM.EQ.1) CALL TIMES                     FRAO1870
C                                                  FRAO1880
C READ RUN DATA CARD                            FRAO1890
  31 READ(IN,810) NSYS,QOPT,XOPT,YOPT,ICUTOP,(TITLE2(I),I=2,15) FRAO1900
C                                                  FRAO1910
C TEST FOR LAST RUN CARD                        FRAO1920
  IF(NSYS.LE.0) GO TO 1                          FRAO1930
C                                                  FRAO1940
C SET DEFAULT UNAVAILABILITY OPTION             FRAO1950
  ITOPT=0                                         FRAO1960
  IF(QOPT.EQ.BLANK) QOPT=ATOTL                   FRAO1970
  IF(QOPT.EQ.ATOTL) ITOPT=1                      FRAO1980
C                                                  FRAO1990
C CALL QCOMP TO COMPUTE COMPONENT AND SYSTEM UNAVAILABILITIES AT EACH FRAO2000
C TIME POINT                                     FRAO2010
  CALL QCOMP(NSYS,ITOPT)                         FRAO2020
C                                                  FRAO2030
C CALL AVERAG TO COMPUTE AVERAGE SYSTEM UNAVAILABILITY OVER TOTAL FRAO2040
C TIME PERIOD                                    FRAO2050
  CALL AVERAG                                    FRAO2060
C                                                  FRAO2070
C PRINT RUN OPTIONS                              FRAO2080
  44 WRITE(OUT,905) (TITLE1(I),I=2,21)          FRAO2090
  WRITE(OUT,910) (TITLE2(I),I=2,15),NSYS,QOPT,XOPT,YOPT,ICUTOP FRAO2100
C                                                  FRAO2110
C PRINT AVERAGE SYSTEM UNAVAILABILITIES         FRAO2120
  TOTIME=TEND/24.0                               FRAO2130
  WRITE(OUT,915) TOTIME                          FRAO2140
  PF=QFAVG/QSAVG * 100.0                        FRAO2150
  PT=QTAVG/QSAVG * 100.0                       FRAO2160
  PR=QRAVG/QSAVG * 100.0                       FRAO2170
  WRITE(OUT,916) QSAVG,QFAVG,PF,QTAVG,PT,QRAVG,PR FRAO2180
C                                                  FRAO2190
C CALL QPRINT TO PRINT SYSTEM UNAVAILABILITIES AT PEAKS AND OVER FRAO2200
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C	REQUESTED INTERVALS (IF ANY)	FRA02210
	CALL QPRINT	FRA02220
	GO TO 60	FRA02230
C		FRA02240
C	ILLEGAL KEYWORD CARD	FRA02250
	40 WRITE(OUT,900) ANAME	FRA02260
C		FRA02270
C	NORMAL RUN TERMINATION ON END OF FILE	FRA02280
	60 WRITE(OUT,920)	FRA02290
C		FRA02300
	STOP	FRA02310
C		FRA02320
C		FRA02330
	800 FORMAT(A4)	FRA02340
	805 FORMAT(20A4)	FRA02350
	810 FORMAT(I3,1X,3(A4,1X),I4,1X,14A4)	FRA02360
	815 FORMAT(2I5)	FRA02370
	820 FORMAT(8F10.0)	FRA02380
	900 FORMAT('O',A4,' - ILLEGAL DATA GROUP NAME. RUN ABORTED')	FRA02390
	905 FORMAT('1',T30,20A4,/,	FRA02400
	1 T40,'-----',/,	FRA02410
	1 T40,'***** SYSTEM UNAVAILABILITY DATA *****',/,	FRA02420
	1 T40,'-----',/,	FRA02430
	1 1X,12(' '),/,1X,'RUN OPTIONS:',/,1X,12(' '),/,T16,'SYSTEM',T58,	FRA02440
	2 'EQUATION UNAVAIL. PLOT OPTIONS CUTOFF',/,	FRA02450
	3 T14,'DESCRIPTION',T59,'NUMBER OPTION X Y OPTION'	FRA02460
	4',/)	FRA02470
	910 FORMAT(13X,14A4,T58,I5,7X,A4,7X,A4,2X,A4,6X,I3)	FRA02480
	915 FORMAT(///,1X,59(' '),/,1X,'SYSTEM MEAN UNAVAILABILITIES BETWEEN',	FRA02490
	1 ' ZERO AND ',F8.2,' DAYS:',/,1X,59(' '),/,	FRA02500
	1 1X,' TOTAL ',3(' UNAVAIL = OF'),	FRA02510
	2 /,1X,' MEAN',T12,3(' DUE TO TOTAL'),	FRA02520
	3 /,1X,' UNAVAIL',T17,'FAILURES',T40,'TESTING',T62,'REPAIRS',/)	FRA02530
	916 FORMAT(1X,1PE11.3,3(1X,1PE12.3,OPF8.2,1X))	FRA02540
	920 FORMAT(///,18(' '),/,1X,'END OF FRANTIC RUN',/,1X,18(' '))	FRA02550
C		FRA02560
	END	FRA02570
	SUBROUTINE COMPON	FRA02580
C		FRA02590
	COMMON /IO/ IN, OUT	FRA02600
	COMMON /HEADER/ TITLE1(22),TITLE2(16)	FRA02610
	COMMON /QPARAM/ NAME(100),LAMDA(100),OLDLAM(100),TEST2(100),	FRA02620
	1 TEST1(100),TAU(100),REPAIR(100),QOVRD(100),	FRA02630
	2 PTCF(100),INEFF(100),ULAMDA(100),QRESID(100),	FRA02640
	3 BETA(100),FN(100),ITYPE(100),NCOMP,DIFF	FRA02650
	COMMON /UPDAT/ LMAX(100),TIMECH(100,20),BETACH(100,20),	FRA02660
	1 CLAMDA(100,20)	FRA02670
	INTEGER OUT	FRA02680
	REAL LAMDA,INEFF	FRA02690
	DOUBLE PRECISION NAME,TNAME,BLANKS	FRA02700
	COMMON /TIMDAT/ TI(9000),IAREA(9000),TEND,NTIME,NEWTIM,TDEL	FRA02710
C		FRA02720
	DATA AUPDAT/4HUPDA/, BLANKS/1H /	FRA02730
C		FRA02740
C		FRA02750


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40 NCOMP=NCOMP+1
GO TO 1
C
C
C READ IN CHANGES IN THE COMPONENT PARAMETERS
C
45 NCOMP=1
46 READ(IN,914) INDC,LMAX(NCOMP)
C
C TEST FOR END OF COMPONENTS INDICATOR(INDC=-1)
IF(INDC.GE.O)GO TO 49
NCOMP=NCOMP-1
GO TO 400
C
C TEST FOR ERRONEUS INDEX NUMBER
49 IF (INDC.NE.NCOMP) WRITE(OUT,900) INDC,NCOMP
C
IF(LMAX(NCOMP).EQ.O)GO TO 47
READ(IN,916) (TIMECH(NCOMP,L),L=1,LMAX(NCOMP))
READ(IN,915) (BETACH(NCOMP,L),L=1,LMAX(NCOMP))
READ(IN,915) (CLAMDA(NCOMP,L),L=1,LMAX(NCOMP))
C
C
C MULTIPLY BETACH AND CLAMDA
DO 50 L=1,LMAX(NCOMP)
CLAMDA(NCOMP,L)=CLAMDA(NCOMP,L)*1.OE-6
BETACH(NCOMP,L)=BETACH(NCOMP,L)*1.OE-12
50 CONTINUE
47 NCOMP=NCOMP+1
GO TO 46
C
C PRINT CHANGES IN COMPONENT PARAMETERS
400 WRITE(OUT,918)
DO 43 J=1,NCOMP
WRITE(OUT,914) J,LMAX(J)
IF(LMAX(J).EQ.O)GO TO 43
WRITE(OUT,919)
WRITE(OUT,926) (TIMECH(J,L),L=1,LMAX(J))
WRITE(OUT,920)
WRITE(OUT,925) (BETACH(J,L),L=1,LMAX(J))
WRITE(OUT,921)
WRITE(OUT,925) (CLAMDA(J,L),L=1,LMAX(J))
43 CONTINUE
C
RETURN
C
800 FORMAT(A4)
805 FORMAT(I3,A8,E6.1,6F6.0,F5.0,E6.1,F6.0,E6.1,F3.2,I1)
900 FORMAT('O','WARNING - ERROR IN INDEX NUMBER MAY CAUSE ERRORS IN',
1 ' UPDATE CARDS. INDEX GIVEN =',I4,', INDEX ASSIGNED =',I4)
905 FORMAT('1',T30,20A4,/,
1 T45,'-----',/,1X,
1 T45,'***** INPUT COMPONENT PARAMETERS *****',/,1X,
1 T45,'-----',///,
2' COMP COMP FAILURE TEST FIRST TIME FOR TIME FOR',FRA03310
FRA03320
FRA03330
FRA03340
FRA03350
FRA03360
FRA03370
FRA03380
FRA03390
FRA03400
FRA03410
FRA03420
FRA03430
FRA03440
FRA03450
FRA03460
FRA03470
FRA03480
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FRA03700
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FRA03770
FRA03780
FRA03790
FRA03800
FRA03810
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FRA03830
FRA03840
FRA03850

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3' OVERRIDE PROB OF TEST UNDETECT RESID BETA ', FRAO3860
4'TEST TYP',/, ' NUMB NAME RATE INTERVAL INTERVAL ', FRAO3870
5'TESTING REPAIRS UNAVAIL TEST-CAUSED INEFF FAIL RATE ', FRAO3880
6'UNAVAIL', 12X, 'FAC',/, 15X, '(PER HR) (DAYS) (DAYS) (HRS) ', FRAO3890
7' (HRS)', 15X, 'FAILURE', 13X, '(PER HR)', 12X, '(PER HR*2)',/, FRAO3900
910 FORMAT(I3, 1X, A8, 1X, 11(2X, 1PE8.2), OP1F6.2, I2) FRAO3910
914 FORMAT(I6, I6) FRAO3920
915 FORMAT(1OE8.2) FRAO3930
916 FORMAT(1OF8.O) FRAO3940
918 FORMAT(//, 1X, 'CHANGES IN COMPONENT PARAMETERS', // FRAO3950
1, 1X, 'COMP. NO.OF CH.', /) FRAO3960
919 FORMAT(T5, 'TIMES IN WHICH CHANGES OCCURS (HRS)') FRAO3970
920 FORMAT(T5, 'CHANGES IN BETA (1/HR**2)') FRAO3980
921 FORMAT(T5, 'CHANGES IN LAMDA (1/HR)') FRAO3990
925 FORMAT(1P8E10.2) FRAO4000
926 FORMAT(8F10.O) FRAO4010
C FRAO4020
END FRAO4030
SUBROUTINE TIMES FRAO4040
C FRAO4050
COMMON /IO/ IN, OUT FRAO4060
COMMON /HEADER/ TITLE1(22), TITLE2(16) FRAO4070
COMMON /TIMDAT/ TI(9000), IAREA(9000), TEND, NTIME, NEWTIM, TDEL FRAO4080
LOGICAL ITRUE FRAO4090
COMMON /QPARAM/ NAME(100), LAMDA(100), OLDLAM(100), TEST2(100), FRAO4100
1 TEST1(100), TAU(100), REPAIR(100), QOVRD(100), FRAO4110
2 PTCF(100), INEFF(100), ULAMDA(100), QRESID(100), FRAO4120
3 BETA(100), FN(100), ITYPE(100), NCOMP, DIFF FRAO4130
COMMON /UPDAT/ LMAX(100), TIMECH(100, 20), BETACH(100, 20), FRAO4140
1 CLAMDA(100, 20) FRAO4150
INTEGER OUT FRAO4160
REAL LAMDA, INEFF FRAO4170
DOUBLE PRECISION NAME, TNAME, BLANKS, TNEXT, TMIN, EPSILN FRAO4180
DIMENSION TNEXT(100), ICODE(100) FRAO4190
LOGICAL USE(100) FRAO4200
C FRAO4210
DATA EPSILN /.01/ FRAO4220
C FRAO4230
C FRAO4240
C SUBROUTINE TIMES SETS THE TIME POINTS AT WHICH THE COMPONENT AND FRAO4250
C SYSTEM UNAVAILABILITIES WILL BE COMPUTED FRAO4260
C FRAO4270
C FRAO4280
C FRAO4290
C FRAO4300
C FRAO4310
C SET DEFAULT TIME PERIOD = 1 YR FRAO4320
IF(ABS(TEND).LE.DIFF) TEND=8760.O FRAO4330
USE(1)=.TRUE. FRAO4340
IF(ABS(TEST2(1)).LE.DIFF) USE(1)=.FALSE. FRAO4350
TNEXT(1)=DBLE(TEST1(1)) FRAO4360
ICODE(1)=1 FRAO4370
ITRUE=.TRUE. FRAO4380
IF(TEST2(1).GE.DIFF)ITRUE=.FALSE. FRAO4390
IF(NCOMP.EQ.1) GO TO 38 FRAO4400
C

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```
C FLAG COMPONENTS WHICH WILL NOT BE USED IN COMPUTING THE TIME FRA04410
C POINTS (I.E., MONITORED COMPONENTS, COMPONENTS WITH THE SAME FRA04420
C TEST INTERVAL, TAU, AND REPAIR TIME AS ANOTHER COMPONENT) FRA04430
DO 31 I=2,NCOMP FRA04440
IF(ABS(TEST2(I)).GE.DIFF) GO TO 32 FRA04450
USE(I)=.FALSE. FRA04460
GO TO 31 FRA04470
32 I1=I-1 FRA04480
DO 35 J=1,I1 FRA04490
IF(.NOT.USE(J)) GO TO 35 FRA04500
IF(ABS(TEST2(I)-TEST2(J)).GE.DIFF) GO TO 35 FRA04510
IF(ABS(TEST1(I)-TEST1(J)).GE.DIFF) GO TO 35 FRA04520
IF(ABS(TAU(I)).LE.DIFF .AND. ABS(REPAIR(I)).LE.DIFF) GO TO 34 FRA04530
IF(ABS(TAU(I)-TAU(J)).GE.DIFF) GO TO 35 FRA04540
IF(ABS(REPAIR(I)-REPAIR(J)).GE.DIFF .AND. ABS(REPAIR(I))
1.GE.DIFF) GO TO 35 FRA04550
34 USE(I)=.FALSE. FRA04560
GO TO 31 FRA04570
35 CONTINUE FRA04580
USE(I)=.TRUE. FRA04590
ITRUE = .FALSE. FRA04600
TNEXT(I)=DBLE(TEST1(I)) FRA04610
ICODE(I)=1 FRA04620
31 CONTINUE FRA04630
C FRA04640
C COMPUTE AND MERGE TIME POINTS NEEDED FOR ALL COMPONENTS. FRA04650
C AS POINTS ARE COMPUTED, THEY ARE STORED IN ORDER IN ARRAY TI. FRA04660
C TI(NTIME) CONTAINS THE LAST POINT STORED. TNEXT(I) CONTAINS FRA04670
C THE NEXT TIME POINT FOR THE ITH COMPONENT. ICODE(I) TELLS FRA04680
C WHAT INCREMENT SHOULD BE ADDED TO TNEXT TO GET THE NEXT TIME FRA04690
C POINT FOR THE ITH COMPONENT. FRA04700
38 NTIME=1 FRA04710
TI(NTIME)=0.0 FRA04720
IAREA(NTIME)=1 FRA04730
C IF ALL COMPONENTS ARE MONITORED/NON-REPAIRABLE/CONSTANT UNAVAILABLE FRA04740
C IF(ITRUE) GO TO 49 FRA04750
C FRA04760
39 TMIN=DBLE(TEND) FRA04770
NTIM1=NTIME+1 FRA04780
IAREA(NTIM1)=0 FRA04790
C FRA04800
DO 40 I=1,NCOMP FRA04810
IF(.NOT.USE(I)) GO TO 40 FRA04820
IF(TNEXT(I).GT.DBLE(TI(NTIME))+EPSILN) GO TO 43 FRA04830
C FRA04840
C COMPUTE NEXT POINT FOR COMPONENT I FRA04850
41 IF(ICODE(I)-2) 46,44,48 FRA04860
44 TNEXT(I)=TNEXT(I)-DBLE(TAU(I))-DBLE(REPAIR(I))+DBLE(TEST2(I)) FRA04870
ICODE(I)=1 FRA04880
GO TO 42 FRA04890
C FRA04900
46 IF(ABS(TAU(I)).LE.DIFF) GO TO 48 FRA04910
TNEXT(I)=TNEXT(I)+DBLE(TAU(I)) FRA04920
ICODE(I)=3 FRA04930
GO TO 42 FRA04940
C FRA04950
```

```
C
48 IF(ABS(REPAIR(I)).LE.DIFF) GO TO 44
   TNEXT(I)=TNEXT(I)+DBLE(REPAIR(I))
   ICODE(I)=2
C
C CHECK FOR END OF TIME PERIOD
C STOP GENERATING POINTS FOR THIS COMPONENT AFTER END OF TIME
C PERIOD IS REACHED.
42 IF(TNEXT(I).LE.DBLE(TEND)) GO TO 43
   USE(I)=.FALSE.
   GO TO 40
C
C CHOOSE MINIMUM TIME POINT FROM ARRAY TNEXT
43 IF(TNEXT(I).LT.TMIN) TMIN=TNEXT(I)
   IF(DABS(TNEXT(I)-TMIN).LE.DIFF.AND.ICODE(I).GT.
   IAREA(NTIM1)) IAREA(NTIM1)=ICODE(I)
40 CONTINUE
C
   IF(TMIN.GE.DBLE(TEND)) GO TO 50
   IF(NTIME.EQ.1000) GO TO 65
C
C STORE NEXT SMALLEST TIME POINT IN ARRAY TI
   NTIME=NTIME+1
   TI(NTIME)=TMIN
   GO TO 39
C
C ALL COMPONENTS ARE MONITORED/NON-REPAIRABLE/CONSTANT UNAVAILABLE
49 NTIME=2
   TI(NTIME)=TEND
C
50 IF(TI(NTIME).GE.TEND) GO TO 55
   IF(NTIME.EQ.9000) GO TO 65
   NTIME=NTIME+1
   TI(NTIME)=TEND
C
C PRINT NUMBER OF TIME POINTS, LAST TIME POINT
55 WRITE(OUT,925) NTIME,TEND
C
C ADD BETWEEN FAILURE CURVE SMOOTHING TIMES.
60 IF(TDEL .EQ. 0.0) GO TO 690
C
C SHIFT TIMES AND AREA INDICATORS IN PREPARATION FOR INSERTING
C SMOOTHING TIMES.
   NT=NTIME+1
   DO 605 I=1,NTIME
   TI(9001-I)=TI(NT-I)
605 IAREA(9001-I)=IAREA(NT-I)
C
C JT = THE ARRAY POSITION INTO WHICH COMPONENT/SMOOTHING TIMES
C ARE PLACED WHEN PACKED.
C
C KT = THE ARRAY POSITION OF THE NEXT COMPONENT TIME OF INTEREST.
   JT = 1
   NT=NTIME-1
   KT = 9001-NTIME
   ICOUNT = 0
   ITM = 9000-NTIME
C
C REPACK COMPONENT TIMES AND ADD SMOOTHING TIMES IN SEQUENCE.
   DO 650 I=1,NT
C
C COMPUTE THE NUMBER OF SMOOTHING TIMES TO ADD AND ADD THEM.
```

```
FRA04960
FRA04970
FRA04980
FRA04990
FRA05000
FRA05010
FRA05020
FRA05030
FRA05040
FRA05050
FRA05060
FRA05070
FRA05080
FRA05090
FRA05100
FRA05110
FRA05120
FRA05130
FRA05140
FRA05150
FRA05160
FRA05170
FRA05180
FRA05190
FRA05200
FRA05210
FRA05220
FRA05230
FRA05240
FRA05250
FRA05260
FRA05270
FRA05280
FRA05290
FRA05300
FRA05310
FRA05320
FRA05330
FRA05340
FRA05350
FRA05360
FRA05370
FRA05380
FRA05390
FRA05400
FRA05410
FRA05420
FRA05430
FRA05440
FRA05450
FRA05460
FRA05470
FRA05480
FRA05490
FRA05500
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N=INT((TI(KT+I)-TI(JT))/TDEL)
IF(N.EQ.0) GO TO 640
TT=INT((TI(KT+I)-TI(JT))/(N+1))
DO 630 K=1,N
ICOUNT = ICOUNT + 1
IF(ICOUNT.GT.ITM) GO TO 66
JT=JT+1
TI(JT)=TI(JT-1)+TT
630 IAREA(JT)=IAREA(KT+I)
C PACK THE COMPONENT TIME.
640 JT=JT+1
TI(JT)=TI(KT+I)
IAREA(JT)=IAREA(KT+I)
NTIME=JT
650 CONTINUE
690 WRITE(OUT,645) TDEL,NTIME
645 FORMAT(10X,'SMOOTHING TIMES INSERTED WITH TDEL = ',F10.3/
1 10X,'TOTAL NUMBER OF POINTS NOW = ',I12/)
RETURN
C
C TOO MANY POINTS
65 TEND=TI(NTIME)
WRITE(OUT,930) TEND
GO TO 60
C NOTIFY USER OF FILLED ARRAY OF SMOOTHING TIMES AND TRUNCATED RUN
C TIME.
66 NTIME = JT
TEND = TI(JT)
WRITE(OUT,660) TEND
660 FORMAT(10,' THE MAXIMUM NUMBER OF SMOOTHING TIMES HAS BEEN INSERTED.
1ED. '/1X,'THE RUN DURATION HAS BEEN TRUNCATED TO A TOTAL TIME PERIOD
2D IN HOURS = ',F12.3)
GO TO 690
C
C
800 FORMAT(2I5,2F10.0)
805 FORMAT(8F10.0)
905 FORMAT('1',T30,20A4,/,
1 T40,'-----',/,
1 T40,'***** TIME POINT DATA *****',/,
1 T40,'-----',/)
925 FORMAT(/,2X,'THE NUMBER OF POINTS GENERATED =',I12,
2 /,1X,'TOTAL TIME PERIOD IN HOURS (DEFAULT=1 YR) =',F12.3,/)
930 FORMAT(2X,'THE NUMBER OF TIME POINTS GENERATED EXCEEDS 9000.',
1 /,1X,'THE PROGRAM WILL REDUCE THE NUMBER OF POINTS TO 9000.',
2 /,1X,'TOTAL TIME PERIOD IN HOURS = ',F12.3,/)
C
END
SUBROUTINE QCOMP(NSYS,ITOPT)
C
COMMON /IO/ IN, OUT
COMMON /TIMDAT/ TI(9000),IAREA(9000),TEND,NTIME,NEWTIM,TDEL
INTEGER OUT
COMMON /QSVALS/ QSYSM(9000),QSYSP(9000),PDUMMY(2000)
COMMON /QPARAM/ NAME(100),LAMDA(100),OLDLAM(100),TEST2(100),

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FRA05510
FRA05520
FRA05530
FRA05540
FRA05550
FRA05560
FRA05570
FRA05580
FRA05590
FRA05600
FRA05610
FRA05620
FRA05630
FRA05640
FRA05650
FRA05660
FRA05670
FRA05680
FRA05690
FRA05700
FRA05710
FRA05720
FRA05730
FRA05740
FRA05750
FRA05760
FRA05770
FRA05780
FRA05790
FRA05800
FRA05810
FRA05820
FRA05830
FRA05840
FRA05850
FRA05860
FRA05870
FRA05880
FRA05890
FRA05900
FRA05910
FRA05920
FRA05930
FRA05940
FRA05950
FRA05960
FRA05970
FRA05980
FRA05990
FRA06000
FRA06010
FRA06020
FRA06030
FRA06040
FRA06050

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```
C
C INITIALIZE COMPONENT UNAVAILABILITY
81 QCMINS(J)=0.0
   QCPLUS(J)=0.0
C
   QM=0.0
   TX=TI(I)
   IF(TX.LE.0.0)TX=EPSILN
   IF(LAMDA(J).EQ.0.0)GO TO 38
   GO TO 31
C
C ADD NONREPAIRABLE AND RESIDUAL UNAVAILABILITY CONTRIBUTIONS
C
38 QNR=ULAMDA(J)*TX+BETA(J)*TX**2
   QNR=1.0-EXP(-QNR)
   QCPLUS(J)=QRESID(J)+QRES1(J)*(QM+(1.0-QM)*QNR)
   IF(I.NE.1)QCMINS(J)=QCPLUS(J)
   GO TO 30
C
C
31 TPLUS=TI(I)+EPSILN
   TMINUS=TI(I)-EPSILN
C
C TEST FOR FIRST INTERVAL (NTEST=0)
C IF(TI(I).LE.TEST1(J))GO TO 10
C
   TREL= TMINUS
   TREL= TPLUS
   TREL= TREL-TEST1(J)
   TREL= TREL-IDINT(TREL/TEST)*TEST
   TREL= TREL-TEST1(J)
   TREL= TREL-IDINT(TREL/TEST)*TEST
40 IF(TREL.GT.TAU(J))GO TO 51
   IF(ITOPT.EQ.0)GO TO 60
C
C TEST CONTRIBUTION
C QCMINS(J)=QTEST(J,NTEST(J))
C
   GO TO 60
51 IF(TREL.GT.TAU(J)+REPAIR(J))GO TO 52
   IF(ITOPT.EQ.0)GO TO 60
C
C REPAIR CONTRIBUTION
C QCMINS(J)=QREP(J,NTEST(J))
C
   GO TO 60
C
C HARDWARE (BETWEEN TESTS) FAILURE CONTRIBUTION
52 QCMINS(J)=QOFT(J,NTEST(J),TMINUS)
C
   IF(TREL.GT.EPSILN)GO TO 60
C
C NEW TEST INTERVAL, UPDATE PKS
   NTEST(J)=NTEST(J)+1
```

```
FRA06610
FRA06620
FRA06630
FRA06640
FRA06650
FRA06660
FRA06670
FRA06680
FRA06690
FRA06700
FRA06710
FRA06720
FRA06730
FRA06740
FRA06750
FRA06760
FRA06770
FRA06780
FRA06790
FRA06800
FRA06810
FRA06820
FRA06830
FRA06840
FRA06850
FRA06860
FRA06870
FRA06880
FRA06890
FRA06900
FRA06910
FRA06920
FRA06930
FRA06940
FRA06950
FRA06960
FRA06970
FRA06980
FRA06990
FRA07000
FRA07010
FRA07020
FRA07030
FRA07040
FRA07050
FRA07060
FRA07070
FRA07080
FRA07090
FRA07100
FRA07110
FRA07120
FRA07130
FRA07140
FRA07150
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```
      CALL PNKUP(J,NTEST(J))          FRA07160
C                                     FRA07170
60 IF(TRELP.GT.TAU(J))GO TO 61       FRA07180
   IF(ITOPT.EQ.O)GO TO 30           FRA07190
C                                     FRA07200
C TEST CONTRIBUTION                 FRA07210
   QCPLUS(J)=QTEST(J,NTEST(J))     FRA07220
C                                     FRA07230
   GO TO 30                          FRA07240
61 IF(TRELP.GT.TAU(J)+REPAIR(J))GO TO 250 FRA07250
   IF(ITOPT.EQ.O)GO TO 30           FRA07260
C                                     FRA07270
C REPAIR CONTRIBUTION               FRA07280
   QCPLUS(J)=QREP(J,NTEST(J))     FRA07290
C                                     FRA07300
   GO TO 30                          FRA07310
C                                     FRA07320
C HARDWARE (BETWEEN TESTS) FAILURE CONTRIBUTION FRA07330
62 QCPLUS(J)=QOFT(J,NTEST(J),TPLUS) FRA07340
C                                     FRA07350
   GO TO 30                          FRA07360
C                                     FRA07370
C FIRST INTERVAL CALCULATIONS (NTEST=0) FRA07380
10 IF(TMINUS.LT.O.O)GO TO 11        FRA07390
   QCMINS(J)=QOFT(J,O,TMINUS)      FRA07400
   IF(TI(I).EQ.TEST1(J))GO TO 12   FRA07410
11 QCPLUS(J)=QOFT(J,O,TPLUS)       FRA07420
   GO TO 30                          FRA07430
12 NTEST(J)=NTEST(J)+1            FRA07440
   CALL PNKUP(J,NTEST(J))          FRA07450
   TRELP=TPLUS-TEST1(J)           FRA07460
   GO TO 60                          FRA07470
C                                     FRA07480
C                                     FRA07490
30 CONTINUE                          FRA07500
C                                     FRA07510
C                                     FRA07520
C CALL SYSCOM TO COMPUTE SYSTEM UNAVAILABILITY FROM COMPONENT FRA07530
   UNAVAILABILITIES                FRA07540
   IF(I.EQ.1) GO TO 100            FRA07550
   CALL SYSCOM(QCMINS,QSYSM(I),NSYS) FRA07560
100 CALL SYSCOM(QCPLUS,QSYSP(I),NSYS) FRA07570
C                                     FRA07580
20 CONTINUE                          FRA07590
C                                     FRA07600
   RETURN                          FRA07610
   END                              FRA07620
   SUBROUTINE SYSCOM(QC,QS,NSYS)    FRA07630
C                                     FRA07640
   DIMENSION QC(100)               FRA07650
   DOUBLE PRECISION QC              FRA07660
C                                     FRA07670
   GO TO (1,2,3),NSYS              FRA07680
C AUX FEED SYSTEM                   FRA07690
1 QS=(1.-(1.-QC(3))*(1.-(1.-(1.-QC(1))*(1.-QC(2))*(1.-QC(3))))**2.)) FRA07700
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      RETURN
C     PUMP AND VALVE
      2 QS=(1.-(1.-QC(1))*(1.-QC(2)))**2.
      RETURN
C     PIPING ONLY, COMPONENT 3
      3 QS=(QC(3))
C
      RETURN
      END
      SUBROUTINE AVERAG
C
      COMMON /TIMDAT/ TI(9000), IAREA(9000), TEND, NTIME, NEWTIM, TDEL
      COMMON /SYSAVG/ QSAVG, QFAVG, QTAGV, QRAVG, ITOPT
      COMMON /QSVALS/ QSYSM(9000), QSYSP(9000), PDUMMY(2000)
      COMMON /AVTEST/ T, TMAX, TIT(1000), TBT(1000), QCUT(1000),
      1 QAVT(1000)
C
C     SUBROUTINE AVERAG COMPUTES THE AVERAGE SYSTEM UNAVAILABILITY USING
C     NUMERICAL INTEGRATION
C
      QSAVG=0.0
      QFAVG=0.0
      QTAGV=0.0
      QRAVG=0.0
      T=1.0
      TIT(1)=0.0
      QCUT(1)=0.0
C
C     COMPUTE THE AREA UNDER THE SYSTEM UNAVAILABILITY CURVE USING
C     THE TRAPAZOID RULE
      DO 10 I=2,NTIME
      TEMP=0.5*(TI(I)-TI(I-1))*(QSYSP(I-1)+QSYSM(I))
      QSAVG=QSAVG+TEMP
C
C     BRANCH IF UNAVAILABILITY OPTION = FAIL (FAILURES ONLY)
      IF(ITOPT.EQ.0) GO TO 10
C
C     ACCUMULATE AVG UNAVAILABILITY INCREMENTS DUE TO FAILURES, REPAIRS,
C     AND TESTING
      IF(IAREA(I)-2) 15,16,17
      15 QFAVG=QFAVG+TEMP
C     CALCULATE AVERAGE UNAVAILABILITIES BETWEEN TESTS
      DDIFF=1.0E-5
      IF(QSYSM(I)-QSYSP(I).LE.DDIFF) GO TO 10
      T=T+1
      TIT(T)=TI(I)
      TBT(T)=TIT(T)-TIT(T-1)
      QCUT(T)=QFAVG
      QAVT(T)=(QCUT(T)-QCUT(T-1))/TBT(T)
      GO TO 10
      16 QRAVG=QRAVG+TEMP
      GO TO 10
      17 QTAGV=QTAGV+TEMP

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FRA07710
FRA07720
FRA07730
FRA07740
FRA07750
FRA07760
FRA07770
FRA07780
FRA07790
FRA07800
FRA07810
FRA07820
FRA07830
FRA07840
FRA07850
FRA07860
FRA07870
FRA07880
FRA07890
FRA07900
FRA07910
FRA07920
FRA07930
FRA07940
FRA07950
FRA07960
FRA07970
FRA07980
FRA07990
FRA08000
FRA08010
FRA08020
FRA08030
FRA08040
FRA08050
FRA08060
FRA08070
FRA08080
FRA08090
FRA08100
FRA08110
FRA08120
FRA08130
FRA08140
FRA08150
FRA08160
FRA08170
FRA08180
FRA08190
FRA08200
FRA08210
FRA08220
FRA08230
FRA08240
FRA08250

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10 CONTINUE                                FRA08260
    TMAX=T                                  FRA08270
C                                           FRA08280
C DIVIDE BY THE TOTAL TIME TO GET THE AVERAGE SYSTEM UNAVAILABILITY FRA08290
20 QSAVG=QSAVG/TI(NTIME)                   FRA08300
    IF(ITOPT.EQ.1) GO TO 30                 FRA08310
    QFAVG=QSAVG                             FRA08320
    RETURN                                   FRA08330
C                                           FRA08340
C COMPUTE CONTRIBUTION DUE TO FAILURES, TESTING, AND REPAIRS FRA08350
30 QFAVG=QFAVG/TI(NTIME)                   FRA08360
    QTAVG=QTAVG/TI(NTIME)                  FRA08370
    QRAVG=QRAVG/TI(NTIME)                  FRA08380
C                                           FRA08390
C RETURN                                    FRA08400
    END                                     FRA08410
    SUBROUTINE QPRINT                       FRA08420
C                                           FRA08430
C COMMON /IO/ IN, OUT                      FRA08440
    COMMON /TIMDAT/ TI(9000), IAREA(9000), TEND, NTIME, NEWTIM, TDEL FRA08450
    COMMON /SYSAVG/ QSAVG, QFAVG, QTAVG, QRAVG, ITOPT FRA08460
    COMMON /QSVALS/ QSYSM(9000), QSYSP(9000), PDUMMY(2000) FRA08470
    COMMON /OUTIMS/ STPRT(4), FINPRT(4), NPRT, NPEAK FRA08480
    COMMON /AVTEST/ T, TMAX, TIT(1000), TBT(1000), QCUT(1000), FRA08490
    1 QAVT(1000)                            FRA08500
    INTEGER OUT                             FRA08510
C                                           FRA08520
C DIMENSION IPEAK(100), ARTYPE(3), ASUM(3) FRA08530
    DATA ARTYPE(1)/1H /, ARTYPE(2)/1HR/, ARTYPE(3)/1HT/ FRA08540
C                                           FRA08550
C SUBROUTINE QPRINT PRINTS THE SYSTEM UNAVAILABILITIES AT PEAKS FRA08560
C AND REQUESTED POINTS                     FRA08570
C                                           FRA08580
C                                           FRA08590
C PRINT PEAK SYSTEM UNAVAILABILITIES FRA08600
    WRITE(OUT,900)                          FRA08610
C                                           FRA08620
C                                           FRA08630
C NUMBER OF PEAKS PRINTED = MIN(NUMBER OF PEAKS REQUESTED, NUMBER FRA08640
C OF TIME POINTS RUN, AND THE ALLOWABLE MAXIMUM OF 100) FRA08650
    NPK=MINO(NPEAK,NTIME)                   FRA08660
    NPK=MINO(NPK,100)                       FRA08670
C                                           FRA08680
C FIND THE NPK HIGHEST SYSTEM UNAVAILABILITIES AND STORE THEM IN ARRAY FRA08690
C IPEAK.                                    FRA08700
    DO 50 I=1,NPK                           FRA08710
    QMAX=0.0                                 FRA08720
    DO 60 J=2,NTIME                          FRA08730
    IF(I.EQ.1) GO TO 65                      FRA08740
    I1=I-1                                   FRA08750
    DO 61 K=1,I1                             FRA08760
    IF(IPEAK(K).EQ.J) GO TO 60              FRA08770
61 CONTINUE                                 FRA08780
65 IF(QSYSM(J).LE.QMAX) GO TO 60           FRA08790
    IPEAK(I)=J                              FRA08800
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```
      QMAX=QSYSM(J)
60  CONTINUE
      JPK=IPEAK(I)
      TPKHR=TI(JPK)
      TPKDAY=TPKHR/24.0
C   PRINT THE POINT NUMBER, TIME IN DAYS, TIME IN HRS, AND THE PEAK
      WRITE(OUT,930) JPK,TPKDAY,TPKHR,QSYSM(JPK)
50  CONTINUE
C
C   PRINT SYSTEM UNAVAIL OVER REQUESTED TIME INTERVALS (IF ANY)
      IF(NPRT.EQ.0) RETURN
      IF(NPRT.GT.0) GO TO 69
C
C   PRINT SYSTEM UNAVAIL AT ALL POINTS
      IZERO=0
      TDAYS=TEND/24.0
C   PRINT HEADER
      WRITE(OUT,920) IZERO,TDAYS
      CUMAV=0.0
      DO 62 J=1,NTIME
      HRS=TI(J)
      DAYS=HRS/24.0
      IF(J.NE.1) GO TO 63
      WRITE(OUT,925) J,DAYS,HRS,QSYSP(J)
      GO TO 62
63  CUMI=0.5*(TI(J)-TI(J-1))*(QSYSP(J-1)+QSYSM(J))
      UINC=CUMI/TI(NTIME)
      CUMAV=CUMAV+CUMI
      AVATT=CUMAV/TI(J)
      PERCNT=(UINC/QSAVG)*100.0
      IAREAJ = IAREA(J)
      ATYPE = ARTYPE(IAREAJ)
      IF(ITOPT.EQ.0) ATYPE=ARTYPE(1)
      WRITE(OUT,930) J,DAYS,HRS,QSYSM(J),QSYSP(J),UINC,PERCNT,ATYPE
1   ,AVATT
62  CONTINUE
      RETURN
C
C   PRINT SYSTEM UNAVAIL AT INTERVALS SPECIFIED BY INPUT
69  DO 66 I=1,NPRT
      WRITE(OUT,920) STPRT(I),FINPRT(I)
C   SHR IS STARTING HOUR, FHR IS ENDING HOUR OF THE PRINT INTERVAL
      SHR=STPRT(I)*24.0
      FHR=FINPRT(I)*24.0
C
C   COMPUTE THE AVG SYSTEM UNAVAILABILITY OVER THE INTERVAL.
C   FIND J1 AND J2, THE INDICES OF TIME POINTS DELIMITING THE INTERVAL
      J1=0
      TOTAL=0.0
      DO 75 K=1,3
      ASUM(K)=0.0
75  CONTINUE
      TIMINT=FHR-SHR
      DO 67 J=1,NTIME
      IF(TI(J).LT.SHR) GO TO 67
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FRA08810
FRA08820
FRA08830
FRA08840
FRA08850
FRA08860
FRA08870
FRA08880
FRA08890
FRA08900
FRA08910
FRA08920
FRA08930
FRA08940
FRA08950
FRA08960
FRA08970
FRA08980
FRA08990
FRA09000
FRA09010
FRA09020
FRA09030
FRA09040
FRA09050
FRA09060
FRA09070
FRA09080
FRA09090
FRA09100
FRA09110
FRA09120
FRA09130
FRA09140
FRA09150
FRA09160
FRA09170
FRA09180
FRA09190
FRA09200
FRA09210
FRA09220
FRA09230
FRA09240
FRA09250
FRA09260
FRA09270
FRA09280
FRA09290
FRA09300
FRA09310
FRA09320
FRA09330
FRA09340
FRA09350
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      IF(J1.NE.O) GO TO 64
      J1=J
      GO TO 67
64  IF(TI(J).GT.FHR) GO TO 68
      J2=J
      TOTAL=TOTAL+O.5*(TI(J)-TI(J-1))*(QSYSP(J-1)+QSYSM(J))
67  CONTINUE
68  TOTAL=TOTAL/TIMINT
C
C PRINT DATA ON POINTS BETWEEN J1 AND J2
      CUMAV=O.O
      DO 70 J=J1,J2
      HRS=TI(J)
      DAYS=HRS/24.O
      IF(J.NE.J1) GO TO 80
      WRITE(OUT,925) J,DAYS,HRS,QSYSP(J)
      GO TO 70
80  CUMI=O.5*(TI(J)-TI(J-1))*(QSYSP(J-1)+QSYSM(J))
      UINC=CUMI/(TI(J2)-TI(J1))
      CUMAV=CUMAV+CUMI
      AVATT=CUMAV/(TI(J)-TI(J1))
      PERCNT=(UINC/TOTAL)*100.O
      IATEMP=IAREA(J)
      IF(ITOPT.EQ.O) IATEMP=1
      ATYPE=ARTYPE(IATEMP)
      ASUM(IATEMP)=ASUM(IATEMP)+CUMI/TIMINT
      ATYPE=ARTYPE(IATEMP)
      WRITE(OUT,930) J,DAYS,HRS,QSYSP(J),QSYSP(J),UINC,PERCNT,ATYPE
1   ,AVATT
70  CONTINUE
C
C PRINT MEAN SYSTEM UNAVAILABILITIES OVER THE SPECIFIED TIME INTERVAL
      IF(ITOPT.EQ.O) ASUM(1)=TOTAL
      PF=ASUM(1)/TOTAL * 100.O
      PR=ASUM(2)/TOTAL * 100.O
      PT=ASUM(3)/TOTAL * 100.O
      WRITE(OUT,915)STPRT(I),FINPRT(I)
      WRITE(OUT,916) TOTAL,ASUM(1),PF,ASUM(3),PT,ASUM(2),PR
66  CONTINUE
C
C PRINT AVERAGE UNAVAILABILITIES BETWEEN TESTS
      WRITE(OUT,935)
      DO 90 T=2,TMAX
      WRITE(OUT,940)T-1,TIT(T-1),TIT(T),TBT(T),QAVT(T)
90  CONTINUE
C
      RETURN
C
900 FORMAT(///,1X,29('-'),/,1X,'PEAK SYSTEM UNAVAILABILITIES:',/,1X,
1 29('-'),//,1X,' POINT TIME TIME SYSTEM',/,
2 1X,'NUMBER (DAYS) (HOURS) UNAVAIL',/)
915 FORMAT(///,1X,62('-')/,1X,'SYSTEM MEAN UNAVAILABILITIES BETWEEN ',
1 F7.1,' AND ',F7.1,' DAYS:',/,1X,62('-')//,
1 1X,' TOTAL ',3(' UNAVAIL = OF'),
2 /,1X,' MEAN',T12,3(' DUE TO TOTAL'),

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FRA09360
FRA09370
FRA09380
FRA09390
FRA09400
FRA09410
FRA09420
FRA09430
FRA09440
FRA09450
FRA09460
FRA09470
FRA09480
FRA09490
FRA09500
FRA09510
FRA09520
FRA09530
FRA09540
FRA09550
FRA09560
FRA09570
FRA09580
FRA09590
FRA09600
FRA09610
FRA09620
FRA09630
FRA09640
FRA09650
FRA09660
FRA09670
FRA09680
FRA09690
FRA09700
FRA09710
FRA09720
FRA09730
FRA09740
FRA09750
FRA09760
FRA09770
FRA09780
FRA09790
FRA09800
FRA09810
FRA09820
FRA09830
FRA09840
FRA09850
FRA09860
FRA09870
FRA09880
FRA09890
FRA09900

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3 /,1X,' UNAVAIL',T17,'FAILURES',T40,'TESTING',T62,'REPAIRS',/) FRA09910
916 FORMAT(1X,1PE11.3,3(1X,1PE12.3,OPF8.2,1X)) FRA09920
920 FORMAT(1H1,57('-')/1X,'SYSTEM UNAVAILABILITIES BETWEEN', FRA09930
1 F8.2,' AND ',F8.2,' DAYS:',/,1X,57('-')/,/,1X, FRA09940
1 ' POINT TIME TIME UNAVAIL AT ', FRA09950
2'UNAVAIL AT UNAVAIL. PERCENT OF AREA',4X,'AV.UNAVAIL', FRA09960
3/,1X,'NUMBER',8X,'(DAYS) (HOURS) T-EPSILON T+EPSILON', FRA09970
44X,'INCREMENT TOTAL TYPE',4X,' UP TO T',/) FRA09980
925 FORMAT(1X,I5,3X,1P2E13.4,13X,1PE13.4) FRA09990
930 FORMAT(1X,I5,3X,1P5E13.4,OPF11.4,9X,A1,2X,1P1E13.4) FRA10000
935 FORMAT('1',/,/,,' SYSTEM MEAN UNAVAILABILITIES BETWEEN TESTS', FRA10010
1 ///,1X,'INTR.',1X,'FIRST',3X,'SECOND',2X,'TIME',3X, FRA10020
2'AVERAGE ',/,1X,'NO.',3X,'TEST',4X,'TEST',3X,'BETWEEN', FRA10030
3 1X,'UNAVAILABILITY',/,7X,'TIME',4X,'TIME',4X,'TESTS', FRA10040
4 2X,'BETWEEN',/,7X,'(HRS)',3X,'(HRS)',2X,'TESTS',/) FRA10050
940 FORMAT(F5.0,3F8.0,1P1E13.4) FRA10060
C FRA10070
END FRA10080
FUNCTION QKN(J,K,N,X,Y) FRA10090
C FRA10100
COMMON /QPARAM/ NAME(100),LAMDA(100),OLDLAM(100),TEST2(100), FRA10110
1 TEST1(100),TAU(100),REPAIR(100),QOVRD(100), FRA10120
2 PTCF(100),INEFF(100),ULAMDA(100),QRESID(100), FRA10130
3 BETA(100),FN(100),ITYPE(100),NCOMP,DIFF FRA10140
COMMON /UPDAT/ LMAX(100),TIMECH(100,20),BETACH(100,20), FRA10150
1 CLAMDA(100,20) FRA10160
REAL LAMDA,INEFF FRA10170
DOUBLE PRECISION X,Y,NAME,F FRA10180
XNK=N-K FRA10190
F=FN(J)**XNK*(LAMDA(J)*(X-Y)+BETA(J)*(X**2-Y**2)) FRA10200
QKN=1.0-DEXP(-F) FRA10210
RETURN FRA10220
END FRA10230
FUNCTION QNU(J,N,X) FRA10240
C FRA10250
COMMON /QPARAM/ NAME(100),LAMDA(100),OLDLAM(100),TEST2(100), FRA10260
1 TEST1(100),TAU(100),REPAIR(100),QOVRD(100), FRA10270
2 PTCF(100),INEFF(100),ULAMDA(100),QRESID(100), FRA10280
3 BETA(100),FN(100),ITYPE(100),NCOMP,DIFF FRA10290
COMMON /UPDAT/ LMAX(100),TIMECH(100,20),BETACH(100,20), FRA10300
1 CLAMDA(100,20) FRA10310
REAL LAMDA,INEFF FRA10320
DOUBLE PRECISION X,NAME,F FRA10330
IF(ULAMDA(J).EQ.0.0)GO TO 1 FRA10340
XN=N FRA10350
F=FN(J)**XN*(ULAMDA(J)*X+BETA(J)*X**2) FRA10360
QNU=1.0-DEXP(-F) FRA10370
RETURN FRA10380
1 QNU=0.0 FRA10390
RETURN FRA10400
END FRA10410
FUNCTION QTEST(J,N) FRA10420
C FRA10430
COMMON /QPARAM/ NAME(100),LAMDA(100),OLDLAM(100),TEST2(100), FRA10440
1 TEST1(100),TAU(100),REPAIR(100),QOVRD(100), FRA10450

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2          PTCF(100),INEFF(100),ULAMDA(100),QRESID(100),
3          BETA(100),FN(100),ITYPE(100),NCOMP,DIFF
COMMON /UPDAT/ LMAX(100),TIMECH(100,20),BETACH(100,20),
1          CLAMDA(100,20)
REAL LAMDA,INEFF
DOUBLE PRECISION NAME
COMMON /QCON/ NTEST(1000),PTCF1(1000),QRES1(1000),QN(1000),
1          QUN(1000),PK(100,1000)
C
C QTEST CALCULATES THE TEST CONTRIBUTION IN THE NTH TEST INTERVAL
C
M=N+1
PNN=PK(J,M)
QTEST=QUN(J)+(1.0-QUN(J))*(PNN+(1.0-PNN)*QOVRD(J))
RETURN
END
FUNCTION QKNU(J,K,N,X)
C
COMMON /QPARAM/ NAME(100),LAMDA(100),OLDLAM(100),TEST2(100),
1          TEST1(100),TAU(100),REPAIR(100),QOVRD(100),
2          PTCF(100),INEFF(100),ULAMDA(100),QRESID(100),
3          BETA(100),FN(100),ITYPE(100),NCOMP,DIFF
COMMON /UPDAT/ LMAX(100),TIMECH(100,20),BETACH(100,20),
1          CLAMDA(100,20)
REAL LAMDA,INEFF
DOUBLE PRECISION X,NAME
IF(ULAMDA(J).EQ.0.0)GO TO 5
XK=K
TK=0.0
IF(K.NE.0)TK=(XK-1.0)*TEST2(J)+TEST1(J)+TAU(J)+REPAIR(J)
IF(FN(J).EQ.1.0) GO TO 2
M=N-K
XM=N-K
SUM=0.0
DO 1 I=1,M
XI=I-1
TIK=(XI+XK)*TEST2(J)+TEST1(J)
1 SUM=SUM+FN(J)**XI*(ULAMDA(J)*(TIK-TK)+BETA(J)*(TIK-TK)**2)
SUM=(SUM*(1.0-FN(J))+FN(J)**XM*(ULAMDA(J)*(X-TK)+BETA(J)*
1 (X-TK)**2))
QKNU=1.0-EXP(-SUM)
RETURN
2 QKNU=1.0-EXP(-ULAMDA(J)*(SNGL(X)-TK)-BETA(J)*(SNGL(X)-TK)**2)
RETURN
5 QKNU=0.0
RETURN
END
FUNCTION QOFT(J,N,X)
C
COMMON /QPARAM/ NAME(100),LAMDA(100),OLDLAM(100),TEST2(100),
1          TEST1(100),TAU(100),REPAIR(100),QOVRD(100),
2          PTCF(100),INEFF(100),ULAMDA(100),QRESID(100),
3          BETA(100),FN(100),ITYPE(100),NCOMP,DIFF
COMMON /UPDAT/ LMAX(100),TIMECH(100,20),BETACH(100,20),
1          CLAMDA(100,20)

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FRA 10460
FRA 10470
FRA 10480
FRA 10490
FRA 10500
FRA 10510
FRA 10520
FRA 10530
FRA 10540
FRA 10550
FRA 10560
FRA 10570
FRA 10580
FRA 10590
FRA 10600
FRA 10610
FRA 10620
FRA 10630
FRA 10640
FRA 10650
FRA 10660
FRA 10670
FRA 10680
FRA 10690
FRA 10700
FRA 10710
FRA 10720
FRA 10730
FRA 10740
FRA 10750
FRA 10760
FRA 10770
FRA 10780
FRA 10790
FRA 10800
FRA 10810
FRA 10820
FRA 10830
FRA 10840
FRA 10850
FRA 10860
FRA 10870
FRA 10880
FRA 10890
FRA 10900
FRA 10910
FRA 10920
FRA 10930
FRA 10940
FRA 10950
FRA 10960
FRA 10970
FRA 10980
FRA 10990
FRA 11000

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REAL LAMDA,INEFF
DOUBLE PRECISION NAME
DOUBLE PRECISION X, TXR, TXT, TNR, TNT, TKR
COMMON /QCON/ NTEST(1000),PTCF1(1000),QRES1(1000),QN(1000),
1 QUN(1000),PK(100,1000)
C
C QOFT CALCULATES THE HARDWARE (BETWEEN TESTS) CONTRIBUTION IN THE
C NTH TEST INTERVAL
C
IF(X.LE.TEST1(J))GO TO 200
XN=N
TNT=(XN-1.0)*TEST2(J)+TEST1(J)+TAU(J)
TNR=TNT+REPAIR(J)
M=N+1
PNN=PK(J,M)
IF(ITYPE(J)-2) 1,2,3
C
C TEST GOOD AS NEW, REPAIR GOOD AS NEW
C
1 TXR=X-TNR
TXT=X-TNT
Q1=QKN(J,O,N, TXR,O.ODO)
Q2=QKN(J,O,N, TXT,O.ODO)
AN=Q1+(1.0-Q1)*QNU(J,N, TXR)
BN=Q2+(1.0-Q2)*QNU(J,N, TXT)
QOFT=(PNN*AN+(1.0-PNN)*BN)*QRES1(J)+QRESID(J)
RETURN
C
C TEST GOOD AS OLD, REPAIR GOOD AS OLD
C
2 Q1=QKN(J,O,N, X, TNR)
Q2=QKN(J,O,N, X, TNT)
Q3=QKNU(J,O,N, X)
AN=Q1+(1.0-Q1)*Q3
BN=Q2+(1.0-Q2)*Q3
QOFT=(PNN*AN+(1.0-PNN)*BN)*QRES1(J)+QRESID(J)
RETURN
C
C TEST GOOD AS OLD, REPAIR GOOD AS NEW
C
3 TXR=X-TNR
Q1=QKN(J,N,N, TXR,O.ODO)
Q2=QKN(J,O,N, X, TNT)
AN=(Q1+(1.0-Q1)*QNU(J,O, TXR))*QRES1(J)+QRESID(J)
BN=(Q2+(1.0-Q2)*QKNU(J,O,N, X))*QRES1(J)+QRESID(J)
SUM=PNN*AN+PK(J,1)*BN
IF(N.EQ.1) GO TO 4
DO 100 I=2,N
K=I-1
XK=K
TKR=(XK-1.0)*TEST2(J)+TEST1(J)+TAU(J)+REPAIR(J)
Q=QKN(J,K,N, X-TKR, TNT-TKR)
Q=Q+(1.0-Q)*QKNU(J,K,N, X)
100 SUM=SUM+PK(J,I)*(QRESID(J)+QRES1(J)*Q)
4 QOFT=SUM

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FRA11010
FRA11020
FRA11030
FRA11040
FRA11050
FRA11060
FRA11070
FRA11080
FRA11090
FRA11100
FRA11110
FRA11120
FRA11130
FRA11140
FRA11150
FRA11160
FRA11170
FRA11180
FRA11190
FRA11200
FRA11210
FRA11220
FRA11230
FRA11240
FRA11250
FRA11260
FRA11270
FRA11280
FRA11290
FRA11300
FRA11310
FRA11320
FRA11330
FRA11340
FRA11350
FRA11360
FRA11370
FRA11380
FRA11390
FRA11400
FRA11410
FRA11420
FRA11430
FRA11440
FRA11450
FRA11460
FRA11470
FRA11480
FRA11490
FRA11500
FRA11510
FRA11520
FRA11530
FRA11540
FRA11550

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      RETURN
C
C FIRST INTERVAL CALCULATIONS (N=0)
C
200 Q=QKN(J,O,O,X,O.ODO)
      QOFT=QRESID(J)+QRES1(J)*(Q+(1.0-Q)*QNU(J,O,X))
      RETURN
      END
      FUNCTION QREP(J,N)
C
      COMMON /QPARAM/ NAME(100),LAMDA(100),OLDLAM(100),TEST2(100),
1          TEST1(100),TAU(100),REPAIR(100),QOVRD(100),
2          PTCF(100),INEFF(100),ULAMDA(100),QRESID(100),
3          BETA(100),FN(100),ITYPE(100),NCOMP,DIFF
      COMMON /UPDAT/ LMAX(100),TIMECH(100,20),BETACH(100,20),
1          CLAMDA(100,20)
      REAL LAMDA,INEFF
      DOUBLE PRECISION X,TX,TNT,TKR,NAME
      COMMON /QCON/ NTEST(1000),PTCF1(1000),QRES1(1000),QN(1000),
1          QUN(1000),PK(100,1000)
C
C QREP CALCULATES THE REPAIR CONTRIBUTION IN THE NTH TEST INTERVAL
C
      XN=N
      TNT=(XN-1.0)*TEST2(J)+TEST1(J)+TAU(J)
      M=N+1
      PNN=PK(J,M)
      X=TNT+REPAIR(J)/2.0
      IF(ITYPE(J)-2) 1,2,3
C
C TEST GOOD AS NEW, REPAIR GOOD AS NEW
C
1 TX=X-TNT
      Q=QKN(J,O,N,TX,O.ODO)
      BN=Q+(1.0-Q)*QNU(J,N,TX)
      QREP=(1.0-PNN)*(QRESID(J)+QRES1(J)*BN)+PNN
      RETURN
C
C TEST GOOD AS OLD, REPAIR GOOD AS OLD
C
2 Q=QKN(J,O,N,X,TNT)
      BN=Q+(1.0-Q)*QKNU(J,O,N,X)
      QREP=(1.0-PNN)*(QRESID(J)+QRES1(J)*BN)+PNN
      RETURN
C
C TEST GOOD AS OLD, REPAIR GOOD AS NEW
C
3 Q=QKN(J,O,N,X,TNT)
      BN=Q+(1.0-Q)*QKNU(J,O,N,X)
      SUM=PK(J,1)*(QRESID(J)+QRES1(J)*BN)+PNN
      IF(N.EQ.1) GO TO 4
      DO 100 I=2,N
      K=I-1
      XK=K
      TKR=(XK-1.0)*TEST2(J)+TEST1(J)+TAU(J)+REPAIR(J)

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FRA11560
FRA11570
FRA11580
FRA11590
FRA11600
FRA11610
FRA11620
FRA11630
FRA11640
FRA11650
FRA11660
FRA11670
FRA11680
FRA11690
FRA11700
FRA11710
FRA11720
FRA11730
FRA11740
FRA11750
FRA11760
FRA11770
FRA11780
FRA11790
FRA11800
FRA11810
FRA11820
FRA11830
FRA11840
FRA11850
FRA11860
FRA11870
FRA11880
FRA11890
FRA11900
FRA11910
FRA11920
FRA11930
FRA11940
FRA11950
FRA11960
FRA11970
FRA11980
FRA11990
FRA12000
FRA12010
FRA12020
FRA12030
FRA12040
FRA12050
FRA12060
FRA12070
FRA12080
FRA12090
FRA12100

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0=QKN(U,K,N,X-TRK,TNT-TRK)
100 SUM=SUM+PK(U,I)*(QRESID(U)+QRES1(U))*Q
      Q0+(1.0-Q)*QKNU(U,K,N,X)
      RETURN
      END
SUBROUTINE PKNUP(U,N)
COMMON /PARAM/,LAMDA(100),DLPLAM(100),TEST2(100),
1 TEST1(100),TAU(100),REPAIR(100),GOVRD(100),
2 PTCF(100),INEFF(100),ULAMDA(100),QRESID(100),
3 BETA(100),FN(100),ITYPE(100),NCOMP,DIFF
COMMON /UPDAT/,LMAX(100),TIMECH(100,20),BETACH(100,20),
1 CLAMDA(100,20)
REAL LAMDA,INEFF
DOUBLE PRECISION X,TNR,TNT,NAME
COMMON /GCON/,NTEST(1000),PTCF1(1000),QRES1(1000),QN(1000),
1 QUN(1000),PK(100,1000)
SUBROUTINE PKNUP IS CALLED AT THE BEGINNING OF EACH TEST. IT
C SUBROUTINE PKNUP IS CALLED AT THE BEGINNING OF EACH TEST. IT
C UPDATES THE VALUES OF QN AND QUN AS WELL AS THE PKS.
IF(N.EQ.1) GO TO 10
XN=N
PNN=PK(U,N)
TNT=(XN-2.0)*TEST2(U)+TEST1(U)+TAU(U)
TNR=TNT+REPAIR(U)
X=(XN-1.0)*TEST2(U)+TEST1(U)
M=N-1
NN=N+1
IF(ITYPE(U)-2) 1,2,3
TEST GOOD AS NEW, REPAIR GOOD AS NEW
C
C
C
1 QN(U)=PNN*QKN(U,O,M,X-TNR,O.ODO)+(1.0-PNN)*QKN(U,O,M,X-TNT,O.ODO)
QN(U)=PNN*QUN(U,M,X-TNR)+(1.0-PNN)*QUN(U,M,X-TNT)
PK(U,NN)=QRESID(U)+QRES1(U)*(PTCF(U)+PTCF1(U))*QN(U))
RETURN
TEST GOOD AS OLD, REPAIR GOOD AS OLD
C
C
C
2 QN(U)=PNN*QKN(U,O,M,X,TNR)+(1.0-PNN)*QKN(U,O,M,X,TNT)
QN(U)=QKNU(U,O,M,X)
PK(U,NN)=QRESID(U)+QRES1(U)*(PTCF(U)+PTCF1(U))*QN(U))
RETURN
TEST GOOD AS OLD, REPAIR GOOD AS NEW
C
C
C
3 QN(U)=PNN*QKN(U,O,M,X-TNR,O.ODO)+PK(U,1)*QKN(U,O,M,X,TNT)
QN(U)=PNN*QUN(U,O,M,X-TNR)+PK(U,1)*QKNU(U,O,M,X)
IF(M.EQ.1) GO TO 4
DO 100 I=2,M
K=I-1
XK=K
TKR=(XK-1.0)*TEST2(U)+TEST1(U)+TAU(U)+REPAIR(U)
FRA12110
FRA12120
FRA12130
FRA12140
FRA12150
FRA12160
FRA12170
FRA12180
FRA12190
FRA12200
FRA12210
FRA12220
FRA12230
FRA12240
FRA12250
FRA12260
FRA12270
FRA12280
FRA12290
FRA12300
FRA12310
FRA12320
FRA12330
FRA12340
FRA12350
FRA12360
FRA12370
FRA12380
FRA12390
FRA12400
FRA12410
FRA12420
FRA12430
FRA12440
FRA12450
FRA12460
FRA12470
FRA12480
FRA12490
FRA12500
FRA12510
FRA12520
FRA12530
FRA12540
FRA12550
FRA12560
FRA12570
FRA12580
FRA12590
FRA12600
FRA12610
FRA12620
FRA12630
FRA12640
FRA12650

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```
Q=QKN(J,K,M,X-TKR,TNT-TKR) FRA12660
QN(J)=QN(J)+Q*PK(J,I) FRA12670
100 QUN(J)=QUN(J)+QKNU(J,K,M,X)*PK(J,I) FRA12680
4 PK(J,NN)=QRESID(J)+QRES1(J)*(PTCF(J)+PTCF1(J)*QN(J)) FRA12690
PK(J,N)=PK(J,N)*(1.0-QKN(J,M,M,X-TNR,O.ODO))*PTCF1(J)*QRES1(J) FRA12700
PK(J,1)=PK(J,1)*(1.0-QKN(J,O,M,X,TNT))*PTCF1(J)*QRES1(J) FRA12710
IF(N.EQ.2) GO TO 5 FRA12720
DO 200 I=2,M FRA12730
K=I-1 FRA12740
XK=I-1 FRA12750
TKR=(XK-1.0)*TEST2(J)+TEST1(J)+TAU(J)+REPAIR(J) FRA12760
200 PK(J,I)=PK(J,I)*(1.0-QKN(J,K,M,X-TKR,TNT-TKR))*PTCF1(J)*QRES1(J) FRA12770
5 CONTINUE FRA12780
RETURN FRA12790
C FRA12800
C CALCULATIONS FOR THE FIRST TEST FRA12810
C FRA12820
10 X=TEST1(J) FRA12830
QN(J)=QKN(J,O,O,X,O.ODO) FRA12840
QUN(J)=QNU(J,O,X) FRA12850
PK(J,2)=QRESID(J)+QRES1(J)*(PTCF(J)+PTCF1(J)*QN(J)) FRA12860
PK(J,1)=1.0-PK(J,2) FRA12870
RETURN FRA12880
END FRA12890
```


APPENDIX II

FRANTIC 5 DATA FILE FOR AFWS

TITLE
SAMPLE CASE AUX-FEED SYSTEM
COMP

1	VALVE	6.8E00	30.0	0.0	0.0	1.0	6.9E001.02
2	PUMP	4.5E+1	30.0	0.0	0.0	1.0	2.9E+11.02
3	PIPING	2.5E-523000.		0.0	0.0	1.0	3.6E-41.02

-1
1 0
2 0
3 0
-1

TIME
21900.0 10.0

PRINT
1
0.0 21900.0

RUN
1 TOTL NONE NONE BASE CASE 00
-1

APPENDIX III

FRANTIC 5 OUTPUT FOR AFWS

SAMPLE CASE AUX-FEED SYSTEM

 ***** INPUT COMPONENT PARAMETERS *****

COMP NUMB	COMP NAME	FAILURE RATE (PER HR)	TEST INTERVAL (DAYS)	FIRST INTERVAL (DAYS)	TIME FOR TESTING (HRS)	TIME FOR REPAIRS (HRS)	OVERRIDE UNAVAIL	PROB OF TEST-CAUSED FAILURE	TEST INEFF	UNDETECT FAIL RATE (PER HR)	RESID UNAVAIL	BETA (PER HR*2)	TEST TYP FAC
1	VALVE	6.80E-06	3.00E+01	3.00E+01	0.00E+00	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.90E-12	1.00 2
2	PUMP	4.50E-05	3.00E+01	3.00E+01	0.00E+00	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E-11	1.00 2
3	PIPING	2.50E-11	2.30E+04	2.30E+04	0.00E+00	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-16	1.00 2

CHANGES IN COMPONENT PARAMETERS

COMP. NO. OF CH.

1 0
 2 0
 3 0

THE NUMBER OF POINTS GENERATED = 731
 TOTAL TIME PERIOD IN HOURS (DEFAULT=1 YR) = 525600.000

SMOOTHING TIMES INSERTED WITH TDEL = 240.000
 TOTAL NUMBER OF POINTS NOW = 2921

SAMPLE CASE AUX-FEED SYSTEM

 ***** SYSTEM UNAVAILABILITY DATA *****

 RUN OPTIONS:

SYSTEM DESCRIPTION	EQUATION NUMBER	UNAVAIL. OPTION	PLOT OPTIONS		CUTOFF OPTION
			X	Y	
BASE CASE 00	1	TOTL	NONE	NONE	0

 SYSTEM MEAN UNAVAILABILITIES BETWEEN ZERO AND 21900.00 DAYS:

TOTAL MEAN UNAVAIL	UNAVAIL DUE TO FAILURES	= OF TOTAL	UNAVAIL DUE TO TESTING	= OF TOTAL	UNAVAIL DUE TO REPAIRS	= OF TOTAL
9.160E-04	9.160E-04	100.00	0.000E+00	0.00	0.000E+00	0.00

 PEAK SYSTEM UNAVAILABILITIES:

POINT NUMBER	TIME (DAYS)	TIME (HOURS)	SYSTEM UNAVAIL
2921	2.1900E+04	5.2560E+05	4.0211E-03
2917	2.1870E+04	5.2488E+05	4.0164E-03
2913	2.1840E+04	5.2416E+05	4.0117E-03
2909	2.1810E+04	5.2344E+05	4.0070E-03
2905	2.1780E+04	5.2272E+05	4.0024E-03
2901	2.1750E+04	5.2200E+05	3.9977E-03
2897	2.1720E+04	5.2128E+05	3.9930E-03
2893	2.1690E+04	5.2056E+05	3.9883E-03
2889	2.1660E+04	5.1984E+05	3.9837E-03
2885	2.1630E+04	5.1912E+05	3.9790E-03
2881	2.1600E+04	5.1840E+05	3.9743E-03
2877	2.1570E+04	5.1768E+05	3.9697E-03

SYSTEM UNAVAILABILITIES BETWEEN 0.00 AND 21900.00 DAYS:

POINT NUMBER	TIME (DAYS)	TIME (HOURS)	UNAVAIL AT T-EPSILON	UNAVAIL AT T+EPSILON	UNAVAIL. INCREMENT	PERCENT OF TOTAL	AREA TYPE	AV. UNAVAIL UP TO T
1	0.0000E+00	0.0000E+00		2.5119E-15				
2	7.5000E+00	1.8000E+02	8.6157E-05	8.6157E-05	1.4753E-08	0.0016		4.3078E-05
3	1.5000E+01	3.6000E+02	3.4151E-04	3.4151E-04	7.3231E-08	0.0080		1.2846E-04
4	2.2500E+01	5.4000E+02	7.6148E-04	7.6148E-04	1.8887E-07	0.0206		2.6947E-04
5	3.0000E+01	7.2000E+02	1.3416E-03	1.8187E-08	3.6011E-07	0.0393		4.6498E-04
6	3.7500E+01	9.0000E+02	8.6346E-05	8.6347E-05	1.4788E-08	0.0016		3.8062E-04
7	4.5000E+01	1.0800E+03	3.4221E-04	3.4221E-04	7.3382E-08	0.0080		3.5290E-04
8	5.2500E+01	1.2600E+03	7.6299E-04	7.6299E-04	1.8925E-07	0.0207		3.8143E-04
9	6.0000E+01	1.4400E+03	1.3442E-03	3.6746E-08	3.6082E-07	0.0394		4.6545E-04
10	6.7500E+01	1.6200E+03	8.6537E-05	8.6537E-05	1.4824E-08	0.0016		4.1854E-04
11	7.5000E+01	1.8000E+03	3.4290E-04	3.4290E-04	7.3534E-08	0.0080		3.9816E-04
12	8.2500E+01	1.9800E+03	7.6451E-04	7.6451E-04	1.8963E-07	0.0207		4.1230E-04
13	9.0000E+01	2.1600E+03	1.3469E-03	5.5680E-08	3.6154E-07	0.0395		4.6591E-04
14	9.7500E+01	2.3400E+03	8.6728E-05	8.6728E-05	1.4860E-08	0.0016		4.3341E-04
15	1.0500E+02	2.5200E+03	3.4360E-04	3.4360E-04	7.3686E-08	0.0080		4.1782E-04
16	1.1250E+02	2.7000E+03	7.6604E-04	7.6604E-04	1.9001E-07	0.0207		4.2696E-04
17	1.2000E+02	2.8800E+03	1.3495E-03	7.4986E-08	3.6225E-07	0.0395		4.6638E-04
18	1.2750E+02	3.0600E+03	8.6919E-05	8.6919E-05	1.4896E-08	0.0016		4.4151E-04
19	1.3500E+02	3.2400E+03	3.4430E-04	3.4430E-04	7.3838E-08	0.0081		4.2896E-04
20	1.4250E+02	3.4200E+03	7.6756E-04	7.6756E-04	1.9039E-07	0.0208		4.3564E-04
21	1.5000E+02	3.6000E+03	1.3522E-03	9.4666E-08	3.6297E-07	0.0396		4.6685E-04
22	1.5750E+02	3.7800E+03	8.7111E-05	8.7111E-05	1.4933E-08	0.0016		4.4669E-04
23	1.6500E+02	3.9600E+03	3.4499E-04	3.4499E-04	7.3991E-08	0.0081		4.3621E-04
24	1.7250E+02	4.1400E+03	7.6908E-04	7.6909E-04	1.9077E-07	0.0208		4.4146E-04
25	1.8000E+02	4.3200E+03	1.3548E-03	1.1472E-07	3.6368E-07	0.0397		4.6732E-04
26	1.8750E+02	4.5000E+03	8.7304E-05	8.7304E-05	1.4969E-08	0.0016		4.5037E-04
27	1.9500E+02	4.6800E+03	3.4569E-04	3.4569E-04	7.4143E-08	0.0081		4.4138E-04
28	2.0250E+02	4.8600E+03	7.7061E-04	7.7061E-04	1.9115E-07	0.0209		4.4570E-04
29	2.1000E+02	5.0400E+03	1.3575E-03	1.3514E-07	3.6440E-07	0.0398		4.6779E-04
30	2.1750E+02	5.2200E+03	8.7497E-05	8.7497E-05	1.5005E-08	0.0016		4.5317E-04
31	2.2500E+02	5.4000E+03	3.4639E-04	3.4639E-04	7.4296E-08	0.0081		4.4529E-04
32	2.3250E+02	5.5800E+03	7.7214E-04	7.7214E-04	1.9153E-07	0.0209		4.4897E-04
33	2.4000E+02	5.7600E+03	1.3602E-03	1.5594E-07	3.6512E-07	0.0399		4.6826E-04
34	2.4750E+02	5.9400E+03	8.7691E-05	8.7691E-05	1.5042E-08	0.0016		4.5540E-04
35	2.5500E+02	6.1200E+03	3.4710E-04	3.4710E-04	7.4450E-08	0.0081		4.4840E-04
36	2.6250E+02	6.3000E+03	7.7367E-04	7.7367E-04	1.9191E-07	0.0210		4.5160E-04
37	2.7000E+02	6.4800E+03	1.3628E-03	1.7712E-07	3.6584E-07	0.0399		4.6873E-04
38	2.7750E+02	6.6600E+03	8.7885E-05	8.7885E-05	1.5079E-08	0.0016		4.5725E-04
39	2.8500E+02	6.8400E+03	3.4780E-04	3.4780E-04	7.4603E-08	0.0081		4.5095E-04
40	2.9250E+02	7.0200E+03	7.7521E-04	7.7521E-04	1.9230E-07	0.0210		4.5378E-04
41	3.0000E+02	7.2000E+03	1.3655E-03	1.9866E-07	3.6656E-07	0.0400		4.6920E-04
42	3.0750E+02	7.3800E+03	8.8080E-05	8.8080E-05	1.5116E-08	0.0017		4.5883E-04
43	3.1500E+02	7.5600E+03	3.4850E-04	3.4850E-04	7.4757E-08	0.0082		4.5310E-04
44	3.2250E+02	7.7400E+03	7.7674E-04	7.7674E-04	1.9268E-07	0.0210		4.5565E-04
45	3.3000E+02	7.9200E+03	1.3682E-03	2.2058E-07	3.6728E-07	0.0401		4.6967E-04
46	3.3750E+02	8.1000E+03	8.8275E-05	8.8275E-05	1.5153E-08	0.0017		4.6021E-04
47	3.4500E+02	8.2800E+03	3.4921E-04	3.4921E-04	7.4911E-08	0.0082		4.5496E-04
48	3.5250E+02	8.4600E+03	7.7828E-04	7.7828E-04	1.9306E-07	0.0211		4.5728E-04
49	3.6000E+02	8.6400E+03	1.3708E-03	2.4287E-07	3.6800E-07	0.0402		4.7014E-04
50	3.6750E+02	8.8200E+03	8.8471E-05	8.8471E-05	1.5191E-08	0.0017		4.6145E-04
51	3.7500E+02	9.0000E+03	3.4991E-04	3.4991E-04	7.5066E-08	0.0082		4.5660E-04
52	3.8250E+02	9.1800E+03	7.7982E-04	7.7982E-04	1.9345E-07	0.0211		4.5873E-04
53	3.9000E+02	9.3600E+03	1.3735E-03	1.7335E-07	3.6872E-07	0.0403		4.7061E-04
54	3.9750E+02	9.5400E+03	8.8667E-05	8.8668E-05	1.5228E-08	0.0017		4.6257E-04
55	4.0500E+02	9.7200E+03	3.5062E-04	3.5062E-04	7.5220E-08	0.0082		4.5807E-04
56	4.1250E+02	9.9000E+03	7.8136E-04	7.8136E-04	1.9383E-07	0.0212		4.6003E-04

57	4.2000E+02	1.0080E+04	1.3762E-03	2.8858E-07	3.6944E-07	0.0403	4.7108E-04
58	4.2750E+02	1.0260E+04	8.8864E-05	8.8864E-05	1.5266E-08	0.0017	4.6360E-04
59	4.3500E+02	1.0440E+04	3.5133E-04	3.5133E-04	7.5375E-08	0.0082	4.5940E-04
60	4.4250E+02	1.0620E+04	7.8290E-04	7.8290E-04	1.9422E-07	0.0212	4.6123E-04
61	4.5000E+02	1.0800E+04	1.3789E-03	3.1199E-07	3.7017E-07	0.0404	4.7155E-04
62	4.5750E+02	1.0980E+04	8.9062E-05	8.9062E-05	1.5304E-08	0.0017	4.6456E-04
63	4.6500E+02	1.1160E+04	3.5204E-04	3.5204E-04	7.5531E-08	0.0082	4.6062E-04
64	4.7250E+02	1.1340E+04	7.8444E-04	7.8444E-04	1.9460E-07	0.0212	4.6233E-04
65	4.8000E+02	1.1520E+04	1.3816E-03	3.3578E-07	3.7089E-07	0.0405	4.7203E-04
66	4.8750E+02	1.1700E+04	8.9260E-05	8.9260E-05	1.5342E-08	0.0017	4.6545E-04
67	4.9500E+02	1.1880E+04	3.5275E-04	3.5275E-04	7.5686E-08	0.0083	4.6175E-04
68	5.0250E+02	1.2060E+04	7.8599E-04	7.8599E-04	1.9499E-07	0.0213	4.6336E-04
69	5.1000E+02	1.2240E+04	1.3843E-03	3.5993E-07	3.7162E-07	0.0406	4.7250E-04
70	5.1750E+02	1.2420E+04	8.9458E-05	8.9459E-05	1.5380E-08	0.0017	4.6630E-04
71	5.2500E+02	1.2600E+04	3.5346E-04	3.5346E-04	7.5842E-08	0.0083	4.6280E-04
72	5.3250E+02	1.2780E+04	7.8753E-04	7.8754E-04	1.9538E-07	0.0213	4.6432E-04
73	5.4000E+02	1.2960E+04	1.3870E-03	3.8447E-07	3.7234E-07	0.0406	4.7297E-04
74	5.4750E+02	1.3140E+04	8.9658E-05	8.9658E-05	1.5418E-08	0.0017	4.6711E-04
75	5.5500E+02	1.3320E+04	3.5417E-04	3.5417E-04	7.5998E-08	0.0083	4.6380E-04
76	5.6250E+02	1.3500E+04	7.8908E-04	7.8908E-04	1.9576E-07	0.0214	4.6523E-04
77	5.7000E+02	1.3680E+04	1.3897E-03	4.0937E-07	3.7307E-07	0.0407	4.7345E-04
78	5.7750E+02	1.3860E+04	8.9857E-05	8.9858E-05	1.5457E-08	0.0017	4.6788E-04
79	5.8500E+02	1.4040E+04	3.5488E-04	3.5488E-04	7.6154E-08	0.0083	4.6474E-04
80	5.9250E+02	1.4220E+04	7.9063E-04	7.9064E-04	1.9615E-07	0.0214	4.6610E-04
81	6.0000E+02	1.4400E+04	1.3924E-03	4.3465E-07	3.7380E-07	0.0408	4.7392E-04
82	6.0750E+02	1.4580E+04	9.0058E-05	9.0058E-05	1.5495E-08	0.0017	4.6863E-04
83	6.1500E+02	1.4760E+04	3.5560E-04	3.5560E-04	7.6311E-08	0.0083	4.6563E-04
84	6.2250E+02	1.4940E+04	7.9219E-04	7.9219E-04	1.9654E-07	0.0215	4.6694E-04
85	6.3000E+02	1.5120E+04	1.3951E-03	4.6030E-07	3.7453E-07	0.0409	4.7440E-04
86	6.3750E+02	1.5300E+04	9.0258E-05	9.0259E-05	1.5534E-08	0.0017	4.6935E-04
87	6.4500E+02	1.5480E+04	3.5631E-04	3.5631E-04	7.6468E-08	0.0083	4.6649E-04
88	6.5250E+02	1.5660E+04	7.9374E-04	7.9374E-04	1.9693E-07	0.0215	4.6774E-04
89	6.6000E+02	1.5840E+04	1.3978E-03	4.8633E-07	3.7526E-07	0.0410	4.7487E-04
90	6.6750E+02	1.6020E+04	9.0460E-05	9.0460E-05	1.5573E-08	0.0017	4.7005E-04
91	6.7500E+02	1.6200E+04	3.5703E-04	3.5703E-04	7.6625E-08	0.0084	4.6731E-04
92	6.8250E+02	1.6380E+04	7.9530E-04	7.9530E-04	1.9732E-07	0.0215	4.6851E-04
93	6.9000E+02	1.6560E+04	1.4005E-03	5.1272E-07	3.7599E-07	0.0410	4.7535E-04
94	6.9750E+02	1.6740E+04	9.0662E-05	9.0662E-05	1.5612E-08	0.0017	4.7073E-04
95	7.0500E+02	1.6920E+04	3.5775E-04	3.5775E-04	7.6782E-08	0.0084	4.6810E-04
96	7.1250E+02	1.7100E+04	7.9686E-04	7.9686E-04	1.9771E-07	0.0216	4.6925E-04
97	7.2000E+02	1.7280E+04	1.4032E-03	5.3950E-07	3.7672E-07	0.0411	4.7582E-04
98	7.2750E+02	1.7460E+04	9.0864E-05	9.0864E-05	1.5651E-08	0.0017	4.7139E-04
99	7.3500E+02	1.7640E+04	3.5847E-04	3.5847E-04	7.6940E-08	0.0084	4.6887E-04
100	7.4250E+02	1.7820E+04	7.9842E-04	7.9842E-04	1.9810E-07	0.0216	4.6998E-04
101	7.5000E+02	1.8000E+04	1.4059E-03	5.6664E-07	3.7745E-07	0.0412	4.7630E-04
102	7.5750E+02	1.8180E+04	9.1067E-05	9.1067E-05	1.5691E-08	0.0017	4.7204E-04
103	7.6500E+02	1.8360E+04	3.5919E-04	3.5919E-04	7.7098E-08	0.0084	4.6962E-04
104	7.7250E+02	1.8540E+04	7.9998E-04	7.9998E-04	1.9849E-07	0.0217	4.7069E-04
105	7.8000E+02	1.8720E+04	1.4086E-03	5.9416E-07	3.7818E-07	0.0413	4.7678E-04
106	7.8750E+02	1.8900E+04	9.1271E-05	9.1271E-05	1.5730E-08	0.0017	4.7267E-04
107	7.9500E+02	1.9080E+04	3.5991E-04	3.5991E-04	7.7256E-08	0.0084	4.7034E-04
108	8.0250E+02	1.9260E+04	8.0154E-04	8.0155E-04	1.9888E-07	0.0217	4.7137E-04
109	8.1000E+02	1.9440E+04	1.4113E-03	6.2205E-07	3.7892E-07	0.0414	4.7726E-04
110	8.1750E+02	1.9620E+04	9.1475E-05	9.1475E-05	1.5770E-08	0.0017	4.7330E-04
111	8.2500E+02	1.9800E+04	3.6063E-04	3.6063E-04	7.7415E-08	0.0085	4.7105E-04
112	8.3250E+02	1.9980E+04	8.0311E-04	8.0311E-04	1.9927E-07	0.0218	4.7205E-04
113	8.4000E+02	2.0160E+04	1.4141E-03	6.5031E-07	3.7965E-07	0.0414	4.7773E-04
114	8.4750E+02	2.0340E+04	9.1680E-05	9.1680E-05	1.5810E-08	0.0017	4.7391E-04
115	8.5500E+02	2.0520E+04	3.6135E-04	3.6135E-04	7.7574E-08	0.0085	4.7174E-04
116	8.6250E+02	2.0700E+04	8.0468E-04	8.0468E-04	1.9966E-07	0.0218	4.7271E-04
117	8.7000E+02	2.0880E+04	1.4168E-03	6.7895E-07	3.8039E-07	0.0415	4.7821E-04
118	8.7750E+02	2.1060E+04	9.1885E-05	9.1885E-05	1.5850E-08	0.0017	4.7452E-04
119	8.8500E+02	2.1240E+04	3.6207E-04	3.6207E-04	7.7733E-08	0.0085	4.7242E-04
120	8.9250E+02	2.1420E+04	8.0625E-04	8.0625E-04	2.0005E-07	0.0218	4.7336E-04
121	9.0000E+02	2.1600E+04	1.4195E-03	7.0796E-07	3.8102E-07	0.0416	4.7869E-04
122	9.0750E+02	2.1780E+04	9.2091E-05	9.2091E-05	1.5890E-08	0.0017	4.7512E-04

123	9.1500E+02	2.1960E+04	3.6280E-04	3.6280E-04	7.7892E-08	0.0085	4.7309E-04
124	9.2250E+02	2.2140E+04	8.0782E-04	8.0782E-04	2.0055E-07	0.0219	4.7400E-04
125	9.3000E+02	2.2320E+04	1.4222E-03	7.3735E-07	3.8086E-07	0.0417	4.7917E-04
126	9.3750E+02	2.2500E+04	9.2297E-05	9.2297E-05	1.5931E-08	0.0017	4.7571E-04
127	9.4500E+02	2.2680E+04	3.6352E-04	3.6353E-04	7.8052E-08	0.0085	4.7374E-04
128	9.5250E+02	2.2860E+04	8.0939E-04	8.0939E-04	2.0084E-07	0.0219	4.7463E-04
129	9.6000E+02	2.3040E+04	1.4250E-03	7.6710E-07	3.8260E-07	0.0418	4.7965E-04
130	9.6750E+02	2.3220E+04	9.2504E-05	9.2504E-05	1.5971E-08	0.0017	4.7629E-04
131	9.7500E+02	2.3400E+04	3.6425E-04	3.6425E-04	7.8212E-08	0.0085	4.7438E-04
132	9.8250E+02	2.3580E+04	8.1097E-04	8.1097E-04	2.0124E-07	0.0220	4.7525E-04
133	9.9000E+02	2.3760E+04	1.4277E-03	7.9723E-07	3.8334E-07	0.0418	4.8013E-04
134	9.9750E+02	2.3940E+04	9.2711E-05	9.2711E-05	1.6012E-08	0.0017	4.7687E-04
135	1.0050E+03	2.4120E+04	3.6498E-04	3.6498E-04	7.8372E-08	0.0086	4.7502E-04
136	1.0125E+03	2.4300E+04	8.1254E-04	8.1254E-04	2.0163E-07	0.0220	4.7586E-04
137	1.0200E+03	2.4480E+04	1.4305E-03	8.2774E-07	3.8407E-07	0.0419	4.8061E-04
138	1.0275E+03	2.4660E+04	9.2919E-05	9.2919E-05	1.6053E-08	0.0018	4.7744E-04
139	1.0350E+03	2.4840E+04	3.6571E-04	3.6571E-04	7.8532E-08	0.0086	4.7565E-04
140	1.0425E+03	2.5020E+04	8.1412E-04	8.1412E-04	2.0203E-07	0.0221	4.7647E-04
141	1.0500E+03	2.5200E+04	1.4332E-03	8.5861E-07	3.8481E-07	0.0420	4.8109E-04
142	1.0575E+03	2.5380E+04	9.3128E-05	9.3128E-05	1.6094E-08	0.0018	4.7801E-04
143	1.0650E+03	2.5560E+04	3.6644E-04	3.6644E-04	7.8693E-08	0.0086	4.7626E-04
144	1.0725E+03	2.5740E+04	8.1570E-04	8.1570E-04	2.0242E-07	0.0221	4.7707E-04
145	1.0800E+03	2.5920E+04	1.4359E-03	8.8987E-07	3.8555E-07	0.0421	4.8157E-04
146	1.0875E+03	2.6100E+04	9.3337E-05	9.3337E-05	1.6135E-08	0.0018	4.7857E-04
147	1.0950E+03	2.6280E+04	3.6717E-04	3.6717E-04	7.8854E-08	0.0086	4.7687E-04
148	1.1025E+03	2.6460E+04	8.1728E-04	8.1728E-04	2.0282E-07	0.0221	4.7766E-04
149	1.1100E+03	2.6640E+04	1.4387E-03	9.2149E-07	3.8630E-07	0.0422	4.8205E-04
150	1.1175E+03	2.6820E+04	9.3546E-05	9.3547E-05	1.6176E-08	0.0018	4.7913E-04
151	1.1250E+03	2.7000E+04	3.6790E-04	3.6790E-04	7.9015E-08	0.0086	4.7748E-04
152	1.1325E+03	2.7180E+04	8.1887E-04	8.1887E-04	2.0321E-07	0.0222	4.7825E-04
153	1.1400E+03	2.7360E+04	1.4414E-03	9.5349E-07	3.8704E-07	0.0423	4.8253E-04
154	1.1475E+03	2.7540E+04	9.3757E-05	9.3757E-05	1.6217E-08	0.0018	4.7969E-04
155	1.1550E+03	2.7720E+04	3.6863E-04	3.6863E-04	7.9177E-08	0.0086	4.7808E-04
156	1.1625E+03	2.7900E+04	8.2045E-04	8.2045E-04	2.0361E-07	0.0222	4.7883E-04
157	1.1700E+03	2.8080E+04	1.4442E-03	9.8585E-07	3.8778E-07	0.0423	4.8302E-04
158	1.1775E+03	2.8260E+04	9.3967E-05	9.3967E-05	1.6259E-08	0.0018	4.8024E-04
159	1.1850E+03	2.8440E+04	3.6937E-04	3.6937E-04	7.9338E-08	0.0087	4.7867E-04
160	1.1925E+03	2.8620E+04	8.2204E-04	8.2204E-04	2.0401E-07	0.0223	4.7941E-04
161	1.2000E+03	2.8800E+04	1.4469E-03	1.0186E-06	3.8853E-07	0.0424	4.8350E-04
162	1.2075E+03	2.8980E+04	9.4178E-05	9.4179E-05	1.6301E-08	0.0018	4.8079E-04
163	1.2150E+03	2.9160E+04	3.7010E-04	3.7010E-04	7.9500E-08	0.0087	4.7926E-04
164	1.2225E+03	2.9340E+04	8.2363E-04	8.2363E-04	2.0441E-07	0.0223	4.7998E-04
165	1.2300E+03	2.9520E+04	1.4497E-03	1.0517E-06	3.8927E-07	0.0425	4.8398E-04
166	1.2375E+03	2.9700E+04	9.4390E-05	9.4390E-05	1.6343E-08	0.0018	4.8134E-04
167	1.2450E+03	2.9880E+04	3.7084E-04	3.7084E-04	7.9663E-08	0.0087	4.7984E-04
168	1.2525E+03	3.0060E+04	8.2522E-04	8.2522E-04	2.0481E-07	0.0224	4.8055E-04
169	1.2600E+03	3.0240E+04	1.4525E-03	1.0852E-06	3.9002E-07	0.0426	4.8447E-04
170	1.2675E+03	3.0420E+04	9.4603E-05	9.4603E-05	1.6385E-08	0.0018	4.8188E-04
171	1.2750E+03	3.0600E+04	3.7158E-04	3.7158E-04	7.9825E-08	0.0087	4.8042E-04
172	1.2825E+03	3.0780E+04	8.2682E-04	8.2682E-04	2.0520E-07	0.0224	4.8111E-04
173	1.2900E+03	3.0960E+04	1.4552E-03	1.1191E-06	3.9076E-07	0.0427	4.8495E-04
174	1.2975E+03	3.1140E+04	9.4816E-05	9.4816E-05	1.6427E-08	0.0018	4.8243E-04
175	1.3050E+03	3.1320E+04	3.7232E-04	3.7232E-04	7.9988E-08	0.0087	4.8100E-04
176	1.3125E+03	3.1500E+04	8.2841E-04	8.2841E-04	2.0560E-07	0.0224	4.8168E-04
177	1.3200E+03	3.1680E+04	1.4580E-03	1.1533E-06	3.9151E-07	0.0427	4.8544E-04
178	1.3275E+03	3.1860E+04	9.5029E-05	9.5029E-05	1.6470E-08	0.0018	4.8297E-04
179	1.3350E+03	3.2040E+04	3.7305E-04	3.7305E-04	8.0151E-08	0.0088	4.8157E-04
180	1.3425E+03	3.2220E+04	8.3001E-04	8.3001E-04	2.0600E-07	0.0225	4.8224E-04
181	1.3500E+03	3.2400E+04	1.4608E-03	1.1879E-06	3.9226E-07	0.0428	4.8592E-04
182	1.3575E+03	3.2580E+04	9.5243E-05	9.5243E-05	1.6512E-08	0.0018	4.8350E-04
183	1.3650E+03	3.2760E+04	3.7380E-04	3.7380E-04	8.0315E-08	0.0088	4.8213E-04
184	1.3725E+03	3.2940E+04	8.3161E-04	8.3161E-04	2.0640E-07	0.0225	4.8279E-04
185	1.3800E+03	3.3120E+04	1.4636E-03	1.2229E-06	3.9301E-07	0.0429	4.8641E-04
186	1.3875E+03	3.3300E+04	9.5458E-05	9.5458E-05	1.6555E-08	0.0018	4.8404E-04
187	1.3950E+03	3.3480E+04	3.7454E-04	3.7454E-04	8.0478E-08	0.0088	4.8270E-04
188	1.4025E+03	3.3660E+04	8.3321E-04	8.3321E-04	2.0681E-07	0.0226	4.8335E-04

189	1.4100E+03	3.3840E+04	1.4663E-03	1.2583E-06	3.9376E-07	0.0430	4.8689E-04
190	1.4175E+03	3.4020E+04	9.5673E-05	9.5673E-05	1.6598E-08	0.0018	4.8457E-04
191	1.4250E+03	3.4200E+04	3.7528E-04	3.7528E-04	8.0642E-08	0.0088	4.8326E-04
192	1.4325E+03	3.4380E+04	8.3481E-04	8.3481E-04	2.0721E-07	0.0226	4.8390E-04
193	1.4400E+03	3.4560E+04	1.4691E-03	1.2940E-06	3.9451E-07	0.0431	4.8738E-04
194	1.4475E+03	3.4740E+04	9.5888E-05	9.5889E-05	1.6641E-08	0.0018	4.8510E-04
195	1.4550E+03	3.4920E+04	3.7602E-04	3.7602E-04	8.0807E-08	0.0088	4.8382E-04
196	1.4625E+03	3.5100E+04	8.3641E-04	8.3641E-04	2.0761E-07	0.0227	4.8445E-04
197	1.4700E+03	3.5280E+04	1.4719E-03	1.3301E-06	3.9526E-07	0.0432	4.8786E-04
198	1.4775E+03	3.5460E+04	9.6105E-05	9.6105E-05	1.6684E-08	0.0018	4.8563E-04
199	1.4850E+03	3.5640E+04	3.7677E-04	3.7677E-04	8.0971E-08	0.0088	4.8437E-04
200	1.4925E+03	3.5820E+04	8.3802E-04	8.3802E-04	2.0801E-07	0.0227	4.8499E-04
201	1.5000E+03	3.6000E+04	1.4747E-03	1.3666E-06	3.9601E-07	0.0432	4.8835E-04
202	1.5075E+03	3.6180E+04	9.6321E-05	9.6322E-05	1.6727E-08	0.0018	4.8616E-04
203	1.5150E+03	3.6360E+04	3.7751E-04	3.7751E-04	8.1136E-08	0.0089	4.8493E-04
204	1.5225E+03	3.6540E+04	8.3963E-04	8.3963E-04	2.0841E-07	0.0228	4.8554E-04
205	1.5300E+03	3.6720E+04	1.4775E-03	1.4034E-06	3.9676E-07	0.0433	4.8884E-04
206	1.5375E+03	3.6900E+04	9.6539E-05	9.6539E-05	1.6771E-08	0.0018	4.8669E-04
207	1.5450E+03	3.7080E+04	3.7826E-04	3.7826E-04	8.1301E-08	0.0089	4.8548E-04
208	1.5525E+03	3.7260E+04	8.4124E-04	8.4124E-04	2.0882E-07	0.0228	4.8608E-04
209	1.5600E+03	3.7440E+04	1.4803E-03	1.4406E-06	3.9752E-07	0.0434	4.8932E-04
210	1.5675E+03	3.7620E+04	9.6756E-05	9.6757E-05	1.6815E-08	0.0018	4.8722E-04
211	1.5750E+03	3.7800E+04	3.7901E-04	3.7901E-04	8.1466E-08	0.0089	4.8603E-04
212	1.5825E+03	3.7980E+04	8.4285E-04	8.4285E-04	2.0922E-07	0.0228	4.8662E-04
213	1.5900E+03	3.8160E+04	1.4830E-03	1.4782E-06	3.9827E-07	0.0435	4.8981E-04
214	1.5975E+03	3.8340E+04	9.6975E-05	9.6975E-05	1.6858E-08	0.0018	4.8774E-04
215	1.6050E+03	3.8520E+04	3.7976E-04	3.7976E-04	8.1632E-08	0.0089	4.8658E-04
216	1.6125E+03	3.8700E+04	8.4446E-04	8.4446E-04	2.0963E-07	0.0229	4.8716E-04
217	1.6200E+03	3.8880E+04	1.4858E-03	1.5162E-06	3.9903E-07	0.0436	4.9030E-04
218	1.6275E+03	3.9060E+04	9.7194E-05	9.7194E-05	1.6902E-08	0.0018	4.8827E-04
219	1.6350E+03	3.9240E+04	3.8051E-04	3.8051E-04	8.1798E-08	0.0089	4.8712E-04
220	1.6425E+03	3.9420E+04	8.4608E-04	8.4608E-04	2.1003E-07	0.0229	4.8770E-04
221	1.6500E+03	3.9600E+04	1.4886E-03	1.5545E-06	3.9978E-07	0.0436	4.9079E-04
222	1.6575E+03	3.9780E+04	9.7413E-05	9.7414E-05	1.6947E-08	0.0019	4.8879E-04
223	1.6650E+03	3.9960E+04	3.8126E-04	3.8126E-04	8.1964E-08	0.0089	4.8767E-04
224	1.6725E+03	4.0140E+04	8.4769E-04	8.4769E-04	2.1044E-07	0.0230	4.8823E-04
225	1.6800E+03	4.0320E+04	1.4914E-03	1.5933E-06	4.0054E-07	0.0437	4.9128E-04
226	1.6875E+03	4.0500E+04	9.7633E-05	9.7634E-05	1.6991E-08	0.0019	4.8931E-04
227	1.6950E+03	4.0680E+04	3.8201E-04	3.8201E-04	8.2130E-08	0.0090	4.8821E-04
228	1.7025E+03	4.0860E+04	8.4931E-04	8.4931E-04	2.1084E-07	0.0230	4.8877E-04
229	1.7100E+03	4.1040E+04	1.4943E-03	1.6323E-06	4.0130E-07	0.0438	4.9177E-04
230	1.7175E+03	4.1220E+04	9.7854E-05	9.7854E-05	1.7035E-08	0.0019	4.8983E-04
231	1.7250E+03	4.1400E+04	3.8276E-04	3.8276E-04	8.2297E-08	0.0090	4.8875E-04
232	1.7325E+03	4.1580E+04	8.5093E-04	8.5093E-04	2.1125E-07	0.0231	4.8930E-04
233	1.7400E+03	4.1760E+04	1.4971E-03	1.6718E-06	4.0205E-07	0.0439	4.9226E-04
234	1.7475E+03	4.1940E+04	9.8075E-05	9.8075E-05	1.7080E-08	0.0019	4.9036E-04
235	1.7550E+03	4.2120E+04	3.8351E-04	3.8352E-04	8.2464E-08	0.0090	4.8929E-04
236	1.7625E+03	4.2300E+04	8.5255E-04	8.5255E-04	2.1166E-07	0.0231	4.8984E-04
237	1.7700E+03	4.2480E+04	1.4999E-03	1.7116E-06	4.0281E-07	0.0440	4.9275E-04
238	1.7775E+03	4.2660E+04	9.8297E-05	9.8297E-05	1.7125E-08	0.0019	4.9088E-04
239	1.7850E+03	4.2840E+04	3.8427E-04	3.8427E-04	8.2631E-08	0.0090	4.8983E-04
240	1.7925E+03	4.3020E+04	8.5418E-04	8.5418E-04	2.1206E-07	0.0232	4.9037E-04
241	1.8000E+03	4.3200E+04	1.5027E-03	1.7518E-06	4.0357E-07	0.0441	4.9324E-04
242	1.8075E+03	4.3380E+04	9.8519E-05	9.8519E-05	1.7170E-08	0.0019	4.9140E-04
243	1.8150E+03	4.3560E+04	3.8503E-04	3.8503E-04	8.2799E-08	0.0090	4.9037E-04
244	1.8225E+03	4.3740E+04	8.5580E-04	8.5580E-04	2.1247E-07	0.0232	4.9090E-04
245	1.8300E+03	4.3920E+04	1.5055E-03	1.7924E-06	4.0433E-07	0.0441	4.9373E-04
246	1.8375E+03	4.4100E+04	9.8742E-05	9.8742E-05	1.7215E-08	0.0019	4.9192E-04
247	1.8450E+03	4.4280E+04	3.8578E-04	3.8578E-04	8.2967E-08	0.0091	4.9090E-04
248	1.8525E+03	4.4460E+04	8.5743E-04	8.5743E-04	2.1288E-07	0.0232	4.9143E-04
249	1.8600E+03	4.4640E+04	1.5083E-03	1.8334E-06	4.0510E-07	0.0442	4.9422E-04
250	1.8675E+03	4.4820E+04	9.8965E-05	9.8966E-05	1.7260E-08	0.0019	4.9244E-04
251	1.8750E+03	4.5000E+04	3.8654E-04	3.8654E-04	8.3135E-08	0.0091	4.9144E-04
252	1.8825E+03	4.5180E+04	8.5906E-04	8.5906E-04	2.1329E-07	0.0233	4.9196E-04
253	1.8900E+03	4.5360E+04	1.5111E-03	1.8747E-06	4.0606E-07	0.0443	4.9471E-04
254	1.8975E+03	4.5540E+04	9.9189E-05	9.9190E-05	1.7305E-08	0.0019	4.9296E-04

255	1.9050E+03	4.5720E+04	3.8730E-04	3.8730E-04	8.3303E-08	0.0091	4.9197E-04
256	1.9125E+03	4.5900E+04	8.6069E-04	8.6069E-04	2.0000E-07	0.0233	4.9249E-04
257	1.9200E+03	4.6080E+04	1.5140E-03	1.9164E-06	4.0000E-07	0.0444	4.9520E-04
258	1.9275E+03	4.6260E+04	9.9414E-05	9.9414E-05	1.7351E-08	0.0019	4.9347E-04
259	1.9350E+03	4.6440E+04	3.8806E-04	3.8806E-04	8.3472E-08	0.0091	4.9251E-04
260	1.9425E+03	4.6620E+04	8.6233E-04	8.6233E-04	2.1411E-07	0.0234	4.9302E-04
261	1.9500E+03	4.6800E+04	1.5168E-03	1.9585E-06	4.0739E-07	0.0445	4.9570E-04
262	1.9575E+03	4.6980E+04	9.9639E-05	9.9639E-05	1.7397E-08	0.0019	4.9399E-04
263	1.9650E+03	4.7160E+04	3.8882E-04	3.8882E-04	8.3640E-08	0.0091	4.9304E-04
264	1.9725E+03	4.7340E+04	8.6396E-04	8.6396E-04	2.1452E-07	0.0234	4.9355E-04
265	1.9800E+03	4.7520E+04	1.5196E-03	2.0009E-06	4.0815E-07	0.0446	4.9619E-04
266	1.9875E+03	4.7700E+04	9.9864E-05	9.9864E-05	1.7443E-08	0.0019	4.9451E-04
267	1.9950E+03	4.7880E+04	3.8958E-04	3.8958E-04	8.3810E-08	0.0091	4.9357E-04
268	2.0025E+03	4.8060E+04	8.6560E-04	8.6560E-04	2.1493E-07	0.0235	4.9407E-04
269	2.0100E+03	4.8240E+04	1.5225E-03	2.0438E-06	4.0892E-07	0.0446	4.9668E-04
270	2.0175E+03	4.8420E+04	1.0009E-04	1.0009E-04	1.7489E-08	0.0019	4.9503E-04
271	2.0250E+03	4.8600E+04	3.9035E-04	3.9035E-04	8.3979E-08	0.0092	4.9410E-04
272	2.0325E+03	4.8780E+04	8.6724E-04	8.6724E-04	2.1534E-07	0.0235	4.9460E-04
273	2.0400E+03	4.8960E+04	1.5253E-03	2.0870E-06	4.0968E-07	0.0447	4.9718E-04
274	2.0475E+03	4.9140E+04	1.0032E-04	1.0032E-04	1.7535E-08	0.0019	4.9554E-04
275	2.0550E+03	4.9320E+04	3.9111E-04	3.9111E-04	8.4149E-08	0.0092	4.9463E-04
276	2.0625E+03	4.9500E+04	8.6888E-04	8.6888E-04	2.1575E-07	0.0236	4.9512E-04
277	2.0700E+03	4.9680E+04	1.5281E-03	2.1305E-06	4.1045E-07	0.0448	4.9767E-04
278	2.0775E+03	4.9860E+04	1.0054E-04	1.0054E-04	1.7581E-08	0.0019	4.9606E-04
279	2.0850E+03	5.0040E+04	3.9188E-04	3.9188E-04	8.4319E-08	0.0092	4.9516E-04
280	2.0925E+03	5.0220E+04	8.7052E-04	8.7052E-04	2.1616E-07	0.0236	4.9565E-04
281	2.1000E+03	5.0400E+04	1.5310E-03	2.1745E-06	4.1122E-07	0.0449	4.9817E-04
282	2.1075E+03	5.0580E+04	1.0077E-04	1.0077E-04	1.7628E-08	0.0019	4.9658E-04
283	2.1150E+03	5.0760E+04	3.9264E-04	3.9264E-04	8.4489E-08	0.0092	4.9569E-04
284	2.1225E+03	5.0940E+04	8.7216E-04	8.7216E-04	2.1658E-07	0.0236	4.9618E-04
285	2.1300E+03	5.1120E+04	1.5338E-03	2.2188E-06	4.1199E-07	0.0450	4.9866E-04
286	2.1375E+03	5.1300E+04	1.0100E-04	1.0100E-04	1.7675E-08	0.0019	4.9710E-04
287	2.1450E+03	5.1480E+04	3.9341E-04	3.9341E-04	8.4659E-08	0.0092	4.9622E-04
288	2.1525E+03	5.1660E+04	8.7381E-04	8.7381E-04	2.1699E-07	0.0237	4.9670E-04
289	2.1600E+03	5.1840E+04	1.5367E-03	2.2635E-06	4.1276E-07	0.0451	4.9916E-04
290	2.1675E+03	5.2020E+04	1.0123E-04	1.0123E-04	1.7721E-08	0.0019	4.9761E-04
291	2.1750E+03	5.2200E+04	3.9418E-04	3.9418E-04	8.4830E-08	0.0093	4.9675E-04
292	2.1825E+03	5.2380E+04	8.7546E-04	8.7546E-04	2.1740E-07	0.0237	4.9722E-04
293	2.1900E+03	5.2560E+04	1.5395E-03	2.3085E-06	4.1353E-07	0.0451	4.9966E-04
294	2.1975E+03	5.2740E+04	1.0146E-04	1.0146E-04	1.7768E-08	0.0019	4.9813E-04
295	2.2050E+03	5.2920E+04	3.9495E-04	3.9495E-04	8.5001E-08	0.0093	4.9728E-04
296	2.2125E+03	5.3100E+04	8.7711E-04	8.7711E-04	2.1782E-07	0.0238	4.9775E-04
297	2.2200E+03	5.3280E+04	1.5424E-03	2.3540E-06	4.1430E-07	0.0452	5.0015E-04
298	2.2275E+03	5.3460E+04	1.0169E-04	1.0169E-04	1.7815E-08	0.0019	4.9864E-04
299	2.2350E+03	5.3640E+04	3.9572E-04	3.9572E-04	8.5173E-08	0.0093	4.9781E-04
300	2.2425E+03	5.3820E+04	8.7876E-04	8.7876E-04	2.1823E-07	0.0238	4.9827E-04
301	2.2500E+03	5.4000E+04	1.5452E-03	2.3998E-06	4.1507E-07	0.0453	5.0065E-04
302	2.2575E+03	5.4180E+04	1.0192E-04	1.0192E-04	1.7863E-08	0.0020	4.9916E-04
303	2.2650E+03	5.4360E+04	3.9649E-04	3.9649E-04	8.5344E-08	0.0093	4.9833E-04
304	2.2725E+03	5.4540E+04	8.8041E-04	8.8041E-04	2.1865E-07	0.0239	4.9879E-04
305	2.2800E+03	5.4720E+04	1.5481E-03	2.4459E-06	4.1584E-07	0.0454	5.0115E-04
306	2.2875E+03	5.4900E+04	1.0215E-04	1.0215E-04	1.7910E-08	0.0020	4.9968E-04
307	2.2950E+03	5.5080E+04	3.9726E-04	3.9726E-04	8.5516E-08	0.0093	4.9886E-04
308	2.3025E+03	5.5260E+04	8.8207E-04	8.8207E-04	2.1906E-07	0.0239	4.9932E-04
309	2.3100E+03	5.5440E+04	1.5510E-03	2.4925E-06	4.1662E-07	0.0455	5.0165E-04
310	2.3175E+03	5.5620E+04	1.0238E-04	1.0238E-04	1.7958E-08	0.0020	5.0019E-04
311	2.3250E+03	5.5800E+04	3.9804E-04	3.9804E-04	8.5688E-08	0.0094	4.9939E-04
312	2.3325E+03	5.5980E+04	8.8372E-04	8.8372E-04	2.1948E-07	0.0240	4.9984E-04
313	2.3400E+03	5.6160E+04	1.5538E-03	2.5394E-06	4.1739E-07	0.0456	5.0214E-04
314	2.3475E+03	5.6340E+04	1.0261E-04	1.0261E-04	1.8006E-08	0.0020	5.0071E-04
315	2.3550E+03	5.6520E+04	3.9881E-04	3.9881E-04	8.5861E-08	0.0094	4.9991E-04
316	2.3625E+03	5.6700E+04	8.8538E-04	8.8538E-04	2.1990E-07	0.0240	5.0036E-04
317	2.3700E+03	5.6880E+04	1.5567E-03	2.5867E-06	4.1817E-07	0.0457	5.0264E-04
318	2.3775E+03	5.7060E+04	1.0285E-04	1.0285E-04	1.8054E-08	0.0020	5.0122E-04
319	2.3850E+03	5.7240E+04	3.9959E-04	3.9959E-04	8.6033E-08	0.0094	5.0044E-04
320	2.3925E+03	5.7420E+04	8.8704E-04	8.8704E-04	2.2031E-07	0.0241	5.0089E-04

321	2.4000E+03	5.7600E+04	1.5596E-03	2.6344E-06	4.1894E-07	0.0457	5.0314E-04
322	2.4075E+03	5.7780E+04	1.0308E-04	1.0308E-04	1.8102E-08	0.0020	5.0174E-04
323	2.4150E+03	5.7960E+04	4.0037E-04	4.0037E-04	8.6206E-08	0.0094	5.0096E-04
324	2.4225E+03	5.8140E+04	8.8871E-04	8.8871E-04	2.2073E-07	0.0241	5.0141E-04
325	2.4300E+03	5.8320E+04	1.5624E-03	2.6824E-06	4.1972E-07	0.0458	5.0364E-04
326	2.4375E+03	5.8500E+04	1.0331E-04	1.0331E-04	1.8150E-08	0.0020	5.0226E-04
327	2.4450E+03	5.8680E+04	4.0114E-04	4.0114E-04	8.6380E-08	0.0094	5.0149E-04
328	2.4525E+03	5.8860E+04	8.9037E-04	8.9037E-04	2.2115E-07	0.0241	5.0193E-04
329	2.4600E+03	5.9040E+04	1.5653E-03	2.7309E-06	4.2050E-07	0.0459	5.0414E-04
330	2.4675E+03	5.9220E+04	1.0355E-04	1.0355E-04	1.8198E-08	0.0020	5.0277E-04
331	2.4750E+03	5.9400E+04	4.0192E-04	4.0192E-04	8.6553E-08	0.0094	5.0201E-04
332	2.4825E+03	5.9580E+04	8.9204E-04	8.9204E-04	2.2157E-07	0.0242	5.0245E-04
333	2.4900E+03	5.9760E+04	1.5682E-03	2.7797E-06	4.2127E-07	0.0460	5.0464E-04
334	2.4975E+03	5.9940E+04	1.0378E-04	1.0378E-04	1.8247E-08	0.0020	5.0329E-04
335	2.5050E+03	6.0120E+04	4.0270E-04	4.0270E-04	8.6727E-08	0.0095	5.0254E-04
336	2.5125E+03	6.0300E+04	8.9370E-04	8.9370E-04	2.2199E-07	0.0242	5.0297E-04
337	2.5200E+03	6.0480E+04	1.5711E-03	2.8288E-06	4.2205E-07	0.0461	5.0515E-04
338	2.5275E+03	6.0660E+04	1.0402E-04	1.0402E-04	1.8296E-08	0.0020	5.0380E-04
339	2.5350E+03	6.0840E+04	4.0348E-04	4.0348E-04	8.6901E-08	0.0095	5.0306E-04
340	2.5425E+03	6.1020E+04	8.9537E-04	8.9537E-04	2.2241E-07	0.0243	5.0350E-04
341	2.5500E+03	6.1200E+04	1.5740E-03	2.8784E-06	4.2283E-07	0.0462	5.0565E-04
342	2.5575E+03	6.1380E+04	1.0425E-04	1.0425E-04	1.8345E-08	0.0020	5.0432E-04
343	2.5650E+03	6.1560E+04	4.0426E-04	4.0426E-04	8.7075E-08	0.0095	5.0359E-04
344	2.5725E+03	6.1740E+04	8.9705E-04	8.9705E-04	2.2283E-07	0.0243	5.0402E-04
345	2.5800E+03	6.1920E+04	1.5769E-03	2.9283E-06	4.2361E-07	0.0462	5.0615E-04
346	2.5875E+03	6.2100E+04	1.0449E-04	1.0449E-04	1.8394E-08	0.0020	5.0484E-04
347	2.5950E+03	6.2280E+04	4.0505E-04	4.0505E-04	8.7250E-08	0.0095	5.0411E-04
348	2.6025E+03	6.2460E+04	8.9872E-04	8.9872E-04	2.2325E-07	0.0244	5.0454E-04
349	2.6100E+03	6.2640E+04	1.5798E-03	2.9786E-06	4.2440E-07	0.0463	5.0665E-04
350	2.6175E+03	6.2820E+04	1.0473E-04	1.0473E-04	1.8443E-08	0.0020	5.0535E-04
351	2.6250E+03	6.3000E+04	4.0583E-04	4.0583E-04	8.7425E-08	0.0095	5.0464E-04
352	2.6325E+03	6.3180E+04	9.0039E-04	9.0039E-04	2.2367E-07	0.0244	5.0506E-04
353	2.6400E+03	6.3360E+04	1.5826E-03	3.0292E-06	4.2518E-07	0.0464	5.0715E-04
354	2.6475E+03	6.3540E+04	1.0497E-04	1.0497E-04	1.8492E-08	0.0020	5.0587E-04
355	2.6550E+03	6.3720E+04	4.0662E-04	4.0662E-04	8.7600E-08	0.0096	5.0516E-04
356	2.6625E+03	6.3900E+04	9.0207E-04	9.0207E-04	2.2409E-07	0.0245	5.0558E-04
357	2.6700E+03	6.4080E+04	1.5855E-03	3.0803E-06	4.2596E-07	0.0465	5.0766E-04
358	2.6775E+03	6.4260E+04	1.0520E-04	1.0520E-04	1.8542E-08	0.0020	5.0639E-04
359	2.6850E+03	6.4440E+04	4.0740E-04	4.0740E-04	8.7775E-08	0.0096	5.0569E-04
360	2.6925E+03	6.4620E+04	9.0375E-04	9.0375E-04	2.2451E-07	0.0245	5.0610E-04
361	2.7000E+03	6.4800E+04	1.5884E-03	3.1317E-06	4.2675E-07	0.0466	5.0816E-04
362	2.7075E+03	6.4980E+04	1.0544E-04	1.0544E-04	1.8592E-08	0.0020	5.0690E-04
363	2.7150E+03	6.5160E+04	4.0819E-04	4.0819E-04	8.7951E-08	0.0096	5.0621E-04
364	2.7225E+03	6.5340E+04	9.0543E-04	9.0543E-04	2.2494E-07	0.0246	5.0663E-04
365	2.7300E+03	6.5520E+04	1.5913E-03	3.1834E-06	4.2753E-07	0.0467	5.0866E-04
366	2.7375E+03	6.5700E+04	1.0568E-04	1.0568E-04	1.8641E-08	0.0020	5.0742E-04
367	2.7450E+03	6.5880E+04	4.0898E-04	4.0898E-04	8.8127E-08	0.0096	5.0674E-04
368	2.7525E+03	6.6060E+04	9.0711E-04	9.0711E-04	2.2536E-07	0.0246	5.0715E-04
369	2.7600E+03	6.6240E+04	1.5943E-03	3.2356E-06	4.2832E-07	0.0468	5.0917E-04
370	2.7675E+03	6.6420E+04	1.0592E-04	1.0592E-04	1.8691E-08	0.0020	5.0794E-04
371	2.7750E+03	6.6600E+04	4.0977E-04	4.0977E-04	8.8303E-08	0.0096	5.0726E-04
372	2.7825E+03	6.6780E+04	9.0880E-04	9.0880E-04	2.2578E-07	0.0246	5.0767E-04
373	2.7900E+03	6.6960E+04	1.5972E-03	3.2881E-06	4.2910E-07	0.0468	5.0967E-04
374	2.7975E+03	6.7140E+04	1.0616E-04	1.0616E-04	1.8742E-08	0.0020	5.0845E-04
375	2.8050E+03	6.7320E+04	4.1056E-04	4.1056E-04	8.8480E-08	0.0097	5.0779E-04
376	2.8125E+03	6.7500E+04	9.1048E-04	9.1048E-04	2.2621E-07	0.0247	5.0819E-04
377	2.8200E+03	6.7680E+04	1.6001E-03	3.3410E-06	4.2989E-07	0.0469	5.1018E-04
378	2.8275E+03	6.7860E+04	1.0640E-04	1.0640E-04	1.8792E-08	0.0021	5.0897E-04
379	2.8350E+03	6.8040E+04	4.1135E-04	4.1135E-04	8.8656E-08	0.0097	5.0831E-04
380	2.8425E+03	6.8220E+04	9.1217E-04	9.1217E-04	2.2663E-07	0.0247	5.0871E-04
381	2.8500E+03	6.8400E+04	1.6030E-03	3.3943E-06	4.3068E-07	0.0470	5.1068E-04
382	2.8575E+03	6.8580E+04	1.0664E-04	1.0664E-04	1.8842E-08	0.0021	5.0949E-04
383	2.8650E+03	6.8760E+04	4.1214E-04	4.1214E-04	8.8834E-08	0.0097	5.0883E-04
384	2.8725E+03	6.8940E+04	9.1386E-04	9.1386E-04	2.2706E-07	0.0248	5.0924E-04
385	2.8800E+03	6.9120E+04	1.6059E-03	3.4479E-06	4.3177E-07	0.0471	5.1119E-04
386	2.8875E+03	6.9300E+04	1.0689E-04	1.0689E-04	1.8893E-08	0.0021	5.1001E-04

387	2.8950E+03	6.9480E+04	4.1294E-04	4.1294E-04	8.9011E-08	0.0097	5.0936E-04
388	2.9025E+03	6.9660E+04	9.1555E-04	9.1555E-04	2.7000E-07	0.0248	5.0976E-04
389	2.9100E+03	6.9840E+04	1.6088E-03	3.5020E-06	4.3000E-07	0.0472	5.1170E-04
390	2.9175E+03	7.0020E+04	1.0713E-04	1.0713E-04	1.8944E-08	0.0021	5.1052E-04
391	2.9250E+03	7.0200E+04	4.1373E-04	4.1373E-04	8.9189E-08	0.0097	5.0988E-04
392	2.9325E+03	7.0380E+04	9.1724E-04	9.1725E-04	2.2791E-07	0.0249	5.1028E-04
393	2.9400E+03	7.0560E+04	1.6117E-03	3.5563E-06	4.3305E-07	0.0473	5.1221E-04
394	2.9475E+03	7.0740E+04	1.0737E-04	1.0737E-04	1.8995E-08	0.0021	5.1104E-04
395	2.9550E+03	7.0920E+04	4.1453E-04	4.1453E-04	8.9366E-08	0.0098	5.1041E-04
396	2.9625E+03	7.1100E+04	9.1894E-04	9.1894E-04	2.2833E-07	0.0249	5.1080E-04
397	2.9700E+03	7.1280E+04	1.6147E-03	3.6111E-06	4.3384E-07	0.0474	5.1271E-04
398	2.9775E+03	7.1460E+04	1.0762E-04	1.0762E-04	1.9046E-08	0.0021	5.1156E-04
399	2.9850E+03	7.1640E+04	4.1532E-04	4.1532E-04	8.9545E-08	0.0098	5.1093E-04
400	2.9925E+03	7.1820E+04	9.2064E-04	9.2064E-04	2.2876E-07	0.0250	5.1133E-04
401	3.0000E+03	7.2000E+04	1.6176E-03	3.6662E-06	4.3463E-07	0.0474	5.1322E-04
402	3.0075E+03	7.2180E+04	1.0786E-04	1.0786E-04	1.9097E-08	0.0021	5.1208E-04
403	3.0150E+03	7.2360E+04	4.1612E-04	4.1612E-04	8.9723E-08	0.0098	5.1146E-04
404	3.0225E+03	7.2540E+04	9.2234E-04	9.2234E-04	2.2919E-07	0.0250	5.1185E-04
405	3.0300E+03	7.2720E+04	1.6205E-03	3.7218E-06	4.3542E-07	0.0475	5.1373E-04
406	3.0375E+03	7.2900E+04	1.0811E-04	1.0811E-04	1.9149E-08	0.0021	5.1260E-04
407	3.0450E+03	7.3080E+04	4.1692E-04	4.1692E-04	8.9902E-08	0.0098	5.1198E-04
408	3.0525E+03	7.3260E+04	9.2404E-04	9.2404E-04	2.2962E-07	0.0251	5.1237E-04
409	3.0600E+03	7.3440E+04	1.6235E-03	3.7776E-06	4.3622E-07	0.0476	5.1424E-04
410	3.0675E+03	7.3620E+04	1.0835E-04	1.0835E-04	1.9200E-08	0.0021	5.1312E-04
411	3.0750E+03	7.3800E+04	4.1772E-04	4.1772E-04	9.0081E-08	0.0098	5.1251E-04
412	3.0825E+03	7.3980E+04	9.2574E-04	9.2574E-04	2.3004E-07	0.0251	5.1289E-04
413	3.0900E+03	7.4160E+04	1.6264E-03	3.8339E-06	4.3701E-07	0.0477	5.1475E-04
414	3.0975E+03	7.4340E+04	1.0860E-04	1.0860E-04	1.9252E-08	0.0021	5.1364E-04
415	3.1050E+03	7.4520E+04	4.1852E-04	4.1852E-04	9.0260E-08	0.0099	5.1303E-04
416	3.1125E+03	7.4700E+04	9.2744E-04	9.2744E-04	2.3047E-07	0.0252	5.1342E-04
417	3.1200E+03	7.4880E+04	1.6293E-03	3.8905E-06	4.3781E-07	0.0478	5.1526E-04
418	3.1275E+03	7.5060E+04	1.0884E-04	1.0884E-04	1.9304E-08	0.0021	5.1416E-04
419	3.1350E+03	7.5240E+04	4.1932E-04	4.1932E-04	9.0439E-08	0.0099	5.1356E-04
420	3.1425E+03	7.5420E+04	9.2915E-04	9.2915E-04	2.3090E-07	0.0252	5.1394E-04
421	3.1500E+03	7.5600E+04	1.6323E-03	3.9475E-06	4.3860E-07	0.0479	5.1577E-04
422	3.1575E+03	7.5780E+04	1.0909E-04	1.0909E-04	1.9356E-08	0.0021	5.1468E-04
423	3.1650E+03	7.5960E+04	4.2013E-04	4.2013E-04	9.0619E-08	0.0099	5.1408E-04
424	3.1725E+03	7.6140E+04	9.3086E-04	9.3086E-04	2.3133E-07	0.0253	5.1446E-04
425	3.1800E+03	7.6320E+04	1.6352E-03	4.0049E-06	4.3940E-07	0.0480	5.1628E-04
426	3.1875E+03	7.6500E+04	1.0934E-04	1.0934E-04	1.9408E-08	0.0021	5.1520E-04
427	3.1950E+03	7.6680E+04	4.2093E-04	4.2093E-04	9.0799E-08	0.0099	5.1461E-04
428	3.2025E+03	7.6860E+04	9.3257E-04	9.3257E-04	2.3176E-07	0.0253	5.1499E-04
429	3.2100E+03	7.7040E+04	1.6382E-03	4.0627E-06	4.4020E-07	0.0481	5.1679E-04
430	3.2175E+03	7.7220E+04	1.0959E-04	1.0959E-04	1.9460E-08	0.0021	5.1572E-04
431	3.2250E+03	7.7400E+04	4.2173E-04	4.2173E-04	9.0979E-08	0.0099	5.1513E-04
432	3.2325E+03	7.7580E+04	9.3428E-04	9.3428E-04	2.3219E-07	0.0253	5.1551E-04
433	3.2400E+03	7.7760E+04	1.6411E-03	4.1208E-06	4.4100E-07	0.0481	5.1730E-04
434	3.2475E+03	7.7940E+04	1.0983E-04	1.0984E-04	1.9513E-08	0.0021	5.1624E-04
435	3.2550E+03	7.8120E+04	4.2254E-04	4.2254E-04	9.1160E-08	0.0100	5.1566E-04
436	3.2625E+03	7.8300E+04	9.3599E-04	9.3599E-04	2.3263E-07	0.0254	5.1604E-04
437	3.2700E+03	7.8480E+04	1.6441E-03	4.1793E-06	4.4179E-07	0.0482	5.1781E-04
438	3.2775E+03	7.8660E+04	1.1008E-04	1.1008E-04	1.9566E-08	0.0021	5.1676E-04
439	3.2850E+03	7.8840E+04	4.2335E-04	4.2335E-04	9.1341E-08	0.0100	5.1619E-04
440	3.2925E+03	7.9020E+04	9.3771E-04	9.3771E-04	2.3306E-07	0.0254	5.1656E-04
441	3.3000E+03	7.9200E+04	1.6470E-03	4.2382E-06	4.4259E-07	0.0483	5.1832E-04
442	3.3075E+03	7.9380E+04	1.1033E-04	1.1033E-04	1.9618E-08	0.0021	5.1728E-04
443	3.3150E+03	7.9560E+04	4.2416E-04	4.2416E-04	9.1522E-08	0.0100	5.1671E-04
444	3.3225E+03	7.9740E+04	9.3942E-04	9.3943E-04	2.3349E-07	0.0255	5.1708E-04
445	3.3300E+03	7.9920E+04	1.6500E-03	4.2974E-06	4.4340E-07	0.0484	5.1884E-04
446	3.3375E+03	8.0100E+04	1.1058E-04	1.1058E-04	1.9671E-08	0.0021	5.1780E-04
447	3.3450E+03	8.0280E+04	4.2496E-04	4.2497E-04	9.1704E-08	0.0100	5.1724E-04
448	3.3525E+03	8.0460E+04	9.4114E-04	9.4114E-04	2.3392E-07	0.0255	5.1761E-04
449	3.3600E+03	8.0640E+04	1.6530E-03	4.4420E-06	4.4420E-07	0.0485	5.1935E-04
450	3.3675E+03	8.0820E+04	1.1084E-04	1.1084E-04	1.9725E-08	0.0022	5.1832E-04
451	3.3750E+03	8.1000E+04	4.2578E-04	4.2578E-04	9.1885E-08	0.0100	5.1776E-04
452	3.3825E+03	8.1180E+04	9.4286E-04	9.4286E-04	2.3436E-07	0.0256	5.1813E-04

453	3.3900E+03	8.1360E+04	1.6559E-03	4.4170E-06	4.4500E-07	0.0486	5.1986E-04
454	3.3975E+03	8.1540E+04	1.1109E-04	1.1109E-04	1.9778E-08	0.0022	5.1884E-04
455	3.4050E+03	8.1720E+04	4.2659E-04	4.2659E-04	9.2067E-08	0.0101	5.1829E-04
456	3.4125E+03	8.1900E+04	9.4459E-04	9.4459E-04	2.3479E-07	0.0256	5.1866E-04
457	3.4200E+03	8.2080E+04	1.6589E-03	4.4774E-06	4.4580E-07	0.0487	5.2038E-04
458	3.4275E+03	8.2260E+04	1.1134E-04	1.1134E-04	1.9831E-08	0.0022	5.1936E-04
459	3.4350E+03	8.2440E+04	4.2740E-04	4.2740E-04	9.2249E-08	0.0101	5.1882E-04
460	3.4425E+03	8.2620E+04	9.4631E-04	9.4631E-04	2.3522E-07	0.0257	5.1918E-04
461	3.4500E+03	8.2800E+04	1.6619E-03	4.5381E-06	4.4661E-07	0.0488	5.2089E-04
462	3.4575E+03	8.2980E+04	1.1159E-04	1.1159E-04	1.9885E-08	0.0022	5.1989E-04
463	3.4650E+03	8.3160E+04	4.2821E-04	4.2821E-04	9.2432E-08	0.0101	5.1934E-04
464	3.4725E+03	8.3340E+04	9.4804E-04	9.4804E-04	2.3566E-07	0.0257	5.1971E-04
465	3.4800E+03	8.3520E+04	1.6648E-03	4.5992E-06	4.4741E-07	0.0488	5.2140E-04
466	3.4875E+03	8.3700E+04	1.1184E-04	1.1184E-04	1.9939E-08	0.0022	5.2041E-04
467	3.4950E+03	8.3880E+04	4.2903E-04	4.2903E-04	9.2615E-08	0.0101	5.1987E-04
468	3.5025E+03	8.4060E+04	9.4976E-04	9.4977E-04	2.3609E-07	0.0258	5.2023E-04
469	3.5100E+03	8.4240E+04	1.6678E-03	4.6607E-06	4.4822E-07	0.0489	5.2192E-04
470	3.5175E+03	8.4420E+04	1.1210E-04	1.1210E-04	1.9993E-08	0.0022	5.2093E-04
471	3.5250E+03	8.4600E+04	4.2984E-04	4.2984E-04	9.2798E-08	0.0101	5.2040E-04
472	3.5325E+03	8.4780E+04	9.5149E-04	9.5150E-04	2.3653E-07	0.0258	5.2076E-04
473	3.5400E+03	8.4960E+04	1.6708E-03	4.7226E-06	4.4902E-07	0.0490	5.2244E-04
474	3.5475E+03	8.5140E+04	1.1235E-04	1.1235E-04	2.0047E-08	0.0022	5.2145E-04
475	3.5550E+03	8.5320E+04	4.3066E-04	4.3066E-04	9.2981E-08	0.0102	5.2093E-04
476	3.5625E+03	8.5500E+04	9.5323E-04	9.5323E-04	2.3697E-07	0.0259	5.2129E-04
477	3.5700E+03	8.5680E+04	1.6738E-03	4.7848E-06	4.4983E-07	0.0491	5.2295E-04
478	3.5775E+03	8.5860E+04	1.1261E-04	1.1261E-04	2.0101E-08	0.0022	5.2198E-04
479	3.5850E+03	8.6040E+04	4.3148E-04	4.3148E-04	9.3165E-08	0.0102	5.2145E-04
480	3.5925E+03	8.6220E+04	9.5496E-04	9.5496E-04	2.3740E-07	0.0259	5.2181E-04
481	3.6000E+03	8.6400E+04	1.6768E-03	4.8474E-06	4.5064E-07	0.0492	5.2347E-04
482	3.6075E+03	8.6580E+04	1.1286E-04	1.1286E-04	2.0156E-08	0.0022	5.2250E-04
483	3.6150E+03	8.6760E+04	4.3229E-04	4.3229E-04	9.3349E-08	0.0102	5.2198E-04
484	3.6225E+03	8.6940E+04	9.5669E-04	9.5670E-04	2.3784E-07	0.0260	5.2234E-04
485	3.6300E+03	8.7120E+04	1.6798E-03	4.9104E-06	4.5145E-07	0.0493	5.2398E-04
486	3.6375E+03	8.7300E+04	1.1312E-04	1.1312E-04	2.0210E-08	0.0022	5.2303E-04
487	3.6450E+03	8.7480E+04	4.3311E-04	4.3311E-04	9.3533E-08	0.0102	5.2251E-04
488	3.6525E+03	8.7660E+04	9.5843E-04	9.5843E-04	2.3828E-07	0.0260	5.2287E-04
489	3.6600E+03	8.7840E+04	1.6828E-03	4.9737E-06	4.5226E-07	0.0494	5.2450E-04
490	3.6675E+03	8.8020E+04	1.1337E-04	1.1337E-04	2.0265E-08	0.0022	5.2355E-04
491	3.6750E+03	8.8200E+04	4.3393E-04	4.3394E-04	9.3717E-08	0.0102	5.2304E-04
492	3.6825E+03	8.8380E+04	9.6017E-04	9.6017E-04	2.3872E-07	0.0261	5.2339E-04
493	3.6900E+03	8.8560E+04	1.6857E-03	5.0374E-06	4.5307E-07	0.0495	5.2502E-04
494	3.6975E+03	8.8740E+04	1.1363E-04	1.1363E-04	2.0320E-08	0.0022	5.2407E-04
495	3.7050E+03	8.8920E+04	4.3476E-04	4.3476E-04	9.3902E-08	0.0103	5.2357E-04
496	3.7125E+03	8.9100E+04	9.6191E-04	9.6191E-04	2.3916E-07	0.0261	5.2392E-04
497	3.7200E+03	8.9280E+04	1.6887E-03	5.1015E-06	4.5388E-07	0.0495	5.2554E-04
498	3.7275E+03	8.9460E+04	1.1389E-04	1.1389E-04	2.0375E-08	0.0022	5.2460E-04
499	3.7350E+03	8.9640E+04	4.3558E-04	4.3558E-04	9.4087E-08	0.0103	5.2410E-04
500	3.7425E+03	8.9820E+04	9.6365E-04	9.6365E-04	2.3959E-07	0.0262	5.2445E-04
501	3.7500E+03	9.0000E+04	1.6917E-03	5.1660E-06	4.5469E-07	0.0496	5.2606E-04
502	3.7575E+03	9.0180E+04	1.1415E-04	1.1415E-04	2.0430E-08	0.0022	5.2512E-04
503	3.7650E+03	9.0360E+04	4.3640E-04	4.3640E-04	9.4272E-08	0.0103	5.2463E-04
504	3.7725E+03	9.0540E+04	9.6540E-04	9.6540E-04	2.4003E-07	0.0262	5.2498E-04
505	3.7800E+03	9.0720E+04	1.6947E-03	5.2309E-06	4.5550E-07	0.0497	5.2657E-04
506	3.7875E+03	9.0900E+04	1.1441E-04	1.1441E-04	2.0486E-08	0.0022	5.2565E-04
507	3.7950E+03	9.1080E+04	4.3723E-04	4.3723E-04	9.4458E-08	0.0103	5.2516E-04
508	3.8025E+03	9.1260E+04	9.6714E-04	9.6714E-04	2.4047E-07	0.0263	5.2551E-04
509	3.8100E+03	9.1440E+04	1.6978E-03	5.2961E-06	4.5632E-07	0.0498	5.2709E-04
510	3.8175E+03	9.1620E+04	1.1466E-04	1.1466E-04	2.0541E-08	0.0022	5.2618E-04
511	3.8250E+03	9.1800E+04	4.3805E-04	4.3805E-04	9.4643E-08	0.0103	5.2569E-04
512	3.8325E+03	9.1980E+04	9.6889E-04	9.6889E-04	2.4092E-07	0.0263	5.2603E-04
513	3.8400E+03	9.2160E+04	1.7008E-03	5.3617E-06	4.5713E-07	0.0499	5.2761E-04
514	3.8475E+03	9.2340E+04	1.1492E-04	1.1492E-04	2.0597E-08	0.0022	5.2670E-04
515	3.8550E+03	9.2520E+04	4.3888E-04	4.3888E-04	9.4830E-08	0.0104	5.2622E-04
516	3.8625E+03	9.2700E+04	9.7064E-04	9.7064E-04	2.4136E-07	0.0263	5.2656E-04
517	3.8700E+03	9.2880E+04	1.7038E-03	5.4276E-06	4.5815E-07	0.0500	5.2813E-04
518	3.8775E+03	9.3060E+04	1.1518E-04	1.1518E-04	2.0653E-08	0.0023	5.2723E-04

519	3.8850E+03	9.3240E+04	4.3971E-04	4.3971E-04	9.5016E-08	0.0104	5.2675E-04
520	3.8925E+03	9.3420E+04	9.7239E-04	9.7239E-04	2.0000E-07	0.0264	5.2709E-04
521	3.9000E+03	9.3600E+04	1.7068E-03	5.4940E-06	4.0000E-07	0.0501	5.2865E-04
522	3.9075E+03	9.3780E+04	1.1545E-04	1.1545E-04	2.0709E-08	0.0023	5.2776E-04
523	3.9150E+03	9.3960E+04	4.4054E-04	4.4054E-04	9.5203E-08	0.0104	5.2728E-04
524	3.9225E+03	9.4140E+04	9.7415E-04	9.7415E-04	2.4224E-07	0.0264	5.2762E-04
525	3.9300E+03	9.4320E+04	1.7098E-03	5.5607E-06	4.5958E-07	0.0502	5.2918E-04
526	3.9375E+03	9.4500E+04	1.1571E-04	1.1571E-04	2.0765E-08	0.0023	5.2828E-04
527	3.9450E+03	9.4680E+04	4.4137E-04	4.4137E-04	9.5389E-08	0.0104	5.2781E-04
528	3.9525E+03	9.4860E+04	9.7590E-04	9.7590E-04	2.4268E-07	0.0265	5.2815E-04
529	3.9600E+03	9.5040E+04	1.7128E-03	5.6278E-06	4.6040E-07	0.0503	5.2970E-04
530	3.9675E+03	9.5220E+04	1.1597E-04	1.1597E-04	2.0821E-08	0.0023	5.2881E-04
531	3.9750E+03	9.5400E+04	4.4220E-04	4.4220E-04	9.5577E-08	0.0104	5.2834E-04
532	3.9825E+03	9.5580E+04	9.7766E-04	9.7766E-04	2.4313E-07	0.0265	5.2868E-04
533	3.9900E+03	9.5760E+04	1.7158E-03	5.6952E-06	4.6122E-07	0.0504	5.3022E-04
534	3.9975E+03	9.5940E+04	1.1623E-04	1.1623E-04	2.0878E-08	0.0023	5.2934E-04
535	4.0050E+03	9.6120E+04	4.4303E-04	4.4303E-04	9.5764E-08	0.0105	5.2887E-04
536	4.0125E+03	9.6300E+04	9.7942E-04	9.7942E-04	2.4357E-07	0.0266	5.2921E-04
537	4.0200E+03	9.6480E+04	1.7189E-03	5.7630E-06	4.6204E-07	0.0504	5.3074E-04
538	4.0275E+03	9.6660E+04	1.1649E-04	1.1649E-04	2.0934E-08	0.0023	5.2987E-04
539	4.0350E+03	9.6840E+04	4.4386E-04	4.4386E-04	9.5952E-08	0.0105	5.2940E-04
540	4.0425E+03	9.7020E+04	9.8118E-04	9.8118E-04	2.4401E-07	0.0266	5.2974E-04
541	4.0500E+03	9.7200E+04	1.7219E-03	5.8312E-06	4.6286E-07	0.0505	5.3126E-04
542	4.0575E+03	9.7380E+04	1.1676E-04	1.1676E-04	2.0991E-08	0.0023	5.3039E-04
543	4.0650E+03	9.7560E+04	4.4470E-04	4.4470E-04	9.6140E-08	0.0105	5.2993E-04
544	4.0725E+03	9.7740E+04	9.8294E-04	9.8294E-04	2.4446E-07	0.0267	5.3027E-04
545	4.0800E+03	9.7920E+04	1.7249E-03	5.8998E-06	4.6368E-07	0.0506	5.3179E-04
546	4.0875E+03	9.8100E+04	1.1702E-04	1.1702E-04	2.1048E-08	0.0023	5.3092E-04
547	4.0950E+03	9.8280E+04	4.4553E-04	4.4553E-04	9.6328E-08	0.0105	5.3047E-04
548	4.1025E+03	9.8460E+04	9.8471E-04	9.8471E-04	2.4490E-07	0.0267	5.3080E-04
549	4.1100E+03	9.8640E+04	1.7280E-03	5.9688E-06	4.6450E-07	0.0507	5.3231E-04
550	4.1175E+03	9.8820E+04	1.1729E-04	1.1729E-04	2.1105E-08	0.0023	5.3145E-04
551	4.1250E+03	9.9000E+04	4.4637E-04	4.4637E-04	9.6516E-08	0.0105	5.3100E-04
552	4.1325E+03	9.9180E+04	9.8647E-04	9.8647E-04	2.4535E-07	0.0268	5.3134E-04
553	4.1400E+03	9.9360E+04	1.7310E-03	6.0381E-06	4.6532E-07	0.0508	5.3283E-04
554	4.1475E+03	9.9540E+04	1.1755E-04	1.1755E-04	2.1163E-08	0.0023	5.3198E-04
555	4.1550E+03	9.9720E+04	4.4721E-04	4.4721E-04	9.6705E-08	0.0106	5.3153E-04
556	4.1625E+03	9.9900E+04	9.8824E-04	9.8824E-04	2.4580E-07	0.0268	5.3187E-04
557	4.1700E+03	1.0008E+05	1.7340E-03	6.1078E-06	4.6614E-07	0.0509	5.3336E-04
558	4.1775E+03	1.0026E+05	1.1782E-04	1.1782E-04	2.1220E-08	0.0023	5.3251E-04
559	4.1850E+03	1.0044E+05	4.4805E-04	4.4805E-04	9.6894E-08	0.0106	5.3206E-04
560	4.1925E+03	1.0062E+05	9.9001E-04	9.9001E-04	2.4624E-07	0.0269	5.3240E-04
561	4.2000E+03	1.0080E+05	1.7371E-03	6.1778E-06	4.6697E-07	0.0510	5.3388E-04
562	4.2075E+03	1.0098E+05	1.1808E-04	1.1808E-04	2.1278E-08	0.0023	5.3304E-04
563	4.2150E+03	1.0116E+05	4.4889E-04	4.4889E-04	9.7084E-08	0.0106	5.3260E-04
564	4.2225E+03	1.0134E+05	9.9178E-04	9.9178E-04	2.4669E-07	0.0269	5.3293E-04
565	4.2300E+03	1.0152E+05	1.7401E-03	6.2483E-06	4.6779E-07	0.0511	5.3441E-04
566	4.2375E+03	1.0170E+05	1.1835E-04	1.1835E-04	2.1335E-08	0.0023	5.3357E-04
567	4.2450E+03	1.0188E+05	4.4973E-04	4.4973E-04	9.7273E-08	0.0106	5.3313E-04
568	4.2525E+03	1.0206E+05	9.9355E-04	9.9355E-04	2.4714E-07	0.0270	5.3346E-04
569	4.2600E+03	1.0224E+05	1.7432E-03	6.3191E-06	4.6862E-07	0.0512	5.3493E-04
570	4.2675E+03	1.0242E+05	1.1862E-04	1.1862E-04	2.1393E-08	0.0023	5.3410E-04
571	4.2750E+03	1.0260E+05	4.5057E-04	4.5057E-04	9.7463E-08	0.0106	5.3367E-04
572	4.2825E+03	1.0278E+05	9.9533E-04	9.9533E-04	2.4758E-07	0.0270	5.3400E-04
573	4.2900E+03	1.0296E+05	1.7462E-03	6.3903E-06	4.6944E-07	0.0512	5.3546E-04
574	4.2975E+03	1.0314E+05	1.1889E-04	1.1889E-04	2.1451E-08	0.0023	5.3463E-04
575	4.3050E+03	1.0332E+05	4.5141E-04	4.5141E-04	9.7653E-08	0.0107	5.3420E-04
576	4.3125E+03	1.0350E+05	9.9711E-04	9.9711E-04	2.4803E-07	0.0271	5.3453E-04
577	4.3200E+03	1.0368E+05	1.7493E-03	6.4619E-06	4.7027E-07	0.0513	5.3599E-04
578	4.3275E+03	1.0386E+05	1.1915E-04	1.1915E-04	2.1510E-08	0.0023	5.3517E-04
579	4.3350E+03	1.0404E+05	4.5225E-04	4.5225E-04	9.7844E-08	0.0107	5.3473E-04
580	4.3425E+03	1.0422E+05	9.9888E-04	9.9888E-04	2.4848E-07	0.0271	5.3506E-04
581	4.3500E+03	1.0440E+05	1.7523E-03	6.5338E-06	4.7110E-07	0.0514	5.3651E-04
582	4.3575E+03	1.0458E+05	1.1942E-04	1.1942E-04	2.1568E-08	0.0024	5.3570E-04
583	4.3650E+03	1.0476E+05	4.5310E-04	4.5310E-04	9.8034E-08	0.0107	5.3527E-04
584	4.3725E+03	1.0494E+05	1.0007E-03	1.0007E-03	2.4893E-07	0.0272	5.3560E-04

585	4.3800E+03	1.0512E+05	1.7554E-03	6.6061E-06	4.7193E-07	0.0515	5.3704E-04
586	4.3875E+03	1.0530E+05	1.1969E-04	1.1969E-04	2.1627E-08	0.0024	5.3623E-04
587	4.3950E+03	1.0548E+05	4.5394E-04	4.5394E-04	9.8225E-08	0.0107	5.3580E-04
588	4.4025E+03	1.0566E+05	1.0024E-03	1.0024E-03	2.4938E-07	0.0272	5.3613E-04
589	4.4100E+03	1.0584E+05	1.7585E-03	6.6788E-06	4.7276E-07	0.0516	5.3757E-04
590	4.4175E+03	1.0602E+05	1.1996E-04	1.1996E-04	2.1685E-08	0.0024	5.3676E-04
591	4.4250E+03	1.0620E+05	4.5479E-04	4.5479E-04	9.8417E-08	0.0107	5.3634E-04
592	4.4325E+03	1.0638E+05	1.0042E-03	1.0042E-03	2.4983E-07	0.0273	5.3667E-04
593	4.4400E+03	1.0656E+05	1.7615E-03	6.7518E-06	4.7359E-07	0.0517	5.3810E-04
594	4.4475E+03	1.0674E+05	1.2023E-04	1.2023E-04	2.1744E-08	0.0024	5.3730E-04
595	4.4550E+03	1.0692E+05	4.5564E-04	4.5564E-04	9.8608E-08	0.0108	5.3688E-04
596	4.4625E+03	1.0710E+05	1.0060E-03	1.0060E-03	2.5028E-07	0.0273	5.3720E-04
597	4.4700E+03	1.0728E+05	1.7646E-03	6.8253E-06	4.7442E-07	0.0518	5.3862E-04
598	4.4775E+03	1.0746E+05	1.2051E-04	1.2051E-04	2.1803E-08	0.0024	5.3783E-04
599	4.4850E+03	1.0764E+05	4.5649E-04	4.5649E-04	9.8800E-08	0.0108	5.3741E-04
600	4.4925E+03	1.0782E+05	1.0078E-03	1.0078E-03	2.5074E-07	0.0274	5.3774E-04
601	4.5000E+03	1.0800E+05	1.7677E-03	6.8991E-06	4.7525E-07	0.0519	5.3915E-04
602	4.5075E+03	1.0818E+05	1.2078E-04	1.2078E-04	2.1862E-08	0.0024	5.3836E-04
603	4.5150E+03	1.0836E+05	4.5734E-04	4.5734E-04	9.8992E-08	0.0108	5.3795E-04
604	4.5225E+03	1.0854E+05	1.0096E-03	1.0096E-03	2.5119E-07	0.0274	5.3827E-04
605	4.5300E+03	1.0872E+05	1.7707E-03	6.9732E-06	4.7608E-07	0.0520	5.3968E-04
606	4.5375E+03	1.0890E+05	1.2105E-04	1.2105E-04	2.1922E-08	0.0024	5.3890E-04
607	4.5450E+03	1.0908E+05	4.5819E-04	4.5819E-04	9.9184E-08	0.0108	5.3849E-04
608	4.5525E+03	1.0926E+05	1.0114E-03	1.0114E-03	2.5164E-07	0.0275	5.3881E-04
609	4.5600E+03	1.0944E+05	1.7738E-03	7.0478E-06	4.7692E-07	0.0521	5.4021E-04
610	4.5675E+03	1.0962E+05	1.2132E-04	1.2132E-04	2.1981E-08	0.0024	5.3943E-04
611	4.5750E+03	1.0980E+05	4.5904E-04	4.5904E-04	9.9377E-08	0.0108	5.3902E-04
612	4.5825E+03	1.0998E+05	1.0132E-03	1.0132E-03	2.5209E-07	0.0275	5.3934E-04
613	4.5900E+03	1.1016E+05	1.7769E-03	7.1227E-06	4.7775E-07	0.0522	5.4074E-04
614	4.5975E+03	1.1034E+05	1.2160E-04	1.2160E-04	2.2041E-08	0.0024	5.3997E-04
615	4.6050E+03	1.1052E+05	4.5989E-04	4.5989E-04	9.9570E-08	0.0109	5.3956E-04
616	4.6125E+03	1.1070E+05	1.0150E-03	1.0150E-03	2.5255E-07	0.0276	5.3988E-04
617	4.6200E+03	1.1088E+05	1.7800E-03	7.1980E-06	4.7859E-07	0.0522	5.4127E-04
618	4.6275E+03	1.1106E+05	1.2187E-04	1.2187E-04	2.2101E-08	0.0024	5.4050E-04
619	4.6350E+03	1.1124E+05	4.6075E-04	4.6075E-04	9.9763E-08	0.0109	5.4010E-04
620	4.6425E+03	1.1142E+05	1.0168E-03	1.0168E-03	2.5300E-07	0.0276	5.4042E-04
621	4.6500E+03	1.1160E+05	1.7831E-03	7.2737E-06	4.7942E-07	0.0523	5.4180E-04
622	4.6575E+03	1.1178E+05	1.2214E-04	1.2214E-04	2.2161E-08	0.0024	5.4104E-04
623	4.6650E+03	1.1196E+05	4.6160E-04	4.6160E-04	9.9957E-08	0.0109	5.4064E-04
624	4.6725E+03	1.1214E+05	1.0186E-03	1.0186E-03	2.5345E-07	0.0277	5.4096E-04
625	4.6800E+03	1.1232E+05	1.7862E-03	7.3497E-06	4.8026E-07	0.0524	5.4234E-04
626	4.6875E+03	1.1250E+05	1.2242E-04	1.2242E-04	2.2221E-08	0.0024	5.4157E-04
627	4.6950E+03	1.1268E+05	4.6246E-04	4.6246E-04	1.0015E-07	0.0109	5.4117E-04
628	4.7025E+03	1.1286E+05	1.0204E-03	1.0204E-03	2.5391E-07	0.0277	5.4149E-04
629	4.7100E+03	1.1304E+05	1.7892E-03	7.4261E-06	4.8110E-07	0.0525	5.4287E-04
630	4.7175E+03	1.1322E+05	1.2270E-04	1.2270E-04	2.2281E-08	0.0024	5.4211E-04
631	4.7250E+03	1.1340E+05	4.6332E-04	4.6332E-04	1.0034E-07	0.0110	5.4171E-04
632	4.7325E+03	1.1358E+05	1.0222E-03	1.0222E-03	2.5436E-07	0.0278	5.4203E-04
633	4.7400E+03	1.1376E+05	1.7923E-03	7.5029E-06	4.8194E-07	0.0526	5.4340E-04
634	4.7475E+03	1.1394E+05	1.2297E-04	1.2297E-04	2.2341E-08	0.0024	5.4264E-04
635	4.7550E+03	1.1412E+05	4.6417E-04	4.6417E-04	1.0054E-07	0.0110	5.4225E-04
636	4.7625E+03	1.1430E+05	1.0240E-03	1.0240E-03	2.5482E-07	0.0278	5.4257E-04
637	4.7700E+03	1.1448E+05	1.7954E-03	7.5801E-06	4.8278E-07	0.0527	5.4393E-04
638	4.7775E+03	1.1466E+05	1.2325E-04	1.2325E-04	2.2402E-08	0.0024	5.4318E-04
639	4.7850E+03	1.1484E+05	4.6503E-04	4.6503E-04	1.0073E-07	0.0110	5.4279E-04
640	4.7925E+03	1.1502E+05	1.0258E-03	1.0258E-03	2.5528E-07	0.0279	5.4311E-04
641	4.8000E+03	1.1520E+05	1.7985E-03	7.6576E-06	4.8362E-07	0.0528	5.4447E-04
642	4.8075E+03	1.1538E+05	1.2353E-04	1.2353E-04	2.2463E-08	0.0025	5.4372E-04
643	4.8150E+03	1.1556E+05	4.6589E-04	4.6589E-04	1.0093E-07	0.0110	5.4333E-04
644	4.8225E+03	1.1574E+05	1.0276E-03	1.0276E-03	2.5573E-07	0.0279	5.4365E-04
645	4.8300E+03	1.1592E+05	1.8016E-03	7.7355E-06	4.8446E-07	0.0529	5.4500E-04
646	4.8375E+03	1.1610E+05	1.2380E-04	1.2380E-04	2.2524E-08	0.0025	5.4426E-04
647	4.8450E+03	1.1628E+05	4.6675E-04	4.6675E-04	1.0112E-07	0.0110	5.4387E-04
648	4.8525E+03	1.1646E+05	1.0294E-03	1.0294E-03	2.5619E-07	0.0280	5.4419E-04
649	4.8600E+03	1.1664E+05	1.8047E-03	7.8138E-06	4.8500E-07	0.0530	5.4553E-04
650	4.8675E+03	1.1682E+05	1.2408E-04	1.2408E-04	2.2585E-08	0.0025	5.4479E-04

651	4.8750E+03	1.1700E+05	4.6762E-04	1.0132E-07	0.0111	5.4441E-04	
652	4.8825E+03	1.1718E+05	1.0312E-03	1.0312E-03	2.0055E-07	0.0280	5.4473E-04
653	4.8900E+03	1.1736E+05	1.8078E-03	7.8924E-06	4.8074E-07	0.0531	5.4607E-04
654	4.8975E+03	1.1754E+05	1.2436E-04	1.2436E-04	2.2646E-08	0.0025	5.4533E-04
655	4.9050E+03	1.1772E+05	4.6848E-04	4.6848E-04	1.0151E-07	0.0111	5.4495E-04
656	4.9125E+03	1.1790E+05	1.0330E-03	1.0330E-03	2.5711E-07	0.0281	5.4527E-04
657	4.9200E+03	1.1808E+05	1.8110E-03	7.9715E-06	4.8698E-07	0.0532	5.4660E-04
658	4.9275E+03	1.1826E+05	1.2464E-04	1.2464E-04	2.2707E-08	0.0025	5.4587E-04
659	4.9350E+03	1.1844E+05	4.6934E-04	4.6934E-04	1.0171E-07	0.0111	5.4549E-04
660	4.9425E+03	1.1862E+05	1.0348E-03	1.0348E-03	2.5757E-07	0.0281	5.4581E-04
661	4.9500E+03	1.1880E+05	1.8141E-03	8.0509E-06	4.8783E-07	0.0533	5.4714E-04
662	4.9575E+03	1.1898E+05	1.2492E-04	1.2492E-04	2.2769E-08	0.0025	5.4641E-04
663	4.9650E+03	1.1916E+05	4.7021E-04	4.7021E-04	1.0191E-07	0.0111	5.4604E-04
664	4.9725E+03	1.1934E+05	1.0367E-03	1.0367E-03	2.5803E-07	0.0282	5.4635E-04
665	4.9800E+03	1.1952E+05	1.8172E-03	8.1306E-06	4.8867E-07	0.0533	5.4767E-04
666	4.9875E+03	1.1970E+05	1.2520E-04	1.2520E-04	2.2831E-08	0.0025	5.4695E-04
667	4.9950E+03	1.1988E+05	4.7108E-04	4.7108E-04	1.0210E-07	0.0111	5.4658E-04
668	5.0025E+03	1.2006E+05	1.0385E-03	1.0385E-03	2.5849E-07	0.0282	5.4689E-04
669	5.0100E+03	1.2024E+05	1.8203E-03	8.2108E-06	4.8952E-07	0.0534	5.4821E-04
670	5.0175E+03	1.2042E+05	1.2548E-04	1.2548E-04	2.2893E-08	0.0025	5.4749E-04
671	5.0250E+03	1.2060E+05	4.7194E-04	4.7194E-04	1.0230E-07	0.0112	5.4712E-04
672	5.0325E+03	1.2078E+05	1.0403E-03	1.0403E-03	2.5895E-07	0.0283	5.4743E-04
673	5.0400E+03	1.2096E+05	1.8234E-03	8.2913E-06	4.9036E-07	0.0535	5.4875E-04
674	5.0475E+03	1.2114E+05	1.2576E-04	1.2576E-04	2.2955E-08	0.0025	5.4803E-04
675	5.0550E+03	1.2132E+05	4.7281E-04	4.7281E-04	1.0250E-07	0.0112	5.4766E-04
676	5.0625E+03	1.2150E+05	1.0421E-03	1.0421E-03	2.5941E-07	0.0283	5.4797E-04
677	5.0700E+03	1.2168E+05	1.8266E-03	8.3722E-06	4.9121E-07	0.0536	5.4928E-04
678	5.0775E+03	1.2186E+05	1.2605E-04	1.2605E-04	2.3017E-08	0.0025	5.4857E-04
679	5.0850E+03	1.2204E+05	4.7368E-04	4.7368E-04	1.0269E-07	0.0112	5.4820E-04
680	5.0925E+03	1.2222E+05	1.0439E-03	1.0439E-03	2.5987E-07	0.0284	5.4851E-04
681	5.1000E+03	1.2240E+05	1.8297E-03	8.4535E-06	4.9206E-07	0.0537	5.4982E-04
682	5.1075E+03	1.2258E+05	1.2633E-04	1.2633E-04	2.3079E-08	0.0025	5.4911E-04
683	5.1150E+03	1.2276E+05	4.7455E-04	4.7455E-04	1.0289E-07	0.0112	5.4875E-04
684	5.1225E+03	1.2294E+05	1.0458E-03	1.0458E-03	2.6033E-07	0.0284	5.4906E-04
685	5.1300E+03	1.2312E+05	1.8328E-03	8.5351E-06	4.9291E-07	0.0538	5.5036E-04
686	5.1375E+03	1.2330E+05	1.2661E-04	1.2661E-04	2.3142E-08	0.0025	5.4965E-04
687	5.1450E+03	1.2348E+05	4.7543E-04	4.7543E-04	1.0309E-07	0.0113	5.4929E-04
688	5.1525E+03	1.2366E+05	1.0476E-03	1.0476E-03	2.6079E-07	0.0285	5.4960E-04
689	5.1600E+03	1.2384E+05	1.8359E-03	8.6171E-06	4.9376E-07	0.0539	5.5090E-04
690	5.1675E+03	1.2402E+05	1.2690E-04	1.2690E-04	2.3204E-08	0.0025	5.5020E-04
691	5.1750E+03	1.2420E+05	4.7630E-04	4.7630E-04	1.0329E-07	0.0113	5.4983E-04
692	5.1825E+03	1.2438E+05	1.0494E-03	1.0494E-03	2.6125E-07	0.0285	5.5014E-04
693	5.1900E+03	1.2456E+05	1.8391E-03	8.6995E-06	4.9461E-07	0.0540	5.5144E-04
694	5.1975E+03	1.2474E+05	1.2718E-04	1.2718E-04	2.3267E-08	0.0025	5.5074E-04
695	5.2050E+03	1.2492E+05	4.7717E-04	4.7717E-04	1.0349E-07	0.0113	5.5038E-04
696	5.2125E+03	1.2510E+05	1.0513E-03	1.0513E-03	2.6172E-07	0.0286	5.5069E-04
697	5.2200E+03	1.2528E+05	1.8422E-03	8.7823E-06	4.9546E-07	0.0541	5.5197E-04
698	5.2275E+03	1.2546E+05	1.2747E-04	1.2747E-04	2.3330E-08	0.0025	5.5128E-04
699	5.2350E+03	1.2564E+05	4.7805E-04	4.7805E-04	1.0368E-07	0.0113	5.5092E-04
700	5.2425E+03	1.2582E+05	1.0531E-03	1.0531E-03	2.6218E-07	0.0286	5.5123E-04
701	5.2500E+03	1.2600E+05	1.8454E-03	8.8654E-06	4.9631E-07	0.0542	5.5251E-04
702	5.2575E+03	1.2618E+05	1.2775E-04	1.2775E-04	2.3393E-08	0.0026	5.5182E-04
703	5.2650E+03	1.2636E+05	4.7892E-04	4.7892E-04	1.0388E-07	0.0113	5.5147E-04
704	5.2725E+03	1.2654E+05	1.0549E-03	1.0549E-03	2.6265E-07	0.0287	5.5178E-04
705	5.2800E+03	1.2672E+05	1.8485E-03	8.9489E-06	4.9716E-07	0.0543	5.5305E-04
706	5.2875E+03	1.2690E+05	1.2804E-04	1.2804E-04	2.3457E-08	0.0026	5.5237E-04
707	5.2950E+03	1.2708E+05	4.7980E-04	4.7980E-04	1.0408E-07	0.0114	5.5201E-04
708	5.3025E+03	1.2726E+05	1.0568E-03	1.0568E-03	2.6311E-07	0.0287	5.5232E-04
709	5.3100E+03	1.2744E+05	1.8517E-03	9.0328E-06	4.9802E-07	0.0544	5.5359E-04
710	5.3175E+03	1.2762E+05	1.2832E-04	1.2832E-04	2.3520E-08	0.0026	5.5291E-04
711	5.3250E+03	1.2780E+05	4.8068E-04	4.8068E-04	1.0428E-07	0.0114	5.5256E-04
712	5.3325E+03	1.2798E+05	1.0586E-03	1.0586E-03	2.6358E-07	0.0288	5.5287E-04
713	5.3400E+03	1.2816E+05	1.8548E-03	9.1170E-06	4.9887E-07	0.0545	5.5413E-04
714	5.3475E+03	1.2834E+05	1.2861E-04	1.2861E-04	2.3584E-08	0.0026	5.5345E-04
715	5.3550E+03	1.2852E+05	4.8156E-04	4.8156E-04	1.0448E-07	0.0114	5.5311E-04
716	5.3625E+03	1.2870E+05	1.0604E-03	1.0604E-03	2.6404E-07	0.0288	5.5341E-04

717	5.3700E+03	1.2888E+05	1.8580E-03	9.2017E-06	4.9973E-07	0.0546	5.5468E-04
718	5.3775E+03	1.2906E+05	1.2890E-04	1.2890E-04	2.3647E-08	0.0026	5.5400E-04
719	5.3850E+03	1.2924E+05	4.8244E-04	4.8244E-04	1.0468E-07	0.0114	5.5365E-04
720	5.3925E+03	1.2942E+05	1.0623E-03	1.0623E-03	2.6451E-07	0.0289	5.5396E-04
721	5.4000E+03	1.2960E+05	1.8611E-03	9.2867E-06	5.0058E-07	0.0546	5.5522E-04
722	5.4075E+03	1.2978E+05	1.2919E-04	1.2919E-04	2.3711E-08	0.0026	5.5454E-04
723	5.4150E+03	1.2996E+05	4.8332E-04	4.8332E-04	1.0488E-07	0.0114	5.5420E-04
724	5.4225E+03	1.3014E+05	1.0641E-03	1.0641E-03	2.6497E-07	0.0289	5.5450E-04
725	5.4300E+03	1.3032E+05	1.8643E-03	9.3720E-06	5.0144E-07	0.0547	5.5576E-04
726	5.4375E+03	1.3050E+05	1.2948E-04	1.2948E-04	2.3776E-08	0.0026	5.5509E-04
727	5.4450E+03	1.3068E+05	4.8420E-04	4.8420E-04	1.0508E-07	0.0115	5.5475E-04
728	5.4525E+03	1.3086E+05	1.0660E-03	1.0660E-03	2.6544E-07	0.0290	5.5505E-04
729	5.4600E+03	1.3104E+05	1.8674E-03	9.4578E-06	5.0230E-07	0.0548	5.5630E-04
730	5.4675E+03	1.3122E+05	1.2977E-04	1.2977E-04	2.3840E-08	0.0026	5.5563E-04
731	5.4750E+03	1.3140E+05	4.8508E-04	4.8508E-04	1.0528E-07	0.0115	5.5529E-04
732	5.4825E+03	1.3158E+05	1.0678E-03	1.0678E-03	2.6591E-07	0.0290	5.5560E-04
733	5.4900E+03	1.3176E+05	1.8706E-03	9.5439E-06	5.0316E-07	0.0549	5.5684E-04
734	5.4975E+03	1.3194E+05	1.3006E-04	1.3006E-04	2.3904E-08	0.0026	5.5618E-04
735	5.5050E+03	1.3212E+05	4.8597E-04	4.8597E-04	1.0548E-07	0.0115	5.5584E-04
736	5.5125E+03	1.3230E+05	1.0697E-03	1.0697E-03	2.6638E-07	0.0291	5.5614E-04
737	5.5200E+03	1.3248E+05	1.8738E-03	9.6304E-06	5.0401E-07	0.0550	5.5739E-04
738	5.5275E+03	1.3266E+05	1.3035E-04	1.3035E-04	2.3969E-08	0.0026	5.5673E-04
739	5.5350E+03	1.3284E+05	4.8685E-04	4.8685E-04	1.0568E-07	0.0115	5.5639E-04
740	5.5425E+03	1.3302E+05	1.0715E-03	1.0715E-03	2.6685E-07	0.0291	5.5669E-04
741	5.5500E+03	1.3320E+05	1.8769E-03	9.7173E-06	5.0487E-07	0.0551	5.5793E-04
742	5.5575E+03	1.3338E+05	1.3064E-04	1.3064E-04	2.4033E-08	0.0026	5.5727E-04
743	5.5650E+03	1.3356E+05	4.8774E-04	4.8774E-04	1.0589E-07	0.0116	5.5694E-04
744	5.5725E+03	1.3374E+05	1.0734E-03	1.0734E-03	2.6732E-07	0.0292	5.5724E-04
745	5.5800E+03	1.3392E+05	1.8801E-03	9.8045E-06	5.0574E-07	0.0552	5.5848E-04
746	5.5875E+03	1.3410E+05	1.3093E-04	1.3093E-04	2.4098E-08	0.0026	5.5782E-04
747	5.5950E+03	1.3428E+05	4.8863E-04	4.8863E-04	1.0609E-07	0.0116	5.5749E-04
748	5.6025E+03	1.3446E+05	1.0752E-03	1.0752E-03	2.6778E-07	0.0292	5.5779E-04
749	5.6100E+03	1.3464E+05	1.8833E-03	9.8921E-06	5.0660E-07	0.0553	5.5902E-04
750	5.6175E+03	1.3482E+05	1.3122E-04	1.3122E-04	2.4163E-08	0.0026	5.5837E-04
751	5.6250E+03	1.3500E+05	4.8952E-04	4.8952E-04	1.0629E-07	0.0116	5.5804E-04
752	5.6325E+03	1.3518E+05	1.0771E-03	1.0771E-03	2.6825E-07	0.0293	5.5834E-04
753	5.6400E+03	1.3536E+05	1.8865E-03	9.9801E-06	5.0746E-07	0.0554	5.5956E-04
754	5.6475E+03	1.3554E+05	1.3151E-04	1.3151E-04	2.4229E-08	0.0026	5.5892E-04
755	5.6550E+03	1.3572E+05	4.9040E-04	4.9041E-04	1.0649E-07	0.0116	5.5859E-04
756	5.6625E+03	1.3590E+05	1.0790E-03	1.0790E-03	2.6873E-07	0.0293	5.5889E-04
757	5.6700E+03	1.3608E+05	1.8897E-03	1.0068E-05	5.0832E-07	0.0555	5.6011E-04
758	5.6775E+03	1.3626E+05	1.3181E-04	1.3181E-04	2.4294E-08	0.0027	5.5946E-04
759	5.6850E+03	1.3644E+05	4.9130E-04	4.9130E-04	1.0670E-07	0.0116	5.5914E-04
760	5.6925E+03	1.3662E+05	1.0808E-03	1.0808E-03	2.6920E-07	0.0294	5.5944E-04
761	5.7000E+03	1.3680E+05	1.8928E-03	1.0157E-05	5.0919E-07	0.0556	5.6066E-04
762	5.7075E+03	1.3698E+05	1.3210E-04	1.3210E-04	2.4359E-08	0.0027	5.6001E-04
763	5.7150E+03	1.3716E+05	4.9219E-04	4.9219E-04	1.0690E-07	0.0117	5.5969E-04
764	5.7225E+03	1.3734E+05	1.0827E-03	1.0827E-03	2.6967E-07	0.0294	5.5999E-04
765	5.7300E+03	1.3752E+05	1.8960E-03	1.0246E-05	5.1005E-07	0.0557	5.6120E-04
766	5.7375E+03	1.3770E+05	1.3240E-04	1.3240E-04	2.4425E-08	0.0027	5.6056E-04
767	5.7450E+03	1.3788E+05	4.9308E-04	4.9308E-04	1.0710E-07	0.0117	5.6024E-04
768	5.7525E+03	1.3806E+05	1.0845E-03	1.0845E-03	2.7014E-07	0.0295	5.6054E-04
769	5.7600E+03	1.3824E+05	1.8992E-03	1.0336E-05	5.1092E-07	0.0558	5.6175E-04
770	5.7675E+03	1.3842E+05	1.3269E-04	1.3269E-04	2.4491E-08	0.0027	5.6111E-04
771	5.7750E+03	1.3860E+05	4.9397E-04	4.9397E-04	1.0731E-07	0.0117	5.6079E-04
772	5.7825E+03	1.3878E+05	1.0864E-03	1.0864E-03	2.7061E-07	0.0295	5.6109E-04
773	5.7900E+03	1.3896E+05	1.9024E-03	1.0426E-05	5.1178E-07	0.0559	5.6230E-04
774	5.7975E+03	1.3914E+05	1.3299E-04	1.3299E-04	2.4557E-08	0.0027	5.6166E-04
775	5.8050E+03	1.3932E+05	4.9487E-04	4.9487E-04	1.0751E-07	0.0117	5.6134E-04
776	5.8125E+03	1.3950E+05	1.0883E-03	1.0883E-03	2.7109E-07	0.0296	5.6164E-04
777	5.8200E+03	1.3968E+05	1.9056E-03	1.0516E-05	5.1265E-07	0.0560	5.6284E-04
778	5.8275E+03	1.3986E+05	1.3328E-04	1.3328E-04	2.4623E-08	0.0027	5.6221E-04
779	5.8350E+03	1.4004E+05	4.9576E-04	4.9576E-04	1.0771E-07	0.0118	5.6189E-04
780	5.8425E+03	1.4022E+05	1.0901E-03	1.0901E-03	2.7156E-07	0.0296	5.6219E-04
781	5.8500E+03	1.4040E+05	1.9088E-03	1.0606E-05	5.132E-07	0.0561	5.6339E-04
782	5.8575E+03	1.4058E+05	1.3358E-04	1.3358E-04	2.4689E-08	0.0027	5.6276E-04

783	5.8650E+03	1.4076E+05	4.9666E-04	4.9666E-04	1.0792E-07	0.0118	5.6245E-04
784	5.8725E+03	1.4094E+05	1.0920E-03	1.0920E-03	2.0733E-07	0.0297	5.6274E-04
785	5.8800E+03	1.4112E+05	1.9120E-03	1.0697E-05	5.0789E-07	0.0562	5.6394E-04
786	5.8875E+03	1.4130E+05	1.3388E-04	1.3388E-04	2.4756E-08	0.0027	5.6331E-04
787	5.8950E+03	1.4148E+05	4.9756E-04	4.9756E-04	1.0812E-07	0.0118	5.6300E-04
788	5.9025E+03	1.4166E+05	1.0939E-03	1.0939E-03	2.7251E-07	0.0297	5.6329E-04
789	5.9100E+03	1.4184E+05	1.9152E-03	1.0789E-05	5.1526E-07	0.0563	5.6449E-04
790	5.9175E+03	1.4202E+05	1.3417E-04	1.3418E-04	2.4823E-08	0.0027	5.6386E-04
791	5.9250E+03	1.4220E+05	4.9846E-04	4.9846E-04	1.0833E-07	0.0118	5.6355E-04
792	5.9325E+03	1.4238E+05	1.0958E-03	1.0958E-03	2.7298E-07	0.0298	5.6385E-04
793	5.9400E+03	1.4256E+05	1.9184E-03	1.0880E-05	5.1613E-07	0.0563	5.6504E-04
794	5.9475E+03	1.4274E+05	1.3447E-04	1.3447E-04	2.4889E-08	0.0027	5.6442E-04
795	5.9550E+03	1.4292E+05	4.9936E-04	4.9936E-04	1.0853E-07	0.0118	5.6410E-04
796	5.9625E+03	1.4310E+05	1.0976E-03	1.0976E-03	2.7346E-07	0.0299	5.6440E-04
797	5.9700E+03	1.4328E+05	1.9216E-03	1.0973E-05	5.1700E-07	0.0564	5.6559E-04
798	5.9775E+03	1.4346E+05	1.3477E-04	1.3477E-04	2.4956E-08	0.0027	5.6497E-04
799	5.9850E+03	1.4364E+05	5.0026E-04	5.0026E-04	1.0874E-07	0.0119	5.6466E-04
800	5.9925E+03	1.4382E+05	1.0995E-03	1.0995E-03	2.7393E-07	0.0299	5.6495E-04
801	6.0000E+03	1.4400E+05	1.9248E-03	1.1065E-05	5.1787E-07	0.0565	5.6614E-04
802	6.0075E+03	1.4418E+05	1.3507E-04	1.3507E-04	2.5023E-08	0.0027	5.6552E-04
803	6.0150E+03	1.4436E+05	5.0116E-04	5.0116E-04	1.0894E-07	0.0119	5.6521E-04
804	6.0225E+03	1.4454E+05	1.1014E-03	1.1014E-03	2.7441E-07	0.0300	5.6551E-04
805	6.0300E+03	1.4472E+05	1.9281E-03	1.1158E-05	5.1874E-07	0.0566	5.6669E-04
806	6.0375E+03	1.4490E+05	1.3537E-04	1.3537E-04	2.5091E-08	0.0027	5.6607E-04
807	6.0450E+03	1.4508E+05	5.0206E-04	5.0206E-04	1.0915E-07	0.0119	5.6577E-04
808	6.0525E+03	1.4526E+05	1.1033E-03	1.1033E-03	2.7489E-07	0.0300	5.6606E-04
809	6.0600E+03	1.4544E+05	1.9313E-03	1.1251E-05	5.1961E-07	0.0567	5.6724E-04
810	6.0675E+03	1.4562E+05	1.3567E-04	1.3567E-04	2.5158E-08	0.0027	5.6663E-04
811	6.0750E+03	1.4580E+05	5.0297E-04	5.0297E-04	1.0936E-07	0.0119	5.6632E-04
812	6.0825E+03	1.4598E+05	1.1052E-03	1.1052E-03	2.7536E-07	0.0301	5.6662E-04
813	6.0900E+03	1.4616E+05	1.9345E-03	1.1345E-05	5.2049E-07	0.0568	5.6779E-04
814	6.0975E+03	1.4634E+05	1.3597E-04	1.3597E-04	2.5226E-08	0.0028	5.6718E-04
815	6.1050E+03	1.4652E+05	5.0387E-04	5.0387E-04	1.0956E-07	0.0120	5.6688E-04
816	6.1125E+03	1.4670E+05	1.1070E-03	1.1071E-03	2.7584E-07	0.0301	5.6717E-04
817	6.1200E+03	1.4688E+05	1.9377E-03	1.1439E-05	5.2136E-07	0.0569	5.6834E-04
818	6.1275E+03	1.4706E+05	1.3627E-04	1.3627E-04	2.5293E-08	0.0028	5.6774E-04
819	6.1350E+03	1.4724E+05	5.0478E-04	5.0478E-04	1.0977E-07	0.0120	5.6743E-04
820	6.1425E+03	1.4742E+05	1.1089E-03	1.1089E-03	2.7632E-07	0.0302	5.6773E-04
821	6.1500E+03	1.4760E+05	1.9409E-03	1.1533E-05	5.2224E-07	0.0570	5.6889E-04
822	6.1575E+03	1.4778E+05	1.3658E-04	1.3658E-04	2.5361E-08	0.0028	5.6829E-04
823	6.1650E+03	1.4796E+05	5.0569E-04	5.0569E-04	1.0998E-07	0.0120	5.6799E-04
824	6.1725E+03	1.4814E+05	1.1108E-03	1.1108E-03	2.7680E-07	0.0302	5.6828E-04
825	6.1800E+03	1.4832E+05	1.9442E-03	1.1628E-05	5.2312E-07	0.0571	5.6945E-04
826	6.1875E+03	1.4850E+05	1.3688E-04	1.3688E-04	2.5429E-08	0.0028	5.6884E-04
827	6.1950E+03	1.4868E+05	5.0659E-04	5.0659E-04	1.1018E-07	0.0120	5.6855E-04
828	6.2025E+03	1.4886E+05	1.1127E-03	1.1127E-03	2.7728E-07	0.0303	5.6884E-04
829	6.2100E+03	1.4904E+05	1.9474E-03	1.1723E-05	5.2399E-07	0.0572	5.7000E-04
830	6.2175E+03	1.4922E+05	1.3718E-04	1.3718E-04	2.5498E-08	0.0028	5.6940E-04
831	6.2250E+03	1.4940E+05	5.0750E-04	5.0750E-04	1.1039E-07	0.0121	5.6910E-04
832	6.2325E+03	1.4958E+05	1.1146E-03	1.1146E-03	2.7776E-07	0.0303	5.6939E-04
833	6.2400E+03	1.4976E+05	1.9506E-03	1.1818E-05	5.2487E-07	0.0573	5.7055E-04
834	6.2475E+03	1.4994E+05	1.3749E-04	1.3749E-04	2.5566E-08	0.0028	5.6996E-04
835	6.2550E+03	1.5012E+05	5.0841E-04	5.0841E-04	1.1060E-07	0.0121	5.6966E-04
836	6.2625E+03	1.5030E+05	1.1165E-03	1.1165E-03	2.7824E-07	0.0304	5.6995E-04
837	6.2700E+03	1.5048E+05	1.9539E-03	1.1914E-05	5.2575E-07	0.0574	5.7110E-04
838	6.2775E+03	1.5066E+05	1.3779E-04	1.3779E-04	2.5634E-08	0.0028	5.7051E-04
839	6.2850E+03	1.5084E+05	5.0932E-04	5.0933E-04	1.1081E-07	0.0121	5.7022E-04
840	6.2925E+03	1.5102E+05	1.1184E-03	1.1184E-03	2.7872E-07	0.0304	5.7051E-04
841	6.3000E+03	1.5120E+05	1.9571E-03	1.2010E-05	5.2663E-07	0.0575	5.7166E-04
842	6.3075E+03	1.5138E+05	1.3810E-04	1.3810E-04	2.5703E-08	0.0028	5.7107E-04
843	6.3150E+03	1.5156E+05	5.1024E-04	5.1024E-04	1.1102E-07	0.0121	5.7078E-04
844	6.3225E+03	1.5174E+05	1.1203E-03	1.1203E-03	2.7920E-07	0.0305	5.7107E-04
845	6.3300E+03	1.5192E+05	1.9604E-03	1.2107E-05	5.2751E-07	0.0576	5.7221E-04
846	6.3375E+03	1.5210E+05	1.3840E-04	1.3840E-04	2.5772E-08	0.0028	5.7163E-04
847	6.3450E+03	1.5228E+05	5.1115E-04	5.1115E-04	1.1122E-07	0.0121	5.7133E-04
848	6.3525E+03	1.5246E+05	1.1222E-03	1.1222E-03	2.7968E-07	0.0305	5.7162E-04

849	6.3600E+03	1.5264E+05	1.9636E-03	1.2204E-05	5.2839E-07	0.0577	5.7277E-04
850	6.3675E+03	1.5282E+05	1.3871E-04	1.3871E-04	2.5841E-08	0.0028	5.7218E-04
851	6.3750E+03	1.5300E+05	5.1207E-04	5.1207E-04	5.1143E-07	0.0122	5.7189E-04
852	6.3825E+03	1.5318E+05	1.1241E-03	1.1241E-03	2.8017E-07	0.0306	5.7218E-04
853	6.3900E+03	1.5336E+05	1.9669E-03	1.2301E-05	5.2928E-07	0.0578	5.7332E-04
854	6.3975E+03	1.5354E+05	1.3901E-04	1.3901E-04	2.5910E-08	0.0028	5.7274E-04
855	6.4050E+03	1.5372E+05	5.1298E-04	5.1298E-04	1.1164E-07	0.0122	5.7245E-04
856	6.4125E+03	1.5390E+05	1.1260E-03	1.1260E-03	2.8065E-07	0.0306	5.7274E-04
857	6.4200E+03	1.5408E+05	1.9701E-03	1.2399E-05	5.3016E-07	0.0579	5.7388E-04
858	6.4275E+03	1.5426E+05	1.3932E-04	1.3932E-04	2.5979E-08	0.0028	5.7330E-04
859	6.4350E+03	1.5444E+05	5.1390E-04	5.1390E-04	1.1185E-07	0.0122	5.7301E-04
860	6.4425E+03	1.5462E+05	1.1279E-03	1.1279E-03	2.8113E-07	0.0307	5.7330E-04
861	6.4500E+03	1.5480E+05	1.9734E-03	1.2497E-05	5.3104E-07	0.0580	5.7444E-04
862	6.4575E+03	1.5498E+05	1.3963E-04	1.3963E-04	2.6049E-08	0.0028	5.7386E-04
863	6.4650E+03	1.5516E+05	5.1482E-04	5.1482E-04	1.1206E-07	0.0122	5.7357E-04
864	6.4725E+03	1.5534E+05	1.1298E-03	1.1298E-03	2.8162E-07	0.0307	5.7386E-04
865	6.4800E+03	1.5552E+05	1.9766E-03	1.2595E-05	5.3193E-07	0.0581	5.7499E-04
866	6.4875E+03	1.5570E+05	1.3994E-04	1.3994E-04	2.6119E-08	0.0029	5.7442E-04
867	6.4950E+03	1.5588E+05	5.1573E-04	5.1573E-04	1.1227E-07	0.0123	5.7413E-04
868	6.5025E+03	1.5606E+05	1.1317E-03	1.1317E-03	2.8210E-07	0.0308	5.7442E-04
869	6.5100E+03	1.5624E+05	1.9799E-03	1.2694E-05	5.3281E-07	0.0582	5.7555E-04
870	6.5175E+03	1.5642E+05	1.4025E-04	1.4025E-04	2.6188E-08	0.0029	5.7498E-04
871	6.5250E+03	1.5660E+05	5.1665E-04	5.1665E-04	1.1248E-07	0.0123	5.7469E-04
872	6.5325E+03	1.5678E+05	1.1336E-03	1.1336E-03	2.8259E-07	0.0308	5.7498E-04
873	6.5400E+03	1.5696E+05	1.9832E-03	1.2793E-05	5.3370E-07	0.0583	5.7611E-04
874	6.5475E+03	1.5714E+05	1.4056E-04	1.4056E-04	2.6258E-08	0.0029	5.7553E-04
875	6.5550E+03	1.5732E+05	5.1757E-04	5.1757E-04	1.1269E-07	0.0123	5.7525E-04
876	6.5625E+03	1.5750E+05	1.1356E-03	1.1356E-03	2.8307E-07	0.0309	5.7554E-04
877	6.5700E+03	1.5768E+05	1.9864E-03	1.2893E-05	5.3459E-07	0.0584	5.7666E-04
878	6.5775E+03	1.5786E+05	1.4087E-04	1.4087E-04	2.6328E-08	0.0029	5.7609E-04
879	6.5850E+03	1.5804E+05	5.1850E-04	5.1850E-04	1.1290E-07	0.0123	5.7581E-04
880	6.5925E+03	1.5822E+05	1.1375E-03	1.1375E-03	2.8356E-07	0.0310	5.7610E-04
881	6.6000E+03	1.5840E+05	1.9897E-03	1.2993E-05	5.3547E-07	0.0585	5.7722E-04
882	6.6075E+03	1.5858E+05	1.4118E-04	1.4118E-04	2.6399E-08	0.0029	5.7666E-04
883	6.6150E+03	1.5876E+05	5.1942E-04	5.1942E-04	1.1312E-07	0.0123	5.7638E-04
884	6.6225E+03	1.5894E+05	1.1394E-03	1.1394E-03	2.8404E-07	0.0310	5.7666E-04
885	6.6300E+03	1.5912E+05	1.9930E-03	1.3093E-05	5.3636E-07	0.0586	5.7778E-04
886	6.6375E+03	1.5930E+05	1.4149E-04	1.4149E-04	2.6469E-08	0.0029	5.7722E-04
887	6.6450E+03	1.5948E+05	5.2034E-04	5.2034E-04	1.1333E-07	0.0124	5.7694E-04
888	6.6525E+03	1.5966E+05	1.1413E-03	1.1413E-03	2.8453E-07	0.0311	5.7722E-04
889	6.6600E+03	1.5984E+05	1.9962E-03	1.3194E-05	5.3725E-07	0.0587	5.7834E-04
890	6.6675E+03	1.6002E+05	1.4180E-04	1.4180E-04	2.6540E-08	0.0029	5.7778E-04
891	6.6750E+03	1.6020E+05	5.2127E-04	5.2127E-04	1.1354E-07	0.0124	5.7750E-04
892	6.6825E+03	1.6038E+05	1.1432E-03	1.1432E-03	2.8502E-07	0.0311	5.7779E-04
893	6.6900E+03	1.6056E+05	1.9995E-03	1.3295E-05	5.3814E-07	0.0587	5.7890E-04
894	6.6975E+03	1.6074E+05	1.4211E-04	1.4211E-04	2.6610E-08	0.0029	5.7834E-04
895	6.7050E+03	1.6092E+05	5.2219E-04	5.2219E-04	1.1375E-07	0.0124	5.7806E-04
896	6.7125E+03	1.6110E+05	1.1451E-03	1.1452E-03	2.8550E-07	0.0312	5.7835E-04
897	6.7200E+03	1.6128E+05	2.0028E-03	1.3396E-05	5.3903E-07	0.0588	5.7946E-04
898	6.7275E+03	1.6146E+05	1.4242E-04	1.4242E-04	2.6681E-08	0.0029	5.7890E-04
899	6.7350E+03	1.6164E+05	5.2312E-04	5.2312E-04	1.1396E-07	0.0124	5.7863E-04
900	6.7425E+03	1.6182E+05	1.1471E-03	1.1471E-03	2.8599E-07	0.0312	5.7891E-04
901	6.7500E+03	1.6200E+05	2.0061E-03	1.3498E-05	5.3992E-07	0.0589	5.8002E-04
902	6.7575E+03	1.6218E+05	1.4274E-04	1.4274E-04	2.6752E-08	0.0029	5.7946E-04
903	6.7650E+03	1.6236E+05	5.2405E-04	5.2405E-04	1.1418E-07	0.0125	5.7919E-04
904	6.7725E+03	1.6254E+05	1.1490E-03	1.1490E-03	2.8648E-07	0.0313	5.7948E-04
905	6.7800E+03	1.6272E+05	2.0094E-03	1.3600E-05	5.4082E-07	0.0590	5.8058E-04
906	6.7875E+03	1.6290E+05	1.4305E-04	1.4305E-04	2.6824E-08	0.0029	5.8003E-04
907	6.7950E+03	1.6308E+05	5.2498E-04	5.2498E-04	1.1439E-07	0.0125	5.7976E-04
908	6.8025E+03	1.6326E+05	1.1509E-03	1.1509E-03	2.8697E-07	0.0313	5.8004E-04
909	6.8100E+03	1.6344E+05	2.0127E-03	1.3703E-05	5.4171E-07	0.0591	5.8114E-04
910	6.8175E+03	1.6362E+05	1.4336E-04	1.4336E-04	2.6895E-08	0.0029	5.8059E-04
911	6.8250E+03	1.6380E+05	5.2591E-04	5.2591E-04	1.1460E-07	0.0125	5.8032E-04
912	6.8325E+03	1.6398E+05	1.1529E-03	1.1529E-03	2.8746E-07	0.0314	5.8060E-04
913	6.8400E+03	1.6416E+05	2.0159E-03	1.3806E-05	5.4260E-07	0.0592	5.8170E-04
914	6.8475E+03	1.6434E+05	1.4368E-04	1.4368E-04	2.6967E-08	0.0029	5.8115E-04

915	6.8550E+03	1.6452E+05	5.2684E-04	5.2684E-04	1.1481E-07	0.0125	5.8088E-04
916	6.8625E+03	1.6470E+05	1.1548E-03	1.1548E-03	2.8400E-07	0.0314	5.8117E-04
917	6.8700E+03	1.6488E+05	2.0192E-03	1.3909E-05	5.4400E-07	0.0593	5.8227E-04
918	6.8775E+03	1.6506E+05	1.4399E-04	1.4399E-04	1.7038E-08	0.0030	5.8172E-04
919	6.8850E+03	1.6524E+05	5.2777E-04	5.2777E-04	1.1503E-07	0.0126	5.8145E-04
920	6.8925E+03	1.6542E+05	1.1567E-03	1.1567E-03	2.8844E-07	0.0315	5.8173E-04
921	6.9000E+03	1.6560E+05	2.0225E-03	1.4013E-05	5.4439E-07	0.0594	5.8283E-04
922	6.9075E+03	1.6578E+05	1.4431E-04	1.4431E-04	2.7110E-08	0.0030	5.8228E-04
923	6.9150E+03	1.6596E+05	5.2871E-04	5.2871E-04	1.1524E-07	0.0126	5.8202E-04
924	6.9225E+03	1.6614E+05	1.1587E-03	1.1587E-03	2.8893E-07	0.0315	5.8230E-04
925	6.9300E+03	1.6632E+05	2.0258E-03	1.4117E-05	5.4529E-07	0.0595	5.8339E-04
926	6.9375E+03	1.6650E+05	1.4463E-04	1.4463E-04	2.7182E-08	0.0030	5.8285E-04
927	6.9450E+03	1.6668E+05	5.2964E-04	5.2964E-04	1.1546E-07	0.0126	5.8258E-04
928	6.9525E+03	1.6686E+05	1.1606E-03	1.1606E-03	2.8942E-07	0.0316	5.8286E-04
929	6.9600E+03	1.6704E+05	2.0291E-03	1.4221E-05	5.4619E-07	0.0596	5.8396E-04
930	6.9675E+03	1.6722E+05	1.4494E-04	1.4494E-04	2.7254E-08	0.0030	5.8341E-04
931	6.9750E+03	1.6740E+05	5.3057E-04	5.3057E-04	1.1567E-07	0.0126	5.8315E-04
932	6.9825E+03	1.6758E+05	1.1625E-03	1.1625E-03	2.8992E-07	0.0316	5.8343E-04
933	6.9900E+03	1.6776E+05	2.0325E-03	1.4326E-05	5.4709E-07	0.0597	5.8452E-04
934	6.9975E+03	1.6794E+05	1.4526E-04	1.4526E-04	2.7327E-08	0.0030	5.8398E-04
935	7.0050E+03	1.6812E+05	5.3151E-04	5.3151E-04	1.1589E-07	0.0127	5.8371E-04
936	7.0125E+03	1.6830E+05	1.1645E-03	1.1645E-03	2.9041E-07	0.0317	5.8400E-04
937	7.0200E+03	1.6848E+05	2.0358E-03	1.4431E-05	5.4798E-07	0.0598	5.8508E-04
938	7.0275E+03	1.6866E+05	1.4558E-04	1.4558E-04	2.7399E-08	0.0030	5.8454E-04
939	7.0350E+03	1.6884E+05	5.3245E-04	5.3245E-04	1.1610E-07	0.0127	5.8428E-04
940	7.0425E+03	1.6902E+05	1.1664E-03	1.1664E-03	2.9090E-07	0.0318	5.8456E-04
941	7.0500E+03	1.6920E+05	2.0391E-03	1.4536E-05	5.4888E-07	0.0599	5.8565E-04
942	7.0575E+03	1.6938E+05	1.4590E-04	1.4590E-04	2.7472E-08	0.0030	5.8511E-04
943	7.0650E+03	1.6956E+05	5.3339E-04	5.3339E-04	1.1632E-07	0.0127	5.8485E-04
944	7.0725E+03	1.6974E+05	1.1684E-03	1.1684E-03	2.9139E-07	0.0318	5.8513E-04
945	7.0800E+03	1.6992E+05	2.0424E-03	1.4642E-05	5.4978E-07	0.0600	5.8621E-04
946	7.0875E+03	1.7010E+05	1.4622E-04	1.4622E-04	2.7545E-08	0.0030	5.8568E-04
947	7.0950E+03	1.7028E+05	5.3433E-04	5.3433E-04	1.1653E-07	0.0127	5.8542E-04
948	7.1025E+03	1.7046E+05	1.1703E-03	1.1703E-03	2.9189E-07	0.0319	5.8570E-04
949	7.1100E+03	1.7064E+05	2.0457E-03	1.4749E-05	5.5069E-07	0.0601	5.8678E-04
950	7.1175E+03	1.7082E+05	1.4654E-04	1.4654E-04	2.7618E-08	0.0030	5.8624E-04
951	7.1250E+03	1.7100E+05	5.3527E-04	5.3527E-04	1.1675E-07	0.0127	5.8599E-04
952	7.1325E+03	1.7118E+05	1.1722E-03	1.1723E-03	2.9238E-07	0.0319	5.8627E-04
953	7.1400E+03	1.7136E+05	2.0490E-03	1.4855E-05	5.5159E-07	0.0602	5.8734E-04
954	7.1475E+03	1.7154E+05	1.4686E-04	1.4686E-04	2.7691E-08	0.0030	5.8681E-04
955	7.1550E+03	1.7172E+05	5.3621E-04	5.3621E-04	1.1696E-07	0.0128	5.8655E-04
956	7.1625E+03	1.7190E+05	1.1742E-03	1.1742E-03	2.9288E-07	0.0320	5.8684E-04
957	7.1700E+03	1.7208E+05	2.0523E-03	1.4962E-05	5.5249E-07	0.0603	5.8791E-04
958	7.1775E+03	1.7226E+05	1.4718E-04	1.4718E-04	2.7764E-08	0.0030	5.8738E-04
959	7.1850E+03	1.7244E+05	5.3715E-04	5.3715E-04	1.1718E-07	0.0128	5.8712E-04
960	7.1925E+03	1.7262E+05	1.1762E-03	1.1762E-03	2.9337E-07	0.0320	5.8741E-04
961	7.2000E+03	1.7280E+05	2.0557E-03	1.5070E-05	5.5339E-07	0.0604	5.8848E-04
962	7.2075E+03	1.7298E+05	1.4750E-04	1.4750E-04	2.7837E-08	0.0030	5.8795E-04
963	7.2150E+03	1.7316E+05	5.3810E-04	5.3810E-04	1.1740E-07	0.0128	5.8769E-04
964	7.2225E+03	1.7334E+05	1.1781E-03	1.1781E-03	2.9387E-07	0.0321	5.8797E-04
965	7.2300E+03	1.7352E+05	2.0590E-03	1.5177E-05	5.5430E-07	0.0605	5.8904E-04
966	7.2375E+03	1.7370E+05	1.4782E-04	1.4782E-04	2.7911E-08	0.0030	5.8852E-04
967	7.2450E+03	1.7388E+05	5.3904E-04	5.3904E-04	1.1761E-07	0.0128	5.8826E-04
968	7.2525E+03	1.7406E+05	1.1801E-03	1.1801E-03	2.9437E-07	0.0321	5.8854E-04
969	7.2600E+03	1.7424E+05	2.0623E-03	1.5286E-05	5.5520E-07	0.0606	5.8961E-04
970	7.2675E+03	1.7442E+05	1.4815E-04	1.4815E-04	2.7985E-08	0.0031	5.8909E-04
971	7.2750E+03	1.7460E+05	5.3999E-04	5.3999E-04	1.1783E-07	0.0129	5.8883E-04
972	7.2825E+03	1.7478E+05	1.1820E-03	1.1820E-03	2.9486E-07	0.0322	5.8911E-04
973	7.2900E+03	1.7496E+05	2.0657E-03	1.5394E-05	5.5611E-07	0.0607	5.9018E-04
974	7.2975E+03	1.7514E+05	1.4847E-04	1.4847E-04	2.8059E-08	0.0031	5.8966E-04
975	7.3050E+03	1.7532E+05	5.4093E-04	5.4093E-04	1.1805E-07	0.0129	5.8940E-04
976	7.3125E+03	1.7550E+05	1.1840E-03	1.1840E-03	2.9536E-07	0.0322	5.8969E-04
977	7.3200E+03	1.7568E+05	2.0690E-03	1.5503E-05	5.5702E-07	0.0608	5.9075E-04
978	7.3275E+03	1.7586E+05	1.4879E-04	1.4879E-04	2.8133E-08	0.0031	5.9023E-04
979	7.3350E+03	1.7604E+05	5.4188E-04	5.4188E-04	1.1827E-07	0.0129	5.8998E-04
980	7.3425E+03	1.7622E+05	1.1859E-03	1.1859E-03	2.9586E-07	0.0323	5.9026E-04

981	7.3500E+03	1.7640E+05	2.0723E-03	1.5612E-05	5.5792E-07	0.0609	5.9132E-04
982	7.3575E+03	1.7658E+05	1.4912E-04	1.4912E-04	2.8207E-08	0.0031	5.9080E-04
983	7.3650E+03	1.7676E+05	5.4283E-04	5.4283E-04	1.1848E-07	0.0129	5.9055E-04
984	7.3725E+03	1.7694E+05	1.1879E-03	1.1879E-03	2.9636E-07	0.0324	5.9083E-04
985	7.3800E+03	1.7712E+05	2.0757E-03	1.5722E-05	5.5883E-07	0.0610	5.9189E-04
986	7.3875E+03	1.7730E+05	1.4944E-04	1.4944E-04	2.8281E-08	0.0031	5.9137E-04
987	7.3950E+03	1.7748E+05	5.4378E-04	5.4378E-04	1.1870E-07	0.0130	5.9112E-04
988	7.4025E+03	1.7766E+05	1.1899E-03	1.1899E-03	2.9686E-07	0.0324	5.9140E-04
989	7.4100E+03	1.7784E+05	2.0790E-03	1.5832E-05	5.5974E-07	0.0611	5.9245E-04
990	7.4175E+03	1.7802E+05	1.4977E-04	1.4977E-04	2.8356E-08	0.0031	5.9194E-04
991	7.4250E+03	1.7820E+05	5.4473E-04	5.4473E-04	1.1892E-07	0.0130	5.9169E-04
992	7.4325E+03	1.7838E+05	1.1918E-03	1.1918E-03	2.9736E-07	0.0325	5.9197E-04
993	7.4400E+03	1.7856E+05	2.0824E-03	1.5942E-05	5.6065E-07	0.0612	5.9302E-04
994	7.4475E+03	1.7874E+05	1.5009E-04	1.5009E-04	2.8431E-08	0.0031	5.9251E-04
995	7.4550E+03	1.7892E+05	5.4568E-04	5.4568E-04	1.1914E-07	0.0130	5.9227E-04
996	7.4625E+03	1.7910E+05	1.1938E-03	1.1938E-03	2.9786E-07	0.0325	5.9254E-04
997	7.4700E+03	1.7928E+05	2.0857E-03	1.6053E-05	5.6156E-07	0.0613	5.9360E-04
998	7.4775E+03	1.7946E+05	1.5042E-04	1.5042E-04	2.8506E-08	0.0031	5.9308E-04
999	7.4850E+03	1.7964E+05	5.4664E-04	5.4664E-04	1.1936E-07	0.0130	5.9284E-04
1000	7.4925E+03	1.7982E+05	1.1958E-03	1.1958E-03	2.9836E-07	0.0326	5.9312E-04
1001	7.5000E+03	1.8000E+05	2.0891E-03	1.6164E-05	5.6247E-07	0.0614	5.9417E-04
1002	7.5075E+03	1.8018E+05	1.5075E-04	1.5075E-04	2.8581E-08	0.0031	5.9366E-04
1003	7.5150E+03	1.8036E+05	5.4759E-04	5.4759E-04	1.1958E-07	0.0131	5.9341E-04
1004	7.5225E+03	1.8054E+05	1.1977E-03	1.1977E-03	2.9886E-07	0.0326	5.9369E-04
1005	7.5300E+03	1.8072E+05	2.0924E-03	1.6276E-05	5.6339E-07	0.0615	5.9474E-04
1006	7.5375E+03	1.8090E+05	1.5107E-04	1.5107E-04	2.8656E-08	0.0031	5.9423E-04
1007	7.5450E+03	1.8108E+05	5.4855E-04	5.4855E-04	1.1980E-07	0.0131	5.9399E-04
1008	7.5525E+03	1.8126E+05	1.1997E-03	1.1997E-03	2.9936E-07	0.0327	5.9426E-04
1009	7.5600E+03	1.8144E+05	2.0958E-03	1.6387E-05	5.6430E-07	0.0616	5.9531E-04
1010	7.5675E+03	1.8162E+05	1.5140E-04	1.5140E-04	2.8731E-08	0.0031	5.9480E-04
1011	7.5750E+03	1.8180E+05	5.4950E-04	5.4950E-04	1.2002E-07	0.0131	5.9456E-04
1012	7.5825E+03	1.8198E+05	1.2017E-03	1.2017E-03	2.9986E-07	0.0327	5.9484E-04
1013	7.5900E+03	1.8216E+05	2.0992E-03	1.6500E-05	5.6521E-07	0.0617	5.9588E-04
1014	7.5975E+03	1.8234E+05	1.5173E-04	1.5173E-04	2.8807E-08	0.0031	5.9538E-04
1015	7.6050E+03	1.8252E+05	5.5046E-04	5.5046E-04	1.2024E-07	0.0131	5.9513E-04
1016	7.6125E+03	1.8270E+05	1.2037E-03	1.2037E-03	3.0036E-07	0.0328	5.9541E-04
1017	7.6200E+03	1.8288E+05	2.1025E-03	1.6612E-05	5.6613E-07	0.0618	5.9645E-04
1018	7.6275E+03	1.8306E+05	1.5206E-04	1.5206E-04	2.8882E-08	0.0032	5.9595E-04
1019	7.6350E+03	1.8324E+05	5.5142E-04	5.5142E-04	1.2046E-07	0.0132	5.9571E-04
1020	7.6425E+03	1.8342E+05	1.2056E-03	1.2056E-03	3.0087E-07	0.0328	5.9599E-04
1021	7.6500E+03	1.8360E+05	2.1059E-03	1.6725E-05	5.6704E-07	0.0619	5.9703E-04
1022	7.6575E+03	1.8378E+05	1.5239E-04	1.5239E-04	2.8958E-08	0.0032	5.9652E-04
1023	7.6650E+03	1.8396E+05	5.5238E-04	5.5238E-04	1.2068E-07	0.0132	5.9629E-04
1024	7.6725E+03	1.8414E+05	1.2076E-03	1.2076E-03	3.0137E-07	0.0329	5.9656E-04
1025	7.6800E+03	1.8432E+05	2.1093E-03	1.6839E-05	5.6796E-07	0.0620	5.9760E-04
1026	7.6875E+03	1.8450E+05	1.5272E-04	1.5272E-04	2.9034E-08	0.0032	5.9710E-04
1027	7.6950E+03	1.8468E+05	5.5334E-04	5.5334E-04	1.2090E-07	0.0132	5.9686E-04
1028	7.7025E+03	1.8486E+05	1.2096E-03	1.2096E-03	3.0187E-07	0.0330	5.9714E-04
1029	7.7100E+03	1.8504E+05	2.1126E-03	1.6952E-05	5.6888E-07	0.0621	5.9817E-04
1030	7.7175E+03	1.8522E+05	1.5305E-04	1.5305E-04	2.9110E-08	0.0032	5.9767E-04
1031	7.7250E+03	1.8540E+05	5.5430E-04	5.5430E-04	1.2112E-07	0.0132	5.9744E-04
1032	7.7325E+03	1.8558E+05	1.2116E-03	1.2116E-03	3.0238E-07	0.0330	5.9771E-04
1033	7.7400E+03	1.8576E+05	2.1160E-03	1.7067E-05	5.6980E-07	0.0622	5.9875E-04
1034	7.7475E+03	1.8594E+05	1.5338E-04	1.5338E-04	2.9186E-08	0.0032	5.9825E-04
1035	7.7550E+03	1.8612E+05	5.5526E-04	5.5526E-04	1.2134E-07	0.0132	5.9801E-04
1036	7.7625E+03	1.8630E+05	1.2136E-03	1.2136E-03	3.0288E-07	0.0331	5.9829E-04
1037	7.7700E+03	1.8648E+05	2.1194E-03	1.7181E-05	5.7071E-07	0.0623	5.9932E-04
1038	7.7775E+03	1.8666E+05	1.5371E-04	1.5371E-04	2.9263E-08	0.0032	5.9883E-04
1039	7.7850E+03	1.8684E+05	5.5622E-04	5.5622E-04	1.2156E-07	0.0133	5.9859E-04
1040	7.7925E+03	1.8702E+05	1.2156E-03	1.2156E-03	3.0339E-07	0.0331	5.9887E-04
1041	7.8000E+03	1.8720E+05	2.1228E-03	1.7296E-05	5.7163E-07	0.0624	5.9990E-04
1042	7.8075E+03	1.8738E+05	1.5405E-04	1.5405E-04	2.9340E-08	0.0032	5.9940E-04
1043	7.8150E+03	1.8756E+05	5.5719E-04	5.5719E-04	1.2179E-07	0.0133	5.9917E-04
1044	7.8225E+03	1.8774E+05	1.2175E-03	1.2175E-03	3.0389E-07	0.0332	5.9945E-04
1045	7.8300E+03	1.8792E+05	2.1262E-03	1.7411E-05	5.7355E-07	0.0625	6.0047E-04
1046	7.8375E+03	1.8810E+05	1.5438E-04	1.5438E-04	2.9416E-08	0.0032	5.9998E-04

1047	7.8450E+03	1.8828E+05	5.5815E-04	5.5815E-04	1.2201E-07	0.0133	5.9975E-04
1048	7.8525E+03	1.8846E+05	1.2195E-03	1.2195E-03	3.0000E-07	0.0332	6.0002E-04
1049	7.8600E+03	1.8864E+05	2.1296E-03	1.7527E-05	5.0000E-07	0.0626	6.0105E-04
1050	7.8675E+03	1.8882E+05	1.5471E-04	1.5471E-04	2.9493E-08	0.0032	6.0056E-04
1051	7.8750E+03	1.8900E+05	5.5912E-04	5.5912E-04	1.2223E-07	0.0133	6.0033E-04
1052	7.8825E+03	1.8918E+05	1.2215E-03	1.2215E-03	3.0491E-07	0.0333	6.0060E-04
1053	7.8900E+03	1.8936E+05	2.1330E-03	1.7643E-05	5.7440E-07	0.0627	6.0162E-04
1054	7.8975E+03	1.8954E+05	1.5505E-04	1.5505E-04	2.9570E-08	0.0032	6.0114E-04
1055	7.9050E+03	1.8972E+05	5.6009E-04	5.6009E-04	1.2245E-07	0.0134	6.0090E-04
1056	7.9125E+03	1.8990E+05	1.2235E-03	1.2235E-03	3.0541E-07	0.0333	6.0118E-04
1057	7.9200E+03	1.9008E+05	2.1363E-03	1.7759E-05	5.7532E-07	0.0628	6.0220E-04
1058	7.9275E+03	1.9026E+05	1.5538E-04	1.5538E-04	2.9648E-08	0.0032	6.0171E-04
1059	7.9350E+03	1.9044E+05	5.6106E-04	5.6106E-04	1.2268E-07	0.0134	6.0148E-04
1060	7.9425E+03	1.9062E+05	1.2255E-03	1.2255E-03	3.0592E-07	0.0334	6.0176E-04
1061	7.9500E+03	1.9080E+05	2.1397E-03	1.7876E-05	5.7624E-07	0.0629	6.0278E-04
1062	7.9575E+03	1.9098E+05	1.5572E-04	1.5572E-04	2.9725E-08	0.0032	6.0229E-04
1063	7.9650E+03	1.9116E+05	5.6203E-04	5.6203E-04	1.2290E-07	0.0134	6.0206E-04
1064	7.9725E+03	1.9134E+05	1.2275E-03	1.2275E-03	3.0643E-07	0.0335	6.0234E-04
1065	7.9800E+03	1.9152E+05	2.1431E-03	1.7993E-05	5.7717E-07	0.0630	6.0336E-04
1066	7.9875E+03	1.9170E+05	1.5605E-04	1.5605E-04	2.9803E-08	0.0033	6.0287E-04
1067	7.9950E+03	1.9188E+05	5.6300E-04	5.6300E-04	1.2313E-07	0.0134	6.0264E-04
1068	8.0025E+03	1.9206E+05	1.2295E-03	1.2295E-03	3.0694E-07	0.0335	6.0292E-04
1069	8.0100E+03	1.9224E+05	2.1465E-03	1.8110E-05	5.7809E-07	0.0631	6.0393E-04
1070	8.0175E+03	1.9242E+05	1.5639E-04	1.5639E-04	2.9880E-08	0.0033	6.0345E-04
1071	8.0250E+03	1.9260E+05	5.6397E-04	5.6397E-04	1.2335E-07	0.0135	6.0322E-04
1072	8.0325E+03	1.9278E+05	1.2315E-03	1.2315E-03	3.0745E-07	0.0336	6.0350E-04
1073	8.0400E+03	1.9296E+05	2.1500E-03	1.8228E-05	5.7902E-07	0.0632	6.0451E-04
1074	8.0475E+03	1.9314E+05	1.5673E-04	1.5673E-04	2.9958E-08	0.0033	6.0403E-04
1075	8.0550E+03	1.9332E+05	5.6494E-04	5.6494E-04	1.2357E-07	0.0135	6.0380E-04
1076	8.0625E+03	1.9350E+05	1.2335E-03	1.2335E-03	3.0796E-07	0.0336	6.0408E-04
1077	8.0700E+03	1.9368E+05	2.1534E-03	1.8346E-05	5.7995E-07	0.0633	6.0509E-04
1078	8.0775E+03	1.9386E+05	1.5707E-04	1.5707E-04	3.0036E-08	0.0033	6.0461E-04
1079	8.0850E+03	1.9404E+05	5.6592E-04	5.6592E-04	1.2380E-07	0.0135	6.0439E-04
1080	8.0925E+03	1.9422E+05	1.2355E-03	1.2355E-03	3.0847E-07	0.0337	6.0466E-04
1081	8.1000E+03	1.9440E+05	2.1568E-03	1.8465E-05	5.8087E-07	0.0634	6.0567E-04
1082	8.1075E+03	1.9458E+05	1.5740E-04	1.5740E-04	3.0114E-08	0.0033	6.0519E-04
1083	8.1150E+03	1.9476E+05	5.6689E-04	5.6689E-04	1.2402E-07	0.0135	6.0497E-04
1084	8.1225E+03	1.9494E+05	1.2375E-03	1.2375E-03	3.0898E-07	0.0337	6.0524E-04
1085	8.1300E+03	1.9512E+05	2.1602E-03	1.8584E-05	5.8180E-07	0.0635	6.0625E-04
1086	8.1375E+03	1.9530E+05	1.5774E-04	1.5774E-04	3.0193E-08	0.0033	6.0577E-04
1087	8.1450E+03	1.9548E+05	5.6787E-04	5.6787E-04	1.2425E-07	0.0136	6.0555E-04
1088	8.1525E+03	1.9566E+05	1.2395E-03	1.2395E-03	3.0949E-07	0.0338	6.0582E-04
1089	8.1600E+03	1.9584E+05	2.1636E-03	1.8703E-05	5.8273E-07	0.0636	6.0683E-04
1090	8.1675E+03	1.9602E+05	1.5808E-04	1.5808E-04	3.0271E-08	0.0033	6.0635E-04
1091	8.1750E+03	1.9620E+05	5.6885E-04	5.6885E-04	1.2447E-07	0.0136	6.0613E-04
1092	8.1825E+03	1.9638E+05	1.2416E-03	1.2416E-03	3.1000E-07	0.0338	6.0641E-04
1093	8.1900E+03	1.9656E+05	2.1670E-03	1.8823E-05	5.8367E-07	0.0637	6.0741E-04
1094	8.1975E+03	1.9674E+05	1.5842E-04	1.5842E-04	3.0350E-08	0.0033	6.0694E-04
1095	8.2050E+03	1.9692E+05	5.6982E-04	5.6982E-04	1.2470E-07	0.0136	6.0671E-04
1096	8.2125E+03	1.9710E+05	1.2436E-03	1.2436E-03	3.1051E-07	0.0339	6.0699E-04
1097	8.2200E+03	1.9728E+05	2.1704E-03	1.8943E-05	5.8459E-07	0.0638	6.0799E-04
1098	8.2275E+03	1.9746E+05	1.5876E-04	1.5876E-04	3.0429E-08	0.0033	6.0752E-04
1099	8.2350E+03	1.9764E+05	5.7080E-04	5.7080E-04	1.2493E-07	0.0136	6.0730E-04
1100	8.2425E+03	1.9782E+05	1.2456E-03	1.2456E-03	3.1102E-07	0.0340	6.0757E-04
1101	8.2500E+03	1.9800E+05	2.1739E-03	1.9064E-05	5.8552E-07	0.0639	6.0857E-04
1102	8.2575E+03	1.9818E+05	1.5910E-04	1.5910E-04	3.0508E-08	0.0033	6.0810E-04
1103	8.2650E+03	1.9836E+05	5.7178E-04	5.7178E-04	1.2515E-07	0.0137	6.0788E-04
1104	8.2725E+03	1.9854E+05	1.2476E-03	1.2476E-03	3.1154E-07	0.0340	6.0815E-04
1105	8.2800E+03	1.9872E+05	2.1773E-03	1.9184E-05	5.8645E-07	0.0640	6.0915E-04
1106	8.2875E+03	1.9890E+05	1.5944E-04	1.5944E-04	3.0587E-08	0.0033	6.0868E-04
1107	8.2950E+03	1.9908E+05	5.7276E-04	5.7276E-04	1.2538E-07	0.0137	6.0846E-04
1108	8.3025E+03	1.9926E+05	1.2496E-03	1.2496E-03	3.1205E-07	0.0341	6.0874E-04
1109	8.3100E+03	1.9944E+05	2.1807E-03	1.9306E-05	5.8739E-07	0.0641	6.0974E-04
1110	8.3175E+03	1.9962E+05	1.5979E-04	1.5979E-04	3.0666E-08	0.0033	6.0927E-04
1111	8.3250E+03	1.9980E+05	5.7375E-04	5.7375E-04	1.2560E-07	0.0137	6.0905E-04
1112	8.3325E+03	1.9998E+05	1.2516E-03	1.2516E-03	3.1257E-07	0.0341	6.0932E-04

1113	8.3400E+03	2.0016E+05	2.1842E-03	1.9427E-05	5.8832E-07	0.0642	6.1032E-04
1114	8.3475E+03	2.0034E+05	1.6013E-04	1.6013E-04	3.0746E-08	0.0034	6.0985E-04
1115	8.3550E+03	2.0052E+05	5.7473E-04	5.7473E-04	1.2583E-07	0.0137	6.0963E-04
1116	8.3625E+03	2.0070E+05	1.2537E-03	1.2537E-03	3.1308E-07	0.0342	6.0991E-04
1117	8.3700E+03	2.0088E+05	2.1876E-03	1.9549E-05	5.8926E-07	0.0643	6.1090E-04
1118	8.3775E+03	2.0106E+05	1.6047E-04	1.6047E-04	3.0825E-08	0.0034	6.1044E-04
1119	8.3850E+03	2.0124E+05	5.7571E-04	5.7571E-04	1.2606E-07	0.0138	6.1022E-04
1120	8.3925E+03	2.0142E+05	1.2557E-03	1.2557E-03	3.1359E-07	0.0342	6.1049E-04
1121	8.4000E+03	2.0160E+05	2.1910E-03	1.9671E-05	5.9019E-07	0.0644	6.1149E-04
1122	8.4075E+03	2.0178E+05	1.6081E-04	1.6081E-04	3.0905E-08	0.0034	6.1102E-04
1123	8.4150E+03	2.0196E+05	5.7670E-04	5.7670E-04	1.2629E-07	0.0138	6.1080E-04
1124	8.4225E+03	2.0214E+05	1.2577E-03	1.2577E-03	3.1411E-07	0.0343	6.1108E-04
1125	8.4300E+03	2.0232E+05	2.1945E-03	1.9794E-05	5.9113E-07	0.0645	6.1207E-04
1126	8.4375E+03	2.0250E+05	1.6116E-04	1.6116E-04	3.0985E-08	0.0034	6.1161E-04
1127	8.4450E+03	2.0268E+05	5.7769E-04	5.7769E-04	1.2651E-07	0.0138	6.1139E-04
1128	8.4525E+03	2.0286E+05	1.2597E-03	1.2597E-03	3.1463E-07	0.0343	6.1166E-04
1129	8.4600E+03	2.0304E+05	2.1979E-03	1.9917E-05	5.9206E-07	0.0646	6.1265E-04
1130	8.4675E+03	2.0322E+05	1.6150E-04	1.6150E-04	3.1065E-08	0.0034	6.1219E-04
1131	8.4750E+03	2.0340E+05	5.7867E-04	5.7867E-04	1.2674E-07	0.0138	6.1198E-04
1132	8.4825E+03	2.0358E+05	1.2618E-03	1.2618E-03	3.1514E-07	0.0344	6.1225E-04
1133	8.4900E+03	2.0376E+05	2.2014E-03	2.0041E-05	5.9300E-07	0.0647	6.1324E-04
1134	8.4975E+03	2.0394E+05	1.6185E-04	1.6185E-04	3.1145E-08	0.0034	6.1278E-04
1135	8.5050E+03	2.0412E+05	5.7966E-04	5.7966E-04	1.2697E-07	0.0139	6.1256E-04
1136	8.5125E+03	2.0430E+05	1.2638E-03	1.2638E-03	3.1566E-07	0.0345	6.1284E-04
1137	8.5200E+03	2.0448E+05	2.2048E-03	2.0165E-05	5.9394E-07	0.0648	6.1382E-04
1138	8.5275E+03	2.0466E+05	1.6219E-04	1.6220E-04	3.1226E-08	0.0034	6.1336E-04
1139	8.5350E+03	2.0484E+05	5.8065E-04	5.8065E-04	1.2720E-07	0.0139	6.1315E-04
1140	8.5425E+03	2.0502E+05	1.2658E-03	1.2658E-03	3.1618E-07	0.0345	6.1342E-04
1141	8.5500E+03	2.0520E+05	2.2083E-03	2.0289E-05	5.9488E-07	0.0649	6.1441E-04
1142	8.5575E+03	2.0538E+05	1.6254E-04	1.6254E-04	3.1306E-08	0.0034	6.1395E-04
1143	8.5650E+03	2.0556E+05	5.8164E-04	5.8164E-04	1.2743E-07	0.0139	6.1374E-04
1144	8.5725E+03	2.0574E+05	1.2679E-03	1.2679E-03	3.1670E-07	0.0346	6.1401E-04
1145	8.5800E+03	2.0592E+05	2.2117E-03	2.0413E-05	5.9582E-07	0.0650	6.1499E-04
1146	8.5875E+03	2.0610E+05	1.6289E-04	1.6289E-04	3.1387E-08	0.0034	6.1454E-04
1147	8.5950E+03	2.0628E+05	5.8263E-04	5.8263E-04	1.2766E-07	0.0139	6.1433E-04
1148	8.6025E+03	2.0646E+05	1.2699E-03	1.2699E-03	3.1721E-07	0.0346	6.1460E-04
1149	8.6100E+03	2.0664E+05	2.2152E-03	2.0538E-05	5.9676E-07	0.0651	6.1558E-04
1150	8.6175E+03	2.0682E+05	1.6324E-04	1.6324E-04	3.1468E-08	0.0034	6.1513E-04
1151	8.6250E+03	2.0700E+05	5.8363E-04	5.8363E-04	1.2789E-07	0.0140	6.1491E-04
1152	8.6325E+03	2.0718E+05	1.2719E-03	1.2719E-03	3.1773E-07	0.0347	6.1519E-04
1153	8.6400E+03	2.0736E+05	2.2186E-03	2.0664E-05	5.9770E-07	0.0653	6.1617E-04
1154	8.6475E+03	2.0754E+05	1.6358E-04	1.6358E-04	3.1549E-08	0.0034	6.1571E-04
1155	8.6550E+03	2.0772E+05	5.8462E-04	5.8462E-04	1.2812E-07	0.0140	6.1550E-04
1156	8.6625E+03	2.0790E+05	1.2740E-03	1.2740E-03	3.1825E-07	0.0347	6.1578E-04
1157	8.6700E+03	2.0808E+05	2.2221E-03	2.0789E-05	5.9864E-07	0.0654	6.1675E-04
1158	8.6775E+03	2.0826E+05	1.6393E-04	1.6393E-04	3.1630E-08	0.0035	6.1630E-04
1159	8.6850E+03	2.0844E+05	5.8562E-04	5.8562E-04	1.2835E-07	0.0140	6.1609E-04
1160	8.6925E+03	2.0862E+05	1.2760E-03	1.2760E-03	3.1877E-07	0.0348	6.1636E-04
1161	8.7000E+03	2.0880E+05	2.2256E-03	2.0915E-05	5.9959E-07	0.0655	6.1734E-04
1162	8.7075E+03	2.0898E+05	1.6428E-04	1.6428E-04	3.1712E-08	0.0035	6.1689E-04
1163	8.7150E+03	2.0916E+05	5.8661E-04	5.8661E-04	1.2858E-07	0.0140	6.1668E-04
1164	8.7225E+03	2.0934E+05	1.2781E-03	1.2781E-03	3.1929E-07	0.0349	6.1695E-04
1165	8.7300E+03	2.0952E+05	2.2290E-03	2.1042E-05	6.0053E-07	0.0656	6.1793E-04
1166	8.7375E+03	2.0970E+05	1.6463E-04	1.6463E-04	3.1793E-08	0.0035	6.1748E-04
1167	8.7450E+03	2.0988E+05	5.8761E-04	5.8761E-04	1.2881E-07	0.0141	6.1727E-04
1168	8.7525E+03	2.1006E+05	1.2801E-03	1.2801E-03	3.1981E-07	0.0349	6.1754E-04
1169	8.7600E+03	2.1024E+05	2.2325E-03	2.1169E-05	6.0148E-07	0.0657	6.1852E-04
1170	8.7675E+03	2.1042E+05	1.6498E-04	1.6498E-04	3.1875E-08	0.0035	6.1807E-04
1171	8.7750E+03	2.1060E+05	5.8861E-04	5.8861E-04	1.2904E-07	0.0141	6.1786E-04
1172	8.7825E+03	2.1078E+05	1.2822E-03	1.2822E-03	3.2034E-07	0.0350	6.1813E-04
1173	8.7900E+03	2.1096E+05	2.2360E-03	2.1296E-05	6.0242E-07	0.0658	6.1911E-04
1174	8.7975E+03	2.1114E+05	1.6533E-04	1.6533E-04	3.1957E-08	0.0035	6.1866E-04
1175	8.8050E+03	2.1132E+05	5.8961E-04	5.8961E-04	1.2927E-07	0.0141	6.1845E-04
1176	8.8125E+03	2.1150E+05	1.2842E-03	1.2842E-03	3.2086E-07	0.0350	6.1872E-04
1177	8.8200E+03	2.1168E+05	2.2395E-03	2.1423E-05	6.037E-07	0.0659	6.1970E-04
1178	8.8275E+03	2.1186E+05	1.6568E-04	1.6568E-04	3.2039E-08	0.0035	6.1925E-04

1179	8.8350E+03	2.1204E+05	5.9061E-04	5.9061E-04	1.2950E-04	0.0141	6.1904E-04
1180	8.8425E+03	2.1222E+05	1.2863E-03	1.2863E-03	3.0000E-07	0.0351	6.1932E-04
1181	8.8500E+03	2.1240E+05	2.2430E-03	2.1551E-05	6.0000E-07	0.0660	6.2029E-04
1182	8.8575E+03	2.1258E+05	1.6604E-04	1.6604E-04	3.2121E-08	0.0035	6.1984E-04
1183	8.8650E+03	2.1276E+05	5.9161E-04	5.9161E-04	1.2973E-07	0.0142	6.1964E-04
1184	8.8725E+03	2.1294E+05	1.2883E-03	1.2883E-03	3.2190E-07	0.0351	6.1991E-04
1185	8.8800E+03	2.1312E+05	2.2464E-03	2.1679E-05	6.0526E-07	0.0661	6.2088E-04
1186	8.8875E+03	2.1330E+05	1.6639E-04	1.6639E-04	3.2203E-08	0.0035	6.2043E-04
1187	8.8950E+03	2.1348E+05	5.9261E-04	5.9261E-04	1.2997E-07	0.0142	6.2023E-04
1188	8.9025E+03	2.1366E+05	1.2904E-03	1.2904E-03	3.2243E-07	0.0352	6.2050E-04
1189	8.9100E+03	2.1384E+05	2.2499E-03	2.1808E-05	6.0621E-07	0.0662	6.2147E-04
1190	8.9175E+03	2.1402E+05	1.6674E-04	1.6674E-04	3.2286E-08	0.0035	6.2102E-04
1191	8.9250E+03	2.1420E+05	5.9361E-04	5.9361E-04	1.3020E-07	0.0142	6.2082E-04
1192	8.9325E+03	2.1438E+05	1.2924E-03	1.2924E-03	3.2295E-07	0.0353	6.2109E-04
1193	8.9400E+03	2.1456E+05	2.2534E-03	2.1937E-05	6.0716E-07	0.0663	6.2206E-04
1194	8.9475E+03	2.1474E+05	1.6709E-04	1.6710E-04	3.2368E-08	0.0035	6.2162E-04
1195	8.9550E+03	2.1492E+05	5.9462E-04	5.9462E-04	1.3043E-07	0.0142	6.2141E-04
1196	8.9625E+03	2.1510E+05	1.2945E-03	1.2945E-03	3.2347E-07	0.0353	6.2168E-04
1197	8.9700E+03	2.1528E+05	2.2569E-03	2.2067E-05	6.0811E-07	0.0664	6.2265E-04
1198	8.9775E+03	2.1546E+05	1.6745E-04	1.6745E-04	3.2451E-08	0.0035	6.2221E-04
1199	8.9850E+03	2.1564E+05	5.9562E-04	5.9562E-04	1.3066E-07	0.0143	6.2201E-04
1200	8.9925E+03	2.1582E+05	1.2965E-03	1.2965E-03	3.2400E-07	0.0354	6.2228E-04
1201	9.0000E+03	2.1600E+05	2.2604E-03	2.2196E-05	6.0906E-07	0.0665	6.2324E-04
1202	9.0075E+03	2.1618E+05	1.6780E-04	1.6780E-04	3.2534E-08	0.0036	6.2280E-04
1203	9.0150E+03	2.1636E+05	5.9663E-04	5.9663E-04	1.3090E-07	0.0143	6.2260E-04
1204	9.0225E+03	2.1654E+05	1.2986E-03	1.2986E-03	3.2452E-07	0.0354	6.2287E-04
1205	9.0300E+03	2.1672E+05	2.2639E-03	2.2327E-05	6.1002E-07	0.0666	6.2383E-04
1206	9.0375E+03	2.1690E+05	1.6816E-04	1.6816E-04	3.2617E-08	0.0036	6.2339E-04
1207	9.0450E+03	2.1708E+05	5.9763E-04	5.9764E-04	1.3113E-07	0.0143	6.2319E-04
1208	9.0525E+03	2.1726E+05	1.3007E-03	1.3007E-03	3.2505E-07	0.0355	6.2346E-04
1209	9.0600E+03	2.1744E+05	2.2674E-03	2.2457E-05	6.1097E-07	0.0667	6.2443E-04
1210	9.0675E+03	2.1762E+05	1.6851E-04	1.6851E-04	3.2701E-08	0.0036	6.2399E-04
1211	9.0750E+03	2.1780E+05	5.9864E-04	5.9864E-04	1.3136E-07	0.0143	6.2379E-04
1212	9.0825E+03	2.1798E+05	1.3027E-03	1.3027E-03	3.2558E-07	0.0355	6.2406E-04
1213	9.0900E+03	2.1816E+05	2.2709E-03	2.2588E-05	6.1192E-07	0.0668	6.2502E-04
1214	9.0975E+03	2.1834E+05	1.6887E-04	1.6887E-04	3.2784E-08	0.0036	6.2458E-04
1215	9.1050E+03	2.1852E+05	5.9965E-04	5.9965E-04	1.3160E-07	0.0144	6.2438E-04
1216	9.1125E+03	2.1870E+05	1.3048E-03	1.3048E-03	3.2610E-07	0.0356	6.2465E-04
1217	9.1200E+03	2.1888E+05	2.2744E-03	2.2719E-05	6.1288E-07	0.0669	6.2561E-04
1218	9.1275E+03	2.1906E+05	1.6923E-04	1.6923E-04	3.2868E-08	0.0036	6.2518E-04
1219	9.1350E+03	2.1924E+05	6.0066E-04	6.0066E-04	1.3183E-07	0.0144	6.2498E-04
1220	9.1425E+03	2.1942E+05	1.3069E-03	1.3069E-03	3.2663E-07	0.0357	6.2525E-04
1221	9.1500E+03	2.1960E+05	2.2779E-03	2.2851E-05	6.1383E-07	0.0670	6.2621E-04
1222	9.1575E+03	2.1978E+05	1.6959E-04	1.6959E-04	3.2951E-08	0.0036	6.2577E-04
1223	9.1650E+03	2.1996E+05	6.0167E-04	6.0168E-04	1.3206E-07	0.0144	6.2557E-04
1224	9.1725E+03	2.2014E+05	1.3089E-03	1.3089E-03	3.2716E-07	0.0357	6.2584E-04
1225	9.1800E+03	2.2032E+05	2.2814E-03	2.2983E-05	6.1479E-07	0.0671	6.2680E-04
1226	9.1875E+03	2.2050E+05	1.6994E-04	1.6994E-04	3.3035E-08	0.0036	6.2637E-04
1227	9.1950E+03	2.2068E+05	6.0269E-04	6.0269E-04	1.3230E-07	0.0144	6.2617E-04
1228	9.2025E+03	2.2086E+05	1.3110E-03	1.3110E-03	3.2769E-07	0.0358	6.2644E-04
1229	9.2100E+03	2.2104E+05	2.2849E-03	2.3115E-05	6.1574E-07	0.0672	6.2739E-04
1230	9.2175E+03	2.2122E+05	1.7030E-04	1.7030E-04	3.3119E-08	0.0036	6.2696E-04
1231	9.2250E+03	2.2140E+05	6.0370E-04	6.0370E-04	1.3253E-07	0.0145	6.2677E-04
1232	9.2325E+03	2.2158E+05	1.3131E-03	1.3131E-03	3.2821E-07	0.0358	6.2704E-04
1233	9.2400E+03	2.2176E+05	2.2885E-03	2.3248E-05	6.1670E-07	0.0673	6.2799E-04
1234	9.2475E+03	2.2194E+05	1.7066E-04	1.7066E-04	3.3204E-08	0.0036	6.2756E-04
1235	9.2550E+03	2.2212E+05	6.0472E-04	6.0472E-04	1.3277E-07	0.0145	6.2736E-04
1236	9.2625E+03	2.2230E+05	1.3151E-03	1.3151E-03	3.2874E-07	0.0359	6.2763E-04
1237	9.2700E+03	2.2248E+05	2.2920E-03	2.3381E-05	6.1766E-07	0.0674	6.2858E-04
1238	9.2775E+03	2.2266E+05	1.7102E-04	1.7102E-04	3.3288E-08	0.0036	6.2816E-04
1239	9.2850E+03	2.2284E+05	6.0573E-04	6.0573E-04	1.3301E-07	0.0145	6.2796E-04
1240	9.2925E+03	2.2302E+05	1.3172E-03	1.3172E-03	3.2927E-07	0.0359	6.2823E-04
1241	9.3000E+03	2.2320E+05	2.2955E-03	2.3515E-05	6.1862E-07	0.0675	6.2918E-04
1242	9.3075E+03	2.2338E+05	1.7138E-04	1.7138E-04	3.3373E-08	0.0036	6.2875E-04
1243	9.3150E+03	2.2356E+05	6.0675E-04	6.0675E-04	1.3324E-07	0.0145	6.2856E-04
1244	9.3225E+03	2.2374E+05	1.3193E-03	1.3193E-03	3.2980E-07	0.0360	6.2883E-04

1245	9.3300E+03	2.2392E+05	2.2990E-03	2.3649E-05	6.1958E-07	0.0676	6.2978E-04
1246	9.3375E+03	2.2410E+05	1.7174E-04	1.7174E-04	3.3457E-08	0.0037	6.2935E-04
1247	9.3450E+03	2.2428E+05	6.0777E-04	6.0777E-04	1.3348E-07	0.0146	6.2916E-04
1248	9.3525E+03	2.2446E+05	1.3214E-03	1.3214E-03	3.3033E-07	0.0361	6.2943E-04
1249	9.3600E+03	2.2464E+05	2.3026E-03	2.3783E-05	6.2054E-07	0.0677	6.3037E-04
1250	9.3675E+03	2.2482E+05	1.7210E-04	1.7210E-04	3.3542E-08	0.0037	6.2995E-04
1251	9.3750E+03	2.2500E+05	6.0878E-04	6.0879E-04	1.3371E-07	0.0146	6.2976E-04
1252	9.3825E+03	2.2518E+05	1.3235E-03	1.3235E-03	3.3087E-07	0.0361	6.3002E-04
1253	9.3900E+03	2.2536E+05	2.3061E-03	2.3918E-05	6.2150E-07	0.0678	6.3097E-04
1254	9.3975E+03	2.2554E+05	1.7247E-04	1.7247E-04	3.3627E-08	0.0037	6.3055E-04
1255	9.4050E+03	2.2572E+05	6.0980E-04	6.0981E-04	1.3395E-07	0.0146	6.3035E-04
1256	9.4125E+03	2.2590E+05	1.3256E-03	1.3256E-03	3.3140E-07	0.0362	6.3062E-04
1257	9.4200E+03	2.2608E+05	2.3096E-03	2.4053E-05	6.2246E-07	0.0680	6.3157E-04
1258	9.4275E+03	2.2626E+05	1.7283E-04	1.7283E-04	3.3712E-08	0.0037	6.3114E-04
1259	9.4350E+03	2.2644E+05	6.1083E-04	6.1083E-04	1.3419E-07	0.0146	6.3095E-04
1260	9.4425E+03	2.2662E+05	1.3276E-03	1.3276E-03	3.3193E-07	0.0362	6.3122E-04
1261	9.4500E+03	2.2680E+05	2.3132E-03	2.4188E-05	6.2343E-07	0.0681	6.3217E-04
1262	9.4575E+03	2.2698E+05	1.7319E-04	1.7319E-04	3.3798E-08	0.0037	6.3174E-04
1263	9.4650E+03	2.2716E+05	6.1185E-04	6.1185E-04	1.3442E-07	0.0147	6.3155E-04
1264	9.4725E+03	2.2734E+05	1.3297E-03	1.3297E-03	3.3246E-07	0.0363	6.3182E-04
1265	9.4800E+03	2.2752E+05	2.3167E-03	2.4324E-05	6.2439E-07	0.0682	6.3277E-04
1266	9.4875E+03	2.2770E+05	1.7355E-04	1.7355E-04	3.3883E-08	0.0037	6.3234E-04
1267	9.4950E+03	2.2788E+05	6.1287E-04	6.1287E-04	1.3466E-07	0.0147	6.3215E-04
1268	9.5025E+03	2.2806E+05	1.3318E-03	1.3318E-03	3.3300E-07	0.0364	6.3242E-04
1269	9.5100E+03	2.2824E+05	2.3202E-03	2.4460E-05	6.2535E-07	0.0683	6.3336E-04
1270	9.5175E+03	2.2842E+05	1.7392E-04	1.7392E-04	3.3969E-08	0.0037	6.3294E-04
1271	9.5250E+03	2.2860E+05	6.1389E-04	6.1389E-04	1.3490E-07	0.0147	6.3275E-04
1272	9.5325E+03	2.2878E+05	1.3339E-03	1.3339E-03	3.3353E-07	0.0364	6.3302E-04
1273	9.5400E+03	2.2896E+05	2.3238E-03	2.4596E-05	6.2632E-07	0.0684	6.3396E-04
1274	9.5475E+03	2.2914E+05	1.7428E-04	1.7428E-04	3.4055E-08	0.0037	6.3354E-04
1275	9.5550E+03	2.2932E+05	6.1492E-04	6.1492E-04	1.3514E-07	0.0148	6.3336E-04
1276	9.5625E+03	2.2950E+05	1.3360E-03	1.3360E-03	3.3406E-07	0.0365	6.3362E-04
1277	9.5700E+03	2.2968E+05	2.3273E-03	2.4733E-05	6.2729E-07	0.0685	6.3456E-04
1278	9.5775E+03	2.2986E+05	1.7465E-04	1.7465E-04	3.4141E-08	0.0037	6.3414E-04
1279	9.5850E+03	2.3004E+05	6.1595E-04	6.1595E-04	1.3538E-07	0.0148	6.3396E-04
1280	9.5925E+03	2.3022E+05	1.3381E-03	1.3381E-03	3.3460E-07	0.0365	6.3423E-04
1281	9.6000E+03	2.3040E+05	2.3309E-03	2.4871E-05	6.2825E-07	0.0686	6.3516E-04
1282	9.6075E+03	2.3058E+05	1.7501E-04	1.7501E-04	3.4227E-08	0.0037	6.3474E-04
1283	9.6150E+03	2.3076E+05	6.1697E-04	6.1697E-04	1.3561E-07	0.0148	6.3456E-04
1284	9.6225E+03	2.3094E+05	1.3402E-03	1.3402E-03	3.3513E-07	0.0366	6.3483E-04
1285	9.6300E+03	2.3112E+05	2.3344E-03	2.5008E-05	6.2922E-07	0.0687	6.3576E-04
1286	9.6375E+03	2.3130E+05	1.7538E-04	1.7538E-04	3.4313E-08	0.0037	6.3535E-04
1287	9.6450E+03	2.3148E+05	6.1800E-04	6.1800E-04	1.3585E-07	0.0148	6.3516E-04
1288	9.6525E+03	2.3166E+05	1.3423E-03	1.3423E-03	3.3567E-07	0.0366	6.3543E-04
1289	9.6600E+03	2.3184E+05	2.3380E-03	2.5146E-05	6.3019E-07	0.0688	6.3636E-04
1290	9.6675E+03	2.3202E+05	1.7575E-04	1.7575E-04	3.4400E-08	0.0038	6.3595E-04
1291	9.6750E+03	2.3220E+05	6.1903E-04	6.1903E-04	1.3609E-07	0.0149	6.3576E-04
1292	9.6825E+03	2.3238E+05	1.3444E-03	1.3444E-03	3.3620E-07	0.0367	6.3603E-04
1293	9.6900E+03	2.3256E+05	2.3416E-03	2.5285E-05	6.3116E-07	0.0689	6.3697E-04
1294	9.6975E+03	2.3274E+05	1.7611E-04	1.7611E-04	3.4486E-08	0.0038	6.3655E-04
1295	9.7050E+03	2.3292E+05	6.2006E-04	6.2006E-04	1.3633E-07	0.0149	6.3637E-04
1296	9.7125E+03	2.3310E+05	1.3465E-03	1.3465E-03	3.3674E-07	0.0368	6.3663E-04
1297	9.7200E+03	2.3328E+05	2.3451E-03	2.5423E-05	6.3213E-07	0.0690	6.3757E-04
1298	9.7275E+03	2.3346E+05	1.7648E-04	1.7648E-04	3.4573E-08	0.0038	6.3715E-04
1299	9.7350E+03	2.3364E+05	6.2109E-04	6.2109E-04	1.3657E-07	0.0149	6.3697E-04
1300	9.7425E+03	2.3382E+05	1.3486E-03	1.3486E-03	3.3728E-07	0.0368	6.3724E-04
1301	9.7500E+03	2.3400E+05	2.3487E-03	2.5562E-05	6.3310E-07	0.0691	6.3817E-04
1302	9.7575E+03	2.3418E+05	1.7685E-04	1.7685E-04	3.4660E-08	0.0038	6.3776E-04
1303	9.7650E+03	2.3436E+05	6.2212E-04	6.2212E-04	1.3681E-07	0.0149	6.3757E-04
1304	9.7725E+03	2.3454E+05	1.3507E-03	1.3507E-03	3.3782E-07	0.0369	6.3784E-04
1305	9.7800E+03	2.3472E+05	2.3523E-03	2.5702E-05	6.3407E-07	0.0692	6.3877E-04
1306	9.7875E+03	2.3490E+05	1.7722E-04	1.7722E-04	3.4747E-08	0.0038	6.3836E-04
1307	9.7950E+03	2.3508E+05	6.2316E-04	6.2316E-04	1.3705E-07	0.0150	6.3818E-04
1308	9.8025E+03	2.3526E+05	1.3528E-03	1.3528E-03	3.3835E-07	0.0369	6.3845E-04
1309	9.8100E+03	2.3544E+05	2.3558E-03	2.5842E-05	6.3474E-07	0.0693	6.3937E-04
1310	9.8175E+03	2.3562E+05	1.7759E-04	1.7759E-04	3.4834E-08	0.0038	6.3896E-04

1311	9.8250E+03	2.3580E+05	6.2419E-04	6.2419E-04	1.3729E-07	0.0150	6.3878E-04
1312	9.8325E+03	2.3598E+05	1.3549E-03	1.3549E-03	3.0000E-07	0.0370	6.3905E-04
1313	9.8400E+03	2.3616E+05	2.3594E-03	2.5982E-05	6.3000E-07	0.0694	6.3998E-04
1314	9.8475E+03	2.3634E+05	1.7796E-04	1.7796E-04	3.4922E-08	0.0038	6.3957E-04
1315	9.8550E+03	2.3652E+05	6.2523E-04	6.2523E-04	1.3753E-07	0.0150	6.3939E-04
1316	9.8625E+03	2.3670E+05	1.3570E-03	1.3570E-03	3.3943E-07	0.0371	6.3965E-04
1317	9.8700E+03	2.3688E+05	2.3630E-03	2.6123E-05	6.3699E-07	0.0695	6.4058E-04
1318	9.8775E+03	2.3706E+05	1.7833E-04	1.7833E-04	3.5009E-08	0.0038	6.4017E-04
1319	9.8850E+03	2.3724E+05	6.2626E-04	6.2626E-04	1.3777E-07	0.0150	6.3999E-04
1320	9.8925E+03	2.3742E+05	1.3592E-03	1.3592E-03	3.3997E-07	0.0371	6.4026E-04
1321	9.9000E+03	2.3760E+05	2.3666E-03	2.6264E-05	6.3797E-07	0.0696	6.4119E-04
1322	9.9075E+03	2.3778E+05	1.7870E-04	1.7870E-04	3.5097E-08	0.0038	6.4078E-04
1323	9.9150E+03	2.3796E+05	6.2730E-04	6.2730E-04	1.3801E-07	0.0151	6.4060E-04
1324	9.9225E+03	2.3814E+05	1.3613E-03	1.3613E-03	3.4051E-07	0.0372	6.4087E-04
1325	9.9300E+03	2.3832E+05	2.3701E-03	2.6405E-05	6.3894E-07	0.0698	6.4179E-04
1326	9.9375E+03	2.3850E+05	1.7907E-04	1.7907E-04	3.5185E-08	0.0038	6.4138E-04
1327	9.9450E+03	2.3868E+05	6.2834E-04	6.2834E-04	1.3826E-07	0.0151	6.4120E-04
1328	9.9525E+03	2.3886E+05	1.3634E-03	1.3634E-03	3.4105E-07	0.0372	6.4147E-04
1329	9.9600E+03	2.3904E+05	2.3737E-03	2.6547E-05	6.3992E-07	0.0699	6.4240E-04
1330	9.9675E+03	2.3922E+05	1.7945E-04	1.7945E-04	3.5273E-08	0.0039	6.4199E-04
1331	9.9750E+03	2.3940E+05	6.2938E-04	6.2938E-04	1.3850E-07	0.0151	6.4181E-04
1332	9.9825E+03	2.3958E+05	1.3655E-03	1.3655E-03	3.4159E-07	0.0373	6.4208E-04
1333	9.9900E+03	2.3976E+05	2.3773E-03	2.6689E-05	6.4090E-07	0.0700	6.4300E-04
1334	9.9975E+03	2.3994E+05	1.7982E-04	1.7982E-04	3.5361E-08	0.0039	6.4260E-04
1335	1.0005E+04	2.4012E+05	6.3042E-04	6.3042E-04	1.3874E-07	0.0151	6.4242E-04
1336	1.0013E+04	2.4030E+05	1.3676E-03	1.3676E-03	3.4213E-07	0.0374	6.4269E-04
1337	1.0020E+04	2.4048E+05	2.3809E-03	2.6831E-05	6.4187E-07	0.0701	6.4361E-04
1338	1.0028E+04	2.4066E+05	1.8019E-04	1.8019E-04	3.5449E-08	0.0039	6.4320E-04
1339	1.0035E+04	2.4084E+05	6.3146E-04	6.3146E-04	1.3898E-07	0.0152	6.4303E-04
1340	1.0043E+04	2.4102E+05	1.3698E-03	1.3698E-03	3.4267E-07	0.0374	6.4329E-04
1341	1.0050E+04	2.4120E+05	2.3845E-03	2.6974E-05	6.4285E-07	0.0702	6.4421E-04
1342	1.0058E+04	2.4138E+05	1.8057E-04	1.8057E-04	3.5538E-08	0.0039	6.4381E-04
1343	1.0065E+04	2.4156E+05	6.3251E-04	6.3251E-04	1.3922E-07	0.0152	6.4363E-04
1344	1.0073E+04	2.4174E+05	1.3719E-03	1.3719E-03	3.4322E-07	0.0375	6.4390E-04
1345	1.0080E+04	2.4192E+05	2.3881E-03	2.7117E-05	6.4383E-07	0.0703	6.4482E-04
1346	1.0088E+04	2.4210E+05	1.8094E-04	1.8094E-04	3.5627E-08	0.0039	6.4442E-04
1347	1.0095E+04	2.4228E+05	6.3355E-04	6.3355E-04	1.3947E-07	0.0152	6.4424E-04
1348	1.0103E+04	2.4246E+05	1.3740E-03	1.3740E-03	3.4376E-07	0.0375	6.4451E-04
1349	1.0110E+04	2.4264E+05	2.3917E-03	2.7261E-05	6.4481E-07	0.0704	6.4543E-04
1350	1.0118E+04	2.4282E+05	1.8132E-04	1.8132E-04	3.5715E-08	0.0039	6.4503E-04
1351	1.0125E+04	2.4300E+05	6.3459E-04	6.3459E-04	1.3971E-07	0.0153	6.4485E-04
1352	1.0133E+04	2.4318E+05	1.3761E-03	1.3761E-03	3.4430E-07	0.0376	6.4512E-04
1353	1.0140E+04	2.4336E+05	2.3953E-03	2.7405E-05	6.4579E-07	0.0705	6.4604E-04
1354	1.0148E+04	2.4354E+05	1.8169E-04	1.8169E-04	3.5804E-08	0.0039	6.4564E-04
1355	1.0155E+04	2.4372E+05	6.3564E-04	6.3564E-04	1.3995E-07	0.0153	6.4546E-04
1356	1.0163E+04	2.4390E+05	1.3783E-03	1.3783E-03	3.4485E-07	0.0376	6.4573E-04
1357	1.0170E+04	2.4408E+05	2.3989E-03	2.7549E-05	6.4678E-07	0.0706	6.4664E-04
1358	1.0178E+04	2.4426E+05	1.8207E-04	1.8207E-04	3.5894E-08	0.0039	6.4624E-04
1359	1.0185E+04	2.4444E+05	6.3669E-04	6.3669E-04	1.4020E-07	0.0153	6.4607E-04
1360	1.0193E+04	2.4462E+05	1.3804E-03	1.3804E-03	3.4539E-07	0.0377	6.4634E-04
1361	1.0200E+04	2.4480E+05	2.4025E-03	2.7694E-05	6.4776E-07	0.0707	6.4725E-04
1362	1.0208E+04	2.4498E+05	1.8245E-04	1.8245E-04	3.5983E-08	0.0039	6.4685E-04
1363	1.0215E+04	2.4516E+05	6.3773E-04	6.3774E-04	1.4044E-07	0.0153	6.4668E-04
1364	1.0223E+04	2.4534E+05	1.3825E-03	1.3825E-03	3.4594E-07	0.0378	6.4695E-04
1365	1.0230E+04	2.4552E+05	2.4061E-03	2.7839E-05	6.4874E-07	0.0708	6.4786E-04
1366	1.0238E+04	2.4570E+05	1.8282E-04	1.8282E-04	3.6072E-08	0.0039	6.4746E-04
1367	1.0245E+04	2.4588E+05	6.3878E-04	6.3878E-04	1.4069E-07	0.0154	6.4729E-04
1368	1.0253E+04	2.4606E+05	1.3847E-03	1.3847E-03	3.4648E-07	0.0378	6.4756E-04
1369	1.0260E+04	2.4624E+05	2.4097E-03	2.7985E-05	6.4973E-07	0.0709	6.4847E-04
1370	1.0268E+04	2.4642E+05	1.8320E-04	1.8320E-04	3.6162E-08	0.0039	6.4807E-04
1371	1.0275E+04	2.4660E+05	6.3983E-04	6.3983E-04	1.4093E-07	0.0154	6.4790E-04
1372	1.0283E+04	2.4678E+05	1.3868E-03	1.3868E-03	3.4703E-07	0.0379	6.4817E-04
1373	1.0290E+04	2.4696E+05	2.4133E-03	2.8131E-05	6.5071E-07	0.0710	6.4908E-04
1374	1.0298E+04	2.4714E+05	1.8358E-04	1.8358E-04	3.6252E-08	0.0040	6.4868E-04
1375	1.0305E+04	2.4732E+05	6.4088E-04	6.4089E-04	1.4118E-07	0.0154	6.4851E-04
1376	1.0313E+04	2.4750E+05	1.3889E-03	1.3889E-03	3.4757E-07	0.0379	6.4878E-04

1377	1.0320E+04	2.4768E+05	2.4170E-03	2.8277E-05	6.5170E-07	0.0711	6.4969E-04
1378	1.0328E+04	2.4786E+05	1.8396E-04	1.8396E-04	3.6342E-08	0.0040	6.4929E-04
1379	1.0335E+04	2.4804E+05	6.4194E-04	6.4194E-04	1.4142E-07	0.0154	6.4912E-04
1380	1.0343E+04	2.4822E+05	1.3911E-03	1.3911E-03	3.4812E-07	0.0380	6.4939E-04
1381	1.0350E+04	2.4840E+05	2.4206E-03	2.8423E-05	6.5268E-07	0.0713	6.5030E-04
1382	1.0358E+04	2.4858E+05	1.8434E-04	1.8434E-04	3.6432E-08	0.0040	6.4991E-04
1383	1.0365E+04	2.4876E+05	6.4299E-04	6.4299E-04	1.4167E-07	0.0155	6.4974E-04
1384	1.0373E+04	2.4894E+05	1.3932E-03	1.3932E-03	3.4867E-07	0.0381	6.5000E-04
1385	1.0380E+04	2.4912E+05	2.4242E-03	2.8570E-05	6.5367E-07	0.0714	6.5091E-04
1386	1.0388E+04	2.4930E+05	1.8472E-04	1.8472E-04	3.6522E-08	0.0040	6.5052E-04
1387	1.0395E+04	2.4948E+05	6.4404E-04	6.4405E-04	1.4191E-07	0.0155	6.5035E-04
1388	1.0403E+04	2.4966E+05	1.3954E-03	1.3954E-03	3.4922E-07	0.0381	6.5061E-04
1389	1.0410E+04	2.4984E+05	2.4278E-03	2.8718E-05	6.5466E-07	0.0715	6.5152E-04
1390	1.0418E+04	2.5002E+05	1.8510E-04	1.8510E-04	3.6612E-08	0.0040	6.5113E-04
1391	1.0425E+04	2.5020E+05	6.4510E-04	6.4510E-04	1.4216E-07	0.0155	6.5096E-04
1392	1.0433E+04	2.5038E+05	1.3975E-03	1.3975E-03	3.4976E-07	0.0382	6.5123E-04
1393	1.0440E+04	2.5056E+05	2.4315E-03	2.8865E-05	6.5565E-07	0.0716	6.5213E-04
1394	1.0448E+04	2.5074E+05	1.8548E-04	1.8548E-04	3.6703E-08	0.0040	6.5174E-04
1395	1.0455E+04	2.5092E+05	6.4616E-04	6.4616E-04	1.4240E-07	0.0155	6.5157E-04
1396	1.0463E+04	2.5110E+05	1.3997E-03	1.3997E-03	3.5031E-07	0.0382	6.5184E-04
1397	1.0470E+04	2.5128E+05	2.4351E-03	2.9013E-05	6.5664E-07	0.0717	6.5275E-04
1398	1.0478E+04	2.5146E+05	1.8586E-04	1.8586E-04	3.6794E-08	0.0040	6.5236E-04
1399	1.0485E+04	2.5164E+05	6.4721E-04	6.4721E-04	1.4265E-07	0.0156	6.5219E-04
1400	1.0493E+04	2.5182E+05	1.4018E-03	1.4018E-03	3.5086E-07	0.0383	6.5245E-04
1401	1.0500E+04	2.5200E+05	2.4387E-03	2.9162E-05	6.5763E-07	0.0718	6.5336E-04
1402	1.0508E+04	2.5218E+05	1.8624E-04	1.8625E-04	3.6885E-08	0.0040	6.5297E-04
1403	1.0515E+04	2.5236E+05	6.4827E-04	6.4827E-04	1.4290E-07	0.0156	6.5280E-04
1404	1.0523E+04	2.5254E+05	1.4040E-03	1.4040E-03	3.5141E-07	0.0384	6.5307E-04
1405	1.0530E+04	2.5272E+05	2.4424E-03	2.9311E-05	6.5862E-07	0.0719	6.5397E-04
1406	1.0538E+04	2.5290E+05	1.8663E-04	1.8663E-04	3.6976E-08	0.0040	6.5358E-04
1407	1.0545E+04	2.5308E+05	6.4933E-04	6.4933E-04	1.4314E-07	0.0156	6.5342E-04
1408	1.0553E+04	2.5326E+05	1.4061E-03	1.4061E-03	3.5196E-07	0.0384	6.5368E-04
1409	1.0560E+04	2.5344E+05	2.4460E-03	2.9460E-05	6.5961E-07	0.0720	6.5459E-04
1410	1.0568E+04	2.5362E+05	1.8701E-04	1.8701E-04	3.7067E-08	0.0040	6.5420E-04
1411	1.0575E+04	2.5380E+05	6.5039E-04	6.5039E-04	1.4339E-07	0.0157	6.5403E-04
1412	1.0583E+04	2.5398E+05	1.4083E-03	1.4083E-03	3.5251E-07	0.0385	6.5430E-04
1413	1.0590E+04	2.5416E+05	2.4497E-03	2.9609E-05	6.6061E-07	0.0721	6.5520E-04
1414	1.0598E+04	2.5434E+05	1.8740E-04	1.8740E-04	3.7158E-08	0.0041	6.5481E-04
1415	1.0605E+04	2.5452E+05	6.5145E-04	6.5145E-04	1.4364E-07	0.0157	6.5465E-04
1416	1.0613E+04	2.5470E+05	1.4104E-03	1.4104E-03	3.5306E-07	0.0385	6.5491E-04
1417	1.0620E+04	2.5488E+05	2.4533E-03	2.9759E-05	6.6160E-07	0.0722	6.5581E-04
1418	1.0628E+04	2.5506E+05	1.8778E-04	1.8778E-04	3.7250E-08	0.0041	6.5543E-04
1419	1.0635E+04	2.5524E+05	6.5252E-04	6.5252E-04	1.4389E-07	0.0157	6.5526E-04
1420	1.0643E+04	2.5542E+05	1.4126E-03	1.4126E-03	3.5361E-07	0.0386	6.5553E-04
1421	1.0650E+04	2.5560E+05	2.4570E-03	2.9910E-05	6.6259E-07	0.0723	6.5643E-04
1422	1.0658E+04	2.5578E+05	1.8817E-04	1.8817E-04	3.7342E-08	0.0041	6.5604E-04
1423	1.0665E+04	2.5596E+05	6.5358E-04	6.5358E-04	1.4413E-07	0.0157	6.5588E-04
1424	1.0673E+04	2.5614E+05	1.4148E-03	1.4148E-03	3.5417E-07	0.0387	6.5614E-04
1425	1.0680E+04	2.5632E+05	2.4606E-03	3.0060E-05	6.6359E-07	0.0724	6.5704E-04
1426	1.0688E+04	2.5650E+05	1.8855E-04	1.8855E-04	3.7433E-08	0.0041	6.5666E-04
1427	1.0695E+04	2.5668E+05	6.5464E-04	6.5465E-04	1.4438E-07	0.0158	6.5649E-04
1428	1.0703E+04	2.5686E+05	1.4169E-03	1.4169E-03	3.5472E-07	0.0387	6.5676E-04
1429	1.0710E+04	2.5704E+05	2.4643E-03	3.0211E-05	6.6459E-07	0.0726	6.5766E-04
1430	1.0718E+04	2.5722E+05	1.8894E-04	1.8894E-04	3.7525E-08	0.0041	6.5728E-04
1431	1.0725E+04	2.5740E+05	6.5571E-04	6.5571E-04	1.4463E-07	0.0158	6.5711E-04
1432	1.0733E+04	2.5758E+05	1.4191E-03	1.4191E-03	3.5527E-07	0.0388	6.5738E-04
1433	1.0740E+04	2.5776E+05	2.4679E-03	3.0363E-05	6.6558E-07	0.0727	6.5827E-04
1434	1.0748E+04	2.5794E+05	1.8932E-04	1.8932E-04	3.7618E-08	0.0041	6.5789E-04
1435	1.0755E+04	2.5812E+05	6.5678E-04	6.5678E-04	1.4488E-07	0.0158	6.5773E-04
1436	1.0763E+04	2.5830E+05	1.4212E-03	1.4212E-03	3.5583E-07	0.0388	6.5799E-04
1437	1.0770E+04	2.5848E+05	2.4716E-03	3.0515E-05	6.6658E-07	0.0728	6.5889E-04
1438	1.0778E+04	2.5866E+05	1.8971E-04	1.8971E-04	3.7710E-08	0.0041	6.5851E-04
1439	1.0785E+04	2.5884E+05	6.5785E-04	6.5785E-04	1.4513E-07	0.0158	6.5835E-04
1440	1.0793E+04	2.5902E+05	1.4234E-03	1.4234E-03	3.5638E-07	0.0389	6.5861E-04
1441	1.0800E+04	2.5920E+05	2.4752E-03	3.0667E-05	6.6788E-07	0.0729	6.5951E-04
1442	1.0808E+04	2.5938E+05	1.9010E-04	1.9010E-04	3.7802E-08	0.0041	6.5913E-04

1443	1.0815E+04	2.5956E+05	6.5891E-04	6.5891E-04	1.4538E-07	0.0159	6.5896E-04
1444	1.0823E+04	2.5974E+05	1.4256E-03	1.4256E-03	3.7138E-07	0.0390	6.5923E-04
1445	1.0830E+04	2.5992E+05	2.4789E-03	3.0819E-05	6.6078E-07	0.0730	6.6012E-04
1446	1.0838E+04	2.6010E+05	1.9049E-04	1.9049E-04	3.7895E-08	0.0041	6.5974E-04
1447	1.0845E+04	2.6028E+05	6.5998E-04	6.5998E-04	1.4563E-07	0.0159	6.5958E-04
1448	1.0853E+04	2.6046E+05	1.4278E-03	1.4278E-03	3.5749E-07	0.0390	6.5985E-04
1449	1.0860E+04	2.6064E+05	2.4826E-03	3.0972E-05	6.6958E-07	0.0731	6.6074E-04
1450	1.0868E+04	2.6082E+05	1.9088E-04	1.9088E-04	3.7988E-08	0.0041	6.6036E-04
1451	1.0875E+04	2.6100E+05	6.6105E-04	6.6106E-04	1.4588E-07	0.0159	6.6020E-04
1452	1.0883E+04	2.6118E+05	1.4299E-03	1.4299E-03	3.5805E-07	0.0391	6.6047E-04
1453	1.0890E+04	2.6136E+05	2.4863E-03	3.1126E-05	6.7058E-07	0.0732	6.6136E-04
1454	1.0898E+04	2.6154E+05	1.9127E-04	1.9127E-04	3.8081E-08	0.0042	6.6098E-04
1455	1.0905E+04	2.6172E+05	6.6213E-04	6.6213E-04	1.4613E-07	0.0160	6.6082E-04
1456	1.0913E+04	2.6190E+05	1.4321E-03	1.4321E-03	3.5860E-07	0.0391	6.6109E-04
1457	1.0920E+04	2.6208E+05	2.4899E-03	3.1279E-05	6.7158E-07	0.0733	6.6198E-04
1458	1.0928E+04	2.6226E+05	1.9166E-04	1.9166E-04	3.8174E-08	0.0042	6.6160E-04
1459	1.0935E+04	2.6244E+05	6.6320E-04	6.6320E-04	1.4638E-07	0.0160	6.6144E-04
1460	1.0943E+04	2.6262E+05	1.4343E-03	1.4343E-03	3.5916E-07	0.0392	6.6171E-04
1461	1.0950E+04	2.6280E+05	2.4936E-03	3.1433E-05	6.7258E-07	0.0734	6.6260E-04
1462	1.0958E+04	2.6298E+05	1.9205E-04	1.9205E-04	3.8267E-08	0.0042	6.6222E-04
1463	1.0965E+04	2.6316E+05	6.6427E-04	6.6427E-04	1.4663E-07	0.0160	6.6206E-04
1464	1.0973E+04	2.6334E+05	1.4365E-03	1.4365E-03	3.5971E-07	0.0393	6.6233E-04
1465	1.0980E+04	2.6352E+05	2.4973E-03	3.1588E-05	6.7359E-07	0.0735	6.6322E-04
1466	1.0988E+04	2.6370E+05	1.9244E-04	1.9244E-04	3.8361E-08	0.0042	6.6284E-04
1467	1.0995E+04	2.6388E+05	6.6535E-04	6.6535E-04	1.4688E-07	0.0160	6.6268E-04
1468	1.1003E+04	2.6406E+05	1.4386E-03	1.4386E-03	3.6027E-07	0.0393	6.6295E-04
1469	1.1010E+04	2.6424E+05	2.5010E-03	3.1743E-05	6.7459E-07	0.0736	6.6384E-04
1470	1.1018E+04	2.6442E+05	1.9283E-04	1.9283E-04	3.8454E-08	0.0042	6.6346E-04
1471	1.1025E+04	2.6460E+05	6.6643E-04	6.6643E-04	1.4713E-07	0.0161	6.6330E-04
1472	1.1033E+04	2.6478E+05	1.4408E-03	1.4408E-03	3.6083E-07	0.0394	6.6357E-04
1473	1.1040E+04	2.6496E+05	2.5047E-03	3.1898E-05	6.7560E-07	0.0738	6.6446E-04
1474	1.1048E+04	2.6514E+05	1.9322E-04	1.9322E-04	3.8548E-08	0.0042	6.6408E-04
1475	1.1055E+04	2.6532E+05	6.6750E-04	6.6750E-04	1.4738E-07	0.0161	6.6392E-04
1476	1.1063E+04	2.6550E+05	1.4430E-03	1.4430E-03	3.6139E-07	0.0395	6.6419E-04
1477	1.1070E+04	2.6568E+05	2.5083E-03	3.2053E-05	6.7660E-07	0.0739	6.6508E-04
1478	1.1078E+04	2.6586E+05	1.9362E-04	1.9362E-04	3.8642E-08	0.0042	6.6470E-04
1479	1.1085E+04	2.6604E+05	6.6858E-04	6.6858E-04	1.4764E-07	0.0161	6.6455E-04
1480	1.1093E+04	2.6622E+05	1.4452E-03	1.4452E-03	3.6195E-07	0.0395	6.6481E-04
1481	1.1100E+04	2.6640E+05	2.5120E-03	3.2209E-05	6.7761E-07	0.0740	6.6570E-04
1482	1.1108E+04	2.6658E+05	1.9401E-04	1.9401E-04	3.8736E-08	0.0042	6.6532E-04
1483	1.1115E+04	2.6676E+05	6.6966E-04	6.6966E-04	1.4789E-07	0.0161	6.6517E-04
1484	1.1123E+04	2.6694E+05	1.4474E-03	1.4474E-03	3.6251E-07	0.0396	6.6543E-04
1485	1.1130E+04	2.6712E+05	2.5157E-03	3.2366E-05	6.7862E-07	0.0741	6.6632E-04
1486	1.1138E+04	2.6730E+05	1.9440E-04	1.9440E-04	3.8830E-08	0.0042	6.6595E-04
1487	1.1145E+04	2.6748E+05	6.7074E-04	6.7074E-04	1.4814E-07	0.0162	6.6579E-04
1488	1.1153E+04	2.6766E+05	1.4496E-03	1.4496E-03	3.6307E-07	0.0396	6.6606E-04
1489	1.1160E+04	2.6784E+05	2.5194E-03	3.2522E-05	6.7962E-07	0.0742	6.6694E-04
1490	1.1168E+04	2.6802E+05	1.9480E-04	1.9480E-04	3.8925E-08	0.0042	6.6657E-04
1491	1.1175E+04	2.6820E+05	6.7182E-04	6.7182E-04	1.4839E-07	0.0162	6.6641E-04
1492	1.1183E+04	2.6838E+05	1.4518E-03	1.4518E-03	3.6363E-07	0.0397	6.6668E-04
1493	1.1190E+04	2.6856E+05	2.5231E-03	3.2679E-05	6.8063E-07	0.0743	6.6756E-04
1494	1.1198E+04	2.6874E+05	1.9519E-04	1.9519E-04	3.9019E-08	0.0043	6.6719E-04
1495	1.1205E+04	2.6892E+05	6.7290E-04	6.7291E-04	1.4865E-07	0.0162	6.6704E-04
1496	1.1213E+04	2.6910E+05	1.4540E-03	1.4540E-03	3.6419E-07	0.0398	6.6730E-04
1497	1.1220E+04	2.6928E+05	2.5268E-03	3.2837E-05	6.8164E-07	0.0744	6.6819E-04
1498	1.1228E+04	2.6946E+05	1.9559E-04	1.9559E-04	3.9114E-08	0.0043	6.6782E-04
1499	1.1235E+04	2.6964E+05	6.7399E-04	6.7399E-04	1.4890E-07	0.0163	6.6766E-04
1500	1.1243E+04	2.6982E+05	1.4562E-03	1.4562E-03	3.6475E-07	0.0398	6.6793E-04
1501	1.1250E+04	2.7000E+05	2.5305E-03	3.2995E-05	6.8265E-07	0.0745	6.6881E-04
1502	1.1258E+04	2.7018E+05	1.9599E-04	1.9599E-04	3.9209E-08	0.0043	6.6844E-04
1503	1.1265E+04	2.7036E+05	6.7507E-04	6.7507E-04	1.4915E-07	0.0163	6.6828E-04
1504	1.1273E+04	2.7054E+05	1.4583E-03	1.4583E-03	3.6531E-07	0.0399	6.6855E-04
1505	1.1280E+04	2.7072E+05	2.5342E-03	3.3153E-05	6.8366E-07	0.0746	6.6943E-04
1506	1.1288E+04	2.7090E+05	1.9638E-04	1.9638E-04	3.9304E-08	0.0043	6.6906E-04
1507	1.1295E+04	2.7108E+05	6.7616E-04	6.7616E-04	1.4941E-07	0.0163	6.6891E-04
1508	1.1303E+04	2.7126E+05	1.4605E-03	1.4605E-03	3.6587E-07	0.0399	6.6917E-04

1509	1.1310E+04	2.7144E+05	2.5380E-03	3.3311E-05	6.8467E-07	0.0747	6.7006E-04
1510	1.1318E+04	2.7162E+05	1.9678E-04	1.9678E-04	3.9399E-08	0.0043	6.6969E-04
1511	1.1325E+04	2.7180E+05	6.7724E-04	6.7725E-04	1.4966E-07	0.0163	6.6953E-04
1512	1.1333E+04	2.7198E+05	1.4627E-03	1.4627E-03	3.6644E-07	0.0400	6.6980E-04
1513	1.1340E+04	2.7216E+05	2.5417E-03	3.3470E-05	6.8569E-07	0.0749	6.7068E-04
1514	1.1348E+04	2.7234E+05	1.9718E-04	1.9718E-04	3.9494E-08	0.0043	6.7031E-04
1515	1.1355E+04	2.7252E+05	6.7833E-04	6.7833E-04	1.4992E-07	0.0164	6.7016E-04
1516	1.1363E+04	2.7270E+05	1.4649E-03	1.4649E-03	3.6700E-07	0.0401	6.7042E-04
1517	1.1370E+04	2.7288E+05	2.5454E-03	3.3629E-05	6.8670E-07	0.0750	6.7131E-04
1518	1.1378E+04	2.7306E+05	1.9758E-04	1.9758E-04	3.9590E-08	0.0043	6.7094E-04
1519	1.1385E+04	2.7324E+05	6.7942E-04	6.7942E-04	1.5017E-07	0.0164	6.7079E-04
1520	1.1393E+04	2.7342E+05	1.4672E-03	1.4672E-03	3.6756E-07	0.0401	6.7105E-04
1521	1.1400E+04	2.7360E+05	2.5491E-03	3.3789E-05	6.8772E-07	0.0751	6.7193E-04
1522	1.1408E+04	2.7378E+05	1.9797E-04	1.9798E-04	3.9686E-08	0.0043	6.7156E-04
1523	1.1415E+04	2.7396E+05	6.8051E-04	6.8051E-04	1.5043E-07	0.0164	6.7141E-04
1524	1.1423E+04	2.7414E+05	1.4694E-03	1.4694E-03	3.6813E-07	0.0402	6.7168E-04
1525	1.1430E+04	2.7432E+05	2.5528E-03	3.3949E-05	6.8873E-07	0.0752	6.7256E-04
1526	1.1438E+04	2.7450E+05	1.9837E-04	1.9837E-04	3.9781E-08	0.0043	6.7219E-04
1527	1.1445E+04	2.7468E+05	6.8160E-04	6.8160E-04	1.5068E-07	0.0164	6.7204E-04
1528	1.1453E+04	2.7486E+05	1.4716E-03	1.4716E-03	3.6869E-07	0.0403	6.7230E-04
1529	1.1460E+04	2.7504E+05	2.5566E-03	3.4109E-05	6.8975E-07	0.0753	6.7318E-04
1530	1.1468E+04	2.7522E+05	1.9877E-04	1.9878E-04	3.9877E-08	0.0044	6.7282E-04
1531	1.1475E+04	2.7540E+05	6.8269E-04	6.8269E-04	1.5094E-07	0.0165	6.7267E-04
1532	1.1483E+04	2.7558E+05	1.4738E-03	1.4738E-03	3.6926E-07	0.0403	6.7293E-04
1533	1.1490E+04	2.7576E+05	2.5603E-03	3.4270E-05	6.9076E-07	0.0754	6.7381E-04
1534	1.1498E+04	2.7594E+05	1.9918E-04	1.9918E-04	3.9974E-08	0.0044	6.7344E-04
1535	1.1505E+04	2.7612E+05	6.8379E-04	6.8379E-04	1.5119E-07	0.0165	6.7329E-04
1536	1.1513E+04	2.7630E+05	1.4760E-03	1.4760E-03	3.6982E-07	0.0404	6.7356E-04
1537	1.1520E+04	2.7648E+05	2.5640E-03	3.4431E-05	6.9178E-07	0.0755	6.7443E-04
1538	1.1528E+04	2.7666E+05	1.9958E-04	1.9958E-04	4.0070E-08	0.0044	6.7407E-04
1539	1.1535E+04	2.7684E+05	6.8488E-04	6.8488E-04	1.5145E-07	0.0165	6.7392E-04
1540	1.1543E+04	2.7702E+05	1.4782E-03	1.4782E-03	3.7089E-07	0.0404	6.7419E-04
1541	1.1550E+04	2.7720E+05	2.5677E-03	3.4593E-05	6.9280E-07	0.0756	6.7506E-04
1542	1.1558E+04	2.7738E+05	1.9998E-04	1.9998E-04	4.0166E-08	0.0044	6.7470E-04
1543	1.1565E+04	2.7756E+05	6.8598E-04	6.8598E-04	1.5170E-07	0.0166	6.7455E-04
1544	1.1573E+04	2.7774E+05	1.4804E-03	1.4804E-03	3.7096E-07	0.0405	6.7481E-04
1545	1.1580E+04	2.7792E+05	2.5715E-03	3.4755E-05	6.9382E-07	0.0757	6.7569E-04
1546	1.1588E+04	2.7810E+05	2.0038E-04	2.0038E-04	4.0263E-08	0.0044	6.7533E-04
1547	1.1595E+04	2.7828E+05	6.8707E-04	6.8707E-04	1.5196E-07	0.0166	6.7518E-04
1548	1.1603E+04	2.7846E+05	1.4826E-03	1.4826E-03	3.7152E-07	0.0406	6.7544E-04
1549	1.1610E+04	2.7864E+05	2.5752E-03	3.4917E-05	6.9484E-07	0.0759	6.7632E-04
1550	1.1618E+04	2.7882E+05	2.0078E-04	2.0078E-04	4.0360E-08	0.0044	6.7596E-04
1551	1.1625E+04	2.7900E+05	6.8817E-04	6.8817E-04	1.5222E-07	0.0166	6.7581E-04
1552	1.1633E+04	2.7918E+05	1.4848E-03	1.4848E-03	3.7209E-07	0.0406	6.7607E-04
1553	1.1640E+04	2.7936E+05	2.5790E-03	3.5080E-05	6.9586E-07	0.0760	6.7695E-04
1554	1.1648E+04	2.7954E+05	2.0119E-04	2.0119E-04	4.0457E-08	0.0044	6.7659E-04
1555	1.1655E+04	2.7972E+05	6.8927E-04	6.8927E-04	1.5247E-07	0.0166	6.7644E-04
1556	1.1663E+04	2.7990E+05	1.4871E-03	1.4871E-03	3.7266E-07	0.0407	6.7670E-04
1557	1.1670E+04	2.8008E+05	2.5827E-03	3.5243E-05	6.9688E-07	0.0761	6.7757E-04
1558	1.1678E+04	2.8026E+05	2.0159E-04	2.0159E-04	4.0554E-08	0.0044	6.7722E-04
1559	1.1685E+04	2.8044E+05	6.9037E-04	6.9037E-04	1.5273E-07	0.0167	6.7707E-04
1560	1.1693E+04	2.8062E+05	1.4893E-03	1.4893E-03	3.7323E-07	0.0407	6.7733E-04
1561	1.1700E+04	2.8080E+05	2.5865E-03	3.5406E-05	6.9790E-07	0.0762	6.7820E-04
1562	1.1708E+04	2.8098E+05	2.0200E-04	2.0200E-04	4.0651E-08	0.0044	6.7785E-04
1563	1.1715E+04	2.8116E+05	6.9147E-04	6.9147E-04	1.5299E-07	0.0167	6.7770E-04
1564	1.1723E+04	2.8134E+05	1.4915E-03	1.4915E-03	3.7380E-07	0.0408	6.7796E-04
1565	1.1730E+04	2.8152E+05	2.5902E-03	3.5570E-05	6.9892E-07	0.0763	6.7883E-04
1566	1.1738E+04	2.8170E+05	2.0240E-04	2.0240E-04	4.0748E-08	0.0044	6.7848E-04
1567	1.1745E+04	2.8188E+05	6.9257E-04	6.9257E-04	1.5325E-07	0.0167	6.7833E-04
1568	1.1753E+04	2.8206E+05	1.4937E-03	1.4937E-03	3.7437E-07	0.0409	6.7859E-04
1569	1.1760E+04	2.8224E+05	2.5940E-03	3.5734E-05	6.9995E-07	0.0764	6.7946E-04
1570	1.1768E+04	2.8242E+05	2.0281E-04	2.0281E-04	4.0846E-08	0.0045	6.7911E-04
1571	1.1775E+04	2.8260E+05	6.9367E-04	6.9367E-04	1.5351E-07	0.0168	6.7896E-04
1572	1.1783E+04	2.8278E+05	1.4960E-03	1.4960E-03	3.7494E-07	0.0409	6.7922E-04
1573	1.1790E+04	2.8296E+05	2.5977E-03	3.5899E-05	7.0000E-07	0.0765	6.8009E-04
1574	1.1798E+04	2.8314E+05	2.0321E-04	2.0321E-04	4.0944E-08	0.0045	6.7974E-04

1575	1.1805E+04	2.8332E+05	6.9477E-04	6.9477E-04	1.5376E-07	0.0168	6.7959E-04
1576	1.1813E+04	2.8350E+05	1.4982E-03	1.4982E-03	3.001E-07	0.0410	6.7986E-04
1577	1.1820E+04	2.8368E+05	2.6015E-03	3.6063E-05	7.0000E-07	0.0766	6.8072E-04
1578	1.1828E+04	2.8386E+05	2.0362E-04	2.0362E-04	4.1042E-08	0.0045	6.8037E-04
1579	1.1835E+04	2.8404E+05	6.9588E-04	6.9588E-04	1.5402E-07	0.0168	6.8022E-04
1580	1.1843E+04	2.8422E+05	1.5004E-03	1.5004E-03	3.7608E-07	0.0411	6.8049E-04
1581	1.1850E+04	2.8440E+05	2.6052E-03	3.6229E-05	7.0302E-07	0.0767	6.8136E-04
1582	1.1858E+04	2.8458E+05	2.0403E-04	2.0403E-04	4.1140E-08	0.0045	6.8100E-04
1583	1.1865E+04	2.8476E+05	6.9698E-04	6.9698E-04	1.5428E-07	0.0168	6.8086E-04
1584	1.1873E+04	2.8494E+05	1.5027E-03	1.5027E-03	3.7665E-07	0.0411	6.8112E-04
1585	1.1880E+04	2.8512E+05	2.6090E-03	3.6394E-05	7.0405E-07	0.0769	6.8199E-04
1586	1.1888E+04	2.8530E+05	2.0444E-04	2.0444E-04	4.1238E-08	0.0045	6.8163E-04
1587	1.1895E+04	2.8548E+05	6.9809E-04	6.9809E-04	1.5454E-07	0.0169	6.8149E-04
1588	1.1903E+04	2.8566E+05	1.5049E-03	1.5049E-03	3.7722E-07	0.0412	6.8175E-04
1589	1.1910E+04	2.8584E+05	2.6128E-03	3.6560E-05	7.0508E-07	0.0770	6.8262E-04
1590	1.1918E+04	2.8602E+05	2.0484E-04	2.0484E-04	4.1336E-08	0.0045	6.8227E-04
1591	1.1925E+04	2.8620E+05	6.9920E-04	6.9920E-04	1.5480E-07	0.0169	6.8212E-04
1592	1.1933E+04	2.8638E+05	1.5071E-03	1.5071E-03	3.7780E-07	0.0412	6.8239E-04
1593	1.1940E+04	2.8656E+05	2.6165E-03	3.6727E-05	7.0611E-07	0.0771	6.8325E-04
1594	1.1948E+04	2.8674E+05	2.0525E-04	2.0525E-04	4.1435E-08	0.0045	6.8290E-04
1595	1.1955E+04	2.8692E+05	7.0030E-04	7.0031E-04	1.5506E-07	0.0169	6.8276E-04
1596	1.1963E+04	2.8710E+05	1.5094E-03	1.5094E-03	3.7837E-07	0.0413	6.8302E-04
1597	1.1970E+04	2.8728E+05	2.6203E-03	3.6893E-05	7.0714E-07	0.0772	6.8389E-04
1598	1.1978E+04	2.8746E+05	2.0566E-04	2.0566E-04	4.1533E-08	0.0045	6.8353E-04
1599	1.1985E+04	2.8764E+05	7.0141E-04	7.0141E-04	1.5532E-07	0.0170	6.8339E-04
1600	1.1993E+04	2.8782E+05	1.5116E-03	1.5116E-03	3.7894E-07	0.0414	6.8365E-04
1601	1.2000E+04	2.8800E+05	2.6241E-03	3.7061E-05	7.0817E-07	0.0773	6.8452E-04
1602	1.2008E+04	2.8818E+05	2.0607E-04	2.0607E-04	4.1632E-08	0.0045	6.8417E-04
1603	1.2015E+04	2.8836E+05	7.0252E-04	7.0253E-04	1.5558E-07	0.0170	6.8402E-04
1604	1.2023E+04	2.8854E+05	1.5139E-03	1.5139E-03	3.7952E-07	0.0414	6.8429E-04
1605	1.2030E+04	2.8872E+05	2.6279E-03	3.7228E-05	7.0920E-07	0.0774	6.8515E-04
1606	1.2038E+04	2.8890E+05	2.0648E-04	2.0648E-04	4.1731E-08	0.0046	6.8480E-04
1607	1.2045E+04	2.8908E+05	7.0364E-04	7.0364E-04	1.5584E-07	0.0170	6.8466E-04
1608	1.2053E+04	2.8926E+05	1.5161E-03	1.5161E-03	3.8009E-07	0.0415	6.8492E-04
1609	1.2060E+04	2.8944E+05	2.6316E-03	3.7396E-05	7.1023E-07	0.0775	6.8579E-04
1610	1.2068E+04	2.8962E+05	2.0689E-04	2.0689E-04	4.1830E-08	0.0046	6.8544E-04
1611	1.2075E+04	2.8980E+05	7.0475E-04	7.0475E-04	1.5610E-07	0.0170	6.8529E-04
1612	1.2083E+04	2.8998E+05	1.5183E-03	1.5183E-03	3.8067E-07	0.0416	6.8556E-04
1613	1.2090E+04	2.9016E+05	2.6354E-03	3.7564E-05	7.1126E-07	0.0776	6.8642E-04
1614	1.2098E+04	2.9034E+05	2.0731E-04	2.0731E-04	4.1930E-08	0.0046	6.8607E-04
1615	1.2105E+04	2.9052E+05	7.0586E-04	7.0586E-04	1.5636E-07	0.0171	6.8593E-04
1616	1.2113E+04	2.9070E+05	1.5206E-03	1.5206E-03	3.8124E-07	0.0416	6.8619E-04
1617	1.2120E+04	2.9088E+05	2.6392E-03	3.7733E-05	7.1229E-07	0.0778	6.8706E-04
1618	1.2128E+04	2.9106E+05	2.0772E-04	2.0772E-04	4.2029E-08	0.0046	6.8671E-04
1619	1.2135E+04	2.9124E+05	7.0698E-04	7.0698E-04	1.5663E-07	0.0171	6.8657E-04
1620	1.2143E+04	2.9142E+05	1.5228E-03	1.5228E-03	3.8182E-07	0.0417	6.8683E-04
1621	1.2150E+04	2.9160E+05	2.6430E-03	3.7902E-05	7.1333E-07	0.0779	6.8769E-04
1622	1.2158E+04	2.9178E+05	2.0813E-04	2.0813E-04	4.2129E-08	0.0046	6.8734E-04
1623	1.2165E+04	2.9196E+05	7.0809E-04	7.0809E-04	1.5689E-07	0.0171	6.8720E-04
1624	1.2173E+04	2.9214E+05	1.5251E-03	1.5251E-03	3.8239E-07	0.0417	6.8747E-04
1625	1.2180E+04	2.9232E+05	2.6468E-03	3.8071E-05	7.1436E-07	0.0780	6.8833E-04
1626	1.2188E+04	2.9250E+05	2.0854E-04	2.0855E-04	4.2229E-08	0.0046	6.8798E-04
1627	1.2195E+04	2.9268E+05	7.0921E-04	7.0921E-04	1.5715E-07	0.0172	6.8784E-04
1628	1.2203E+04	2.9286E+05	1.5273E-03	1.5273E-03	3.8297E-07	0.0418	6.8810E-04
1629	1.2210E+04	2.9304E+05	2.6506E-03	3.8241E-05	7.1540E-07	0.0781	6.8896E-04
1630	1.2218E+04	2.9322E+05	2.0896E-04	2.0896E-04	4.2329E-08	0.0046	6.8862E-04
1631	1.2225E+04	2.9340E+05	7.1033E-04	7.1033E-04	1.5741E-07	0.0172	6.8848E-04
1632	1.2233E+04	2.9358E+05	1.5296E-03	1.5296E-03	3.8355E-07	0.0419	6.8874E-04
1633	1.2240E+04	2.9376E+05	2.6544E-03	3.8411E-05	7.1643E-07	0.0782	6.8960E-04
1634	1.2248E+04	2.9394E+05	2.0937E-04	2.0937E-04	4.2429E-08	0.0046	6.8926E-04
1635	1.2255E+04	2.9412E+05	7.1145E-04	7.1145E-04	1.5767E-07	0.0172	6.8912E-04
1636	1.2263E+04	2.9430E+05	1.5319E-03	1.5319E-03	3.8413E-07	0.0419	6.8938E-04
1637	1.2270E+04	2.9448E+05	2.6582E-03	3.8581E-05	7.1747E-07	0.0783	6.9024E-04
1638	1.2278E+04	2.9466E+05	2.0979E-04	2.0979E-04	4.2529E-08	0.0046	6.8989E-04
1639	1.2285E+04	2.9484E+05	7.1257E-04	7.1257E-04	1.5794E-07	0.0172	6.8975E-04
1640	1.2293E+04	2.9502E+05	1.5341E-03	1.5341E-03	3.8470E-07	0.0420	6.9002E-04

1641	1.2300E+04	2.9520E+05	2.6620E-03	3.8752E-05	7.1851E-07	0.0784	6.9088E-04
1642	1.2308E+04	2.9538E+05	2.1020E-04	2.1020E-04	4.2630E-08	0.0047	6.9053E-04
1643	1.2315E+04	2.9556E+05	7.1369E-04	7.1369E-04	1.5820E-07	0.0173	6.9039E-04
1644	1.2323E+04	2.9574E+05	1.5364E-03	1.5364E-03	3.8528E-07	0.0421	6.9066E-04
1645	1.2330E+04	2.9592E+05	2.6658E-03	3.8923E-05	7.1955E-07	0.0786	6.9151E-04
1646	1.2338E+04	2.9610E+05	2.1062E-04	2.1062E-04	4.2730E-08	0.0047	6.9117E-04
1647	1.2345E+04	2.9628E+05	7.1481E-04	7.1481E-04	1.5846E-07	0.0173	6.9103E-04
1648	1.2353E+04	2.9646E+05	1.5386E-03	1.5386E-03	3.8586E-07	0.0421	6.9130E-04
1649	1.2360E+04	2.9664E+05	2.6696E-03	3.9095E-05	7.2059E-07	0.0787	6.9215E-04
1650	1.2368E+04	2.9682E+05	2.1104E-04	2.1104E-04	4.2831E-08	0.0047	6.9181E-04
1651	1.2375E+04	2.9700E+05	7.1593E-04	7.1593E-04	1.5873E-07	0.0173	6.9167E-04
1652	1.2383E+04	2.9718E+05	1.5409E-03	1.5409E-03	3.8644E-07	0.0422	6.9193E-04
1653	1.2390E+04	2.9736E+05	2.6734E-03	3.9267E-05	7.2163E-07	0.0788	6.9279E-04
1654	1.2398E+04	2.9754E+05	2.1145E-04	2.1146E-04	4.2932E-08	0.0047	6.9245E-04
1655	1.2405E+04	2.9772E+05	7.1706E-04	7.1706E-04	1.5899E-07	0.0174	6.9231E-04
1656	1.2413E+04	2.9790E+05	1.5432E-03	1.5432E-03	3.8702E-07	0.0423	6.9257E-04
1657	1.2420E+04	2.9808E+05	2.6772E-03	3.9439E-05	7.2267E-07	0.0789	6.9343E-04
1658	1.2428E+04	2.9826E+05	2.1187E-04	2.1187E-04	4.3033E-08	0.0047	6.9309E-04
1659	1.2435E+04	2.9844E+05	7.1818E-04	7.1818E-04	1.5926E-07	0.0174	6.9295E-04
1660	1.2443E+04	2.9862E+05	1.5454E-03	1.5454E-03	3.8760E-07	0.0423	6.9322E-04
1661	1.2450E+04	2.9880E+05	2.6810E-03	3.9612E-05	7.2371E-07	0.0790	6.9407E-04
1662	1.2458E+04	2.9898E+05	2.1229E-04	2.1229E-04	4.3134E-08	0.0047	6.9373E-04
1663	1.2465E+04	2.9916E+05	7.1931E-04	7.1931E-04	1.5952E-07	0.0174	6.9359E-04
1664	1.2473E+04	2.9934E+05	1.5477E-03	1.5477E-03	3.8819E-07	0.0424	6.9386E-04
1665	1.2480E+04	2.9952E+05	2.6849E-03	3.9785E-05	7.2475E-07	0.0791	6.9471E-04
1666	1.2488E+04	2.9970E+05	2.1271E-04	2.1271E-04	4.3235E-08	0.0047	6.9437E-04
1667	1.2495E+04	2.9988E+05	7.2044E-04	7.2044E-04	1.5979E-07	0.0174	6.9423E-04
1668	1.2503E+04	3.0006E+05	1.5500E-03	1.5500E-03	3.8877E-07	0.0424	6.9450E-04
1669	1.2510E+04	3.0024E+05	2.6887E-03	3.9959E-05	7.2580E-07	0.0792	6.9535E-04
1670	1.2518E+04	3.0042E+05	2.1313E-04	2.1313E-04	4.3337E-08	0.0047	6.9501E-04
1671	1.2525E+04	3.0060E+05	7.2156E-04	7.2157E-04	1.6005E-07	0.0175	6.9487E-04
1672	1.2533E+04	3.0078E+05	1.5522E-03	1.5522E-03	3.8935E-07	0.0425	6.9514E-04
1673	1.2540E+04	3.0096E+05	2.6925E-03	4.0132E-05	7.2684E-07	0.0793	6.9599E-04
1674	1.2548E+04	3.0114E+05	2.1355E-04	2.1355E-04	4.3439E-08	0.0047	6.9565E-04
1675	1.2555E+04	3.0132E+05	7.2269E-04	7.2269E-04	1.6032E-07	0.0175	6.9552E-04
1676	1.2563E+04	3.0150E+05	1.5545E-03	1.5545E-03	3.8993E-07	0.0426	6.9578E-04
1677	1.2570E+04	3.0168E+05	2.6963E-03	4.0307E-05	7.2789E-07	0.0795	6.9663E-04
1678	1.2578E+04	3.0186E+05	2.1397E-04	2.1397E-04	4.3541E-08	0.0048	6.9629E-04
1679	1.2585E+04	3.0204E+05	7.2382E-04	7.2382E-04	1.6058E-07	0.0175	6.9616E-04
1680	1.2593E+04	3.0222E+05	1.5568E-03	1.5568E-03	3.9052E-07	0.0426	6.9642E-04
1681	1.2600E+04	3.0240E+05	2.7002E-03	4.0481E-05	7.2893E-07	0.0796	6.9727E-04
1682	1.2608E+04	3.0258E+05	2.1439E-04	2.1439E-04	4.3643E-08	0.0048	6.9694E-04
1683	1.2615E+04	3.0276E+05	7.2496E-04	7.2496E-04	1.6085E-07	0.0176	6.9680E-04
1684	1.2623E+04	3.0294E+05	1.5591E-03	1.5591E-03	3.9110E-07	0.0427	6.9707E-04
1685	1.2630E+04	3.0312E+05	2.7040E-03	4.0656E-05	7.2998E-07	0.0797	6.9792E-04
1686	1.2638E+04	3.0330E+05	2.1481E-04	2.1481E-04	4.3745E-08	0.0048	6.9758E-04
1687	1.2645E+04	3.0348E+05	7.2609E-04	7.2609E-04	1.6111E-07	0.0176	6.9744E-04
1688	1.2653E+04	3.0366E+05	1.5613E-03	1.5613E-03	3.9168E-07	0.0428	6.9771E-04
1689	1.2660E+04	3.0384E+05	2.7078E-03	4.0832E-05	7.3103E-07	0.0798	6.9856E-04
1690	1.2668E+04	3.0402E+05	2.1524E-04	2.1524E-04	4.3847E-08	0.0048	6.9822E-04
1691	1.2675E+04	3.0420E+05	7.2722E-04	7.2722E-04	1.6138E-07	0.0176	6.9809E-04
1692	1.2683E+04	3.0438E+05	1.5636E-03	1.5636E-03	3.9227E-07	0.0428	6.9835E-04
1693	1.2690E+04	3.0456E+05	2.7117E-03	4.1007E-05	7.3207E-07	0.0799	6.9920E-04
1694	1.2698E+04	3.0474E+05	2.1566E-04	2.1566E-04	4.3950E-08	0.0048	6.9887E-04
1695	1.2705E+04	3.0492E+05	7.2836E-04	7.2836E-04	1.6165E-07	0.0176	6.9873E-04
1696	1.2713E+04	3.0510E+05	1.5659E-03	1.5659E-03	3.9285E-07	0.0429	6.9900E-04
1697	1.2720E+04	3.0528E+05	2.7155E-03	4.1183E-05	7.3312E-07	0.0800	6.9985E-04
1698	1.2728E+04	3.0546E+05	2.1608E-04	2.1608E-04	4.4052E-08	0.0048	6.9951E-04
1699	1.2735E+04	3.0564E+05	7.2949E-04	7.2949E-04	1.6191E-07	0.0177	6.9938E-04
1700	1.2743E+04	3.0582E+05	1.5682E-03	1.5682E-03	3.9344E-07	0.0430	6.9964E-04
1701	1.2750E+04	3.0600E+05	2.7194E-03	4.1360E-05	7.3417E-07	0.0801	7.0049E-04
1702	1.2758E+04	3.0618E+05	2.1651E-04	2.1651E-04	4.4155E-08	0.0048	7.0015E-04
1703	1.2765E+04	3.0636E+05	7.3063E-04	7.3063E-04	1.6218E-07	0.0177	7.0002E-04
1704	1.2773E+04	3.0654E+05	1.5705E-03	1.5705E-03	3.9403E-07	0.0430	7.0029E-04
1705	1.2780E+04	3.0672E+05	2.7232E-03	4.1537E-05	7.3402E-07	0.0803	7.0113E-04
1706	1.2788E+04	3.0690E+05	2.1693E-04	2.1693E-04	4.4258E-08	0.0048	7.0080E-04

1707	1.2795E+04	3.0708E+05	7.3177E-04	7.3177E-04	1.6245E-07	0.0177	7.0067E-04
1708	1.2803E+04	3.0726E+05	1.5728E-03	1.5728E-03	3.907E-07	0.0431	7.0093E-04
1709	1.2810E+04	3.0744E+05	2.7271E-03	4.1714E-05	7.3027E-07	0.0804	7.0178E-04
1710	1.2818E+04	3.0762E+05	2.1736E-04	2.1736E-04	4.4361E-08	0.0048	7.0144E-04
1711	1.2825E+04	3.0780E+05	7.3290E-04	7.3290E-04	1.6272E-07	0.0178	7.0131E-04
1712	1.2833E+04	3.0798E+05	1.5751E-03	1.5751E-03	3.9520E-07	0.0431	7.0158E-04
1713	1.2840E+04	3.0816E+05	2.7309E-03	4.1891E-05	7.3733E-07	0.0805	7.0242E-04
1714	1.2848E+04	3.0834E+05	2.1778E-04	2.1778E-04	4.4465E-08	0.0049	7.0209E-04
1715	1.2855E+04	3.0852E+05	7.3404E-04	7.3405E-04	1.6298E-07	0.0178	7.0196E-04
1716	1.2863E+04	3.0870E+05	1.5774E-03	1.5774E-03	3.9579E-07	0.0432	7.0222E-04
1717	1.2870E+04	3.0888E+05	2.7348E-03	4.2069E-05	7.3838E-07	0.0806	7.0307E-04
1718	1.2878E+04	3.0906E+05	2.1821E-04	2.1821E-04	4.4568E-08	0.0049	7.0274E-04
1719	1.2885E+04	3.0924E+05	7.3519E-04	7.3519E-04	1.6325E-07	0.0178	7.0260E-04
1720	1.2893E+04	3.0942E+05	1.5796E-03	1.5796E-03	3.9638E-07	0.0433	7.0287E-04
1721	1.2900E+04	3.0960E+05	2.7386E-03	4.2248E-05	7.3943E-07	0.0807	7.0372E-04
1722	1.2908E+04	3.0978E+05	2.1863E-04	2.1864E-04	4.4672E-08	0.0049	7.0338E-04
1723	1.2915E+04	3.0996E+05	7.3633E-04	7.3633E-04	1.6352E-07	0.0179	7.0325E-04
1724	1.2923E+04	3.1014E+05	1.5819E-03	1.5819E-03	3.9696E-07	0.0433	7.0352E-04
1725	1.2930E+04	3.1032E+05	2.7425E-03	4.2426E-05	7.4049E-07	0.0808	7.0436E-04
1726	1.2938E+04	3.1050E+05	2.1906E-04	2.1906E-04	4.4775E-08	0.0049	7.0403E-04
1727	1.2945E+04	3.1068E+05	7.3747E-04	7.3747E-04	1.6379E-07	0.0179	7.0390E-04
1728	1.2953E+04	3.1086E+05	1.5842E-03	1.5842E-03	3.9755E-07	0.0434	7.0416E-04
1729	1.2960E+04	3.1104E+05	2.7464E-03	4.2605E-05	7.4154E-07	0.0810	7.0501E-04
1730	1.2968E+04	3.1122E+05	2.1949E-04	2.1949E-04	4.4879E-08	0.0049	7.0468E-04
1731	1.2975E+04	3.1140E+05	7.3861E-04	7.3861E-04	1.6406E-07	0.0179	7.0455E-04
1732	1.2983E+04	3.1158E+05	1.5865E-03	1.5865E-03	3.9814E-07	0.0435	7.0481E-04
1733	1.2990E+04	3.1176E+05	2.7502E-03	4.2785E-05	7.4260E-07	0.0811	7.0566E-04
1734	1.2998E+04	3.1194E+05	2.1992E-04	2.1992E-04	4.4983E-08	0.0049	7.0532E-04
1735	1.3005E+04	3.1212E+05	7.3976E-04	7.3976E-04	1.6433E-07	0.0179	7.0519E-04
1736	1.3013E+04	3.1230E+05	1.5888E-03	1.5888E-03	3.9873E-07	0.0435	7.0546E-04
1737	1.3020E+04	3.1248E+05	2.7541E-03	4.2965E-05	7.4365E-07	0.0812	7.0630E-04
1738	1.3028E+04	3.1266E+05	2.2035E-04	2.2035E-04	4.5088E-08	0.0049	7.0597E-04
1739	1.3035E+04	3.1284E+05	7.4091E-04	7.4091E-04	1.6460E-07	0.0180	7.0584E-04
1740	1.3043E+04	3.1302E+05	1.5911E-03	1.5911E-03	3.9932E-07	0.0436	7.0611E-04
1741	1.3050E+04	3.1320E+05	2.7580E-03	4.3145E-05	7.4471E-07	0.0813	7.0695E-04
1742	1.3058E+04	3.1338E+05	2.2078E-04	2.2078E-04	4.5192E-08	0.0049	7.0662E-04
1743	1.3065E+04	3.1356E+05	7.4205E-04	7.4205E-04	1.6487E-07	0.0180	7.0649E-04
1744	1.3073E+04	3.1374E+05	1.5934E-03	1.5934E-03	3.9991E-07	0.0437	7.0676E-04
1745	1.3080E+04	3.1392E+05	2.7618E-03	4.3325E-05	7.4577E-07	0.0814	7.0760E-04
1746	1.3088E+04	3.1410E+05	2.2121E-04	2.2121E-04	4.5297E-08	0.0049	7.0727E-04
1747	1.3095E+04	3.1428E+05	7.4320E-04	7.4320E-04	1.6514E-07	0.0180	7.0714E-04
1748	1.3103E+04	3.1446E+05	1.5958E-03	1.5958E-03	4.0051E-07	0.0437	7.0741E-04
1749	1.3110E+04	3.1464E+05	2.7657E-03	4.3506E-05	7.4683E-07	0.0815	7.0825E-04
1750	1.3118E+04	3.1482E+05	2.2164E-04	2.2164E-04	4.5401E-08	0.0050	7.0792E-04
1751	1.3125E+04	3.1500E+05	7.4435E-04	7.4435E-04	1.6541E-07	0.0181	7.0779E-04
1752	1.3133E+04	3.1518E+05	1.5981E-03	1.5981E-03	4.0110E-07	0.0438	7.0805E-04
1753	1.3140E+04	3.1536E+05	2.7696E-03	4.3688E-05	7.4789E-07	0.0816	7.0890E-04
1754	1.3148E+04	3.1554E+05	2.2207E-04	2.2207E-04	4.5506E-08	0.0050	7.0857E-04
1755	1.3155E+04	3.1572E+05	7.4550E-04	7.4550E-04	1.6568E-07	0.0181	7.0844E-04
1756	1.3163E+04	3.1590E+05	1.6004E-03	1.6004E-03	4.0169E-07	0.0439	7.0871E-04
1757	1.3170E+04	3.1608E+05	2.7735E-03	4.3869E-05	7.4895E-07	0.0818	7.0955E-04
1758	1.3178E+04	3.1626E+05	2.2250E-04	2.2250E-04	4.5611E-08	0.0050	7.0922E-04
1759	1.3185E+04	3.1644E+05	7.4665E-04	7.4665E-04	1.6595E-07	0.0181	7.0909E-04
1760	1.3193E+04	3.1662E+05	1.6027E-03	1.6027E-03	4.0228E-07	0.0439	7.0936E-04
1761	1.3200E+04	3.1680E+05	2.7774E-03	4.4051E-05	7.5001E-07	0.0819	7.1020E-04
1762	1.3208E+04	3.1698E+05	2.2293E-04	2.2293E-04	4.5717E-08	0.0050	7.0987E-04
1763	1.3215E+04	3.1716E+05	7.4780E-04	7.4780E-04	1.6622E-07	0.0181	7.0974E-04
1764	1.3223E+04	3.1734E+05	1.6050E-03	1.6050E-03	4.0288E-07	0.0440	7.1001E-04
1765	1.3230E+04	3.1752E+05	2.7813E-03	4.4234E-05	7.5107E-07	0.0820	7.1085E-04
1766	1.3238E+04	3.1770E+05	2.2337E-04	2.2337E-04	4.5822E-08	0.0050	7.1052E-04
1767	1.3245E+04	3.1788E+05	7.4896E-04	7.4896E-04	1.6649E-07	0.0182	7.1039E-04
1768	1.3253E+04	3.1806E+05	1.6073E-03	1.6073E-03	4.0347E-07	0.0440	7.1066E-04
1769	1.3260E+04	3.1824E+05	2.7852E-03	4.4417E-05	7.5214E-07	0.0821	7.1150E-04
1770	1.3268E+04	3.1842E+05	2.2380E-04	2.2380E-04	4.5927E-08	0.0050	7.1117E-04
1771	1.3275E+04	3.1860E+05	7.5011E-04	7.5011E-04	1.6677E-07	0.0182	7.1105E-04
1772	1.3283E+04	3.1878E+05	1.6096E-03	1.6096E-03	4.0407E-07	0.0441	7.1131E-04

1773	1.3290E+04	3.1896E+05	2.7891E-03	4.4600E-05	7.5320E-07	0.0822	7.1215E-04
1774	1.3298E+04	3.1914E+05	2.2423E-04	2.2423E-04	4.6033E-08	0.0050	7.1182E-04
1775	1.3305E+04	3.1932E+05	7.5127E-04	7.5127E-04	1.6704E-07	0.0182	7.1170E-04
1776	1.3313E+04	3.1950E+05	1.6120E-03	1.6120E-03	4.0466E-07	0.0442	7.1196E-04
1777	1.3320E+04	3.1968E+05	2.7930E-03	4.4783E-05	7.5426E-07	0.0823	7.1280E-04
1778	1.3328E+04	3.1986E+05	2.2467E-04	2.2467E-04	4.6139E-08	0.0050	7.1248E-04
1779	1.3335E+04	3.2004E+05	7.5242E-04	7.5242E-04	1.6731E-07	0.0183	7.1235E-04
1780	1.3343E+04	3.2022E+05	1.6143E-03	1.6143E-03	4.0526E-07	0.0442	7.1261E-04
1781	1.3350E+04	3.2040E+05	2.7969E-03	4.4967E-05	7.5533E-07	0.0825	7.1345E-04
1782	1.3358E+04	3.2058E+05	2.2510E-04	2.2510E-04	4.6245E-08	0.0050	7.1313E-04
1783	1.3365E+04	3.2076E+05	7.5358E-04	7.5358E-04	1.6758E-07	0.0183	7.1300E-04
1784	1.3373E+04	3.2094E+05	1.6166E-03	1.6166E-03	4.0585E-07	0.0443	7.1327E-04
1785	1.3380E+04	3.2112E+05	2.8008E-03	4.5152E-05	7.5640E-07	0.0826	7.1411E-04
1786	1.3388E+04	3.2130E+05	2.2554E-04	2.2554E-04	4.6351E-08	0.0051	7.1378E-04
1787	1.3395E+04	3.2148E+05	7.5474E-04	7.5474E-04	1.6786E-07	0.0183	7.1366E-04
1788	1.3403E+04	3.2166E+05	1.6189E-03	1.6189E-03	4.0645E-07	0.0444	7.1392E-04
1789	1.3410E+04	3.2184E+05	2.8047E-03	4.5336E-05	7.5746E-07	0.0827	7.1476E-04
1790	1.3418E+04	3.2202E+05	2.2598E-04	2.2598E-04	4.6457E-08	0.0051	7.1444E-04
1791	1.3425E+04	3.2220E+05	7.5590E-04	7.5590E-04	1.6813E-07	0.0184	7.1431E-04
1792	1.3433E+04	3.2238E+05	1.6212E-03	1.6212E-03	4.0705E-07	0.0444	7.1458E-04
1793	1.3440E+04	3.2256E+05	2.8086E-03	4.5521E-05	7.5853E-07	0.0828	7.1541E-04
1794	1.3448E+04	3.2274E+05	2.2641E-04	2.2641E-04	4.6564E-08	0.0051	7.1509E-04
1795	1.3455E+04	3.2292E+05	7.5706E-04	7.5706E-04	1.6840E-07	0.0184	7.1496E-04
1796	1.3463E+04	3.2310E+05	1.6236E-03	1.6236E-03	4.0764E-07	0.0445	7.1523E-04
1797	1.3470E+04	3.2328E+05	2.8125E-03	4.5707E-05	7.5960E-07	0.0829	7.1607E-04
1798	1.3478E+04	3.2346E+05	2.2685E-04	2.2685E-04	4.6671E-08	0.0051	7.1574E-04
1799	1.3485E+04	3.2364E+05	7.5822E-04	7.5822E-04	1.6868E-07	0.0184	7.1562E-04
1800	1.3493E+04	3.2382E+05	1.6259E-03	1.6259E-03	4.0824E-07	0.0446	7.1588E-04
1801	1.3500E+04	3.2400E+05	2.8164E-03	4.5892E-05	7.6067E-07	0.0830	7.1672E-04
1802	1.3508E+04	3.2418E+05	2.2729E-04	2.2729E-04	4.6777E-08	0.0051	7.1640E-04
1803	1.3515E+04	3.2436E+05	7.5938E-04	7.5938E-04	1.6895E-07	0.0184	7.1627E-04
1804	1.3523E+04	3.2454E+05	1.6282E-03	1.6282E-03	4.0884E-07	0.0446	7.1654E-04
1805	1.3530E+04	3.2472E+05	2.8203E-03	4.6079E-05	7.6174E-07	0.0832	7.1738E-04
1806	1.3538E+04	3.2490E+05	2.2773E-04	2.2773E-04	4.6884E-08	0.0051	7.1705E-04
1807	1.3545E+04	3.2508E+05	7.6055E-04	7.6055E-04	1.6922E-07	0.0185	7.1693E-04
1808	1.3553E+04	3.2526E+05	1.6306E-03	1.6306E-03	4.0944E-07	0.0447	7.1719E-04
1809	1.3560E+04	3.2544E+05	2.8242E-03	4.6265E-05	7.6281E-07	0.0833	7.1803E-04
1810	1.3568E+04	3.2562E+05	2.2817E-04	2.2817E-04	4.6991E-08	0.0051	7.1771E-04
1811	1.3575E+04	3.2580E+05	7.6171E-04	7.6171E-04	1.6950E-07	0.0185	7.1759E-04
1812	1.3583E+04	3.2598E+05	1.6329E-03	1.6329E-03	4.1004E-07	0.0448	7.1785E-04
1813	1.3590E+04	3.2616E+05	2.8282E-03	4.6452E-05	7.6388E-07	0.0834	7.1869E-04
1814	1.3598E+04	3.2634E+05	2.2860E-04	2.2861E-04	4.7099E-08	0.0051	7.1836E-04
1815	1.3605E+04	3.2652E+05	7.6288E-04	7.6288E-04	1.6977E-07	0.0185	7.1824E-04
1816	1.3613E+04	3.2670E+05	1.6352E-03	1.6352E-03	4.1064E-07	0.0448	7.1851E-04
1817	1.3620E+04	3.2688E+05	2.8321E-03	4.6639E-05	7.6495E-07	0.0835	7.1934E-04
1818	1.3628E+04	3.2706E+05	2.2904E-04	2.2905E-04	4.7206E-08	0.0052	7.1902E-04
1819	1.3635E+04	3.2724E+05	7.6405E-04	7.6405E-04	1.7005E-07	0.0186	7.1890E-04
1820	1.3643E+04	3.2742E+05	1.6376E-03	1.6376E-03	4.1124E-07	0.0449	7.1916E-04
1821	1.3650E+04	3.2760E+05	2.8360E-03	4.6827E-05	7.6603E-07	0.0836	7.2000E-04
1822	1.3658E+04	3.2778E+05	2.2949E-04	2.2949E-04	4.7314E-08	0.0052	7.1968E-04
1823	1.3665E+04	3.2796E+05	7.6521E-04	7.6521E-04	1.7033E-07	0.0186	7.1956E-04
1824	1.3673E+04	3.2814E+05	1.6399E-03	1.6399E-03	4.1184E-07	0.0450	7.1982E-04
1825	1.3680E+04	3.2832E+05	2.8399E-03	4.7015E-05	7.6710E-07	0.0837	7.2065E-04
1826	1.3688E+04	3.2850E+05	2.2993E-04	2.2993E-04	4.7421E-08	0.0052	7.2034E-04
1827	1.3695E+04	3.2868E+05	7.6638E-04	7.6638E-04	1.7060E-07	0.0186	7.2021E-04
1828	1.3703E+04	3.2886E+05	1.6423E-03	1.6423E-03	4.1244E-07	0.0450	7.2048E-04
1829	1.3710E+04	3.2904E+05	2.8439E-03	4.7203E-05	7.6818E-07	0.0839	7.2131E-04
1830	1.3718E+04	3.2922E+05	2.3037E-04	2.3037E-04	4.7529E-08	0.0052	7.2099E-04
1831	1.3725E+04	3.2940E+05	7.6755E-04	7.6755E-04	1.7088E-07	0.0187	7.2087E-04
1832	1.3733E+04	3.2958E+05	1.6446E-03	1.6446E-03	4.1304E-07	0.0451	7.2114E-04
1833	1.3740E+04	3.2976E+05	2.8478E-03	4.7392E-05	7.6925E-07	0.0840	7.2197E-04
1834	1.3748E+04	3.2994E+05	2.3081E-04	2.3081E-04	4.7638E-08	0.0052	7.2165E-04
1835	1.3755E+04	3.3012E+05	7.6872E-04	7.6872E-04	1.7115E-07	0.0187	7.2153E-04
1836	1.3763E+04	3.3030E+05	1.6470E-03	1.6470E-03	4.1364E-07	0.0452	7.2180E-04
1837	1.3770E+04	3.3048E+05	2.8518E-03	4.7581E-05	7.7103E-07	0.0841	7.2263E-04
1838	1.3778E+04	3.3066E+05	2.3125E-04	2.3125E-04	4.7746E-08	0.0052	7.2231E-04

1839	1.3785E+04	3.3084E+05	7.6990E-04	7.6990E-04	1.7143E-07	0.0187	7.2219E-04
1840	1.3793E+04	3.3102E+05	1.6493E-03	1.6493E-03	4.7156E-07	0.0452	7.2245E-04
1841	1.3800E+04	3.3120E+05	2.8557E-03	4.7771E-05	7.7100E-07	0.0842	7.2329E-04
1842	1.3808E+04	3.3138E+05	2.3170E-04	2.3170E-04	4.7854E-08	0.0052	7.2297E-04
1843	1.3815E+04	3.3156E+05	7.7107E-04	7.7107E-04	1.7117E-07	0.0187	7.2285E-04
1844	1.3823E+04	3.3174E+05	1.6517E-03	1.6517E-03	4.1485E-07	0.0453	7.2311E-04
1845	1.3830E+04	3.3192E+05	2.8596E-03	4.7961E-05	7.7248E-07	0.0843	7.2394E-04
1846	1.3838E+04	3.3210E+05	2.3214E-04	2.3214E-04	4.7963E-08	0.0052	7.2363E-04
1847	1.3845E+04	3.3228E+05	7.7224E-04	7.7224E-04	1.7198E-07	0.0188	7.2351E-04
1848	1.3853E+04	3.3246E+05	1.6540E-03	1.6540E-03	4.1545E-07	0.0454	7.2377E-04
1849	1.3860E+04	3.3264E+05	2.8636E-03	4.8151E-05	7.7356E-07	0.0844	7.2460E-04
1850	1.3868E+04	3.3282E+05	2.3259E-04	2.3259E-04	4.8071E-08	0.0052	7.2429E-04
1851	1.3875E+04	3.3300E+05	7.7342E-04	7.7342E-04	1.7226E-07	0.0188	7.2417E-04
1852	1.3883E+04	3.3318E+05	1.6564E-03	1.6564E-03	4.1606E-07	0.0454	7.2443E-04
1853	1.3890E+04	3.3336E+05	2.8675E-03	4.8342E-05	7.7464E-07	0.0846	7.2526E-04
1854	1.3898E+04	3.3354E+05	2.3303E-04	2.3303E-04	4.8180E-08	0.0053	7.2495E-04
1855	1.3905E+04	3.3372E+05	7.7459E-04	7.7459E-04	1.7254E-07	0.0188	7.2483E-04
1856	1.3913E+04	3.3390E+05	1.6587E-03	1.6587E-03	4.1666E-07	0.0455	7.2509E-04
1857	1.3920E+04	3.3408E+05	2.8715E-03	4.8533E-05	7.7572E-07	0.0847	7.2592E-04
1858	1.3928E+04	3.3426E+05	2.3348E-04	2.3348E-04	4.8289E-08	0.0053	7.2561E-04
1859	1.3935E+04	3.3444E+05	7.7577E-04	7.7577E-04	1.7282E-07	0.0189	7.2549E-04
1860	1.3943E+04	3.3462E+05	1.6611E-03	1.6611E-03	4.1727E-07	0.0456	7.2575E-04
1861	1.3950E+04	3.3480E+05	2.8755E-03	4.8724E-05	7.7680E-07	0.0848	7.2658E-04
1862	1.3958E+04	3.3498E+05	2.3392E-04	2.3392E-04	4.8398E-08	0.0053	7.2627E-04
1863	1.3965E+04	3.3516E+05	7.7695E-04	7.7695E-04	1.7309E-07	0.0189	7.2615E-04
1864	1.3973E+04	3.3534E+05	1.6634E-03	1.6634E-03	4.1787E-07	0.0456	7.2642E-04
1865	1.3980E+04	3.3552E+05	2.8794E-03	4.8916E-05	7.7788E-07	0.0849	7.2724E-04
1866	1.3988E+04	3.3570E+05	2.3437E-04	2.3437E-04	4.8508E-08	0.0053	7.2693E-04
1867	1.3995E+04	3.3588E+05	7.7813E-04	7.7813E-04	1.7337E-07	0.0189	7.2681E-04
1868	1.4003E+04	3.3606E+05	1.6658E-03	1.6658E-03	4.1848E-07	0.0457	7.2708E-04
1869	1.4010E+04	3.3624E+05	2.8834E-03	4.9108E-05	7.7897E-07	0.0850	7.2791E-04
1870	1.4018E+04	3.3642E+05	2.3482E-04	2.3482E-04	4.8617E-08	0.0053	7.2759E-04
1871	1.4025E+04	3.3660E+05	7.7931E-04	7.7931E-04	1.7365E-07	0.0190	7.2747E-04
1872	1.4033E+04	3.3678E+05	1.6681E-03	1.6681E-03	4.1909E-07	0.0458	7.2774E-04
1873	1.4040E+04	3.3696E+05	2.8873E-03	4.9300E-05	7.8005E-07	0.0852	7.2857E-04
1874	1.4048E+04	3.3714E+05	2.3527E-04	2.3527E-04	4.8727E-08	0.0053	7.2825E-04
1875	1.4055E+04	3.3732E+05	7.8049E-04	7.8049E-04	1.7393E-07	0.0190	7.2814E-04
1876	1.4063E+04	3.3750E+05	1.6705E-03	1.6705E-03	4.1969E-07	0.0458	7.2840E-04
1877	1.4070E+04	3.3768E+05	2.8913E-03	4.9493E-05	7.8113E-07	0.0853	7.2923E-04
1878	1.4078E+04	3.3786E+05	2.3571E-04	2.3571E-04	4.8837E-08	0.0053	7.2892E-04
1879	1.4085E+04	3.3804E+05	7.8167E-04	7.8168E-04	1.7421E-07	0.0190	7.2880E-04
1880	1.4093E+04	3.3822E+05	1.6729E-03	1.6729E-03	4.2030E-07	0.0459	7.2907E-04
1881	1.4100E+04	3.3840E+05	2.8953E-03	4.9686E-05	7.8222E-07	0.0854	7.2989E-04
1882	1.4108E+04	3.3858E+05	2.3616E-04	2.3616E-04	4.8947E-08	0.0053	7.2958E-04
1883	1.4115E+04	3.3876E+05	7.8286E-04	7.8286E-04	1.7449E-07	0.0190	7.2946E-04
1884	1.4123E+04	3.3894E+05	1.6752E-03	1.6752E-03	4.2091E-07	0.0460	7.2973E-04
1885	1.4130E+04	3.3912E+05	2.8992E-03	4.9880E-05	7.8330E-07	0.0855	7.3056E-04
1886	1.4138E+04	3.3930E+05	2.3661E-04	2.3661E-04	4.9057E-08	0.0054	7.3024E-04
1887	1.4145E+04	3.3948E+05	7.8404E-04	7.8404E-04	1.7477E-07	0.0191	7.3013E-04
1888	1.4153E+04	3.3966E+05	1.6776E-03	1.6776E-03	4.2152E-07	0.0460	7.3039E-04
1889	1.4160E+04	3.3984E+05	2.9032E-03	5.0074E-05	7.8439E-07	0.0856	7.3122E-04
1890	1.4168E+04	3.4002E+05	2.3706E-04	2.3706E-04	4.9167E-08	0.0054	7.3091E-04
1891	1.4175E+04	3.4020E+05	7.8523E-04	7.8523E-04	1.7505E-07	0.0191	7.3079E-04
1892	1.4183E+04	3.4038E+05	1.6800E-03	1.6800E-03	4.2213E-07	0.0461	7.3106E-04
1893	1.4190E+04	3.4056E+05	2.9072E-03	5.0268E-05	7.8548E-07	0.0858	7.3188E-04
1894	1.4198E+04	3.4074E+05	2.3751E-04	2.3751E-04	4.9278E-08	0.0054	7.3157E-04
1895	1.4205E+04	3.4092E+05	7.8642E-04	7.8642E-04	1.7533E-07	0.0191	7.3146E-04
1896	1.4213E+04	3.4110E+05	1.6824E-03	1.6824E-03	4.2274E-07	0.0461	7.3172E-04
1897	1.4220E+04	3.4128E+05	2.9112E-03	5.0463E-05	7.8657E-07	0.0859	7.3255E-04
1898	1.4228E+04	3.4146E+05	2.3796E-04	2.3796E-04	4.9388E-08	0.0054	7.3224E-04
1899	1.4235E+04	3.4164E+05	7.8760E-04	7.8760E-04	1.7561E-07	0.0192	7.3212E-04
1900	1.4243E+04	3.4182E+05	1.6847E-03	1.6847E-03	4.2335E-07	0.0462	7.3239E-04
1901	1.4250E+04	3.4200E+05	2.9152E-03	5.0658E-05	7.8765E-07	0.0860	7.3321E-04
1902	1.4258E+04	3.4218E+05	2.3842E-04	2.3842E-04	4.9499E-08	0.0054	7.3290E-04
1903	1.4265E+04	3.4236E+05	7.8879E-04	7.8879E-04	1.7589E-07	0.0192	7.3279E-04
1904	1.4273E+04	3.4254E+05	1.6871E-03	1.6871E-03	4.2396E-07	0.0463	7.3305E-04

1905	1.4280E+04	3.4272E+05	2.9192E-03	5.0854E-05	7.8874E-07	0.0861	7.3388E-04
1906	1.4288E+04	3.4290E+05	2.3887E-04	2.3887E-04	4.9610E-08	0.0054	7.3357E-04
1907	1.4295E+04	3.4308E+05	7.8998E-04	7.8998E-04	1.7617E-07	0.0192	7.3345E-04
1908	1.4303E+04	3.4326E+05	1.6895E-03	1.6895E-03	4.2457E-07	0.0463	7.3372E-04
1909	1.4310E+04	3.4344E+05	2.9231E-03	5.1050E-05	7.8983E-07	0.0862	7.3454E-04
1910	1.4318E+04	3.4362E+05	2.3932E-04	2.3932E-04	4.9721E-08	0.0054	7.3423E-04
1911	1.4325E+04	3.4380E+05	7.9117E-04	7.9117E-04	1.7645E-07	0.0193	7.3412E-04
1912	1.4333E+04	3.4398E+05	1.6919E-03	1.6919E-03	4.2518E-07	0.0464	7.3438E-04
1913	1.4340E+04	3.4416E+05	2.9271E-03	5.1246E-05	7.9093E-07	0.0863	7.3521E-04
1914	1.4348E+04	3.4434E+05	2.3978E-04	2.3978E-04	4.9832E-08	0.0054	7.3490E-04
1915	1.4355E+04	3.4452E+05	7.9236E-04	7.9237E-04	1.7674E-07	0.0193	7.3478E-04
1916	1.4363E+04	3.4470E+05	1.6943E-03	1.6943E-03	4.2579E-07	0.0465	7.3505E-04
1917	1.4370E+04	3.4488E+05	2.9311E-03	5.1443E-05	7.9202E-07	0.0865	7.3587E-04
1918	1.4378E+04	3.4506E+05	2.4023E-04	2.4023E-04	4.9944E-08	0.0055	7.3557E-04
1919	1.4385E+04	3.4524E+05	7.9356E-04	7.9356E-04	1.7702E-07	0.0193	7.3545E-04
1920	1.4393E+04	3.4542E+05	1.6966E-03	1.6966E-03	4.2640E-07	0.0466	7.3572E-04
1921	1.4400E+04	3.4560E+05	2.9351E-03	5.1639E-05	7.9311E-07	0.0866	7.3654E-04
1922	1.4408E+04	3.4578E+05	2.4068E-04	2.4068E-04	5.0055E-08	0.0055	7.3623E-04
1923	1.4415E+04	3.4596E+05	7.9475E-04	7.9475E-04	1.7730E-07	0.0194	7.3612E-04
1924	1.4423E+04	3.4614E+05	1.6990E-03	1.6990E-03	4.2702E-07	0.0466	7.3639E-04
1925	1.4430E+04	3.4632E+05	2.9391E-03	5.1837E-05	7.9420E-07	0.0867	7.3721E-04
1926	1.4438E+04	3.4650E+05	2.4114E-04	2.4114E-04	5.0167E-08	0.0055	7.3690E-04
1927	1.4445E+04	3.4668E+05	7.9595E-04	7.9595E-04	1.7758E-07	0.0194	7.3679E-04
1928	1.4453E+04	3.4686E+05	1.7014E-03	1.7014E-03	4.2763E-07	0.0467	7.3705E-04
1929	1.4460E+04	3.4704E+05	2.9431E-03	5.2035E-05	7.9530E-07	0.0868	7.3787E-04
1930	1.4468E+04	3.4722E+05	2.4159E-04	2.4159E-04	5.0279E-08	0.0055	7.3757E-04
1931	1.4475E+04	3.4740E+05	7.9714E-04	7.9714E-04	1.7787E-07	0.0194	7.3745E-04
1932	1.4483E+04	3.4758E+05	1.7038E-03	1.7038E-03	4.2824E-07	0.0468	7.3772E-04
1933	1.4490E+04	3.4776E+05	2.9471E-03	5.2233E-05	7.9639E-07	0.0869	7.3854E-04
1934	1.4498E+04	3.4794E+05	2.4205E-04	2.4205E-04	5.0391E-08	0.0055	7.3823E-04
1935	1.4505E+04	3.4812E+05	7.9834E-04	7.9834E-04	1.7815E-07	0.0194	7.3812E-04
1936	1.4513E+04	3.4830E+05	1.7062E-03	1.7062E-03	4.2886E-07	0.0468	7.3839E-04
1937	1.4520E+04	3.4848E+05	2.9511E-03	5.2431E-05	7.9749E-07	0.0871	7.3921E-04
1938	1.4528E+04	3.4866E+05	2.4251E-04	2.4251E-04	5.0503E-08	0.0055	7.3890E-04
1939	1.4535E+04	3.4884E+05	7.9954E-04	7.9954E-04	1.7843E-07	0.0195	7.3879E-04
1940	1.4543E+04	3.4902E+05	1.7086E-03	1.7086E-03	4.2947E-07	0.0469	7.3905E-04
1941	1.4550E+04	3.4920E+05	2.9552E-03	5.2630E-05	7.9859E-07	0.0872	7.3988E-04
1942	1.4558E+04	3.4938E+05	2.4297E-04	2.4297E-04	5.0616E-08	0.0055	7.3957E-04
1943	1.4565E+04	3.4956E+05	8.0074E-04	8.0074E-04	1.7872E-07	0.0195	7.3946E-04
1944	1.4573E+04	3.4974E+05	1.7110E-03	1.7110E-03	4.3009E-07	0.0470	7.3972E-04
1945	1.4580E+04	3.4992E+05	2.9592E-03	5.2829E-05	7.9968E-07	0.0873	7.4054E-04
1946	1.4588E+04	3.5010E+05	2.4342E-04	2.4342E-04	5.0728E-08	0.0055	7.4024E-04
1947	1.4595E+04	3.5028E+05	8.0194E-04	8.0194E-04	1.7900E-07	0.0195	7.4013E-04
1948	1.4603E+04	3.5046E+05	1.7134E-03	1.7134E-03	4.3070E-07	0.0470	7.4039E-04
1949	1.4610E+04	3.5064E+05	2.9632E-03	5.3029E-05	8.0078E-07	0.0874	7.4121E-04
1950	1.4618E+04	3.5082E+05	2.4388E-04	2.4388E-04	5.0841E-08	0.0056	7.4091E-04
1951	1.4625E+04	3.5100E+05	8.0314E-04	8.0314E-04	1.7928E-07	0.0196	7.4079E-04
1952	1.4633E+04	3.5118E+05	1.7158E-03	1.7158E-03	4.3132E-07	0.0471	7.4106E-04
1953	1.4640E+04	3.5136E+05	2.9672E-03	5.3229E-05	8.0188E-07	0.0875	7.4188E-04
1954	1.4648E+04	3.5154E+05	2.4434E-04	2.4434E-04	5.0954E-08	0.0056	7.4158E-04
1955	1.4655E+04	3.5172E+05	8.0434E-04	8.0434E-04	1.7957E-07	0.0196	7.4146E-04
1956	1.4663E+04	3.5190E+05	1.7182E-03	1.7182E-03	4.3194E-07	0.0472	7.4173E-04
1957	1.4670E+04	3.5208E+05	2.9712E-03	5.3429E-05	8.0298E-07	0.0877	7.4255E-04
1958	1.4678E+04	3.5226E+05	2.4480E-04	2.4480E-04	5.1067E-08	0.0056	7.4224E-04
1959	1.4685E+04	3.5244E+05	8.0554E-04	8.0555E-04	1.7985E-07	0.0196	7.4213E-04
1960	1.4693E+04	3.5262E+05	1.7206E-03	1.7206E-03	4.3255E-07	0.0472	7.4240E-04
1961	1.4700E+04	3.5280E+05	2.9753E-03	5.3630E-05	8.0408E-07	0.0878	7.4322E-04
1962	1.4708E+04	3.5298E+05	2.4526E-04	2.4526E-04	5.1180E-08	0.0056	7.4291E-04
1963	1.4715E+04	3.5316E+05	8.0675E-04	8.0675E-04	1.8014E-07	0.0197	7.4280E-04
1964	1.4723E+04	3.5334E+05	1.7230E-03	1.7230E-03	4.3317E-07	0.0473	7.4307E-04
1965	1.4730E+04	3.5352E+05	2.9793E-03	5.3831E-05	8.0518E-07	0.0879	7.4389E-04
1966	1.4738E+04	3.5370E+05	2.4572E-04	2.4572E-04	5.1293E-08	0.0056	7.4359E-04
1967	1.4745E+04	3.5388E+05	8.0795E-04	8.0796E-04	1.8042E-07	0.0197	7.4347E-04
1968	1.4753E+04	3.5406E+05	1.7254E-03	1.7254E-03	4.3379E-07	0.0474	7.4374E-04
1969	1.4760E+04	3.5424E+05	2.9833E-03	5.4032E-05	8.0638E-07	0.0880	7.4456E-04
1970	1.4768E+04	3.5442E+05	2.4618E-04	2.4618E-04	5.1407E-08	0.0056	7.4426E-04

1971	1.4775E+04	3.5460E+05	8.0916E-04	8.0916E-04	1.8071E-07	0.0197	7.4415E-04
1972	1.4783E+04	3.5478E+05	1.7278E-03	1.7278E-03	4.701E-07	0.0474	7.4441E-04
1973	1.4790E+04	3.5496E+05	2.9874E-03	5.4234E-05	8.009E-07	0.0881	7.4523E-04
1974	1.4798E+04	3.5514E+05	2.4664E-04	2.4664E-04	5.1520E-08	0.0056	7.4493E-04
1975	1.4805E+04	3.5532E+05	8.1037E-04	8.1037E-04	1.8100E-07	0.0198	7.4482E-04
1976	1.4813E+04	3.5550E+05	1.7302E-03	1.7302E-03	4.3503E-07	0.0475	7.4508E-04
1977	1.4820E+04	3.5568E+05	2.9914E-03	5.4436E-05	8.0849E-07	0.0883	7.4590E-04
1978	1.4828E+04	3.5586E+05	2.4711E-04	2.4711E-04	5.1634E-08	0.0056	7.4560E-04
1979	1.4835E+04	3.5604E+05	8.1158E-04	8.1158E-04	1.8128E-07	0.0198	7.4549E-04
1980	1.4843E+04	3.5622E+05	1.7326E-03	1.7326E-03	4.3565E-07	0.0476	7.4575E-04
1981	1.4850E+04	3.5640E+05	2.9954E-03	5.4639E-05	8.0960E-07	0.0884	7.4657E-04
1982	1.4858E+04	3.5658E+05	2.4757E-04	2.4757E-04	5.1748E-08	0.0056	7.4627E-04
1983	1.4865E+04	3.5676E+05	8.1279E-04	8.1279E-04	1.8157E-07	0.0198	7.4616E-04
1984	1.4873E+04	3.5694E+05	1.7350E-03	1.7350E-03	4.3627E-07	0.0476	7.4643E-04
1985	1.4880E+04	3.5712E+05	2.9995E-03	5.4842E-05	8.1070E-07	0.0885	7.4724E-04
1986	1.4888E+04	3.5730E+05	2.4803E-04	2.4803E-04	5.1862E-08	0.0057	7.4694E-04
1987	1.4895E+04	3.5748E+05	8.1400E-04	8.1400E-04	1.8185E-07	0.0199	7.4683E-04
1988	1.4903E+04	3.5766E+05	1.7374E-03	1.7374E-03	4.3689E-07	0.0477	7.4710E-04
1989	1.4910E+04	3.5784E+05	3.0035E-03	5.5045E-05	8.1181E-07	0.0886	7.4792E-04
1990	1.4918E+04	3.5802E+05	2.4850E-04	2.4850E-04	5.1976E-08	0.0057	7.4762E-04
1991	1.4925E+04	3.5820E+05	8.1521E-04	8.1521E-04	1.8214E-07	0.0199	7.4751E-04
1992	1.4933E+04	3.5838E+05	1.7398E-03	1.7398E-03	4.3751E-07	0.0478	7.4777E-04
1993	1.4940E+04	3.5856E+05	3.0076E-03	5.5249E-05	8.1291E-07	0.0887	7.4859E-04
1994	1.4948E+04	3.5874E+05	2.4896E-04	2.4896E-04	5.2091E-08	0.0057	7.4829E-04
1995	1.4955E+04	3.5892E+05	8.1642E-04	8.1642E-04	1.8243E-07	0.0199	7.4818E-04
1996	1.4963E+04	3.5910E+05	1.7423E-03	1.7423E-03	4.3813E-07	0.0478	7.4845E-04
1997	1.4970E+04	3.5928E+05	3.0116E-03	5.5453E-05	8.1402E-07	0.0889	7.4926E-04
1998	1.4978E+04	3.5946E+05	2.4943E-04	2.4943E-04	5.2205E-08	0.0057	7.4896E-04
1999	1.4985E+04	3.5964E+05	8.1764E-04	8.1764E-04	1.8272E-07	0.0199	7.4886E-04
2000	1.4993E+04	3.5982E+05	1.7447E-03	1.7447E-03	4.3875E-07	0.0479	7.4912E-04
2001	1.5000E+04	3.6000E+05	3.0157E-03	5.5658E-05	8.1513E-07	0.0890	7.4994E-04
2002	1.5008E+04	3.6018E+05	2.4989E-04	2.4989E-04	5.2320E-08	0.0057	7.4964E-04
2003	1.5015E+04	3.6036E+05	8.1885E-04	8.1885E-04	1.8300E-07	0.0200	7.4953E-04
2004	1.5023E+04	3.6054E+05	1.7471E-03	1.7471E-03	4.3938E-07	0.0480	7.4979E-04
2005	1.5030E+04	3.6072E+05	3.0197E-03	5.5862E-05	8.1624E-07	0.0891	7.5061E-04
2006	1.5038E+04	3.6090E+05	2.5036E-04	2.5036E-04	5.2435E-08	0.0057	7.5031E-04
2007	1.5045E+04	3.6108E+05	8.2007E-04	8.2007E-04	1.8329E-07	0.0200	7.5020E-04
2008	1.5053E+04	3.6126E+05	1.7495E-03	1.7495E-03	4.4000E-07	0.0480	7.5047E-04
2009	1.5060E+04	3.6144E+05	3.0238E-03	5.6068E-05	8.1735E-07	0.0892	7.5128E-04
2010	1.5068E+04	3.6162E+05	2.5083E-04	2.5083E-04	5.2550E-08	0.0057	7.5099E-04
2011	1.5075E+04	3.6180E+05	8.2128E-04	8.2128E-04	1.8358E-07	0.0200	7.5088E-04
2012	1.5083E+04	3.6198E+05	1.7520E-03	1.7520E-03	4.4062E-07	0.0481	7.5115E-04
2013	1.5090E+04	3.6216E+05	3.0278E-03	5.6273E-05	8.1846E-07	0.0894	7.5196E-04
2014	1.5098E+04	3.6234E+05	2.5129E-04	2.5129E-04	5.2665E-08	0.0057	7.5166E-04
2015	1.5105E+04	3.6252E+05	8.2250E-04	8.2250E-04	1.8387E-07	0.0201	7.5156E-04
2016	1.5113E+04	3.6270E+05	1.7544E-03	1.7544E-03	4.4125E-07	0.0482	7.5182E-04
2017	1.5120E+04	3.6288E+05	3.0319E-03	5.6479E-05	8.1957E-07	0.0895	7.5263E-04
2018	1.5128E+04	3.6306E+05	2.5176E-04	2.5176E-04	5.2781E-08	0.0058	7.5234E-04
2019	1.5135E+04	3.6324E+05	8.2372E-04	8.2372E-04	1.8416E-07	0.0201	7.5223E-04
2020	1.5143E+04	3.6342E+05	1.7568E-03	1.7568E-03	4.4187E-07	0.0482	7.5250E-04
2021	1.5150E+04	3.6360E+05	3.0360E-03	5.6685E-05	8.2068E-07	0.0896	7.5331E-04
2022	1.5158E+04	3.6378E+05	2.5223E-04	2.5223E-04	5.2896E-08	0.0058	7.5301E-04
2023	1.5165E+04	3.6396E+05	8.2494E-04	8.2494E-04	1.8445E-07	0.0201	7.5291E-04
2024	1.5173E+04	3.6414E+05	1.7592E-03	1.7592E-03	4.4250E-07	0.0483	7.5317E-04
2025	1.5180E+04	3.6432E+05	3.0400E-03	5.6892E-05	8.2180E-07	0.0897	7.5399E-04
2026	1.5188E+04	3.6450E+05	2.5270E-04	2.5270E-04	5.3012E-08	0.0058	7.5369E-04
2027	1.5195E+04	3.6468E+05	8.2616E-04	8.2616E-04	1.8474E-07	0.0202	7.5358E-04
2028	1.5203E+04	3.6486E+05	1.7617E-03	1.7617E-03	4.4312E-07	0.0484	7.5385E-04
2029	1.5210E+04	3.6504E+05	3.0441E-03	5.7099E-05	8.2291E-07	0.0898	7.5466E-04
2030	1.5218E+04	3.6522E+05	2.5317E-04	2.5317E-04	5.3128E-08	0.0058	7.5437E-04
2031	1.5225E+04	3.6540E+05	8.2738E-04	8.2738E-04	1.8503E-07	0.0202	7.5426E-04
2032	1.5233E+04	3.6558E+05	1.7641E-03	1.7641E-03	4.4375E-07	0.0484	7.5453E-04
2033	1.5240E+04	3.6576E+05	3.0482E-03	5.7307E-05	8.2402E-07	0.0900	7.5534E-04
2034	1.5248E+04	3.6594E+05	2.5364E-04	2.5364E-04	5.3244E-08	0.0058	7.5505E-04
2035	1.5255E+04	3.6612E+05	8.2861E-04	8.2861E-04	1.8532E-07	0.0202	7.5494E-04
2036	1.5263E+04	3.6630E+05	1.7665E-03	1.7665E-03	4.4438E-07	0.0485	7.5521E-04

2037	1.5270E+04	3.6648E+05	3.0523E-03	5.7514E-05	8.2514E-07	0.0901	7.5602E-04
2038	1.5278E+04	3.6666E+05	2.5411E-04	2.5411E-04	5.3360E-08	0.0058	7.5572E-04
2039	1.5285E+04	3.6684E+05	8.2983E-04	8.2983E-04	1.8561E-07	0.0203	7.5562E-04
2040	1.5293E+04	3.6702E+05	1.7690E-03	1.7690E-03	4.4500E-07	0.0486	7.5588E-04
2041	1.5300E+04	3.6720E+05	3.0564E-03	5.7723E-05	8.2626E-07	0.0902	7.5670E-04
2042	1.5308E+04	3.6738E+05	2.5458E-04	2.5458E-04	5.3477E-08	0.0058	7.5640E-04
2043	1.5315E+04	3.6756E+05	8.3106E-04	8.3106E-04	1.8590E-07	0.0203	7.5630E-04
2044	1.5323E+04	3.6774E+05	1.7714E-03	1.7714E-03	4.4563E-07	0.0486	7.5656E-04
2045	1.5330E+04	3.6792E+05	3.0604E-03	5.7931E-05	8.2737E-07	0.0903	7.5738E-04
2046	1.5338E+04	3.6810E+05	2.5505E-04	2.5505E-04	5.3593E-08	0.0059	7.5708E-04
2047	1.5345E+04	3.6828E+05	8.3228E-04	8.3228E-04	1.8619E-07	0.0203	7.5698E-04
2048	1.5353E+04	3.6846E+05	1.7739E-03	1.7739E-03	4.4626E-07	0.0487	7.5724E-04
2049	1.5360E+04	3.6864E+05	3.0645E-03	5.8140E-05	8.2849E-07	0.0904	7.5805E-04
2050	1.5368E+04	3.6882E+05	2.5552E-04	2.5553E-04	5.3710E-08	0.0059	7.5776E-04
2051	1.5375E+04	3.6900E+05	8.3351E-04	8.3351E-04	1.8648E-07	0.0204	7.5766E-04
2052	1.5383E+04	3.6918E+05	1.7763E-03	1.7763E-03	4.4689E-07	0.0488	7.5792E-04
2053	1.5390E+04	3.6936E+05	3.0686E-03	5.8349E-05	8.2961E-07	0.0906	7.5873E-04
2054	1.5398E+04	3.6954E+05	2.5600E-04	2.5600E-04	5.3827E-08	0.0059	7.5844E-04
2055	1.5405E+04	3.6972E+05	8.3474E-04	8.3474E-04	1.8677E-07	0.0204	7.5834E-04
2056	1.5413E+04	3.6990E+05	1.7787E-03	1.7788E-03	4.4752E-07	0.0489	7.5860E-04
2057	1.5420E+04	3.7008E+05	3.0727E-03	5.8559E-05	8.3073E-07	0.0907	7.5941E-04
2058	1.5428E+04	3.7026E+05	2.5647E-04	2.5647E-04	5.3944E-08	0.0059	7.5912E-04
2059	1.5435E+04	3.7044E+05	8.3597E-04	8.3597E-04	1.8706E-07	0.0204	7.5902E-04
2060	1.5443E+04	3.7062E+05	1.7812E-03	1.7812E-03	4.4814E-07	0.0489	7.5928E-04
2061	1.5450E+04	3.7080E+05	3.0768E-03	5.8769E-05	8.3185E-07	0.0908	7.6009E-04
2062	1.5458E+04	3.7098E+05	2.5695E-04	2.5695E-04	5.4061E-08	0.0059	7.5980E-04
2063	1.5465E+04	3.7116E+05	8.3720E-04	8.3720E-04	1.8735E-07	0.0205	7.5970E-04
2064	1.5473E+04	3.7134E+05	1.7836E-03	1.7836E-03	4.4877E-07	0.0490	7.5996E-04
2065	1.5480E+04	3.7152E+05	3.0809E-03	5.8979E-05	8.3297E-07	0.0909	7.6077E-04
2066	1.5488E+04	3.7170E+05	2.5742E-04	2.5742E-04	5.4178E-08	0.0059	7.6048E-04
2067	1.5495E+04	3.7188E+05	8.3843E-04	8.3843E-04	1.8765E-07	0.0205	7.6038E-04
2068	1.5503E+04	3.7206E+05	1.7861E-03	1.7861E-03	4.4941E-07	0.0491	7.6064E-04
2069	1.5510E+04	3.7224E+05	3.0850E-03	5.9190E-05	8.3409E-07	0.0911	7.6145E-04
2070	1.5518E+04	3.7242E+05	2.5790E-04	2.5790E-04	5.4295E-08	0.0059	7.6116E-04
2071	1.5525E+04	3.7260E+05	8.3966E-04	8.3966E-04	1.8794E-07	0.0205	7.6106E-04
2072	1.5533E+04	3.7278E+05	1.7885E-03	1.7885E-03	4.5004E-07	0.0491	7.6133E-04
2073	1.5540E+04	3.7296E+05	3.0891E-03	5.9401E-05	8.3521E-07	0.0912	7.6214E-04
2074	1.5548E+04	3.7314E+05	2.5837E-04	2.5837E-04	5.4413E-08	0.0059	7.6184E-04
2075	1.5555E+04	3.7332E+05	8.4090E-04	8.4090E-04	1.8823E-07	0.0205	7.6174E-04
2076	1.5563E+04	3.7350E+05	1.7910E-03	1.7910E-03	4.5067E-07	0.0492	7.6201E-04
2077	1.5570E+04	3.7368E+05	3.0932E-03	5.9613E-05	8.3634E-07	0.0913	7.6282E-04
2078	1.5578E+04	3.7386E+05	2.5885E-04	2.5885E-04	5.4531E-08	0.0060	7.6253E-04
2079	1.5585E+04	3.7404E+05	8.4213E-04	8.4213E-04	1.8852E-07	0.0206	7.6242E-04
2080	1.5593E+04	3.7422E+05	1.7935E-03	1.7935E-03	4.5130E-07	0.0493	7.6269E-04
2081	1.5600E+04	3.7440E+05	3.0973E-03	5.9825E-05	8.3746E-07	0.0914	7.6350E-04
2082	1.5608E+04	3.7458E+05	2.5932E-04	2.5932E-04	5.4649E-08	0.0060	7.6321E-04
2083	1.5615E+04	3.7476E+05	8.4337E-04	8.4337E-04	1.8882E-07	0.0206	7.6311E-04
2084	1.5623E+04	3.7494E+05	1.7959E-03	1.7959E-03	4.5193E-07	0.0493	7.6337E-04
2085	1.5630E+04	3.7512E+05	3.1014E-03	6.0037E-05	8.3859E-07	0.0915	7.6418E-04
2086	1.5638E+04	3.7530E+05	2.5980E-04	2.5980E-04	5.4767E-08	0.0060	7.6389E-04
2087	1.5645E+04	3.7548E+05	8.4461E-04	8.4461E-04	1.8911E-07	0.0206	7.6379E-04
2088	1.5653E+04	3.7566E+05	1.7984E-03	1.7984E-03	4.5256E-07	0.0494	7.6406E-04
2089	1.5660E+04	3.7584E+05	3.1055E-03	6.0250E-05	8.3971E-07	0.0917	7.6486E-04
2090	1.5668E+04	3.7602E+05	2.6028E-04	2.6028E-04	5.4885E-08	0.0060	7.6458E-04
2091	1.5675E+04	3.7620E+05	8.4584E-04	8.4584E-04	1.8940E-07	0.0207	7.6447E-04
2092	1.5683E+04	3.7638E+05	1.8008E-03	1.8008E-03	4.5320E-07	0.0495	7.6474E-04
2093	1.5690E+04	3.7656E+05	3.1097E-03	6.0463E-05	8.4084E-07	0.0918	7.6555E-04
2094	1.5698E+04	3.7674E+05	2.6076E-04	2.6076E-04	5.5004E-08	0.0060	7.6526E-04
2095	1.5705E+04	3.7692E+05	8.4708E-04	8.4708E-04	1.8970E-07	0.0207	7.6516E-04
2096	1.5713E+04	3.7710E+05	1.8033E-03	1.8033E-03	4.5383E-07	0.0495	7.6543E-04
2097	1.5720E+04	3.7728E+05	3.1138E-03	6.0676E-05	8.4196E-07	0.0919	7.6623E-04
2098	1.5728E+04	3.7746E+05	2.6124E-04	2.6124E-04	5.5122E-08	0.0060	7.6594E-04
2099	1.5735E+04	3.7764E+05	8.4832E-04	8.4832E-04	1.8999E-07	0.0207	7.6584E-04
2100	1.5743E+04	3.7782E+05	1.8058E-03	1.8058E-03	4.5447E-07	0.0496	7.6611E-04
2101	1.5750E+04	3.7800E+05	3.1179E-03	6.0890E-05	8.4299E-07	0.0920	7.6692E-04
2102	1.5758E+04	3.7818E+05	2.6172E-04	2.6172E-04	5.5241E-08	0.0060	7.6663E-04

2103	1.5765E+04	3.7836E+05	8.4956E-04	8.4956E-04	1.9029E-07	0.0208	7.6653E-04
2104	1.5773E+04	3.7854E+05	1.8082E-03	1.8082E-03	4.5702E-07	0.0497	7.6679E-04
2105	1.5780E+04	3.7872E+05	3.1220E-03	6.1104E-05	8.4702E-07	0.0922	7.6760E-04
2106	1.5788E+04	3.7890E+05	2.6220E-04	2.6220E-04	5.5360E-08	0.0060	7.6731E-04
2107	1.5795E+04	3.7908E+05	8.5080E-04	8.5081E-04	1.9058E-07	0.0208	7.6721E-04
2108	1.5803E+04	3.7926E+05	1.8107E-03	1.8107E-03	4.5574E-07	0.0498	7.6748E-04
2109	1.5810E+04	3.7944E+05	3.1262E-03	6.1319E-05	8.4535E-07	0.0923	7.6829E-04
2110	1.5818E+04	3.7962E+05	2.6268E-04	2.6268E-04	5.5479E-08	0.0061	7.6800E-04
2111	1.5825E+04	3.7980E+05	8.5205E-04	8.5205E-04	1.9088E-07	0.0208	7.6790E-04
2112	1.5833E+04	3.7998E+05	1.8132E-03	1.8132E-03	4.5637E-07	0.0498	7.6817E-04
2113	1.5840E+04	3.8016E+05	3.1303E-03	6.1534E-05	8.4648E-07	0.0924	7.6897E-04
2114	1.5848E+04	3.8034E+05	2.6316E-04	2.6316E-04	5.5598E-08	0.0061	7.6868E-04
2115	1.5855E+04	3.8052E+05	8.5329E-04	8.5329E-04	1.9117E-07	0.0209	7.6858E-04
2116	1.5863E+04	3.8070E+05	1.8156E-03	1.8156E-03	4.5701E-07	0.0499	7.6885E-04
2117	1.5870E+04	3.8088E+05	3.1344E-03	6.1749E-05	8.4761E-07	0.0925	7.6966E-04
2118	1.5878E+04	3.8106E+05	2.6364E-04	2.6364E-04	5.5717E-08	0.0061	7.6937E-04
2119	1.5885E+04	3.8124E+05	8.5454E-04	8.5454E-04	1.9147E-07	0.0209	7.6927E-04
2120	1.5893E+04	3.8142E+05	1.8181E-03	1.8181E-03	4.5764E-07	0.0500	7.6954E-04
2121	1.5900E+04	3.8160E+05	3.1386E-03	6.1965E-05	8.4874E-07	0.0927	7.7034E-04
2122	1.5908E+04	3.8178E+05	2.6412E-04	2.6412E-04	5.5837E-08	0.0061	7.7006E-04
2123	1.5915E+04	3.8196E+05	8.5578E-04	8.5578E-04	1.9176E-07	0.0209	7.6996E-04
2124	1.5923E+04	3.8214E+05	1.8206E-03	1.8206E-03	4.5828E-07	0.0500	7.7023E-04
2125	1.5930E+04	3.8232E+05	3.1427E-03	6.2181E-05	8.4988E-07	0.0928	7.7103E-04
2126	1.5938E+04	3.8250E+05	2.6461E-04	2.6461E-04	5.5957E-08	0.0061	7.7074E-04
2127	1.5945E+04	3.8268E+05	8.5703E-04	8.5703E-04	1.9206E-07	0.0210	7.7065E-04
2128	1.5953E+04	3.8286E+05	1.8231E-03	1.8231E-03	4.5892E-07	0.0501	7.7091E-04
2129	1.5960E+04	3.8304E+05	3.1468E-03	6.2397E-05	8.5101E-07	0.0929	7.7172E-04
2130	1.5968E+04	3.8322E+05	2.6509E-04	2.6509E-04	5.6077E-08	0.0061	7.7143E-04
2131	1.5975E+04	3.8340E+05	8.5828E-04	8.5828E-04	1.9236E-07	0.0210	7.7133E-04
2132	1.5983E+04	3.8358E+05	1.8255E-03	1.8255E-03	4.5956E-07	0.0502	7.7160E-04
2133	1.5990E+04	3.8376E+05	3.1510E-03	6.2614E-05	8.5214E-07	0.0930	7.7241E-04
2134	1.5998E+04	3.8394E+05	2.6557E-04	2.6557E-04	5.6197E-08	0.0061	7.7212E-04
2135	1.6005E+04	3.8412E+05	8.5953E-04	8.5953E-04	1.9265E-07	0.0210	7.7202E-04
2136	1.6013E+04	3.8430E+05	1.8280E-03	1.8280E-03	4.6020E-07	0.0502	7.7229E-04
2137	1.6020E+04	3.8448E+05	3.1551E-03	6.2831E-05	8.5328E-07	0.0932	7.7309E-04
2138	1.6028E+04	3.8466E+05	2.6606E-04	2.6606E-04	5.6317E-08	0.0061	7.7281E-04
2139	1.6035E+04	3.8484E+05	8.6078E-04	8.6078E-04	1.9295E-07	0.0211	7.7271E-04
2140	1.6043E+04	3.8502E+05	1.8305E-03	1.8305E-03	4.6084E-07	0.0503	7.7298E-04
2141	1.6050E+04	3.8520E+05	3.1593E-03	6.3048E-05	8.5441E-07	0.0933	7.7378E-04
2142	1.6058E+04	3.8538E+05	2.6654E-04	2.6654E-04	5.6437E-08	0.0062	7.7350E-04
2143	1.6065E+04	3.8556E+05	8.6203E-04	8.6203E-04	1.9325E-07	0.0211	7.7340E-04
2144	1.6073E+04	3.8574E+05	1.8330E-03	1.8330E-03	4.6148E-07	0.0504	7.7367E-04
2145	1.6080E+04	3.8592E+05	3.1634E-03	6.3266E-05	8.5555E-07	0.0934	7.7447E-04
2146	1.6088E+04	3.8610E+05	2.6703E-04	2.6703E-04	5.6558E-08	0.0062	7.7419E-04
2147	1.6095E+04	3.8628E+05	8.6328E-04	8.6328E-04	1.9355E-07	0.0211	7.7409E-04
2148	1.6103E+04	3.8646E+05	1.8355E-03	1.8355E-03	4.6212E-07	0.0504	7.7436E-04
2149	1.6110E+04	3.8664E+05	3.1676E-03	6.3485E-05	8.5669E-07	0.0935	7.7516E-04
2150	1.6118E+04	3.8682E+05	2.6752E-04	2.6752E-04	5.6678E-08	0.0062	7.7488E-04
2151	1.6125E+04	3.8700E+05	8.6454E-04	8.6454E-04	1.9384E-07	0.0212	7.7478E-04
2152	1.6133E+04	3.8718E+05	1.8380E-03	1.8380E-03	4.6276E-07	0.0505	7.7505E-04
2153	1.6140E+04	3.8736E+05	3.1717E-03	6.3703E-05	8.5783E-07	0.0936	7.7585E-04
2154	1.6148E+04	3.8754E+05	2.6800E-04	2.6800E-04	5.6799E-08	0.0062	7.7557E-04
2155	1.6155E+04	3.8772E+05	8.6579E-04	8.6579E-04	1.9414E-07	0.0212	7.7547E-04
2156	1.6163E+04	3.8790E+05	1.8404E-03	1.8405E-03	4.6340E-07	0.0506	7.7574E-04
2157	1.6170E+04	3.8808E+05	3.1759E-03	6.3922E-05	8.5897E-07	0.0938	7.7654E-04
2158	1.6178E+04	3.8826E+05	2.6849E-04	2.6849E-04	5.6920E-08	0.0062	7.7626E-04
2159	1.6185E+04	3.8844E+05	8.6705E-04	8.6705E-04	1.9444E-07	0.0212	7.7616E-04
2160	1.6193E+04	3.8862E+05	1.8429E-03	1.8429E-03	4.6404E-07	0.0507	7.7643E-04
2161	1.6200E+04	3.8880E+05	3.1801E-03	6.4142E-05	8.6010E-07	0.0939	7.7723E-04
2162	1.6208E+04	3.8898E+05	2.6898E-04	2.6898E-04	5.7041E-08	0.0062	7.7695E-04
2163	1.6215E+04	3.8916E+05	8.6830E-04	8.6830E-04	1.9474E-07	0.0213	7.7685E-04
2164	1.6223E+04	3.8934E+05	1.8454E-03	1.8454E-03	4.6468E-07	0.0507	7.7712E-04
2165	1.6230E+04	3.8952E+05	3.1842E-03	6.4361E-05	8.6124E-07	0.0940	7.7792E-04
2166	1.6238E+04	3.8970E+05	2.6947E-04	2.6947E-04	5.7162E-08	0.0062	7.7764E-04
2167	1.6245E+04	3.8988E+05	8.6956E-04	8.6956E-04	1.9504E-07	0.0213	7.7754E-04
2168	1.6253E+04	3.9006E+05	1.8479E-03	1.8479E-03	4.6532E-07	0.0508	7.7781E-04

2169	1.6260E+04	3.9024E+05	3.1884E-03	6.4581E-05	8.6239E-07	0.0941	7.7861E-04
2170	1.6268E+04	3.9042E+05	2.6996E-04	2.6996E-04	5.7284E-08	0.0063	7.7833E-04
2171	1.6275E+04	3.9060E+05	8.7082E-04	8.7082E-04	1.9534E-07	0.0213	7.7823E-04
2172	1.6283E+04	3.9078E+05	1.8504E-03	1.8504E-03	4.6597E-07	0.0509	7.7850E-04
2173	1.6290E+04	3.9096E+05	3.1926E-03	6.4802E-05	8.6353E-07	0.0943	7.7931E-04
2174	1.6298E+04	3.9114E+05	2.7045E-04	2.7045E-04	5.7405E-08	0.0063	7.7902E-04
2175	1.6305E+04	3.9132E+05	8.7208E-04	8.7208E-04	1.9564E-07	0.0214	7.7893E-04
2176	1.6313E+04	3.9150E+05	1.8529E-03	1.8529E-03	4.6661E-07	0.0509	7.7920E-04
2177	1.6320E+04	3.9168E+05	3.1968E-03	6.5023E-05	8.6467E-07	0.0944	7.8000E-04
2178	1.6328E+04	3.9186E+05	2.7094E-04	2.7094E-04	5.7527E-08	0.0063	7.7972E-04
2179	1.6335E+04	3.9204E+05	8.7334E-04	8.7334E-04	1.9594E-07	0.0214	7.7962E-04
2180	1.6343E+04	3.9222E+05	1.8554E-03	1.8554E-03	4.6725E-07	0.0510	7.7989E-04
2181	1.6350E+04	3.9240E+05	3.2009E-03	6.5244E-05	8.6581E-07	0.0945	7.8069E-04
2182	1.6358E+04	3.9258E+05	2.7143E-04	2.7143E-04	5.7649E-08	0.0063	7.8041E-04
2183	1.6365E+04	3.9276E+05	8.7460E-04	8.7460E-04	1.9624E-07	0.0214	7.8031E-04
2184	1.6373E+04	3.9294E+05	1.8579E-03	1.8579E-03	4.6790E-07	0.0511	7.8058E-04
2185	1.6380E+04	3.9312E+05	3.2051E-03	6.5466E-05	8.6696E-07	0.0946	7.8138E-04
2186	1.6388E+04	3.9330E+05	2.7192E-04	2.7192E-04	5.7771E-08	0.0063	7.8110E-04
2187	1.6395E+04	3.9348E+05	8.7586E-04	8.7586E-04	1.9654E-07	0.0215	7.8101E-04
2188	1.6403E+04	3.9366E+05	1.8604E-03	1.8604E-03	4.6854E-07	0.0512	7.8128E-04
2189	1.6410E+04	3.9384E+05	3.2093E-03	6.5688E-05	8.6810E-07	0.0948	7.8208E-04
2190	1.6418E+04	3.9402E+05	2.7241E-04	2.7241E-04	5.7893E-08	0.0063	7.8180E-04
2191	1.6425E+04	3.9420E+05	8.7713E-04	8.7713E-04	1.9684E-07	0.0215	7.8170E-04
2192	1.6433E+04	3.9438E+05	1.8629E-03	1.8629E-03	4.6919E-07	0.0512	7.8197E-04
2193	1.6440E+04	3.9456E+05	3.2135E-03	6.5910E-05	8.6925E-07	0.0949	7.8277E-04
2194	1.6448E+04	3.9474E+05	2.7290E-04	2.7290E-04	5.8016E-08	0.0063	7.8249E-04
2195	1.6455E+04	3.9492E+05	8.7839E-04	8.7839E-04	1.9714E-07	0.0215	7.8240E-04
2196	1.6463E+04	3.9510E+05	1.8654E-03	1.8654E-03	4.6983E-07	0.0513	7.8266E-04
2197	1.6470E+04	3.9528E+05	3.2177E-03	6.6133E-05	8.7040E-07	0.0950	7.8346E-04
2198	1.6478E+04	3.9546E+05	2.7340E-04	2.7340E-04	5.8138E-08	0.0063	7.8318E-04
2199	1.6485E+04	3.9564E+05	8.7966E-04	8.7966E-04	1.9744E-07	0.0216	7.8309E-04
2200	1.6493E+04	3.9582E+05	1.8680E-03	1.8680E-03	4.7048E-07	0.0514	7.8336E-04
2201	1.6500E+04	3.9600E+05	3.2219E-03	6.6356E-05	8.7154E-07	0.0951	7.8416E-04
2202	1.6508E+04	3.9618E+05	2.7389E-04	2.7389E-04	5.8261E-08	0.0064	7.8388E-04
2203	1.6515E+04	3.9636E+05	8.8093E-04	8.8093E-04	1.9774E-07	0.0216	7.8379E-04
2204	1.6523E+04	3.9654E+05	1.8705E-03	1.8705E-03	4.7113E-07	0.0514	7.8405E-04
2205	1.6530E+04	3.9672E+05	3.2261E-03	6.6579E-05	8.7269E-07	0.0953	7.8485E-04
2206	1.6538E+04	3.9690E+05	2.7438E-04	2.7438E-04	5.8384E-08	0.0064	7.8458E-04
2207	1.6545E+04	3.9708E+05	8.8219E-04	8.8219E-04	1.9804E-07	0.0216	7.8448E-04
2208	1.6553E+04	3.9726E+05	1.8730E-03	1.8730E-03	4.7178E-07	0.0515	7.8475E-04
2209	1.6560E+04	3.9744E+05	3.2303E-03	6.6803E-05	8.7384E-07	0.0954	7.8555E-04
2210	1.6568E+04	3.9762E+05	2.7488E-04	2.7488E-04	5.8507E-08	0.0064	7.8527E-04
2211	1.6575E+04	3.9780E+05	8.8346E-04	8.8346E-04	1.9835E-07	0.0217	7.8518E-04
2212	1.6583E+04	3.9798E+05	1.8755E-03	1.8755E-03	4.7242E-07	0.0516	7.8545E-04
2213	1.6590E+04	3.9816E+05	3.2345E-03	6.7028E-05	8.7499E-07	0.0955	7.8625E-04
2214	1.6598E+04	3.9834E+05	2.7537E-04	2.7537E-04	5.8630E-08	0.0064	7.8597E-04
2215	1.6605E+04	3.9852E+05	8.8473E-04	8.8473E-04	1.9865E-07	0.0217	7.8587E-04
2216	1.6613E+04	3.9870E+05	1.8780E-03	1.8780E-03	4.7307E-07	0.0516	7.8614E-04
2217	1.6620E+04	3.9888E+05	3.2387E-03	6.7252E-05	8.7614E-07	0.0956	7.8694E-04
2218	1.6628E+04	3.9906E+05	2.7587E-04	2.7587E-04	5.8754E-08	0.0064	7.8666E-04
2219	1.6635E+04	3.9924E+05	8.8600E-04	8.8601E-04	1.9895E-07	0.0217	7.8657E-04
2220	1.6643E+04	3.9942E+05	1.8805E-03	1.8805E-03	4.7372E-07	0.0517	7.8684E-04
2221	1.6650E+04	3.9960E+05	3.2429E-03	6.7477E-05	8.7729E-07	0.0958	7.8764E-04
2222	1.6658E+04	3.9978E+05	2.7637E-04	2.7637E-04	5.8877E-08	0.0064	7.8736E-04
2223	1.6665E+04	3.9996E+05	8.8728E-04	8.8728E-04	1.9925E-07	0.0218	7.8727E-04
2224	1.6673E+04	4.0014E+05	1.8830E-03	1.8830E-03	4.7437E-07	0.0518	7.8754E-04
2225	1.6680E+04	4.0032E+05	3.2471E-03	6.7702E-05	8.7844E-07	0.0959	7.8834E-04
2226	1.6688E+04	4.0050E+05	2.7686E-04	2.7686E-04	5.9001E-08	0.0064	7.8806E-04
2227	1.6695E+04	4.0068E+05	8.8855E-04	8.8855E-04	1.9956E-07	0.0218	7.8797E-04
2228	1.6703E+04	4.0086E+05	1.8856E-03	1.8856E-03	4.7502E-07	0.0519	7.8824E-04
2229	1.6710E+04	4.0104E+05	3.2513E-03	6.7928E-05	8.7960E-07	0.0960	7.8903E-04
2230	1.6718E+04	4.0122E+05	2.7736E-04	2.7736E-04	5.9125E-08	0.0065	7.8876E-04
2231	1.6725E+04	4.0140E+05	8.8982E-04	8.8983E-04	1.9986E-07	0.0218	7.8867E-04
2232	1.6733E+04	4.0158E+05	1.8881E-03	1.8881E-03	4.7567E-07	0.0519	7.8893E-04
2233	1.6740E+04	4.0176E+05	3.2555E-03	6.8154E-05	8.8156E-07	0.0962	7.8973E-04
2234	1.6748E+04	4.0194E+05	2.7786E-04	2.7786E-04	5.9249E-08	0.0065	7.8946E-04

2285	1.6755E+04	4.0212E+05	8.9110E-04	8.9110E-04	2.0016E-07	0.0219	7.8936E-04
2236	1.6763E+04	4.0230E+05	1.8906E-03	1.8906E-03	4.0000E-07	0.0520	7.8963E-04
2237	1.6770E+04	4.0248E+05	3.2597E-03	6.8381E-05	8.8000E-07	0.0963	7.9043E-04
2238	1.6778E+04	4.0266E+05	2.7836E-04	2.7836E-04	5.9373E-08	0.0065	7.9015E-04
2239	1.6785E+04	4.0284E+05	8.9238E-04	8.9238E-04	2.0047E-07	0.0219	7.9006E-04
2240	1.6793E+04	4.0302E+05	1.8931E-03	1.8931E-03	4.7697E-07	0.0521	7.9033E-04
2241	1.6800E+04	4.0320E+05	3.2639E-03	6.8608E-05	8.8306E-07	0.0964	7.9113E-04
2242	1.6808E+04	4.0338E+05	2.7886E-04	2.7886E-04	5.9497E-08	0.0065	7.9085E-04
2243	1.6815E+04	4.0356E+05	8.9365E-04	8.9365E-04	2.0077E-07	0.0219	7.9076E-04
2244	1.6823E+04	4.0374E+05	1.8957E-03	1.8957E-03	4.7762E-07	0.0521	7.9103E-04
2245	1.6830E+04	4.0392E+05	3.2682E-03	6.8835E-05	8.8422E-07	0.0965	7.9183E-04
2246	1.6838E+04	4.0410E+05	2.7936E-04	2.7936E-04	5.9622E-08	0.0065	7.9155E-04
2247	1.6845E+04	4.0428E+05	8.9493E-04	8.9493E-04	2.0108E-07	0.0220	7.9146E-04
2248	1.6853E+04	4.0446E+05	1.8982E-03	1.8982E-03	4.7828E-07	0.0522	7.9173E-04
2249	1.6860E+04	4.0464E+05	3.2724E-03	6.9062E-05	8.8537E-07	0.0967	7.9253E-04
2250	1.6868E+04	4.0482E+05	2.7986E-04	2.7986E-04	5.9746E-08	0.0065	7.9225E-04
2251	1.6875E+04	4.0500E+05	8.9621E-04	8.9621E-04	2.0138E-07	0.0220	7.9216E-04
2252	1.6883E+04	4.0518E+05	1.9007E-03	1.9007E-03	4.7893E-07	0.0523	7.9243E-04
2253	1.6890E+04	4.0536E+05	3.2766E-03	6.9290E-05	8.8653E-07	0.0968	7.9323E-04
2254	1.6898E+04	4.0554E+05	2.8036E-04	2.8036E-04	5.9871E-08	0.0065	7.9295E-04
2255	1.6905E+04	4.0572E+05	8.9749E-04	8.9749E-04	2.0169E-07	0.0220	7.9286E-04
2256	1.6913E+04	4.0590E+05	1.9033E-03	1.9033E-03	4.7958E-07	0.0524	7.9313E-04
2257	1.6920E+04	4.0608E+05	3.2808E-03	6.9519E-05	8.8769E-07	0.0969	7.9393E-04
2258	1.6928E+04	4.0626E+05	2.8086E-04	2.8086E-04	5.9996E-08	0.0065	7.9366E-04
2259	1.6935E+04	4.0644E+05	8.9877E-04	8.9877E-04	2.0199E-07	0.0221	7.9357E-04
2260	1.6943E+04	4.0662E+05	1.9058E-03	1.9058E-03	4.8024E-07	0.0524	7.9383E-04
2261	1.6950E+04	4.0680E+05	3.2851E-03	6.9747E-05	8.8885E-07	0.0970	7.9463E-04
2262	1.6958E+04	4.0698E+05	2.8136E-04	2.8136E-04	6.0121E-08	0.0066	7.9436E-04
2263	1.6965E+04	4.0716E+05	9.0006E-04	9.0006E-04	2.0230E-07	0.0221	7.9427E-04
2264	1.6973E+04	4.0734E+05	1.9083E-03	1.9083E-03	4.8089E-07	0.0525	7.9454E-04
2265	1.6980E+04	4.0752E+05	3.2893E-03	6.9977E-05	8.9001E-07	0.0972	7.9533E-04
2266	1.6988E+04	4.0770E+05	2.8186E-04	2.8186E-04	6.0246E-08	0.0066	7.9506E-04
2267	1.6995E+04	4.0788E+05	9.0134E-04	9.0134E-04	2.0260E-07	0.0221	7.9497E-04
2268	1.7003E+04	4.0806E+05	1.9109E-03	1.9109E-03	4.8154E-07	0.0526	7.9524E-04
2269	1.7010E+04	4.0824E+05	3.2935E-03	7.0206E-05	8.9117E-07	0.0973	7.9603E-04
2270	1.7018E+04	4.0842E+05	2.8237E-04	2.8237E-04	6.0372E-08	0.0066	7.9576E-04
2271	1.7025E+04	4.0860E+05	9.0262E-04	9.0263E-04	2.0291E-07	0.0222	7.9567E-04
2272	1.7033E+04	4.0878E+05	1.9134E-03	1.9134E-03	4.8220E-07	0.0526	7.9594E-04
2273	1.7040E+04	4.0896E+05	3.2978E-03	7.0436E-05	8.9233E-07	0.0974	7.9674E-04
2274	1.7048E+04	4.0914E+05	2.8287E-04	2.8287E-04	6.0497E-08	0.0066	7.9646E-04
2275	1.7055E+04	4.0932E+05	9.0391E-04	9.0391E-04	2.0322E-07	0.0222	7.9637E-04
2276	1.7063E+04	4.0950E+05	1.9160E-03	1.9160E-03	4.8286E-07	0.0527	7.9664E-04
2277	1.7070E+04	4.0968E+05	3.3020E-03	7.0666E-05	8.9349E-07	0.0975	7.9744E-04
2278	1.7078E+04	4.0986E+05	2.8337E-04	2.8337E-04	6.0623E-08	0.0066	7.9717E-04
2279	1.7085E+04	4.1004E+05	9.0520E-04	9.0520E-04	2.0352E-07	0.0222	7.9708E-04
2280	1.7093E+04	4.1022E+05	1.9185E-03	1.9185E-03	4.8351E-07	0.0528	7.9735E-04
2281	1.7100E+04	4.1040E+05	3.3063E-03	7.0897E-05	8.9465E-07	0.0977	7.9814E-04
2282	1.7108E+04	4.1058E+05	2.8388E-04	2.8388E-04	6.0749E-08	0.0066	7.9787E-04
2283	1.7115E+04	4.1076E+05	9.0649E-04	9.0649E-04	2.0383E-07	0.0223	7.9778E-04
2284	1.7123E+04	4.1094E+05	1.9211E-03	1.9211E-03	4.8417E-07	0.0529	7.9805E-04
2285	1.7130E+04	4.1112E+05	3.3105E-03	7.1128E-05	8.9582E-07	0.0978	7.9885E-04
2286	1.7138E+04	4.1130E+05	2.8438E-04	2.8438E-04	6.0875E-08	0.0066	7.9857E-04
2287	1.7145E+04	4.1148E+05	9.0777E-04	9.0778E-04	2.0414E-07	0.0223	7.9849E-04
2288	1.7153E+04	4.1166E+05	1.9236E-03	1.9236E-03	4.8483E-07	0.0529	7.9876E-04
2289	1.7160E+04	4.1184E+05	3.3148E-03	7.1359E-05	8.9698E-07	0.0979	7.9955E-04
2290	1.7168E+04	4.1202E+05	2.8489E-04	2.8489E-04	6.1001E-08	0.0067	7.9928E-04
2291	1.7175E+04	4.1220E+05	9.0906E-04	9.0907E-04	2.0444E-07	0.0223	7.9919E-04
2292	1.7183E+04	4.1238E+05	1.9262E-03	1.9262E-03	4.8548E-07	0.0530	7.9946E-04
2293	1.7190E+04	4.1256E+05	3.3190E-03	7.1591E-05	8.9815E-07	0.0981	8.0026E-04
2294	1.7198E+04	4.1274E+05	2.8540E-04	2.8540E-04	6.1128E-08	0.0067	7.9998E-04
2295	1.7205E+04	4.1292E+05	9.1036E-04	9.1036E-04	2.0475E-07	0.0224	7.9990E-04
2296	1.7213E+04	4.1310E+05	1.9287E-03	1.9287E-03	4.8614E-07	0.0531	8.0017E-04
2297	1.7220E+04	4.1328E+05	3.3233E-03	7.1823E-05	8.9931E-07	0.0982	8.0096E-04
2298	1.7228E+04	4.1346E+05	2.8590E-04	2.8590E-04	6.1254E-08	0.0067	8.0069E-04
2299	1.7235E+04	4.1364E+05	9.1165E-04	9.1165E-04	2.0506E-07	0.0224	8.0060E-04
2300	1.7243E+04	4.1382E+05	1.9313E-03	1.9313E-03	4.8680E-07	0.0531	8.0087E-04

2301	1.7250E+04	4.1400E+05	3.3275E-03	7.2055E-05	9.0048E-07	0.0983	8.0167E-04
2302	1.7258E+04	4.1418E+05	2.8641E-04	2.8641E-04	6.1381E-08	0.0067	8.0140E-04
2303	1.7265E+04	4.1436E+05	9.1294E-04	9.1294E-04	2.0537E-07	0.0224	8.0131E-04
2304	1.7273E+04	4.1454E+05	1.9338E-03	1.9338E-03	4.8746E-07	0.0532	8.0158E-04
2305	1.7280E+04	4.1472E+05	3.3318E-03	7.2288E-05	9.0165E-07	0.0984	8.0237E-04
2306	1.7288E+04	4.1490E+05	2.8692E-04	2.8692E-04	6.1508E-08	0.0067	8.0210E-04
2307	1.7295E+04	4.1508E+05	9.1424E-04	9.1424E-04	2.0568E-07	0.0225	8.0201E-04
2308	1.7303E+04	4.1526E+05	1.9364E-03	1.9364E-03	4.8812E-07	0.0533	8.0228E-04
2309	1.7310E+04	4.1544E+05	3.3361E-03	7.2521E-05	9.0282E-07	0.0986	8.0308E-04
2310	1.7318E+04	4.1562E+05	2.8743E-04	2.8743E-04	6.1635E-08	0.0067	8.0281E-04
2311	1.7325E+04	4.1580E+05	9.1553E-04	9.1553E-04	2.0599E-07	0.0225	8.0272E-04
2312	1.7333E+04	4.1598E+05	1.9389E-03	1.9389E-03	4.8878E-07	0.0534	8.0299E-04
2313	1.7340E+04	4.1616E+05	3.3403E-03	7.2755E-05	9.0399E-07	0.0987	8.0378E-04
2314	1.7348E+04	4.1634E+05	2.8794E-04	2.8794E-04	6.1762E-08	0.0067	8.0351E-04
2315	1.7355E+04	4.1652E+05	9.1683E-04	9.1683E-04	2.0629E-07	0.0225	8.0343E-04
2316	1.7363E+04	4.1670E+05	1.9415E-03	1.9415E-03	4.8944E-07	0.0534	8.0370E-04
2317	1.7370E+04	4.1688E+05	3.3446E-03	7.2989E-05	9.0516E-07	0.0988	8.0449E-04
2318	1.7378E+04	4.1706E+05	2.8845E-04	2.8845E-04	6.1889E-08	0.0068	8.0422E-04
2319	1.7385E+04	4.1724E+05	9.1812E-04	9.1812E-04	2.0660E-07	0.0226	8.0413E-04
2320	1.7393E+04	4.1742E+05	1.9441E-03	1.9441E-03	4.9010E-07	0.0535	8.0440E-04
2321	1.7400E+04	4.1760E+05	3.3489E-03	7.3223E-05	9.0633E-07	0.0989	8.0520E-04
2322	1.7408E+04	4.1778E+05	2.8896E-04	2.8896E-04	6.2017E-08	0.0068	8.0493E-04
2323	1.7415E+04	4.1796E+05	9.1942E-04	9.1942E-04	2.0691E-07	0.0226	8.0484E-04
2324	1.7423E+04	4.1814E+05	1.9466E-03	1.9466E-03	4.9076E-07	0.0536	8.0511E-04
2325	1.7430E+04	4.1832E+05	3.3532E-03	7.3458E-05	9.0750E-07	0.0991	8.0591E-04
2326	1.7438E+04	4.1850E+05	2.8947E-04	2.8947E-04	6.2145E-08	0.0068	8.0564E-04
2327	1.7445E+04	4.1868E+05	9.2072E-04	9.2072E-04	2.0722E-07	0.0226	8.0555E-04
2328	1.7453E+04	4.1886E+05	1.9492E-03	1.9492E-03	4.9142E-07	0.0536	8.0582E-04
2329	1.7460E+04	4.1904E+05	3.3574E-03	7.3693E-05	9.0867E-07	0.0992	8.0661E-04
2330	1.7468E+04	4.1922E+05	2.8998E-04	2.8998E-04	6.2272E-08	0.0068	8.0635E-04
2331	1.7475E+04	4.1940E+05	9.2202E-04	9.2202E-04	2.0753E-07	0.0227	8.0626E-04
2332	1.7483E+04	4.1958E+05	1.9518E-03	1.9518E-03	4.9209E-07	0.0537	8.0653E-04
2333	1.7490E+04	4.1976E+05	3.3617E-03	7.3928E-05	9.0984E-07	0.0993	8.0732E-04
2334	1.7498E+04	4.1994E+05	2.9049E-04	2.9049E-04	6.2400E-08	0.0068	8.0705E-04
2335	1.7505E+04	4.2012E+05	9.2332E-04	9.2332E-04	2.0784E-07	0.0227	8.0697E-04
2336	1.7513E+04	4.2030E+05	1.9543E-03	1.9543E-03	4.9275E-07	0.0538	8.0724E-04
2337	1.7520E+04	4.2048E+05	3.3660E-03	7.4164E-05	9.1102E-07	0.0995	8.0803E-04
2338	1.7528E+04	4.2066E+05	2.9100E-04	2.9100E-04	6.2528E-08	0.0068	8.0776E-04
2339	1.7535E+04	4.2084E+05	9.2463E-04	9.2463E-04	2.0816E-07	0.0227	8.0768E-04
2340	1.7543E+04	4.2102E+05	1.9569E-03	1.9569E-03	4.9341E-07	0.0539	8.0795E-04
2341	1.7550E+04	4.2120E+05	3.3703E-03	7.4400E-05	9.1219E-07	0.0996	8.0874E-04
2342	1.7558E+04	4.2138E+05	2.9152E-04	2.9152E-04	6.2657E-08	0.0068	8.0847E-04
2343	1.7565E+04	4.2156E+05	9.2593E-04	9.2593E-04	2.0847E-07	0.0228	8.0839E-04
2344	1.7573E+04	4.2174E+05	1.9595E-03	1.9595E-03	4.9408E-07	0.0539	8.0866E-04
2345	1.7580E+04	4.2192E+05	3.3746E-03	7.4637E-05	9.1337E-07	0.0997	8.0945E-04
2346	1.7588E+04	4.2210E+05	2.9203E-04	2.9203E-04	6.2785E-08	0.0069	8.0918E-04
2347	1.7595E+04	4.2228E+05	9.2723E-04	9.2723E-04	2.0878E-07	0.0228	8.0910E-04
2348	1.7603E+04	4.2246E+05	1.9620E-03	1.9621E-03	4.9474E-07	0.0540	8.0937E-04
2349	1.7610E+04	4.2264E+05	3.3789E-03	7.4874E-05	9.1454E-07	0.0998	8.1016E-04
2350	1.7618E+04	4.2282E+05	2.9254E-04	2.9254E-04	6.2914E-08	0.0069	8.0989E-04
2351	1.7625E+04	4.2300E+05	9.2854E-04	9.2854E-04	2.0909E-07	0.0228	8.0981E-04
2352	1.7633E+04	4.2318E+05	1.9646E-03	1.9646E-03	4.9541E-07	0.0541	8.1008E-04
2353	1.7640E+04	4.2336E+05	3.3832E-03	7.5111E-05	9.1572E-07	0.1000	8.1087E-04
2354	1.7648E+04	4.2354E+05	2.9306E-04	2.9306E-04	6.3043E-08	0.0069	8.1061E-04
2355	1.7655E+04	4.2372E+05	9.2985E-04	9.2985E-04	2.0940E-07	0.0229	8.1052E-04
2356	1.7663E+04	4.2390E+05	1.9672E-03	1.9672E-03	4.9607E-07	0.0542	8.1079E-04
2357	1.7670E+04	4.2408E+05	3.3875E-03	7.5349E-05	9.1690E-07	0.1001	8.1158E-04
2358	1.7678E+04	4.2426E+05	2.9357E-04	2.9357E-04	6.3172E-08	0.0069	8.1132E-04
2359	1.7685E+04	4.2444E+05	9.3115E-04	9.3115E-04	2.0971E-07	0.0229	8.1123E-04
2360	1.7693E+04	4.2462E+05	1.9698E-03	1.9698E-03	4.9674E-07	0.0542	8.1150E-04
2361	1.7700E+04	4.2480E+05	3.3918E-03	7.5587E-05	9.1808E-07	0.1002	8.1229E-04
2362	1.7708E+04	4.2498E+05	2.9409E-04	2.9409E-04	6.3301E-08	0.0069	8.1203E-04
2363	1.7715E+04	4.2516E+05	9.3246E-04	9.3246E-04	2.1003E-07	0.0229	8.1194E-04
2364	1.7723E+04	4.2534E+05	1.9724E-03	1.9724E-03	4.9740E-07	0.0543	8.1221E-04
2365	1.7730E+04	4.2552E+05	3.3961E-03	7.5825E-05	9.1966E-07	0.1004	8.1301E-04
2366	1.7738E+04	4.2570E+05	2.9461E-04	2.9461E-04	6.3430E-08	0.0069	8.1274E-04

2367	1.7745E+04	4.2588E+05	9.3377E-04	9.3377E-04	2.1034E-07	0.0230	8.1266E-04
2368	1.7753E+04	4.2606E+05	1.9750E-03	1.9750E-03	4.017E-07	0.0544	8.1293E-04
2369	1.7760E+04	4.2624E+05	3.4004E-03	7.6064E-05	9.2174E-07	0.1005	8.1372E-04
2370	1.7768E+04	4.2642E+05	2.9512E-04	2.9512E-04	6.3559E-08	0.0069	8.1345E-04
2371	1.7775E+04	4.2660E+05	9.3508E-04	9.3508E-04	2.1065E-07	0.0230	8.1337E-04
2372	1.7783E+04	4.2678E+05	1.9775E-03	1.9775E-03	4.9874E-07	0.0544	8.1364E-04
2373	1.7790E+04	4.2696E+05	3.4047E-03	7.6303E-05	9.2162E-07	0.1006	8.1443E-04
2374	1.7798E+04	4.2714E+05	2.9564E-04	2.9564E-04	6.3689E-08	0.0070	8.1417E-04
2375	1.7805E+04	4.2732E+05	9.3640E-04	9.3640E-04	2.1097E-07	0.0230	8.1408E-04
2376	1.7813E+04	4.2750E+05	1.9801E-03	1.9801E-03	4.9940E-07	0.0545	8.1435E-04
2377	1.7820E+04	4.2768E+05	3.4090E-03	7.6543E-05	9.2280E-07	0.1007	8.1514E-04
2378	1.7828E+04	4.2786E+05	2.9616E-04	2.9616E-04	6.3819E-08	0.0070	8.1488E-04
2379	1.7835E+04	4.2804E+05	9.3771E-04	9.3771E-04	2.1128E-07	0.0231	8.1480E-04
2380	1.7843E+04	4.2822E+05	1.9827E-03	1.9827E-03	5.0007E-07	0.0546	8.1507E-04
2381	1.7850E+04	4.2840E+05	3.4133E-03	7.6782E-05	9.2398E-07	0.1009	8.1586E-04
2382	1.7858E+04	4.2858E+05	2.9668E-04	2.9668E-04	6.3949E-08	0.0070	8.1559E-04
2383	1.7865E+04	4.2876E+05	9.3902E-04	9.3902E-04	2.1159E-07	0.0231	8.1551E-04
2384	1.7873E+04	4.2894E+05	1.9853E-03	1.9853E-03	5.0074E-07	0.0547	8.1578E-04
2385	1.7880E+04	4.2912E+05	3.4177E-03	7.7023E-05	9.2516E-07	0.1010	8.1657E-04
2386	1.7888E+04	4.2930E+05	2.9720E-04	2.9720E-04	6.4079E-08	0.0070	8.1631E-04
2387	1.7895E+04	4.2948E+05	9.4034E-04	9.4034E-04	2.1191E-07	0.0231	8.1622E-04
2388	1.7903E+04	4.2966E+05	1.9879E-03	1.9879E-03	5.0141E-07	0.0547	8.1650E-04
2389	1.7910E+04	4.2984E+05	3.4220E-03	7.7263E-05	9.2635E-07	0.1011	8.1729E-04
2390	1.7918E+04	4.3002E+05	2.9772E-04	2.9772E-04	6.4209E-08	0.0070	8.1702E-04
2391	1.7925E+04	4.3020E+05	9.4165E-04	9.4165E-04	2.1222E-07	0.0232	8.1694E-04
2392	1.7933E+04	4.3038E+05	1.9905E-03	1.9905E-03	5.0208E-07	0.0548	8.1721E-04
2393	1.7940E+04	4.3056E+05	3.4263E-03	7.7504E-05	9.2753E-07	0.1013	8.1800E-04
2394	1.7948E+04	4.3074E+05	2.9824E-04	2.9824E-04	6.4339E-08	0.0070	8.1774E-04
2395	1.7955E+04	4.3092E+05	9.4297E-04	9.4297E-04	2.1254E-07	0.0232	8.1765E-04
2396	1.7963E+04	4.3110E+05	1.9931E-03	1.9931E-03	5.0275E-07	0.0549	8.1793E-04
2397	1.7970E+04	4.3128E+05	3.4306E-03	7.7746E-05	9.2872E-07	0.1014	8.1872E-04
2398	1.7978E+04	4.3146E+05	2.9876E-04	2.9876E-04	6.4470E-08	0.0070	8.1845E-04
2399	1.7985E+04	4.3164E+05	9.4429E-04	9.4429E-04	2.1285E-07	0.0232	8.1837E-04
2400	1.7993E+04	4.3182E+05	1.9957E-03	1.9957E-03	5.0342E-07	0.0550	8.1864E-04
2401	1.8000E+04	4.3200E+05	3.4350E-03	7.7988E-05	9.2990E-07	0.1015	8.1943E-04
2402	1.8008E+04	4.3218E+05	2.9928E-04	2.9928E-04	6.4600E-08	0.0071	8.1917E-04
2403	1.8015E+04	4.3236E+05	9.4561E-04	9.4561E-04	2.1317E-07	0.0233	8.1909E-04
2404	1.8023E+04	4.3254E+05	1.9983E-03	1.9983E-03	5.0409E-07	0.0550	8.1936E-04
2405	1.8030E+04	4.3272E+05	3.4393E-03	7.8230E-05	9.3109E-07	0.1016	8.2015E-04
2406	1.8038E+04	4.3290E+05	2.9980E-04	2.9980E-04	6.4731E-08	0.0071	8.1988E-04
2407	1.8045E+04	4.3308E+05	9.4693E-04	9.4693E-04	2.1348E-07	0.0233	8.1980E-04
2408	1.8053E+04	4.3326E+05	2.0009E-03	2.0009E-03	5.0476E-07	0.0551	8.2007E-04
2409	1.8060E+04	4.3344E+05	3.4436E-03	7.8472E-05	9.3228E-07	0.1018	8.2086E-04
2410	1.8068E+04	4.3362E+05	3.0032E-04	3.0032E-04	6.4862E-08	0.0071	8.2060E-04
2411	1.8075E+04	4.3380E+05	9.4825E-04	9.4825E-04	2.1380E-07	0.0233	8.2052E-04
2412	1.8083E+04	4.3398E+05	2.0035E-03	2.0035E-03	5.0544E-07	0.0552	8.2079E-04
2413	1.8090E+04	4.3416E+05	3.4480E-03	7.8715E-05	9.3347E-07	0.1019	8.2158E-04
2414	1.8098E+04	4.3434E+05	3.0085E-04	3.0085E-04	6.4994E-08	0.0071	8.2132E-04
2415	1.8105E+04	4.3452E+05	9.4957E-04	9.4957E-04	2.1411E-07	0.0234	8.2124E-04
2416	1.8113E+04	4.3470E+05	2.0061E-03	2.0061E-03	5.0611E-07	0.0553	8.2151E-04
2417	1.8120E+04	4.3488E+05	3.4523E-03	7.8959E-05	9.3466E-07	0.1020	8.2230E-04
2418	1.8128E+04	4.3506E+05	3.0137E-04	3.0137E-04	6.5125E-08	0.0071	8.2204E-04
2419	1.8135E+04	4.3524E+05	9.5089E-04	9.5090E-04	2.1443E-07	0.0234	8.2195E-04
2420	1.8143E+04	4.3542E+05	2.0087E-03	2.0087E-03	5.0678E-07	0.0553	8.2223E-04
2421	1.8150E+04	4.3560E+05	3.4566E-03	7.9202E-05	9.3585E-07	0.1022	8.2302E-04
2422	1.8158E+04	4.3578E+05	3.0189E-04	3.0190E-04	6.5256E-08	0.0071	8.2275E-04
2423	1.8165E+04	4.3596E+05	9.5222E-04	9.5222E-04	2.1475E-07	0.0234	8.2267E-04
2424	1.8173E+04	4.3614E+05	2.0113E-03	2.0113E-03	5.0746E-07	0.0554	8.2294E-04
2425	1.8180E+04	4.3632E+05	3.4610E-03	7.9446E-05	9.3704E-07	0.1023	8.2373E-04
2426	1.8188E+04	4.3650E+05	3.0242E-04	3.0242E-04	6.5388E-08	0.0071	8.2347E-04
2427	1.8195E+04	4.3668E+05	9.5354E-04	9.5355E-04	2.1506E-07	0.0235	8.2339E-04
2428	1.8203E+04	4.3686E+05	2.0139E-03	2.0139E-03	5.0813E-07	0.0555	8.2366E-04
2429	1.8210E+04	4.3704E+05	3.4653E-03	7.9691E-05	9.3823E-07	0.1024	8.2445E-04
2430	1.8218E+04	4.3722E+05	3.0295E-04	3.0295E-04	6.5520E-08	0.0072	8.2419E-04
2431	1.8225E+04	4.3740E+05	9.5487E-04	9.5487E-04	2.1538E-07	0.0235	8.2411E-04
2432	1.8233E+04	4.3758E+05	2.0165E-03	2.0165E-03	5.0880E-07	0.0555	8.2438E-04

2433	1.8240E+04	4.3776E+05	3.4697E-03	7.9935E-05	9.3942E-07	0.1026	8.2517E-04
2434	1.8248E+04	4.3794E+05	3.0347E-04	3.0347E-04	6.5652E-08	0.0072	8.2491E-04
2435	1.8255E+04	4.3812E+05	9.5620E-04	9.5620E-04	2.1570E-07	0.0235	8.2483E-04
2436	1.8263E+04	4.3830E+05	2.0192E-03	2.0192E-03	5.0948E-07	0.0556	8.2510E-04
2437	1.8270E+04	4.3848E+05	3.4740E-03	8.0180E-05	9.4062E-07	0.1027	8.2589E-04
2438	1.8278E+04	4.3866E+05	3.0400E-04	3.0400E-04	6.5784E-08	0.0072	8.2563E-04
2439	1.8285E+04	4.3884E+05	9.5753E-04	9.5753E-04	2.1601E-07	0.0236	8.2555E-04
2440	1.8293E+04	4.3902E+05	2.0218E-03	2.0218E-03	5.1015E-07	0.0557	8.2582E-04
2441	1.8300E+04	4.3920E+05	3.4784E-03	8.0426E-05	9.4181E-07	0.1028	8.2661E-04
2442	1.8308E+04	4.3938E+05	3.0452E-04	3.0453E-04	6.5916E-08	0.0072	8.2635E-04
2443	1.8315E+04	4.3956E+05	9.5886E-04	9.5886E-04	2.1633E-07	0.0236	8.2627E-04
2444	1.8323E+04	4.3974E+05	2.0244E-03	2.0244E-03	5.1083E-07	0.0558	8.2654E-04
2445	1.8330E+04	4.3992E+05	3.4828E-03	8.0672E-05	9.4300E-07	0.1029	8.2733E-04
2446	1.8338E+04	4.4010E+05	3.0505E-04	3.0505E-04	6.6049E-08	0.0072	8.2707E-04
2447	1.8345E+04	4.4028E+05	9.6019E-04	9.6019E-04	2.1665E-07	0.0237	8.2699E-04
2448	1.8353E+04	4.4046E+05	2.0270E-03	2.0270E-03	5.1151E-07	0.0558	8.2726E-04
2449	1.8360E+04	4.4064E+05	3.4871E-03	8.0918E-05	9.4420E-07	0.1031	8.2805E-04
2450	1.8368E+04	4.4082E+05	3.0558E-04	3.0558E-04	6.6181E-08	0.0072	8.2779E-04
2451	1.8375E+04	4.4100E+05	9.6152E-04	9.6152E-04	2.1697E-07	0.0237	8.2771E-04
2452	1.8383E+04	4.4118E+05	2.0296E-03	2.0296E-03	5.1218E-07	0.0559	8.2798E-04
2453	1.8390E+04	4.4136E+05	3.4915E-03	8.1165E-05	9.4540E-07	0.1032	8.2877E-04
2454	1.8398E+04	4.4154E+05	3.0611E-04	3.0611E-04	6.6314E-08	0.0072	8.2851E-04
2455	1.8405E+04	4.4172E+05	9.6285E-04	9.6285E-04	2.1729E-07	0.0237	8.2843E-04
2456	1.8413E+04	4.4190E+05	2.0323E-03	2.0323E-03	5.1286E-07	0.0560	8.2871E-04
2457	1.8420E+04	4.4208E+05	3.4958E-03	8.1412E-05	9.4659E-07	0.1033	8.2949E-04
2458	1.8428E+04	4.4226E+05	3.0664E-04	3.0664E-04	6.6447E-08	0.0073	8.2923E-04
2459	1.8435E+04	4.4244E+05	9.6419E-04	9.6419E-04	2.1761E-07	0.0238	8.2916E-04
2460	1.8443E+04	4.4262E+05	2.0349E-03	2.0349E-03	5.1354E-07	0.0561	8.2943E-04
2461	1.8450E+04	4.4280E+05	3.5002E-03	8.1659E-05	9.4779E-07	0.1035	8.3022E-04
2462	1.8458E+04	4.4298E+05	3.0717E-04	3.0717E-04	6.6580E-08	0.0073	8.2996E-04
2463	1.8465E+04	4.4316E+05	9.6552E-04	9.6552E-04	2.1793E-07	0.0238	8.2988E-04
2464	1.8473E+04	4.4334E+05	2.0375E-03	2.0375E-03	5.1422E-07	0.0561	8.3015E-04
2465	1.8480E+04	4.4352E+05	3.5046E-03	8.1907E-05	9.4899E-07	0.1036	8.3094E-04
2466	1.8488E+04	4.4370E+05	3.0770E-04	3.0770E-04	6.6713E-08	0.0073	8.3068E-04
2467	1.8495E+04	4.4388E+05	9.6686E-04	9.6686E-04	2.1825E-07	0.0238	8.3060E-04
2468	1.8503E+04	4.4406E+05	2.0401E-03	2.0401E-03	5.1490E-07	0.0562	8.3087E-04
2469	1.8510E+04	4.4424E+05	3.5090E-03	8.2155E-05	9.5019E-07	0.1037	8.3166E-04
2470	1.8518E+04	4.4442E+05	3.0823E-04	3.0823E-04	6.6847E-08	0.0073	8.3140E-04
2471	1.8525E+04	4.4460E+05	9.6819E-04	9.6819E-04	2.1857E-07	0.0239	8.3132E-04
2472	1.8533E+04	4.4478E+05	2.0428E-03	2.0428E-03	5.1558E-07	0.0563	8.3160E-04
2473	1.8540E+04	4.4496E+05	3.5133E-03	8.2404E-05	9.5139E-07	0.1039	8.3238E-04
2474	1.8548E+04	4.4514E+05	3.0876E-04	3.0876E-04	6.6980E-08	0.0073	8.3213E-04
2475	1.8555E+04	4.4532E+05	9.6953E-04	9.6953E-04	2.1889E-07	0.0239	8.3205E-04
2476	1.8563E+04	4.4550E+05	2.0454E-03	2.0454E-03	5.1626E-07	0.0564	8.3232E-04
2477	1.8570E+04	4.4568E+05	3.5177E-03	8.2652E-05	9.5259E-07	0.1040	8.3311E-04
2478	1.8578E+04	4.4586E+05	3.0929E-04	3.0929E-04	6.7114E-08	0.0073	8.3285E-04
2479	1.8585E+04	4.4604E+05	9.7087E-04	9.7087E-04	2.1921E-07	0.0239	8.3277E-04
2480	1.8593E+04	4.4622E+05	2.0480E-03	2.0480E-03	5.1694E-07	0.0564	8.3304E-04
2481	1.8600E+04	4.4640E+05	3.5221E-03	8.2902E-05	9.5379E-07	0.1041	8.3383E-04
2482	1.8608E+04	4.4658E+05	3.0983E-04	3.0983E-04	6.7248E-08	0.0073	8.3357E-04
2483	1.8615E+04	4.4676E+05	9.7221E-04	9.7221E-04	2.1953E-07	0.0240	8.3350E-04
2484	1.8623E+04	4.4694E+05	2.0507E-03	2.0507E-03	5.1762E-07	0.0565	8.3377E-04
2485	1.8630E+04	4.4712E+05	3.5265E-03	8.3151E-05	9.5499E-07	0.1043	8.3456E-04
2486	1.8638E+04	4.4730E+05	3.1036E-04	3.1036E-04	6.7382E-08	0.0074	8.3430E-04
2487	1.8645E+04	4.4748E+05	9.7355E-04	9.7355E-04	2.1985E-07	0.0240	8.3422E-04
2488	1.8653E+04	4.4766E+05	2.0533E-03	2.0533E-03	5.1830E-07	0.0566	8.3449E-04
2489	1.8660E+04	4.4784E+05	3.5309E-03	8.3401E-05	9.5620E-07	0.1044	8.3528E-04
2490	1.8668E+04	4.4802E+05	3.1089E-04	3.1089E-04	6.7516E-08	0.0074	8.3502E-04
2491	1.8675E+04	4.4820E+05	9.7489E-04	9.7489E-04	2.2017E-07	0.0240	8.3495E-04
2492	1.8683E+04	4.4838E+05	2.0560E-03	2.0560E-03	5.1898E-07	0.0567	8.3522E-04
2493	1.8690E+04	4.4856E+05	3.5353E-03	8.3652E-05	9.5740E-07	0.1045	8.3601E-04
2494	1.8698E+04	4.4874E+05	3.1143E-04	3.1143E-04	6.7650E-08	0.0074	8.3575E-04
2495	1.8705E+04	4.4892E+05	9.7624E-04	9.7624E-04	2.2049E-07	0.0241	8.3567E-04
2496	1.8713E+04	4.4910E+05	2.0586E-03	2.0586E-03	5.1966E-07	0.0567	8.3594E-04
2497	1.8720E+04	4.4928E+05	3.5397E-03	8.3902E-05	9.5911E-07	0.1047	8.3673E-04
2498	1.8728E+04	4.4946E+05	3.1196E-04	3.1196E-04	6.7785E-08	0.0074	8.3647E-04

2499	1.8735E+04	4.4964E+05	9.7758E-04	9.7758E-04	2.2081E-07	0.0241	8.3640E-04
2500	1.8743E+04	4.4982E+05	2.0612E-03	2.0612E-03	5.5055E-07	0.0568	8.3667E-04
2501	1.8750E+04	4.5000E+05	3.5441E-03	8.4154E-05	9.5001E-07	0.1048	8.3746E-04
2502	1.8758E+04	4.5018E+05	3.1250E-04	3.1250E-04	6.7920E-08	0.0074	8.3720E-04
2503	1.8765E+04	4.5036E+05	9.7893E-04	9.7893E-04	2.2113E-07	0.0241	8.3712E-04
2504	1.8773E+04	4.5054E+05	2.0639E-03	2.0639E-03	5.2103E-07	0.0569	8.3740E-04
2505	1.8780E+04	4.5072E+05	3.5485E-03	8.4405E-05	9.6102E-07	0.1049	8.3818E-04
2506	1.8788E+04	4.5090E+05	3.1303E-04	3.1303E-04	6.8054E-08	0.0074	8.3793E-04
2507	1.8795E+04	4.5108E+05	9.8027E-04	9.8027E-04	2.2146E-07	0.0242	8.3785E-04
2508	1.8803E+04	4.5126E+05	2.0665E-03	2.0665E-03	5.2171E-07	0.0570	8.3812E-04
2509	1.8810E+04	4.5144E+05	3.5529E-03	8.4657E-05	9.6223E-07	0.1050	8.3891E-04
2510	1.8818E+04	4.5162E+05	3.1357E-04	3.1357E-04	6.8189E-08	0.0074	8.3866E-04
2511	1.8825E+04	4.5180E+05	9.8162E-04	9.8162E-04	2.2178E-07	0.0242	8.3858E-04
2512	1.8833E+04	4.5198E+05	2.0692E-03	2.0692E-03	5.2240E-07	0.0570	8.3885E-04
2513	1.8840E+04	4.5216E+05	3.5573E-03	8.4909E-05	9.6344E-07	0.1052	8.3964E-04
2514	1.8848E+04	4.5234E+05	3.1411E-04	3.1411E-04	6.8325E-08	0.0075	8.3938E-04
2515	1.8855E+04	4.5252E+05	9.8297E-04	9.8297E-04	2.2210E-07	0.0242	8.3931E-04
2516	1.8863E+04	4.5270E+05	2.0718E-03	2.0718E-03	5.2308E-07	0.0571	8.3958E-04
2517	1.8870E+04	4.5288E+05	3.5617E-03	8.5162E-05	9.6464E-07	0.1053	8.4037E-04
2518	1.8878E+04	4.5306E+05	3.1464E-04	3.1465E-04	6.8460E-08	0.0075	8.4011E-04
2519	1.8885E+04	4.5324E+05	9.8432E-04	9.8432E-04	2.2243E-07	0.0243	8.4004E-04
2520	1.8893E+04	4.5342E+05	2.0745E-03	2.0745E-03	5.2377E-07	0.0572	8.4031E-04
2521	1.8900E+04	4.5360E+05	3.5661E-03	8.5415E-05	9.6585E-07	0.1054	8.4109E-04
2522	1.8908E+04	4.5378E+05	3.1518E-04	3.1518E-04	6.8595E-08	0.0075	8.4084E-04
2523	1.8915E+04	4.5396E+05	9.8567E-04	9.8567E-04	2.2275E-07	0.0243	8.4076E-04
2524	1.8923E+04	4.5414E+05	2.0771E-03	2.0771E-03	5.2445E-07	0.0573	8.4104E-04
2525	1.8930E+04	4.5432E+05	3.5705E-03	8.5668E-05	9.6706E-07	0.1056	8.4182E-04
2526	1.8938E+04	4.5450E+05	3.1572E-04	3.1572E-04	6.8731E-08	0.0075	8.4157E-04
2527	1.8945E+04	4.5468E+05	9.8702E-04	9.8702E-04	2.2307E-07	0.0244	8.4149E-04
2528	1.8953E+04	4.5486E+05	2.0798E-03	2.0798E-03	5.2514E-07	0.0573	8.4177E-04
2529	1.8960E+04	4.5504E+05	3.5749E-03	8.5922E-05	9.6827E-07	0.1057	8.4255E-04
2530	1.8968E+04	4.5522E+05	3.1626E-04	3.1626E-04	6.8867E-08	0.0075	8.4230E-04
2531	1.8975E+04	4.5540E+05	9.8837E-04	9.8837E-04	2.2340E-07	0.0244	8.4222E-04
2532	1.8983E+04	4.5558E+05	2.0824E-03	2.0824E-03	5.2583E-07	0.0574	8.4250E-04
2533	1.8990E+04	4.5576E+05	3.5794E-03	8.6176E-05	9.6949E-07	0.1058	8.4328E-04
2534	1.8998E+04	4.5594E+05	3.1680E-04	3.1680E-04	6.9003E-08	0.0075	8.4303E-04
2535	1.9005E+04	4.5612E+05	9.8973E-04	9.8973E-04	2.2372E-07	0.0244	8.4295E-04
2536	1.9013E+04	4.5630E+05	2.0851E-03	2.0851E-03	5.2651E-07	0.0575	8.4323E-04
2537	1.9020E+04	4.5648E+05	3.5838E-03	8.6430E-05	9.7070E-07	0.1060	8.4401E-04
2538	1.9028E+04	4.5666E+05	3.1734E-04	3.1734E-04	6.9139E-08	0.0075	8.4376E-04
2539	1.9035E+04	4.5684E+05	9.9108E-04	9.9108E-04	2.2404E-07	0.0245	8.4368E-04
2540	1.9043E+04	4.5702E+05	2.0878E-03	2.0878E-03	5.2720E-07	0.0576	8.4396E-04
2541	1.9050E+04	4.5720E+05	3.5882E-03	8.6685E-05	9.7191E-07	0.1061	8.4474E-04
2542	1.9058E+04	4.5738E+05	3.1788E-04	3.1788E-04	6.9275E-08	0.0076	8.4449E-04
2543	1.9065E+04	4.5756E+05	9.9244E-04	9.9244E-04	2.2437E-07	0.0245	8.4441E-04
2544	1.9073E+04	4.5774E+05	2.0904E-03	2.0904E-03	5.2789E-07	0.0576	8.4469E-04
2545	1.9080E+04	4.5792E+05	3.5926E-03	8.6940E-05	9.7313E-07	0.1062	8.4547E-04
2546	1.9088E+04	4.5810E+05	3.1842E-04	3.1842E-04	6.9412E-08	0.0076	8.4522E-04
2547	1.9095E+04	4.5828E+05	9.9379E-04	9.9379E-04	2.2469E-07	0.0245	8.4514E-04
2548	1.9103E+04	4.5846E+05	2.0931E-03	2.0931E-03	5.2858E-07	0.0577	8.4542E-04
2549	1.9110E+04	4.5864E+05	3.5971E-03	8.7196E-05	9.7434E-07	0.1064	8.4620E-04
2550	1.9118E+04	4.5882E+05	3.1897E-04	3.1897E-04	6.9548E-08	0.0076	8.4595E-04
2551	1.9125E+04	4.5900E+05	9.9515E-04	9.9515E-04	2.2502E-07	0.0246	8.4588E-04
2552	1.9133E+04	4.5918E+05	2.0958E-03	2.0958E-03	5.2927E-07	0.0578	8.4615E-04
2553	1.9140E+04	4.5936E+05	3.6015E-03	8.7452E-05	9.7556E-07	0.1065	8.4693E-04
2554	1.9148E+04	4.5954E+05	3.1951E-04	3.1951E-04	6.9685E-08	0.0076	8.4668E-04
2555	1.9155E+04	4.5972E+05	9.9651E-04	9.9651E-04	2.2535E-07	0.0246	8.4661E-04
2556	1.9163E+04	4.5990E+05	2.0984E-03	2.0984E-03	5.2996E-07	0.0579	8.4688E-04
2557	1.9170E+04	4.6008E+05	3.6059E-03	8.7708E-05	9.7677E-07	0.1066	8.4767E-04
2558	1.9178E+04	4.6026E+05	3.2005E-04	3.2005E-04	6.9822E-08	0.0076	8.4741E-04
2559	1.9185E+04	4.6044E+05	9.9787E-04	9.9787E-04	2.2567E-07	0.0246	8.4734E-04
2560	1.9193E+04	4.6062E+05	2.1011E-03	2.1011E-03	5.3065E-07	0.0579	8.4761E-04
2561	1.9200E+04	4.6080E+05	3.6104E-03	8.7965E-05	9.7795E-07	0.1068	8.4840E-04
2562	1.9208E+04	4.6098E+05	3.2060E-04	3.2060E-04	6.9959E-08	0.0076	8.4815E-04
2563	1.9215E+04	4.6116E+05	9.9923E-04	9.9923E-04	2.2600E-07	0.0247	8.4807E-04
2564	1.9223E+04	4.6134E+05	2.1038E-03	2.1038E-03	5.3134E-07	0.0580	8.4835E-04

2565	1.9230E+04	4.6152E+05	3.6148E-03	8.8222E-05	9.7921E-07	0.1069	8.4913E-04
2566	1.9238E+04	4.6170E+05	3.2114E-04	3.2114E-04	7.0096E-08	0.0077	8.4888E-04
2567	1.9245E+04	4.6188E+05	1.0006E-03	1.0006E-03	2.2632E-07	0.0247	8.4881E-04
2568	1.9253E+04	4.6206E+05	2.1064E-03	2.1064E-03	5.3203E-07	0.0581	8.4908E-04
2569	1.9260E+04	4.6224E+05	3.6193E-03	8.8480E-05	9.8043E-07	0.1070	8.4986E-04
2570	1.9268E+04	4.6242E+05	3.2169E-04	3.2169E-04	7.0234E-08	0.0077	8.4961E-04
2571	1.9275E+04	4.6260E+05	1.0020E-03	1.0020E-03	2.2665E-07	0.0247	8.4954E-04
2572	1.9283E+04	4.6278E+05	2.1091E-03	2.1091E-03	5.3272E-07	0.0582	8.4981E-04
2573	1.9290E+04	4.6296E+05	3.6237E-03	8.8737E-05	9.8165E-07	0.1072	8.5060E-04
2574	1.9298E+04	4.6314E+05	3.2223E-04	3.2223E-04	7.0371E-08	0.0077	8.5035E-04
2575	1.9305E+04	4.6332E+05	1.0033E-03	1.0033E-03	2.2698E-07	0.0248	8.5027E-04
2576	1.9313E+04	4.6350E+05	2.1118E-03	2.1118E-03	5.3341E-07	0.0582	8.5055E-04
2577	1.9320E+04	4.6368E+05	3.6282E-03	8.8996E-05	9.8287E-07	0.1073	8.5133E-04
2578	1.9328E+04	4.6386E+05	3.2278E-04	3.2278E-04	7.0509E-08	0.0077	8.5108E-04
2579	1.9335E+04	4.6404E+05	1.0047E-03	1.0047E-03	2.2730E-07	0.0248	8.5101E-04
2580	1.9343E+04	4.6422E+05	2.1145E-03	2.1145E-03	5.3410E-07	0.0583	8.5128E-04
2581	1.9350E+04	4.6440E+05	3.6326E-03	8.9254E-05	9.8409E-07	0.1074	8.5206E-04
2582	1.9358E+04	4.6458E+05	3.2332E-04	3.2332E-04	7.0647E-08	0.0077	8.5181E-04
2583	1.9365E+04	4.6476E+05	1.0061E-03	1.0061E-03	2.2763E-07	0.0249	8.5174E-04
2584	1.9373E+04	4.6494E+05	2.1172E-03	2.1172E-03	5.3480E-07	0.0584	8.5202E-04
2585	1.9380E+04	4.6512E+05	3.6371E-03	8.9513E-05	9.8531E-07	0.1076	8.5280E-04
2586	1.9388E+04	4.6530E+05	3.2387E-04	3.2387E-04	7.0785E-08	0.0077	8.5255E-04
2587	1.9395E+04	4.6548E+05	1.0074E-03	1.0074E-03	2.2796E-07	0.0249	8.5248E-04
2588	1.9403E+04	4.6566E+05	2.1198E-03	2.1198E-03	5.3549E-07	0.0585	8.5275E-04
2589	1.9410E+04	4.6584E+05	3.6415E-03	8.9772E-05	9.8653E-07	0.1077	8.5354E-04
2590	1.9418E+04	4.6602E+05	3.2442E-04	3.2442E-04	7.0923E-08	0.0077	8.5328E-04
2591	1.9425E+04	4.6620E+05	1.0088E-03	1.0088E-03	2.2829E-07	0.0249	8.5321E-04
2592	1.9433E+04	4.6638E+05	2.1225E-03	2.1225E-03	5.3618E-07	0.0585	8.5349E-04
2593	1.9440E+04	4.6656E+05	3.6460E-03	9.0032E-05	9.8776E-07	0.1078	8.5427E-04
2594	1.9448E+04	4.6674E+05	3.2497E-04	3.2497E-04	7.1061E-08	0.0078	8.5402E-04
2595	1.9455E+04	4.6692E+05	1.0102E-03	1.0102E-03	2.2862E-07	0.0250	8.5395E-04
2596	1.9463E+04	4.6710E+05	2.1252E-03	2.1252E-03	5.3688E-07	0.0586	8.5422E-04
2597	1.9470E+04	4.6728E+05	3.6504E-03	9.0292E-05	9.8898E-07	0.1080	8.5501E-04
2598	1.9478E+04	4.6746E+05	3.2552E-04	3.2552E-04	7.1200E-08	0.0078	8.5476E-04
2599	1.9485E+04	4.6764E+05	1.0115E-03	1.0115E-03	2.2895E-07	0.0250	8.5469E-04
2600	1.9493E+04	4.6782E+05	2.1279E-03	2.1279E-03	5.3757E-07	0.0587	8.5496E-04
2601	1.9500E+04	4.6800E+05	3.6549E-03	9.0553E-05	9.9021E-07	0.1081	8.5574E-04
2602	1.9508E+04	4.6818E+05	3.2606E-04	3.2607E-04	7.1339E-08	0.0078	8.5549E-04
2603	1.9515E+04	4.6836E+05	1.0129E-03	1.0129E-03	2.2927E-07	0.0250	8.5542E-04
2604	1.9523E+04	4.6854E+05	2.1306E-03	2.1306E-03	5.3827E-07	0.0588	8.5570E-04
2605	1.9530E+04	4.6872E+05	3.6594E-03	9.0814E-05	9.9143E-07	0.1082	8.5648E-04
2606	1.9538E+04	4.6890E+05	3.2661E-04	3.2662E-04	7.1477E-08	0.0078	8.5623E-04
2607	1.9545E+04	4.6908E+05	1.0143E-03	1.0143E-03	2.2960E-07	0.0251	8.5616E-04
2608	1.9553E+04	4.6926E+05	2.1333E-03	2.1333E-03	5.3896E-07	0.0588	8.5643E-04
2609	1.9560E+04	4.6944E+05	3.6639E-03	9.1075E-05	9.9266E-07	0.1084	8.5722E-04
2610	1.9568E+04	4.6962E+05	3.2717E-04	3.2717E-04	7.1616E-08	0.0078	8.5697E-04
2611	1.9575E+04	4.6980E+05	1.0156E-03	1.0156E-03	2.2993E-07	0.0251	8.5690E-04
2612	1.9583E+04	4.6998E+05	2.1360E-03	2.1360E-03	5.3966E-07	0.0589	8.5717E-04
2613	1.9590E+04	4.7016E+05	3.6683E-03	9.1336E-05	9.9389E-07	0.1085	8.5796E-04
2614	1.9598E+04	4.7034E+05	3.2772E-04	3.2772E-04	7.1756E-08	0.0078	8.5771E-04
2615	1.9605E+04	4.7052E+05	1.0170E-03	1.0170E-03	2.3026E-07	0.0251	8.5764E-04
2616	1.9613E+04	4.7070E+05	2.1387E-03	2.1387E-03	5.4036E-07	0.0590	8.5791E-04
2617	1.9620E+04	4.7088E+05	3.6728E-03	9.1598E-05	9.9511E-07	0.1086	8.5869E-04
2618	1.9628E+04	4.7106E+05	3.2827E-04	3.2827E-04	7.1895E-08	0.0078	8.5844E-04
2619	1.9635E+04	4.7124E+05	1.0184E-03	1.0184E-03	2.3059E-07	0.0252	8.5837E-04
2620	1.9643E+04	4.7142E+05	2.1414E-03	2.1414E-03	5.4105E-07	0.0591	8.5865E-04
2621	1.9650E+04	4.7160E+05	3.6773E-03	9.1861E-05	9.9634E-07	0.1088	8.5943E-04
2622	1.9658E+04	4.7178E+05	3.2882E-04	3.2882E-04	7.2034E-08	0.0079	8.5918E-04
2623	1.9665E+04	4.7196E+05	1.0198E-03	1.0198E-03	2.3092E-07	0.0252	8.5911E-04
2624	1.9673E+04	4.7214E+05	2.1441E-03	2.1441E-03	5.4175E-07	0.0591	8.5939E-04
2625	1.9680E+04	4.7232E+05	3.6818E-03	9.2123E-05	9.9757E-07	0.1089	8.6017E-04
2626	1.9688E+04	4.7250E+05	3.2937E-04	3.2937E-04	7.2174E-08	0.0079	8.5992E-04
2627	1.9695E+04	4.7268E+05	1.0211E-03	1.0211E-03	2.3125E-07	0.0252	8.5985E-04
2628	1.9703E+04	4.7286E+05	2.1468E-03	2.1468E-03	5.4245E-07	0.0592	8.6013E-04
2629	1.9710E+04	4.7304E+05	3.6863E-03	9.2386E-05	9.9900E-07	0.1090	8.6091E-04
2630	1.9718E+04	4.7322E+05	3.2993E-04	3.2993E-04	7.2314E-08	0.0079	8.6066E-04

2631	1.9725E+04	4.7340E+05	1.0225E-03	1.0225E-03	2.3158E-07	0.0253	8.6059E-04
2632	1.9733E+04	4.7358E+05	2.1495E-03	2.1495E-03	5.005E-07	0.0593	8.6087E-04
2633	1.9740E+04	4.7376E+05	3.6907E-03	3.6907E-03	9.2650E-05	1.0000E-06	8.6165E-04
2634	1.9748E+04	4.7394E+05	3.3048E-04	3.3048E-04	7.2454E-08	0.0079	8.6140E-04
2635	1.9755E+04	4.7412E+05	1.0239E-03	1.0239E-03	2.3192E-07	0.0253	8.6133E-04
2636	1.9763E+04	4.7430E+05	2.1522E-03	2.1522E-03	5.4385E-07	0.0594	8.6161E-04
2637	1.9770E+04	4.7448E+05	3.6952E-03	3.6952E-03	9.2914E-05	1.0013E-06	8.6239E-04
2638	1.9778E+04	4.7466E+05	3.3103E-04	3.3104E-04	7.2594E-08	0.0079	8.6214E-04
2639	1.9785E+04	4.7484E+05	1.0253E-03	1.0253E-03	2.3225E-07	0.0254	8.6207E-04
2640	1.9793E+04	4.7502E+05	2.1549E-03	2.1549E-03	5.4455E-07	0.0594	8.6235E-04
2641	1.9800E+04	4.7520E+05	3.6997E-03	3.6997E-03	9.3178E-05	1.0025E-06	8.6313E-04
2642	1.9808E+04	4.7538E+05	3.3159E-04	3.3159E-04	7.2734E-08	0.0079	8.6288E-04
2643	1.9815E+04	4.7556E+05	1.0267E-03	1.0267E-03	2.3258E-07	0.0254	8.6281E-04
2644	1.9823E+04	4.7574E+05	2.1576E-03	2.1576E-03	5.4525E-07	0.0595	8.6309E-04
2645	1.9830E+04	4.7592E+05	3.7042E-03	3.7042E-03	9.3442E-05	1.0037E-06	8.6387E-04
2646	1.9838E+04	4.7610E+05	3.3215E-04	3.3215E-04	7.2874E-08	0.0080	8.6362E-04
2647	1.9845E+04	4.7628E+05	1.0280E-03	1.0281E-03	2.3291E-07	0.0254	8.6355E-04
2648	1.9853E+04	4.7646E+05	2.1603E-03	2.1603E-03	5.4595E-07	0.0596	8.6383E-04
2649	1.9860E+04	4.7664E+05	3.7087E-03	3.7087E-03	9.3707E-05	1.0050E-06	8.6461E-04
2650	1.9868E+04	4.7682E+05	3.3270E-04	3.3270E-04	7.3015E-08	0.0080	8.6437E-04
2651	1.9875E+04	4.7700E+05	1.0294E-03	1.0294E-03	2.3324E-07	0.0255	8.6430E-04
2652	1.9883E+04	4.7718E+05	2.1630E-03	2.1630E-03	5.4665E-07	0.0597	8.6457E-04
2653	1.9890E+04	4.7736E+05	3.7132E-03	3.7132E-03	9.3973E-05	1.0062E-06	8.6535E-04
2654	1.9898E+04	4.7754E+05	3.3326E-04	3.3326E-04	7.3156E-08	0.0080	8.6511E-04
2655	1.9905E+04	4.7772E+05	1.0308E-03	1.0308E-03	2.3357E-07	0.0255	8.6504E-04
2656	1.9913E+04	4.7790E+05	2.1657E-03	2.1657E-03	5.4735E-07	0.0598	8.6531E-04
2657	1.9920E+04	4.7808E+05	3.7177E-03	3.7177E-03	9.4238E-05	1.0074E-06	8.6610E-04
2658	1.9928E+04	4.7826E+05	3.3381E-04	3.3382E-04	7.3297E-08	0.0080	8.6585E-04
2659	1.9935E+04	4.7844E+05	1.0322E-03	1.0322E-03	2.3391E-07	0.0255	8.6578E-04
2660	1.9943E+04	4.7862E+05	2.1684E-03	2.1684E-03	5.4805E-07	0.0598	8.6606E-04
2661	1.9950E+04	4.7880E+05	3.7222E-03	3.7222E-03	9.4504E-05	1.0087E-06	8.6684E-04
2662	1.9958E+04	4.7898E+05	3.3437E-04	3.3437E-04	7.3438E-08	0.0080	8.6659E-04
2663	1.9965E+04	4.7916E+05	1.0336E-03	1.0336E-03	2.3424E-07	0.0256	8.6652E-04
2664	1.9973E+04	4.7934E+05	2.1711E-03	2.1711E-03	5.4876E-07	0.0599	8.6680E-04
2665	1.9980E+04	4.7952E+05	3.7267E-03	3.7267E-03	9.4771E-05	1.0099E-06	8.6758E-04
2666	1.9988E+04	4.7970E+05	3.3493E-04	3.3493E-04	7.3579E-08	0.0080	8.6734E-04
2667	1.9995E+04	4.7988E+05	1.0350E-03	1.0350E-03	2.3457E-07	0.0256	8.6727E-04
2668	2.0003E+04	4.8006E+05	2.1739E-03	2.1739E-03	5.4946E-07	0.0600	8.6754E-04
2669	2.0010E+04	4.8024E+05	3.7313E-03	3.7313E-03	9.5037E-05	1.0112E-06	8.6833E-04
2670	2.0018E+04	4.8042E+05	3.3549E-04	3.3549E-04	7.3720E-08	0.0080	8.6808E-04
2671	2.0025E+04	4.8060E+05	1.0364E-03	1.0364E-03	2.3491E-07	0.0256	8.6801E-04
2672	2.0033E+04	4.8078E+05	2.1766E-03	2.1766E-03	5.5016E-07	0.0601	8.6829E-04
2673	2.0040E+04	4.8096E+05	3.7358E-03	3.7358E-03	9.5305E-05	1.0124E-06	8.6907E-04
2674	2.0048E+04	4.8114E+05	3.3605E-04	3.3605E-04	7.3862E-08	0.0081	8.6882E-04
2675	2.0055E+04	4.8132E+05	1.0378E-03	1.0378E-03	2.3524E-07	0.0257	8.6876E-04
2676	2.0063E+04	4.8150E+05	2.1793E-03	2.1793E-03	5.5087E-07	0.0601	8.6903E-04
2677	2.0070E+04	4.8168E+05	3.7403E-03	3.7403E-03	9.5572E-05	1.0136E-06	8.6981E-04
2678	2.0078E+04	4.8186E+05	3.3661E-04	3.3661E-04	7.4004E-08	0.0081	8.6957E-04
2679	2.0085E+04	4.8204E+05	1.0391E-03	1.0392E-03	2.3558E-07	0.0257	8.6950E-04
2680	2.0093E+04	4.8222E+05	2.1820E-03	2.1820E-03	5.5157E-07	0.0602	8.6978E-04
2681	2.0100E+04	4.8240E+05	3.7448E-03	3.7448E-03	9.5840E-05	1.0149E-06	8.7056E-04
2682	2.0108E+04	4.8258E+05	3.3717E-04	3.3717E-04	7.4146E-08	0.0081	8.7031E-04
2683	2.0115E+04	4.8276E+05	1.0405E-03	1.0405E-03	2.3591E-07	0.0258	8.7025E-04
2684	2.0123E+04	4.8294E+05	2.1848E-03	2.1848E-03	5.5228E-07	0.0603	8.7052E-04
2685	2.0130E+04	4.8312E+05	3.7493E-03	3.7493E-03	9.6108E-05	1.0161E-06	8.7130E-04
2686	2.0138E+04	4.8330E+05	3.3773E-04	3.3773E-04	7.4288E-08	0.0081	8.7106E-04
2687	2.0145E+04	4.8348E+05	1.0419E-03	1.0419E-03	2.3624E-07	0.0258	8.7099E-04
2688	2.0153E+04	4.8366E+05	2.1875E-03	2.1875E-03	5.5298E-07	0.0604	8.7127E-04
2689	2.0160E+04	4.8384E+05	3.7539E-03	3.7539E-03	9.6377E-05	1.0174E-06	8.7205E-04
2690	2.0168E+04	4.8402E+05	3.3829E-04	3.3829E-04	7.4430E-08	0.0081	8.7181E-04
2691	2.0175E+04	4.8420E+05	1.0433E-03	1.0433E-03	2.3658E-07	0.0258	8.7174E-04
2692	2.0183E+04	4.8438E+05	2.1902E-03	2.1902E-03	5.5369E-07	0.0604	8.7201E-04
2693	2.0190E+04	4.8456E+05	3.7584E-03	3.7584E-03	9.6646E-05	1.0186E-06	8.7280E-04
2694	2.0198E+04	4.8474E+05	3.3885E-04	3.3886E-04	7.4572E-08	0.0081	8.7255E-04
2695	2.0205E+04	4.8492E+05	1.0447E-03	1.0447E-03	2.3691E-07	0.0259	8.7248E-04
2696	2.0213E+04	4.8510E+05	2.1929E-03	2.1929E-03	5.5439E-07	0.0605	8.7276E-04

2697	2.0220E+04	4.8528E+05	3.7629E-03	9.6915E-05	1.0198E-06	0.1113	8.7354E-04
2698	2.0228E+04	4.8546E+05	3.3942E-04	3.3942E-04	7.4715E-08	0.0082	8.7330E-04
2699	2.0235E+04	4.8564E+05	1.0461E-03	1.0461E-03	2.3725E-07	0.0259	8.7323E-04
2700	2.0243E+04	4.8582E+05	2.1957E-03	2.1957E-03	5.5510E-07	0.0606	8.7351E-04
2701	2.0250E+04	4.8600E+05	3.7675E-03	9.7185E-05	1.0211E-06	0.1115	8.7429E-04
2702	2.0258E+04	4.8618E+05	3.3998E-04	3.3998E-04	7.4857E-08	0.0082	8.7405E-04
2703	2.0265E+04	4.8636E+05	1.0475E-03	1.0475E-03	2.3759E-07	0.0259	8.7398E-04
2704	2.0273E+04	4.8654E+05	2.1984E-03	2.1984E-03	5.5581E-07	0.0607	8.7426E-04
2705	2.0280E+04	4.8672E+05	3.7720E-03	9.7455E-05	1.0223E-06	0.1116	8.7504E-04
2706	2.0288E+04	4.8690E+05	3.4055E-04	3.4055E-04	7.5000E-08	0.0082	8.7479E-04
2707	2.0295E+04	4.8708E+05	1.0489E-03	1.0489E-03	2.3792E-07	0.0260	8.7473E-04
2708	2.0303E+04	4.8726E+05	2.2011E-03	2.2011E-03	5.5652E-07	0.0608	8.7500E-04
2709	2.0310E+04	4.8744E+05	3.7765E-03	9.7726E-05	1.0236E-06	0.1117	8.7578E-04
2710	2.0318E+04	4.8762E+05	3.4111E-04	3.4111E-04	7.5143E-08	0.0082	8.7554E-04
2711	2.0325E+04	4.8780E+05	1.0503E-03	1.0503E-03	2.3826E-07	0.0260	8.7547E-04
2712	2.0333E+04	4.8798E+05	2.2039E-03	2.2039E-03	5.5722E-07	0.0608	8.7575E-04
2713	2.0340E+04	4.8816E+05	3.7811E-03	9.7997E-05	1.0248E-06	0.1119	8.7653E-04
2714	2.0348E+04	4.8834E+05	3.4167E-04	3.4168E-04	7.5286E-08	0.0082	8.7629E-04
2715	2.0355E+04	4.8852E+05	1.0517E-03	1.0517E-03	2.3859E-07	0.0260	8.7622E-04
2716	2.0363E+04	4.8870E+05	2.2066E-03	2.2066E-03	5.5793E-07	0.0609	8.7650E-04
2717	2.0370E+04	4.8888E+05	3.7856E-03	9.8268E-05	1.0261E-06	0.1120	8.7728E-04
2718	2.0378E+04	4.8906E+05	3.4224E-04	3.4224E-04	7.5429E-08	0.0082	8.7704E-04
2719	2.0385E+04	4.8924E+05	1.0531E-03	1.0531E-03	2.3893E-07	0.0261	8.7697E-04
2720	2.0393E+04	4.8942E+05	2.2094E-03	2.2094E-03	5.5864E-07	0.0610	8.7725E-04
2721	2.0400E+04	4.8960E+05	3.7902E-03	9.8540E-05	1.0273E-06	0.1122	8.7803E-04
2722	2.0408E+04	4.8978E+05	3.4281E-04	3.4281E-04	7.5573E-08	0.0083	8.7779E-04
2723	2.0415E+04	4.8996E+05	1.0545E-03	1.0545E-03	2.3927E-07	0.0261	8.7772E-04
2724	2.0423E+04	4.9014E+05	2.2121E-03	2.2121E-03	5.5935E-07	0.0611	8.7800E-04
2725	2.0430E+04	4.9032E+05	3.7947E-03	9.8812E-05	1.0286E-06	0.1123	8.7878E-04
2726	2.0438E+04	4.9050E+05	3.4337E-04	3.4337E-04	7.5717E-08	0.0083	8.7854E-04
2727	2.0445E+04	4.9068E+05	1.0559E-03	1.0559E-03	2.3961E-07	0.0262	8.7847E-04
2728	2.0453E+04	4.9086E+05	2.2148E-03	2.2148E-03	5.6006E-07	0.0611	8.7875E-04
2729	2.0460E+04	4.9104E+05	3.7993E-03	9.9084E-05	1.0298E-06	0.1124	8.7953E-04
2730	2.0468E+04	4.9122E+05	3.4394E-04	3.4394E-04	7.5860E-08	0.0083	8.7929E-04
2731	2.0475E+04	4.9140E+05	1.0573E-03	1.0573E-03	2.3994E-07	0.0262	8.7922E-04
2732	2.0483E+04	4.9158E+05	2.2176E-03	2.2176E-03	5.6077E-07	0.0612	8.7950E-04
2733	2.0490E+04	4.9176E+05	3.8038E-03	9.9357E-05	1.0311E-06	0.1126	8.8028E-04
2734	2.0498E+04	4.9194E+05	3.4451E-04	3.4451E-04	7.6004E-08	0.0083	8.8004E-04
2735	2.0505E+04	4.9212E+05	1.0587E-03	1.0587E-03	2.4028E-07	0.0262	8.7997E-04
2736	2.0513E+04	4.9230E+05	2.2203E-03	2.2203E-03	5.6149E-07	0.0613	8.8025E-04
2737	2.0520E+04	4.9248E+05	3.8084E-03	9.9630E-05	1.0323E-06	0.1127	8.8103E-04
2738	2.0528E+04	4.9266E+05	3.4508E-04	3.4508E-04	7.6148E-08	0.0083	8.8079E-04
2739	2.0535E+04	4.9284E+05	1.0601E-03	1.0601E-03	2.4062E-07	0.0263	8.8072E-04
2740	2.0543E+04	4.9302E+05	2.2231E-03	2.2231E-03	5.6220E-07	0.0614	8.8100E-04
2741	2.0550E+04	4.9320E+05	3.8130E-03	9.9904E-05	1.0336E-06	0.1128	8.8178E-04
2742	2.0558E+04	4.9338E+05	3.4565E-04	3.4565E-04	7.6293E-08	0.0083	8.8154E-04
2743	2.0565E+04	4.9356E+05	1.0615E-03	1.0616E-03	2.4096E-07	0.0263	8.8147E-04
2744	2.0573E+04	4.9374E+05	2.2258E-03	2.2258E-03	5.6291E-07	0.0615	8.8175E-04
2745	2.0580E+04	4.9392E+05	3.8175E-03	1.0018E-04	1.0348E-06	0.1130	8.8253E-04
2746	2.0588E+04	4.9410E+05	3.4622E-04	3.4622E-04	7.6437E-08	0.0083	8.8229E-04
2747	2.0595E+04	4.9428E+05	1.0630E-03	1.0630E-03	2.4130E-07	0.0263	8.8223E-04
2748	2.0603E+04	4.9446E+05	2.2286E-03	2.2286E-03	5.6362E-07	0.0615	8.8250E-04
2749	2.0610E+04	4.9464E+05	3.8221E-03	1.0045E-04	1.0361E-06	0.1131	8.8328E-04
2750	2.0618E+04	4.9482E+05	3.4679E-04	3.4679E-04	7.6582E-08	0.0084	8.8304E-04
2751	2.0625E+04	4.9500E+05	1.0644E-03	1.0644E-03	2.4164E-07	0.0264	8.8298E-04
2752	2.0633E+04	4.9518E+05	2.2314E-03	2.2314E-03	5.6434E-07	0.0616	8.8326E-04
2753	2.0640E+04	4.9536E+05	3.8267E-03	1.0073E-04	1.0373E-06	0.1132	8.8404E-04
2754	2.0648E+04	4.9554E+05	3.4736E-04	3.4736E-04	7.6726E-08	0.0084	8.8380E-04
2755	2.0655E+04	4.9572E+05	1.0658E-03	1.0658E-03	2.4198E-07	0.0264	8.8373E-04
2756	2.0663E+04	4.9590E+05	2.2341E-03	2.2341E-03	5.6505E-07	0.0617	8.8401E-04
2757	2.0670E+04	4.9608E+05	3.8312E-03	1.0100E-04	1.0386E-06	0.1134	8.8479E-04
2758	2.0678E+04	4.9626E+05	3.4793E-04	3.4793E-04	7.6871E-08	0.0084	8.8455E-04
2759	2.0685E+04	4.9644E+05	1.0672E-03	1.0672E-03	2.4231E-07	0.0265	8.8448E-04
2760	2.0693E+04	4.9662E+05	2.2369E-03	2.2369E-03	5.6576E-07	0.0618	8.8476E-04
2761	2.0700E+04	4.9680E+05	3.8358E-03	1.0128E-04	1.0398E-06	0.1135	8.8554E-04
2762	2.0708E+04	4.9698E+05	3.4850E-04	3.4850E-04	7.7016E-08	0.0084	8.8530E-04

2763	2.0715E+04	4.9716E+05	1.0686E-03	1.0686E-03	2.4265E-07	0.0265	8.8524E-04
2764	2.0723E+04	4.9734E+05	2.2396E-03	2.2396E-03	5.008E-07	0.0618	8.8552E-04
2765	2.0730E+04	4.9752E+05	3.8404E-03	1.0155E-04	1.0071E-06	0.1137	8.8629E-04
2766	2.0738E+04	4.9770E+05	3.4907E-04	3.4907E-04	7.7162E-08	0.0084	8.8606E-04
2767	2.0745E+04	4.9788E+05	1.0700E-03	1.0700E-03	2.4299E-07	0.0265	8.8599E-04
2768	2.0753E+04	4.9806E+05	2.2424E-03	2.2424E-03	5.6719E-07	0.0619	8.8627E-04
2769	2.0760E+04	4.9824E+05	3.8450E-03	1.0183E-04	1.0424E-06	0.1138	8.8705E-04
2770	2.0768E+04	4.9842E+05	3.4964E-04	3.4964E-04	7.7307E-08	0.0084	8.8681E-04
2771	2.0775E+04	4.9860E+05	1.0714E-03	1.0714E-03	2.4334E-07	0.0266	8.8675E-04
2772	2.0783E+04	4.9878E+05	2.2452E-03	2.2452E-03	5.6791E-07	0.0620	8.8702E-04
2773	2.0790E+04	4.9896E+05	3.8496E-03	1.0211E-04	1.0436E-06	0.1139	8.8780E-04
2774	2.0798E+04	4.9914E+05	3.5022E-04	3.5022E-04	7.7452E-08	0.0085	8.8756E-04
2775	2.0805E+04	4.9932E+05	1.0729E-03	1.0729E-03	2.4368E-07	0.0266	8.8750E-04
2776	2.0813E+04	4.9950E+05	2.2479E-03	2.2479E-03	5.6863E-07	0.0621	8.8778E-04
2777	2.0820E+04	4.9968E+05	3.8541E-03	1.0238E-04	1.0449E-06	0.1141	8.8856E-04
2778	2.0828E+04	4.9986E+05	3.5079E-04	3.5079E-04	7.7598E-08	0.0085	8.8832E-04
2779	2.0835E+04	5.0004E+05	1.0743E-03	1.0743E-03	2.4402E-07	0.0266	8.8826E-04
2780	2.0843E+04	5.0022E+05	2.2507E-03	2.2507E-03	5.6934E-07	0.0622	8.8853E-04
2781	2.0850E+04	5.0040E+05	3.8587E-03	1.0266E-04	1.0461E-06	0.1142	8.8931E-04
2782	2.0858E+04	5.0058E+05	3.5137E-04	3.5137E-04	7.7744E-08	0.0085	8.8908E-04
2783	2.0865E+04	5.0076E+05	1.0757E-03	1.0757E-03	2.4436E-07	0.0267	8.8901E-04
2784	2.0873E+04	5.0094E+05	2.2535E-03	2.2535E-03	5.7006E-07	0.0622	8.8929E-04
2785	2.0880E+04	5.0112E+05	3.8633E-03	1.0294E-04	1.0474E-06	0.1143	8.9007E-04
2786	2.0888E+04	5.0130E+05	3.5194E-04	3.5194E-04	7.7890E-08	0.0085	8.8983E-04
2787	2.0895E+04	5.0148E+05	1.0771E-03	1.0771E-03	2.4470E-07	0.0267	8.8977E-04
2788	2.0903E+04	5.0166E+05	2.2562E-03	2.2562E-03	5.7078E-07	0.0623	8.9005E-04
2789	2.0910E+04	5.0184E+05	3.8679E-03	1.0321E-04	1.0487E-06	0.1145	8.9083E-04
2790	2.0918E+04	5.0202E+05	3.5252E-04	3.5252E-04	7.8036E-08	0.0085	8.9059E-04
2791	2.0925E+04	5.0220E+05	1.0785E-03	1.0785E-03	2.4504E-07	0.0268	8.9052E-04
2792	2.0933E+04	5.0238E+05	2.2590E-03	2.2590E-03	5.7149E-07	0.0624	8.9080E-04
2793	2.0940E+04	5.0256E+05	3.8725E-03	1.0349E-04	1.0499E-06	0.1146	8.9158E-04
2794	2.0948E+04	5.0274E+05	3.5309E-04	3.5309E-04	7.8183E-08	0.0085	8.9134E-04
2795	2.0955E+04	5.0292E+05	1.0799E-03	1.0799E-03	2.4538E-07	0.0268	8.9128E-04
2796	2.0963E+04	5.0310E+05	2.2618E-03	2.2618E-03	5.7221E-07	0.0625	8.9156E-04
2797	2.0970E+04	5.0328E+05	3.8771E-03	1.0377E-04	1.0512E-06	0.1148	8.9234E-04
2798	2.0978E+04	5.0346E+05	3.5367E-04	3.5367E-04	7.8329E-08	0.0086	8.9210E-04
2799	2.0985E+04	5.0364E+05	1.0814E-03	1.0814E-03	2.4573E-07	0.0268	8.9204E-04
2800	2.0993E+04	5.0382E+05	2.2646E-03	2.2646E-03	5.7293E-07	0.0625	8.9232E-04
2801	2.1000E+04	5.0400E+05	3.8817E-03	1.0405E-04	1.0524E-06	0.1149	8.9310E-04
2802	2.1008E+04	5.0418E+05	3.5425E-04	3.5425E-04	7.8476E-08	0.0086	8.9286E-04
2803	2.1015E+04	5.0436E+05	1.0828E-03	1.0828E-03	2.4607E-07	0.0269	8.9280E-04
2804	2.1023E+04	5.0454E+05	2.2673E-03	2.2673E-03	5.7365E-07	0.0626	8.9307E-04
2805	2.1030E+04	5.0472E+05	3.8863E-03	1.0433E-04	1.0537E-06	0.1150	8.9385E-04
2806	2.1038E+04	5.0490E+05	3.5483E-04	3.5483E-04	7.8623E-08	0.0086	8.9362E-04
2807	2.1045E+04	5.0508E+05	1.0842E-03	1.0842E-03	2.4641E-07	0.0269	8.9355E-04
2808	2.1053E+04	5.0526E+05	2.2701E-03	2.2701E-03	5.7437E-07	0.0627	8.9383E-04
2809	2.1060E+04	5.0544E+05	3.8909E-03	1.0461E-04	1.0550E-06	0.1152	8.9461E-04
2810	2.1068E+04	5.0562E+05	3.5540E-04	3.5540E-04	7.8769E-08	0.0086	8.9437E-04
2811	2.1075E+04	5.0580E+05	1.0856E-03	1.0856E-03	2.4675E-07	0.0269	8.9431E-04
2812	2.1083E+04	5.0598E+05	2.2729E-03	2.2729E-03	5.7509E-07	0.0628	8.9459E-04
2813	2.1090E+04	5.0616E+05	3.8955E-03	1.0489E-04	1.0562E-06	0.1153	8.9537E-04
2814	2.1098E+04	5.0634E+05	3.5598E-04	3.5598E-04	7.8917E-08	0.0086	8.9513E-04
2815	2.1105E+04	5.0652E+05	1.0871E-03	1.0871E-03	2.4710E-07	0.0270	8.9507E-04
2816	2.1113E+04	5.0670E+05	2.2757E-03	2.2757E-03	5.7581E-07	0.0629	8.9535E-04
2817	2.1120E+04	5.0688E+05	3.9002E-03	1.0517E-04	1.0575E-06	0.1154	8.9613E-04
2818	2.1128E+04	5.0706E+05	3.5656E-04	3.5656E-04	7.9064E-08	0.0086	8.9589E-04
2819	2.1135E+04	5.0724E+05	1.0885E-03	1.0885E-03	2.4744E-07	0.0270	8.9583E-04
2820	2.1143E+04	5.0742E+05	2.2785E-03	2.2785E-03	5.7653E-07	0.0629	8.9611E-04
2821	2.1150E+04	5.0760E+05	3.9048E-03	1.0545E-04	1.0588E-06	0.1156	8.9689E-04
2822	2.1158E+04	5.0778E+05	3.5714E-04	3.5714E-04	7.9211E-08	0.0086	8.9665E-04
2823	2.1165E+04	5.0796E+05	1.0899E-03	1.0899E-03	2.4779E-07	0.0271	8.9659E-04
2824	2.1173E+04	5.0814E+05	2.2813E-03	2.2813E-03	5.7726E-07	0.0630	8.9687E-04
2825	2.1180E+04	5.0832E+05	3.9094E-03	1.0573E-04	1.0600E-06	0.1157	8.9765E-04
2826	2.1188E+04	5.0850E+05	3.5772E-04	3.5772E-04	7.9359E-08	0.0087	8.9741E-04
2827	2.1195E+04	5.0868E+05	1.0914E-03	1.0914E-03	2.4813E-07	0.0271	8.9735E-04
2828	2.1203E+04	5.0886E+05	2.2840E-03	2.2840E-03	5.7798E-07	0.0631	8.9763E-04

2829	2.1210E+04	5.0904E+05	3.9140E-03	1.0602E-04	1.0613E-06	0.1159	8.9841E-04
2830	2.1218E+04	5.0922E+05	3.5830E-04	3.5830E-04	7.9507E-08	0.0087	8.9817E-04
2831	2.1225E+04	5.0940E+05	1.0928E-03	1.0928E-03	2.4847E-07	0.0271	8.9811E-04
2832	2.1233E+04	5.0958E+05	2.2868E-03	2.2868E-03	5.7870E-07	0.0632	8.9839E-04
2833	2.1240E+04	5.0976E+05	3.9186E-03	1.0630E-04	1.0626E-06	0.1160	8.9917E-04
2834	2.1248E+04	5.0994E+05	3.5889E-04	3.5889E-04	7.9655E-08	0.0087	8.9893E-04
2835	2.1255E+04	5.1012E+05	1.0942E-03	1.0942E-03	2.4882E-07	0.0272	8.9887E-04
2836	2.1263E+04	5.1030E+05	2.2896E-03	2.2896E-03	5.7943E-07	0.0633	8.9915E-04
2837	2.1270E+04	5.1048E+05	3.9233E-03	1.0658E-04	1.0639E-06	0.1161	8.9993E-04
2838	2.1278E+04	5.1066E+05	3.5947E-04	3.5947E-04	7.9803E-08	0.0087	8.9969E-04
2839	2.1285E+04	5.1084E+05	1.0957E-03	1.0957E-03	2.4916E-07	0.0272	8.9963E-04
2840	2.1293E+04	5.1102E+05	2.2924E-03	2.2924E-03	5.8015E-07	0.0633	8.9991E-04
2841	2.1300E+04	5.1120E+05	3.9279E-03	1.0686E-04	1.0651E-06	0.1163	9.0069E-04
2842	2.1308E+04	5.1138E+05	3.6005E-04	3.6005E-04	7.9951E-08	0.0087	9.0046E-04
2843	2.1315E+04	5.1156E+05	1.0971E-03	1.0971E-03	2.4951E-07	0.0272	9.0040E-04
2844	2.1323E+04	5.1174E+05	2.2952E-03	2.2952E-03	5.8087E-07	0.0634	9.0067E-04
2845	2.1330E+04	5.1192E+05	3.9325E-03	1.0715E-04	1.0664E-06	0.1164	9.0145E-04
2846	2.1338E+04	5.1210E+05	3.6064E-04	3.6064E-04	8.0099E-08	0.0087	9.0122E-04
2847	2.1345E+04	5.1228E+05	1.0985E-03	1.0985E-03	2.4986E-07	0.0273	9.0116E-04
2848	2.1353E+04	5.1246E+05	2.2980E-03	2.2980E-03	5.8160E-07	0.0635	9.0144E-04
2849	2.1360E+04	5.1264E+05	3.9372E-03	1.0743E-04	1.0677E-06	0.1166	9.0221E-04
2850	2.1368E+04	5.1282E+05	3.6122E-04	3.6122E-04	8.0248E-08	0.0088	9.0198E-04
2851	2.1375E+04	5.1300E+05	1.1000E-03	1.1000E-03	2.5020E-07	0.0273	9.0192E-04
2852	2.1383E+04	5.1318E+05	2.3008E-03	2.3008E-03	5.8232E-07	0.0636	9.0220E-04
2853	2.1390E+04	5.1336E+05	3.9418E-03	1.0771E-04	1.0689E-06	0.1167	9.0298E-04
2854	2.1398E+04	5.1354E+05	3.6180E-04	3.6180E-04	8.0397E-08	0.0088	9.0274E-04
2855	2.1405E+04	5.1372E+05	1.1014E-03	1.1014E-03	2.5055E-07	0.0274	9.0268E-04
2856	2.1413E+04	5.1390E+05	2.3036E-03	2.3036E-03	5.8305E-07	0.0637	9.0296E-04
2857	2.1420E+04	5.1408E+05	3.9464E-03	1.0800E-04	1.0702E-06	0.1168	9.0374E-04
2858	2.1428E+04	5.1426E+05	3.6239E-04	3.6239E-04	8.0546E-08	0.0088	9.0351E-04
2859	2.1435E+04	5.1444E+05	1.1028E-03	1.1028E-03	2.5089E-07	0.0274	9.0345E-04
2860	2.1443E+04	5.1462E+05	2.3064E-03	2.3064E-03	5.8378E-07	0.0637	9.0373E-04
2861	2.1450E+04	5.1480E+05	3.9511E-03	1.0828E-04	1.0715E-06	0.1170	9.0450E-04
2862	2.1458E+04	5.1498E+05	3.6297E-04	3.6297E-04	8.0695E-08	0.0088	9.0427E-04
2863	2.1465E+04	5.1516E+05	1.1043E-03	1.1043E-03	2.5124E-07	0.0274	9.0421E-04
2864	2.1473E+04	5.1534E+05	2.3092E-03	2.3092E-03	5.8450E-07	0.0638	9.0449E-04
2865	2.1480E+04	5.1552E+05	3.9557E-03	1.0857E-04	1.0728E-06	0.1171	9.0527E-04
2866	2.1488E+04	5.1570E+05	3.6356E-04	3.6356E-04	8.0844E-08	0.0088	9.0503E-04
2867	2.1495E+04	5.1588E+05	1.1057E-03	1.1057E-03	2.5159E-07	0.0275	9.0497E-04
2868	2.1503E+04	5.1606E+05	2.3120E-03	2.3120E-03	5.8523E-07	0.0639	9.0525E-04
2869	2.1510E+04	5.1624E+05	3.9604E-03	1.0885E-04	1.0740E-06	0.1173	9.0603E-04
2870	2.1518E+04	5.1642E+05	3.6415E-04	3.6415E-04	8.0993E-08	0.0088	9.0580E-04
2871	2.1525E+04	5.1660E+05	1.1072E-03	1.1072E-03	2.5193E-07	0.0275	9.0574E-04
2872	2.1533E+04	5.1678E+05	2.3148E-03	2.3148E-03	5.8596E-07	0.0640	9.0602E-04
2873	2.1540E+04	5.1696E+05	3.9650E-03	1.0914E-04	1.0753E-06	0.1174	9.0680E-04
2874	2.1548E+04	5.1714E+05	3.6474E-04	3.6474E-04	8.1143E-08	0.0089	9.0656E-04
2875	2.1555E+04	5.1732E+05	1.1086E-03	1.1086E-03	2.5228E-07	0.0275	9.0650E-04
2876	2.1563E+04	5.1750E+05	2.3177E-03	2.3177E-03	5.8669E-07	0.0640	9.0679E-04
2877	2.1570E+04	5.1768E+05	3.9697E-03	1.0943E-04	1.0766E-06	0.1175	9.0756E-04
2878	2.1578E+04	5.1786E+05	3.6532E-04	3.6532E-04	8.1293E-08	0.0089	9.0733E-04
2879	2.1585E+04	5.1804E+05	1.1100E-03	1.1100E-03	2.5263E-07	0.0276	9.0727E-04
2880	2.1593E+04	5.1822E+05	2.3205E-03	2.3205E-03	5.8741E-07	0.0641	9.0755E-04
2881	2.1600E+04	5.1840E+05	3.9743E-03	1.0971E-04	1.0779E-06	0.1177	9.0833E-04
2882	2.1608E+04	5.1858E+05	3.6591E-04	3.6591E-04	8.1442E-08	0.0089	9.0810E-04
2883	2.1615E+04	5.1876E+05	1.1115E-03	1.1115E-03	2.5298E-07	0.0276	9.0804E-04
2884	2.1623E+04	5.1894E+05	2.3233E-03	2.3233E-03	5.8814E-07	0.0642	9.0832E-04
2885	2.1630E+04	5.1912E+05	3.9790E-03	1.1000E-04	1.0792E-06	0.1178	9.0909E-04
2886	2.1638E+04	5.1930E+05	3.6650E-04	3.6650E-04	8.1592E-08	0.0089	9.0886E-04
2887	2.1645E+04	5.1948E+05	1.1129E-03	1.1129E-03	2.5333E-07	0.0277	9.0880E-04
2888	2.1653E+04	5.1966E+05	2.3261E-03	2.3261E-03	5.8887E-07	0.0643	9.0908E-04
2889	2.1660E+04	5.1984E+05	3.9837E-03	1.1029E-04	1.0804E-06	0.1180	9.0986E-04
2890	2.1668E+04	5.2002E+05	3.6709E-04	3.6709E-04	8.1743E-08	0.0089	9.0963E-04
2891	2.1675E+04	5.2020E+05	1.1144E-03	1.1144E-03	2.5368E-07	0.0277	9.0957E-04
2892	2.1683E+04	5.2038E+05	2.3289E-03	2.3289E-03	5.8960E-07	0.0644	9.0985E-04
2893	2.1690E+04	5.2056E+05	3.9883E-03	1.1057E-04	1.0821E-06	0.1181	9.1063E-04
2894	2.1698E+04	5.2074E+05	3.6768E-04	3.6768E-04	8.1893E-08	0.0089	9.1040E-04

2895	2.1705E+04	5.2092E+05	1.1158E-03	1.1158E-03	2.5402E-07	0.0277	9.1034E-04
2896	2.1713E+04	5.2110E+05	2.3317E-03	2.3317E-03	5.913E-07	0.0644	9.1062E-04
2897	2.1720E+04	5.2128E+05	3.9930E-03	1.1086E-04	1.1086E-06	0.1182	9.1139E-04
2898	2.1728E+04	5.2146E+05	3.6827E-04	3.6827E-04	8.2043E-08	0.0090	9.1116E-04
2899	2.1735E+04	5.2164E+05	1.1173E-03	1.1173E-03	2.5437E-07	0.0278	9.1110E-04
2900	2.1743E+04	5.2182E+05	2.3346E-03	2.3346E-03	5.9107E-07	0.0645	9.1138E-04
2901	2.1750E+04	5.2200E+05	3.9977E-03	1.1115E-04	1.0843E-06	0.1184	9.1216E-04
2902	2.1758E+04	5.2218E+05	3.6886E-04	3.6886E-04	8.2194E-08	0.0090	9.1193E-04
2903	2.1765E+04	5.2236E+05	1.1187E-03	1.1187E-03	2.5472E-07	0.0278	9.1187E-04
2904	2.1773E+04	5.2254E+05	2.3374E-03	2.3374E-03	5.9180E-07	0.0646	9.1215E-04
2905	2.1780E+04	5.2272E+05	4.0024E-03	1.1144E-04	1.0856E-06	0.1185	9.1293E-04
2906	2.1788E+04	5.2290E+05	3.6945E-04	3.6945E-04	8.2345E-08	0.0090	9.1270E-04
2907	2.1795E+04	5.2308E+05	1.1202E-03	1.1202E-03	2.5507E-07	0.0278	9.1264E-04
2908	2.1803E+04	5.2326E+05	2.3402E-03	2.3402E-03	5.9253E-07	0.0647	9.1292E-04
2909	2.1810E+04	5.2344E+05	4.0070E-03	1.1173E-04	1.0869E-06	0.1187	9.1370E-04
2910	2.1818E+04	5.2362E+05	3.7005E-04	3.7005E-04	8.2496E-08	0.0090	9.1347E-04
2911	2.1825E+04	5.2380E+05	1.1216E-03	1.1216E-03	2.5542E-07	0.0279	9.1341E-04
2912	2.1833E+04	5.2398E+05	2.3430E-03	2.3430E-03	5.9326E-07	0.0648	9.1369E-04
2913	2.1840E+04	5.2416E+05	4.0117E-03	1.1202E-04	1.0881E-06	0.1188	9.1447E-04
2914	2.1848E+04	5.2434E+05	3.7064E-04	3.7064E-04	8.2647E-08	0.0090	9.1424E-04
2915	2.1855E+04	5.2452E+05	1.1231E-03	1.1231E-03	2.5577E-07	0.0279	9.1418E-04
2916	2.1863E+04	5.2470E+05	2.3459E-03	2.3459E-03	5.9399E-07	0.0648	9.1446E-04
2917	2.1870E+04	5.2488E+05	4.0164E-03	1.1231E-04	1.0894E-06	0.1189	9.1524E-04
2918	2.1878E+04	5.2506E+05	3.7123E-04	3.7123E-04	8.2798E-08	0.0090	9.1501E-04
2919	2.1885E+04	5.2524E+05	1.1245E-03	1.1245E-03	2.5612E-07	0.0280	9.1495E-04
2920	2.1893E+04	5.2542E+05	2.3487E-03	2.3487E-03	5.9473E-07	0.0649	9.1523E-04
2921	2.1900E+04	5.2560E+05	4.0211E-03	1.1260E-04	1.0907E-06	0.1191	9.1601E-04

SYSTEM MEAN UNAVAILABILITIES BETWEEN 0.0 AND 21900.0 DAYS:

TOTAL MEAN UNAVAIL	UNAVAIL DUE TO FAILURES	= OF TOTAL	UNAVAIL DUE TO TESTING	= OF TOTAL	UNAVAIL DUE TO REPAIRS	= OF TOTAL
9.160E-04	9.161E-04	100.00	0.000E+00	0.00	0.000E+00	0.00

SYSTEM MEAN UNAVAILABILITIES BETWEEN TESTS

INTR. NO.	FIRST TEST TIME (HRS)	SECOND TEST TIME (HRS)	TIME BETWEEN TESTS (HRS)	AVERAGE UNAVAILABILITY BETWEEN TESTS
1.	0.	720.	720.	4.6498E-04
2.	720.	1440.	720.	4.6591E-04
3.	1440.	2160.	720.	4.6685E-04
4.	2160.	2880.	720.	4.6778E-04
5.	2880.	3600.	720.	4.6872E-04
6.	3600.	4320.	720.	4.6966E-04
7.	4320.	5040.	720.	4.7060E-04
8.	5040.	5760.	720.	4.7154E-04
9.	5760.	6480.	720.	4.7248E-04
10.	6480.	7200.	720.	4.7343E-04
11.	7200.	7920.	720.	4.7437E-04
12.	7920.	8640.	720.	4.7532E-04
13.	8640.	9360.	720.	4.7627E-04
14.	9360.	10080.	720.	4.7722E-04
15.	10080.	10800.	720.	4.7817E-04
16.	10800.	11520.	720.	4.7912E-04
17.	11520.	12240.	720.	4.8007E-04
18.	12240.	12960.	720.	4.8103E-04
19.	12960.	13680.	720.	4.8198E-04
20.	13680.	14400.	720.	4.8294E-04
21.	14400.	15120.	720.	4.8389E-04
22.	15120.	15840.	720.	4.8485E-04
23.	15840.	16560.	720.	4.8581E-04
24.	16560.	17280.	720.	4.8678E-04
25.	17280.	18000.	720.	4.8774E-04
26.	18000.	18720.	720.	4.8870E-04
27.	18720.	19440.	720.	4.8967E-04
28.	19440.	20160.	720.	4.9064E-04
29.	20160.	20880.	720.	4.9160E-04
30.	20880.	21600.	720.	4.9257E-04
31.	21600.	22320.	720.	4.9354E-04
32.	22320.	23040.	720.	4.9451E-04
33.	23040.	23760.	720.	4.9549E-04
34.	23760.	24480.	720.	4.9646E-04
35.	24480.	25200.	720.	4.9744E-04
36.	25200.	25920.	720.	4.9841E-04
37.	25920.	26640.	720.	4.9939E-04
38.	26640.	27360.	720.	5.0037E-04
39.	27360.	28080.	720.	5.0135E-04
40.	28080.	28800.	720.	5.0233E-04
41.	28800.	29520.	720.	5.0332E-04
42.	29520.	30240.	720.	5.0430E-04
43.	30240.	30960.	720.	5.0529E-04
44.	30960.	31680.	720.	5.0627E-04
45.	31680.	32400.	720.	5.0726E-04
46.	32400.	33120.	720.	5.0823E-04
47.	33120.	33840.	720.	5.0922E-04
48.	33840.	34560.	720.	5.1019E-04
49.	34560.	35280.	720.	5.1119E-04
50.	35280.	36000.	720.	5.1219E-04
51.	36000.	36720.	720.	5.1316E-04
52.	36720.	37440.	720.	5.1416E-04
53.	37440.	38160.	720.	5.1517E-04

54.	38160.	38880.	720.	5.1615E-04
55.	39000.	39600.	720.	5.1717E-04
56.	39600.	40320.	720.	5.1816E-04
57.	40320.	41040.	720.	5.1918E-04
58.	41040.	41760.	720.	5.2018E-04
59.	41760.	42480.	720.	5.2119E-04
60.	42480.	43200.	720.	5.2219E-04
61.	43200.	43920.	720.	5.2321E-04
62.	43920.	44640.	720.	5.2418E-04
63.	44640.	45360.	720.	5.2522E-04
64.	45360.	46080.	720.	5.2624E-04
65.	46080.	46800.	720.	5.2725E-04
66.	46800.	47520.	720.	5.2829E-04
67.	47520.	48240.	720.	5.2927E-04
68.	48240.	48960.	720.	5.3029E-04
69.	48960.	49680.	720.	5.3132E-04
70.	49680.	50400.	720.	5.3232E-04
71.	50400.	51120.	720.	5.3338E-04
72.	51120.	51840.	720.	5.3438E-04
73.	51840.	52560.	720.	5.3541E-04
74.	52560.	53280.	720.	5.3641E-04
75.	53280.	54000.	720.	5.3745E-04
76.	54000.	54720.	720.	5.3847E-04
77.	54720.	55440.	720.	5.3948E-04
78.	55440.	56160.	720.	5.4054E-04
79.	56160.	56880.	720.	5.4158E-04
80.	56880.	57600.	720.	5.4258E-04
81.	57600.	58320.	720.	5.4364E-04
82.	58320.	59040.	720.	5.4468E-04
83.	59040.	59760.	720.	5.4571E-04
84.	59760.	60480.	720.	5.4673E-04
85.	60480.	61200.	720.	5.4777E-04
86.	61200.	61920.	720.	5.4881E-04
87.	61920.	62640.	720.	5.4985E-04
88.	62640.	63360.	720.	5.5091E-04
89.	63360.	64080.	720.	5.5192E-04
90.	64080.	64800.	720.	5.5298E-04
91.	64800.	65520.	720.	5.5404E-04
92.	65520.	66240.	720.	5.5508E-04
93.	66240.	66960.	720.	5.5612E-04
94.	66960.	67680.	720.	5.5716E-04
95.	67680.	68400.	720.	5.5824E-04
96.	68400.	69120.	720.	5.5930E-04
97.	69120.	69840.	720.	5.6034E-04
98.	69840.	70560.	720.	5.6140E-04
99.	70560.	71280.	720.	5.6246E-04
100.	71280.	72000.	720.	5.6352E-04
101.	72000.	72720.	720.	5.6455E-04
102.	72720.	73440.	720.	5.6561E-04
103.	73440.	74160.	720.	5.6669E-04
104.	74160.	74880.	720.	5.6775E-04
105.	74880.	75600.	720.	5.6879E-04
106.	75600.	76320.	720.	5.6987E-04
107.	76320.	77040.	720.	5.7093E-04
108.	77040.	77760.	720.	5.7201E-04
109.	77760.	78480.	720.	5.7307E-04
110.	78480.	79200.	720.	5.7413E-04
111.	79200.	79920.	720.	5.7521E-04
112.	79920.	80640.	720.	5.7627E-04
113.	80640.	81360.	720.	5.7738E-04
114.	81360.	82080.	720.	5.7846E-04
115.	82080.	82800.	720.	5.7952E-04
116.	82800.	83520.	720.	5.8058E-04
117.	83520.	84240.	720.	5.8168E-04
118.	84240.	84960.	720.	5.8274E-04
119.	84960.	85680.	720.	5.8382E-04

120.	85680.	86400.	720.	5.8492E-04
121.	86400.	87120.	720.	5.8600E-04
122.	87120.	87840.	720.	5.8708E-04
123.	87840.	88560.	720.	5.8818E-04
124.	88560.	89280.	720.	5.8924E-04
125.	89280.	90000.	720.	5.9035E-04
126.	90000.	90720.	720.	5.9145E-04
127.	90720.	91440.	720.	5.9253E-04
128.	91440.	92160.	720.	5.9363E-04
129.	92160.	92880.	720.	5.9471E-04
130.	92880.	93600.	720.	5.9579E-04
131.	93600.	94320.	720.	5.9692E-04
132.	94320.	95040.	720.	5.9800E-04
133.	95040.	95760.	720.	5.9910E-04
134.	95760.	96480.	720.	6.0020E-04
135.	96480.	97200.	720.	6.0132E-04
136.	97200.	97920.	720.	6.0240E-04
137.	97920.	98640.	720.	6.0351E-04
138.	98640.	99360.	720.	6.0461E-04
139.	99360.	100080.	720.	6.0571E-04
140.	100080.	100800.	720.	6.0681E-04
141.	100800.	101520.	720.	6.0794E-04
142.	101520.	102240.	720.	6.0902E-04
143.	102240.	102960.	720.	6.1016E-04
144.	102960.	103680.	720.	6.1124E-04
145.	103680.	104400.	720.	6.1239E-04
146.	104400.	105120.	720.	6.1347E-04
147.	105120.	105840.	720.	6.1461E-04
148.	105840.	106560.	720.	6.1573E-04
149.	106560.	107280.	720.	6.1684E-04
150.	107280.	108000.	720.	6.1798E-04
151.	108000.	108720.	720.	6.1910E-04
152.	108720.	109440.	720.	6.2021E-04
153.	109440.	110160.	720.	6.2135E-04
154.	110160.	110880.	720.	6.2247E-04
155.	110880.	111600.	720.	6.2360E-04
156.	111600.	112320.	720.	6.2472E-04
157.	112320.	113040.	720.	6.2584E-04
158.	113040.	113760.	720.	6.2697E-04
159.	113760.	114480.	720.	6.2811E-04
160.	114480.	115200.	720.	6.2923E-04
161.	115200.	115920.	720.	6.3036E-04
162.	115920.	116640.	720.	6.3150E-04
163.	116640.	117360.	720.	6.3263E-04
164.	117360.	118080.	720.	6.3379E-04
165.	118080.	118800.	720.	6.3493E-04
166.	118800.	119520.	720.	6.3606E-04
167.	119520.	120240.	720.	6.3718E-04
168.	120240.	120960.	720.	6.3833E-04
169.	120960.	121680.	720.	6.3949E-04
170.	121680.	122400.	720.	6.4064E-04
171.	122400.	123120.	720.	6.4178E-04
172.	123120.	123840.	720.	6.4292E-04
173.	123840.	124560.	720.	6.4409E-04
174.	124560.	125280.	720.	6.4523E-04
175.	125280.	126000.	720.	6.4638E-04
176.	126000.	126720.	720.	6.4754E-04
177.	126720.	127440.	720.	6.4869E-04
178.	127440.	128160.	720.	6.4988E-04
179.	128160.	128880.	720.	6.5100E-04
180.	128880.	129600.	720.	6.5214E-04
181.	129600.	130320.	720.	6.5331E-04
182.	130320.	131040.	720.	6.5445E-04
183.	131040.	131760.	720.	6.5564E-04
184.	131760.	132480.	720.	6.5681E-04
185.	132480.	133200.	720.	6.5795E-04

186.	133200.	133920.	720.	6.5912E-04
187.	133200.	134640.	720.	6.6032E-04
188.	133200.	135360.	720.	6.6147E-04
189.	135360.	136080.	720.	6.6263E-04
190.	136080.	136800.	720.	6.6380E-04
191.	136800.	137520.	720.	6.6499E-04
192.	137520.	138240.	720.	6.6615E-04
193.	138240.	138960.	720.	6.6732E-04
194.	138960.	139680.	720.	6.6848E-04
195.	139680.	140400.	720.	6.6969E-04
196.	140400.	141120.	720.	6.7086E-04
197.	141120.	141840.	720.	6.7202E-04
198.	141840.	142560.	720.	6.7323E-04
199.	142560.	143280.	720.	6.7440E-04
200.	143280.	144000.	720.	6.7556E-04
201.	144000.	144720.	720.	6.7675E-04
202.	144720.	145440.	720.	6.7794E-04
203.	145440.	146160.	720.	6.7912E-04
204.	146160.	146880.	720.	6.8029E-04
205.	146880.	147600.	720.	6.8152E-04
206.	147600.	148320.	720.	6.8270E-04
207.	148320.	149040.	720.	6.8389E-04
208.	149040.	149760.	720.	6.8508E-04
209.	149760.	150480.	720.	6.8626E-04
210.	150480.	151200.	720.	6.8745E-04
211.	151200.	151920.	720.	6.8868E-04
212.	151920.	152640.	720.	6.8985E-04
213.	152640.	153360.	720.	6.9107E-04
214.	153360.	154080.	720.	6.9226E-04
215.	154080.	154800.	720.	6.9345E-04
216.	154800.	155520.	720.	6.9468E-04
217.	155520.	156240.	720.	6.9589E-04
218.	156240.	156960.	720.	6.9707E-04
219.	156960.	157680.	720.	6.9828E-04
220.	157680.	158400.	720.	6.9949E-04
221.	158400.	159120.	720.	7.0072E-04
222.	159120.	159840.	720.	7.0188E-04
223.	159840.	160560.	720.	7.0311E-04
224.	160560.	161280.	720.	7.0434E-04
225.	161280.	162000.	720.	7.0557E-04
226.	162000.	162720.	720.	7.0676E-04
227.	162720.	163440.	720.	7.0797E-04
228.	163440.	164160.	720.	7.0919E-04
229.	164160.	164880.	720.	7.1040E-04
230.	164880.	165600.	720.	7.1165E-04
231.	165600.	166320.	720.	7.1284E-04
232.	166320.	167040.	720.	7.1407E-04
233.	167040.	167760.	720.	7.1530E-04
234.	167760.	168480.	720.	7.1653E-04
235.	168480.	169200.	720.	7.1776E-04
236.	169200.	169920.	720.	7.1899E-04
237.	169920.	170640.	720.	7.2021E-04
238.	170640.	171360.	720.	7.2144E-04
239.	171360.	172080.	720.	7.2265E-04
240.	172080.	172800.	720.	7.2392E-04
241.	172800.	173520.	720.	7.2513E-04
242.	173520.	174240.	720.	7.2638E-04
243.	174240.	174960.	720.	7.2759E-04
244.	174960.	175680.	720.	7.2884E-04
245.	175680.	176400.	720.	7.3011E-04
246.	176400.	177120.	720.	7.3134E-04
247.	177120.	177840.	720.	7.3257E-04
248.	177840.	178560.	720.	7.3382E-04
249.	178560.	179280.	720.	7.3505E-04
250.	179280.	180000.	720.	7.3630E-04
251.	180000.	180720.	720.	7.3755E-04

252.	180720.	181440.	720.	7.3880E-04
253.	181440.	182160.	720.	7.4005E-04
254.	182160.	182880.	720.	7.4130E-04
255.	182880.	183600.	720.	7.4255E-04
256.	183600.	184320.	720.	7.4378E-04
257.	184320.	185040.	720.	7.4507E-04
258.	185040.	185760.	720.	7.4632E-04
259.	185760.	186480.	720.	7.4755E-04
260.	186480.	187200.	720.	7.4883E-04
261.	187200.	187920.	720.	7.5010E-04
262.	187920.	188640.	720.	7.5135E-04
263.	188640.	189360.	720.	7.5260E-04
264.	189360.	190080.	720.	7.5389E-04
265.	190080.	190800.	720.	7.5514E-04
266.	190800.	191520.	720.	7.5639E-04
267.	191520.	192240.	720.	7.5766E-04
268.	192240.	192960.	720.	7.5893E-04
269.	192960.	193680.	720.	7.6018E-04
270.	193680.	194400.	720.	7.6148E-04
271.	194400.	195120.	720.	7.6275E-04
272.	195120.	195840.	720.	7.6402E-04
273.	195840.	196560.	720.	7.6529E-04
274.	196560.	197280.	720.	7.6656E-04
275.	197280.	198000.	720.	7.6786E-04
276.	198000.	198720.	720.	7.6911E-04
277.	198720.	199440.	720.	7.7038E-04
278.	199440.	200160.	720.	7.7169E-04
279.	200160.	200880.	720.	7.7298E-04
280.	200880.	201600.	720.	7.7426E-04
281.	201600.	202320.	720.	7.7553E-04
282.	202320.	203040.	720.	7.7682E-04
283.	203040.	203760.	720.	7.7811E-04
284.	203760.	204480.	720.	7.7938E-04
285.	204480.	205200.	720.	7.8068E-04
286.	205200.	205920.	720.	7.8197E-04
287.	205920.	206640.	720.	7.8326E-04
288.	206640.	207360.	720.	7.8456E-04
289.	207360.	208080.	720.	7.8585E-04
290.	208080.	208800.	720.	7.8716E-04
291.	208800.	209520.	720.	7.8843E-04
292.	209520.	210240.	720.	7.8975E-04
293.	210240.	210960.	720.	7.9102E-04
294.	210960.	211680.	720.	7.9233E-04
295.	211680.	212400.	720.	7.9365E-04
296.	212400.	213120.	720.	7.9494E-04
297.	213120.	213840.	720.	7.9625E-04
298.	213840.	214560.	720.	7.9757E-04
299.	214560.	215280.	720.	7.9884E-04
300.	215280.	216000.	720.	8.0015E-04
301.	216000.	216720.	720.	8.0147E-04
302.	216720.	217440.	720.	8.0278E-04
303.	217440.	218160.	720.	8.0410E-04
304.	218160.	218880.	720.	8.0539E-04
305.	218880.	219600.	720.	8.0674E-04
306.	219600.	220320.	720.	8.0806E-04
307.	220320.	221040.	720.	8.0935E-04
308.	221040.	221760.	720.	8.1067E-04
309.	221760.	222480.	720.	8.1198E-04
310.	222480.	223200.	720.	8.1331E-04
311.	223200.	223920.	720.	8.1463E-04
312.	223920.	224640.	720.	8.1594E-04
313.	224640.	225360.	720.	8.1728E-04
314.	225360.	226080.	720.	8.1863E-04
315.	226080.	226800.	720.	8.1995E-04
316.	226800.	227520.	720.	8.2126E-04
317.	227520.	228240.	720.	8.2260E-04

318.	228240.	228960.	720.	8.2393E-04
319.	229000.	229680.	720.	8.2527E-04
320.	229680.	230400.	720.	8.2658E-04
321.	230400.	231120.	720.	8.2790E-04
322.	231120.	231840.	720.	8.2925E-04
323.	231840.	232560.	720.	8.3057E-04
324.	232560.	233280.	720.	8.3194E-04
325.	233280.	234000.	720.	8.3326E-04
326.	234000.	234720.	720.	8.3461E-04
327.	234720.	235440.	720.	8.3593E-04
328.	235440.	236160.	720.	8.3730E-04
329.	236160.	236880.	720.	8.3862E-04
330.	236880.	237600.	720.	8.3997E-04
331.	237600.	238320.	720.	8.4133E-04
332.	238320.	239040.	720.	8.4267E-04
333.	239040.	239760.	720.	8.4402E-04
334.	239760.	240480.	720.	8.4538E-04
335.	240480.	241200.	720.	8.4674E-04
336.	241200.	241920.	720.	8.4809E-04
337.	241920.	242640.	720.	8.4947E-04
338.	242640.	243360.	720.	8.5078E-04
339.	243360.	244080.	720.	8.5214E-04
340.	244080.	244800.	720.	8.5352E-04
341.	244800.	245520.	720.	8.5487E-04
342.	245520.	246240.	720.	8.5623E-04
343.	246240.	246960.	720.	8.5759E-04
344.	246960.	247680.	720.	8.5894E-04
345.	247680.	248400.	720.	8.6032E-04
346.	248400.	249120.	720.	8.6168E-04
347.	249120.	249840.	720.	8.6305E-04
348.	249840.	250560.	720.	8.6441E-04
349.	250560.	251280.	720.	8.6579E-04
350.	251280.	252000.	720.	8.6714E-04
351.	252000.	252720.	720.	8.6852E-04
352.	252720.	253440.	720.	8.6988E-04
353.	253440.	254160.	720.	8.7128E-04
354.	254160.	254880.	720.	8.7263E-04
355.	254880.	255600.	720.	8.7403E-04
356.	255600.	256320.	720.	8.7539E-04
357.	256320.	257040.	720.	8.7679E-04
358.	257040.	257760.	720.	8.7814E-04
359.	257760.	258480.	720.	8.7952E-04
360.	258480.	259200.	720.	8.8092E-04
361.	259200.	259920.	720.	8.8230E-04
362.	259920.	260640.	720.	8.8370E-04
363.	260640.	261360.	720.	8.8507E-04
364.	261360.	262080.	720.	8.8647E-04
365.	262080.	262800.	720.	8.8785E-04
366.	262800.	263520.	720.	8.8925E-04
367.	263520.	264240.	720.	8.9063E-04
368.	264240.	264960.	720.	8.9205E-04
369.	264960.	265680.	720.	8.9342E-04
370.	265680.	266400.	720.	8.9482E-04
371.	266400.	267120.	720.	8.9622E-04
372.	267120.	267840.	720.	8.9762E-04
373.	267840.	268560.	720.	8.9900E-04
374.	268560.	269280.	720.	9.0042E-04
375.	269280.	270000.	720.	9.0182E-04
376.	270000.	270720.	720.	9.0321E-04
377.	270720.	271440.	720.	9.0461E-04
378.	271440.	272160.	720.	9.0605E-04
379.	272160.	272880.	720.	9.0741E-04
380.	272880.	273600.	720.	9.0883E-04
381.	273600.	274320.	720.	9.1023E-04
382.	274320.	275040.	720.	9.1165E-04
383.	275040.	275760.	720.	9.1307E-04

384.	275760.	276480.	720.	9.1445E-04
385.	276480.	277200.	720.	9.1589E-04
386.	277200.	277920.	720.	9.1731E-04
387.	277920.	278640.	720.	9.1873E-04
388.	278640.	279360.	720.	9.2015E-04
389.	279360.	280080.	720.	9.2157E-04
390.	280080.	280800.	720.	9.2297E-04
391.	280800.	281520.	720.	9.2439E-04
392.	281520.	282240.	720.	9.2583E-04
393.	282240.	282960.	720.	9.2725E-04
394.	282960.	283680.	720.	9.2867E-04
395.	283680.	284400.	720.	9.3011E-04
396.	284400.	285120.	720.	9.3155E-04
397.	285120.	285840.	720.	9.3295E-04
398.	285840.	286560.	720.	9.3439E-04
399.	286560.	287280.	720.	9.3583E-04
400.	287280.	288000.	720.	9.3725E-04
401.	288000.	288720.	720.	9.3869E-04
402.	288720.	289440.	720.	9.4013E-04
403.	289440.	290160.	720.	9.4155E-04
404.	290160.	290880.	720.	9.4301E-04
405.	290880.	291600.	720.	9.4443E-04
406.	291600.	292320.	720.	9.4588E-04
407.	292320.	293040.	720.	9.4732E-04
408.	293040.	293760.	720.	9.4878E-04
409.	293760.	294480.	720.	9.5020E-04
410.	294480.	295200.	720.	9.5164E-04
411.	295200.	295920.	720.	9.5310E-04
412.	295920.	296640.	720.	9.5454E-04
413.	296640.	297360.	720.	9.5601E-04
414.	297360.	298080.	720.	9.5743E-04
415.	298080.	298800.	720.	9.5889E-04
416.	298800.	299520.	720.	9.6033E-04
417.	299520.	300240.	720.	9.6179E-04
418.	300240.	300960.	720.	9.6325E-04
419.	300960.	301680.	720.	9.6472E-04
420.	301680.	302400.	720.	9.6616E-04
421.	302400.	303120.	720.	9.6762E-04
422.	303120.	303840.	720.	9.6906E-04
423.	303840.	304560.	720.	9.7052E-04
424.	304560.	305280.	720.	9.7201E-04
425.	305280.	306000.	720.	9.7349E-04
426.	306000.	306720.	720.	9.7493E-04
427.	306720.	307440.	720.	9.7639E-04
428.	307440.	308160.	720.	9.7786E-04
429.	308160.	308880.	720.	9.7934E-04
430.	308880.	309600.	720.	9.8082E-04
431.	309600.	310320.	720.	9.8226E-04
432.	310320.	311040.	720.	9.8375E-04
433.	311040.	311760.	720.	9.8523E-04
434.	311760.	312480.	720.	9.8669E-04
435.	312480.	313200.	720.	9.8818E-04
436.	313200.	313920.	720.	9.8966E-04
437.	313920.	314640.	720.	9.9114E-04
438.	314640.	315360.	720.	9.9261E-04
439.	315360.	316080.	720.	9.9409E-04
440.	316080.	316800.	720.	9.9557E-04
441.	316800.	317520.	720.	9.9706E-04
442.	317520.	318240.	720.	9.9852E-04
443.	318240.	318960.	720.	1.0000E-03
444.	318960.	319680.	720.	1.0015E-03
445.	319680.	320400.	720.	1.0030E-03
446.	320400.	321120.	720.	1.0045E-03
447.	321120.	321840.	720.	1.0060E-03
448.	321840.	322560.	720.	1.0075E-03
449.	322560.	323280.	720.	1.0089E-03

450.	323280.	324000.	720.	1.0105E-03
451.	323280.	324720.	720.	1.0120E-03
452.	324020.	325440.	720.	1.0135E-03
453.	325440.	326160.	720.	1.0150E-03
454.	326160.	326880.	720.	1.0165E-03
455.	326880.	327600.	720.	1.0180E-03
456.	327600.	328320.	720.	1.0195E-03
457.	328320.	329040.	720.	1.0210E-03
458.	329040.	329760.	720.	1.0225E-03
459.	329760.	330480.	720.	1.0240E-03
460.	330480.	331200.	720.	1.0255E-03
461.	331200.	331920.	720.	1.0270E-03
462.	331920.	332640.	720.	1.0285E-03
463.	332640.	333360.	720.	1.0300E-03
464.	333360.	334080.	720.	1.0315E-03
465.	334080.	334800.	720.	1.0330E-03
466.	334800.	335520.	720.	1.0345E-03
467.	335520.	336240.	720.	1.0361E-03
468.	336240.	336960.	720.	1.0376E-03
469.	336960.	337680.	720.	1.0391E-03
470.	337680.	338400.	720.	1.0406E-03
471.	338400.	339120.	720.	1.0422E-03
472.	339120.	339840.	720.	1.0437E-03
473.	339840.	340560.	720.	1.0452E-03
474.	340560.	341280.	720.	1.0467E-03
475.	341280.	342000.	720.	1.0483E-03
476.	342000.	342720.	720.	1.0498E-03
477.	342720.	343440.	720.	1.0513E-03
478.	343440.	344160.	720.	1.0528E-03
479.	344160.	344880.	720.	1.0543E-03
480.	344880.	345600.	720.	1.0559E-03
481.	345600.	346320.	720.	1.0574E-03
482.	346320.	347040.	720.	1.0587E-03
483.	347040.	347760.	720.	1.0596E-03
484.	347760.	348480.	720.	1.0613E-03
485.	348480.	349200.	720.	1.0630E-03
486.	349200.	349920.	720.	1.0640E-03
487.	349920.	350640.	720.	1.0661E-03
488.	350640.	351360.	720.	1.0674E-03
489.	351360.	352080.	720.	1.0688E-03
490.	352080.	352800.	720.	1.0708E-03
491.	352800.	353520.	720.	1.0722E-03
492.	353520.	354240.	720.	1.0735E-03
493.	354240.	354960.	720.	1.0756E-03
494.	354960.	355680.	720.	1.0766E-03
495.	355680.	356400.	720.	1.0783E-03
496.	356400.	357120.	720.	1.0800E-03
497.	357120.	357840.	720.	1.0813E-03
498.	357840.	358560.	720.	1.0830E-03
499.	358560.	359280.	720.	1.0847E-03
500.	359280.	360000.	720.	1.0861E-03
501.	360000.	360720.	720.	1.0874E-03
502.	360720.	361440.	720.	1.0891E-03
503.	361440.	362160.	720.	1.0912E-03
504.	362160.	362880.	720.	1.0922E-03
505.	362880.	363600.	720.	1.0939E-03
506.	363600.	364320.	720.	1.0956E-03
507.	364320.	365040.	720.	1.0969E-03
508.	365040.	365760.	720.	1.0990E-03
509.	365760.	366480.	720.	1.1000E-03
510.	366480.	367200.	720.	1.1017E-03
511.	367200.	367920.	720.	1.1037E-03
512.	367920.	368640.	720.	1.1047E-03
513.	368640.	369360.	720.	1.1068E-03
514.	369360.	370080.	720.	1.1081E-03
515.	370080.	370800.	720.	1.1095E-03

516.	370800.	371520.	720.	1.1115E-03
517.	371520.	372240.	720.	1.1125E-03
518.	372240.	372960.	720.	1.1142E-03
519.	372960.	373680.	720.	1.1163E-03
520.	373680.	374400.	720.	1.1173E-03
521.	374400.	375120.	720.	1.1190E-03
522.	375120.	375840.	720.	1.1207E-03
523.	375840.	376560.	720.	1.1224E-03
524.	376560.	377280.	720.	1.1241E-03
525.	377280.	378000.	720.	1.1258E-03
526.	378000.	378720.	720.	1.1268E-03
527.	378720.	379440.	720.	1.1288E-03
528.	379440.	380160.	720.	1.1302E-03
529.	380160.	380880.	720.	1.1315E-03
530.	380880.	381600.	720.	1.1336E-03
531.	381600.	382320.	720.	1.1349E-03
532.	382320.	383040.	720.	1.1366E-03
533.	383040.	383760.	720.	1.1383E-03
534.	383760.	384480.	720.	1.1393E-03
535.	384480.	385200.	720.	1.1417E-03
536.	385200.	385920.	720.	1.1431E-03
537.	385920.	386640.	720.	1.1444E-03
538.	386640.	387360.	720.	1.1464E-03
539.	387360.	388080.	720.	1.1478E-03
540.	388080.	388800.	720.	1.1495E-03
541.	388800.	389520.	720.	1.1512E-03
542.	389520.	390240.	720.	1.1525E-03
543.	390240.	390960.	720.	1.1546E-03
544.	390960.	391680.	720.	1.1559E-03
545.	391680.	392400.	720.	1.1570E-03
546.	392400.	393120.	720.	1.1593E-03
547.	393120.	393840.	720.	1.1607E-03
548.	393840.	394560.	720.	1.1624E-03
549.	394560.	395280.	720.	1.1637E-03
550.	395280.	396000.	720.	1.1658E-03
551.	396000.	396720.	720.	1.1671E-03
552.	396720.	397440.	720.	1.1688E-03
553.	397440.	398160.	720.	1.1705E-03
554.	398160.	398880.	720.	1.1722E-03
555.	398880.	399600.	720.	1.1736E-03
556.	399600.	400320.	720.	1.1753E-03
557.	400320.	401040.	720.	1.1770E-03
558.	401040.	401760.	720.	1.1790E-03
559.	401760.	402480.	720.	1.1800E-03
560.	402480.	403200.	720.	1.1817E-03
561.	403200.	403920.	720.	1.1837E-03
562.	403920.	404640.	720.	1.1851E-03
563.	404640.	405360.	720.	1.1868E-03
564.	405360.	406080.	720.	1.1885E-03
565.	406080.	406800.	720.	1.1898E-03
566.	406800.	407520.	720.	1.1919E-03
567.	407520.	408240.	720.	1.1932E-03
568.	408240.	408960.	720.	1.1949E-03
569.	408960.	409680.	720.	1.1966E-03
570.	409680.	410400.	720.	1.1983E-03
571.	410400.	411120.	720.	1.1997E-03
572.	411120.	411840.	720.	1.2017E-03
573.	411840.	412560.	720.	1.2034E-03
574.	412560.	413280.	720.	1.2048E-03
575.	413280.	414000.	720.	1.2065E-03
576.	414000.	414720.	720.	1.2085E-03
577.	414720.	415440.	720.	1.2095E-03
578.	415440.	416160.	720.	1.2115E-03
579.	416160.	416880.	720.	1.2129E-03
580.	416880.	417600.	720.	1.2149E-03
581.	417600.	418320.	720.	1.2163E-03

582.	418320.	419040.	720.	1.2180E-03
583.	419060.	419760.	720.	1.2197E-03
584.	419760.	420480.	720.	1.2214E-03
585.	420480.	421200.	720.	1.2231E-03
586.	421200.	421920.	720.	1.2244E-03
587.	421920.	422640.	720.	1.2265E-03
588.	422640.	423360.	720.	1.2282E-03
589.	423360.	424080.	720.	1.2292E-03
590.	424080.	424800.	720.	1.2312E-03
591.	424800.	425520.	720.	1.2332E-03
592.	425520.	426240.	720.	1.2346E-03
593.	426240.	426960.	720.	1.2363E-03
594.	426960.	427680.	720.	1.2383E-03
595.	427680.	428400.	720.	1.2397E-03
596.	428400.	429120.	720.	1.2414E-03
597.	429120.	429840.	720.	1.2431E-03
598.	429840.	430560.	720.	1.2444E-03
599.	430560.	431280.	720.	1.2465E-03
600.	431280.	432000.	720.	1.2478E-03
601.	432000.	432720.	720.	1.2499E-03
602.	432720.	433440.	720.	1.2516E-03
603.	433440.	434160.	720.	1.2533E-03
604.	434160.	434880.	720.	1.2546E-03
605.	434880.	435600.	720.	1.2566E-03
606.	435600.	436320.	720.	1.2583E-03
607.	436320.	437040.	720.	1.2594E-03
608.	437040.	437760.	720.	1.2617E-03
609.	437760.	438480.	720.	1.2634E-03
610.	438480.	439200.	720.	1.2651E-03
611.	439200.	439920.	720.	1.2665E-03
612.	439920.	440640.	720.	1.2685E-03
613.	440640.	441360.	720.	1.2702E-03
614.	441360.	442080.	720.	1.2716E-03
615.	442080.	442800.	720.	1.2736E-03
616.	442800.	443520.	720.	1.2756E-03
617.	443520.	444240.	720.	1.2767E-03
618.	444240.	444960.	720.	1.2783E-03
619.	444960.	445680.	720.	1.2804E-03
620.	445680.	446400.	720.	1.2817E-03
621.	446400.	447120.	720.	1.2834E-03
622.	447120.	447840.	720.	1.2855E-03
623.	447840.	448560.	720.	1.2872E-03
624.	448560.	449280.	720.	1.2885E-03
625.	449280.	450000.	720.	1.2906E-03
626.	450000.	450720.	720.	1.2922E-03
627.	450720.	451440.	720.	1.2939E-03
628.	451440.	452160.	720.	1.2956E-03
629.	452160.	452880.	720.	1.2977E-03
630.	452880.	453600.	720.	1.2990E-03
631.	453600.	454320.	720.	1.3007E-03
632.	454320.	455040.	720.	1.3024E-03
633.	455040.	455760.	720.	1.3045E-03
634.	455760.	456480.	720.	1.3058E-03
635.	456480.	457200.	720.	1.3075E-03
636.	457200.	457920.	720.	1.3099E-03
637.	457920.	458640.	720.	1.3109E-03
638.	458640.	459360.	720.	1.3129E-03
639.	459360.	460080.	720.	1.3146E-03
640.	460080.	460800.	720.	1.3163E-03
641.	460800.	461520.	720.	1.3180E-03
642.	461520.	462240.	720.	1.3197E-03
643.	462240.	462960.	720.	1.3214E-03
644.	462960.	463680.	720.	1.3231E-03
645.	463680.	464400.	720.	1.3248E-03
646.	464400.	465120.	720.	1.3272E-03
647.	465120.	465840.	720.	1.3282E-03

648.	465840.	466560.	720.	1.3302E-03
649.	466560.	467280.	720.	1.3319E-03
650.	467280.	468000.	720.	1.3336E-03
651.	468000.	468720.	720.	1.3353E-03
652.	468720.	469440.	720.	1.3373E-03
653.	469440.	470160.	720.	1.3390E-03
654.	470160.	470880.	720.	1.3407E-03
655.	470880.	471600.	720.	1.3421E-03
656.	471600.	472320.	720.	1.3445E-03
657.	472320.	473040.	720.	1.3458E-03
658.	473040.	473760.	720.	1.3475E-03
659.	473760.	474480.	720.	1.3492E-03
660.	474480.	475200.	720.	1.3513E-03
661.	475200.	475920.	720.	1.3526E-03
662.	475920.	476640.	720.	1.3546E-03
663.	476640.	477360.	720.	1.3567E-03
664.	477360.	478080.	720.	1.3580E-03
665.	478080.	478800.	720.	1.3597E-03
666.	478800.	479520.	720.	1.3621E-03
667.	479520.	480240.	720.	1.3635E-03
668.	480240.	480960.	720.	1.3652E-03
669.	480960.	481680.	720.	1.3672E-03
670.	481680.	482400.	720.	1.3689E-03
671.	482400.	483120.	720.	1.3702E-03
672.	483120.	483840.	720.	1.3723E-03
673.	483840.	484560.	720.	1.3743E-03
674.	484560.	485280.	720.	1.3760E-03
675.	485280.	486000.	720.	1.3777E-03
676.	486000.	486720.	720.	1.3794E-03
677.	486720.	487440.	720.	1.3814E-03
678.	487440.	488160.	720.	1.3828E-03
679.	488160.	488880.	720.	1.3848E-03
680.	488880.	489600.	720.	1.3865E-03
681.	489600.	490320.	720.	1.3885E-03
682.	490320.	491040.	720.	1.3902E-03
683.	491040.	491760.	720.	1.3919E-03
684.	491760.	492480.	720.	1.3936E-03
685.	492480.	493200.	720.	1.3957E-03
686.	493200.	493920.	720.	1.3970E-03
687.	493920.	494640.	720.	1.3991E-03
688.	494640.	495360.	720.	1.4008E-03
689.	495360.	496080.	720.	1.4025E-03
690.	496080.	496800.	720.	1.4045E-03
691.	496800.	497520.	720.	1.4062E-03
692.	497520.	498240.	720.	1.4086E-03
693.	498240.	498960.	720.	1.4096E-03
694.	498960.	499680.	720.	1.4116E-03
695.	499680.	500400.	720.	1.4136E-03
696.	500400.	501120.	720.	1.4153E-03
697.	501120.	501840.	720.	1.4167E-03
698.	501840.	502560.	720.	1.4191E-03
699.	502560.	503280.	720.	1.4208E-03
700.	503280.	504000.	720.	1.4225E-03
701.	504000.	504720.	720.	1.4238E-03
702.	504720.	505440.	720.	1.4262E-03
703.	505440.	506160.	720.	1.4279E-03
704.	506160.	506880.	720.	1.4292E-03
705.	506880.	507600.	720.	1.4316E-03
706.	507600.	508320.	720.	1.4333E-03
707.	508320.	509040.	720.	1.4350E-03
708.	509040.	509760.	720.	1.4367E-03
709.	509760.	510480.	720.	1.4387E-03
710.	510480.	511200.	720.	1.4404E-03
711.	511200.	511920.	720.	1.4425E-03
712.	511920.	512640.	720.	1.4442E-03
713.	512640.	513360.	720.	1.4459E-03

714.	513360.	514080.	720.	1.4482E-03
715.	514000.	514800.	720.	1.4496E-03
716.	514800.	515520.	720.	1.4513E-03
717.	515520.	516240.	720.	1.4533E-03
718.	516240.	516960.	720.	1.4553E-03
719.	516960.	517680.	720.	1.4570E-03
720.	517680.	518400.	720.	1.4587E-03
721.	518400.	519120.	720.	1.4608E-03
722.	519120.	519840.	720.	1.4625E-03
723.	519840.	520560.	720.	1.4642E-03
724.	520560.	521280.	720.	1.4659E-03
725.	521280.	522000.	720.	1.4679E-03
726.	522000.	522720.	720.	1.4699E-03
727.	522720.	523440.	720.	1.4716E-03
728.	523440.	524160.	720.	1.4733E-03
729.	524160.	524880.	720.	1.4750E-03
730.	524880.	525600.	720.	1.4774E-03

END OF FRANTIC RUN
