

**NAVAL POSTGRADUATE SCHOOL  
Monterey, California**



**THESIS**

**STATISTICAL ANALYSIS OF ATMOSPHERIC  
PROPERTIES FOR ESTIMATION OF INFRARED  
RADIANCE OF BALLISTIC MISSILES**

by

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June 1999

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# REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE June 1999	3. REPORT TYPE AND DATES COVERED Master's Thesis	
4. TITLE AND SUBTITLE <b>STATISTICAL ANALYSES OF ATMOSPHERIC PROPERTIES FOR ESTIMATION OF INFRARED RADIANCE OF BALLISTIC MISSILES</b>		5. FUNDING NUMBERS	
6. AUTHOR(S) Nestler, Scott T.			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000		8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Defense Intelligence Agency, Missile and Space Intelligence Center Building 4050, Martin Road, Redstone Arsenal, AL 35898		10. SPONSORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.			
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.		12b. DISTRIBUTION CODE	
13. ABSTRACT (maximum 200 words)  Missile defense systems currently under development rely on thermal Infra-Red (IR) seekers to detect and track incoming ballistic missiles. Atmospheric properties, like temperature and density, can greatly affect the amount of IRE energy that is reflected off a targeted missile. While many models to predict mean atmospheric conditions exist, there are no global models that account for the variability in these properties. This shortcoming makes it difficult to assess uncertainty due to atmospheric conditions. For this reason, a model that is adjusted for known extreme values is needed for use in describing the global behavior of atmospheric parameters. This study is in support of MSIC's development of a Bounded Earth Atmospheric Model (BEAM). This study will attempt to create such a model through statistical analyses on an existing atmospheric model. It is expected that BEAM will primarily be used by designers of IR sensors used in missile defense systems.			
14. SUBJECT TERMS Missile Defense, Atmospheric Model, Infra-Red Radiance, Density Estimation		15. NUMBER OF PAGES 121	
			16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UL

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)  
Prescribed by ANSI Std. Z39-18

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STATISTICAL ANALYSIS OF ATMOSPHERIC  
PROPERTIES FOR ESTIMATION OF INFRARED  
RADIANCE OF BALLISTIC MISSILES

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Submitted in partial fulfillment of the  
requirements for the degree of

MASTER OF SCIENCE IN APPLIED MATHEMATICS

from the

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## **ABSTRACT**

Missile defense systems currently under development rely on thermal Infra-Red (IR) seekers to detect and track incoming ballistic missiles. Atmospheric properties, like temperature and density, can greatly affect the amount of IRE energy that is reflected off a targeted missile.

While many models to predict mean atmospheric conditions exist, there are no global models that account for the variability in these properties. This shortcoming makes it difficult to assess uncertainty due to atmospheric conditions.

For this reason, a model that is adjusted for known extreme values is needed for use in describing the global behavior of atmospheric parameters. This study is in support of MSIC's development of a Bounded Earth Atmospheric Model (BEAM). This study will attempt to create such a model through statistical analyses on an existing atmospheric model. It is expected that BEAM will primarily be used by designers of IR sensors used in missile defense systems.

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## LIST OF ACRONYMS AND SYMBOLS

AIAA	American Institute of Aeronautics and Astronautics
ANSI	American National Standards Institute
BEAM	Bounded Earth Atmospheric Model
c.v.	Coefficient of Variation
CDF	Cumulative Distribution Function
DIA	Defense Intelligence Agency
DSP	Defense Surveillance Program
deg. K	Degrees Kelvin
IR	Infra-Red
km	kilometer
MSE	Mean Squared Error
MSIC	Missile and Space Intelligence Center
MSISE-90	Mass Spectrometer and Incoherent Scatter-Enhanced, 1990
NASA	National Aeronautics and Space Administration
NMC	National Meteorological Center
NOAA	National Oceanographic and Atmospheric Agency
NSSDC	National Space Science Data Center
PDF	Probability Distribution Function
RSE	Residual Standard Error
SD	Standard Deviation
THAAD	Theater High-Altitude Air Defense

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## ACKNOWLEDGEMENTS

The author would like to acknowledge the financial support of the Missile and Space Intelligence Center, Redstone Arsenal, AL that allowed him to travel to Huntsville, AL in order to obtain a clear definition of the problem and also for the invitation to present this thesis to the Infrared Modeling Symposium.

Also, the author would like to thank Mr. Ric Crooks and Mr. Doug Tincher of the Missile and Space Intelligence Center, Redstone Arsenal, Huntsville, Alabama for their patience with his questions about atmospheric properties and high-speed flight dynamics.

Additionally, the author thanks Toke Jayachandran, Professor, Department of Mathematics, Naval Postgraduate School, Monterey, CA for keeping the author focused and moving in the right direction. He clearly outlined the thesis process and ensured that it was followed.

Finally, the author extends thanks to Sam Buttrey, Assistant Professor, Department of Operations Research, Naval Postgraduate School, Monterey, CA. Sam provided invaluable S-Plus assistance without which this thesis would have been impossible.

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## I. INTRODUCTION

### A. BACKGROUND

Over the past two decades, the nature of the air threat faced by U.S. forces has changed from being posed primarily by fixed-wing aircraft to include ballistic and cruise missiles. As a result, missile defense is now one of the main roles of air defense forces. Protecting forces from missile attack requires the ability to both detect and intercept the missile.

The Army and Navy have modified their current air defense systems (PATRIOT and AEGIS, respectively) to defend against missile attacks. These systems detect targets and perform missile guidance with radar; also, they rely on proximity-fused warheads to kill the target. Due to the extremely high closure rate in a missile-on-missile engagement, there is an emphasis shift to new systems that are kinetic energy, "hit to kill" weapons. These systems now under development, Theater High-Altitude Air Defense (THAAD) for the Army and Theater-Wide Defense for the Navy, both rely on thermal Infra-Red (IR) seekers to detect and track incoming missiles. Additionally, Defense Surveillance Program (DSP) satellites currently in use and those in development use IR sensors to detect missile launches.

#### **B. SPONSORING ORGANIZATION**

The Defense Intelligence Agency's (DIA) Missile and Space Intelligence Center (MSIC) is located at Redstone Arsenal, Alabama. Its primary mission is the production of scientific and technical intelligence on foreign missile and space weapon systems. MSIC utilizes a comprehensive all-source approach to provide a wide range of products to customers such as U.S. weapons developers, defense policymakers, counter-measure designers, tacticians, and operational forces. One of the key focus areas for MSIC's Offensive Systems Office is the analysis of foreign short-range ballistic missiles (<1000 km range).

#### **C. CURRENT PRACTICES**

Since the beginning of flight, designers have known that the atmosphere affects the flight characteristics and dynamics of aircraft and space vehicles. According to Anderson [Ref. 1] the earth's atmosphere, within which aircraft and missiles must operate, is a dynamically changing system. The pressure, density, and temperature of the atmosphere depend most significantly on altitude, global position (latitude and longitude), and seasonal and diurnal effects. In order to have a common reference atmosphere for engineering design and scientific research, "standard"

atmospheres has been defined. The most recent version is the U.S. Standard Atmosphere 1976, published jointly by the National Oceanic and Atmospheric Administration (NOAA), the National Aeronautics and Space Administration (NASA), and the United States Air Force. [Ref. 2] It attempts to depict a hypothetical vertical distribution of atmospheric temperature, pressure, and density that is roughly representative of middle-latitude, year-round, mean conditions. The following table shows selected data for a range of altitudes. It is readily apparent that the atmospheric properties vary greatly with altitude.

Altitude (m)	Temperature (K)	Pressure (mb)	Density (kg/m <sup>3</sup> )
0	288.150	1013.25	1.225
100	287.500	1001.2	1.2133
...	...	...	...
1000	281.651	674.12	1.1117
...	...	...	...
10000	223.252	264.99	.41351
...	...	...	...
85500	187.920	.0040802	.0000040269

Table I.1. Standard Atmosphere Data. From Ref. [2].

In recent years, many organizations have created atmospheric models that contain a variety of parameters and cover different parts of the atmosphere. The differences between these models, including their content, limitations, bases, references, and sources, are outlined in a guide published jointly by the American National Standards Institute (ANSI) and the American Institute of Aeronautics and Astronautics (AIAA). [Ref. 3] From the models available, MSIC selected the Mass Spectrometer and Incoherent Scatter-Enhanced 1990 (MSISE-90) model as the basis for this study.

#### D. MOTIVATION AND GOALS

##### 1. IR Radiance

IR radiance is a parameter that indicates the target (like a ballistic missile) size in terms of how much IR energy is emitted from the engine exhaust and other IR "hot spots." Most of the factors that affect IR radiance of a target are not known as facts but can be estimated. Key among these are the physical design and capabilities of the ballistic target, and atmospheric properties. Of particular importance in designing IR sensors is the ability to determine bounds for atmospheric properties. Those properties affecting the minimum value of IR radiance

(primarily temperature and density) impact the ability of a sensor to accurately discriminate the target from its background while the maximum values are of concern for preventing blinding of the sensor.

## **2. Shortcomings of Standard Atmospheres**

The standard atmosphere is sufficient for much of the design, test, and evaluation process for flight vehicles (aircraft and missiles). However, it does not provide all of the necessary information for the design and testing of IR sensors used in ballistic missile defense systems. Specifically, as noted in the AIAA guide, "there is no information on standard deviations from the mean values or frequencies of occurrence of the variables described by these models. This lacuna prohibits quantitative assessments of uncertainties, and is a serious deficiency in nearly all reference and standard atmospheric models."

[Ref. 3]

## **3. Purpose**

The purpose of this study was to provide statistical analyses of MSISE-90 output data, adjusted for known extreme values, for use in describing the global behavior of atmospheric parameters. This study supports MSIC's development of the Bounded Earth Atmospheric Model (BEAM).

It is expected that BEAM will be adopted by designers of IR sensors used in missile defense systems.

#### E. THESIS ORGANIZATION

Chapter II presents a brief overview of the MSISE-90 model. Chapter III provides a short discussion on the statistical analyses used in this thesis and their application to modeling temperature. Chapter IV focuses on computing the empirical distribution of atmospheric density and then providing corresponding ranges of admissible values for the other atmospheric parameters. Conclusions and recommendations are presented in Chapter V. Appendix A contains the source code for the functions and scripts created for the data analysis in S-Plus<sup>®</sup>, a comprehensive statistical analysis package. Appendix B is the output generated by the statistical analysis discussed in Chapter IV.

## II. MSISE-90 MODEL

### A. MODEL SELECTION

The Mass Spectrometer and Incoherent Scatter-- Enhanced (MSISE-90) atmospheric model is the latest in a series by A.E. Hedin [Refs. 4, 5, and 6], formerly of the NASA National Space Science Data Center (NSSDC).

MSISE-90 was chosen over other atmospheric models by MSIC for two main reasons. First, MSISE-90 is applicable to a wide range of altitudes, while other models are more limited in terms of the atmospheric zones they cover. Second, it is freely available in multiple formats, including an on-line version at <http://nssdc.gsfc.nasa.gov/space/model/models/msis.html> and in FORTRAN source code, making it accessible to the analyst community. Lastly, MSISE-90 accounts for important solar cycle effects ignored by standard atmospheres.

In conjunction with a recent ballistic missile test, the MSISE-90 model was used to predict the atmospheric conditions for a specific launch site and time. Actual measurements taken during the launch were within acceptable ranges of the predicted values. This test is the first in a series that will be used by MSIC to support the choice of

MSISE-90 as the model for predicting atmospheric conditions for BEAM.

#### B. CONTENT AND BASIS OF MODEL

The MSISE-90 model describes the temperature and densities in the Earth's atmosphere from sea level up to 2000 km in altitude. According to NASA it is based on data from seven satellites (OGO-6, San Marco-3, Aeros-A, AE-C, AE-D, AE-E, ESRO-4), DE-B [Dynamic Explorer], numerous rocket probes, and incoherent scatter radar. It provides predictions of temperature and of the densities of seven constituent atoms and molecules (diatomic and monatomic Nitrogen, diatomic and monatomic Oxygen, Helium, Argon, and Hydrogen). The model accounts for major variations due to solar activity, magnetic activity, latitude, longitude, annual, semiannual, and simplified local time effects.

[Ref. 7]

MSISE-90 provides a useful format for organizing and disseminating the results of satellite missions that provide large amounts of data. It also facilitates data comparisons and theoretical calculations requiring a background atmosphere as well as providing a convenient source of engineering design information.

Below 72.5 km the model is primarily based on the MAP Handbook [Ref. 8] tabulation of zonal average temperature and pressure. Below 20 km these data were supplemented with averages from the National Meteorological Center (NMC). In addition, Pitot tube, falling sphere, and grenade sounder measurements from 1947 to 1972 were taken into consideration. Above 72.5 km MSISE-90 is essentially a revised MSIS-86 model.

These temperature profiles allow exact integration of the hydrostatic equation for constant mass, yielding a density profile as a function of geographical and solar/magnetic parameters.

#### C. UNCERTAINTIES AND LIMITATIONS

According to the AIAA/ANSI Guide, the average error of the model in regions of good data coverage is roughly 15% for total mass density, 5% for temperature, and 15% for O and He, 20% for N<sub>2</sub>, and 25% for O<sub>2</sub>, and 30% for Ar, H, and N densities. Data are sparse in the exosphere above 600 km and extrapolations are expected to become increasingly inaccurate at higher altitudes. The model cannot follow in detail the sharp spatial and temporal changes (<3 hours) which occur during magnetic storms; instead, it reflects average behavior. [Ref. 3]

Perhaps the biggest drawback is that the MSISE-90 model does not include water vapor ( $H_2O$ ) and carbon dioxide ( $CO_2$ ) as constituents. Both of these molecules can drastically affect the absorption of energy in the thermal IR spectrum.

#### D. APPLICATION OF GRID

In order to provide a representative sample of the earth's atmosphere for all locations and times, a mesh of 108 grid points was established. The grid covers from +80 to -80 degrees latitude in 20-degree increments and from 0 to 330 degrees longitude in 30-degree increments. Figure 1 gives a graphical representation of the grid. The polar regions are not considered important for this study because of the low probability of missile launches from those regions.

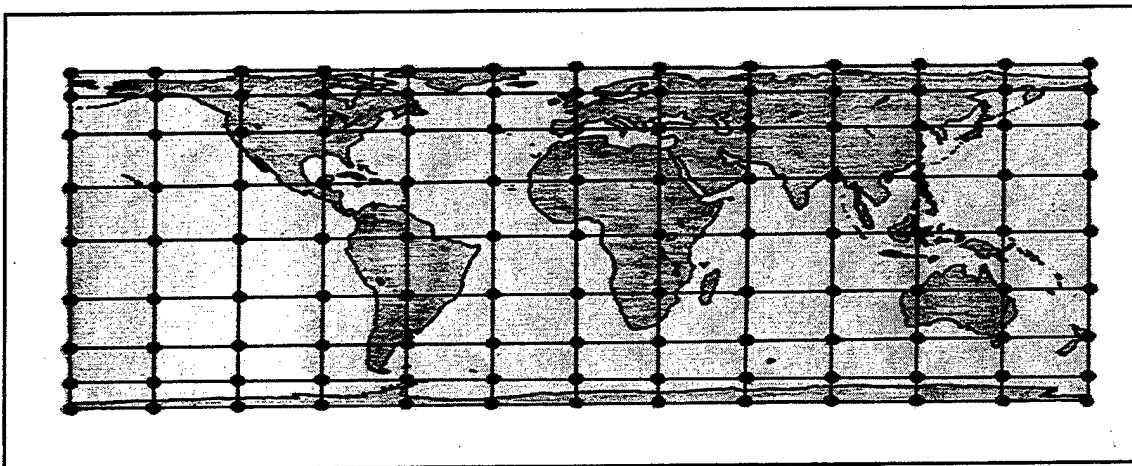
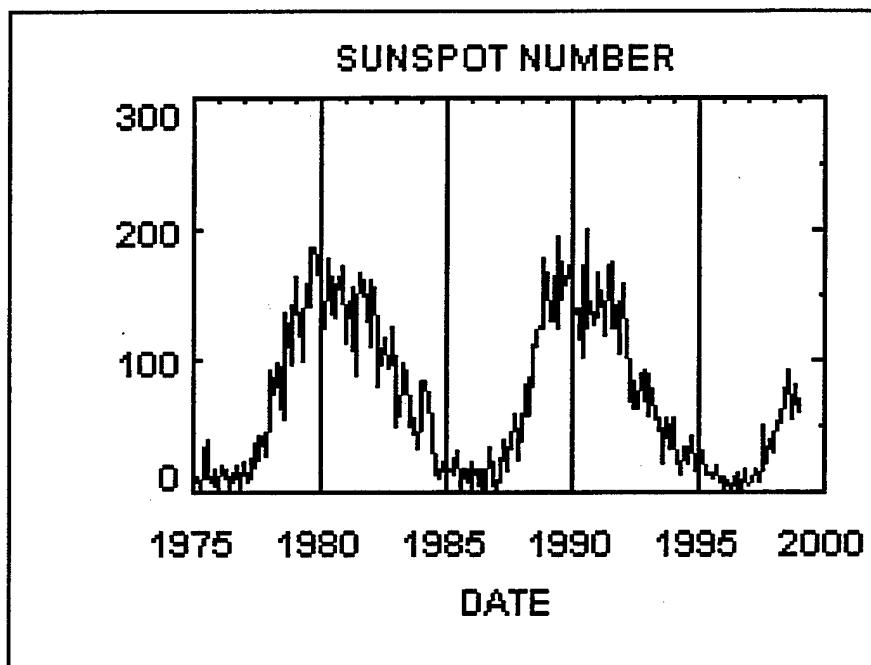


Figure II.1. Cylindrical Projection of 108 Point Grid

Every 11 years the sun undergoes a period of activity called the solar maximum, followed by a period of quiet called the solar minimum. During the solar maximum there are many sunspots, solar flares, and coronal mass ejections, all of which can affect communications and weather on Earth. To account for the effects of the solar cycle, the range of times input to the model spanned an 11-year period from 1980 to 1990. The figure below shows the sunspot activity for the period considered.



**Figure II.2. Recent Sunspot Activity**

To take annual effects into account, the solstice and equinox dates (Mar 21, Jun 22, Sep 23, and Dec 22) for each year were used. Finally, to account for the diurnal effect, two times for each day (0530 and 1600) were considered.

Altitudes considered were from 0 km (sea level) to 1000 km., in one km. increments. At each altitude, there are 9504 data points (predictions for 11 years, four days per year, twice a day, at 108 locations) for each of the atmospheric properties.

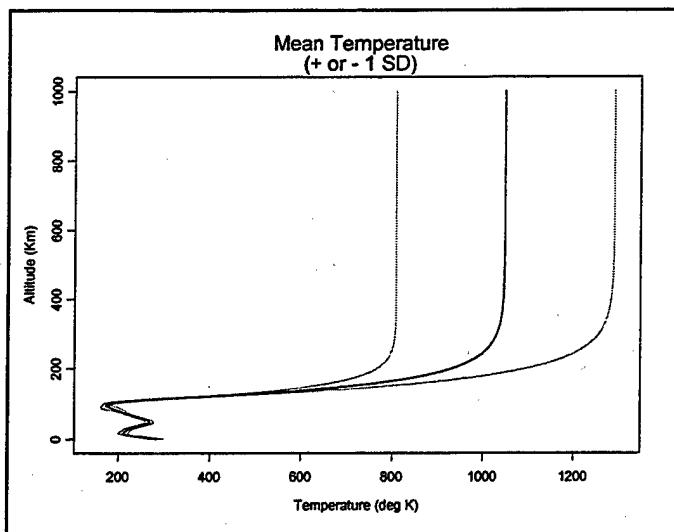
### **III. STATISTICAL ANALYSIS OF TEMPERATURE**

The first atmospheric parameter under consideration is temperature. This choice was made because temperature is something with which most people are familiar. The other parameters (density, molecular weight, and mean collision diameter) are more difficult to understand and measure. The intent was to develop a method for analyzing temperature and then apply it to the other parameters.

Several different statistical analyses were performed on the sea level data generated by MSISE-90 in order to describe the global behavior of atmospheric temperature. Although the results presented are for sea level only, similar analyses can be performed for any altitude of interest.

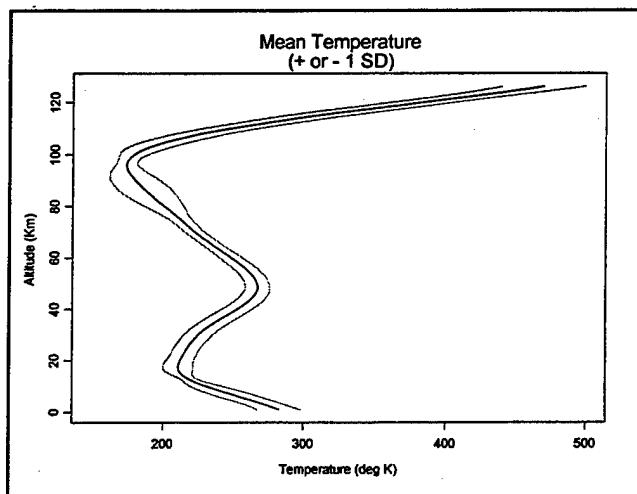
#### **A. TEMPERATURE VARIATION WITH ALTITUDE**

Atmospheric temperature varies greatly with altitude. As altitude increases, the temperature initially decreases then increases and decreases again, before growing rapidly to an asymptotic value of 1048 deg K. This behavior can be seen in Figure III.1, which shows the mean temperature and values one standard deviation away from the mean.



**Figure III.1. Temperature Variation With Altitude**

It may be difficult to see the variance at lower altitudes from the figure above. Figure III.2 shows an expanded view of the temperature below 125 km.



**Figure III.2. Low-Altitude Temperature Variation**

One measure used to express variation relative to the mean is called the coefficient of variation (c.v.), as defined below.

$$c.v. = \frac{s}{\bar{x}}$$

where  $s$  = sample standard deviation  
 $\bar{x}$  = sample mean (III.1)

At altitudes below 170 km, the coefficient of variation is between 3% and 10%; at altitudes above 400 km, it appears to be about 23%, as shown here.

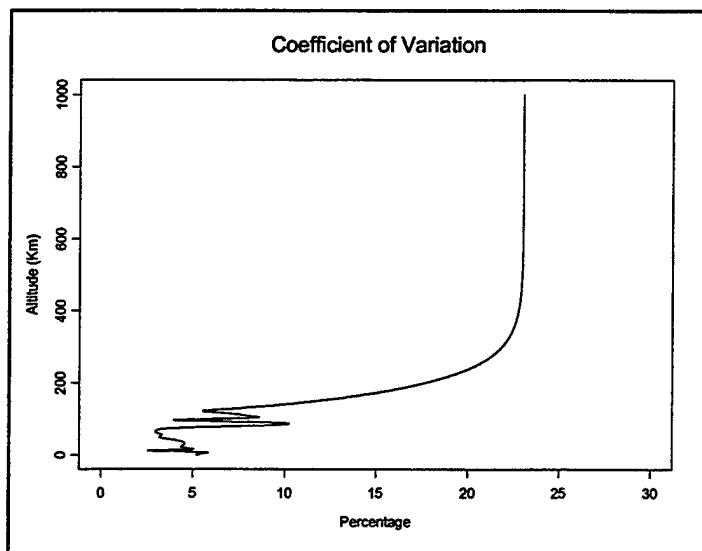


Figure III.3. Coefficient of Variation for Temperature

## B. REGRESSION MODEL

One possible way to predict temperature at a particular altitude is to perform a regression on the variables most likely to affect temperature— latitude and longitude. A plot of temperature variation versus latitude and longitude based on the data (actually MSISE-90 output, not observed measurements) for temperature at 0 km altitude (sea level) is shown here.

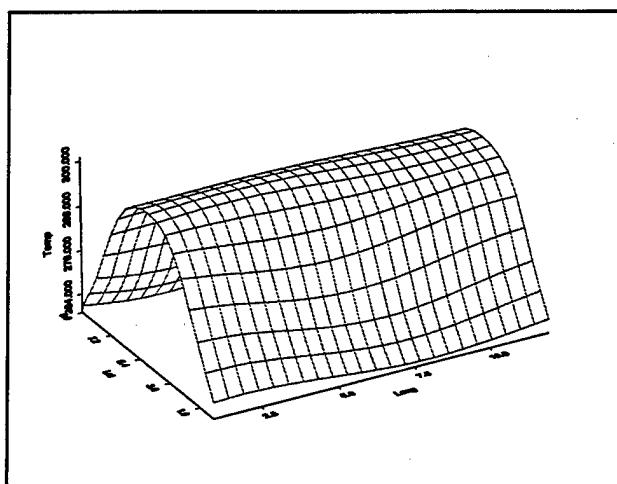


Figure III.4. Temperature at Sea Level

The general form of a regression model for temperature is given by the following equation.

$$E[\text{Temp}] = \mu + \beta_1 \cdot f(\text{Lat}) + \beta_2 \cdot f(\text{Long})$$

where  $E[\text{Temp}]$  = expected value of Temperature

$\mu$  = intercept

$f(\text{Lat})$  = function of Latitude

$f(\text{Long})$  = function of Longitude

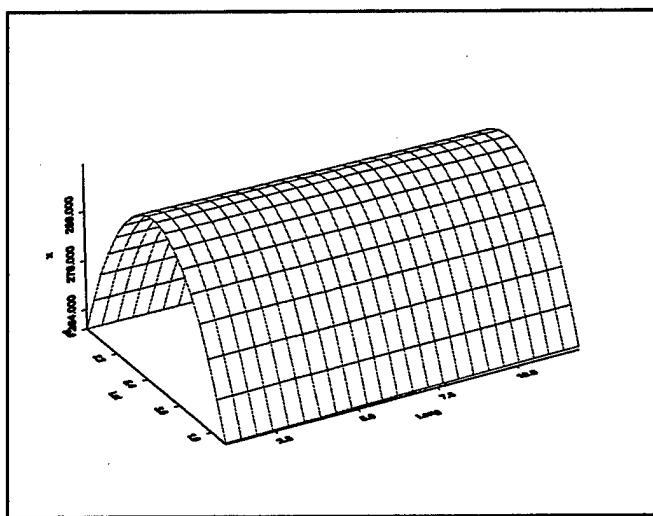
$\beta_1, \beta_2$  = linear coefficients

(III.2)

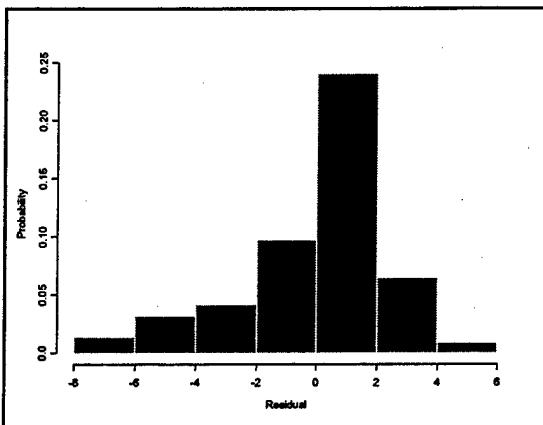
Fitting a model of the form containing just the first order terms did not result in an acceptable approximation. Closer examination of Figure III.4 shows that a quadratic term for latitude should be included in the regression. The best (in terms of a balance between minimizing error and keeping the number of terms reasonable) regression model formulation appears to be:

$$Temp \approx 237.324 - 2.468 \cdot (Lat)^2 + 24.641 \cdot Lat + .0473 \cdot Long \quad (\text{III.3})$$

This regression model is considered to be acceptable; it results in a residual standard error (RSE) of 2.461 deg. K and an  $R^2$  value of 0.9728. Here is a depiction of its predicted values and a histogram of its residuals.



**Figure III.5. Fitted Values for Temperature at Sea Level**

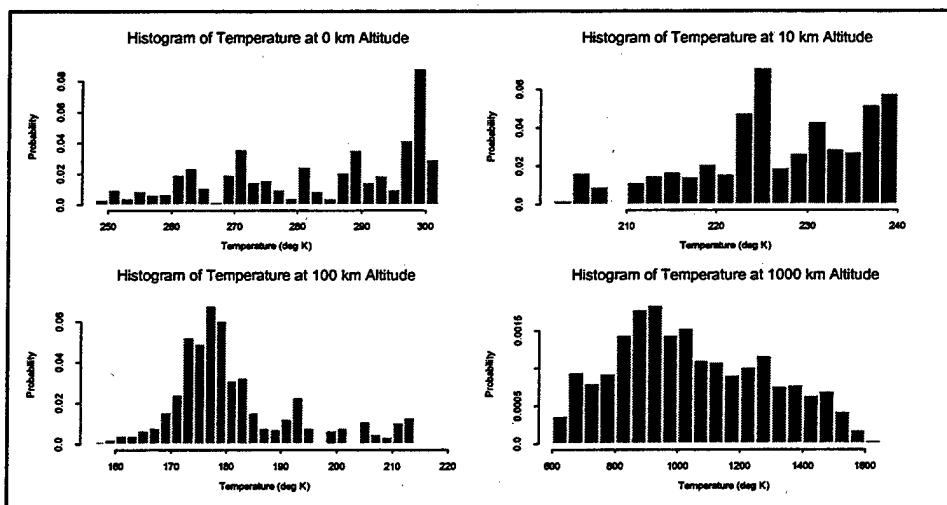


**Figure III.6. Residuals for Linear Model of Temperature**

Conducting a Chi-squared test for normality of the residuals resulted in a Chi-squared statistic of 120.4 with 13 degrees of freedom, thus yielding a p-value of 0. Thus, the residuals do not appear to have a Normal distribution.

### C. DISTRIBUTION OF TEMPERATURE

Histograms of temperature at four different altitudes are shown below.



**Figure III.7. Temperature Distribution At Various Altitudes**

Examining the histogram of the temperature at any altitude shows that the distribution of temperature is not Normal. However, each of these distributions is probably describable as a linear combination of several Normal (or other standard) distributions.

#### D. MIXTURE MODEL

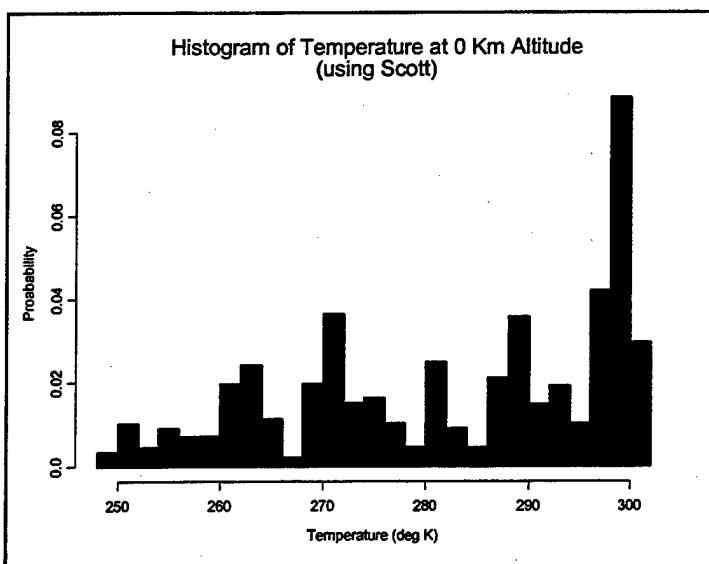
A mixture model composed of two Normals is described by the following equation.

$$p(x) = \beta_1 \cdot N(\mu_1, \sigma_1^2) + \beta_2 \cdot N(\mu_2, \sigma_2^2)$$

where  $\mu_1, \mu_2$  = means of Normal distribution  
 $\sigma_1, \sigma_2$  = standard deviation of Normal distribution      (III.4)  
 $\beta_1, \beta_2$  = coefficient for Normal distribution  
{Note:  $\beta_1 + \beta_2 = 1$ }

This model can be extended to include a greater number of Normal (or other) distributions as components.

The histogram of temperature at sea level appears to be multimodal; more specifically, there are six peaks in the distribution (at 251, 262, 271, 281, 289, and 299 deg K).

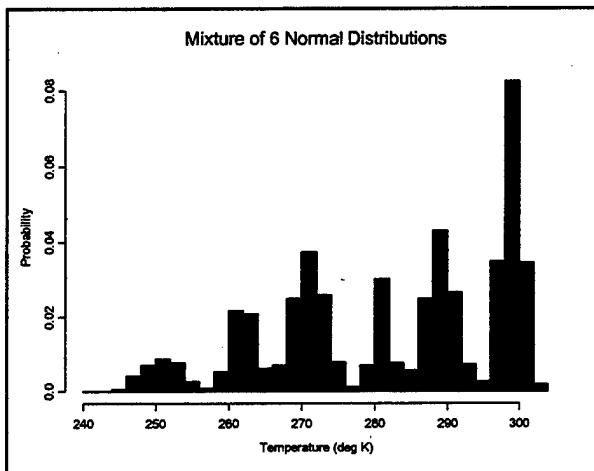


**Figure III.8. Histogram of Temperature at Sea Level**

Furthermore, the sixth peak (the one near 299 deg K) is the highest, accounting for between one-third and one-half of the total probability. Using the relative heights of the peaks provides a starting point for determining the constant coefficients for each distribution that is part of the model. The width of each peak gives an initial value for the standard deviation of each component of the model. Modifying the values for the means, standard deviations, and coefficients solely by a visual matching of the empirical histogram resulted in the following model.

$$\begin{aligned} \text{Temp} = & .07 \cdot N(251, (2.5)^2) + .12 \cdot N(262, (1.5)^2) + .23 \cdot N(271, (2.1)^2) \\ & + .10 \cdot N(281, (1.0)^2) + .23 \cdot N(289, (2.0)^2) + .35 \cdot N(299, (1.4)^2) \end{aligned} \quad (\text{III.5})$$

A histogram of the model's predictions is shown here.



**Figure III.9. Mixture Model for Temperature at Sea Level**

Although it appears similar to the histogram of the data, a better estimate could be obtained by expanding the model to include distributions other than the normal. For example, the sixth peak (centered at 299 deg K) appears to be positively skewed, so perhaps some other (i.e. non-Normal) distribution should be used to represent it.

This model could be further refined using systematic techniques to quite accurately predict the distribution of temperature at sea level or any other altitude. However, since the goal of this study was to provide a description of four different atmospheric parameters at 1001 different

altitudes, this method would be extremely inefficient. However, its use for a small number of altitudes would be practical. This led us to consider another method that would be easy to apply to a variety of distributions over a wide range of altitudes.

#### **E. NONPARAMETRIC STATISTICS**

The previous attempts to describe the distribution of temperature have all been parametric in nature. The problem with these methods is that they all attempt to restrict the possible form of the distribution to a relatively small number of families of distributions (e.g. Normal) whose behavior is known.

Given the fact that we have no precise information about the form and class of the density for temperature at a specific altitude, perhaps nonparametric statistics are a better option. According to Venables and Ripley [Ref. 9], a common-sense definition of nonparametric statistics is "let the data speak for itself."

#### **F. DENSITY ESTIMATION**

The simplest estimator of the density function is a histogram of relative frequencies. This is computed by taking the number of observations falling into a particular interval and dividing by the total number of observations.

The choice of the bin width dramatically affects the appearance of a histogram. Venables and Ripley [Ref. 9] state that the default bin width in the S-Plus statistical package is given by Sturges' Rule:

$$h = \frac{\text{range(data)}}{1 + \log_2 n}$$

where  $h$  = optimal bin width  
 $n$  = number of data points in sample (III.6)

This rule is designed for the histogram of a Normal distribution. However, for data that is not Normal, but skewed or kurtotic, additional bins may be required. The choice of an optimal bin width is driven by a compromise between choosing a small value to minimize the bias and choosing a large value to minimize the variance. Too small a bin width results in an estimate that is too granular while too large a value produces an estimate that is oversmoothed and approaches a constant value. Optimal bin width selection can be accomplished by minimizing the Mean Squared Error (MSE), defined below.

$$\text{MSE}(\hat{f}_h(x)) = \text{Var}(\hat{f}_h(x)) + (\text{Bias}(\hat{f}_h(x)))^2$$

where  $\hat{f}_h(x)$  = histogram for  $x$   
 $\text{Bias}(\hat{f}_h(x))$  = Bias of the histogram  
 $\text{Var}(\hat{f}_h(x))$  = Variance of the histogram (III.7)

In practice, minimizing the MSE is difficult, so several estimates that are easier to apply have been developed. The methods of Scott [Ref. 10] were used in this study. Specifically, his formulation for the optimal bin width is given by:

$$h_{os} = 3.5 \cdot \hat{\sigma} \cdot n^{-1/3}$$

where  $h_{os}$  = *optimal bin width*  
 $\hat{\sigma}$  = *estimated standard deviation*  
 $n$  = *number of data points in sample*

The following figure shows how Scott's method chooses a greater number of bins than Sturges' Rule for the 9504 sample points of temperature at sea level. Notice that it is difficult to determine how many modes (or peaks) there are in the histogram with only 12 bins.

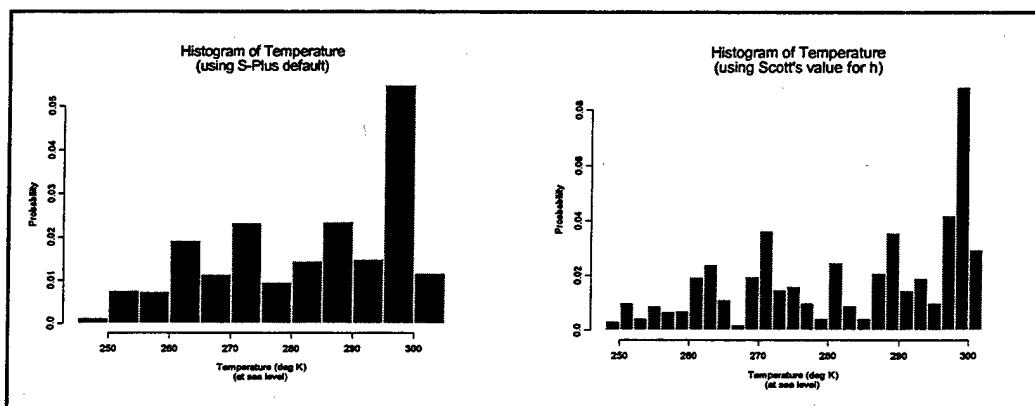
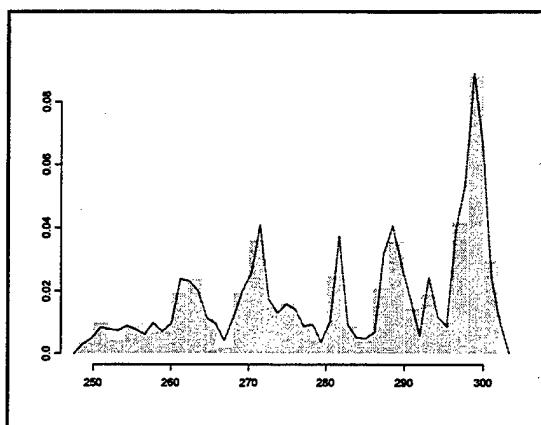


Figure III.10. Bin Width Effect on Histogram

Even with the greater number of bins from Scott's formula, the histogram still provides a rather granular

depiction that, although it may fit the given data, probably does not accurately represent the underlying distribution. A better estimate is a kernel density estimate, which is essentially a smoothed version of a relative frequency histogram. Shown below is the default density estimate from S-Plus for temperature at sea level superimposed on the histogram of the data using Scott's formulation for bin width.



**Figure III.11. Density Estimate for Temperature at Sea Level**

This density estimate is based on the form

$$\hat{f}(x) = \frac{1}{b} \sum_{j=1}^n K\left(\frac{x-x_j}{b}\right)$$

- where  $\hat{f}(x)$  = density estimate  
 $b$  = bandwidth  
 $n$  = number of sample pts  
 $K$  = Kernel (default is Gaussian pdf)  
 $x_j$  = sample pt  $j$

According to Venables and Ripley [Ref. 9] the default bandwidth  $b$  is given by a variation on Sturges' Rule:

$$b = \frac{\text{range(data)}}{2 \cdot (1 + \log_2 n)}$$

where  $b$  = optimal bin width  
 $n$  = number of data points in sample (III.10)

Although this estimate is indeed a smoothed version of the histogram, it has several faults that need to be addressed.

First, just as the choice of bin width affects the appearance of a histogram, bandwidth similarly affects a density estimate. The method chosen for this study is that of Scott [Ref. 10] and is equal to:

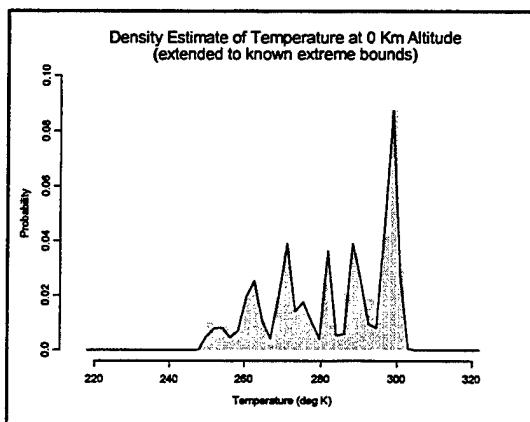
$$b_{os} = 1.144 \cdot \hat{\sigma} \cdot n^{-1/5}$$

where  $b_{os}$  = Scott's optimal binwidth  
 $\hat{\sigma}$  = standard deviation of sample (III.11)

Second, the data from the MSISE-90 model is for a mean temperature at each of the 9504 latitude/longitude/time combinations. Since the purpose of this study is to predict the global behavior of atmospheric properties based on the

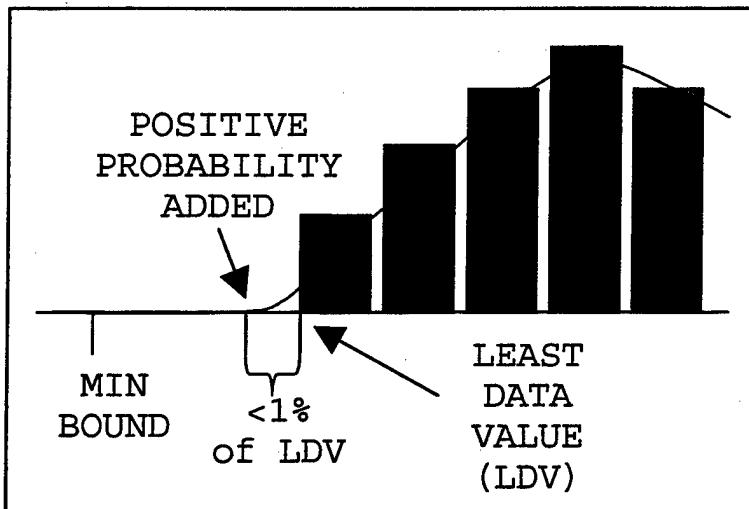
MSISE-90 output, but considering known extreme values, the density estimate needs to be extended to the highest and lowest recorded temperature limits (218.15 and 322.05 deg K, respectively). [Ref. 11]

Here is the density estimate for temperature at sea level that has been "stretched" to these limits.



**Figure III.12. "Stretched" Density Estimate of Temperature at Sea Level**

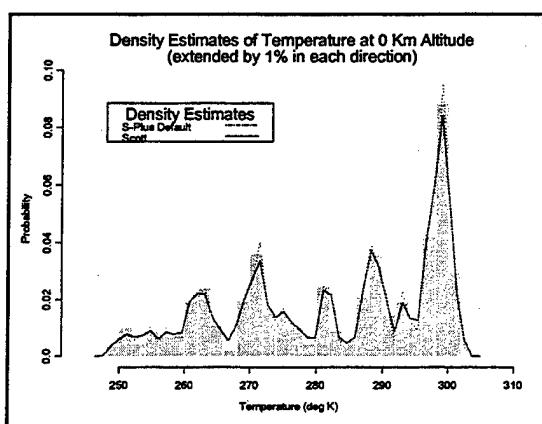
It is apparent from this graph that although it is possible for temperatures to occur outside of the range of the data, the probability is extremely small. Close examination of the estimate shows that positive probability is added only in a very small range below the smallest value and above the greatest value in the data. In fact, positive probability is only added within 1% of these values. The next figure attempts to illustrate this more clearly.



**Figure III.13. Effect of "Stretching" the Density Estimate**

Since the only firm bounds on temperature available are at sea level, density estimates for other altitudes will be similarly stretched by 1% in either direction.

Further modifying the S-Plus function for the density estimate to account for the optimal bandwidth results in the following estimate for temperature at sea level:



**Figure III.14. Scott's Density Estimate for Temperature at Sea Level**

As compared to the S-Plus default estimate (dashed-and-dotted line), one can see in the figure above that Scott's method (solid line) does not overestimate the peaks and provides an estimate that appears to be closer to the underlying distribution.

#### G. CUMULATIVE DISTRIBUTION FUNCTION

From the given data, an empirical cumulative distribution function (CDF) was generated by computing, for each temperature value (call it  $t$ ), the percentage of data values falling below those  $t$ . For example, if 26% of the data points have temperatures smaller than 272, then the value of the CDF at  $t=272$  is 0.26.

Similarly, a smoothed density estimate was used to calculate a CDF that is indicative of the underlying distribution but can be represented with much less storage space than the empirical version. Whereas the empirical CDF for each altitude requires 9504  $(x,y)$ -pairs, the CDF based on the estimated density requires only 50  $(x,y)$ - pairs, or .52% of the original size matrix. The reason that it requires 50 pairs of coordinates is that it is based on the optimal bandwidth chosen for the smoothed density estimate described above. The S-Plus code for this function is given in Appendix A. The CDF for sea level is shown here. The

solid line shows the empirical CDF while the dotted line gives the CDF derived from the estimated density.

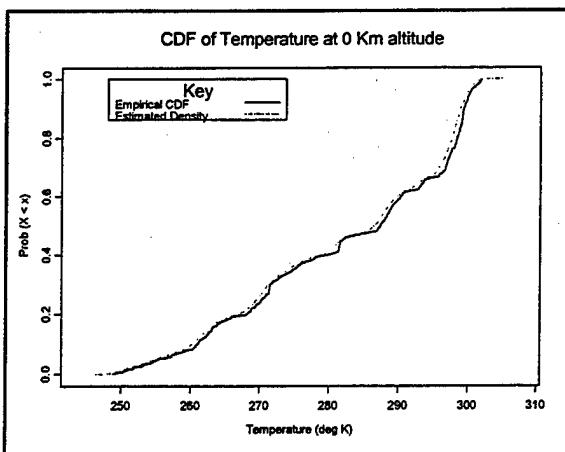


Figure III.15. CDF of Temperature at Sea Level

The CDF can be applied in two different ways. First, for simulation purposes, it can be used to predict a temperature (or set of temperatures) from the estimated distribution at a specific altitude. To illustrate this graphically, a random number based on a Uniform(0,1) distribution is generated. This value is used as a point on the vertical axis; the horizontal axis provides a random temperature value from the estimated distribution. In reality, this would not be done graphically, but through interpolation on the matrix of (x-y) pairs that make up the CDF.

Second, the CDF can be used to compute quantiles within which a certain percentage of the estimated temperature values fall. For example, at sea level, the first and ninety-ninth quantiles are 250.429 and 301.719 deg K respectively; therefore 98% of the estimated temperature values fall within this range.

The next figure shows the CDF for temperature at 100 km altitude. Although the distribution is quite different, the technique is equally well applicable in this instance.

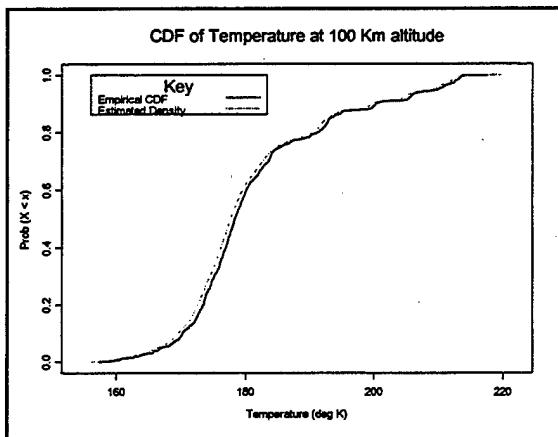


Figure III.16. CDF of Temperature at 100 Km Altitude

#### H. SUMMARY OF TEMPERATURE ANALYSES

In summary, the nonparametric approach provides a systematic method that can be applied to any type or number of data sets in order to provide a description of the underlying distribution. Additionally, it is easy to

automate the process using S-Plus. For these reasons, only this method will be used for the remaining atmospheric parameters.

A summary of the process that will be followed is: create a smoothed density estimate for the distribution of the parameter at a particular altitude using Scott's formulation; convert the smoothed density estimate to a CDF described in terms of (x,y)- coordinate pairs.

#### **IV. NONPARAMETRIC ANALYSIS OF ATMOSPHERIC DENSITY**

The author would like to forewarn the reader that the word "density" will be used in two different ways in this chapter. It will be used to describe that property of a gas that is a mass per unit volume; it will also be used as a statistical term to represent the frequency of occurrence in a sample of observations. The author will attempt to ensure that the meaning is clear for each usage.

##### **A. IMPORTANCE OF ATMOSPHERIC DENSITY**

Mach 5 is generally considered to be the boundary between supersonic and hypersonic speed; however this is not a strict boundary in the way that Mach 1 sharply divides subsonic and supersonic speed. The key difference is that, in hypersonic flight, certain phenomena become progressively more important as the Mach number is increased.

One of the phenomena which is of primary concern for hypersonic vehicles (like ballistic missiles) is the formation of an entropy layer. This is a layer created by large velocity gradients in the flow behind the shock wave in the nose region. The entropy layer interacts with the boundary layer growing along the surface; this interaction causes an increase in aerodynamic heating of the surface

above and beyond that which would occur without the entropy layer. Another important phenomena is the viscous interaction between a thick boundary layer with the inviscid flow outside the boundary layer. The physical consequence of this is an increase in surface pressure and skin friction, which causes increased drag and aerodynamic heating.

Of all the atmospheric parameters considered by this study, density is the one that has the greatest influence on those characteristics of flight which affect aerodynamic heating and IR radiance. Therefore, it is the one that this study will concentrate on from this point forward. However, the other parameters (temperature, molecular weight, and mean collision diameter) are not negligible, so they will be taken into account.

#### **B. RELATIONSHIP BETWEEN ATMOSPHERIC PROPERTIES**

According to Anderson, air under normal conditions of temperature and pressure, such as that encountered in flight through the atmosphere, behaves very much like a perfect gas [Ref. 1]. The relation between pressure, density, and temperature for a gas, called the equation of state is:

$$p = \rho R T$$

where  $p = \text{pressure} \left( \frac{N}{m^2} \right)$

$\rho = \text{density} \left( \frac{kg}{m^3} \right)$  (IV.1)

$R = \text{specific gas constant} \left( 286.98 \frac{J}{kg \cdot \text{deg} K} \text{ for air} \right)$

$T = \text{temperature (deg} K\text{)}$

Pressure, density, and temperature all vary with altitude; this relationship is given by the hydrostatic equation, which is a differential equation that relates an infinitesimal change in pressure  $dp$  to a corresponding infinitesimal change in altitude  $dh_G$ .

$$dp = -\rho g dh_G$$

where  $dp = \text{change in pressure} \left( \frac{N}{m^2} \right)$  (IV.2)

$g = \text{acceleration due to gravity} \left( \frac{m}{sec^2} \right)$

$dh_G = \text{change in geometric altitude (m)}$

To be useful, this equation must be integrated. To simplify the integration of this equation, it is assumed that  $g$  is constant throughout the atmosphere, equal to its value at sea level,  $g_0$ . This leads to Equation IV.2 being rewritten in the more common form shown in Equation IV.3.

$$dp = -\rho g_0 dh$$

where  $g_0$  = gravitational acceleration at sealevel  $\left(\frac{m}{sec^2}\right)$  (IV.3)

$dh$  = change in geopotential altitude (m)

Note that in rewriting the hydrostatic equation, the notation for the change in height  $dh_G$  became  $dh$ . This is because there is a difference between geometric altitude ( $h_G$ ) and geopotential altitude ( $h$ ), which is a "fictitious" altitude defined for ease of calculations. This change is necessary because of the small difference between  $g$  and  $g_0$ . The two terms are related by the following equation.

$$h = \left( \frac{r}{r + h_G} \right) h_G \quad (\text{II.4})$$

$h$  = geopotential altitude (m)

$r$  = radius of the Earth (m)

$h_G$  = geometric altitude (m)

At low altitudes, there is little difference between  $h$  and  $h_G$ ; only above altitudes of 65 km. does the difference exceed 1 percent. [Ref. 1]

#### C. VARIATION OF PROPERTIES WITH ALTITUDE

Dividing the hydrostatic equation (Equation IV.3) by the equation of state (Equation IV.1) results in:

$$\frac{dp}{p} = -\frac{\rho g_0 dh}{\rho RT} = -\frac{g_0}{RT} dh \quad (\text{IV.5})$$

The pressure  $p$  at height  $h$  can be obtained by integrating Equation IV.5 resulting in

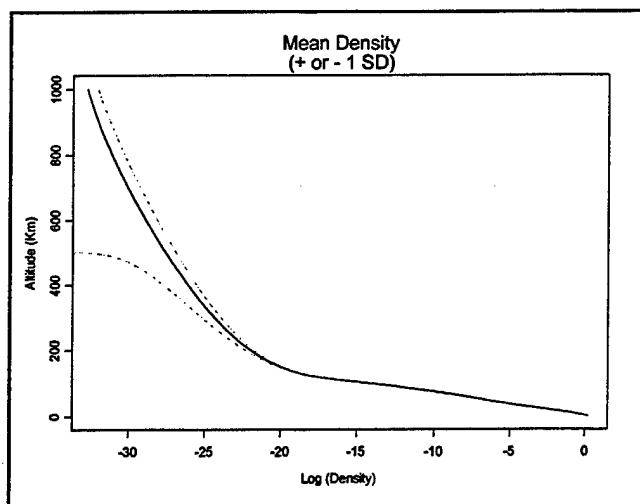
$$\frac{p}{p_1} = e^{-\left(\frac{g_0}{RT}\right)(h-h_1)} \quad (\text{IV.6})$$

Substituting the relationship between pressure and density from the equation of state, yields

$$\frac{\rho}{\rho_1} = e^{-\left(\frac{g_0}{RT}\right)(h-h_1)} \quad (\text{IV.7})$$

This last equation describes the variation of density versus geopotential altitude for the isothermal layers of the standard atmosphere.

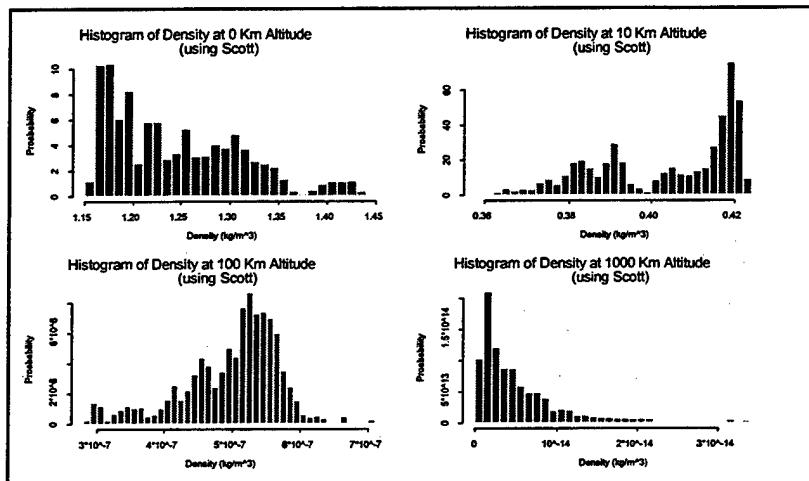
Due to the inverse relationship between pressure and density specified in the equation of state, one would expect density to decrease as temperature increases with altitude. This is in fact the case, as shown in the next figure. Because density decreases to near-zero values so quickly as altitude increases, this graph shows the log(density) for a scaling purposes.



**Figure IV.1. Density Variation with Altitude**

#### D. DISTRIBUTION OF DENSITY

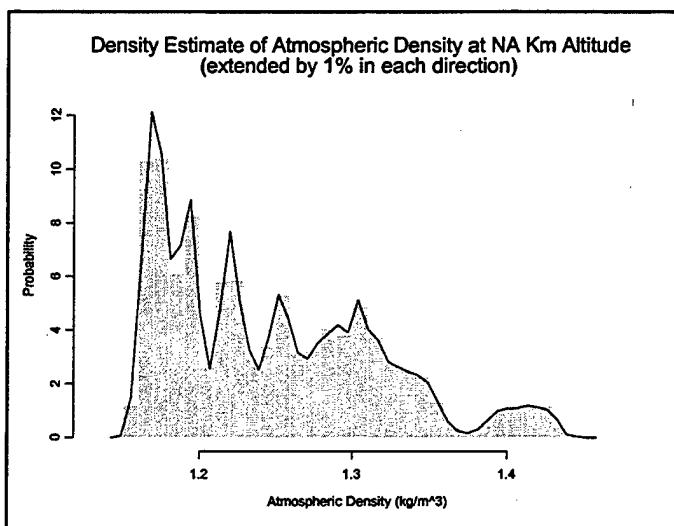
As was the case for temperature, the distribution of atmospheric density varies greatly with altitude. Here are distributions of density at 0 10, 100, and 1000 km altitude.



**Figure IV.2. Density Distribution at Four Altitudes**

Rather than attempting to describe these distributions with either a regression model or a mixture model, the nonparametric kernel density estimate will be used as was done for temperature.

Applying the methods of Scott (as explained in Chapter III) to the density data at sea level results in the following estimate of the distribution.



**Figure IV.3. Density Estimate of Atmospheric Density**

With temperature, the only available boundary values were at sea level; however, for density, values were available for several altitudes. More specifically, the following bounds for atmospheric density from the AIAA Journal were used.

Altitude (km)	Minimum Density (kg/m <sup>3</sup> )	Maximum Density (kg/m <sup>3</sup> )
5	.693	.783
10	.339	.433
20	.0673	.0993

**Table IV.1. Extreme Density Bounds. From Ref. [12]**

The kernel density estimates of atmospheric density for these altitudes were performed in the same manner as was done for temperature at sea level. Again, the result was that positive probability was only added for a very small range below the minimum and above the maximum values from the MSISE-90 data output. The maximum change was found to be 0.7%, so again a heuristic choice of 1% "stretching" was used for all altitudes.

#### **E. COMPUTATION OF DESIRED RESULTS**

Once the density estimate was calculated for each altitude, the quantiles of interest (1<sup>st</sup>, 50<sup>th</sup> [or median], and 99<sup>th</sup>) were extracted. A "neighborhood" of plus or minus one percent was calculated for each of these values. Then, values for the other parameters (temperature, molecular weight, and mean collision diameter) were calculated. The results are given in Appendix B.

## **V. CONCLUSIONS AND RECOMMENDATIONS**

### **A. CONCLUSIONS**

This research has confirmed that the variation of atmospheric properties in MSISE-90 differs greatly by altitude. Because of this, nonparametric statistics were chosen as an analysis method that could be systematically applied to a large number of datasets corresponding to a range of altitudes. Although all of the data manipulation and statistical analyses in this study were performed in S-Plus, the code provided in Appendix B could be appropriately modified for other statistical software packages.

### **B. RECOMMENDATIONS**

First, calculations similar to the ones in this thesis should be performed using data from an atmospheric model that includes water vapor ( $H_2O$ ) and carbon dioxide ( $CO_2$ ) as constituents. Both of these molecules can greatly affect IR radiance, and therefore should be considered.

Second, the analyses should be carried out for specific regions of strategic importance—specifically North East Asia (the Korean Peninsula) and South West Asia (Middle East). This would involve the development of a grid with a finer mesh than was used here. The author suspects that the

statistical description of the atmospheric parameters for these regions would differ significantly from the results obtained for the much larger area considered in this study. Whereas the results obtained in this thesis are useful in the design of missile defense systems, regional results would aid in the tactical employment of these systems.

## LIST OF REFERENCES

1. Anderson, J. D., *Introduction to Flight*, McGraw-Hill Inc., 1989.
2. National Oceanic and Atmospheric Administration, et al, *U.S. Standard Atmosphere, 1976*, U.S. Government Printing Office, October 1976.
3. American Institute of Aeronautics and Astronautics and American National Standards Institute, *Guide to Reference and Standard Atmosphere Models*, American Institute of Aeronautics and Astronautics, 1990.
4. Hedin, A.E., *A Revised Thermospheric Model Based on Mass Spectrometer and Incoherent Scatter Data: MSIS-83*, Journal of Geophysical Research, 1983.
5. Hedin, A.E. *MSIS-86 Thermospheric Model*, Journal of Geophysical Research, 1987.
6. Hedin, A.E. *Extension of the MSIS Thermosphere Model into the Middle and Lower Atmosphere*, Journal of Geophysical Research, 1991.
7. Navy Research Laboratory, "MSIS at NRL", [http://uap-www.nrl.navy.mil/models/web/msis\\_home.htm](http://uap-www.nrl.navy.mil/models/web/msis_home.htm). March 1999.
8. Labitzke, K., Barnett, J.J., and Edwards, B. (eds.), *Handbook MAP 16*, SCOSTEP, University of Illinois, Urbana, 1985.
9. Venables, W.N. and Ripley, B.D., *Modern Applied Statistics with S-Plus*, Springer-Verlag New York, Inc., 1994.
10. Scott, D.W., *Multivariate Density Estimation: Theory, Practice, and Visualization*, John Wiley & Sons, Inc., 1992.
11. National Climactic Data Center, "Global Historical Climatology Network (GHCN) v2 Dataset", <http://www.ncdc.noaa.gov/ol/climate/research/ghcn/>. September 1997.

12. Tattelman, P., Kantor, A.J., "Model Profiles of Temperature and Density up to 80 km Based on Extremes at Selected Altitudes," *AIAA Journal*, Vol. 26 #10, October, 1988.

## APPENDIX A. S-PLUS SCRIPTS AND FUNCTIONS

### C. FILE SETUP SCRIPT

```
# setupfiles.ssc
# This script is designed to setup the files object
# needed to run other scripts. More specifically, it
# creates an object that is a list of all the MSISE-90 data
# files in a particular directory. Similar scripts were
# used for the other atmospheric parameters.

tempfiles _ dos("dir D:\\Nestler\\Temperature")
tempfiles _ tempfiles[8:95]
tempfiles _ substring(tempfiles,1,4)
tempfiles _ paste(tempfiles,".tx6",sep="")
```

### D. TEMPERATURE OBJECT SCRIPT

```
# tempobj.ssc
# This script is designed to read 88 data files into S-Plus
# matrices of dimension 1001 by 108. Similar scripts were
# used for the other atmospheric parameters.

for (i in 1:88) {

  # Set the name of the file to read
  in.name _ paste("D:\\Nestler\\Temperature\\",
    tempfiles[i],sep="")

  # Name the object with the first 4 characters of the
  # file
  new _ substring(tempfiles[i],1,4)

  # Debugging tool to ensure script is still running
  cat("i is now ",i," new is now ",new,"\n")

  # Assign the name to the object as read in from file
  assign(new,matrix(scan(in.name),nrow=1001,byrow=T),
    where=1, immediate=T)
}
```

#### E. TEMPERATURE BY ALTITUDE SCRIPT

```
# tempalts.ssc
# This script is designed to create 1001 matrices of size 88
# by 108 and fill them with all 0's. Each one is designed
# to hold all of the temperature data for a single altitude.
# Similar scripts were used for the other atmospheric
# parameters.

for (i in 1:1001) {

    # Create a name for the file, i.e. 'temi'
    nicename _ paste ("tem",i,sep="")

    # Create the object
    myobject _ matrix(0,nrow=88,ncol=108)

    # Assign a name to the object
    assign(nicename,myobject,where=1,immediate=T)

    # Debugging tool to make sure script is still running
    cat("i = ",i,"\\n")
}
```

#### F. TEMPERATURE CONVERSION SCRIPT

```
# tempconvert.ssc
# This script is designed to take 88 matrices of dimension
# 1001 by 108 and convert them to 1001 matrices of dimension
# 88 by 108 by assigning the jth row of the ith input object
# to the ith row of the jth output object. The effect of
# this is to convert the objects containing the MSISE-90
# output (which there are 88, each for a particular
# date/time)) and convert them to objects which hold all of
# the data for a specific altitude. Similar scripts were
# used for the other atmospheric parameters.

for (i in 1:88) {

    # Open input objects one at a time
    thang _ get(substr(tempfiles[i],1,4))

    for (j in 1:1001) {

        # Gets the jth results object and assigns it to
        temp object result.thingy
```

```

result.thingy _ get(paste("tem",j,sep=""))

# Puts the jth row of the ith data object into the
#ith row of the jth data object
result.thingy[i,] _ thang[j,]

# Renames temp object result.thingy back to its
# original name
assign (paste("result",j,sep=""),result.thingy,
immediate=T)

# Debugging tool to keep track of progress
cat("i = ",i," j = ",j,"\n")
}

}

```

## G. EMPIRICAL CUMULATIVE DISTRIBUTION FUNCTION

```

ecdf
# This function plots the empirical cdf of temperature at
# any altitude, and then adds the smoothed cdf based on a
# density estimate.

function(x) {

  # Generate the empirical cdf
  x _ sort(x)
  y _ numeric(length(x))
  for(i in 1:length(x)) {
    cat("i = ", i, "\n")
    y[i] _ mean(x < x[i])
  }

  # Plot the empirical cdf
  plot(x, y, xlim = c(0.98 * min(x), 1.02 * max(x)), type
  = "l", xlab = "", ylab = "")

  # Calculate the optimal bandwidth using Scott's formula
  b.optscott <- 1.144 * sqrt(var(as.vector(x))) *
  (length(x)) ^(-0.2)

  # Add the smoothed estimated cdf based on the "optimal"
  # density estimate
  opt.dens <- density(x, width = b.optscott, from = 0.99
  * min(x), to = 1.01 * max(x))

```

```

lines(opt.dens$x, cumsum(opt.dens$y)/sum(opt.dens$y) ,
lty = 3, col = 8)

# Add titles and axis labels
alt.name _ substring(substitute(x), 4,
nchar(substitute(x)))
my.main _ paste("CDF of Temperature at",
as.numeric(alt.name) - 1, "Km altitude") title(main =
my.main, xlab = "Temperature (deg K)", ylab = "Prob
(X < x)")

# Add a legend or key to the graph
line.types <- c(2, 1)
key(min(hist.scott(x, prob = T, plot = F)$breaks), 1,
text = list(c("Empirical CDF", "Estimated Density")),
lines = list(type = "l", col = c(1, 8), lty = c(1,
3)), title = "Key", border = 1)
}

```

## H. HISTOGRAM BASED ON SCOTT'S BIN WIDTH FUNCTION

```

hist.scott
# This function computes, but does not plot, a histogram
# based on the "optimal" bin width defined by Scott

function(x, ...)
{
  invisible(hist(x, nclass.scott(x), xlab =
  deparse(substitute(x)), ...))
}

```

## I. SCOTT'S BIN WIDTH FUNCTION

```

nclass.scott
# This function computes the "optimal" bin width for a
#histogram by Scott's formula

function(x)
{
  h <- 3.5 * sqrt(var(as.vector(x))) * length(x)^(-1/3)
  ceiling(diff(range(x))/h)
}

```

## J. DENSITY OUTPUT SCRIPT

```
# densoutput.ssc
# This script takes MSISE-90 output predictions for density
# and calculates a "best" density estimate for each
# altitude.

for(j in 1:1001) {

  # Get the object containing density data for the jth
  # altitude and assign it to the temporary object
  # dens.thingy

  dens.thingy _ get(paste("dens",j,sep=""))

  # Calculate the density estimate for the altitude in
  # question

  best.est _ density(dens.thingy,width=b.optscott
    (dens.thingy), from=0.99*min(dens.thingy),
    to=1.01*max(dens.thingy))

  # Convert temporary object best.est to a matrix

  best.est _ cbind(best.est$x,best.est$y)

  # Convert the pdf to a cdf

  best.est[,2] _ cumsum(best.est[,2])/sum(best.est[,2])

  # Cut off any excess entries with probability equal
  # to 0 or 1.0

  zeros _ (1:nrow(best.est))[best.est[,2]==0]
  if(length(zeros)>1) best.est _ best.est[-zeros[-
    length(zeros)],]
  ones _ (1:nrow(best.est))[best.est[,2] ==1]
  if(length(ones)>1) best.est _ best.est[-ones[-1],]

  # Rename the temporary object best.est to an output
  # object
  assign(paste("result",j,sep=""),best.est,immediate=T)

  # Debugging tool to track progress
  cat("j is now ",j,"\\n")

}
```

## K. DENSITY QUANTILE COMPUTATION SCRIPT

```
# densquantile.ssc
# This script computes the 1st and 99th quantiles of density
# for all 1001 altitudes.

# Create a matrix to store the quantiles in.
dens.quant _ matrix(0,nrow=1001,ncol=2)

for (j in 1:1001) {

    # Read in the estimated density function for altitude j
    dens.alt _ get(paste("result",j,sep=""))

    # Calculate the 1st and 99th quantiles for altitude j
    quant.alt _ quantile(dens.alt[,1],c(.01,.99))

    # Add the quantiles to the cumulative object
    dens.quant[j,1] _ quant.alt[1]
    dens.quant[j,2] _ quant.alt[2]

}
```

## L. LOCATION OF QUANTILES SCRIPT

```
# wheredens.ssc
# This script takes the 1st and 99th quantiles from each
# altitudes and determines which entries in the density (by
# altitude) matrices are within a small distance from those
# values.

# Create an object to hold the results
the.answers _ matrix(0,nrow=1001,ncol=15)

# Loop over all 1001 altitudes
for (j in 1:1001) {

    # Get the 1st and 99th quantile values
    q1 _ dens.quant[j,1]
    q99 _ dens.quant[j,2]

    # Determine values that are within 1% of these values
    q1lower _ 0.99 * q1
    q1upper _ 1.01 * q1
    q99lower _ 0.99 * q99
    q99upper _ 1.01 * q99
```

```

# Get the matrix objects for the current altitude
current.dens _ get(paste("dens",j,sep=""))
current.temp _ get(paste("tem",j,sep=""))
current.wt _ get(paste("wt",j,sep=""))
current.diam _ get(paste("diam",j,sep=""))

# Determine the minimum and maximum values in the
# temperature, molecular weight and mean collision
# diameter matrix objects that correspond to density
# values in the vicinity of the 1st and 99th quantiles.

q1temp _ current.temp[current.dens >= q1lower &
  current.dens <=q1upper]
q1mintemp _ min(q1temp)
q1maxtemp _ max(q1temp)
q1wt _ current.wt[current.dens >= q1lower &
  current.dens <=q1upper]
q1minwt _ min(q1wt)
q1maxwt _ max(q1wt)
q1diam _ current.diam[current.dens >= q1lower &
  current.dens <=q1upper]
q1mindiam _ min(q1diam)
q1maxdiam _ max(q1diam)
q99temp _ current.temp[current.dens >= q99lower &
  current.dens <=q99upper]
q99mintemp _ min(q1temp)
q99maxtemp _ max(q1temp)
q99wt _ current.wt[current.dens >= q99lower &
  current.dens <=q99upper]
q99minwt _ min(q99wt)
q99maxwt _ max(q99wt)
q99diam _ current.diam[current.dens >= q99lower &
  current.dens <=q99upper]
q99mindiam _ min(q99diam)
q99maxdiam _ max(q99diam)

# Put all of the results for the current altitude in
# the appropriate row of the results matrix

the.answers[j,1] _ j
the.answers[j,2] _ q1
the.answers[j,3] _ q1mintemp
the.answers[j,4] _ q1maxtemp
the.answers[j,5] _ q1minwt
the.answers[j,6] _ q1maxwt
the.answers[j,7] _ q1mindiam

```

```
the.answers[j,8] = q1maxdiam  
the.answers[j,9] = q99  
the.answers[j,10] = q99mintemp  
the.answers[j,11] = q99maxtemp  
the.answers[j,12] = q99minwt  
the.answers[j,13] = q99maxwt  
the.answers[j,14] = q99mindiam  
the.answers[j,15] = q99maxdiam  
}
```

## APPENDIX B: OUTPUT FROM STATISTICAL ANALYSES

### A. RESULTS FOR 1<sup>ST</sup> QUANTILE OF ATMOSPHERIC DENSITY

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
0	1.14562193282449E+00	300.6587	301.7670	28.95990944	28.95990988	3.702754582E-10	3.702754604E-10
1	1.04547449306939E+00	293.7415	294.7215	28.95990943	28.95990993	3.702754580E-10	3.702754605E-10
2	9.49460539687755E-01	287.8815	289.3780	28.95990936	28.95990996	3.702754578E-10	3.702754607E-10
3	8.56884635665306E-01	283.1587	284.3573	28.95990937	28.95990999	3.702754577E-10	3.702754607E-10
4	7.74769201052245E-01	277.3470	279.9573	28.95990929	28.95991004	3.702754574E-10	3.702754611E-10
5	6.96223318940816E-01	272.8696	275.1418	28.95990923	28.95991007	3.702754573E-10	3.702754614E-10
6	6.26872520975510E-01	231.5142	270.2160	28.95990922	28.95991008	3.702754571E-10	3.702754615E-10
7	5.51566001387755E-01	228.0531	230.7397	28.95990945	28.95990983	3.702754585E-10	3.702754602E-10
8	4.79778025982041E-01	225.2600	227.4285	28.95990955	28.95990982	3.702754584E-10	3.702754599E-10
9	4.14994971188775E-01	223.2199	224.2989	28.95990954	28.95990984	3.702754583E-10	3.702754599E-10
10	3.56820066346122E-01	222.0224	222.5298	28.95990954	28.95990992	3.702754579E-10	3.702754599E-10
11	3.06561459073469E-01	221.6913	221.8312	28.95990949	28.95990984	3.702754584E-10	3.702754602E-10
12	2.62712543488163E-01	221.9563	222.0511	28.95990945	28.95990991	3.702754579E-10	3.702754604E-10
13	2.24927974464490E-01	222.4802	222.5357	28.95990959	28.95990975	3.702754589E-10	3.702754597E-10
14	1.92705683660000E-01	222.9187	222.9608	28.95990957	28.95990979	3.702754587E-10	3.702754597E-10
15	1.64907986210000E-01	197.7086	233.7378	28.95990954	28.95990980	3.702754586E-10	3.702754599E-10
16	1.39029886350000E-01	197.4884	199.9539	28.95990953	28.95990985	3.702754584E-10	3.702754600E-10
17	1.17111331560000E-01	197.4539	200.0239	28.95990948	28.95990985	3.702754583E-10	3.702754601E-10
18	9.85352238235102E-02	197.6895	199.1905	28.95990939	28.95990986	3.702754583E-10	3.702754606E-10
19	8.27281969398367E-02	198.2818	199.8015	28.95990931	28.95990994	3.702754578E-10	3.702754610E-10
20	6.93460809247347E-02	197.7342	200.8294	28.95990934	28.95990991	3.702754581E-10	3.702754608E-10
21	5.80584564156735E-02	199.2918	200.8888	28.95990951	28.95990980	3.702754585E-10	3.702754600E-10
22	4.85689556715918E-02	201.3884	202.9663	28.95990955	28.95990976	3.702754587E-10	3.702754599E-10
23	4.05576367795102E-02	202.6282	205.5221	28.95990947	28.95990985	3.702754583E-10	3.702754603E-10
24	3.38765194851429E-02	205.6985	208.5245	28.95990945	28.95990991	3.702754580E-10	3.702754604E-10
25	2.83186899499592E-02	209.2236	211.9418	28.95990947	28.95990991	3.702754580E-10	3.702754603E-10
26	2.3674689077551E-02	184.9366	214.4799	28.95990933	28.95990999	3.702754576E-10	3.702754610E-10
27	1.95338064870000E-02	187.0413	188.8192	28.95990952	28.95990980	3.702754586E-10	3.702754600E-10
28	1.61100676990000E-02	188.6227	191.4555	28.95990950	28.95990982	3.702754584E-10	3.702754601E-10
29	1.32863037200000E-02	191.7814	194.6470	28.95990947	28.95990988	3.702754582E-10	3.702754602E-10
30	1.09527336550000E-02	195.5811	198.4257	28.95990944	28.95990989	3.702754581E-10	3.702754604E-10
31	9.03610212260000E-03	200.0799	202.3828	28.95990940	28.95990997	3.702754578E-10	3.702754606E-10
32	7.46306928190000E-03	204.0377	207.6046	28.95990937	28.95990998	3.702754576E-10	3.702754606E-10
33	6.17610095530000E-03	209.9700	213.4722	28.95990919	28.95991012	3.702754571E-10	3.702754615E-10
34	5.13749019400000E-03	215.8505	219.2372	28.95990948	28.95990986	3.702754583E-10	3.702754602E-10
35	4.29592823010000E-03	221.5101	224.7436	28.95990946	28.95990988	3.702754581E-10	3.702754603E-10
36	3.61232512380000E-03	225.5655	229.9661	28.95990943	28.95990993	3.702754579E-10	3.702754605E-10
37	3.05336655130000E-03	230.6718	234.8847	28.95990939	28.95990993	3.702754579E-10	3.702754607E-10
38	2.59343403960000E-03	235.5132	239.2167	28.95990933	28.95990996	3.702754577E-10	3.702754610E-10
39	2.21149061430000E-03	238.9710	243.5969	28.95990956	28.95990979	3.702754587E-10	3.702754598E-10
40	1.89255514430000E-03	243.2282	247.6438	28.95990953	28.95990981	3.702754586E-10	3.702754599E-10
41	1.62584936820000E-03	247.2107	251.3620	28.95990952	28.95990984	3.702754584E-10	3.702754600E-10
42	1.40192068050000E-03	250.9164	254.7625	28.95990949	28.95990985	3.702754583E-10	3.702754602E-10
43	1.21276442220000E-03	254.3475	257.8632	28.95990946	28.95990991	3.702754581E-10	3.702754603E-10
44	1.05217007020000E-03	256.7902	260.6878	28.95990942	28.95990993	3.702754579E-10	3.702754605E-10
45	9.14574305030000E-04	259.6931	263.2657	28.95990936	28.95990995	3.702754578E-10	3.702754608E-10
46	7.96792614360000E-04	262.3453	265.4781	28.95990934	28.95990996	3.702754577E-10	3.702754609E-10
47	6.95800797780000E-04	264.7265	267.6638	28.95990933	28.95991007	3.702754572E-10	3.702754609E-10
48	6.08985084270000E-04	266.8048	269.5639	28.95990948	28.95990984	3.702754584E-10	3.702754601E-10
49	5.34165383430000E-04	268.5491	271.1478	28.95990948	28.95990984	3.702754584E-10	3.702754601E-10
50	4.69517356370000E-04	269.9295	272.3858	28.95990951	28.95990984	3.702754583E-10	3.702754601E-10
51	4.13513717020000E-04	270.4621	273.2501	28.95990948	28.95990990	3.702754581E-10	3.702754603E-10
52	3.64873415840000E-04	271.0185	273.7156	28.95990942	28.95990992	3.702754579E-10	3.702754605E-10
53	3.22518830170000E-04	271.1359	273.7599	28.95990939	28.95990997	3.702754577E-10	3.702754607E-10
54	2.85538442320000E-04	270.7953	273.3647	28.95990936	28.95990998	3.702754576E-10	3.702754609E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
55	2.53155485240000E-04	269.9822	272.5161	28.95990936	28.95991002	3.702754574E-10	3.702754609E-10
56	2.24711503250000E-04	268.6760	271.2417	28.95990954	28.95990979	3.702754586E-10	3.702754599E-10
57	1.99582083840000E-04	266.9575	269.5756	28.95990953	28.95990979	3.702754586E-10	3.702754599E-10
58	1.77337369690000E-04	264.9038	267.5827	28.95990952	28.95990984	3.702754584E-10	3.702754600E-10
59	1.57581537560000E-04	262.5908	265.3273	28.95990950	28.95990985	3.702754584E-10	3.702754601E-10
60	1.39985663070000E-04	260.0916	262.8843	28.95990947	28.95990985	3.702754584E-10	3.702754602E-10
61	1.24278296670000E-04	257.4754	260.3276	28.95990947	28.95990988	3.702754581E-10	3.702754603E-10
62	1.10234371340000E-04	254.8068	257.6911	28.95990944	28.95990994	3.702754579E-10	3.702754603E-10
63	9.76608210480000E-05	252.1457	255.0276	28.95970724	28.95990109	3.702756730E-10	3.702762416E-10
64	8.63990260910000E-05	249.2792	252.3860	28.95930174	28.95988355	3.702761024E-10	3.702778093E-10
65	7.63169713700000E-05	246.4332	249.8109	28.95889641	28.95986664	3.702765289E-10	3.702793762E-10
66	6.72963015950000E-05	244.0614	247.3436	28.95849097	28.95984915	3.702769581E-10	3.702809434E-10
67	5.92334807270000E-05	241.8906	245.0218	28.95808596	28.95983178	3.7027733869E-10	3.702825087E-10
68	5.20368418040000E-05	239.9608	242.9885	28.95768036	28.95981447	3.702778153E-10	3.702840764E-10
69	4.56243636490000E-05	238.3100	241.1896	28.95727471	28.95977598	3.702783094E-10	3.702856447E-10
70	3.99157726390000E-05	236.9754	239.6550	28.95686907	28.95975540	3.702787495E-10	3.702872127E-10
71	3.48253680880000E-05	235.9943	238.5212	28.95646324	28.95973504	3.702788802E-10	3.702887815E-10
72	3.03222001890000E-05	235.4053	237.8078	28.95605733	28.95971441	3.702792841E-10	3.702903508E-10
73	2.63343593450000E-05	234.0026	237.3924	28.95564074	28.95963537	3.702798176E-10	3.702920624E-10
74	2.29211694080000E-05	233.3570	236.7664	28.95517965	28.95947314	3.702805753E-10	3.702940905E-10
75	1.99741493230000E-05	232.3523	235.8642	28.95466090	28.95927984	3.702814448E-10	3.702964166E-10
76	1.74185740890000E-05	231.0631	234.6386	28.95407486	28.95904889	3.702824426E-10	3.702990447E-10
77	1.51942041200000E-05	229.4480	233.1261	28.95341004	28.95877206	3.702835750E-10	3.703020019E-10
78	1.32505210080000E-05	226.8945	231.3636	28.95264991	28.95834949	3.702848399E-10	3.703053384E-10
79	1.15500407930000E-05	224.9362	229.3882	28.95176994	28.95793624	3.702862082E-10	3.703090298E-10
80	1.00611834541000E-05	222.4556	227.5047	28.95073281	28.95748558	3.702872386E-10	3.703129659E-10
81	8.75520755100000E-06	220.2144	225.2783	28.94947900	28.95689347	3.702882179E-10	3.703169507E-10
82	7.60740523920000E-06	217.9313	223.0571	28.94791554	28.95608485	3.702886643E-10	3.703205938E-10
83	6.59857098620000E-06	214.9868	220.6963	28.94589900	28.95494386	3.702880078E-10	3.703234754E-10
84	5.71405282480000E-06	212.3939	218.5200	28.94315798	28.95329307	3.702844483E-10	3.703245407E-10
85	4.93940464220000E-06	209.8136	216.0012	28.93920109	28.95053272	3.702783558E-10	3.703223168E-10
86	4.26191234780000E-06	207.2724	213.4664	28.93367246	28.94677908	3.702671442E-10	3.703147771E-10
87	3.66962526280000E-06	204.6015	210.9175	28.92596585	28.94164260	3.702484978E-10	3.702992956E-10
88	3.15264051240000E-06	202.1782	208.3944	28.91670979	28.93438773	3.702196438E-10	3.702726991E-10
89	2.70216242450000E-06	199.8509	204.8805	28.90469510	28.92441243	3.701774609E-10	3.702317221E-10
90	2.31248245170000E-06	197.6256	203.1534	28.88737604	28.91443305	3.701145249E-10	3.701726737E-10
91	1.97817368426939E-06	195.5405	201.5871	28.86473560	28.89806752	3.700262054E-10	3.700929779E-10
92	1.68940084677551E-06	193.7069	200.1550	28.83593637	28.87742076	3.699020563E-10	3.699953087E-10
93	1.42916346014694E-06	180.8259	198.8462	28.80645425	28.85205193	3.697671067E-10	3.698806135E-10
94	1.18880370235102E-06	181.2963	182.3209	28.76803621	28.80990481	3.695927416E-10	3.696838592E-10
95	9.50934361550000E-07	156.1267	157.7622	28.72092045	28.75971824	3.699334213E-10	3.699973500E-10
96	7.36462623500000E-07	164.7805	166.5354	28.67398752	28.72036718	3.697863522E-10	3.698765946E-10
97	5.74052392850000E-07	174.7071	176.5214	28.62194241	28.67690724	3.696153378E-10	3.697361452E-10
98	4.50910728470000E-07	185.8439	187.6014	28.56506844	28.62960844	3.694212444E-10	3.695767971E-10
99	3.57374988270000E-07	198.0244	198.2070	28.50376037	28.57883074	3.692056458E-10	3.693999244E-10
100	2.86203886350000E-07	210.9198	210.9198	28.43849603	28.52499298	3.689707044E-10	3.692073982E-10
101	2.31893017230000E-07	223.7790	224.0792	28.36979500	28.46853694	3.687184513E-10	3.690014255E-10
102	1.90040460370000E-07	236.5570	237.2902	28.29819029	28.40990659	3.684520295E-10	3.687847983E-10
103	1.57440638140000E-07	249.1149	250.4180	28.22421868	28.34953961	3.681743437E-10	3.685596172E-10
104	1.31763017880000E-07	261.3268	263.3319	28.14839848	28.26510022	3.678880836E-10	3.682840467E-10
105	1.11334517760000E-07	273.1139	275.9142	28.07121641	28.18996301	3.675957148E-10	3.679830050E-10
106	9.49597227140000E-08	288.0088	288.0704	27.99311539	28.12348338	3.672994094E-10	3.677322200E-10
107	8.16355498510000E-08	299.6878	299.7387	27.91448969	28.05672277	3.670009849E-10	3.674804161E-10
108	7.06839190670000E-08	310.8620	310.8977	27.83568764	27.98996670	3.667019077E-10	3.672289031E-10
109	6.15813132020449E-08	321.5547	321.5725	27.75701409	27.92345974	3.664033265E-10	3.669787054E-10
110	5.39611410658775E-08	331.8394	331.8394	27.67873529	27.85741181	3.661060721E-10	3.667305771E-10
111	4.75127155841633E-08	341.8032	341.8183	27.60109000	27.79200691	3.658107584E-10	3.664850494E-10
112	4.20171032880000E-08	351.5146	351.5414	27.52428840	27.71771500	3.655177935E-10	3.662362917E-10
113	3.63575170217143E-08	307.2599	307.2905	26.82309025	26.86403422	3.619398140E-10	3.621845399E-10
114	3.12280613835918E-08	323.0540	323.0904	26.70307362	26.74642971	3.614131696E-10	3.616728805E-10
115	2.70238566088163E-08	308.9367	338.8812	26.58580075	26.94162345	3.608926178E-10	3.624187859E-10
116	2.34228668231020E-08	322.9824	323.0149	26.76796184	26.83920260	3.615443489E-10	3.619695914E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
117	2.03762217573061E-08	337.1248	337.1549	26.66430309	26.73917841	3.610778841E-10	3.615255670E-10
118	1.78329522803265E-08	351.3031	351.3287	26.56328028	26.64172832	3.606177976E-10	3.610876012E-10
119	1.56938545662857E-08	364.4413	365.4786	26.46501131	26.55182806	3.601647731E-10	3.606647879E-10
120	1.38842420742857E-08	377.2130	379.5527	26.36955833	26.47130804	3.597192882E-10	3.602680256E-10
121	1.23482779008980E-08	391.7884	393.5076	26.27693490	26.38225197	3.592816387E-10	3.598520940E-10
122	1.10298255644082E-08	391.6735	407.3673	26.15502569	26.29598977	3.584349585E-10	3.594441837E-10
123	9.90963577160816E-09	403.3418	420.5163	26.03630120	26.21243544	3.578422035E-10	3.590442095E-10
124	8.93537924380408E-09	414.4542	433.5713	25.94621163	26.13128110	3.573967258E-10	3.586508366E-10
125	8.09014101671020E-09	425.2634	446.2510	25.82543685	26.05248450	3.567762636E-10	3.582642506E-10
126	7.35257303074286E-09	435.7379	458.5664	25.73895033	25.97591454	3.563379300E-10	3.578841435E-10
127	6.70427514494694E-09	445.9520	470.5281	25.60791367	25.90143617	3.556421203E-10	3.575101964E-10
128	6.12423918986939E-09	455.8856	482.1462	25.54149653	25.82891015	3.553070833E-10	3.571420654E-10
129	5.610088668247347E-09	465.6313	493.4308	25.46021382	25.75819997	3.548818608E-10	3.567794075E-10
130	5.15253765531429E-09	475.0451	504.3774	25.38068318	25.67262654	3.544621274E-10	3.563840542E-10
131	4.74379456606531E-09	484.2025	487.8756	25.30278107	25.47885072	3.540475755E-10	3.549700287E-10
132	4.37745616180408E-09	493.1105	497.2351	25.22638650	25.40576476	3.536378897E-10	3.545821743E-10
133	4.04805960293878E-09	501.7759	506.3538	25.18583023	25.33396107	3.534292726E-10	3.541983003E-10
134	3.75097643471020E-09	510.2056	515.2378	25.11282805	25.26333600	3.530329832E-10	3.538181214E-10
135	3.48226707866939E-09	518.4058	523.8933	25.04099936	25.19379549	3.526406179E-10	3.534413840E-10
136	3.23856527737959E-09	526.3831	532.3262	24.97025124	25.12524763	3.522519156E-10	3.530678208E-10
137	3.01697751078367E-09	534.1434	540.5423	24.90049541	25.05761028	3.518666155E-10	3.526971977E-10
138	2.81501124697959E-09	541.6928	548.5473	24.83165095	24.99080670	3.514844767E-10	3.523292901E-10
139	2.63050927268571E-09	549.0370	556.3466	24.76364152	24.92476358	3.511052594E-10	3.519638701E-10
140	2.46159494554286E-09	556.1817	563.9456	24.69639959	24.85941518	3.507287575E-10	3.516007349E-10
141	2.30663531941224E-09	562.7600	571.3495	24.62986234	24.79470310	3.503547729E-10	3.512397063E-10
142	2.16420036825306E-09	569.9428	578.5633	24.56396990	24.73057178	3.499831037E-10	3.508806053E-10
143	2.03303415171429E-09	547.9655	585.5921	24.49867233	24.66696941	3.490082961E-10	3.505232608E-10
144	1.91239591080000E-09	553.7520	592.4405	24.43036837	24.75989116	3.486167317E-10	3.502332272E-10
145	1.800507086590000E-09	559.3668	599.1133	24.36043709	24.73042408	3.482267849E-10	3.499438289E-10
146	1.69467369820000E-09	564.8150	605.6150	24.29094130	24.66683930	3.478383211E-10	3.495959830E-10
147	1.59459726810000E-09	570.1018	611.9501	24.22184426	24.60365607	3.474512003E-10	3.492495400E-10
148	1.50186657480000E-09	575.2318	618.1228	24.15311661	24.54084176	3.470653205E-10	3.489043642E-10
149	1.41582399500000E-09	580.2098	623.9307	24.08472828	24.47837314	3.466805673E-10	3.485603716E-10
150	1.33588047160000E-09	585.0403	604.1007	24.01665309	24.41622364	3.462968426E-10	3.482174521E-10
151	1.26150948160000E-09	589.7279	609.6159	23.94886683	24.35437199	3.459140540E-10	3.478755246E-10
152	1.19223914480000E-09	594.2766	614.9960	23.88134973	24.29279770	3.455321313E-10	3.475345114E-10
153	1.12764328170000E-09	598.6907	620.2443	23.81408597	24.23148239	3.451510277E-10	3.471943358E-10
154	1.06733841260000E-09	602.9742	625.3640	23.74705184	24.17040861	3.447706364E-10	3.468549319E-10
155	1.01098074660000E-09	607.1310	630.3583	23.68023795	24.10956168	3.443909415E-10	3.465162419E-10
156	9.58256830250000E-10	611.1649	635.2303	23.61363150	24.04892942	3.440118980E-10	3.461782280E-10
157	9.08882996900000E-10	615.0796	639.9832	23.54721806	23.98849856	3.436334497E-10	3.458408317E-10
158	8.62602287990000E-10	618.8786	644.6197	23.48098924	23.92825617	3.432555755E-10	3.455040029E-10
159	8.19181188420000E-10	622.5653	649.1428	23.41493692	23.86819378	3.428782548E-10	3.451677185E-10
160	7.78406645850000E-10	626.1432	653.5553	23.34905226	23.80830273	3.425014526E-10	3.448319434E-10
161	7.39371820600000E-10	629.6154	657.8600	23.27947466	23.74475469	3.420984505E-10	3.444694200E-10
162	7.03395653840000E-10	632.9851	662.0595	23.21406934	23.68533062	3.417238342E-10	3.441357184E-10
163	6.69525594690000E-10	636.2554	666.1564	23.14880866	23.62604813	3.413496491E-10	3.438023935E-10
164	6.37613851980000E-10	639.4293	670.1532	23.08368882	23.56690401	3.409758918E-10	3.434694430E-10
165	6.07525223210000E-10	642.5095	674.0524	23.01870751	23.50789296	3.406025672E-10	3.431368495E-10
166	5.79135154550000E-10	645.4990	677.8565	22.95386285	23.44901032	3.402296796E-10	3.428046037E-10
167	5.52329328600000E-10	648.4003	681.5678	22.88915194	23.39025291	3.398572271E-10	3.424726998E-10
168	5.27002535780000E-10	643.5634	685.1885	22.68014139	23.33161782	3.386129702E-10	3.421411346E-10
169	5.03057646720000E-10	646.1148	688.7209	22.61381535	23.27310194	3.382303365E-10	3.418099014E-10
170	4.80405179820000E-10	648.5876	692.1673	22.54763824	23.21470264	3.378482728E-10	3.414789973E-10
171	4.58962290850000E-10	650.9843	695.5296	22.48161159	23.15641933	3.374668005E-10	3.411484306E-10
172	4.38652617330000E-10	653.3072	698.8100	22.41573699	23.09824999	3.370859415E-10	3.408181987E-10
173	4.19405335840000E-10	655.5585	702.0105	22.35001605	23.04019339	3.367057174E-10	3.404883054E-10
174	4.01154624460000E-10	657.7406	705.1331	22.28445222	22.98224857	3.363261605E-10	3.401587549E-10
175	3.83839788090000E-10	659.8556	708.1797	22.21904662	22.92441674	3.359472880E-10	3.398295639E-10
176	3.67404251040000E-10	661.9055	711.1521	22.15380355	22.86669496	3.355691369E-10	3.395007224E-10
177	3.51795468150000E-10	663.8924	714.0522	22.08872515	22.80908649	3.351917296E-10	3.391722606E-10
178	3.36964508470000E-10	640.5668	716.8818	21.86008667	22.75158896	3.337224523E-10	3.388441700E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
179	3.22865996680000E-10	642.3149	719.6426	21.79180341	22.69420441	3.333261389E-10	3.385164721E-10
180	3.09457548260000E-10	644.0119	722.3363	21.72375727	22.63693418	3.329309936E-10	3.381891818E-10
181	2.96699560340000E-10	645.6595	724.9646	21.65595361	22.57977783	3.325370592E-10	3.378623043E-10
182	2.84555211700000E-10	647.2591	727.5290	21.58839812	22.52273702	3.321443791E-10	3.375358552E-10
183	2.72990067700000E-10	646.4137	730.0311	21.52109671	22.46581388	3.317529997E-10	3.372098563E-10
184	2.61971882240000E-10	645.9044	732.4725	21.27740268	22.40900812	3.304346546E-10	3.368843098E-10
185	2.51470496720000E-10	647.3039	734.8546	21.21035308	22.35232380	3.300418992E-10	3.365592482E-10
186	2.41457838020000E-10	646.0489	737.1790	21.14360629	22.29575983	3.296508048E-10	3.362346701E-10
187	2.31907424410000E-10	647.3086	739.4469	21.07716843	22.23932022	3.292614172E-10	3.359106063E-10
188	2.22794467600000E-10	648.5308	741.6599	21.01104603	22.18300645	3.288737862E-10	3.355870714E-10
189	2.14095864660000E-10	649.7165	743.8192	20.94524519	22.12681877	3.284879585E-10	3.352640710E-10
190	2.05535962100000E-10	650.8668	745.9263	20.87976804	22.07076189	3.281039545E-10	3.349416418E-10
191	1.97225679080000E-10	651.9829	747.9822	20.81462205	22.01483625	3.277218287E-10	3.346197903E-10
192	1.89298785230000E-10	653.0657	744.4174	20.74981191	21.91097124	3.273416195E-10	3.340933522E-10
193	1.81735194680000E-10	654.1162	746.2985	20.68534077	21.85497720	3.269633539E-10	3.337696268E-10
194	1.74516009800000E-10	655.1354	705.6793	20.62121726	21.42005538	3.265870938E-10	3.308600945E-10
195	1.67623331240000E-10	656.1243	706.9871	20.55744250	21.35535205	3.262128544E-10	3.304901310E-10
196	1.61040446880000E-10	657.0838	708.2574	20.49402061	21.29085474	3.258406691E-10	3.301211926E-10
197	1.54751735840000E-10	658.0147	709.4911	20.43095831	21.22657096	3.254705887E-10	3.297533337E-10
198	1.48742080420000E-10	658.9179	710.6894	20.36825745	21.16250728	3.251026314E-10	3.293866019E-10
199	1.42997550150000E-10	659.7943	711.8533	20.30592401	21.09866631	3.247368437E-10	3.290210209E-10
200	1.37505007730000E-10	660.6446	712.9838	20.42113547	20.92868413	3.253395289E-10	3.284464362E-10
201	1.32253623460000E-10	661.4696	714.0818	20.35942326	20.87024113	3.249789703E-10	3.281051150E-10
202	1.27228015260000E-10	662.2701	715.1483	20.29794176	20.81189458	3.246200574E-10	3.277646475E-10
203	1.22418868020000E-10	663.0468	716.1843	20.23681239	20.75376940	3.242632182E-10	3.274254522E-10
204	1.17815726060000E-10	663.8005	717.1905	20.17603914	20.69586956	3.239084841E-10	3.270875616E-10
205	1.13408733880000E-10	664.5318	678.5279	20.11561904	20.59513900	3.235558444E-10	3.260492019E-10
206	1.09188334050000E-10	665.2414	679.3305	20.05556389	20.53241964	3.232053820E-10	3.256906582E-10
207	1.05145760290000E-10	665.9299	680.1102	19.99587027	20.46999409	3.228570824E-10	3.253337591E-10
208	1.01272411216000E-10	666.5980	680.8675	19.93654181	20.40786560	3.225109771E-10	3.249785354E-10
209	9.75604637630000E-11	667.2463	681.6032	19.87758339	20.34603829	3.221671044E-10	3.246250186E-10
210	9.40023205880000E-11	667.8754	682.3179	19.81899359	20.28451557	3.218254634E-10	3.242732386E-10
211	9.05908145820000E-11	668.4859	683.0121	19.76077811	20.22330272	3.214860983E-10	3.239232376E-10
212	8.73191631940000E-11	669.0782	683.6865	19.70293690	20.16240147	3.211490166E-10	3.235750349E-10
213	8.41809258980000E-11	669.6531	684.3416	19.64547047	20.10181670	3.208142299E-10	3.232286694E-10
214	8.11700142930000E-11	670.2109	684.9780	19.58838310	20.04155138	3.204817731E-10	3.228841682E-10
215	7.82806174360000E-11	670.7522	685.5962	19.53167361	19.98160849	3.201516471E-10	3.225415588E-10
216	7.55072498370000E-11	671.2774	686.1968	19.47534504	19.92199158	3.198238791E-10	3.222008720E-10
217	7.28446966930000E-11	671.7872	686.7803	19.41939634	19.86270266	3.194984710E-10	3.218621294E-10
218	7.02879834750000E-11	672.2818	687.3471	19.36383009	19.80374493	3.191754475E-10	3.215253594E-10
219	6.78324012910000E-11	672.7619	687.8977	19.30864492	19.74512045	3.188548080E-10	3.211905842E-10
220	6.54734815230000E-11	673.2277	688.4327	19.25384250	19.68682906	3.185365720E-10	3.208578118E-10
221	6.32069731950000E-11	673.6798	688.9523	19.19942284	19.62887709	3.182207471E-10	3.205270904E-10
222	6.10288057890000E-11	674.1186	689.4572	19.14538455	19.57126358	3.179073338E-10	3.201984235E-10
223	5.89351470410000E-11	646.5986	689.9477	18.94808135	19.51399245	3.166229878E-10	3.198718443E-10
224	5.69223225130000E-11	646.8851	690.4243	18.89408491	19.45706289	3.163089620E-10	3.195473572E-10
225	5.49868392350000E-11	640.0540	690.8873	18.73726393	19.40047515	3.153953368E-10	3.192249728E-10
226	5.31254012670000E-11	640.2951	691.3371	18.68481549	19.34423287	3.150899473E-10	3.189047233E-10
227	5.13348147190000E-11	640.5281	691.7741	18.63283192	19.28833597	3.147875130E-10	3.185866177E-10
228	4.96120905120000E-11	640.7532	692.1986	18.58131163	19.23278493	3.144880324E-10	3.182706681E-10
229	4.79543436370000E-11	640.9707	692.6111	18.53024983	19.17758017	3.141914869E-10	3.179568867E-10
230	4.63588448910000E-11	629.9597	693.0119	18.32019504	19.04883905	3.129456577E-10	3.173221153E-10
231	4.48229769220000E-11	630.1289	693.4013	18.27110747	18.99595621	3.126607906E-10	3.170188092E-10
232	4.33442704030000E-11	630.2921	693.7796	18.22248859	18.94341991	3.123789680E-10	3.167177344E-10
233	4.19206192350000E-11	630.4495	694.1472	18.17433767	18.89122925	3.121001957E-10	3.164188938E-10
234	4.05496687130000E-11	630.6014	694.5043	18.12664940	18.83938383	3.118244513E-10	3.161222932E-10
235	3.92290428490000E-11	630.7479	694.8513	18.07941876	18.78788228	3.115517128E-10	3.158279345E-10
236	3.79567008290000E-11	618.4073	695.1885	17.86595986	18.73672370	3.102779141E-10	3.155358206E-10
237	3.67306734760000E-11	618.5158	695.5161	17.82089586	18.68590612	3.100187392E-10	3.152459480E-10
238	3.55490690110000E-11	618.6202	695.8344	17.77628490	18.63542945	3.097625928E-10	3.149583253E-10
239	3.44100977050000E-11	618.7207	696.1437	17.73212189	18.58529064	3.095094549E-10	3.146729423E-10
240	3.33120560180000E-11	618.8176	696.4442	17.68839886	18.53548859	3.092592861E-10	3.143898017E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
241	3.22532907240000E-11	608.6476	696.7362	17.51374393	18.48602065	3.082209537E-10	3.141088963E-10
242	3.12322460090000E-11	608.7203	697.0199	17.47192797	18.43688557	3.079834307E-10	3.138302263E-10
243	3.02474166720000E-11	608.7901	697.2956	17.43053203	18.38807979	3.077488038E-10	3.135537793E-10
244	2.92973806710000E-11	608.8572	697.5635	17.38955083	18.33960277	3.075170524E-10	3.132795611E-10
245	2.83807541580000E-11	603.8350	697.8238	17.27992516	18.29144989	3.068764706E-10	3.130075525E-10
246	2.74962465440000E-11	603.8903	698.0768	17.24019852	18.24361935	3.066537874E-10	3.127377518E-10
247	2.66425936130000E-11	603.9435	698.3226	17.20085665	18.19610769	3.064338390E-10	3.124701461E-10
248	2.58186027860000E-11	603.9945	698.5614	17.16188950	18.14891234	3.062165736E-10	3.122047289E-10
249	2.50231304890000E-11	604.0436	698.7935	17.12328591	18.10202913	3.060019341E-10	3.119414834E-10
250	2.42550645710000E-11	604.0907	699.0190	17.08503979	18.05545665	3.057889939E-10	3.117041488E-10
251	2.35133614880000E-11	604.1359	699.2382	17.04713887	18.00918786	3.055803892E-10	3.114313286E-10
252	2.27970070900000E-11	604.1793	699.4512	17.00957414	17.96322248	3.053733752E-10	3.111646874E-10
253	2.21050480890000E-11	604.2211	699.6581	16.97233592	17.91755528	3.051688037E-10	3.109100212E-10
254	2.14369312160000E-11	604.2612	699.8592	16.93541425	17.87218208	3.049666248E-10	3.106574613E-10
255	2.07914481600000E-11	604.2997	700.0547	16.88979933	17.8270994	3.047667899E-10	3.104069988E-10
256	2.01676922190000E-11	605.9392	700.2446	16.86395730	17.95065549	3.045888391E-10	3.106294694E-10
257	1.95648307200000E-11	605.9762	700.4292	16.82763833	17.91164167	3.043924456E-10	3.103969223E-10
258	1.89821006070000E-11	606.0117	700.6086	16.79159494	17.89689945	3.041982383E-10	3.102861213E-10
259	1.84187388240000E-11	613.9769	698.6090	16.82067200	18.34159296	3.044011090E-10	3.129863735E-10
260	1.78752268610000E-11	614.0166	698.7736	16.78426809	18.36793030	3.042060214E-10	3.131404663E-10
261	1.73522350780000E-11	624.3751	698.9336	16.86112390	18.32728339	3.046880660E-10	3.128952922E-10
262	1.68464183010000E-11	624.3836	696.9286	17.15551898	18.31251922	3.064680287E-10	3.127925261E-10
263	1.63571459370000E-11	622.7494	697.0808	16.88413065	18.27280120	3.051994789E-10	3.125527112E-10
264	1.58838100250000E-11	622.7480	697.2288	16.84364643	18.23349472	3.049853055E-10	3.123154842E-10
265	1.54258309970000E-11	622.7549	697.3726	16.80336152	18.19459991	3.047729460E-10	3.120808511E-10
266	1.49826519170000E-11	622.6509	697.5123	16.76326746	18.15611437	3.045623600E-10	3.118488010E-10
267	1.45537530330000E-11	620.3415	697.6480	16.72335692	18.11803503	3.043535114E-10	3.116193192E-10
268	1.41386037820000E-11	620.3536	697.7799	16.68362160	18.08035979	3.041463616E-10	3.113923971E-10
269	1.37367334170000E-11	620.3651	697.9080	16.64405308	18.02327961	3.039408693E-10	3.110276945E-10
270	1.33476536090000E-11	619.0727	698.0326	16.60464363	17.98681563	3.037369976E-10	3.108080143E-10
271	1.29709122030000E-11	619.0828	705.9896	16.56538517	17.89304790	3.035347078E-10	3.102225610E-10
272	1.26060709860000E-11	619.0925	706.0707	16.52626902	17.77928211	3.033339584E-10	3.095232289E-10
273	1.22527194310000E-11	619.1017	706.1493	16.48728716	17.74531518	3.031347103E-10	3.093191875E-10
274	1.19104572160000E-11	619.1105	706.2254	16.44843149	17.37421958	3.029369243E-10	3.072262113E-10
275	1.15788843220000E-11	619.1190	706.2991	16.29629798	17.34212791	3.021444974E-10	3.070386285E-10
276	1.12576403380000E-11	619.1270	777.2998	16.25769336	19.25874201	3.019522484E-10	3.185511095E-10
277	1.09361425110000E-11	619.1347	777.4774	16.21916616	19.21749436	3.017611915E-10	3.183017193E-10
278	1.06178558613000E-11	619.3538	777.6506	16.18071300	19.17652368	3.015713589E-10	3.180540218E-10
279	1.03096547020000E-11	619.3608	777.8193	16.14232489	19.13583237	3.013827070E-10	3.178080347E-10
280	1.00111909893000E-11	619.3676	777.9839	16.10399357	19.09542108	3.011951952E-10	3.175637650E-10
281	9.72212982470000E-12	619.3740	778.1442	16.06571022	19.05529168	3.010087819E-10	3.173212271E-10
282	9.44214905100000E-12	633.6617	778.3006	16.02746615	19.01544443	3.008234255E-10	3.170804256E-10
283	9.17093749410000E-12	633.6649	778.4529	15.98925251	18.97588135	3.006390816E-10	3.168413761E-10
284	8.90819594310000E-12	633.6680	778.6015	15.95106148	18.93660142	3.004557133E-10	3.166040747E-10
285	8.65363802940000E-12	633.6709	778.7463	15.91288356	18.89760782	3.002732748E-10	3.163685446E-10
286	8.40698640730000E-12	633.6737	778.8874	15.87471039	18.85890034	3.000917251E-10	3.161347872E-10
287	8.16797481520000E-12	632.8068	779.0250	15.83653433	18.82047854	2.999110282E-10	3.159028023E-10
288	7.93634561040000E-12	632.8127	779.1592	15.79834560	18.78234468	2.997311364E-10	3.156726075E-10
289	7.71185155720000E-12	632.8183	779.2899	15.76013564	18.74449746	2.995520130E-10	3.154441972E-10
290	7.49425393780000E-12	632.8237	779.4174	15.72189871	18.70693807	2.993736154E-10	3.152175819E-10
291	7.28332423940000E-12	632.8289	779.5417	15.68362354	18.66966688	2.991959052E-10	3.149927669E-10
292	7.07884080990000E-12	632.8338	779.6628	15.64530353	18.63268227	2.990188445E-10	3.147697446E-10
293	6.88059014100000E-12	632.8385	778.3949	15.60692889	18.57303538	2.988423861E-10	3.144175906E-10
294	6.68836548410000E-12	632.8431	778.5081	15.56849275	18.53668816	2.986664968E-10	3.141986734E-10
295	6.50197019460000E-12	632.8474	704.6520	15.52998676	17.25185547	2.984911365E-10	3.064986690E-10
296	6.32121252840000E-12	632.8515	704.7129	15.49140224	17.22351836	2.983162637E-10	3.063332072E-10
297	6.14485223640000E-12	632.8555	704.7721	15.57049053	17.23644513	2.986993037E-10	3.063895231E-10
298	5.97249195550000E-12	631.1133	704.8297	15.53218433	17.20869423	2.985246405E-10	3.062272526E-10
299	5.80541539610000E-12	631.1167	704.8856	15.49380011	17.18122263	2.983504528E-10	3.060668909E-10
300	5.64395807130000E-12	625.8701	704.9400	15.31535791	17.15302212	2.978052725E-10	3.059016931E-10
301	5.48691278110000E-12	625.8799	704.9929	15.27317599	17.12613343	2.976178561E-10	3.057453139E-10
302	5.33464102950000E-12	625.8894	705.0443	15.37785899	17.09950944	2.978302984E-10	3.055907672E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
303	5.18698510280000E-12	620.3118	705.0943	15.33907752	17.07314393	2.974440598E-10	3.054380188E-10
304	5.04379218780000E-12	620.3193	705.1428	15.30018022	17.04703206	2.973042727E-10	3.052870434E-10
305	4.90491575590000E-12	620.3265	705.1901	15.26116144	17.02116952	2.970948663E-10	3.051378191E-10
306	4.77022387500000E-12	620.3335	705.2360	15.22201258	16.99554954	2.969535624E-10	3.049903077E-10
307	4.64001243040000E-12	620.3402	705.2806	15.18272696	16.97016882	2.968122369E-10	3.048444943E-10
308	4.51369523720000E-12	620.3467	705.3241	15.14329788	16.95067923	2.966708511E-10	3.047016268E-10
309	4.39114263050000E-12	620.3529	703.0456	15.10371766	16.92610704	2.965293660E-10	3.045606088E-10
310	4.27223525140000E-12	620.3589	693.1180	15.06397964	16.90176120	2.963877456E-10	3.044212121E-10
311	4.15685364000000E-12	620.3647	693.1359	15.02407765	16.87763549	2.962459522E-10	3.042834017E-10
312	4.04488323690000E-12	620.3702	693.1531	14.98400516	16.85372635	2.961039477E-10	3.041471614E-10
313	3.93621654540000E-12	620.3756	693.1699	14.94375458	16.83002785	2.959410724E-10	3.040124588E-10
314	3.83074508870000E-12	620.3807	693.1860	14.90331998	16.80653384	2.957697422E-10	3.038792599E-10
315	3.72836812980000E-12	620.3857	693.2017	14.86269507	16.78324070	2.955983413E-10	3.037475484E-10
316	3.62898729590000E-12	620.3904	693.2168	14.82187395	16.76014286	2.954268407E-10	3.036172943E-10
317	3.53250597240000E-12	620.3950	693.2314	14.78084986	16.73723435	2.952552079E-10	3.034884647E-10
318	3.43883362730000E-12	620.3994	693.2456	14.73961776	16.71450983	2.950834150E-10	3.033610324E-10
319	3.34788050670000E-12	620.4037	693.2593	14.69817051	16.69196491	2.949114313E-10	3.032349754E-10
320	3.25956118110000E-12	620.4078	701.9249	14.65650383	16.66959295	2.947392309E-10	3.031102566E-10
321	3.17379306030000E-12	620.4117	701.9554	14.61465242	16.64742658	2.945669491E-10	3.029870049E-10
322	3.09049541330000E-12	620.4155	701.9851	14.57252779	16.62538550	2.943942247E-10	3.028648876E-10
323	3.00959271260000E-12	620.9725	702.0140	14.30523284	16.60350256	2.935307446E-10	3.027440331E-10
324	2.931008450560000E-12	627.5403	702.0421	14.25887055	16.58177192	2.933438136E-10	3.026244101E-10
325	2.85467179830000E-12	627.5445	702.0695	14.21226344	16.56018808	2.931565745E-10	3.025059903E-10
326	2.78051320980000E-12	627.5486	702.0961	14.16540635	16.53874602	2.929690007E-10	3.023887478E-10
327	2.70846411930000E-12	627.5525	702.1219	14.11829582	16.51744017	2.927810712E-10	3.022726535E-10
328	2.63846096250000E-12	627.5563	702.1471	14.07092946	16.49626486	2.925927706E-10	3.021576782E-10
329	2.57043899300000E-12	632.2218	702.1715	14.02330253	16.47521518	2.924040731E-10	3.020437966E-10
330	2.50433954700000E-12	632.2227	702.1953	13.72740254	16.45428548	2.912249703E-10	3.019309794E-10
331	2.44010308160000E-12	632.2235	702.2185	13.67721936	16.41449736	2.910308824E-10	3.016790321E-10
332	2.37767201410000E-12	632.2244	702.2410	13.62674487	16.39424477	2.908362386E-10	3.015708213E-10
333	2.31699170210000E-12	632.2252	702.2628	13.57597752	16.37409283	2.906410253E-10	3.014635699E-10
334	2.25801044350000E-12	632.2259	702.2841	13.52491445	16.35403627	2.904452248E-10	3.013572516E-10
335	2.20067467700000E-12	632.2266	702.3048	13.47355608	16.28999348	2.902488316E-10	3.009922702E-10
336	2.14493682290000E-12	632.2273	702.3250	13.42190215	16.27042590	2.900518373E-10	3.008902359E-10
337	2.09074713930000E-12	632.2280	702.3446	13.36995073	15.73027047	2.898542277E-10	2.984252107E-10
338	2.03806107700000E-12	632.2286	702.3636	13.31770230	15.94503488	2.896559970E-10	2.993477548E-10
339	1.98683010860000E-12	634.7476	702.3822	13.26515700	15.92430227	2.894571394E-10	2.992485043E-10
340	1.93701456380000E-12	634.7482	709.4534	13.21231560	15.90354454	2.892576497E-10	2.991496401E-10
341	1.88856981400000E-12	634.7488	709.4735	13.15917754	15.88275563	2.890575195E-10	2.990511329E-10
342	1.84145720140000E-12	634.7494	709.4929	13.10574448	15.86192928	2.888567475E-10	2.989529525E-10
343	1.79563522890000E-12	634.7499	709.5119	13.05201739	15.84105904	2.886553305E-10	2.988550686E-10
344	1.75106621880000E-12	634.7505	709.5304	12.99799792	15.82013947	2.884532673E-10	2.987574556E-10
345	1.70771465560000E-12	634.7510	709.5484	12.94368730	15.79916422	2.882505561E-10	2.986600832E-10
346	1.66554296260000E-12	637.8076	709.5658	12.88908734	15.77812702	2.880471956E-10	2.985629212E-10
347	1.62451640240000E-12	637.8082	709.5829	12.83419953	15.75702213	2.878431856E-10	2.984659433E-10
348	1.58460260180000E-12	637.8087	709.5994	12.77902775	15.73584336	2.876385328E-10	2.983691200E-10
349	1.54576888460000E-12	644.0107	709.6156	12.72357425	15.71458457	2.874332387E-10	2.982724224E-10
350	1.50798365570000E-12	644.0119	709.6313	12.66784199	15.49380612	2.872273079E-10	2.973199186E-10
351	1.47121532000000E-12	644.0130	709.6466	12.61183469	15.69353711	2.870207460E-10	2.981347138E-10
352	1.43543542470000E-12	644.0141	709.6614	12.55555364	15.67265793	2.868135527E-10	2.980408799E-10
353	1.40061541600000E-12	644.0151	709.6759	12.49900585	15.65168033	2.866057457E-10	2.979470739E-10
354	1.36672663910000E-12	644.0161	709.6900	12.44219332	15.63059787	2.863973266E-10	2.978532653E-10
355	1.33374358150000E-12	644.0171	709.7037	12.38512021	15.60940471	2.861883035E-10	2.977594281E-10
356	1.30163975060000E-12	644.0180	709.7171	12.32779158	15.58809512	2.859786884E-10	2.976655356E-10
357	1.27038855280000E-12	644.0189	709.7301	12.27021186	15.56666298	2.857684911E-10	2.975715594E-10
358	1.23996741889000E-12	644.0198	709.7427	12.21238771	15.54510250	2.855577290E-10	2.974774734E-10
359	1.21035171846000E-12	644.0206	709.7550	12.15432261	15.52340738	2.853464086E-10	2.973832491E-10
360	1.18151858528000E-12	644.0214	709.7670	12.09602302	15.50157245	2.851345472E-10	2.972888625E-10
361	1.15344584218000E-12	644.0221	709.7787	12.03749484	15.46501695	2.849221596E-10	2.971125327E-10
362	1.12611179905000E-12	644.0229	709.7900	11.97874361	15.44298708	2.847092600E-10	2.970186367E-10
363	1.09949555584000E-12	644.0236	709.8011	11.91977587	15.42079451	2.844958655E-10	2.969244733E-10
364	1.07357679757000E-12	644.0243	709.8119	11.86059784	15.39843426	2.842819929E-10	2.968300184E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
365	1.04833589533000E-12	645.2510	709.8223	12.12586161	15.37589977	2.852529276E-10	2.967352440E-10
366	1.02374008687000E-12	645.2513	709.8325	12.06834718	15.35318545	2.850437593E-10	2.966401246E-10
367	9.99753969650000E-13	645.2516	709.8425	12.01061652	15.33028540	2.848341004E-10	2.965446343E-10
368	9.76392708310000E-13	645.2518	709.8521	11.95267610	15.24860568	2.846239687E-10	2.962130111E-10
369	9.53638833150000E-13	653.5940	709.8615	11.89453128	14.40216998	2.844133774E-10	2.931007282E-10
370	9.31475465520000E-13	653.5963	709.8707	11.83619141	15.64996693	2.842023542E-10	2.980561894E-10
371	9.09885916810000E-13	653.5985	710.4483	11.77766087	15.86261778	2.839909093E-10	2.988711686E-10
372	8.88854190460000E-13	653.6007	710.4521	11.85763685	15.84419968	2.841284482E-10	2.987846862E-10
373	8.68364975980000E-13	653.6027	711.9291	11.79940156	15.85040666	2.839186924E-10	2.987961287E-10
374	8.48403057900000E-13	647.8084	711.9329	11.74094905	15.83211028	2.837083761E-10	2.987104777E-10
375	8.28953811800000E-13	647.8086	711.9365	11.68228666	15.81375953	2.834975207E-10	2.986249728E-10
376	8.10003204310000E-13	647.8089	718.8527	11.62342027	15.82203012	2.832861426E-10	2.987289641E-10
377	7.91537294090000E-13	647.8091	718.8568	11.56435695	15.80317920	2.830742621E-10	2.986412526E-10
378	7.73542730850000E-13	647.8093	718.8607	11.50510672	15.78427000	2.828619100E-10	2.985536757E-10
379	7.56006758340000E-13	647.8094	718.8645	11.31538259	15.76529732	2.822669691E-10	2.984662067E-10
380	7.38916712340000E-13	647.8096	718.8682	11.25590884	15.74625635	2.820550812E-10	2.983788256E-10
381	7.22260219670000E-13	647.8098	722.8968	11.19630569	15.79701334	2.818429161E-10	2.985645373E-10
382	7.06025507170000E-13	647.8100	722.9006	11.13657984	15.77847385	2.816304928E-10	2.984787821E-10
383	6.90201083750000E-13	652.0451	722.9043	11.07673938	15.75986538	2.814178360E-10	2.983930989E-10
384	6.74775761320000E-13	643.1973	722.9080	11.01679438	15.74118416	2.812049766E-10	2.983074688E-10
385	6.59738743830000E-13	643.1981	722.9115	10.95675350	15.72242503	2.809919412E-10	2.982218684E-10
386	6.45079324270000E-13	638.4820	734.8872	10.89662530	15.74958454	2.807787558E-10	2.984601571E-10
387	6.30787395650000E-13	638.4827	734.8915	10.83641960	15.73009590	2.805654507E-10	2.983707928E-10
388	6.16853041020000E-13	638.4833	734.8957	10.77614442	15.71053335	2.803520504E-10	2.982814861E-10
389	6.03266542440000E-13	638.4840	734.8998	10.71581006	15.69089298	2.801385873E-10	2.981922171E-10
390	5.90018470020000E-13	638.4846	734.9038	10.65542857	15.67116954	2.799250994E-10	2.981029628E-10
391	5.77099794880000E-13	638.4852	734.9077	10.59500363	15.65135903	2.797115963E-10	2.980137035E-10
392	5.64501681170000E-13	638.4857	740.4086	10.53454808	15.72993442	2.7949811194E-10	2.983047614E-10
393	5.52215489060000E-13	638.4863	740.4128	10.47407340	15.71083305	2.792847048E-10	2.982175259E-10
394	5.40232869760000E-13	638.4868	740.4168	10.41358643	15.69164819	2.790713734E-10	2.981302880E-10
395	5.28545774490000E-13	619.5030	740.4207	10.35309738	15.67237581	2.788581572E-10	2.980430271E-10
396	5.17146148490000E-13	619.5032	740.4245	10.29261578	15.65301095	2.786450863E-10	2.979557216E-10
397	5.06026534030000E-13	619.5033	754.2482	10.23215539	15.68910203	2.784322051E-10	2.982521647E-10
398	4.95179268390000E-13	619.5035	754.2530	10.17172051	15.66898771	2.782195256E-10	2.981608059E-10
399	4.84597380900000E-13	619.5036	754.2577	10.11132450	15.64878938	2.780070913E-10	2.9806944489E-10
400	4.74273704870000E-13	619.5038	754.2623	10.05097679	15.62850234	2.777949315E-10	2.979780736E-10
401	4.641565056740000E-13	619.5039	759.7607	9.99091186	15.70546741	2.775838411E-10	2.982667112E-10
402	4.54333377680000E-13	645.0708	759.7656	9.93068600	15.68578142	2.773723105E-10	2.981768222E-10
403	4.44748433150000E-13	652.4399	759.7703	9.87053532	15.66601086	2.771611393E-10	2.980869240E-10
404	4.35395088540000E-13	652.4405	771.7351	9.81047290	15.69901969	2.769503702E-10	2.983555123E-10
405	4.26267353280000E-13	652.4412	771.7408	9.75051246	15.67859522	2.767400477E-10	2.982621174E-10
406	4.17359634820000E-13	652.4418	771.7463	9.69065543	15.65809213	2.765301745E-10	2.981687463E-10
407	4.08665740590000E-13	652.4424	771.7517	9.63091534	15.63750619	2.763207947E-10	2.980753802E-10
408	4.00180268080000E-13	652.4429	775.7765	9.57130427	15.68789876	2.761119476E-10	2.982577886E-10
409	3.91897817770000E-13	652.4435	782.6834	9.51182647	15.70040977	2.759036455E-10	2.983841748E-10
410	3.83813186160000E-13	652.4440	782.6896	9.45249850	15.67984114	2.756959431E-10	2.982898936E-10
411	3.75920967750000E-13	624.8306	784.1662	9.39322443	15.68477461	2.75488523E-10	2.982955268E-10
412	3.68216348090000E-13	624.0678	784.1722	9.33431358	15.66422962	2.752824030E-10	2.982016155E-10
413	3.60694417710000E-13	624.0680	784.1781	9.27547940	15.64360176	2.750766392E-10	2.981076988E-10
414	3.53350561170000E-13	624.0681	784.1838	9.21682910	15.62288663	2.748715837E-10	2.980137579E-10
415	3.46180062030000E-13	624.0682	784.1894	9.15837152	15.60208012	2.746672650E-10	2.979197729E-10
416	3.39178500870000E-13	624.0683	784.1948	9.20632348	15.58117843	2.747258797E-10	2.978257254E-10
417	3.32341553290000E-13	624.0684	784.2002	9.14692500	15.56017713	2.745175788E-10	2.977315958E-10
418	3.25664897880000E-13	624.0685	784.2054	9.08771840	15.53907208	2.743099972E-10	2.976373658E-10
419	3.19144507260000E-13	624.6864	784.2104	9.02871276	15.51785951	2.741031644E-10	2.975430163E-10
420	3.12776354050000E-13	624.6865	784.2154	8.96991637	15.49653514	2.738971072E-10	2.974485288E-10
421	3.06556505890000E-13	624.6866	784.2202	8.91134210	15.47509504	2.736918681E-10	2.973538843E-10
422	3.00481131420000E-13	624.6867	784.2249	8.85299356	15.45353503	2.734874582E-10	2.972590640E-10
423	2.94546794310000E-13	626.1817	702.9807	8.77812706	13.58568116	2.732365183E-10	2.899394140E-10
424	2.88749663200000E-13	638.4135	702.9825	8.72049535	13.67445958	2.730350647E-10	2.902440200E-10
425	2.83086393790000E-13	643.3583	702.9843	8.66312173	13.71606945	2.728345432E-10	2.903797413E-10
426	2.77553448750000E-13	643.4255	722.2078	8.60601331	14.76852290	2.726349769E-10	2.942482771E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
427	2.72141220110000E-13	627.4600	724.4985	8.54917712	14.78446469	2.724363885E-10	2.942978131E-10
428	2.66851558100000E-13	627.4601	729.1322	8.49262309	14.76706235	2.722388110E-10	2.942736683E-10
429	2.61683081610000E-13	627.4602	729.1332	8.43635847	14.74091147	2.720422679E-10	2.941719382E-10
430	2.56632841370000E-13	627.4602	729.1341	8.38039024	14.71449342	2.718467821E-10	2.940693938E-10
431	2.51697894090000E-13	627.4603	735.3903	8.32472671	14.80122639	2.716523808E-10	2.943731993E-10
432	2.46875287510000E-13	627.4604	735.3913	8.26937519	14.77540973	2.714590879E-10	2.942720549E-10
433	2.42162274360000E-13	627.4604	743.4153	8.21434404	14.76779191	2.712669311E-10	2.943201478E-10
434	2.37555893930000E-13	631.4996	743.4165	8.15963704	14.74162956	2.710759222E-10	2.942177068E-10
435	2.33053692150000E-13	634.9836	743.4176	8.10526219	14.71521221	2.708860877E-10	2.941144996E-10
436	2.28652946900000E-13	648.6934	751.9615	8.05122599	14.83676926	2.706974488E-10	2.945462890E-10
437	2.24351109400000E-13	645.4672	751.9628	7.99753584	14.81121809	2.705100298E-10	2.944450285E-10
438	2.20145858840000E-13	645.4672	761.2252	7.94419715	14.81258718	2.703238483E-10	2.945445129E-10
439	2.16034630880000E-13	645.4672	761.2268	7.89121500	14.78676114	2.701389208E-10	2.944421146E-10
440	2.12015233020000E-13	645.4673	761.2284	7.83859723	14.76069839	2.699552732E-10	2.943390230E-10
441	2.08085168630000E-13	639.3598	769.7694	7.78634809	14.87415372	2.697729192E-10	2.947460913E-10
442	2.04242481630000E-13	634.3487	777.7882	7.73447230	14.87767047	2.695918742E-10	2.948452541E-10
443	2.00475756480000E-13	634.3487	777.7903	7.68297426	14.85225909	2.694121522E-10	2.947430186E-10
444	1.96788809590000E-13	634.3488	790.9542	7.63186052	14.97554628	2.692337751E-10	2.952525417E-10
445	1.93183389060000E-13	634.3488	790.9568	7.58113478	14.95074238	2.690567546E-10	2.951509686E-10
446	1.89657420600000E-13	634.3489	790.9594	7.53080300	14.92573613	2.688811102E-10	2.950488426E-10
447	1.86208948130000E-13	634.3489	790.9619	7.48086717	14.90052394	2.687068482E-10	2.949461469E-10
448	1.82836054176000E-13	634.3490	790.9643	7.43133286	14.87510224	2.685339868E-10	2.948428668E-10
449	1.79536929673000E-13	634.3490	790.9667	7.38220332	14.84946759	2.683625364E-10	2.947389864E-10
450	1.76309735854000E-13	635.0181	790.9690	7.33348199	14.82361621	2.681925082E-10	2.946344886E-10
451	1.73111683111000E-13	635.0181	790.9712	7.28512426	14.79760680	2.680235756E-10	2.945277620E-10
452	1.70008141596000E-13	635.0182	704.4444	7.23723024	12.65634819	2.678564316E-10	2.865452590E-10
453	1.66971917352000E-13	635.0182	706.8306	7.18975478	12.64159759	2.676907431E-10	2.864971935E-10
454	1.64001368230000E-13	635.0183	706.8314	7.14269976	12.59298187	2.675265158E-10	2.863227231E-10
455	1.61094881185000E-13	635.0183	706.8321	7.09606819	12.54398641	2.673637594E-10	2.861469475E-10
456	1.58250912377000E-13	645.0738	706.8329	7.04986199	12.49461328	2.672024798E-10	2.859698729E-10
457	1.55467937568000E-13	645.0738	706.8336	7.00408408	12.06083891	2.670426865E-10	2.844587308E-10
458	1.52744511227000E-13	645.0738	706.8343	6.95873545	13.40734733	2.668843823E-10	2.891747644E-10
459	1.50079167623000E-13	645.0738	794.8636	6.91381845	14.56776030	2.667275747E-10	2.936343453E-10
460	1.47468991075000E-13	647.6581	798.1026	6.86933434	14.57671796	2.665722674E-10	2.936642018E-10
461	1.44900618335000E-13	647.6582	798.1047	6.82528467	14.54879048	2.664184653E-10	2.935539614E-10
462	1.42386668008000E-13	647.6583	798.1066	6.78167108	14.52061706	2.662661733E-10	2.934429683E-10
463	1.39925841578000E-13	651.4392	798.1086	6.73849413	14.49219464	2.661153931E-10	2.933312102E-10
464	1.37516890431000E-13	651.4393	798.1105	6.67885319	14.46352027	2.659661276E-10	2.932186733E-10
465	1.35158554657000E-13	651.4394	798.1123	6.63812936	14.43459101	2.658183776E-10	2.931053446E-10
466	1.32849644448000E-13	648.0120	793.0819	6.59783910	14.35971211	2.656721449E-10	2.927809210E-10
467	1.30588989299000E-13	648.0120	781.1263	6.55798249	14.21090435	2.655274276E-10	2.921630586E-10
468	1.28375408007000E-13	648.0120	781.1275	6.51855948	14.17969309	2.653842328E-10	2.920433742E-10
469	1.26207828675000E-13	648.0120	713.5348	6.47956886	12.91688402	2.652425514E-10	2.874653878E-10
470	1.24085159206000E-13	648.0120	709.6869	6.44101087	12.74560382	2.651023898E-10	2.868490425E-10
471	1.220063171005000E-13	651.4399	706.8418	6.40288448	12.86786520	2.649637436E-10	2.872264909E-10
472	1.19970278810000E-13	651.4400	706.8423	6.36518976	12.82239344	2.648266097E-10	2.870622284E-10
473	1.17967690793000E-13	644.0414	706.8427	6.06209177	12.96163282	2.639432749E-10	2.875429173E-10
474	1.16003704180000E-13	644.0415	706.8432	6.02821033	12.91708834	2.638256951E-10	2.873817047E-10
475	1.14079834011000E-13	644.0415	708.4785	5.99475908	12.95829171	2.637096022E-10	2.875406898E-10
476	1.12195175305000E-13	644.0415	708.4785	5.96173601	12.99888564	2.635949888E-10	2.876676066E-10
477	1.10348792781000E-13	644.0415	708.4785	5.92913742	12.95493226	2.634818419E-10	2.875082910E-10
478	1.08539800761000E-13	644.0415	714.0231	5.89696097	12.91059507	2.633701529E-10	2.873777948E-10
479	1.06767343269000E-13	644.0415	714.0232	5.86520526	12.86619238	2.632599167E-10	2.872165826E-10
480	1.05030553631000E-13	644.0415	714.0232	5.83386624	12.82142772	2.631511192E-10	2.870540874E-10
481	1.03328634976000E-13	644.0415	718.4204	5.80294264	12.89277881	2.630437554E-10	2.872878905E-10
482	1.01660770233000E-13	644.0415	718.4205	5.77242990	12.84825419	2.629378094E-10	2.871264765E-10
483	1.00026171734000E-13	644.0415	720.4921	5.74232583	12.80335545	2.628332734E-10	2.869637548E-10
484	9.84241014140000E-14	644.0415	720.4921	5.71262775	12.65210238	2.627301378E-10	2.864599327E-10
485	9.68537713060000E-14	645.3352	720.4922	5.89885722	12.74187157	2.631493426E-10	2.867603285E-10
486	9.53144923500000E-14	645.3352	720.4922	5.86535959	12.69645166	2.630317040E-10	2.865957778E-10
487	9.38055362820000E-14	645.3352	722.4388	5.83227790	12.65067301	2.629154980E-10	2.864299734E-10
488	9.23262232450000E-14	647.5910	722.4391	5.79961124	12.60453775	2.628007214E-10	2.862629213E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
489	9.0875884080000E-14	647.5910	798.9461	5.76735531	14.36257231	2.626873590E-10	2.927173966E-10
490	8.9448517286000E-14	647.5910	799.6751	5.73550860	14.33409941	2.625754056E-10	2.926077502E-10
491	8.8048706741000E-14	647.5910	799.6754	5.70406857	14.30534727	2.624648520E-10	2.924971739E-10
492	8.6676047614000E-14	647.5911	799.6758	5.67303120	14.27631405	2.623556842E-10	2.923856591E-10
493	8.5329948855000E-14	647.5911	799.6761	5.64239562	14.24699647	2.622478991E-10	2.922731919E-10
494	8.4009799812000E-14	647.5911	809.8203	5.61215851	14.42058992	2.621414849E-10	2.929419933E-10
495	8.2715029635000E-14	647.5911	811.8110	5.61532234	14.39291694	2.622067222E-10	2.928348117E-10
496	8.1445066577000E-14	647.5911	811.8114	5.60466846	14.36497466	2.621004519E-10	2.927267345E-10
497	8.0199349290000E-14	647.5912	811.8119	5.63221842	14.33676124	2.622028077E-10	2.926177530E-10
498	7.8977365730000E-14	647.5912	811.8123	5.60245907	14.30827404	2.620979716E-10	2.925078562E-10
499	7.7778573852000E-14	654.0796	811.8127	5.46382229	14.09274463	2.616062488E-10	2.917275582E-10
500	7.6602451512000E-14	654.0796	722.1928	5.43587713	9.61357543	2.615076197E-10	2.758204248E-10
501	7.54485062680000E-14	654.0796	722.1930	5.40830777	9.55828487	2.614102829E-10	2.756239755E-10
502	7.4316255180000E-14	654.0797	722.1932	5.38111123	10.23900797	2.613142279E-10	2.782658748E-10
503	7.3205205507000E-14	654.0797	829.3829	5.35428371	14.44393411	2.612194414E-10	2.930557567E-10
504	7.2114914111000E-14	654.0797	832.1019	5.32782247	14.41668766	2.611259139E-10	2.929493753E-10
505	7.1044917654000E-14	654.0798	832.1024	5.30172243	14.38918507	2.610336277E-10	2.928421444E-10
506	6.9994772699000E-14	654.0798	832.1030	5.27598137	14.36142316	2.609425752E-10	2.927340502E-10
507	6.8964035510000E-14	654.0798	832.1035	5.25059577	14.33339979	2.608527437E-10	2.926250831E-10
508	6.7952302452000E-14	654.0799	832.1040	5.22556200	14.05103081	2.607641209E-10	2.916001658E-10
509	6.6959159192000E-14	654.0799	805.8382	5.20087650	13.79794070	2.606766944E-10	2.905840911E-10
510	6.5984191995000E-14	653.6657	805.8384	5.18385095	13.76474121	2.605974823E-10	2.904592889E-10
511	6.50270260310000E-14	653.6658	805.9989	5.15954006	13.83205128	2.605112164E-10	2.906944331E-10
512	6.40872472660000E-14	653.6658	852.3899	5.13556996	14.46688390	2.604261207E-10	2.931901875E-10
513	6.31645307720000E-14	653.6658	855.1088	5.11193721	14.43991337	2.603421833E-10	2.930837899E-10
514	6.22584717180000E-14	653.6658	855.1095	5.08863800	14.41270050	2.602593909E-10	2.929765536E-10
515	6.13687154740000E-14	653.6659	855.1102	5.06566882	14.38524295	2.601777314E-10	2.928685888E-10
516	6.04949466140000E-14	653.6659	855.1109	5.04302595	14.35753803	2.600971918E-10	2.927597633E-10
517	5.96367802080000E-14	653.6659	855.1116	5.02070590	14.07988916	2.600177599E-10	2.917459154E-10
518	5.87939305320000E-14	653.6659	833.0891	4.99870511	13.84840327	2.599394235E-10	2.907446609E-10
519	5.79660426570000E-14	653.6659	833.0894	4.97701961	13.81610757	2.598621688E-10	2.906229207E-10
520	5.71528204600000E-14	655.6467	874.6669	5.67061261	14.44594247	2.622494575E-10	2.931623344E-10
521	5.63539286140000E-14	655.6467	874.6678	5.64137520	14.41868641	2.621458830E-10	2.930539707E-10
522	5.55691009970000E-14	655.6467	874.6687	5.55960914	14.39119635	2.618774531E-10	2.929448408E-10
523	5.47980215850000E-14	655.6467	874.6696	4.98721139	14.36347062	2.598658367E-10	2.928349364E-10
524	5.40404046540000E-14	655.6468	885.5375	4.96561200	14.41354751	2.597886999E-10	2.930802199E-10
525	5.32959736830000E-14	655.6468	885.5385	4.94431869	14.38581849	2.597126133E-10	2.929694844E-10
526	5.25644426490000E-14	655.6468	885.5395	4.92332739	14.35786021	2.596375630E-10	2.928580017E-10
527	5.18455650320000E-14	655.6468	885.5405	4.90263499	14.32966974	2.595635380E-10	2.927457612E-10
528	5.11390741120000E-14	655.6468	833.8525	4.88223769	13.49241797	2.594905252E-10	2.894632662E-10
529	5.04446936670000E-14	655.6468	850.1822	4.86213208	13.73876620	2.594185128E-10	2.903962441E-10
530	4.97622068790000E-14	655.6468	870.6897	4.84231480	14.00656169	2.593474891E-10	2.914556332E-10
531	4.90913568290000E-14	655.6468	870.6902	4.82278213	14.03463449	2.592774413E-10	2.914728414E-10
532	4.84318868970000E-14	655.6468	870.6908	4.80353034	14.00458404	2.592083563E-10	2.913574630E-10
533	4.77835799660000E-14	655.6468	870.6914	5.27300755	13.97426307	2.608601422E-10	2.912411513E-10
534	4.71462189190000E-14	655.6468	864.9065	5.24886262	13.86149862	2.607742387E-10	2.908620135E-10
535	4.65195768380000E-14	655.6469	880.8822	5.22502467	14.10115995	2.606893919E-10	2.917630641E-10
536	4.58989471500000E-14	655.6469	881.0430	5.20149050	14.12449490	2.606055909E-10	2.918894606E-10
537	4.52735380570000E-14	655.6469	881.0436	5.17825745	14.09511339	2.605228261E-10	2.917748035E-10
538	4.46586958320000E-14	655.6469	881.0442	4.83241194	14.06548108	2.592725512E-10	2.916592921E-10
539	4.40542131590000E-14	655.6469	881.0448	4.81302887	14.03559629	2.592028365E-10	2.915429222E-10
540	4.34598931210000E-14	655.6469	881.0454	4.79391766	14.00545739	2.591340545E-10	2.914256856E-10
541	4.28755278040000E-14	655.6469	874.0812	4.77507545	13.86749518	2.590661951E-10	2.908710677E-10
542	4.23009297930000E-14	663.1706	875.2452	4.75649839	13.95491553	2.589992449E-10	2.911828038E-10
543	4.17358819710000E-14	663.1706	875.2457	4.73818312	13.92460688	2.589331923E-10	2.910661721E-10
544	4.11802165250000E-14	663.1706	875.2462	4.72012686	13.89403366	2.588680277E-10	2.909486236E-10
545	4.06337356410000E-14	673.6450	875.2467	4.70232635	13.86319518	2.588037397E-10	2.908301538E-10
546	4.00962718050000E-14	710.2073	868.0908	5.07466868	13.81753298	2.601181160E-10	2.906287581E-10
547	3.95676272030000E-14	710.2074	868.0912	5.05297800	14.34771635	2.600404710E-10	2.928309643E-10
548	3.90476438230000E-14	710.2075	868.0916	5.03156648	14.43629317	2.599637862E-10	2.931878784E-10
549	3.85358794240000E-14	688.6845	863.6529	4.78527258	14.41113031	2.590683415E-10	2.930902104E-10
550	3.80281575840000E-14	688.6845	871.0491	4.76665816	14.46108413	2.590011305E-10	2.933049739E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
551	3.75286909390000E-14	688.6846	871.0491	4.74829858	14.43610845	2.589347940E-10	2.932075465E-10
552	3.70373710800000E-14	688.6846	871.0492	4.73019097	14.41090217	2.588693218E-10	2.931093296E-10
553	3.65540001930000E-14	688.6846	871.0492	4.71233221	14.38546104	2.588047036E-10	2.930103076E-10
554	3.60784401670000E-14	647.5916	879.9523	4.69471927	14.37586316	2.587409284E-10	2.929940558E-10
555	3.56105525920000E-14	645.3358	879.9523	4.67734902	14.34985444	2.586779856E-10	2.928923265E-10
556	3.51501595550000E-14	645.3358	879.9524	4.66021828	14.32361024	2.586158642E-10	2.927897893E-10
557	3.46971422480000E-14	645.3358	887.9768	4.75000598	14.29712998	2.590057725E-10	2.926864404E-10
558	3.42513530580000E-14	645.3358	887.9768	4.73175910	14.21639020	2.589397697E-10	2.923876919E-10
559	3.38126529770000E-14	645.3358	892.9724	4.71378130	14.18856605	2.588746074E-10	2.922787880E-10
560	3.33809087945000E-14	645.3358	893.6007	4.69606935	14.16049774	2.588102737E-10	2.921690429E-10
561	3.29559912204000E-14	645.3358	893.6008	4.67861924	14.01493716	2.587467606E-10	2.916092590E-10
562	3.25377625258000E-14	645.3358	893.6008	4.66142785	13.98495489	2.586840568E-10	2.914920703E-10
563	3.21261002813000E-14	645.3358	893.6009	4.64449139	13.80218038	2.586536332E-10	2.907792756E-10
564	3.17208898983000E-14	645.3358	798.1891	4.62624600	8.77852532	2.585302863E-10	2.729640435E-10
565	3.13220037479000E-14	645.3358	798.1892	4.60963255	8.72974113	2.584692624E-10	2.727906452E-10
566	3.09293191017000E-14	654.1717	816.4997	4.59326190	11.18369743	2.584090728E-10	2.809511351E-10
567	3.05427151915000E-14	654.1717	819.9059	4.57713060	11.13429630	2.583497046E-10	2.807702111E-10
568	3.01621015491000E-14	654.1717	819.9062	4.46158752	11.08471223	2.578863801E-10	2.805886183E-10
569	2.97873421068000E-14	647.6607	819.9064	4.44709677	11.03494616	2.578332161E-10	2.804063594E-10
570	2.94183512969000E-14	647.6607	862.0502	4.43281228	13.81956405	2.577807573E-10	2.908787994E-10
571	2.90550051119000E-14	647.6607	862.0502	4.41873084	13.78968696	2.577289925E-10	2.907664195E-10
572	2.86972017045000E-14	647.6607	862.0502	4.40484985	13.75954561	2.576779128E-10	2.906531005E-10
573	2.83448421677000E-14	647.6607	857.4943	4.36049523	13.64407912	2.575433766E-10	2.902680815E-10
574	2.79978376945000E-14	635.0195	871.3515	4.34753888	13.87457287	2.574955559E-10	2.909995155E-10
575	2.76560711381000E-14	635.0195	876.3740	4.33476992	13.84521817	2.574483744E-10	2.908886311E-10
576	2.73194576119000E-14	635.0195	883.8065	4.32218540	13.94768757	2.574018219E-10	2.912760933E-10
577	2.69879151696000E-14	635.0195	883.8065	4.30978295	13.99057592	2.573558904E-10	2.914434601E-10
578	2.66613204848000E-14	635.0195	891.6573	4.29755937	13.96237207	2.573105686E-10	2.913362456E-10
579	2.63396147515000E-14	635.0195	897.8230	4.28551202	13.93391128	2.572658478E-10	2.912281158E-10
580	2.60226987637000E-14	635.0195	900.6514	4.30723196	13.90519198	2.572502467E-10	2.911190640E-10
581	2.57104843955000E-14	635.0195	900.6514	4.29455238	13.86824499	2.572012340E-10	2.909856893E-10
582	2.54028864613000E-14	634.3504	900.6514	4.21841272	13.74813884	2.570243826E-10	2.905369957E-10
583	2.50998298755000E-14	634.3504	900.6515	4.20740645	13.71734195	2.569831920E-10	2.904191457E-10
584	2.48012323928000E-14	631.5027	882.7870	4.19656018	13.64637194	2.569425460E-10	2.902413283E-10
585	2.45070016679000E-14	627.4622	882.7870	4.18587138	13.61525839	2.568992730E-10	2.901237332E-10
586	2.42147175349000E-14	627.4622	882.7870	4.17533780	13.58388375	2.568524369E-10	2.900052016E-10
587	2.39266362671000E-14	627.4622	877.5263	4.16163355	13.45135207	2.568008038E-10	2.895655187E-10
588	2.36427657884000E-14	627.4622	877.5263	4.11921738	13.41859093	2.565621452E-10	2.894421435E-10
589	2.33630277739000E-14	627.4622	850.6586	4.10887944	12.55275397	2.565228260E-10	2.862330642E-10
590	2.30873650788000E-14	626.1852	848.6494	4.09868662	10.88765237	2.564656786E-10	2.798273307E-10
591	2.28156821185000E-14	624.6889	848.6497	4.08863624	10.83887371	2.564254611E-10	2.796479516E-10
592	2.25479328283000E-14	624.6889	822.6756	4.04949761	8.85237151	2.563305717E-10	2.729239882E-10
593	2.22840457440000E-14	624.6889	822.6758	4.04032589	8.63506414	2.562953161E-10	2.721856900E-10
594	2.20239353810000E-14	624.6889	822.6759	4.03128271	8.58525248	2.562604961E-10	2.720067974E-10
595	2.17675514552000E-14	624.6889	864.6274	4.02236568	13.14808463	2.562261030E-10	2.884071993E-10
596	2.15148345626000E-14	624.6889	906.8449	4.01357298	13.11370119	2.561921307E-10	2.882803128E-10
597	2.12657021589000E-14	624.0710	908.2420	4.00490231	13.47088421	2.561585712E-10	2.895997695E-10
598	2.10201179804000E-14	624.0710	908.2420	4.00536756	13.43857288	2.560281566E-10	2.894770396E-10
599	2.07780034032000E-14	624.0710	908.2420	3.99571134	13.40600276	2.559907118E-10	2.893533738E-10
600	2.05393009835000E-14	624.0710	908.2421	3.98618504	13.41755600	2.559537085E-10	2.892605944E-10
601	2.03039562178000E-14	624.0710	906.0675	3.93327164	13.56323926	2.558924994E-10	2.898030023E-10
602	2.00719116623000E-14	624.0710	900.9040	3.92567947	13.53222551	2.558625610E-10	2.896867472E-10
603	1.98431157538000E-14	624.0710	894.1351	3.91819033	13.50094767	2.558329689E-10	2.895695321E-10
604	1.96175029087000E-14	630.5613	894.1351	3.91080227	13.46940445	2.558037169E-10	2.894513511E-10
605	1.93950316638000E-14	630.5613	877.8505	3.90351341	10.66572264	2.557747974E-10	2.790355293E-10
606	1.91756403559000E-14	619.5077	878.8060	3.94268202	12.97037521	2.558047765E-10	2.877949429E-10
607	1.89592865417000E-14	619.5077	878.8061	3.93489094	12.93493367	2.557697554E-10	2.876634721E-10
608	1.87459114983000E-14	619.5077	916.7785	3.87435065	13.26569769	2.554780598E-10	2.888452173E-10
609	1.85354636625000E-14	619.5077	916.7785	3.86597646	13.23195967	2.554447353E-10	2.887167029E-10
610	1.83279064716000E-14	619.5077	916.7785	3.85771070	13.19796609	2.554117778E-10	2.885872565E-10
611	1.81231802226000E-14	619.5077	914.1482	3.82205219	13.11105207	2.553791801E-10	2.882904330E-10
612	1.79212473727000E-14	621.8833	920.9253	3.81569229	13.16839224	2.553469364E-10	2.884963931E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
613	1.77220521393000E-14	621.8833	920.9254	3.80941302	13.13398757	2.553150398E-10	2.883652419E-10
614	1.75255569796000E-14	627.6583	920.9254	3.80321290	13.09932804	2.553567463E-10	2.882331570E-10
615	1.73317171911000E-14	627.6583	890.6574	3.79709016	12.56440364	2.553273438E-10	2.862372503E-10
616	1.71404880713000E-14	627.6583	890.6575	3.79104349	12.52688466	2.552982488E-10	2.860988145E-10
617	1.69518340376000E-14	696.3844	864.9637	4.83193096	10.68763745	2.590992598E-10	2.790549626E-10
618	1.67657022477000E-14	648.6577	896.3567	3.75255654	12.80757648	2.549744846E-10	2.872113561E-10
619	1.65820580991000E-14	627.4920	896.3567	3.74546314	12.77133116	2.549453251E-10	2.870761382E-10
620	1.64008507097000E-14	627.4920	896.3567	3.73845623	12.73483431	2.549164564E-10	2.869399933E-10
621	1.62220575372000E-14	627.4920	905.5692	3.73153394	12.88371839	2.548878709E-10	2.874157302E-10
622	1.60456368194000E-14	621.0699	912.8250	3.71971315	12.84824016	2.548595631E-10	2.872833062E-10
623	1.58715467941000E-14	621.0699	927.6350	3.71420227	12.81251672	2.548315297E-10	2.871499835E-10
624	1.56997476593000E-14	621.0699	934.6226	3.70875394	12.77654690	2.548927182E-10	2.870157582E-10
625	1.55302087329000E-14	621.0699	934.6229	3.70336736	12.54685674	2.549117664E-10	2.861640979E-10
626	1.53628801129000E-14	621.0699	934.6232	3.66847803	12.50972467	2.546389518E-10	2.860264362E-10
627	1.51977542575000E-14	636.4425	934.6235	3.66239444	12.47235868	2.546131270E-10	2.858879114E-10
628	1.50347711647000E-14	636.4425	931.9172	3.65637944	12.43475988	2.545875299E-10	2.857485264E-10
629	1.48739021126000E-14	620.5147	874.4943	3.65043150	11.45864984	2.545621547E-10	2.822722071E-10
630	1.47151304395000E-14	615.0334	915.1416	3.63605893	12.75374496	2.544987461E-10	2.867254116E-10
631	1.45583981036000E-14	615.0334	915.1416	3.63059512	12.71684740	2.544732120E-10	2.865876062E-10
632	1.44036985432000E-14	615.0334	919.2513	3.62518913	12.67969801	2.544478944E-10	2.864488777E-10
633	1.42509847966000E-14	615.0334	923.1198	3.61983969	12.70476792	2.544227886E-10	2.867646728E-10
634	1.41002301021000E-14	615.0334	923.1199	3.61454604	12.66838614	2.543978898E-10	2.866281175E-10
635	1.39514005383000E-14	626.1415	923.1199	3.60930667	12.63176662	2.543731949E-10	2.864906846E-10
636	1.38044683634000E-14	696.3844	890.1733	4.49537655	11.97630397	2.578684391E-10	2.840302303E-10
637	1.36594097560000E-14	696.3844	894.5954	4.47989248	12.18998271	2.578113035E-10	2.849500657E-10
638	1.35161999146000E-14	696.3844	894.5954	4.46461122	12.15091798	2.577548632E-10	2.848063192E-10
639	1.33747948178000E-14	696.3844	930.1273	4.44953234	12.54556053	2.576991162E-10	2.862391768E-10
640	1.32351767341000E-14	696.3844	930.1274	4.43465256	12.50823427	2.576440516E-10	2.860985041E-10
641	1.30973178021000E-14	634.7870	934.7336	3.53517334	12.56568203	2.540239053E-10	2.862688928E-10
642	1.29611911405000E-14	606.8904	934.7336	3.53008783	12.52859442	2.540011425E-10	2.861291133E-10
643	1.28267688879000E-14	606.8904	937.2985	3.52504946	12.51219360	2.539785325E-10	2.860950875E-10
644	1.26940291532000E-14	606.8904	937.2986	3.52005752	12.47480005	2.539560732E-10	2.859539393E-10
645	1.25629441049000E-14	606.8904	937.2986	3.51511110	12.43717679	2.539337618E-10	2.858119348E-10
646	1.24334898020000E-14	606.8904	937.2986	3.53655749	12.39932423	2.541538916E-10	2.856690744E-10
647	1.23056414131000E-14	699.5495	910.9915	4.33801606	12.21645492	2.572514042E-10	2.847279019E-10
648	1.21793760072000E-14	699.5495	910.9915	4.32435519	12.17673363	2.572003655E-10	2.845799690E-10
649	1.20545079866000E-14	621.3510	910.9915	3.46930693	12.13678511	2.537387662E-10	2.844311954E-10
650	1.19307743556000E-14	605.2449	910.9915	3.46483506	12.09661002	2.537179147E-10	2.842815836E-10
651	1.18085687257000E-14	605.2449	917.7423	3.46039779	12.05853644	2.536971719E-10	2.844900634E-10
652	1.16878692058000E-14	605.2449	924.6301	3.45599444	12.24586670	2.536765359E-10	2.848800982E-10
653	1.15686528948000E-14	605.2449	928.5590	3.45010763	12.20657187	2.536560032E-10	2.847329919E-10
654	1.14508979016000E-14	605.2449	928.5591	3.44600253	12.16705528	2.536355718E-10	2.845850668E-10
655	1.13345832853000E-14	605.2449	928.5592	3.44192536	12.10413277	2.536381403E-10	2.843447973E-10
656	1.12196891748000E-14	610.5378	936.8774	3.43787442	12.08408585	2.536186780E-10	2.842938335E-10
657	1.11061926092000E-14	610.5378	942.5185	3.43384987	12.12324597	2.535992958E-10	2.844602067E-10
658	1.09940757050000E-14	722.0226	942.5185	4.22444650	12.08333883	2.567457958E-10	2.843095970E-10
659	1.08833175288000E-14	722.0226	950.9594	4.21188500	12.04322101	2.566982158E-10	2.841582105E-10
660	1.07738971621000E-14	722.0226	950.9595	4.19948115	11.99891630	2.566511772E-10	2.842015891E-10
661	1.06657976467000E-14	722.0226	950.9597	4.18723291	11.96070989	2.566046732E-10	2.841025358E-10
662	1.05589981015000E-14	722.0226	950.9598	4.17513812	11.92140555	2.565586947E-10	2.839545319E-10
663	1.04534815658000E-14	722.0226	934.0464	4.16319508	11.88190353	2.565132374E-10	2.838057753E-10
664	1.03492281087000E-14	722.7038	939.1255	4.15697909	11.87135095	2.564896744E-10	2.836562682E-10
665	1.02462217795000E-14	716.8719	967.3510	4.09164234	11.83050011	2.562157021E-10	2.833214502E-10
666	1.01444426473000E-14	716.8719	967.3512	4.08043343	11.78945068	2.561726217E-10	2.831675316E-10
667	1.00438737813000E-14	716.8719	967.3513	4.06936430	11.74820520	2.561300205E-10	2.830128853E-10
668	9.94450021090000E-15	716.8719	967.3515	4.05843290	11.64348944	2.560878913E-10	2.826133315E-10
669	9.84630301520000E-15	716.8719	973.3422	4.04763737	11.88724564	2.560462275E-10	2.838069038E-10
670	9.74926621360000E-15	716.8719	973.3424	4.03697590	11.84783898	2.560050228E-10	2.836731407E-10
671	9.65337388530000E-15	716.8719	973.3426	4.02644634	11.80824087	2.559642704E-10	2.835235667E-10
672	9.55860903970000E-15	716.8719	967.3286	4.00577578	11.64511968	2.558840953E-10	2.826556236E-10
673	9.46495774610000E-15	716.8719	967.3286	4.00577578	11.64511968	2.558840953E-10	2.826556236E-10
674	9.37240304380000E-15	716.8719	967.3288	3.99563111	11.81799381	2.558446602E-10	2.835883568E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
675	9.28092898210000E-15	716.8719	959.0155	3.98561092	11.77837345	2.558056514E-10	2.834390573E-10
676	9.19052356060000E-15	716.6423	955.4434	3.97999635	11.73856562	2.557844013E-10	2.832890444E-10
677	9.101116984850000E-15	716.6423	955.4434	3.97018363	11.68788926	2.557461148E-10	2.831383248E-10
678	9.01285388520000E-15	716.6423	978.4917	3.96049031	10.62641571	2.557082354E-10	2.792684636E-10
679	8.92556067020000E-15	716.6423	978.4919	3.95091516	10.58302667	2.556707599E-10	2.791075603E-10
680	8.83927826290000E-15	716.6423	978.4921	3.94145601	10.38348864	2.556336817E-10	2.777737396E-10
681	8.75399068270000E-15	716.6423	978.4923	3.93211150	10.78190378	2.555969954E-10	2.798303610E-10
682	8.66968494910000E-15	716.6423	944.0884	3.92287951	10.84865791	2.555606921E-10	2.800846784E-10
683	8.58634811150000E-15	716.6423	944.0885	3.91375867	10.80623336	2.555247693E-10	2.799273414E-10
684	8.50396816950000E-15	716.6423	959.5249	3.90474722	10.83737739	2.554892202E-10	2.797695421E-10
685	8.42253015250000E-15	716.6423	959.5249	3.91530542	10.92694288	2.554862534E-10	2.803665806E-10
686	8.34202310000000E-15	716.6423	959.5249	3.90594320	10.88496564	2.554493622E-10	2.802111703E-10
687	8.26243299160000E-15	716.6423	960.9216	3.89669237	11.06792760	2.554128523E-10	2.804476807E-10
688	8.18374788670000E-15	716.6423	960.9216	3.88755165	11.02454158	2.553767186E-10	2.802847049E-10
689	8.10595679490000E-15	713.6192	1000.4160	3.87040617	11.06574492	2.553321851E-10	2.805951808E-10
690	8.02904771580000E-15	713.6192	1000.4160	3.86168378	11.02263748	2.552975202E-10	2.804346820E-10
691	7.95300668880000E-15	708.7479	1000.4160	3.85306487	10.97939154	2.552632087E-10	2.802736576E-10
692	7.87782471360000E-15	656.4328	1000.4160	3.58764447	10.93600819	2.542703863E-10	2.801121114E-10
693	7.80348978980000E-15	656.4328	1000.4160	3.58246593	10.72109138	2.542476975E-10	2.791508292E-10
694	7.72998896680000E-15	656.4328	910.8294	3.57733760	9.50646428	2.542251745E-10	2.751501336E-10
695	7.65731422440000E-15	652.1697	960.8954	3.57225813	10.60655556	2.542028114E-10	2.786695819E-10
696	7.58545258210000E-15	652.1697	960.8954	3.56722643	10.56148358	2.541806041E-10	2.784998769E-10
697	7.51439304950000E-15	652.1697	960.8954	3.56224191	10.51630060	2.541585512E-10	2.783745582E-10
698	7.44412763630000E-15	652.1697	960.8954	3.55626156	10.47101104	2.53972009E-10	2.782078621E-10
699	7.37464336200000E-15	652.1697	1010.5910	3.53482862	10.37818563	2.539456758E-10	2.780408009E-10
700	7.30593220640000E-15	651.6952	1010.5910	3.50623301	10.71907156	2.538958455E-10	2.791370505E-10
701	7.23798219900000E-15	648.7181	1010.5920	3.50162903	10.67503905	2.537737130E-10	2.789706044E-10
702	7.17078531960000E-15	648.7181	1010.5920	3.49706327	10.63089388	2.537470629E-10	2.788037326E-10
703	7.10432959770000E-15	648.7181	1010.5920	3.49253486	10.29127486	2.537206184E-10	2.777978478E-10
704	7.03860704300000E-15	648.7181	962.4452	3.48804339	10.24660104	2.536943764E-10	2.776324883E-10
705	6.97360862530000E-15	648.7181	962.4453	3.48358784	10.64800898	2.536683339E-10	2.790838296E-10
706	6.90932436420000E-15	648.0121	1006.2930	3.47916736	10.60428284	2.536424857E-10	2.789237744E-10
707	6.84574427930000E-15	648.0121	1006.2930	3.45427327	10.56154517	2.536168287E-10	2.787633192E-10
708	6.78286133050000E-15	648.0121	1006.2930	3.44979690	10.57375693	2.535301520E-10	2.788068605E-10
709	6.72066455730000E-15	648.0121	1006.2930	3.44535500	10.53035744	2.535034198E-10	2.786458761E-10
710	6.65914691960000E-15	646.3423	988.6704	3.44094681	10.48686001	2.534768879E-10	2.784845123E-10
711	6.59829846690000E-15	646.3423	979.3199	3.43657180	9.77318835	2.534505536E-10	2.755430087E-10
712	6.53811114910000E-15	646.3423	916.0982	3.43222919	8.97141091	2.534244125E-10	2.731904807E-10
713	6.47857798590000E-15	646.3423	916.0982	3.42791841	8.92747040	2.533984638E-10	2.730296359E-10
714	6.41968896700000E-15	646.3423	916.0983	3.43283355	8.88357943	2.533727003E-10	2.728689408E-10
715	6.36143610210000E-15	646.3423	984.1777	3.42835060	10.01598274	2.534838886E-10	2.764743451E-10
716	6.30381238100000E-15	660.9840	984.1777	3.42390144	9.97107565	2.533371157E-10	2.763052889E-10
717	6.24681079350000E-15	660.9840	984.1777	3.41948553	9.92611282	2.533103378E-10	2.761360123E-10
718	6.19042034920000E-15	660.9840	984.1777	3.41510228	9.88109500	2.532837580E-10	2.759665186E-10
719	6.13463602800000E-15	641.7267	975.5914	3.38307708	9.75982323	2.532573707E-10	2.755309755E-10
720	6.07945081970000E-15	641.7267	975.5914	3.36691268	9.71452343	2.532266827E-10	2.753610755E-10
721	6.02485474390000E-15	641.7267	971.8206	3.36308395	9.66918548	2.531629848E-10	2.75190164E-10
722	5.97084177050000E-15	641.7267	971.8206	3.35926106	9.62381301	2.531430083E-10	2.750208114E-10
723	5.91740488930000E-15	641.7267	936.4129	3.35510293	9.20533661	2.531231152E-10	2.739766824E-10
724	5.86453712000000E-15	641.7267	989.9606	3.35097136	9.29971460	2.531033057E-10	2.738164090E-10
725	5.81223243250000E-15	641.7267	989.9606	3.34686586	9.25460642	2.530835784E-10	2.736011326E-10
726	5.76048182650000E-15	643.6260	989.9607	3.34278571	9.20950040	2.530639303E-10	2.734313512E-10
727	5.70927930180000E-15	640.8104	989.9607	3.33873048	9.16439722	2.530443601E-10	2.732615642E-10
728	5.65861784820000E-15	640.8104	989.9607	3.34578424	9.35566097	2.531166637E-10	2.739238543E-10
729	5.60849143560000E-15	640.8104	988.5959	3.30684966	9.30989883	2.529056415E-10	2.737511316E-10
730	5.55889406380000E-15	640.8104	988.5959	3.30309129	9.26413003	2.528869751E-10	2.735783677E-10
731	5.50981875250000E-15	640.8104	988.5959	3.29935129	9.21835771	2.528683637E-10	2.734055740E-10
732	5.46125944170000E-15	640.8104	1005.1720	3.29562911	9.52204562	2.528498053E-10	2.745767358E-10
733	5.41320817100000E-15	640.8104	1005.1720	3.29192399	9.47710823	2.528312963E-10	2.744065870E-10
734	5.36502383540000E-15	644.2802	1005.1720	3.22778701	9.43215304	2.524987369E-10	2.742363599E-10
735	5.31465986650000E-15	644.2802	1005.1720	3.22425397	9.38718413	2.524805908E-10	2.740660694E-10
736	5.26487212610000E-15	644.2802	944.0602	3.22073300	8.67058893	2.524624777E-10	2.720114150E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
737	5.21597989380000E-15	644.2802	944.0602	3.21722408	8.62807981	2.524443982E-10	2.718548277E-10
738	5.16838529910000E-15	644.1426	972.8664	3.21372646	9.55065876	2.524263486E-10	2.750360863E-10
739	5.12132279190000E-15	644.1426	972.8664	3.21024012	9.50679380	2.524083295E-10	2.748721502E-10
740	5.07478539190000E-15	641.1226	972.8664	3.18032839	9.46291126	2.522394770E-10	2.747081232E-10
741	5.02876418850000E-15	641.1226	972.8664	3.17680765	9.41902017	2.522212132E-10	2.745440382E-10
742	4.98325413170000E-15	641.1226	1002.6620	3.17329766	8.96272949	2.522029785E-10	2.724904295E-10
743	4.93824726110000E-15	641.1226	1002.6620	3.16979822	8.91820828	2.521847722E-10	2.723224398E-10
744	4.89373864630000E-15	641.1226	1002.6620	3.16630880	9.79595547	2.521665920E-10	2.757646153E-10
745	4.84971925710000E-15	641.1226	1002.6620	3.16282964	9.75217581	2.521484397E-10	2.755998351E-10
746	4.80546182940000E-15	648.2108	997.8987	3.20936502	9.70835484	2.523855593E-10	2.754348830E-10
747	4.75876297880000E-15	631.1921	997.8987	3.10077498	9.66450143	2.518176589E-10	2.752697910E-10
748	4.71261385090000E-15	631.1921	993.6165	3.09732806	8.64789437	2.517992911E-10	2.713294071E-10
749	4.66700648530000E-15	631.1921	993.6165	3.09388774	8.60358297	2.517809379E-10	2.711625331E-10
750	4.62193494160000E-15	631.1921	993.6165	3.06535128	8.55932434	2.516186981E-10	2.709958357E-10
751	4.57739125940000E-15	630.9358	984.4854	3.06187685	9.03551566	2.516001325E-10	2.734578060E-10
752	4.53336848830000E-15	630.9358	986.1968	3.05840906	8.99303434	2.515815825E-10	2.733021245E-10
753	4.48985967790000E-15	630.9358	986.1968	3.05494780	8.95059874	2.515630479E-10	2.731465804E-10
754	4.44685686780000E-15	630.9358	986.1969	3.05149273	8.90820478	2.515445271E-10	2.729911593E-10
755	4.40435307770000E-15	630.9358	988.8631	3.04804370	9.07796507	2.515260199E-10	2.730790435E-10
756	4.36234435730000E-15	642.5797	1001.2130	3.07805838	9.45081991	2.516778207E-10	2.745857578E-10
757	4.32082078600000E-15	642.5797	1001.2130	3.07456385	9.40793053	2.516593537E-10	2.744251063E-10
758	4.27977734370000E-15	648.6939	1001.2130	3.13120716	9.36503477	2.519590756E-10	2.742644082E-10
759	4.23920811990000E-15	649.6679	1001.2130	3.12762204	9.32213293	2.519404610E-10	2.741036650E-10
760	4.19910509440000E-15	620.6118	1001.2130	2.99366307	9.27922802	2.512329948E-10	2.739428877E-10
761	4.15946434680000E-15	620.6118	984.4342	2.97964920	8.87377170	2.511402176E-10	2.724432862E-10
762	4.12027690670000E-15	620.6118	1003.4160	2.97614863	8.83043920	2.511213497E-10	2.722809281E-10
763	4.08153879390000E-15	620.6118	1011.4230	2.95931866	8.60710075	2.510388676E-10	2.716732664E-10
764	4.04324403810000E-15	620.6118	1011.4230	2.95586127	9.23733906	2.510199926E-10	2.737560194E-10
765	4.00463493230000E-15	620.6118	1011.4230	2.95240796	9.19443682	2.510011260E-10	2.735950749E-10
766	3.96643372050000E-15	619.2989	1011.4230	2.94895814	9.15154314	2.509822650E-10	2.734341398E-10
767	3.92867464640000E-15	619.2989	1022.4640	2.94551179	9.10865680	2.509634095E-10	2.732732098E-10
768	3.89047455020000E-15	619.2989	1022.4640	2.95999885	9.06578797	2.510474880E-10	2.731123215E-10
769	3.85066699330000E-15	619.2989	1022.4640	2.95657408	9.02293491	2.510287085E-10	2.729514692E-10
770	3.81134151900000E-15	619.2989	1022.4640	2.95315178	8.25916548	2.510099302E-10	2.701595479E-10
771	3.77248820670000E-15	647.1645	1022.4640	2.96921924	8.21845171	2.510712662E-10	2.700074398E-10
772	3.73410307620000E-15	647.1645	1022.4640	2.96570360	8.17781943	2.510524682E-10	2.698556093E-10
773	3.69617819700000E-15	626.0930	1022.4640	2.87554030	8.13726755	2.505679051E-10	2.697040524E-10
774	3.65870863870000E-15	626.0930	1022.4640	2.87205210	8.09680379	2.505487643E-10	2.695527971E-10
775	3.62168739110000E-15	626.0930	1015.0690	2.86856768	8.05642733	2.505296322E-10	2.694018408E-10
776	3.58510854370000E-15	626.0930	1015.0690	2.86508647	8.01613909	2.505105057E-10	2.692511868E-10
777	3.54896612620000E-15	619.5118	1015.0690	2.86459286	7.97594683	2.504971148E-10	2.691008635E-10
778	3.51325410019000E-15	619.5118	977.1545	2.86108194	7.78213972	2.504779964E-10	2.686910713E-10
779	3.47796688741000E-15	619.5118	918.8565	2.88655924	5.13296713	2.506359343E-10	2.595769384E-10
780	3.44309893950000E-15	619.5118	918.8565	2.88310689	5.11127407	2.506168951E-10	2.594962805E-10
781	3.40864399213000E-15	654.1193	917.6834	2.88319342	5.00893766	2.505865696E-10	2.590156558E-10
782	3.37459688898000E-15	654.1193	917.6834	2.87963742	4.98771639	2.505674731E-10	2.589365843E-10
783	3.34095237572000E-15	652.8082	917.6834	2.87608895	4.97755408	2.505483991E-10	2.588581477E-10
784	3.30770458006000E-15	652.2348	917.6834	2.87254800	4.95533151	2.505293480E-10	2.587803449E-10
785	3.27484935568000E-15	628.7927	917.6834	2.77118312	4.93330062	2.499803941E-10	2.587031705E-10
786	3.24237982029000E-15	628.7927	917.6834	2.76767140	4.91146093	2.499610249E-10	2.586266222E-10
787	3.21029091558000E-15	628.7927	917.6834	2.76416382	4.88981088	2.499416680E-10	2.585506959E-10
788	3.17857999528000E-15	628.7927	917.6834	2.76065968	5.54076826	2.499223200E-10	2.606109877E-10
789	3.14723916710000E-15	637.8201	982.0594	2.76781244	7.64609175	2.499530736E-10	2.681827151E-10
790	3.11626467676000E-15	621.1934	994.6604	2.76429169	7.60758357	2.499337975E-10	2.680396619E-10
791	3.08565185799000E-15	621.1934	994.6605	2.78793957	7.56920072	2.500804211E-10	2.678970403E-10
792	3.05539594651000E-15	621.1934	994.6605	2.78445350	7.53094563	2.500611064E-10	2.677548591E-10
793	3.02549146207000E-15	621.1934	994.6605	2.78097014	7.49281937	2.500417979E-10	2.676131225E-10
794	2.99593474840000E-15	654.5911	994.6606	2.80823288	7.45482628	2.501654188E-10	2.674718458E-10
795	2.96672032525000E-15	654.5911	1006.2130	2.80467803	8.48791238	2.501462443E-10	2.710492719E-10
796	2.93784473237000E-15	642.6033	1006.2130	2.70917304	8.44652437	2.496224507E-10	2.708941304E-10
797	2.90930258752000E-15	642.6033	1011.0680	2.70564869	8.48133310	2.496031113E-10	2.710248941E-10
798	2.88108942045000E-15	630.4743	1023.5490	2.66672467	8.44009737	2.493923566E-10	2.708701783E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
799	2.85320186892000E-15	630.4743	1023.5490	2.66321831	8.39892432	2.493729223E-10	2.707156700E-10
800	2.82563575671000E-15	630.4743	1029.1900	2.65971564	8.35781681	2.493534999E-10	2.705613796E-10
801	2.79838579959000E-15	630.4743	1029.1900	2.65621703	8.31677744	2.493340914E-10	2.704073172E-10
802	2.77144873333000E-15	623.8931	1029.1900	2.68488017	8.27580906	2.494874170E-10	2.702534930E-10
803	2.74481927370000E-15	623.8931	1029.1900	2.68137439	7.75844929	2.494681288E-10	2.683400335E-10
804	2.71849445050000E-15	623.8931	1029.1900	2.67787393	7.71818338	2.494488591E-10	2.680767769E-10
805	2.69247119552000E-15	623.8931	1029.1900	2.67545189	7.67802343	2.494461920E-10	2.679245916E-10
806	2.66674422453000E-15	623.8931	1029.1900	2.67196206	7.63797153	2.494267710E-10	2.67727846E-10
807	2.64130965534000E-15	643.4256	1029.1900	2.82290392	7.59802996	2.502599109E-10	2.676213647E-10
808	2.61616451775000E-15	630.6872	1029.1900	2.59327095	7.55820101	2.489788719E-10	2.674703407E-10
809	2.59130382156000E-15	630.6872	1021.6230	2.58978310	7.51848684	2.489594756E-10	2.673197204E-10
810	2.56672560657000E-15	630.6872	982.5759	2.58629910	6.57347208	2.48940934E-10	2.641803642E-10
811	2.54242599059000E-15	626.8875	1004.0890	2.58281907	7.12921662	2.489207259E-10	2.662235926E-10
812	2.51839916944000E-15	626.8875	1004.0890	2.57226158	7.09308608	2.488611243E-10	2.660884350E-10
813	2.49464429093000E-15	626.8875	1004.0890	2.56878029	7.05710003	2.488417366E-10	2.659537831E-10
814	2.47115747287000E-15	626.8875	1004.0900	2.56530298	7.02125934	2.488223642E-10	2.658196399E-10
815	2.44793411710000E-15	629.3743	1004.0900	2.56182979	6.98556580	2.488030080E-10	2.656860126E-10
816	2.42497043944000E-15	629.3743	1004.0900	2.55836009	6.95002087	2.487836646E-10	2.655529062E-10
817	2.40226578372000E-15	638.4969	1004.0900	2.76929998	6.91462644	2.499652949E-10	2.654203283E-10
818	2.37981434576000E-15	638.4969	1004.0900	2.76583158	6.87938313	2.499462409E-10	2.652882809E-10
819	2.35761354740000E-15	638.3020	1047.4270	2.75676171	7.52014615	2.498950818E-10	2.670433789E-10
820	2.33566081048000E-15	638.3020	1047.4270	2.75329850	7.48003245	2.498760387E-10	2.668903954E-10
821	2.31395264485000E-15	638.3020	1047.4270	2.74034789	7.51297561	2.498026470E-10	2.672329647E-10
822	2.29486276330000E-15	638.3020	1047.4270	2.73688497	7.47397580	2.497835913E-10	2.671688427E-10
823	2.27125730278000E-15	638.3020	1047.4270	2.73342661	7.43509039	2.497645501E-10	2.670230975E-10
824	2.25026435206000E-15	638.4135	1047.4270	2.71910575	7.39632182	2.496833147E-10	2.668777894E-10
825	2.22950373800000E-15	638.4135	1047.4270	2.71564633	7.35767285	2.496642552E-10	2.667329315E-10
826	2.20897307846000E-15	638.8016	1042.3740	2.71219130	7.50389183	2.496452097E-10	2.673248921E-10
827	2.18866898130000E-15	638.8016	1042.3740	2.69941186	7.46537669	2.495728000E-10	2.671795699E-10
828	2.16858805438000E-15	638.8016	1042.3740	2.69070010	7.89709953	2.495236698E-10	2.691036923E-10
829	2.14872791556000E-15	639.3622	1026.4320	2.68724327	7.85876372	2.495045953E-10	2.689602732E-10
830	2.12908719270000E-15	639.3622	1026.4320	2.68379089	7.82052862	2.494855355E-10	2.688171981E-10
831	2.10966158167000E-15	639.3622	1026.4320	2.68034303	7.78239501	2.494664913E-10	2.686744698E-10
832	2.09044778834000E-15	639.9452	1026.4320	2.67689952	7.87515361	2.494474617E-10	2.689708752E-10
833	2.07144554858000E-15	664.3280	1018.9320	2.77671795	7.83678825	2.499889898E-10	2.688269877E-10
834	2.05264954826000E-15	664.3280	1040.8130	2.77325326	7.79852190	2.499702582E-10	2.686834392E-10
835	2.03405962126000E-15	664.3280	1040.8130	2.75106087	7.76035723	2.498355602E-10	2.685402395E-10
836	2.01567156146000E-15	668.6345	1040.8130	2.74756040	7.72229515	2.498167516E-10	2.683973918E-10
837	1.99748409473000E-15	668.6345	1040.8130	2.74406879	7.68433935	2.497979744E-10	2.682549099E-10
838	1.97949311296000E-15	668.6345	1040.8130	2.74058495	7.64649008	2.497792227E-10	2.681127947E-10
839	1.96169845003000E-15	668.6345	1040.8130	2.73710928	7.59845039	2.497604991E-10	2.678663721E-10
840	1.94409498783000E-15	663.5102	1040.8130	2.72360996	7.56071675	2.496977961E-10	2.677243067E-10
841	1.92668256024000E-15	663.5102	1049.4320	2.72018721	7.52309559	2.496791239E-10	2.675826318E-10
842	1.90945816716000E-15	663.5102	1049.4320	2.71676976	7.48558814	2.496604681E-10	2.674413525E-10
843	1.89241972048000E-15	663.5102	1049.4320	2.71335836	7.44819635	2.496418330E-10	2.673004759E-10
844	1.87556412209000E-15	663.5102	1049.4320	2.70995275	7.41092349	2.496232175E-10	2.671600142E-10
845	1.85888928388000E-15	666.8781	1049.4320	2.68259269	7.37377002	2.4946467607E-10	2.670199693E-10
846	1.84239432376000E-15	666.8781	1049.4320	2.67916789	7.19030910	2.494460778E-10	2.662647844E-10
847	1.82607513362000E-15	666.8781	1049.4320	2.67574911	7.15375697	2.494274153E-10	2.661266158E-10
848	1.80993083137000E-15	666.8781	1049.4320	2.67233632	7.11733591	2.494087733E-10	2.659889093E-10
849	1.79395942691000E-15	666.8781	1034.1390	2.66893037	7.08104727	2.493901569E-10	2.658516707E-10
850	1.77815782213000E-15	655.9475	1034.1390	2.66333741	7.04489306	2.493693606E-10	2.657149073E-10
851	1.76252533096000E-15	655.0193	1034.1390	2.63972706	7.00887478	2.492171339E-10	2.655786246E-10
852	1.74705885529000E-15	655.0193	1034.1390	2.63630923	6.97299347	2.491985555E-10	2.654428267E-10
853	1.73175660104000E-15	655.0193	1038.6280	2.63289889	6.70723720	2.49180049E-10	2.643956988E-10
854	1.71661556811000E-15	655.0193	1054.1580	2.62806093	6.67247332	2.491614779E-10	2.642638091E-10
855	1.70163598242000E-15	655.0193	1054.1580	2.62468439	6.63786003	2.491429752E-10	2.641324571E-10
856	1.68681503989000E-15	658.0636	1054.1580	2.62131293	6.60339806	2.491265098E-10	2.640016457E-10
857	1.67214974042000E-15	658.0636	1054.1580	2.61794731	6.56908839	2.491079919E-10	2.638713787E-10
858	1.65763939794000E-15	658.0636	1054.1580	2.61458690	6.53493297	2.490894929E-10	2.637416634E-10
859	1.64328212036000E-15	658.0636	1054.1580	2.61237267	6.50093302	2.490832826E-10	2.636125049E-10
860	1.62907510360000E-15	655.5278	1054.1580	2.59572515	6.46708820	2.489895332E-10	2.634839015E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
861	1.61501766159000E-15	655.5278	1061.7530	2.57169898	6.34461939	2.488449842E-10	2.627496434E-10
862	1.60110800025000E-15	655.5278	1061.7530	2.56834333	6.31046389	2.488265192E-10	2.626187004E-10
863	1.58734321749000E-15	655.5278	1061.7530	2.56499240	6.27646725	2.488080704E-10	2.624883352E-10
864	1.57372282326000E-15	655.5278	1061.7530	2.56164787	6.24263027	2.487896475E-10	2.623585512E-10
865	1.56024391547000E-15	667.1582	1061.7530	2.55830857	6.20895548	2.487712440E-10	2.622293578E-10
866	1.54690571004000E-15	667.1582	1061.7530	2.53535575	6.17544195	2.486356073E-10	2.621007517E-10
867	1.53370670692000E-15	660.8007	1061.7530	2.53202095	6.14209164	2.486173079E-10	2.619727407E-10
868	1.52063942745000E-15	660.8007	1061.7530	2.52869302	6.10890511	2.485990362E-10	2.618453269E-10
869	1.50763892921000E-15	660.8007	1061.7530	2.52537120	6.07588332	2.485807880E-10	2.619218587E-10
870	1.49477492721000E-15	660.8007	1041.2030	2.52205553	6.02209109	2.485625637E-10	2.618036738E-10
871	1.48204370538000E-15	660.8007	1041.2030	2.51913766	5.99111543	2.485528619E-10	2.616860879E-10
872	1.46944467566000E-15	665.5827	1041.2030	2.51583421	5.96030644	2.485345811E-10	2.615691002E-10
873	1.45697715198000E-15	657.3367	1041.2030	2.50648591	5.92966486	2.484868048E-10	2.614527135E-10
874	1.44463842827000E-15	657.3367	1041.2030	2.48373361	5.89919148	2.483512071E-10	2.613369316E-10
875	1.43242690647000E-15	657.3367	1074.6250	2.48044366	5.89563226	2.483330138E-10	2.612217524E-10
876	1.42034209653000E-15	657.3367	1074.6250	2.46587278	5.86261798	2.482478856E-10	2.611071825E-10
877	1.40838119437000E-15	657.3367	1074.6250	2.46259688	5.82977597	2.482298031E-10	2.609932188E-10
878	1.39654462193000E-15	668.9083	1074.6250	2.45932670	5.79710716	2.482117438E-10	2.608798652E-10
879	1.38482875517000E-15	671.6594	1074.6250	2.44686559	5.76461088	2.481428343E-10	2.607671223E-10
880	1.37323361801000E-15	667.9175	1074.6250	2.44360596	5.73228803	2.481247950E-10	2.601158065E-10
881	1.36175740740000E-15	663.4254	1074.6250	2.44035184	5.70014039	2.481067786E-10	2.603116178E-10
882	1.35039872429000E-15	663.4254	1074.6250	2.43710374	5.66816722	2.480887880E-10	2.602064111E-10
883	1.33915617561000E-15	645.1989	1074.6250	2.39483427	5.63636971	2.478632318E-10	2.601018110E-10
884	1.32802846032000E-15	645.1989	1072.2040	2.39160495	5.72002560	2.478450862E-10	2.605135513E-10
885	1.31701438436000E-15	645.1989	1072.2040	2.38837952	5.68997656	2.478269592E-10	2.603986614E-10
886	1.30611234967000E-15	645.1989	1072.2040	2.38515811	5.66010039	2.478088515E-10	2.602843988E-10
887	1.2953211156210000E-15	645.1989	1072.2040	2.36739979	5.63039637	2.477080489E-10	2.601707609E-10
888	1.28463971092000E-15	633.7282	1072.2040	2.28635543	5.60086614	2.472508391E-10	2.600577544E-10
889	1.27406661176000E-15	633.7282	1072.2040	2.28315634	5.57150904	2.472328034E-10	2.599453762E-10
890	1.26360056367000E-15	633.7282	1072.2040	2.27996177	5.54232499	2.472147909E-10	2.598336272E-10
891	1.253240366610000E-15	633.7282	1072.2040	2.26421176	5.51331492	2.471252612E-10	2.597225101E-10
892	1.24298492453000E-15	633.7282	1072.3620	2.26104236	5.56348092	2.471073912E-10	2.596615821E-10
893	1.23283293938000E-15	633.0153	1072.3620	2.25237499	5.53336406	2.470584654E-10	2.595454467E-10
894	1.22278311311000E-15	633.0153	1072.3620	2.24920577	5.50342109	2.470405893E-10	2.600562512E-10
895	1.21283454569000E-15	633.0153	1072.3620	2.24604011	5.47364991	2.470227312E-10	2.599579257E-10
896	1.20298574305000E-15	624.5458	1072.3620	2.18648701	5.44405277	2.466861870E-10	2.598602209E-10
897	1.1923235900180000E-15	624.5458	1072.3620	2.18334864	5.41462808	2.466684534E-10	2.597631312E-10
898	1.18358372501000E-15	624.5458	1072.3620	2.16906139	5.38537760	2.465871949E-10	2.596666645E-10
899	1.17402801750000E-15	624.5458	1072.3620	2.16595462	5.35630064	2.465696418E-10	2.595708144E-10
900	1.16456787762000E-15	624.5458	1072.3620	2.16285221	5.32739838	2.465521118E-10	2.594755823E-10
901	1.15520220633000E-15	624.5458	1072.3620	2.15975524	5.42597068	2.465346110E-10	2.597827840E-10
902	1.14592980658000E-15	622.8868	1060.8450	2.14707390	5.39936266	2.464629675E-10	2.596814543E-10
903	1.13674968033000E-15	622.8868	1060.8450	2.14397635	5.37292532	2.4644454556E-10	2.595807375E-10
904	1.12766072555000E-15	622.8868	1060.8450	2.14088376	5.34666034	2.464279704E-10	2.594806397E-10
905	1.11866214620000E-15	622.8868	1060.8450	2.13779557	5.32056623	2.464105088E-10	2.593811560E-10
906	1.10975264124000E-15	622.8868	1060.8450	2.13471265	5.29464261	2.463930757E-10	2.592822850E-10
907	1.10093131363000E-15	622.8868	1060.8450	2.13163385	5.26888953	2.463756647E-10	2.591840269E-10
908	1.09219716533000E-15	633.9222	1060.8450	2.16248263	5.24330816	2.465494008E-10	2.590863864E-10
909	1.08354939432000E-15	630.4340	1060.8450	2.09596291	5.21789651	2.461727627E-10	2.589893564E-10
910	1.07498670255000E-15	630.4340	1060.8450	2.09296446	5.19265473	2.461558138E-10	2.588929375E-10
911	1.06650838900000E-15	630.4340	1060.8450	2.08997028	5.16758242	2.461388877E-10	2.587971282E-10
912	1.05811345862000E-15	630.4340	1060.8450	2.08698175	5.14268047	2.461219923E-10	2.587019328E-10
913	1.04980080938000E-15	630.4340	1060.8450	2.08399778	4.34739570	2.461051214E-10	2.551943040E-10
914	1.04156984126000E-15	630.4340	1060.8450	2.08101887	4.32667384	2.460882779E-10	2.551138987E-10
915	1.03341935721000E-15	650.8807	1060.8450	2.18411430	4.30610760	2.466700468E-10	2.550340635E-10
916	1.02534875422000E-15	622.7758	1060.8450	2.05867946	4.28569704	2.459619725E-10	2.549547990E-10
917	1.01735683524000E-15	622.7758	1060.8450	2.05570437	4.26544056	2.459451401E-10	2.548760991E-10
918	1.00944290224000E-15	622.7758	1060.8450	2.05273463	4.24533787	2.459283369E-10	2.547979631E-10
919	1.00160605220000E-15	622.7758	1060.8450	2.04976938	4.74813870	2.459115581E-10	2.572550924E-10
920	9.93845486090000E-16	622.7758	1060.8450	2.04681008	4.72627420	2.458948119E-10	2.571710327E-10
921	9.86160205870000E-16	622.7758	1060.8450	2.04385557	4.70457252	2.458780919E-10	2.570875593E-10
922	9.78549510520000E-16	636.2059	1060.8450	2.06545015	4.68303328	2.459993565E-10	2.570046721E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
923	9.71012601010000E-16	636.2059	1060.8450	2.06252429	4.66165612	2.459828227E-10	2.569223696E-10
924	9.63548577310000E-16	633.0855	1060.8450	1.99678399	4.64044016	2.456104459E-10	2.568406483E-10
925	9.56156741390000E-16	633.0855	1060.8450	1.99394573	4.61938507	2.455943925E-10	2.567595075E-10
926	9.48836187240000E-16	633.0855	1060.8450	1.99111310	4.59848997	2.455783700E-10	2.566789445E-10
927	9.41586222810000E-16	633.0855	1060.8450	1.98828618	4.57775302	2.455623787E-10	2.565989518E-10
928	9.34406141100000E-16	633.0855	1060.8450	1.98546421	4.55717519	2.455464144E-10	2.565195341E-10
929	9.27294947060000E-16	633.0855	1060.8450	1.98264794	4.53675480	2.455304814E-10	2.564406848E-10
930	9.20251939670000E-16	654.3281	1060.8450	2.08735745	4.51649145	2.461219105E-10	2.563624031E-10
931	9.13276616920000E-16	644.1987	1060.8450	1.99706881	4.49638484	2.456112892E-10	2.562846873E-10
932	9.06367980770000E-16	624.2425	1060.8450	1.95585622	4.47643286	2.453789016E-10	2.562075305E-10
933	8.99525529210000E-16	624.2425	1060.8450	1.95305404	4.45663628	2.453630381E-10	2.561309353E-10
934	8.92748264200000E-16	624.2425	1005.7280	1.95025769	4.43699315	2.453472069E-10	2.560548949E-10
935	8.86035784730000E-16	624.2425	1005.7280	1.94746683	4.41750252	2.453314060E-10	2.559794057E-10
936	8.79387187780000E-16	624.2425	1005.7280	1.94468186	4.39816544	2.453156376E-10	2.559044723E-10
937	8.72801778310000E-16	624.2425	1005.7280	1.94190235	4.37897955	2.452998994E-10	2.558300854E-10
938	8.66278953310000E-16	639.2544	1005.7280	1.96859600	4.35994352	2.454502970E-10	2.557562410E-10
939	8.59818112760000E-16	639.2544	1009.0000	1.96583594	4.72058394	2.454346895E-10	2.575628696E-10
940	8.53418454640000E-16	634.5522	1009.0000	1.89789087	4.70138266	2.450497168E-10	2.574890283E-10
941	8.47079280920000E-16	634.5522	1009.0000	1.89523392	4.68232509	2.450346796E-10	2.574157014E-10
942	8.40800089590000E-16	634.5522	1009.0000	1.89258251	4.66341251	2.450196731E-10	2.573428945E-10
943	8.34580081620000E-16	634.5522	1009.0000	1.88993663	4.64464243	2.450046970E-10	2.572705987E-10
944	8.28418856000000E-16	634.5522	1009.0000	1.88729663	4.62601498	2.449897535E-10	2.571988143E-10
945	8.22315512700000E-16	634.5522	1009.0000	1.88466216	4.60752983	2.449748405E-10	2.571275407E-10
946	8.16269650710000E-16	642.2510	1009.0000	1.91228527	4.58918606	2.451308718E-10	2.570567740E-10
947	8.10280370000000E-16	626.8940	1009.0000	1.86412605	4.57098218	2.448585947E-10	2.569865095E-10
948	8.04347370560000E-16	626.8940	1009.0000	1.86150688	4.55291707	2.448437616E-10	2.569167428E-10
949	7.98470049380000E-16	626.8940	1009.0000	1.85889366	4.53499220	2.448289616E-10	2.568474799E-10
950	7.92647509420000E-16	626.8940	1009.0000	1.85628619	4.51720535	2.448141936E-10	2.567787122E-10
951	7.86879447680000E-16	626.8940	1016.3940	1.85368468	4.57846501	2.447994587E-10	2.569725222E-10
952	7.81165163140000E-16	626.8940	1016.3940	1.82651267	4.56024583	2.446449624E-10	2.569021524E-10
953	7.75504257780000E-16	634.4412	1016.3940	1.82399709	4.54216544	2.446307191E-10	2.568322813E-10
954	7.69895828580000E-16	634.4412	1016.3940	1.82148727	4.52422286	2.446165078E-10	2.567629050E-10
955	7.64339578520000E-16	634.4412	1016.3940	1.81898300	4.50641758	2.446023274E-10	2.566940229E-10
956	7.58835002600000E-16	630.0197	1016.3940	1.80796546	4.48874773	2.445399478E-10	2.566256275E-10
957	7.53381301790000E-16	630.0197	1016.3940	1.79676406	4.47121428	2.444762962E-10	2.565577222E-10
958	7.47978176080000E-16	630.0197	1016.3940	1.79430526	4.45381513	2.444623713E-10	2.564903001E-10
959	7.42625025450000E-16	630.0197	1016.3940	1.79185246	4.43655108	2.444484798E-10	2.564233642E-10
960	7.37321246890000E-16	630.0197	1016.3940	1.78940540	4.41941962	2.444346202E-10	2.563569053E-10
961	7.32066439390000E-16	630.0197	1016.3940	1.78696421	4.40242109	2.444207933E-10	2.562909246E-10
962	7.26860005920000E-16	632.7822	1016.3940	1.78452880	4.38555307	2.444069986E-10	2.562254139E-10
963	7.21701444470000E-16	632.7822	1016.3940	1.78209961	4.36881709	2.443932387E-10	2.561603781E-10
964	7.16590253030000E-16	663.7045	1016.3940	1.91488585	4.35221206	2.451449995E-10	2.560958143E-10
965	7.11526030590000E-16	663.7045	1016.3940	1.91232171	4.33573519	2.451305092E-10	2.560317116E-10
966	7.06508177130000E-16	663.7045	1016.3940	1.90976304	4.31938798	2.451160488E-10	2.559680763E-10
967	7.01536291640000E-16	661.0367	1016.3940	1.88101823	4.30316785	2.449530961E-10	2.559048986E-10
968	6.96609774100000E-16	661.0367	1016.3940	1.87850464	4.28707556	2.449388865E-10	2.558421815E-10
969	6.91728223500000E-16	661.0367	1060.8450	1.87599634	4.27110954	2.449247058E-10	2.557799196E-10
970	6.86891137830000E-16	661.0367	1060.8450	1.87349355	4.25526864	2.449105552E-10	2.557181086E-10
971	6.82098119070000E-16	661.0367	1069.8790	1.87099606	4.24864066	2.448964337E-10	2.556567474E-10
972	6.77348763220000E-16	661.0367	1069.8790	1.86850409	4.22941190	2.448823425E-10	2.555958341E-10
973	6.72642571260000E-16	661.0367	1069.8790	1.86601735	4.21032740	2.448682799E-10	2.555353628E-10
974	6.67978943170000E-16	784.9924	1069.8790	2.10736559	4.19314459	2.461802427E-10	2.554753340E-10
975	6.633575755950000E-16	784.9924	1069.8790	2.01513627	4.17791944	2.456573972E-10	2.554157436E-10
976	6.58778068590000E-16	673.7873	1069.8790	1.87185703	4.16281510	2.448993713E-10	2.553565893E-10
977	6.54239922070000E-16	673.7873	1069.8790	1.86942797	4.14783045	2.448856708E-10	2.552978666E-10
978	6.49742735380000E-16	650.6283	1069.8790	1.80033342	4.13296488	2.444964118E-10	2.552395739E-10
979	6.452861075100000E-16	650.6283	1069.8790	1.79794517	4.11821778	2.444828891E-10	2.551817089E-10
980	6.40869536450000E-16	650.6283	1069.8790	1.79556303	4.10358801	2.444694004E-10	2.551242675E-10
981	6.36492624180000E-16	650.6283	1078.0150	1.79318590	4.16800693	2.444559396E-10	2.550672486E-10
982	6.32155165710000E-16	650.6283	1078.0150	1.79081488	4.14956954	2.444425127E-10	2.550106476E-10
983	6.27856463010000E-16	650.6283	1078.0150	1.78844887	4.13126974	2.444291136E-10	2.549544606E-10
984	6.23596415080000E-16	647.2789	1078.0150	1.76056153	4.11310710	2.442709461E-10	2.548986887E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
985	6.1937432090000E-16	647.2789	1078.0150	1.75824677	4.09507984	2.442578349E-10	2.548433257E-10
986	6.1518997847000E-16	647.2789	1078.0150	1.75593741	4.07718909	2.442447537E-10	2.547883697E-10
987	6.1104298678000E-16	647.2789	1078.0150	1.75363390	4.05943229	2.442317052E-10	2.547338189E-10
988	6.0693284681000E-16	647.2789	1078.0150	1.75133576	4.04180949	2.442186866E-10	2.546796696E-10
989	6.0285945756000E-16	647.2789	1078.0150	1.74904345	4.08337776	2.442057006E-10	2.549382062E-10
990	5.9882211502000E-16	678.5005	1078.0150	1.80636609	4.06861552	2.445293218E-10	2.548801020E-10
991	5.9482072118000E-16	678.5005	1078.0150	1.80406050	4.05396906	2.445162912E-10	2.548224175E-10
992	5.9085477702000E-16	661.0295	1078.0150	1.74396811	4.03943821	2.441760571E-10	2.547651529E-10
993	5.8692397655000E-16	661.0295	1078.0150	1.74174287	4.02502153	2.441634663E-10	2.547083020E-10
994	5.8302792175000E-16	661.0295	1078.0150	1.73952316	4.01071858	2.441509060E-10	2.546518642E-10
995	5.7916621161000E-16	661.0295	1078.0150	1.73730905	3.99652851	2.441383768E-10	2.545958363E-10
996	5.7533854612000E-16	646.5106	1078.0150	1.69579996	3.98245025	2.439036183E-10	2.545402139E-10
997	5.7154472029000E-16	646.5106	1078.0150	1.69363003	3.96848368	2.438913233E-10	2.544849975E-10
998	5.6778414008000E-16	646.5106	1078.0150	1.69146559	3.95462744	2.438790591E-10	2.544301814E-10
999	5.6405669851000E-16	646.5106	1078.0150	1.68930685	3.94088120	2.438668267E-10	2.543757653E-10
1000	5.6036199756000E-16	646.5106	1078.0150	1.68715356	3.92724382	2.438546249E-10	2.543217447E-10

**B. RESULTS FOR 99<sup>TH</sup> QUANTILE OF ATMOSPHERIC DENSITY**

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
0	1.44918504962449E+00	250.6659	251.9102	28.95990959	28.95990983	3.702754585E-10	3.702754596E-10
1	1.27103061386939E+00	245.1990	250.9205	28.95990943	28.95990988	3.702754582E-10	3.702754604E-10
2	1.12172772908775E+00	241.2209	247.7206	28.95990943	28.95990989	3.702754581E-10	3.702754604E-10
3	9.87645930865306E-01	237.1380	245.7715	28.95990941	28.95990999	3.702754577E-10	3.702754606E-10
4	8.72324526172245E-01	233.0936	241.7997	28.95990931	28.95990997	3.702754577E-10	3.702754610E-10
5	7.67879353140816E-01	227.1424	250.2885	28.95990931	28.95991006	3.702754574E-10	3.702754610E-10
6	6.82491306575510E-01	222.8099	246.3355	28.95990938	28.95991005	3.702754574E-10	3.702754607E-10
7	6.07109825387755E-01	236.9438	250.6094	28.95990950	28.95990980	3.702754586E-10	3.702754600E-10
8	5.41415556222041E-01	231.5861	244.0092	28.95990949	28.95990986	3.702754584E-10	3.702754601E-10
9	4.81740235688776E-01	227.6426	237.7605	28.95990948	28.95990982	3.702754585E-10	3.702754602E-10
10	4.27907536266122E-01	229.9153	231.6884	28.95990947	28.95990986	3.702754582E-10	3.702754603E-10
11	3.81978934273469E-01	228.1316	229.4885	28.95990943	28.95990991	3.702754580E-10	3.702754605E-10
12	3.43268787328163E-01	218.6254	219.3653	28.95990942	28.95990994	3.702754578E-10	3.702754606E-10
13	3.05325945984490E-01	209.6406	210.4436	28.95990937	28.95990996	3.702754577E-10	3.702754608E-10
14	2.69478164340000E-01	202.5467	202.9683	28.95990937	28.95991002	3.702754574E-10	3.702754608E-10
15	2.32746644790000E-01	197.9356	198.4188	28.95990930	28.95991003	3.702754574E-10	3.702754612E-10
16	1.97749168650000E-01	196.1019	196.6154	28.95990954	28.95990979	3.702754586E-10	3.702754599E-10
17	1.66055428440000E-01	196.4887	197.3546	28.95990952	28.95990984	3.702754584E-10	3.702754600E-10
18	1.37672035727510E-01	198.4402	201.7699	28.95990946	28.95990989	3.702754582E-10	3.702754603E-10
19	1.1469079243837E-01	201.3462	206.6443	28.95990942	28.95990994	3.702754579E-10	3.702754605E-10
20	9.58467435487347E-02	204.6106	215.6309	28.95990936	28.95991000	3.702754577E-10	3.702754607E-10
21	8.12176611516735E-02	214.8227	217.0073	28.95990932	28.95991001	3.702754576E-10	3.702754610E-10
22	6.90790984875918E-02	215.7856	218.0614	28.95990932	28.95991004	3.702754575E-10	3.702754609E-10
23	5.88206697715102E-02	216.7118	219.0585	28.95990954	28.95990983	3.702754585E-10	3.702754599E-10
24	5.01406176291429E-02	217.6371	220.0144	28.95990948	28.95990983	3.702754584E-10	3.702754602E-10
25	4.27714996459592E-02	217.7306	233.8160	28.95990946	28.95990986	3.702754582E-10	3.702754603E-10
26	3.65770258677551E-02	217.5756	235.3107	28.95990942	28.95990992	3.702754579E-10	3.702754606E-10
27	3.17192918130000E-02	234.9122	236.4358	28.95990941	28.95990990	3.702754580E-10	3.702754605E-10
28	2.73038138010000E-02	236.2747	237.8471	28.95990933	28.95991001	3.702754575E-10	3.702754610E-10
29	2.35004536800000E-02	237.9044	239.4294	28.95990930	28.95991001	3.702754574E-10	3.702754612E-10
30	2.02334076450000E-02	239.8246	241.2394	28.95990933	28.95990979	3.702754587E-10	3.702754599E-10
31	1.74283206174000E-02	242.0619	243.2929	28.95990952	28.95990983	3.702754584E-10	3.702754600E-10
32	1.50204247281000E-02	244.5813	245.6735	28.95990949	28.95990983	3.702754584E-10	3.702754601E-10
33	1.29512805147000E-02	247.4246	248.3699	28.95990950	28.95990988	3.702754582E-10	3.702754600E-10
34	1.11754362060000E-02	250.4430	251.4008	28.95990945	28.95990989	3.702754582E-10	3.702754604E-10
35	9.65254257990000E-03	253.5949	254.6385	28.95990946	28.95990995	3.702754578E-10	3.702754603E-10
36	8.34673195620000E-03	256.9136	258.0394	28.95990936	28.95990993	3.702754580E-10	3.702754608E-10
37	7.22761689870000E-03	260.3425	261.5548	28.95990936	28.95991005	3.702754573E-10	3.702754607E-10
38	6.26868194040000E-03	263.8297	265.1307	28.95990924	28.95991008	3.702754572E-10	3.702754614E-10
39	5.44690419570000E-03	267.3405	268.7066	28.95990950	28.95990981	3.702754585E-10	3.702754600E-10
40	4.74240732570000E-03	270.8094	272.4984	28.95990950	28.95990984	3.702754583E-10	3.702754601E-10
41	4.13809389180000E-03	274.1641	283.1700	28.95990951	28.95990986	3.702754582E-10	3.702754601E-10
42	3.64507114950000E-03	284.3857	284.9308	28.95990943	28.95990990	3.702754580E-10	3.702754605E-10
43	3.22171563780000E-03	285.9072	286.4967	28.95990944	28.95990992	3.702754579E-10	3.702754605E-10
44	2.85160492980000E-03	287.1882	287.7983	28.95990940	28.95990995	3.702754577E-10	3.702754607E-10
45	2.52735031197000E-03	288.1936	288.8235	28.95990933	28.95991002	3.702754574E-10	3.702754610E-10
46	2.24272286964000E-03	288.9426	289.5871	28.95990955	28.95990979	3.702754586E-10	3.702754598E-10
47	1.99250110422000E-03	289.4395	290.0560	28.95990956	28.95990981	3.702754586E-10	3.702754598E-10
48	1.77223050873000E-03	289.6609	290.3958	28.95990952	28.95990981	3.702754585E-10	3.702754599E-10
49	1.57807083357000E-03	289.5829	290.2194	28.95990950	28.95990986	3.702754583E-10	3.702754601E-10
50	1.40656134663000E-03	289.2067	289.7053	28.95990945	28.95990985	3.702754583E-10	3.702754603E-10
51	1.25481520098000E-03	288.5026	288.8502	28.95990944	28.95990987	3.702754583E-10	3.702754603E-10
52	1.12042694016000E-03	287.4346	287.7285	28.95990945	28.95990993	3.702754580E-10	3.702754603E-10
53	1.00134799083000E-03	285.9806	286.3862	28.95990942	28.95990995	3.702754578E-10	3.702754604E-10
54	8.95471069680000E-04	284.1758	284.6899	28.95990936	28.95990991	3.702754580E-10	3.702754607E-10
55	8.01174056760000E-04	282.0395	282.6352	28.95990931	28.95990999	3.702754577E-10	3.702754611E-10
56	7.17041085750000E-04	279.5195	280.3158	28.95990936	28.95991008	3.702754573E-10	3.702754607E-10
57	6.41815202160000E-04	276.7060	277.6857	28.95990920	28.95991009	3.702754572E-10	3.702754615E-10
58	5.74416581310000E-04	273.6265	274.7699	28.95990953	28.95990984	3.702754584E-10	3.702754599E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
59	5.13923410440000E-04	270.3087	271.5945	28.95990951	28.95990985	3.702754583E-10	3.702754601E-10
60	4.59546225930000E-04	266.7804	268.1859	28.95990947	28.95990986	3.702754583E-10	3.702754603E-10
61	4.10606922330000E-04	263.0688	264.5705	28.95990944	28.95990986	3.702754583E-10	3.702754604E-10
62	3.66536940660000E-04	259.2003	260.7743	28.95990947	28.95990988	3.702754582E-10	3.702754602E-10
63	3.26862226152000E-04	255.1821	256.8229	28.95972848	28.95988271	3.702759108E-10	3.702764447E-10
64	2.91095074809000E-04	251.0517	252.7407	28.95936659	28.95982841	3.702768160E-10	3.702784132E-10
65	2.58835833630000E-04	246.8364	248.5511	28.95900501	28.95977471	3.702777181E-10	3.702803800E-10
66	2.29747774905000E-04	242.5584	244.2765	28.95864266	28.95972045	3.702786233E-10	3.702823508E-10
67	2.03534112573000E-04	238.2124	239.9375	28.95828042	28.95966630	3.702795278E-10	3.702843212E-10
68	1.79931173796000E-04	233.8389	235.7384	28.95791804	28.95976574	3.702799553E-10	3.702862922E-10
69	1.58703677451000E-04	229.4599	231.3354	28.95767766	28.95973954	3.702807732E-10	3.702879734E-10
70	1.39678747461000E-04	225.0759	226.9197	28.95733394	28.95971330	3.702815914E-10	3.702899005E-10
71	1.22692451112000E-04	220.7047	222.7034	28.95718749	28.9597292	3.702814621E-10	3.702911778E-10
72	1.07491426911000E-04	216.3717	218.3198	28.95686677	28.95998065	3.702821674E-10	3.702930297E-10
73	9.39925151550000E-05	211.8679	213.7377	28.95704448	28.95986818	3.702832943E-10	3.702931428E-10
74	8.24619913920000E-05	206.0704	207.8256	28.95651740	28.95959778	3.702850495E-10	3.702959738E-10
75	7.24210663770000E-05	199.2573	200.8841	28.95589628	28.95926002	3.702871505E-10	3.702992769E-10
76	6.34903918110000E-05	191.8643	193.4854	28.95558097	28.95909229	3.702888028E-10	3.703018115E-10
77	5.54275180800000E-05	185.0820	185.8321	28.95500318	28.95858740	3.702917344E-10	3.703057273E-10
78	4.80879439920000E-05	177.4647	178.1941	28.95400337	28.95794924	3.702952630E-10	3.703108937E-10
79	4.13941565070000E-05	170.1791	170.9659	28.95278940	28.95713980	3.702994851E-10	3.703169488E-10
80	3.53106937359000E-05	163.3814	164.1908	28.95130199	28.95610640	3.703044912E-10	3.703239980E-10
81	2.98244579490000E-05	157.1761	158.1004	28.94946125	28.95477754	3.703103376E-10	3.703321007E-10
82	2.49299106408000E-05	151.6293	152.6894	28.94715654	28.95305641	3.703169994E-10	3.703412284E-10
83	2.06190493938000E-05	146.7822	148.0037	28.94423650	28.95080937	3.703243212E-10	3.703511957E-10
84	1.68764492952000E-05	142.6616	144.0673	28.94090456	28.94785710	3.703319396E-10	3.703617298E-10
85	1.36736901378000E-05	139.2886	140.9005	28.93438391	28.94396701	3.703392134E-10	3.703748636E-10
86	1.09741408722000E-05	136.6863	138.4266	28.92783272	28.93885047	3.703451661E-10	3.703846413E-10
87	8.73020637720000E-06	134.8866	137.2480	28.91966930	28.93216694	3.703484584E-10	3.703903985E-10
88	6.88911026760000E-06	133.9372	136.5268	28.90727709	28.92354253	3.703473976E-10	3.703938914E-10
89	5.39737748550000E-06	133.9193	137.6119	28.88934147	28.91259606	3.703397965E-10	3.703941680E-10
90	4.28934841830000E-06	187.2281	187.6363	28.87519993	28.87758272	3.702398980E-10	3.702509935E-10
91	3.64907508266939E-06	182.2514	182.9648	28.85219871	28.85601167	3.701698630E-10	3.701842663E-10
92	3.12447235077551E-06	177.1093	177.7531	28.82367312	28.82842496	3.700770186E-10	3.700954014E-10
93	2.66165263454694E-06	172.1101	172.6772	28.78906110	28.79465152	3.699592245E-10	3.699824469E-10
94	2.25231953275102E-06	167.4988	169.9860	28.74793177	28.75521691	3.698151106E-10	3.698441052E-10
95	1.91048730345000E-06	163.4686	163.8753	28.69993111	28.70890058	3.696440797E-10	3.696798109E-10
96	1.59146494650000E-06	160.1770	160.5037	28.64507882	28.65585574	3.694461433E-10	3.694906499E-10
97	1.31464504215000E-06	157.7628	158.0101	28.58312052	28.59601510	3.692216827E-10	3.692763054E-10
98	1.07694996453000E-06	156.3643	156.5322	28.51411324	28.52937345	3.689711516E-10	3.690371278E-10
99	8.75067560730000E-07	156.1402	156.2265	28.43809275	28.45596281	3.686937260E-10	3.687733791E-10
100	7.05479182650000E-07	157.2938	157.2938	28.35513495	28.37585365	3.683901460E-10	3.684849853E-10
101	5.64746413770000E-07	159.9360	160.0313	28.26538606	28.28918353	3.680601353E-10	3.681716065E-10
102	4.49992062630000E-07	164.1442	165.6166	28.16909825	28.29772045	3.677033550E-10	3.681395749E-10
103	3.59450599860000E-07	169.8967	170.4336	28.07410984	28.21194983	3.673275805E-10	3.678296317E-10
104	2.87796156120000E-07	176.4394	176.5197	28.08679056	28.12135705	3.672956158E-10	3.674988809E-10
105	2.32464846240000E-07	198.2925	203.5911	27.77330809	28.07075828	3.651214575E-10	3.663827167E-10
106	1.94431595886000E-07	201.9539	207.4919	27.64709801	27.97397373	3.645384213E-10	3.659490619E-10
107	1.62748283049000E-07	206.4114	212.1742	27.51352054	27.84280129	3.639291785E-10	3.652352828E-10
108	1.36340074233000E-07	211.1135	217.6996	27.37527769	27.73532652	3.632954392E-10	3.647400706E-10
109	1.13240259024245E-07	216.5859	224.2200	27.22583005	27.65509767	3.626395216E-10	3.644966220E-10
110	9.51182957218775E-08	223.1735	231.6866	27.08042235	27.52461787	3.619644290E-10	3.638450558E-10
111	8.00204312321633E-08	230.7843	240.2889	26.93291798	27.40965032	3.612738250E-10	3.633119115E-10
112	6.74575395120000E-08	239.7262	250.1435	26.78431168	27.25558053	3.605719394E-10	3.624621124E-10
113	5.69844219497143E-08	258.7141	261.2323	26.63561892	26.76680435	3.598633021E-10	3.605902446E-10
114	4.82712103755918E-08	270.8403	273.5981	26.48782622	26.62651146	3.591525577E-10	3.599279401E-10
115	4.10340158728163E-08	284.2934	287.2672	26.34186557	26.48779591	3.584442525E-10	3.592677317E-10
116	3.50159260871020E-08	299.0669	327.3999	26.19856448	26.35147080	3.577426340E-10	3.593584739E-10
117	3.04927085733061E-08	343.7227	358.9482	26.15726428	27.16234998	3.584600266E-10	3.644478312E-10
118	2.69473129523265E-08	366.0020	370.8740	26.72563445	27.08945506	3.624594747E-10	3.641569935E-10
119	2.38579274622857E-08	379.5531	383.8285	26.64054110	27.03820107	3.620882596E-10	3.640113757E-10
120	2.11749985542857E-08	393.9667	463.5246	26.55796167	27.45134219	3.617216051E-10	3.655216320E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
121	1.92161277888980E-08	440.1207	476.5038	26.69121937	27.40812970	3.621848587E-10	3.653645402E-10
122	1.74368268764082E-08	476.9244	491.5924	26.73539616	27.36239979	3.623263189E-10	3.651806731E-10
123	1.57489884692082E-08	509.1903	509.7637	26.76519013	27.25336624	3.623915514E-10	3.648174074E-10
124	1.42654251766041E-08	528.4109	529.4152	26.71077509	27.21015447	3.621539889E-10	3.645722734E-10
125	1.29798144343102E-08	547.1475	548.6936	26.65858255	27.17186766	3.619228221E-10	3.644224471E-10
126	1.18585160835429E-08	565.4124	567.6059	26.60847863	27.13533277	3.616976894E-10	3.642775174E-10
127	1.08748831897469E-08	583.2175	585.8658	26.56032750	27.03051017	3.614782309E-10	3.637380455E-10
128	1.00092296570694E-08	600.5747	603.9823	26.51399456	26.99538093	3.612640974E-10	3.635912070E-10
129	9.24166806487347E-09	617.4952	620.8229	26.46934815	26.83326053	3.610549484E-10	3.627859851E-10
130	8.55789019611429E-09	633.9903	638.0361	26.42625964	26.79806336	3.608504462E-10	3.626298445E-10
131	7.94610294046531E-09	650.0707	654.8920	26.38460539	26.76417254	3.606502656E-10	3.624776162E-10
132	7.39651391860408E-09	665.4770	671.3980	26.34427050	26.73148930	3.604541142E-10	3.623290452E-10
133	6.90094181093878E-09	620.5179	687.5616	26.30514397	26.69991863	3.585431460E-10	3.621838898E-10
134	6.45250663631020E-09	628.2755	700.6252	26.26712307	26.53404607	3.583292165E-10	3.611811853E-10
135	6.04538932826939E-09	636.6517	715.7610	26.23011191	26.49317716	3.581172114E-10	3.610222927E-10
136	5.67464608057959E-09	644.7399	730.5589	26.19402209	26.64114460	3.579068692E-10	3.608662466E-10
137	5.33604958758367E-09	652.5501	745.0264	26.15877013	26.60475000	3.576979489E-10	3.607128388E-10
138	5.02597131097959E-09	660.0919	759.1710	26.12428124	26.56868071	3.574902216E-10	3.605618783E-10
139	4.74128351588571E-09	667.3747	773.0000	26.09048504	26.53290431	3.572834824E-10	3.604131662E-10
140	4.47927534874286E-09	674.4073	786.5206	26.05731776	26.49739243	3.570775341E-10	3.602665331E-10
141	4.23759198181224E-09	681.1985	799.7397	26.02472080	26.28633981	3.568722046E-10	3.601218112E-10
142	4.01417559705306E-09	687.7566	812.6641	25.99263969	26.25837260	3.566673327E-10	3.599788507E-10
143	3.80722435971429E-09	694.0897	825.3005	25.96102706	26.23087455	3.564627730E-10	3.598375075E-10
144	3.65099830920000E-09	825.8299	830.6432	25.92983694	26.02694129	3.583222221E-10	3.587874320E-10
145	3.47100790410000E-09	837.0980	842.2390	25.89902758	25.99755937	3.581569643E-10	3.586315899E-10
146	3.30332490180000E-09	848.0841	853.5579	25.86856310	25.96852587	3.579928911E-10	3.584769536E-10
147	3.14685044190000E-09	858.7954	864.6065	25.83840814	25.93980868	3.578298757E-10	3.583234147E-10
148	3.00062612520000E-09	869.2388	875.3913	25.80853309	25.91137660	3.576678187E-10	3.581708626E-10
149	2.86377448500000E-09	879.4210	879.7284	25.77890689	25.79574960	3.575066018E-10	3.576677108E-10
150	2.73551172840000E-09	889.3488	889.6725	25.74950622	25.76671934	3.573461461E-10	3.575092261E-10
151	2.61513267840000E-09	899.0284	899.3687	25.72030584	25.73788692	3.571863545E-10	3.573513956E-10
152	2.50200569520000E-09	908.4663	908.8232	25.69128203	25.70923245	3.570271134E-10	3.571941477E-10
153	2.39556058830000E-09	917.6685	918.0422	25.66241876	25.68073286	3.568684291E-10	3.570373885E-10
154	2.29528258740000E-09	926.6410	927.0314	25.63369660	25.65237319	3.567101627E-10	3.568810653E-10
155	2.20070531340000E-09	935.3895	935.7968	25.60509808	25.62413364	3.565522649E-10	3.567250952E-10
156	2.11140668475000E-09	943.9198	944.3440	25.57660716	25.59600094	3.563946688E-10	3.565694273E-10
157	2.02700291310000E-09	952.2372	952.6785	25.54821224	25.56795837	3.562373319E-10	3.564139904E-10
158	1.94714447301000E-09	960.3473	960.8055	25.51989863	25.53999719	3.560801899E-10	3.562587546E-10
159	1.87151306958000E-09	968.2552	968.7305	25.49165333	25.51210277	3.559231865E-10	3.561036546E-10
160	1.79981760915000E-09	975.9661	976.4583	25.46346915	25.48426408	3.557662981E-10	3.559486438E-10
161	1.73171399940000E-09	983.4849	983.9941	25.43523641	25.45637587	3.556087384E-10	3.557929651E-10
162	1.66712058216000E-09	990.8164	991.3426	25.40714328	25.42862422	3.554519461E-10	3.556380406E-10
163	1.60572779631000E-09	997.9653	998.5085	25.37908161	25.40090063	3.552951358E-10	3.554830820E-10
164	1.54733119002000E-09	1004.9360	1005.4960	25.35104395	25.37319876	3.551382741E-10	3.553280684E-10
165	1.49174043579000E-09	1011.7340	1012.3110	25.32302388	25.34551052	3.549813345E-10	3.551729579E-10
166	1.43878131045000E-09	1018.3620	1018.9560	25.29501434	25.31783022	3.548242833E-10	3.550177270E-10
167	1.38829369140000E-09	1024.8260	1025.4370	25.26700915	25.29015170	3.546670929E-10	3.548623475E-10
168	1.34012654622000E-09	1031.1290	1031.7560	25.23900270	25.26246970	3.545097334E-10	3.547067963E-10
169	1.29414292128000E-09	1037.2750	1037.9190	25.21099119	25.23477838	3.543521933E-10	3.545510429E-10
170	1.25021593818000E-09	1043.2690	1043.9290	25.18296939	25.20707408	3.541944452E-10	3.543950718E-10
171	1.20822578415000E-09	1049.1140	1049.7910	25.15493336	25.17935192	3.540364693E-10	3.542388572E-10
172	1.16806370967000E-09	1054.8130	1055.5070	25.12687799	25.15160830	3.538782400E-10	3.540823828E-10
173	1.12962602016000E-09	1060.3710	1061.0810	25.09680206	25.12384077	3.537197556E-10	3.539256401E-10
174	1.09281906954000E-09	1065.7910	1066.5170	25.07070039	25.09604391	3.535609851E-10	3.537685953E-10
175	1.05752262910000E-09	1071.0770	1071.8190	25.04257192	25.06821805	3.534019279E-10	3.536112582E-10
176	1.02374504496000E-09	1076.2320	1076.9900	25.01441255	25.04035665	3.532425603E-10	3.534535878E-10
177	9.91318100850000E-10	1081.2590	1082.0320	24.98621879	25.01246085	3.530828634E-10	3.532955926E-10
178	9.60200650530000E-10	1086.1610	1086.9500	24.95799241	24.98452584	3.529228491E-10	3.531372490E-10
179	9.30324649320000E-10	1090.9420	1091.7470	24.92972840	24.95655164	3.527624905E-10	3.529785553E-10
180	9.01627081740000E-10	1095.6040	1096.4240	24.90142468	24.92853538	3.526017745E-10	3.528194941E-10
181	8.74048659660000E-10	1100.1510	1100.9870	24.87308082	24.90047539	3.524407001E-10	3.526600591E-10
182	8.47533822300000E-10	1104.5850	1105.4360	24.84469474	24.87237188	3.522792535E-10	3.525002518E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
183	8.2203043230000E-10	1108.9100	1109.7760	24.81626699	24.84422127	3.521174428E-10	3.523400499E-10
184	7.9748957376000E-10	1113.1270	1114.0080	24.78779393	24.81602374	3.519552431E-10	3.521794544E-10
185	7.7386525128000E-10	1117.2410	1118.1360	24.75927539	24.78777677	3.517926540E-10	3.520184494E-10
186	7.5111418998000E-10	1121.2520	1140.7030	24.73070943	24.89427456	3.516296628E-10	3.525239564E-10
187	7.2919543059000E-10	1125.1650	1144.9300	24.70209832	24.86738532	3.514662872E-10	3.523714951E-10
188	7.0807073040000E-10	1128.9800	1149.0570	24.67343788	24.84045073	3.513024977E-10	3.522186421E-10
189	6.8770376334000E-10	1132.7020	1153.0870	24.64472979	24.81347077	3.511383065E-10	3.520653968E-10
190	6.6805775190000E-10	1136.3310	1157.0220	24.61597272	24.78644238	3.509737044E-10	3.519117394E-10
191	6.4910192292000E-10	1139.8710	1160.8640	24.58716354	24.75936690	3.508086708E-10	3.517576806E-10
192	6.3080713377000E-10	1143.3240	1164.6160	24.55830753	24.73224578	3.506432416E-10	3.516032308E-10
193	6.1314468732000E-10	1146.6910	1168.2790	24.52939884	24.70507259	3.504773762E-10	3.514483450E-10
194	5.9608709820000E-10	1149.9750	1171.8560	24.50043961	24.67785091	3.503110900E-10	3.512930498E-10
195	5.7960869076000E-10	1153.1790	1175.3490	24.47142998	24.65057863	3.501443832E-10	3.511373306E-10
196	5.6368490112000E-10	1156.3030	1178.7590	24.44236835	24.62325593	3.499772452E-10	3.509811882E-10
197	5.4829247616000E-10	1159.3500	1182.0900	24.41325531	24.59588284	3.498096790E-10	3.508246236E-10
198	5.3340946758000E-10	1162.3220	1185.3420	24.38409147	24.56845735	3.496416886E-10	3.506676235E-10
199	5.1901503885000E-10	1165.2220	1188.5180	24.35487504	24.54097985	3.494732626E-10	3.505101909E-10
200	5.0508926127000E-10	1168.0490	1191.6190	24.32560729	24.51345028	3.493044088E-10	3.503523252E-10
201	4.9165632054000E-10	1170.8070	1194.6470	24.29681317	24.48642865	3.491355100E-10	3.501943602E-10
202	4.7860988274000E-10	1173.4970	1197.6040	24.26742707	24.45877833	3.489657932E-10	3.500356227E-10
203	4.6597854798000E-10	1176.1210	1200.4910	24.23799009	24.43107439	3.487956472E-10	3.498764391E-10
204	4.5374591394000E-10	1178.6810	1203.3110	24.20850111	24.40331819	3.486250658E-10	3.497168190E-10
205	4.4189678412000E-10	1181.1770	1206.0650	24.17896134	24.37550832	3.484540558E-10	3.495567535E-10
206	4.3041636495000E-10	1183.6130	1208.7540	24.14937096	24.34764531	3.482826185E-10	3.493962457E-10
207	4.1929057071000E-10	1185.9880	1211.3790	24.11972852	24.31972868	3.481107453E-10	3.492352937E-10
208	4.0850611718400E-10	1188.3050	1213.9440	24.09003652	24.29175870	3.479384521E-10	3.490738986E-10
209	3.9805012793700E-10	1190.5650	1216.4480	24.06029314	24.26373473	3.477657271E-10	3.489120577E-10
210	3.8791072861200E-10	1192.7700	1218.8940	24.03049893	24.23565678	3.475925741E-10	3.487497708E-10
211	3.7807594921800E-10	1194.9200	1221.2820	24.00065571	24.20752539	3.474190050E-10	3.485870414E-10
212	3.68535023406000E-10	1197.0180	1223.6140	23.97076101	24.17933980	3.472450045E-10	3.484238665E-10
213	3.59277088302000E-10	1199.0640	1225.8920	23.94081811	24.15110096	3.470705932E-10	3.482602513E-10
214	3.5029218440700E-10	1201.0600	1228.1160	23.91082539	24.12280744	3.468957619E-10	3.480961874E-10
215	3.4157065496400E-10	1203.0070	1230.2890	23.88078291	24.09446020	3.467205108E-10	3.479316822E-10
216	3.33103046463000E-10	1204.9070	1232.4100	23.85069278	24.06606035	3.465448540E-10	3.477667425E-10
217	3.24880508007000E-10	1206.7600	1234.4820	23.82055311	24.03760548	3.463687798E-10	3.476013542E-10
218	3.16894691025000E-10	1208.5670	1236.5050	23.79036579	24.00909810	3.461923005E-10	3.474355339E-10
219	3.09137349609000E-10	1210.3300	1238.4820	23.76013098	23.98053714	3.460154181E-10	3.472692750E-10
220	3.01600740177000E-10	1212.0510	1240.4120	23.72984862	23.95192323	3.458381328E-10	3.471025818E-10
221	2.94277321305000E-10	1213.7290	1242.2970	23.69952078	23.92325732	3.456604578E-10	3.469354618E-10
222	2.87159953311000E-10	1215.3660	1244.1380	23.66914579	23.89453675	3.454823832E-10	3.467678983E-10
223	2.80241798859000E-10	1216.9620	1245.9350	23.63872454	23.86576536	3.453039157E-10	3.465999163E-10
224	2.73516122187000E-10	1218.5200	1247.6910	23.60825854	23.83694145	3.451250656E-10	3.464315062E-10
225	2.66976689265000E-10	1220.0400	1249.4060	23.57774776	23.80806545	3.449458323E-10	3.462626719E-10
226	2.60617368033000E-10	1221.5230	1251.0810	23.54719315	23.77913850	3.447662237E-10	3.460934202E-10
227	2.54432427381000E-10	1222.9690	1252.7170	23.51659506	23.75015992	3.445862425E-10	3.459237487E-10
228	2.48416038288000E-10	1224.3810	1254.3150	23.48595260	23.72112995	3.444058831E-10	3.457536588E-10
229	2.42562972663000E-10	1225.7570	1302.2920	23.45526943	24.12015746	3.442251707E-10	3.480844051E-10
230	2.36867904009000E-10	1227.1000	1304.1170	23.42454327	24.09389771	3.440440904E-10	3.479317207E-10
231	2.31325906878000E-10	1228.4110	1305.9030	23.39377745	24.06757548	3.438626648E-10	3.477785574E-10
232	2.25932157297000E-10	1229.6890	1307.6500	23.36296909	24.04119320	3.436808754E-10	3.476249300E-10
233	2.20710029265000E-10	1230.9360	1309.3600	23.33212285	24.01474816	3.434987542E-10	3.474708242E-10
234	2.15644701987000E-10	1232.1530	1311.0320	23.30123790	23.98824099	3.433162956E-10	3.473162440E-10
235	2.10712456251000E-10	1233.3400	1312.6680	23.27031428	23.96167538	3.431335010E-10	3.471612145E-10
236	2.05909172271000E-10	1234.4980	1314.2680	23.23935317	23.93504770	3.429503785E-10	3.470057108E-10
237	2.01231030924000E-10	1235.6280	1315.8340	23.20835659	23.90836001	3.427669415E-10	3.468497496E-10
238	1.96674113889000E-10	1236.7310	1317.3660	23.17732428	23.88161120	3.425831901E-10	3.466933239E-10
239	1.92234903795000E-10	1237.8070	1318.8650	23.14625661	23.85480195	3.423991270E-10	3.465364378E-10
240	1.87909684182000E-10	1238.8560	1320.3310	23.11515605	23.82793595	3.422147680E-10	3.463791173E-10
241	1.83695838876000E-10	1241.3660	1321.7660	23.08405133	23.80104898	3.420301113E-10	3.462213436E-10
242	1.79588753091000E-10	1242.3720	1323.1690	23.05288403	23.77406147	3.418451661E-10	3.460631127E-10
243	1.75585912128000E-10	1243.3530	1324.5420	23.02168647	23.74701799	3.416599435E-10	3.459044529E-10
244	1.71684302229000E-10	1244.3110	1325.8860	22.99045837	23.71991588	3.414744448E-10	3.457453500E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
245	1.67880810042000E-10	1245.2450	1327.2000	22.95920041	23.69275587	3.412886729E-10	3.455858063E-10
246	1.64172823056000E-10	1246.1570	1383.8790	22.92791508	24.20123195	3.411026456E-10	3.485938884E-10
247	1.60557429087000E-10	1247.0470	1385.4220	22.89660394	24.17706110	3.409163726E-10	3.484532089E-10
248	1.57032016614000E-10	1247.9150	1386.9340	22.86526576	24.15282363	3.407298486E-10	3.483120424E-10
249	1.53593974611000E-10	1248.7620	1388.4150	22.71808398	24.12851448	3.399737993E-10	3.481703604E-10
250	1.50240892329000E-10	1249.5890	1389.8670	22.68833820	24.10413863	3.397965485E-10	3.480281942E-10
251	1.46970359712000E-10	1250.3950	1391.2900	22.65858669	24.07969310	3.396191833E-10	3.478855237E-10
252	1.43779967001000E-10	1251.1820	1392.6850	22.62883280	24.05517849	3.394417258E-10	3.477423570E-10
253	1.40667505011000E-10	1251.9500	1394.0510	22.59907735	24.03059889	3.392641815E-10	3.475987179E-10
254	1.37667461184000E-10	1252.7000	1395.3900	22.56931872	24.00595024	3.390865423E-10	3.474545829E-10
255	1.34747529840000E-10	1253.4310	1443.9620	22.53955976	24.45316637	3.389088263E-10	3.501230180E-10
256	1.31897503881000E-10	1254.1450	1445.4750	22.50979966	24.43101902	3.387310297E-10	3.499946029E-10
257	1.29115475280000E-10	1254.8410	1446.9590	19.78141292	24.40879932	3.223573329E-10	3.498656779E-10
258	1.26399636693000E-10	1255.5210	1448.4150	19.75333131	24.38650412	3.221887161E-10	3.497362220E-10
259	1.23748180776000E-10	1256.1840	1449.8440	19.72541097	24.36413375	3.220210201E-10	3.496062385E-10
260	1.21276689039000E-10	1289.8290	1451.2460	19.69765046	24.34169091	3.218542379E-10	3.494757449E-10
261	1.19119441122000E-10	1290.5660	1404.0440	19.67005299	23.83156825	3.216883921E-10	3.464323645E-10
262	1.17007357599000E-10	1333.4580	1405.1840	19.64261290	23.80639824	3.215234486E-10	3.462844739E-10
263	1.14939132363000E-10	1334.4230	1337.5880	19.61533474	19.66687233	3.213594384E-10	3.216893652E-10
264	1.12913759475000E-10	1335.3670	1338.5440	19.58821425	19.63964017	3.211963365E-10	3.215256687E-10
265	1.10930133303000E-10	1336.2910	1339.4810	19.56124978	19.61256453	3.2103411339E-10	3.213628745E-10
266	1.08987448383000E-10	1337.1970	1340.1050	19.53444217	19.57415729	3.208728385E-10	3.211267000E-10
267	1.07084699667000E-10	1338.0830	1341.0020	19.50778992	19.54742332	3.207124422E-10	3.209658667E-10
268	1.05220782018000E-10	1338.9510	1341.8800	19.48129278	19.52084220	3.205529455E-10	3.208059183E-10
269	1.03394690883000E-10	1339.8000	1342.7390	19.45495087	19.49441300	3.203943512E-10	3.204648507E-10
270	1.01605621491000E-10	1340.6320	1343.5810	19.42875145	19.46813489	3.202366432E-10	3.204886606E-10
271	9.98524694970000E-11	1341.4470	1344.4060	19.40272488	19.44200894	3.200798257E-10	3.203313564E-10
272	9.81345406140000E-11	1342.2450	1345.2130	19.37684025	19.41603148	3.199238950E-10	3.201749166E-10
273	9.64509708690000E-11	1343.0260	1346.0040	19.35110617	19.39020513	3.197688436E-10	3.200193597E-10
274	9.48009363840000E-11	1343.7910	1346.7780	19.32552421	19.36452647	3.196146833E-10	3.198646652E-10
275	9.31836432780000E-11	1344.5400	1347.5360	19.30009079	19.33899479	3.194613932E-10	3.197108307E-10
276	9.15983380620000E-11	1345.2730	1348.2780	19.27480591	19.31361220	3.193089746E-10	3.195578711E-10
277	9.00441739890000E-11	1345.9910	1349.0050	19.24966980	19.28837456	3.191574308E-10	3.194057618E-10
278	8.85204462087000E-11	1346.6940	1349.7170	19.22468045	19.26328364	3.190067505E-10	3.192545152E-10
279	8.70265342980000E-11	1347.3830	1350.4140	19.19983898	19.23833776	3.188569424E-10	3.191041228E-10
280	8.55617448807000E-11	1348.0570	1351.0970	19.17514277	19.21353621	3.187079910E-10	3.189545811E-10
281	8.41254247053000E-11	1348.7170	1351.7660	19.15059284	19.18887835	3.185599050E-10	3.188058877E-10
282	8.27169206490000E-11	1349.3640	1352.4200	19.12618693	19.16436503	3.184126710E-10	3.186580495E-10
283	8.13355996959000E-11	1349.9970	1353.0620	19.10192439	19.13999323	3.182662863E-10	3.185110485E-10
284	7.99808489469000E-11	1350.6170	1353.6900	19.07780681	19.11576353	3.181207627E-10	3.183648901E-10
285	7.86520565306000E-11	1351.2240	1354.3050	19.05383061	19.09167418	3.179760785E-10	3.182195641E-10
286	7.73486670627000E-11	1351.8180	1354.9070	19.02999681	19.06772564	3.178322414E-10	3.180750754E-10
287	7.60701006648000E-11	1352.4010	1355.4970	19.00630477	19.04391772	3.176892493E-10	3.179314237E-10
288	7.48157939496000E-11	1352.9710	1356.0740	18.98275233	19.02024914	3.175470892E-10	3.177886022E-10
289	7.35852345228000E-11	1353.5290	1356.6400	18.95934052	18.99671926	3.174057689E-10	3.176466084E-10
290	7.23778800822000E-11	1354.0760	1357.1940	18.93606794	18.97332770	3.172652812E-10	3.175054405E-10
291	7.11932284206000E-11	1354.6110	1357.7370	18.91293457	18.95007264	3.171256268E-10	3.173650885E-10
292	7.00307774001000E-11	1355.1350	1358.2680	18.88993860	18.92695459	3.169867955E-10	3.172255572E-10
293	6.88900545959000E-11	1355.6490	1358.7880	18.86707981	18.90397392	3.168487871E-10	3.170868497E-10
294	6.77705791059000E-11	1356.1520	1441.2070	18.78183927	18.88112780	3.167116104E-10	3.169489490E-10
295	6.66718979454000E-11	1356.6440	1442.0130	18.76032501	18.85841670	3.165752382E-10	3.168118595E-10
296	6.55935596316000E-11	1357.1260	1443.3500	18.73893927	18.83584147	3.164396932E-10	3.166755881E-10
297	6.453351217236000E-11	1357.5990	1444.1290	18.71768189	18.81339897	3.163049502E-10	3.165401152E-10
298	6.34961502945000E-11	1358.0610	1444.8940	18.69655367	18.79108909	3.161710234E-10	3.164054411E-10
299	6.24762483939000E-11	1358.5140	1446.2470	18.67555114	18.76891182	3.160379086E-10	3.162715673E-10
300	6.15279387987000E-11	1358.9580	1446.3850	18.65487530	18.74402858	3.158880916E-10	3.161208474E-10
301	6.05433511089000E-11	1359.3920	1447.7140	18.63411975	18.72218267	3.157569890E-10	3.160120178E-10
302	5.95767080205000E-11	1359.8170	1448.4290	18.61348871	18.70046467	3.156266735E-10	3.158895679E-10
303	5.86276280172000E-11	1360.2340	1449.1300	18.59298233	18.67887645	3.154971480E-10	3.157678581E-10
304	5.76957296322000E-11	1360.6420	1449.8200	18.57259886	18.65741781	3.153684030E-10	3.156468741E-10
305	5.67806714541000E-11	1361.0420	1450.9950	18.55233812	18.63608419	3.152404339E-10	3.156139607E-10
306	5.58830720250000E-11	1361.4330	1451.6620	18.53219864	18.61488060	3.151132518E-10	3.154940838E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
307	5.50455157296000E-11	1361.8170	1452.3160	18.51218044	18.59380171	3.149868392E-10	3.153749267E-10
308	5.42224858428000E-11	1362.1920	1452.9600	18.49228149	18.57284967	3.148612099E-10	3.152564777E-10
309	5.34136611195000E-11	1362.5600	1453.5920	18.47250376	18.53961476	3.147363385E-10	3.151387464E-10
310	5.26187704086000E-11	1362.9200	1454.2130	18.45284353	18.51897050	3.146122362E-10	3.150217150E-10
311	5.18375325600000E-11	1363.2730	1454.8220	18.43330101	18.49845135	3.144889034E-10	3.149053902E-10
312	5.10696664731000E-11	1363.6180	1455.4220	18.41387646	18.47805626	3.143663214E-10	3.147897689E-10
313	5.03149111146000E-11	1363.9560	1456.0100	18.39456774	18.44611735	3.142445079E-10	3.146748454E-10
314	4.95730054413000E-11	1364.2880	1456.5890	18.37537542	18.42602120	3.141234381E-10	3.145606077E-10
315	4.88436784902000E-11	1364.6120	1457.1570	18.35629795	18.40604552	3.140031272E-10	3.144470693E-10
316	4.81266993141000E-11	1365.0840	1457.7150	18.33733441	18.37823145	3.138835747E-10	3.143342060E-10
317	4.74218169876000E-11	1365.3950	1458.2630	18.31848708	18.35853092	3.137647631E-10	3.142220323E-10
318	4.67288006427000E-11	1456.6570	1458.8020	18.29975090	18.32947590	3.139115437E-10	3.141105440E-10
319	4.60473994233000E-11	1457.1820	1459.3310	18.28112721	18.31072019	3.138014776E-10	3.139997309E-10
320	4.53774025089000E-11	1457.6980	1459.8520	18.26261596	18.29207642	3.136920918E-10	3.138895940E-10
321	4.47185891097000E-11	1458.2040	1460.3620	18.24421672	18.27354293	3.135833835E-10	3.137801228E-10
322	4.40707284567000E-11	1458.7020	1460.8640	18.22592787	18.25511870	3.134753450E-10	3.136713138E-10
323	4.34336198274000E-11	1459.1910	1461.3580	18.20774668	18.23680555	3.133679578E-10	3.135631788E-10
324	4.28070624894000E-11	1459.6720	1461.8420	18.18967627	18.21860164	3.132612440E-10	3.134557066E-10
325	4.21908357717000E-11	1460.1440	1462.3180	18.17171583	18.20050592	3.131551999E-10	3.133488910E-10
326	4.15847490102000E-11	1460.6070	1462.7860	18.15386093	18.18251705	3.130497955E-10	3.132427240E-10
327	4.09886115507000E-11	1461.0630	1463.2450	18.13611413	18.16463711	3.129450501E-10	3.131372215E-10
328	4.04022427875000E-11	1461.5110	1463.6970	18.11847558	18.14686224	3.128409658E-10	3.130323570E-10
329	3.98254421070000E-11	1461.9500	1464.1400	18.10094168	18.12919356	3.127375183E-10	3.129281405E-10
330	3.92580289530000E-11	1462.3820	1464.5760	18.08351231	18.11163099	3.126347089E-10	3.128245714E-10
331	3.86998327584000E-11	1462.8070	1465.0040	18.06618922	18.09417314	3.125325494E-10	3.127216418E-10
332	3.81506829759000E-11	1463.2240	1465.4250	18.04897048	18.07681828	3.124310281E-10	3.126193413E-10
333	3.76104090879000E-11	1463.6340	1465.8380	18.03185429	18.05956810	3.123301344E-10	3.125176815E-10
334	3.70788406065000E-11	1464.0360	1466.2440	18.01484225	18.04242079	3.122298788E-10	3.124166512E-10
335	3.65558170230000E-11	1464.4320	1466.6440	17.99793197	18.02537538	3.121302471E-10	3.123162453E-10
336	3.60411878871000E-11	1464.8200	1467.0360	17.98112316	18.00843203	3.120312382E-10	3.122164656E-10
337	3.55347827307000E-11	1465.2020	1467.4210	17.96441663	17.99159047	3.119328578E-10	3.121173105E-10
338	3.50364611223000E-11	1465.5770	1467.7990	17.94780982	17.97484895	3.118350902E-10	3.120187698E-10
339	3.45460726314000E-11	1465.9460	1468.1710	17.93130316	17.95820746	3.117379384E-10	3.119208442E-10
340	3.40634768562000E-11	1466.3080	1468.5370	17.91489641	17.94166497	3.116414021E-10	3.118235273E-10
341	3.35885233860000E-11	1466.6640	1468.8960	17.89858817	17.92522266	3.115454725E-10	3.117268280E-10
342	3.31210718586000E-11	1467.0130	1469.2490	17.88237800	17.90887785	3.114501479E-10	3.116307289E-10
343	3.26609918811000E-11	1467.3570	1469.5950	17.86626598	17.89263088	3.113554291E-10	3.115352336E-10
344	3.22081431012000E-11	1467.6940	1469.9360	17.85025152	17.87648085	3.112613127E-10	3.114403361E-10
345	3.17624051844000E-11	1468.0260	1470.2700	17.83433299	17.86042845	3.111677895E-10	3.113460422E-10
346	3.13236477740000E-11	1468.3520	1470.5990	17.81851033	17.84447117	3.110748590E-10	3.112523360E-10
347	3.08917305576000E-11	1468.6720	1470.9220	17.80278278	17.82860974	3.109825174E-10	3.111592226E-10
348	3.04665532182000E-11	1468.9860	1471.2400	17.78715039	17.81284297	3.108907652E-10	3.110666954E-10
349	3.00479854554000E-11	1469.2950	1471.5520	17.77161283	17.79717071	3.107996012E-10	3.109747535E-10
350	2.96359069743000E-11	1469.5990	1471.8590	17.75616755	17.78159231	3.107090094E-10	3.108833937E-10
351	2.92301974800000E-11	1469.8970	1472.1600	17.74081665	17.76610767	3.106190036E-10	3.107926153E-10
352	2.88307567053000E-11	1470.1910	1472.4560	17.72555752	17.75071465	3.105295679E-10	3.107024060E-10
353	2.84374743840000E-11	1470.4790	1472.7470	17.71039091	17.73541462	3.104407075E-10	3.106127744E-10
354	2.80502302509000E-11	1470.7620	1473.0320	17.69531530	17.72020627	3.103524132E-10	3.105237126E-10
355	2.76689240685000E-11	1471.0400	1473.3130	17.68033086	17.70508878	3.102646868E-10	3.104352162E-10
356	2.72934555894000E-11	1471.3130	1473.5890	17.66543678	17.69006223	3.101775233E-10	3.103472861E-10
357	2.69237145672000E-11	1471.5820	1473.8600	17.65063214	17.67512478	3.100909172E-10	3.102599112E-10
358	2.65596107921100E-11	1471.8460	1474.1270	17.63591695	17.66027739	3.100048696E-10	3.101730975E-10
359	2.62010440355400E-11	1472.1050	1474.3890	17.62128953	17.64551850	3.099193700E-10	3.100868361E-10
360	2.58479140867200E-11	1472.3600	1474.6460	17.60675137	17.63084852	3.098344278E-10	3.100011297E-10
361	2.55001307398200E-11	1472.6100	1474.8990	17.59230015	17.61626632	3.097500292E-10	3.099159719E-10
362	2.51575937959500E-11	1472.8560	1475.1470	17.57793603	17.60177055	3.096661758E-10	3.098313545E-10
363	2.48202230601600E-11	1473.0980	1475.3920	17.56365923	17.58736201	3.095828685E-10	3.097472826E-10
364	2.44879283454300E-11	1473.3350	1475.6320	17.54946680	17.57303961	3.095000906E-10	3.096637498E-10
365	2.41606194716700E-11	1473.5690	1475.8670	17.53536139	17.55880269	3.094178579E-10	3.095807531E-10
366	2.38382061261300E-11	1473.7980	1476.0990	17.5213406	17.54465187	3.093361526E-10	3.094982955E-10
367	2.35206179653500E-11	1474.0240	1476.3270	17.50740247	17.53058449	3.092549729E-10	3.094163617E-10
368	2.32077651606900E-11	1474.2450	1476.5510	17.49354943	17.51660245	3.091743246E-10	3.093349638E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
369	2.28995675518500E-11	1474.4630	1476.7700	17.47977799	17.50270319	3.090941892E-10	3.092540855E-10
370	2.25959549824800E-11	1474.6770	1476.9870	17.46609134	17.48888673	3.090145872E-10	3.091737278E-10
371	2.22968373021900E-11	1474.8870	1477.1990	17.45248505	17.47515281	3.089354914E-10	3.090938890E-10
372	2.20021443635400E-11	1475.0930	1477.4080	17.43896182	17.46150033	3.088569183E-10	3.090145634E-10
373	2.17118060260200E-11	1475.2960	1477.6130	17.42551900	17.44792995	3.087788524E-10	3.089357544E-10
374	2.14257421521000E-11	1475.4960	1477.8140	17.41215684	17.43444026	3.087012952E-10	3.088574540E-10
375	2.11438826082000E-11	1475.6920	1478.0120	17.39887446	17.42103107	3.086242417E-10	3.087796617E-10
376	2.08661672646900E-11	1475.8850	1478.2070	17.38567165	17.40770180	3.085476905E-10	3.087023734E-10
377	2.05925159969100E-11	1476.0740	1478.3980	17.37254799	17.39445180	3.084716399E-10	3.086255858E-10
378	2.03228586841500E-11	1476.2600	1478.5860	17.35950238	17.38128055	3.083960826E-10	3.085492963E-10
379	2.00571452076600E-11	1476.4430	1478.7710	17.34653503	17.36818767	3.083210213E-10	3.084735018E-10
380	1.97953054536600E-11	1476.6220	1478.9530	17.33364479	17.35517250	3.082464482E-10	3.083981992E-10
381	1.95372593133300E-11	1476.7990	1479.1310	17.32083160	17.34223460	3.081723634E-10	3.083233864E-10
382	1.92829666758300E-11	1476.9720	1479.3060	17.30809463	17.32937337	3.080987619E-10	3.082490590E-10
383	1.90323474412500E-11	1477.1430	1479.4790	17.29543334	17.31658847	3.080256407E-10	3.081752159E-10
384	1.87853515066800E-11	1477.3100	1479.6480	17.28284754	17.30387932	3.079529993E-10	3.081018534E-10
385	1.85419287731700E-11	1477.4750	1479.8150	17.27033643	17.29124524	3.078808324E-10	3.080289677E-10
386	1.83019991487300E-11	1477.6370	1479.9780	17.25789951	17.27868578	3.078091378E-10	3.079565561E-10
387	1.80655225393500E-11	1477.7960	1480.1390	17.24553626	17.26620059	3.077379119E-10	3.078846168E-10
388	1.78324388569800E-11	1477.9520	1480.2970	17.23324647	17.25378925	3.076671540E-10	3.078131478E-10
389	1.76026980135600E-11	1478.1060	1480.4520	17.22102903	17.24145085	3.075968574E-10	3.077421430E-10
390	1.73762299279800E-11	1478.2570	1480.6050	17.20888390	17.22918501	3.075270221E-10	3.076716009E-10
391	1.71529945171200E-11	1478.4050	1480.7550	17.19681054	17.21699144	3.074576451E-10	3.076015193E-10
392	1.69329417018300E-11	1478.5510	1480.9020	17.18480824	17.20486939	3.073887218E-10	3.075318945E-10
393	1.67160214049400E-11	1478.6940	1481.0470	17.17287667	17.19281843	3.073202509E-10	3.074627238E-10
394	1.65021735542400E-11	1478.8350	1481.1900	17.16101505	17.18083832	3.072522271E-10	3.073940061E-10
395	1.62913580765100E-11	1478.9740	1481.3300	17.14922308	17.16892798	3.071846499E-10	3.073257345E-10
396	1.60835149025100E-11	1479.1100	1481.4670	17.13750035	17.15708757	3.071175163E-10	3.072579102E-10
397	1.58786139629700E-11	1479.2430	1481.6030	17.12584633	17.14531602	3.070508234E-10	3.071905275E-10
398	1.56765951926100E-11	1479.3750	1481.7360	17.11426021	17.13361323	3.069845665E-10	3.071235855E-10
399	1.54774185291000E-11	1479.5040	1481.8660	17.10274170	17.12197831	3.069187437E-10	3.070570795E-10
400	1.52810439081300E-11	1479.6310	1481.9950	17.09129055	17.11041116	3.068533538E-10	3.069910080E-10
401	1.51042374192600E-11	1479.7560	1482.1210	17.07862206	17.09767294	3.067779500E-10	3.069153170E-10
402	1.49128168543200E-11	1479.8780	1482.2450	17.06733977	17.08627449	3.067136767E-10	3.068503590E-10
403	1.47240881518500E-11	1479.9990	1482.3670	17.05612210	17.07494112	3.066498193E-10	3.067858191E-10
404	1.45379912574600E-11	1480.1170	1482.4860	17.04496856	17.06367237	3.065863757E-10	3.067216957E-10
405	1.43544861187200E-11	1480.2340	1482.6040	17.03387863	17.05246838	3.065233417E-10	3.066579891E-10
406	1.41735526831800E-11	1480.3480	1482.7200	17.02285226	17.04132766	3.064607187E-10	3.065946907E-10
407	1.39951309004100E-11	1480.4600	1482.8340	17.01188830	17.03025035	3.063984987E-10	3.065318016E-10
408	1.38191807239200E-11	1480.5710	1482.9460	17.00098661	17.01923600	3.063366816E-10	3.064693192E-10
409	1.36456721052300E-11	1480.6800	1483.0560	16.99014686	17.00828376	3.062752654E-10	3.064072384E-10
410	1.34745749978400E-11	1480.7860	1483.1640	16.97936858	16.99739397	3.062142479E-10	3.063455616E-10
411	1.33058393572500E-11	1480.8910	1483.2700	16.96865099	16.98656510	3.061536236E-10	3.062842798E-10
412	1.31394251429100E-11	1480.9940	1483.3740	16.95799395	16.97579752	3.060933917E-10	3.062233947E-10
413	1.29753023112900E-11	1481.0960	1483.4770	16.94739661	16.96509032	3.060335481E-10	3.061629012E-10
414	1.28134408218300E-11	1481.1950	1483.5780	16.93685891	16.95444310	3.059740929E-10	3.061027978E-10
415	1.26538006349700E-11	1481.2930	1483.6770	16.92638017	16.94385523	3.059150212E-10	3.060430799E-10
416	1.24963517121300E-11	1481.3900	1483.7740	16.91595986	16.93332700	3.058563307E-10	3.059837505E-10
417	1.23410540177100E-11	1481.4840	1483.8700	16.90559755	16.92285699	3.057980179E-10	3.059247997E-10
418	1.21878775141200E-11	1481.5770	1483.9640	16.89529290	16.91244534	3.057400816E-10	3.058662301E-10
419	1.20367921667400E-11	1481.6690	1484.0570	16.88504549	16.90209134	3.056825197E-10	3.058080362E-10
420	1.18877679409500E-11	1481.7590	1484.1480	16.87485462	16.89179466	3.056253273E-10	3.057502168E-10
421	1.17407648051100E-11	1481.8470	1484.2370	16.86472004	16.88155485	3.055685041E-10	3.056927701E-10
422	1.15957527265800E-11	1481.9340	1484.3250	16.85464121	16.87137129	3.055120462E-10	3.056356904E-10
423	1.145271116746900E-11	1482.0190	1484.4110	16.84461767	16.86124328	3.054559512E-10	3.055789759E-10
424	1.13116116168000E-11	1482.1030	1484.4960	16.83464879	16.85117106	3.054002154E-10	3.055226265E-10
425	1.11724125272100E-11	1482.1850	1484.5800	16.82473437	16.84115350	3.053448378E-10	3.054666365E-10
426	1.10350843762500E-11	1482.2660	1484.6620	16.81487380	16.83119079	3.052898147E-10	3.054110073E-10
427	1.08996170688900E-11	1482.3460	1484.7420	16.80506683	16.82128176	3.052351450E-10	3.053557308E-10
428	1.07659706319000E-11	1482.4240	1484.8220	16.79531277	16.81142658	3.051808253E-10	3.053008095E-10
429	1.06341150573900E-11	1482.5010	1484.9000	16.78561134	16.80162432	3.051268523E-10	3.052462369E-10
430	1.05040203216300E-11	1482.5770	1484.9760	16.77596149	16.79187509	3.050732210E-10	3.051920152E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
431	1.03756763969100E-11	1482.6510	1485.0520	16.76636366	16.78217776	3.050199342E-10	3.051381361E-10
432	1.02490432614900E-11	1482.7250	1485.1260	16.75681709	16.77253197	3.049669884E-10	3.050845988E-10
433	1.01241108896400E-11	1482.7960	1485.1990	16.74732102	16.76293794	3.049143771E-10	3.050314043E-10
434	1.00008292616100E-11	1482.8670	1485.2700	16.73787516	16.75339451	3.048620992E-10	3.049785459E-10
435	9.87919635285000E-12	1482.9370	1485.3400	16.72847926	16.74390177	3.048101546E-10	3.049260237E-10
436	9.75917714310000E-12	1483.0050	1485.4100	16.71913284	16.73445856	3.047585398E-10	3.048738310E-10
437	9.64075161060000E-12	1483.0720	1485.4780	16.70983506	16.72506533	3.047072499E-10	3.048219720E-10
438	9.52389373716000E-12	1483.1380	1485.5440	16.70058605	16.71572099	3.046562855E-10	3.047704385E-10
439	9.40858250112000E-12	1483.2030	1485.6100	16.69138462	16.70642520	3.046056400E-10	3.047192297E-10
440	9.29479488498000E-12	1483.2660	1485.6750	16.68223093	16.69717734	3.045553146E-10	3.046683412E-10
441	9.18250686837000E-12	1483.3290	1485.7380	16.67312427	16.68797748	3.045053051E-10	3.046177751E-10
442	9.07169943537000E-12	1483.3910	1485.8010	16.66406473	16.67882500	3.044556117E-10	3.045675255E-10
443	8.96234847552000E-12	1483.4510	1485.8620	16.65505090	16.66971914	3.044062262E-10	3.045175906E-10
444	8.85443403141000E-12	1483.5110	1485.9220	16.64608345	16.66065986	3.043571539E-10	3.044679680E-10
445	8.74793512494000E-12	1483.5690	1485.9820	16.63716070	16.65164632	3.043083830E-10	3.044186534E-10
446	8.64283073940000E-12	1483.6270	1486.0400	16.62828336	16.64267877	3.042599198E-10	3.043696500E-10
447	8.53910185887000E-12	1483.6830	1486.0970	16.61945023	16.63375592	3.042117565E-10	3.043209482E-10
448	8.43672746822400E-12	1483.7390	1486.1530	16.61066129	16.62487781	3.041638924E-10	3.042725497E-10
449	8.33568855302700E-12	1483.7940	1486.2090	16.60191578	16.61604404	3.041163226E-10	3.042244516E-10
450	8.23596509874600E-12	1483.8470	1486.2630	16.59321334	16.60725363	3.040690475E-10	3.041766473E-10
451	8.13536611578900E-12	1483.9000	1486.3170	16.58537034	16.59933759	3.040185916E-10	3.041256570E-10
452	8.03827537880400E-12	1483.9520	1486.3690	16.57673779	16.59061822	3.039719351E-10	3.040784802E-10
453	7.94244406744800E-12	1484.0030	1486.4210	16.56814764	16.58194143	3.039255666E-10	3.040315925E-10
454	7.84785416877000E-12	1484.0530	1486.4720	16.55995907	16.57330735	3.038794815E-10	3.039849933E-10
455	7.75448667031500E-12	1484.1030	1486.5220	16.55109194	16.56471488	3.038336793E-10	3.039386792E-10
456	7.66232455992300E-12	1484.1510	1486.5710	16.54262517	16.55616432	3.037881519E-10	3.038926486E-10
457	7.57135082563200E-12	1484.1990	1486.6200	16.53419927	16.54765408	3.037429049E-10	3.038468942E-10
458	7.48154945607300E-12	1484.2460	1486.6670	16.52581326	16.53918492	3.036979325E-10	3.038014211E-10
459	7.39290244007700E-12	1484.2920	1486.7140	16.51746649	16.53075547	3.036532284E-10	3.037562196E-10
460	7.30539375142500E-12	1484.3370	1486.7600	16.50915949	16.52236616	3.036087984E-10	3.037112938E-10
461	7.21900825816500E-12	1484.3820	1486.8050	16.50089046	16.51401627	3.035646300E-10	3.036666390E-10
462	7.13372909119200E-12	1484.4260	1486.8490	16.49266013	16.50570487	3.035207302E-10	3.036222500E-10
463	7.04954024062200E-12	1484.4690	1486.8930	16.48446741	16.49743191	3.034770908E-10	3.035781263E-10
464	6.96642869646900E-12	1484.5110	1486.9360	16.47631244	16.48919731	3.034337146E-10	3.035342678E-10
465	6.88437644964300E-12	1484.5530	1486.9780	16.46819370	16.48099987	3.033905896E-10	3.034906681E-10
466	6.80337049075200E-12	1484.5930	1487.0200	16.46011246	16.47283983	3.033477264E-10	3.034473282E-10
467	6.72339681080100E-12	1484.6340	1487.0610	16.45206656	16.46471664	3.033051114E-10	3.034042445E-10
468	6.64443840129300E-12	1484.6730	1487.1010	16.44405673	16.45662944	3.032627478E-10	3.033614127E-10
469	6.56648325382500E-12	1484.7120	1487.1400	16.43608246	16.44857851	3.032206354E-10	3.033188350E-10
470	6.48951736019400E-12	1484.7500	1487.1790	16.42814262	16.44056284	3.031787656E-10	3.032765041E-10
471	6.41352571249500E-12	1484.7880	1487.2170	16.42023766	16.43258262	3.031371423E-10	3.032344230E-10
472	6.33849530301900E-12	1484.8250	1487.2540	16.41236646	16.42463686	3.030957560E-10	3.031925855E-10
473	6.26441303990700E-12	1484.8610	1487.2910	16.40452899	16.41672522	3.030546119E-10	3.031509894E-10
474	6.19126597782000E-12	1484.8970	1487.3280	16.39672479	16.40884747	3.030137038E-10	3.031096330E-10
475	6.11904013488900E-12	1484.9320	1487.3630	16.38895324	16.40100328	3.029730285E-10	3.030685154E-10
476	6.04772450419500E-12	1484.9670	1487.3980	16.38121433	16.39319194	3.029325871E-10	3.030276331E-10
477	5.97730507911900E-12	1485.0010	1487.4330	16.37350778	16.38541372	3.028923788E-10	3.029869852E-10
478	5.90776985313900E-12	1485.0340	1487.4670	16.36583208	16.37766737	3.028523919E-10	3.029465679E-10
479	5.83910781983100E-12	1485.0670	1487.5000	16.35818801	16.36995258	3.028126333E-10	3.029063754E-10
480	5.77130497326900E-12	1485.0990	1487.5330	16.35057448	16.36226932	3.027730965E-10	3.028664121E-10
481	5.70435130742400E-12	1485.1310	1487.5650	16.34299190	16.35461691	3.027337848E-10	3.028266715E-10
482	5.63823481646700E-12	1485.1620	1487.5960	16.33543850	16.34699563	3.026946864E-10	3.027871567E-10
483	5.57294349486600E-12	1485.1930	1487.6280	16.32791518	16.33940391	3.026558077E-10	3.027478578E-10
484	5.50846733718600E-12	1485.2230	1487.6580	16.32042086	16.33184232	3.026171408E-10	3.027087785E-10
485	5.44479333809400E-12	1485.2530	1487.6880	16.31295566	16.32431018	3.025786893E-10	3.026699145E-10
486	5.38191149265000E-12	1485.2820	1487.7180	16.30551825	16.31680641	3.025404459E-10	3.026312592E-10
487	5.31981179551800E-12	1485.3100	1487.7470	16.29810904	16.30933187	3.025024082E-10	3.025928193E-10
488	5.25848224225500E-12	1485.3390	1487.7760	16.29072770	16.30188517	3.024645796E-10	3.025545868E-10
489	5.19791382792000E-12	1485.3660	1487.8040	16.28337338	16.29446657	3.024269533E-10	3.025165641E-10
490	5.13809549411400E-12	1485.3940	1487.8310	16.27604596	16.28707548	3.023895288E-10	3.024787439E-10
491	5.07901728915900E-12	1485.4200	1487.8590	16.26872874	16.27971126	3.023523005E-10	3.024411266E-10
492	5.02066921098600E-12	1485.4470	1487.8850	16.26142577	16.27237336	3.023152728E-10	3.024037062E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
493	4.96304125564500E-12	1485.4730	1487.9120	16.25414854	16.26506201	3.022784363E-10	3.023664869E-10
494	4.90612341898800E-12	1485.4980	1487.9380	16.24689650	16.25777647	3.022417959E-10	3.023294632E-10
495	4.84990769686500E-12	1485.5230	1487.9630	16.23966945	16.25051637	3.022053438E-10	3.022926330E-10
496	4.79438308572300E-12	1485.5480	1487.9880	16.23246668	16.24328114	3.021690805E-10	3.022559931E-10
497	4.73954058171000E-12	1485.5720	1488.0130	16.22528824	16.23607082	3.021330047E-10	3.022195437E-10
498	4.68537218127000E-12	1485.5960	1488.0370	16.21813339	16.22888478	3.020971116E-10	3.021832831E-10
499	4.63186788094800E-12	1485.6190	1488.0610	16.21100201	16.22172248	3.020614010E-10	3.021472051E-10
500	4.57901867728800E-12	1485.6420	1488.0840	16.20389337	16.21458383	3.020258718E-10	3.021113142E-10
501	4.52681656693200E-12	1485.6650	1488.1070	16.19680743	16.20746821	3.019905197E-10	3.020756007E-10
502	4.4752524682000E-12	1485.6870	1488.1300	16.18974366	16.20037538	3.019553443E-10	3.020400665E-10
503	4.42431761379300E-12	1485.7090	1488.1520	16.18270162	16.19330509	3.019203420E-10	3.020047122E-10
504	4.37400476478900E-12	1485.7310	1488.1740	16.17568115	16.18625665	3.018855118E-10	3.019695305E-10
505	4.32430499694600E-12	1485.7520	1488.1950	16.16868166	16.17922997	3.018508524E-10	3.019345236E-10
506	4.27521030740100E-12	1485.7730	1488.2160	16.16170285	16.17222440	3.018163601E-10	3.018996857E-10
507	4.22671169349000E-12	1485.7930	1488.2370	16.15474434	16.16523997	3.017820343E-10	3.018650193E-10
508	4.17880315234800E-12	1485.8130	1488.2580	16.14780567	16.15827579	3.017478703E-10	3.018305179E-10
509	4.13147568160800E-12	1485.8330	1488.2780	16.14088682	16.15133198	3.017138704E-10	3.017961825E-10
510	4.08472227850500E-12	1485.8530	1488.2970	16.13398701	16.14440774	3.016800271E-10	3.017620091E-10
511	4.03853494086900E-12	1485.8720	1488.3170	16.12710591	16.13750295	3.016463438E-10	3.017279975E-10
512	3.99290566613400E-12	1485.8900	1488.3360	16.12024316	16.13061724	3.016128168E-10	3.016941441E-10
513	3.94782945202800E-12	1485.9090	1488.3550	16.11339868	16.12375008	3.015794434E-10	3.016604463E-10
514	3.90329629648200E-12	1485.9270	1488.3730	16.10657188	16.11690138	3.015462209E-10	3.016269062E-10
515	3.85930019712600E-12	1485.9450	1488.3920	16.09976241	16.11007039	3.015131500E-10	3.015935159E-10
516	3.81583515198600E-12	1485.9630	1488.4090	16.09296996	16.10325699	3.014802274E-10	3.015602783E-10
517	3.77289215899200E-12	1485.9800	1488.4270	16.08619400	16.09646083	3.014474477E-10	3.015271901E-10
518	3.73046621626800E-12	1485.9970	1488.4440	16.07943438	16.08968159	3.014148140E-10	3.014942506E-10
519	3.68855032164300E-12	1486.0140	1488.4610	16.07269067	16.08291868	3.013823245E-10	3.014614528E-10
520	3.64713747354000E-12	1486.0300	1488.4780	16.06596241	16.07617198	3.013499725E-10	3.014288014E-10
521	3.60622066998600E-12	1486.0460	1488.4950	16.05924928	16.06944099	3.013177578E-10	3.013962901E-10
522	3.56579490930300E-12	1486.0620	1488.5110	16.05255100	16.06272543	3.012856818E-10	3.013639181E-10
523	3.52585218991500E-12	1486.0780	1488.5270	16.04586715	16.05602477	3.012537410E-10	3.013316842E-10
524	3.48638750994600E-12	1486.0930	1488.5420	16.03919741	16.04933897	3.012219316E-10	3.012995835E-10
525	3.44739386801700E-12	1486.1090	1488.5580	16.03254133	16.04266735	3.011902531E-10	3.012676190E-10
526	3.40886526245100E-12	1486.1240	1488.5730	16.02589866	16.03600974	3.011587023E-10	3.012357857E-10
527	3.37079669176800E-12	1486.1380	1488.5880	16.01926910	16.02936570	3.011272810E-10	3.012040827E-10
528	3.33318115468800E-12	1486.1530	1488.6020	16.01265204	16.02273490	3.010959807E-10	3.011725069E-10
529	3.29601264963300E-12	1486.1670	1488.6170	16.00604744	16.01611706	3.010648066E-10	3.011410582E-10
530	3.25928717522100E-12	1486.1810	1488.6310	15.99945468	16.00951180	3.010337550E-10	3.011097359E-10
531	3.22299773027100E-12	1486.1940	1488.6450	15.99287353	16.00291870	3.010028207E-10	3.010785317E-10
532	3.18713831340300E-12	1486.2080	1488.6590	15.98630367	15.99633738	3.009720048E-10	3.010474522E-10
533	3.15170392343400E-12	1486.2210	1488.6720	15.97974478	15.98976779	3.009413056E-10	3.010164892E-10
534	3.11668955918100E-12	1486.2340	1488.6850	15.97319637	15.98320908	3.009107199E-10	3.009856445E-10
535	3.08209021936200E-12	1486.2470	1488.6980	15.96665822	15.97666134	3.008802478E-10	3.009549136E-10
536	3.04789885785000E-12	1486.2600	1488.7110	15.96012992	15.97012398	3.008498848E-10	3.009242964E-10
537	3.01411236624300E-12	1486.2720	1488.7240	15.95361112	15.96359688	3.008196306E-10	3.008937919E-10
538	2.98072390096800E-12	1486.2840	1488.7360	15.94710154	15.95707941	3.007894832E-10	3.008633964E-10
539	2.94772846094100E-12	1486.2960	1488.7480	15.94058386	15.95057147	3.007594414E-10	3.008331092E-10
540	2.91512304477900E-12	1486.3080	1488.7600	15.93405816	15.94407251	3.007295022E-10	3.008029274E-10
541	2.88290065179600E-12	1486.3200	1488.7720	15.92754069	15.93758240	3.006996647E-10	3.007728508E-10
542	2.85105728090700E-12	1486.3310	1488.7840	15.92103109	15.93110063	3.006699274E-10	3.007428768E-10
543	2.81958793092900E-12	1486.3420	1488.7950	15.91452902	15.92462693	3.006402881E-10	3.007130032E-10
544	2.78848860097500E-12	1486.3530	1488.8060	15.90803414	15.91816101	3.006107452E-10	3.006832292E-10
545	2.75775329025900E-12	1486.3640	1488.8170	15.90154621	15.91170252	3.005812962E-10	3.006535527E-10
546	2.72737899769500E-12	1486.3750	1488.8280	15.89506467	15.90525091	3.005519399E-10	3.006239709E-10
547	2.69735972249700E-12	1486.3850	1488.8390	15.88858927	15.89880617	3.005226748E-10	3.005944839E-10
548	2.66769146387700E-12	1486.3960	1488.8500	15.88211972	15.89236769	3.004934996E-10	3.005650883E-10
549	2.63837021817600E-12	1486.4060	1488.8600	15.87565577	15.88593547	3.004644109E-10	3.005357840E-10
550	2.60939194401600E-12	1486.4160	1488.8700	15.86919692	15.87950873	3.004354088E-10	3.005065674E-10
551	2.58075068516100E-12	1486.4260	1488.8800	15.86274288	15.87308753	3.004064911E-10	3.004774383E-10
552	2.55244444092000E-12	1486.4350	1488.8900	15.85629335	15.866667136	3.003776550E-10	3.004483945E-10
553	2.52446721050700E-12	1486.4450	1488.9000	15.84984792	15.86025992	3.003489005E-10	3.004194343E-10
554	2.49681599313300E-12	1486.4540	1488.9090	15.84340639	15.85385285	3.003202243E-10	3.003905558E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
555	2.46948678820800E-12	1486.4630	1488.9180	15.83696834	15.84744985	3.002916257E-10	3.003617576E-10
556	2.44247459494500E-12	1486.4720	1488.9280	15.83053353	15.84105048	3.002631025E-10	3.003330370E-10
557	2.41577541295200E-12	1486.4810	1488.9370	15.82410145	15.83465459	3.002346543E-10	3.003043942E-10
558	2.38938724114200E-12	1486.4900	1488.9460	15.81767193	15.82826177	3.002062775E-10	3.002758261E-10
559	2.36330407932300E-12	1486.4990	1488.9540	15.81124456	15.82187167	3.001779713E-10	3.002473313E-10
560	2.33752292675550E-12	1486.5070	1488.9630	15.80481897	15.81548416	3.001497346E-10	3.002189090E-10
561	2.31204078273960E-12	1486.5150	1488.9710	15.79839496	15.80909850	3.001215657E-10	3.001905557E-10
562	2.28685264689420E-12	1486.5240	1488.9800	15.79197214	15.80271477	3.000934617E-10	3.001622716E-10
563	2.26195551858870E-12	1486.5320	1488.9880	15.78555024	15.79633242	3.000654226E-10	3.001340539E-10
564	2.23734639727170E-12	1486.5400	1488.9960	15.77912881	15.78995125	3.000374448E-10	3.001059020E-10
565	2.21302128246210E-12	1486.5470	1489.0040	15.77270774	15.78357091	3.000095281E-10	3.000778133E-10
566	2.18897617372830E-12	1486.5550	1489.0120	15.76628646	15.77719103	2.999816711E-10	3.000497864E-10
567	2.16520707065850E-12	1486.5630	1489.0200	15.75986494	15.77081124	2.999538718E-10	3.000218198E-10
568	2.14171297254090E-12	1486.5700	1489.0270	15.75344240	15.76443140	2.999261285E-10	2.999939120E-10
569	2.11848787921320E-12	1486.5770	1489.0350	15.74701900	15.75805104	2.998984389E-10	2.999660613E-10
570	2.09553079001310E-12	1486.5850	1489.0420	15.74059417	15.75166992	2.998708026E-10	2.999382660E-10
571	2.07283670469810E-12	1486.5920	1489.0490	15.73416764	15.74528766	2.998432174E-10	2.999105249E-10
572	2.05040262284550E-12	1486.5990	1489.0560	15.72773909	15.73890410	2.998156819E-10	2.998828360E-10
573	2.02822554406230E-12	1486.6050	1489.0630	15.72130813	15.73251860	2.997881771E-10	2.998551970E-10
574	2.00630346785550E-12	1486.6120	1489.0700	15.71487454	15.72613117	2.997606156E-10	2.998276082E-10
575	1.98463139405190E-12	1486.6190	1489.0770	15.70843792	15.71974131	2.997330981E-10	2.998000659E-10
576	1.96320732219810E-12	1486.6250	1489.0830	15.70199819	15.71334875	2.997056235E-10	2.997725700E-10
577	1.94202925187040E-12	1486.6320	1489.0900	15.69555471	15.70695324	2.996781903E-10	2.997451187E-10
578	1.92109118303520E-12	1486.6380	1489.0960	15.68910728	15.70055432	2.996507978E-10	2.997177097E-10
579	1.90039311509850E-12	1486.6440	1489.1020	15.68265578	15.69415190	2.996234429E-10	2.996903426E-10
580	1.87993104786630E-12	1486.6500	1489.1090	15.67619974	15.68774563	2.995961258E-10	2.996630158E-10
581	1.85970198105450E-12	1486.6560	1489.1150	15.66973872	15.68133484	2.995688430E-10	2.996357257E-10
582	1.83970291440870E-12	1486.6620	1489.1210	15.66327255	15.67491968	2.995415957E-10	2.996084727E-10
583	1.81993184757450E-12	1486.6680	1489.1270	15.65680102	15.66849966	2.995143793E-10	2.995812556E-10
584	1.80038578032720E-12	1486.6740	1489.1320	15.65032346	15.66207425	2.994871942E-10	2.995540710E-10
585	1.78106071254210E-12	1486.6790	1489.1380	15.64383986	15.65564347	2.994600378E-10	2.995269180E-10
586	1.76195561997510E-12	1486.6850	1489.1440	15.63734997	15.64920707	2.994329108E-10	2.994997970E-10
587	1.74306752602290E-12	1486.6900	1489.1490	15.63085324	15.64276439	2.994058083E-10	2.994727043E-10
588	1.72439343137160E-12	1486.6960	1489.1550	15.62434947	15.63631532	2.993787309E-10	2.994456391E-10
589	1.70593033583610E-12	1486.7010	1489.1600	15.61783860	15.62985959	2.993516774E-10	2.994185993E-10
590	1.68767723904120E-12	1486.7060	1489.1650	15.61131966	15.62340771	2.993246451E-10	2.993915852E-10
591	1.669629141013150E-12	1486.7110	1489.1710	15.60479308	15.61696173	2.992976329E-10	2.993645928E-10
592	1.65178604134170E-12	1486.7160	1489.1760	15.59825830	15.61050811	2.992706389E-10	2.993376219E-10
593	1.63414493985600E-12	1486.7210	1489.1810	15.59171477	15.60404667	2.992436631E-10	2.993106720E-10
594	1.61670183651900E-12	1486.7260	1489.1860	15.58516220	15.59757643	2.992167028E-10	2.992837400E-10
595	1.59945573102480E-12	1486.7310	1489.1910	15.57860063	15.59109795	2.991897558E-10	2.992568244E-10
596	1.58240462317740E-12	1486.7350	1489.1950	15.57202979	15.58461055	2.991628230E-10	2.992299251E-10
597	1.56554451295110E-12	1486.7400	1489.2000	15.56544876	15.57811387	2.991359000E-10	2.992030408E-10
598	1.54887539997960E-12	1486.7440	1489.2050	15.55885800	15.57160756	2.991089879E-10	2.991761667E-10
599	1.53239328427680E-12	1486.7490	1489.2090	15.55225686	15.56509153	2.990820845E-10	2.991493062E-10
600	1.51609616566650E-12	1486.7530	1489.2140	15.54564482	15.55856546	2.990551869E-10	2.991224531E-10
601	1.49998204400220E-12	1486.7580	1489.2180	15.53902193	15.55202873	2.990282957E-10	2.990956103E-10
602	1.48404891910770E-12	1486.7620	1489.2220	15.53238763	15.54548127	2.990014084E-10	2.990687742E-10
603	1.46829479086620E-12	1486.7660	1489.2270	15.52574166	15.53892275	2.989745234E-10	2.990419425E-10
604	1.45271665922130E-12	1486.7700	1489.2310	15.51908403	15.53235336	2.989476392E-10	2.990151145E-10
605	1.43731352395620E-12	1486.7740	1489.2350	15.51241394	15.52577194	2.989207555E-10	2.989882889E-10
606	1.42208238505410E-12	1486.7780	1489.2390	15.50573176	15.51917861	2.988938693E-10	2.989614650E-10
607	1.40702224228830E-12	1486.7820	1489.2430	15.49903653	15.51257330	2.988669805E-10	2.989346402E-10
608	1.39213009567170E-12	1486.7860	1489.2470	15.49232812	15.50595537	2.988400868E-10	2.989078146E-10
609	1.37740394508750E-12	1486.7900	1489.2510	15.48560637	15.49932479	2.988131872E-10	2.988809859E-10
610	1.36284279036840E-12	1486.7930	1489.2550	15.47887125	15.49268097	2.987862803E-10	2.988541500E-10
611	1.34844363151740E-12	1486.7970	1489.2580	15.47212187	15.48602376	2.987593646E-10	2.988273113E-10
612	1.33420546835730E-12	1486.8010	1489.2620	15.46535841	15.47935311	2.987324388E-10	2.988004636E-10
613	1.32012530093070E-12	1486.8040	1489.2660	15.45858029	15.47266826	2.987055006E-10	2.987736067E-10
614	1.30620212906040E-12	1486.8080	1489.2690	15.45178728	15.46596902	2.986785505E-10	2.987467398E-10
615	1.29243395269890E-12	1486.8110	1489.2730	15.44497918	15.45925558	2.986515852E-10	2.987198615E-10
616	1.27881877179870E-12	1486.8150	1489.2760	15.43815555	15.45252703	2.986246051E-10	2.986929708E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
617	1.26535558620240E-12	1486.8180	1489.2790	15.43131625	15.44578350	2.985976064E-10	2.986660650E-10
618	1.2520413598230E-12	1486.8210	1489.2830	15.42446085	15.43902446	2.985705902E-10	2.986391439E-10
619	1.23887520099090E-12	1486.8240	1489.2860	15.41758933	15.43224976	2.985435540E-10	2.986122049E-10
620	1.22585400132030E-12	1486.8270	1489.2890	15.41070088	15.42545925	2.985164956E-10	2.985852476E-10
621	1.21297779674280E-12	1486.8310	1489.2930	15.40379584	15.41865218	2.984894156E-10	2.985582707E-10
622	1.20024458724060E-12	1486.8340	1489.2960	15.39687332	15.41182864	2.984623111E-10	2.985312725E-10
623	1.18765237279590E-12	1486.8370	1489.2990	15.38993374	15.40498819	2.984351816E-10	2.985042518E-10
624	1.17519915341070E-12	1486.8400	1489.3020	15.38297602	15.39813069	2.984080248E-10	2.984772064E-10
625	1.16288392897710E-12	1486.8430	1489.3050	15.37600057	15.39125565	2.983808402E-10	2.984501366E-10
626	1.15070369959710E-12	1486.8450	1489.3080	15.36900652	15.38436292	2.983536263E-10	2.984230395E-10
627	1.13865946499250E-12	1486.8480	1489.3110	15.36199367	15.37745222	2.983263812E-10	2.983959145E-10
628	1.12674722536530E-12	1486.8510	1489.3130	15.35496229	15.37052347	2.982991043E-10	2.983687611E-10
629	1.11496598062740E-12	1486.8540	1489.3160	15.34791179	15.36357601	2.982717939E-10	2.983415755E-10
630	1.10331573061050E-12	1486.8560	1489.3190	15.34084144	15.35660957	2.982444485E-10	2.983143584E-10
631	1.09179247553640E-12	1486.8590	1489.3220	15.33375137	15.34962404	2.982170670E-10	2.982871086E-10
632	1.08039721513680E-12	1486.8620	1489.3240	15.32664144	15.34261913	2.981896482E-10	2.982598240E-10
633	1.06912694954340E-12	1486.8640	1489.3270	15.31951115	15.33559440	2.981621902E-10	2.982325024E-10
634	1.05798067868790E-12	1486.8670	1489.3300	15.31235999	15.32854980	2.981346924E-10	2.982051440E-10
635	1.04695640263170E-12	1486.8690	1489.3320	15.30518809	15.32148475	2.981071537E-10	2.981777477E-10
636	1.03605312129660E-12	1486.8720	1489.3350	15.29799512	15.31439941	2.980795718E-10	2.981503111E-10
637	1.02526983464400E-12	1486.8740	1489.3370	15.29078046	15.30729318	2.980519454E-10	2.981228328E-10
638	1.01460554262540E-12	1486.8770	1489.3390	15.28354427	15.30016595	2.980242750E-10	2.980953124E-10
639	1.00405724540220E-12	1486.8790	1489.3420	15.27628577	15.29301707	2.979965568E-10	2.980677482E-10
640	9.93624642855900E-13	1486.8810	1489.3440	15.26900504	15.28584694	2.979687914E-10	2.980401383E-10
641	9.83306334987900E-13	1486.8830	1489.3460	15.26170200	15.27865436	2.979409761E-10	2.980124828E-10
642	9.73100921809500E-13	1486.8860	1489.3490	15.25437598	15.27143974	2.979131109E-10	2.979847789E-10
643	9.63007003322100E-13	1486.8880	1489.3510	15.24702659	15.26420299	2.978851939E-10	2.979570261E-10
644	9.53023479526800E-13	1486.8900	1489.3530	15.23965399	15.25694292	2.978572227E-10	2.979292237E-10
645	9.43149050405100E-13	1486.8920	1489.3550	15.23225734	15.24966013	2.978291993E-10	2.979013687E-10
646	9.33382315998000E-13	1486.8940	1489.3570	15.22483696	15.24235409	2.978011186E-10	2.978734616E-10
647	9.23722176276900E-13	1486.8960	1489.3590	15.21739264	15.23502446	2.977729812E-10	2.978455001E-10
648	9.14167331272800E-13	1486.8980	1489.3620	15.20992326	15.22767074	2.977447861E-10	2.978174834E-10
649	9.04716579354000E-13	1486.9000	1489.3640	15.20242929	15.22029281	2.977164025E-10	2.977894102E-10
650	8.95368818084400E-13	1486.9020	1489.3660	15.19491028	15.21289091	2.976879516E-10	2.977612794E-10
651	8.86122751704300E-13	1486.9040	1489.3680	15.18736590	15.20546394	2.976594387E-10	2.977330884E-10
652	8.76977280214200E-13	1486.9060	1489.3690	15.17979572	15.19801227	2.976308624E-10	2.977048379E-10
653	8.67931203625200E-13	1486.9080	1489.3710	15.17219993	15.19053518	2.976022224E-10	2.976765262E-10
654	8.58983421938400E-13	1486.9100	1489.3730	15.16457772	15.18303261	2.975735165E-10	2.976481510E-10
655	8.50132735184700E-13	1486.9110	1489.3750	15.15692901	15.17550418	2.975447430E-10	2.976197112E-10
656	8.41378243345200E-13	1486.9130	1489.3770	15.14925388	15.16795012	2.975159022E-10	2.975912068E-10
657	8.32718546470800E-13	1486.9150	1489.3790	15.14155132	15.16036955	2.974869910E-10	2.975626356E-10
658	8.24152844542500E-13	1486.9170	1489.3800	15.13382174	15.15276220	2.974580098E-10	2.975339969E-10
659	8.15679937591200E-13	1486.9180	1489.3820	15.12606492	15.14512813	2.974289574E-10	2.975052894E-10
660	8.07298725627900E-13	1486.9200	1489.3840	15.11828000	15.13746702	2.973998310E-10	2.974765112E-10
661	7.99008208683300E-13	1486.9220	1489.3850	15.11046691	15.12977820	2.973706304E-10	2.974476619E-10
662	7.90807386748500E-13	1486.9230	1489.3870	15.10262568	15.12206215	2.973413544E-10	2.974187404E-10
663	7.82695259854200E-13	1486.9250	1489.3890	15.09475565	15.11431827	2.973120011E-10	2.973897438E-10
664	7.74670728021300E-13	1486.9260	1489.3900	15.08685705	15.10654602	2.972825703E-10	2.973606723E-10
665	7.66732891270500E-13	1486.9280	1489.3920	15.07892889	15.09874526	2.972530597E-10	2.973315262E-10
666	7.58880649622700E-13	1486.9290	1489.3930	15.07097194	15.09091585	2.972234704E-10	2.973023007E-10
667	7.51113013088700E-13	1486.9310	1489.3950	15.06298526	15.08305737	2.971937993E-10	2.972729973E-10
668	7.43429351699100E-13	1486.9320	1489.3960	15.05496785	15.07516979	2.971640437E-10	2.972436144E-10
669	7.35828395464800E-13	1486.9340	1489.3980	15.04692117	15.06725252	2.971342052E-10	2.972141498E-10
670	7.28309234426400E-13	1486.9350	1489.3990	15.03884351	15.05930592	2.971042816E-10	2.971846042E-10
671	7.20871068584700E-13	1486.9370	1489.4010	15.03073562	15.05132897	2.970742729E-10	2.971549733E-10
672	7.13512797990300E-13	1486.9380	1489.4020	15.02259647	15.04332204	2.970441760E-10	2.971252589E-10
673	7.06233722643900E-13	1486.9390	1489.4040	15.01442599	15.03528454	2.970139898E-10	2.9709545588E-10
674	6.99032842576200E-13	1486.9410	1489.4050	15.00622397	15.02721569	2.969837133E-10	2.970655519E-10
675	6.91909257807900E-13	1486.9420	1489.4060	14.99799066	15.01911657	2.969533480E-10	2.970355962E-10
676	6.84862168379400E-13	1486.9430	1489.4080	14.98972465	15.01098567	2.969228882E-10	2.970055327E-10
677	6.77890674301500E-13	1486.9450	1489.4090	14.98142699	15.00282348	2.968923371E-10	2.969753773E-10
678	6.70993975594800E-13	1486.9460	1489.4100	14.97309623	14.99462913	2.968616890E-10	2.969451315E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
679	6.64171072309800E-13	1486.9470	1489.4110	14.96473340	14.98640295	2.968309479E-10	2.969147923E-10
680	6.57421364447100E-13	1486.9480	1489.4130	14.95633692	14.97814424	2.968001083E-10	2.968843602E-10
681	6.50743852047300E-13	1486.9490	1489.4140	14.94790758	14.96985368	2.967691730E-10	2.968538322E-10
682	6.44137735140900E-13	1486.9510	1489.4150	14.93944454	14.96152965	2.967381371E-10	2.968232092E-10
683	6.37602313738500E-13	1486.9520	1489.4160	14.93094819	14.95317247	2.967070020E-10	2.967924871E-10
684	6.31136787880500E-13	1486.9530	1489.4170	14.92241705	14.94478254	2.966757649E-10	2.967616686E-10
685	6.24740257597500E-13	1486.9540	1489.4180	14.91385210	14.93635849	2.966444260E-10	2.967307501E-10
686	6.18412122900000E-13	1486.9550	1489.4200	14.90525226	14.92790072	2.966129829E-10	2.966997308E-10
687	6.12151383848400E-13	1486.9560	1489.4210	14.89661789	14.91940904	2.965814361E-10	2.966686094E-10
688	6.05957440443300E-13	1486.9570	1489.4220	14.88794850	14.91088258	2.965497829E-10	2.966373850E-10
689	5.99829592715100E-13	1486.9580	1489.4230	14.87924401	14.90232168	2.965180232E-10	2.966060572E-10
690	5.93767040704200E-13	1486.9590	1489.4240	14.87050332	14.89372652	2.964861549E-10	2.965746248E-10
691	5.87768984431200E-13	1486.9600	1489.4250	14.86172726	14.88509583	2.964541771E-10	2.965430858E-10
692	5.81834823926400E-13	1486.9610	1489.4260	14.85291523	14.87642988	2.964220909E-10	2.965114408E-10
693	5.75963759230200E-13	1486.9620	1489.4270	14.84406714	14.86772842	2.963898940E-10	2.964796862E-10
694	5.70155090353200E-13	1486.9630	1489.4280	14.83518227	14.85899097	2.963575837E-10	2.964478218E-10
695	5.64408217335600E-13	1486.9640	1489.4290	14.82626047	14.85021820	2.963251599E-10	2.964158494E-10
696	5.58722340207900E-13	1486.9650	1489.4300	14.81730214	14.84140862	2.962926218E-10	2.963837636E-10
697	5.53096759000500E-13	1486.9660	1489.4310	14.80830604	14.83256296	2.962599677E-10	2.963515644E-10
698	5.47530973733700E-13	1486.9670	1489.4320	14.79927299	14.82367998	2.962271980E-10	2.963192529E-10
699	5.42024184438000E-13	1486.9680	1489.4330	14.79020231	14.81476005	2.961943107E-10	2.962868277E-10
700	5.36575791153600E-13	1486.9690	1489.4340	14.78109323	14.80580294	2.961613034E-10	2.962542843E-10
701	5.31185093901000E-13	1486.9700	1489.4340	14.77119459	14.79680849	2.961281780E-10	2.962216245E-10
702	5.25851492720400E-13	1486.9700	1568.0270	14.76276106	15.47192855	2.960949321E-10	2.982377612E-10
703	5.20574287632300E-13	1486.9710	1570.9820	14.75353695	15.46602385	2.960615641E-10	2.982140979E-10
704	5.15352978657000E-13	1486.9720	1570.9840	14.74427349	15.46005117	2.960280711E-10	2.981904138E-10
705	5.10186865844700E-13	1486.9730	1570.9870	14.73497211	15.45406286	2.959944576E-10	2.981667069E-10
706	5.05075349215800E-13	1486.9740	1570.9890	14.72563019	15.44805953	2.959607156E-10	2.981429749E-10
707	5.00017828790700E-13	1486.9740	1570.9910	14.71624973	15.44204055	2.959268512E-10	2.981192187E-10
708	4.95013704619500E-13	1486.9750	1570.9940	14.70682875	15.43600629	2.958928582E-10	2.980954364E-10
709	4.90062376712700E-13	1486.9760	1570.9960	14.69736799	15.42995570	2.958587376E-10	2.980716272E-10
710	4.85163245120400E-13	1486.9770	1570.9980	14.68786735	15.42388917	2.958244876E-10	2.980477892E-10
711	4.80315809843100E-13	1486.9770	1571.0010	14.67832506	15.41780621	2.957901057E-10	2.980239229E-10
712	4.75519370940900E-13	1486.9780	1571.0030	14.66874327	15.41170674	2.957555963E-10	2.980000268E-10
713	4.70773528424100E-13	1486.9790	1571.0050	14.65912044	15.40559016	2.957209541E-10	2.979760985E-10
714	4.66077582333000E-13	1486.9800	1571.0070	14.64945605	15.39945692	2.956861793E-10	2.979521386E-10
715	4.61431032687900E-13	1486.9800	1571.0090	14.63975052	15.39330623	2.956512698E-10	2.979281465E-10
716	4.56833379519000E-13	1486.9810	1571.0120	14.63000342	15.38713822	2.956162257E-10	2.979041194E-10
717	4.52284122856500E-13	1486.9820	1571.0140	14.62021410	15.38095263	2.955810453E-10	2.978800573E-10
718	4.47782562730800E-13	1486.9820	1571.0160	14.61038369	15.37474892	2.955457292E-10	2.978559595E-10
719	4.43328299172000E-13	1486.9830	1571.0180	14.60051031	15.36852729	2.955102750E-10	2.978318244E-10
720	4.38920832210300E-13	1486.9840	1571.0200	14.59059495	15.36228714	2.954746817E-10	2.978076513E-10
721	4.34559561866100E-13	1486.9840	1571.0220	14.58063692	15.35602865	2.954389497E-10	2.977834381E-10
722	4.30243988179500E-13	1486.9850	1571.0240	14.57063610	15.34975138	2.954030768E-10	2.977591860E-10
723	4.25973611180700E-13	1486.9850	1571.0260	14.56059220	15.34345495	2.953670636E-10	2.977348926E-10
724	4.21748030880000E-13	1486.9860	1571.0270	14.55050506	15.33713940	2.953309073E-10	2.977105568E-10
725	4.17566747317500E-13	1486.9870	1571.0290	14.54037400	15.33080468	2.952946064E-10	2.976861786E-10
726	4.13429160523500E-13	1486.9870	1571.0310	14.53019921	15.32445013	2.952581606E-10	2.976617570E-10
727	4.09334870518200E-13	1486.9880	1571.0330	14.51998033	15.31807587	2.952215693E-10	2.976372889E-10
728	4.05283377331800E-13	1486.9880	1571.0350	14.50971794	15.31168144	2.951848337E-10	2.976127757E-10
729	4.01274181004400E-13	1486.9890	1571.0370	14.49941168	15.30526710	2.951479531E-10	2.975882156E-10
730	3.97306881556200E-13	1486.9890	1571.0380	14.48905994	15.29883201	2.951109212E-10	2.975636077E-10
731	3.93381078997500E-13	1486.9900	1571.0400	14.47866452	15.29237601	2.950737437E-10	2.975389507E-10
732	3.89496173388300E-13	1486.9900	1571.0420	14.46822342	15.28589956	2.950364140E-10	2.975142443E-10
733	3.85651764729000E-13	1486.9910	1571.0430	14.45773719	15.27940165	2.949989334E-10	2.974894869E-10
734	3.81847446624600E-13	1486.9920	1571.0450	14.44720635	15.27288262	2.949613044E-10	2.974646777E-10
735	3.78082798483500E-13	1486.9920	1571.0470	14.43663004	15.26634204	2.949235216E-10	2.974398162E-10
736	3.74357248263900E-13	1486.9930	1571.0480	14.42600724	15.25977957	2.948855841E-10	2.974149003E-10
737	3.70702797276200E-13	1486.9930	1571.0500	14.41533934	15.25319541	2.948474954E-10	2.973899306E-10
738	3.67159727790900E-13	1486.9930	1571.0510	14.40462530	15.24658882	2.948092519E-10	2.973649050E-10
739	3.63652361018100E-13	1486.9940	1571.0530	14.39386551	15.23996032	2.947708520E-10	2.973398237E-10
740	3.60180292418100E-13	1486.9940	1571.0540	14.38305806	15.23330860	2.947322933E-10	2.973146839E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
741	3.56743221961500E-13	1486.9950	1571.0560	14.37220554	15.22663475	2.946935825E-10	2.972894865E-10
742	3.53340649698300E-13	1486.9950	1571.0570	14.36819265	15.21993752	2.946679575E-10	2.972642297E-10
743	3.49972175628900E-13	1486.9960	1571.0590	14.35728353	15.21321687	2.946290755E-10	2.972389123E-10
744	3.46637699723700E-13	1486.9960	1571.0600	14.34632767	15.20647313	2.945900344E-10	2.972135340E-10
745	3.43336522032900E-13	1486.9970	1571.0620	14.33532478	15.19970568	2.945508342E-10	2.971880937E-10
746	3.40068535230600E-13	1486.9970	1571.0630	14.32427312	15.19291436	2.945114680E-10	2.971625904E-10
747	3.36833317141200E-13	1486.9970	1571.0640	14.31317537	15.18609910	2.944719447E-10	2.971370232E-10
748	3.33630498059100E-13	1486.9980	1571.0660	14.30202895	15.17925893	2.944322574E-10	2.971113898E-10
749	3.30459677984700E-13	1486.9980	1571.0670	14.29083470	15.17239530	2.943924055E-10	2.970856927E-10
750	3.27320656898400E-13	1486.9990	1571.0680	14.27959216	15.16550657	2.943523915E-10	2.970599280E-10
751	3.24213034800600E-13	1486.9990	1571.0700	14.26830244	15.15859252	2.943122119E-10	2.970340947E-10
752	3.21136511681700E-13	1486.9990	1571.0710	14.25696247	15.15165386	2.942718654E-10	2.970081939E-10
753	3.18090787532100E-13	1487.0000	1571.0720	14.24557489	15.14469031	2.942313521E-10	2.969822241E-10
754	3.15075462352200E-13	1487.0000	1571.0740	14.23413916	15.13770031	2.941906763E-10	2.969561825E-10
755	3.12090136152300E-13	1487.0010	1571.0750	14.22265456	15.13068508	2.941498313E-10	2.969300701E-10
756	3.09134708912700E-13	1487.0010	1571.0760	14.21112016	15.12364452	2.941088151E-10	2.969038868E-10
757	3.06208780614000E-13	1487.0720	1571.0770	14.20918028	15.11657690	2.940955514E-10	2.968776290E-10
758	3.03311951286300E-13	1487.0730	1571.0780	14.19759903	15.10948350	2.940543905E-10	2.968512979E-10
759	3.00444120890100E-13	1487.0730	1571.0800	14.18596899	15.10236339	2.940130609E-10	2.968248915E-10
760	2.97604689465600E-13	1487.0730	1571.0810	14.17428825	15.09521697	2.939715569E-10	2.967984094E-10
761	2.94793656973200E-13	1487.0740	1571.0820	14.16255916	15.08804320	2.939298849E-10	2.967718509E-10
762	2.92010523423300E-13	1487.0740	1571.0830	14.15077986	15.08084225	2.938880410E-10	2.967452141E-10
763	2.89255088816100E-13	1487.0740	1571.0840	14.13895013	15.07361414	2.938460223E-10	2.967184990E-10
764	2.86527053151900E-13	1487.0750	1571.0850	14.12707052	15.06635859	2.938038306E-10	2.966917053E-10
765	2.83826108837700E-13	1487.0750	1571.0860	14.11514040	15.05907532	2.937614641E-10	2.966648313E-10
766	2.81151963229500E-13	1487.0750	1571.0870	14.10316014	15.05176402	2.937189241E-10	2.966378757E-10
767	2.78504416713600E-13	1487.0760	1571.0880	14.09112963	15.04442453	2.936762095E-10	2.966108377E-10
768	2.75883160429800E-13	1487.4980	1571.0890	14.08884127	15.03705682	2.936681533E-10	2.965837172E-10
769	2.73287782676700E-13	1487.4990	1571.0900	14.07676213	15.02966053	2.936252777E-10	2.965565130E-10
770	2.70718204581000E-13	1487.4990	1571.0910	14.06463137	15.02223565	2.935822222E-10	2.965292246E-10
771	2.68174026123300E-13	1487.4990	1571.0920	14.05244999	15.01478177	2.935389906E-10	2.965018502E-10
772	2.65655047303800E-13	1487.4990	1571.0930	14.04021759	15.00729879	2.934955809E-10	2.964743897E-10
773	2.63160968103000E-13	1487.5000	1571.0940	14.02793408	14.99978645	2.934519933E-10	2.964468419E-10
774	2.60691688491300E-13	1562.2340	1571.0950	14.90663512	14.99224469	2.959793691E-10	2.964192063E-10
775	2.58246708498900E-13	1562.2350	1571.0960	14.89848671	14.98467314	2.959495163E-10	2.963914813E-10
776	2.55825928086300E-13	1562.2350	1571.0970	14.89030591	14.97707168	2.959195652E-10	2.963636667E-10
777	2.53429047253800E-13	1562.2360	1571.0980	14.88209224	14.96994013	2.958895142E-10	2.963357614E-10
778	2.51055865980810E-13	1562.2370	1571.0990	14.87384580	14.96177838	2.958593630E-10	2.963077648E-10
779	2.48706084271590E-13	1562.2380	1571.1000	14.86556609	14.95408600	2.958291102E-10	2.962796757E-10
780	2.46379502110500E-13	1562.2390	1571.1010	14.85725328	14.94636300	2.957987562E-10	2.962514933E-10
781	2.44075819494870E-13	1562.2400	1571.1010	14.84890695	14.93860916	2.957682988E-10	2.962232172E-10
782	2.41794836413020E-13	1562.2400	1571.1020	14.84052689	14.93082425	2.957377380E-10	2.961948461E-10
783	2.39536352852280E-13	1562.2410	1571.1030	14.83211307	14.92300814	2.957070725E-10	2.961663795E-10
784	2.37300068813940E-13	1562.2420	1571.1040	14.82366509	14.91516049	2.956763018E-10	2.961378160E-10
785	2.35085884276320E-13	1562.2430	1571.1050	14.81518296	14.90728124	2.956454248E-10	2.961091553E-10
786	2.32893399250710E-13	1562.2430	1571.1060	14.80666642	14.89937015	2.956144410E-10	2.960803966E-10
787	2.30722413726420E-13	1562.2440	1571.1060	14.79811528	14.89142703	2.955833494E-10	2.960515387E-10
788	2.28572927676720E-13	1562.2450	1571.1070	14.78952925	14.88345175	2.955521490E-10	2.960225809E-10
789	2.26444411122900E-13	1562.2460	1571.1080	14.78090830	14.87544400	2.955208394E-10	2.959935223E-10
790	2.24336854047240E-13	1562.2460	1571.1090	14.77225213	14.86740370	2.954894193E-10	2.959643626E-10
791	2.22249966443010E-13	1562.2470	1571.1090	14.76356064	14.85933066	2.954578884E-10	2.959351005E-10
792	2.20183578302490E-13	1562.2480	1571.1100	14.75483364	14.85122461	2.954262456E-10	2.959057352E-10
793	2.18137389630930E-13	1562.2480	1571.1110	14.74607081	14.84308553	2.953944900E-10	2.958763166E-10
794	2.16111300411600E-13	1562.2490	1571.1120	14.73727215	14.83491297	2.953626211E-10	2.958468456E-10
795	2.14105010649750E-13	1562.2500	1571.1120	14.72843748	14.82670711	2.953306384E-10	2.958172675E-10
796	2.12118420330630E-13	1562.2500	1571.1130	14.71956641	14.81846730	2.952985403E-10	2.957875814E-10
797	2.10151229460480E-13	1562.2510	1571.1140	14.71065884	14.81019371	2.952663260E-10	2.957577864E-10
798	2.08203238034550E-13	1562.2520	1571.1140	14.70171462	14.80188608	2.952339952E-10	2.957278818E-10
799	2.06274346039080E-13	1562.2520	1571.1150	14.69273382	14.79354426	2.952015480E-10	2.956978664E-10
800	2.04364353472290E-13	1562.2530	1571.1160	14.68371582	14.78516802	2.951689818E-10	2.956677407E-10
801	2.02472960341410E-13	1562.2530	1571.1160	14.71988014	14.77675706	2.953500794E-10	2.956375025E-10
802	2.00600066633670E-13	1562.2540	1571.1170	14.71106141	14.76831135	2.953182360E-10	2.956071516E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
803	1.98745372356300E-13	1562.2550	1571.1180	14.70220646	14.75983078	2.952862770E-10	2.955766869E-10
804	1.96908777499500E-13	1562.2550	1571.1180	14.69331527	14.75131484	2.952542015E-10	2.955461082E-10
805	1.95090182052480E-13	1562.2560	1571.1190	14.68438739	14.74276367	2.952220087E-10	2.955154146E-10
806	1.93289286022470E-13	1562.2560	1571.1200	14.67542289	14.73417709	2.951896984E-10	2.954846045E-10
807	1.91505889410660E-13	1562.2570	1571.1200	14.66642145	14.72555491	2.951572690E-10	2.954536789E-10
808	1.89739892207250E-13	1562.2570	1571.1210	14.65738287	14.71689665	2.951247200E-10	2.954226347E-10
809	1.87990994422440E-13	1562.2580	1571.1210	14.64830696	14.70820266	2.950920505E-10	2.953914735E-10
810	1.86259196036430E-13	1562.2580	1571.1220	14.63919375	14.69947228	2.950592607E-10	2.953601926E-10
811	1.84544297050410E-13	1562.2590	1571.1220	14.63004276	14.69070561	2.950263484E-10	2.953287922E-10
812	1.82845897486560E-13	1562.2600	1571.1230	14.62085419	14.68190240	2.949933142E-10	2.952972717E-10
813	1.81164097316070E-13	1562.2600	1571.1240	14.61162766	14.67306240	2.949601568E-10	2.952656301E-10
814	1.79498696540130E-13	1562.2610	1571.1240	14.60236305	14.66418556	2.949268752E-10	2.952338661E-10
815	1.77849395172900E-13	1562.2610	1571.1250	14.59306027	14.65527171	2.948934696E-10	2.952019801E-10
816	1.76215993216560E-13	1562.2620	1571.1250	14.58371889	14.64632061	2.948599384E-10	2.951699706E-10
817	1.74598590644280E-13	1562.2620	1571.1260	14.57433897	14.63733215	2.948262809E-10	2.951378369E-10
818	1.72996787478240E-13	1562.2620	1571.1260	14.56492019	14.62830619	2.947924966E-10	2.951055786E-10
819	1.71410483712600E-13	1562.2630	1571.1270	14.55546274	14.61924246	2.947585853E-10	2.950731949E-10
820	1.69839579341520E-13	1562.2630	1571.1270	14.54596602	14.61014082	2.947245457E-10	2.950406851E-10
821	1.68283874370150E-13	1562.2640	1571.1280	14.53643017	14.60100103	2.946903772E-10	2.950080483E-10
822	1.66743268790670E-13	1562.2640	1571.1280	14.52685492	14.59182342	2.946560792E-10	2.949752835E-10
823	1.65217462619220E-13	1562.2650	1571.1290	14.51724009	14.58260703	2.946216509E-10	2.949423904E-10
824	1.63706455841940E-13	1562.2650	1571.1290	14.50758546	14.57335222	2.945870919E-10	2.949093688E-10
825	1.62210048462000E-13	1562.2660	1571.1300	14.49789107	14.56405866	2.945524013E-10	2.948762173E-10
826	1.60728140475540E-13	1562.2660	1571.1300	14.48815674	14.55472654	2.945175786E-10	2.948429356E-10
827	1.59260531887700E-13	1562.2670	1571.1310	14.47838225	14.54535524	2.944826231E-10	2.948095223E-10
828	1.57807227076200E-13	1562.2670	1571.1310	14.46856759	14.53594479	2.944475346E-10	2.947759777E-10
829	1.56367512928440E-13	1562.2670	1571.1320	14.45871220	14.52649496	2.944123111E-10	2.947423010E-10
830	1.54942002537300E-13	1562.2680	1571.1320	14.44881638	14.51700572	2.943769532E-10	2.947084901E-10
831	1.53530191551330E-13	1562.2680	1571.1320	14.43887970	14.50747661	2.943414593E-10	2.946745459E-10
832	1.52131879977660E-13	1562.2690	1571.1330	14.42890234	14.49790825	2.943058305E-10	2.946404676E-10
833	1.50747167793420E-13	1562.2690	1571.1330	14.41888367	14.48829945	2.942700638E-10	2.946062537E-10
834	1.49375655025740E-13	1562.2690	1571.1340	14.40882372	14.47865088	2.942341598E-10	2.945719043E-10
835	1.48017441652740E-13	1562.2700	1571.1340	14.39872265	14.46896184	2.941981181E-10	2.945374183E-10
836	1.4667227692540E-13	1562.2700	1571.1340	14.38858012	14.45923283	2.941619380E-10	2.945027949E-10
837	1.45340013132270E-13	1562.2700	1571.1350	14.37839583	14.44946298	2.941256179E-10	2.944680348E-10
838	1.44020497991040E-13	1562.2710	1571.1350	14.36186984	14.43965237	2.940891585E-10	2.944331353E-10
839	1.42713782246970E-13	1562.2710	1571.1360	14.35790200	14.42980109	2.940525586E-10	2.943980970E-10
840	1.41419465929170E-13	1562.2720	1571.1360	14.34759230	14.41990893	2.940158182E-10	2.943629195E-10
841	1.40137649015760E-13	1562.2720	1571.1360	14.33724034	14.40997549	2.939789360E-10	2.943276021E-10
842	1.38868131516840E-13	1562.2720	1571.1370	14.32684604	14.40000083	2.939419114E-10	2.942921436E-10
843	1.37610813431520E-13	1562.2730	1571.1370	14.31640944	14.38998514	2.939047443E-10	2.942565426E-10
844	1.36365494768910E-13	1562.2730	1571.1380	14.30593012	14.37992755	2.938674332E-10	2.942208002E-10
845	1.35132075528120E-13	1562.2730	1571.1380	14.29540813	14.36982829	2.938299785E-10	2.941849160E-10
846	1.33910555700240E-13	1562.2740	1571.1380	14.28484358	14.35968757	2.937923798E-10	2.941488878E-10
847	1.32700635304380E-13	1562.2740	1571.1390	14.27423591	14.34950470	2.937546354E-10	2.941127157E-10
848	1.31502314331630E-13	1562.2740	1571.1390	14.26358525	14.33972951	2.937167457E-10	2.940763990E-10
849	1.30315492782090E-13	1562.2750	1571.1390	14.25289113	14.32901256	2.936787093E-10	2.940399369E-10
850	1.29139970664870E-13	1562.2750	1571.1400	14.24215396	14.31870295	2.936405266E-10	2.940033306E-10
851	1.27975747973040E-13	1562.2750	1571.1400	14.23137326	14.30835138	2.936021963E-10	2.939665763E-10
852	1.26822624715710E-13	1562.2750	1571.1400	14.22054919	14.29795670	2.935637190E-10	2.939296770E-10
853	1.25680500894960E-13	1562.2760	1571.1410	14.20968127	14.28751947	2.935250925E-10	2.938926282E-10
854	1.24549176520890E-13	1562.2760	1571.1410	14.19876986	14.27703948	2.934863184E-10	2.938554334E-10
855	1.23428751575580E-13	1562.2760	1571.1410	14.18781432	14.26651667	2.934473941E-10	2.938180898E-10
856	1.22319026071110E-13	1562.2770	1571.1420	14.17681459	14.25595062	2.934083196E-10	2.937805972E-10
857	1.21219800017580E-13	1562.2770	1571.1420	14.16577130	14.24534132	2.933690960E-10	2.937429545E-10
858	1.20131073408060E-13	1562.2770	1571.1420	14.15468360	14.23468874	2.933297214E-10	2.937051621E-10
859	1.19052746243640E-13	1562.2770	1571.1420	14.14355155	14.22392920	2.932901949E-10	2.936672201E-10
860	1.17984618536400E-13	1562.2780	1571.1430	14.13237502	14.21325295	2.932505170E-10	2.936291255E-10
861	1.16926690279410E-13	1562.2780	1571.1430	14.12115387	14.20247007	2.932106865E-10	2.935908804E-10
862	1.15878861474750E-13	1562.2780	1571.1430	14.10988795	14.19164267	2.931707024E-10	2.935524826E-10
863	1.14840932133510E-13	1562.2780	1571.1440	14.09857771	14.18077206	2.931305671E-10	2.935139320E-10
864	1.13812902250740E-13	1562.2790	1571.1440	14.08722232	14.16985705	2.930902764E-10	2.934752284E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
865	1.12794571837530E-13	1562.2790	1571.1440	14.07582203	14.15889793	2.930498326E-10	2.934363720E-10
866	1.11785940885960E-13	1562.2790	1571.1440	14.06437678	14.14789504	2.930092336E-10	2.933973601E-10
867	1.10786909401080E-13	1562.2790	1571.1450	14.05288666	14.13684744	2.929684808E-10	2.933581948E-10
868	1.09797377327550E-13	1562.2800	1571.1450	14.04135115	14.12575517	2.929275721E-10	2.933188732E-10
869	1.08817144049790E-13	1568.1900	1571.1450	14.02977004	14.11461895	2.928865067E-10	2.932766234E-10
870	1.07846310251790E-13	1568.1900	1571.1450	14.01814393	14.10343776	2.928452861E-10	2.932370263E-10
871	1.06884575956620E-13	1568.1900	1571.1460	14.00647230	14.09221191	2.928039092E-10	2.931972753E-10
872	1.05931941158340E-13	1568.1900	1571.1460	13.99475465	14.08094091	2.927623736E-10	2.931573677E-10
873	1.04988405850020E-13	1568.1910	1571.1460	13.98299181	14.06962530	2.927206819E-10	2.931173063E-10
874	1.04053770044730E-13	1568.1910	1571.1460	13.97118323	14.05826477	2.926788320E-10	2.930770888E-10
875	1.03127933746530E-13	1568.1910	1571.1470	13.95932856	14.04685901	2.926368235E-10	2.930367149E-10
876	1.02210896950470E-13	1568.1910	1571.1470	13.94742851	14.03540810	2.925946574E-10	2.929961841E-10
877	1.01302459668630E-13	1568.1910	1571.1470	13.93548191	14.02391193	2.925523316E-10	2.929554966E-10
878	1.00402721885070E-13	1568.1920	1571.1470	13.92348944	14.01237032	2.925098464E-10	2.929146514E-10
879	9.95113636278300E-14	1568.1920	1571.1480	13.91145104	14.00078315	2.924672020E-10	2.928736476E-10
880	9.86284648809900E-14	1568.1920	1571.1480	13.89936659	13.98915019	2.924243980E-10	2.928324852E-10
881	9.77538956526000E-14	1568.1920	1571.1480	13.88723560	13.97747181	2.923814332E-10	2.927911646E-10
882	9.68875659467100E-14	1568.1930	1571.1480	13.87505847	13.96574820	2.923383079E-10	2.927496865E-10
883	9.60294057633900E-14	1568.1930	1571.1490	13.86283487	13.95397853	2.922950211E-10	2.927080479E-10
884	9.51793251076800E-14	1568.1930	1571.1490	13.85056496	13.94216249	2.922515739E-10	2.926662481E-10
885	9.43372639796400E-14	1568.1930	1571.1490	13.83824868	13.93030086	2.922079651E-10	2.926242891E-10
886	9.35031223833300E-14	1568.1930	1571.1490	13.82588554	13.91839341	2.921641933E-10	2.925821700E-10
887	9.26768203227900E-14	1568.1940	1571.1490	13.81347581	13.90643981	2.921202600E-10	2.925398898E-10
888	9.18583077970800E-14	1568.1940	1571.1500	13.80101979	13.89443985	2.920761650E-10	2.924974478E-10
889	9.10474848122400E-14	1568.1940	1571.1500	13.78851654	13.88239374	2.920319055E-10	2.924548447E-10
890	9.02442813693300E-14	1568.1940	1571.1500	13.77596696	13.87030141	2.919874845E-10	2.924120800E-10
891	8.94486174723900E-14	1568.1940	1571.1500	13.76337035	13.85816314	2.919429000E-10	2.923691535E-10
892	8.86604331224700E-14	1568.1950	1571.1500	13.75072727	13.84597771	2.918981524E-10	2.923260629E-10
893	8.78796483226200E-14	1568.1950	1571.1510	13.73803682	13.83374643	2.918532399E-10	2.922828111E-10
894	8.71061830758900E-14	1568.1950	1571.1510	13.72529946	13.82146808	2.918081635E-10	2.922393948E-10
895	8.63399773853100E-14	1568.1950	1571.1510	13.71251537	13.80914378	2.917629232E-10	2.921958169E-10
896	8.55809512519500E-14	1568.1950	1571.1510	13.69968419	13.79677266	2.917175193E-10	2.921520751E-10
897	8.48290346818200E-14	1568.1950	1571.1510	13.68680577	13.78435449	2.916719492E-10	2.921081676E-10
898	8.40841676739900E-14	1568.1960	1571.1510	13.67388091	13.77188959	2.916262165E-10	2.920640964E-10
899	8.33462702325000E-14	1568.1960	1571.1520	13.66090815	13.75937844	2.915803162E-10	2.920198623E-10
900	8.26152823603800E-14	1568.1960	1571.1520	13.64788866	13.74681994	2.915342520E-10	2.919754615E-10
901	8.18911340606700E-14	1568.1960	1571.1520	13.63482223	13.73421493	2.914880229E-10	2.919308973E-10
902	8.11737553354200E-14	1568.1960	1571.1520	13.62170841	13.72156300	2.914416280E-10	2.918861673E-10
903	8.04630861866700E-14	1568.1960	1571.1520	13.60854757	13.70886388	2.913950677E-10	2.918412720E-10
904	7.97590466194500E-14	1568.1970	1571.1520	13.59533916	13.69611846	2.913483407E-10	2.917962126E-10
905	7.90615966338000E-14	1568.1970	1571.1530	13.58208399	13.68332552	2.913014486E-10	2.917509858E-10
906	7.83706462347600E-14	1568.1970	1571.1530	13.56878114	13.67048523	2.912543892E-10	2.917055925E-10
907	7.76861454233700E-14	1568.1970	1571.1530	13.55543060	13.65759822	2.912071626E-10	2.916600334E-10
908	7.70080342016700E-14	1568.1970	1571.1530	13.54203351	13.64466395	2.911597714E-10	2.916143080E-10
909	7.63362525736800E-14	1568.1970	1571.1530	13.52858960	13.63168273	2.91122153E-10	2.915684168E-10
910	7.56707205424500E-14	1568.1980	1571.1530	13.51509759	13.61865425	2.910644904E-10	2.915223580E-10
911	7.50113881110000E-14	1568.1980	1571.1540	13.50155833	13.60557891	2.910165989E-10	2.914761338E-10
912	7.43582052793800E-14	1568.1980	1571.1540	13.48797202	13.59245589	2.909685410E-10	2.914297404E-10
913	7.37110920526200E-14	1568.1980	1571.1540	13.47433899	13.57928643	2.909203179E-10	2.913831825E-10
914	7.30700084327400E-14	1568.1980	1571.1540	13.46065822	13.56606937	2.908719259E-10	2.913364561E-10
915	7.24348844217900E-14	1568.1980	1571.1540	13.44693023	13.55280460	2.908233680E-10	2.912895605E-10
916	7.18056700237800E-14	1568.1980	1571.1540	13.43315470	13.53949286	2.907746420E-10	2.912424987E-10
917	7.11822952407600E-14	1568.1980	1571.1540	13.41933241	13.52613441	2.907257506E-10	2.911952710E-10
918	7.05647200737600E-14	1568.1990	1571.1550	13.40546247	13.51272782	2.906766908E-10	2.911478722E-10
919	6.99528745278000E-14	1568.1990	1571.1550	13.39154515	13.49927547	2.906274633E-10	2.911003104E-10
920	6.93467086049100E-14	1568.1990	1571.1550	13.37758170	13.48577478	2.905780716E-10	2.910525778E-10
921	6.87461623071300E-14	1568.1990	1571.1550	13.36356982	13.47222702	2.905285093E-10	2.910046768E-10
922	6.81511856374800E-14	1568.1990	1571.1550	13.34951163	13.45863130	2.904787829E-10	2.909566066E-10
923	6.75617285979900E-14	1568.1990	1571.1550	13.33540681	13.44498995	2.904288905E-10	2.909083729E-10
924	6.69777311916900E-14	1568.1990	1571.1550	13.32125364	13.43129995	2.903788274E-10	2.908599662E-10
925	6.63991534196100E-14	1568.1990	1571.1550	13.30705410	13.41756352	2.903285987E-10	2.908113948E-10
926	6.58259152887600E-14	1568.2000	1571.1560	13.29280744	13.40377984	2.902782039E-10	2.907626536E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
927	6.52579967961900E-14	1568.2000	1571.1560	13.27851376	13.38994843	2.902276414E-10	2.907137439E-10
928	6.46953279489000E-14	1568.2000	1571.1560	13.26417372	13.37607059	2.901769135E-10	2.906646678E-10
929	6.41378587469400E-14	1568.2000	1571.1560	13.24978627	13.36214519	2.901260183E-10	2.906154220E-10
930	6.35855391933300E-14	1568.2000	1571.1560	13.23535266	13.34817315	2.900749572E-10	2.905660091E-10
931	6.30383292910800E-14	1568.2000	1571.1560	13.22087176	13.33415336	2.900237293E-10	2.905164263E-10
932	6.24961690422300E-14	1568.2000	1571.1560	13.20634423	13.32008706	2.899723350E-10	2.904666774E-10
933	6.19590184497900E-14	1568.2000	1571.1560	13.19176944	13.30597333	2.899207728E-10	2.904167593E-10
934	6.14268175158000E-14	1568.2010	1571.1560	13.17714938	13.29181346	2.898690478E-10	2.903666744E-10
935	6.08995362422700E-14	1568.2010	1571.1570	13.16248212	13.27760585	2.898171562E-10	2.903164205E-10
936	6.03771046342200E-14	1568.2010	1571.1570	13.14776791	13.26335173	2.897650968E-10	2.902659989E-10
937	5.98594926906900E-14	1568.2010	1571.1570	13.13300745	13.24905080	2.897128716E-10	2.902154104E-10
938	5.93466504156900E-14	1568.2010	1571.1570	13.11820141	13.23470268	2.896604839E-10	2.901646532E-10
939	5.88385378112400E-14	1568.2010	1571.1570	13.10334873	13.22030826	2.896079302E-10	2.901137289E-10
940	5.83350948813600E-14	1568.2010	1571.1570	13.08844966	13.20586683	2.895552098E-10	2.900626370E-10
941	5.78362816270800E-14	1568.2010	1571.1570	13.07350408	13.19137893	2.895023243E-10	2.900113773E-10
942	5.73420580514100E-14	1568.2010	1571.1570	13.05851267	13.17684458	2.894492746E-10	2.899599517E-10
943	5.68523741563800E-14	1568.2010	1571.1570	13.04347569	13.16226315	2.893960612E-10	2.899083573E-10
944	5.63671999440000E-14	1568.2010	1571.1570	13.02839222	13.14763530	2.893426825E-10	2.898565961E-10
945	5.58864754173000E-14	1568.2020	1571.1580	13.01326362	13.13296128	2.892891413E-10	2.898046684E-10
946	5.54101705782900E-14	1568.2020	1571.1580	12.99808910	13.11824116	2.892354358E-10	2.897525748E-10
947	5.49382254300000E-14	1568.2020	1571.1580	12.98286870	13.10347492	2.891815655E-10	2.897003155E-10
948	5.44706199734400E-14	1568.2020	1571.1580	12.96760308	13.08866146	2.891275340E-10	2.896478868E-10
949	5.40073042126200E-14	1568.2020	1571.1580	12.95229243	13.07380219	2.890733398E-10	2.895952933E-10
950	5.35482281485800E-14	1568.2020	1571.1580	12.93693612	13.05889795	2.890189824E-10	2.895425367E-10
951	5.30933617843200E-14	1568.2020	1571.1580	12.92153388	13.04394777	2.889644604E-10	2.894896147E-10
952	5.26426551228600E-14	1568.2020	1571.1580	12.90608749	13.02894974	2.889097796E-10	2.894365215E-10
953	5.21960881642200E-14	1568.2020	1571.1580	12.89059627	13.01390718	2.888549379E-10	2.893832670E-10
954	5.17535909134200E-14	1568.2020	1571.1580	12.87505946	12.99881939	2.887999321E-10	2.893298480E-10
955	5.13151533694800E-14	1568.2020	1571.1580	12.85947853	12.98368569	2.887447668E-10	2.892762653E-10
956	5.08807255374000E-14	1568.2030	1571.1590	12.84385216	12.96850607	2.886894394E-10	2.892225154E-10
957	5.04502574192100E-14	1568.2030	1571.1590	12.82818175	12.95328189	2.886339526E-10	2.891686047E-10
958	5.00237290159200E-14	1568.2030	1571.1590	12.81246652	12.93801191	2.885783048E-10	2.891145291E-10
959	4.96011003295500E-14	1568.2030	1571.1590	12.79670738	12.92269615	2.885224990E-10	2.890602871E-10
960	4.91823213641100E-14	1568.2030	1571.1590	12.78090443	12.90733456	2.884665357E-10	2.890058811E-10
961	4.87673621216100E-14	1568.2030	1571.1590	12.76505709	12.89193031	2.884104113E-10	2.889513190E-10
962	4.83561926020800E-14	1568.2030	1571.1590	12.74916581	12.87647931	2.883541289E-10	2.888965884E-10
963	4.79487728085300E-14	1568.2030	1571.1590	12.73323076	12.86098477	2.882976886E-10	2.888416995E-10
964	4.75450627439700E-14	1568.2030	1571.1590	12.71725270	12.84544466	2.882410924E-10	2.887866454E-10
965	4.71450324104100E-14	1568.2030	1571.1590	12.70123107	12.82985950	2.881843398E-10	2.887314294E-10
966	4.67486418098700E-14	1568.2030	1571.1590	12.68516546	12.81423103	2.881274280E-10	2.886760554E-10
967	4.63558609443600E-14	1568.2030	1571.1590	12.66905814	12.79855777	2.880703643E-10	2.886205186E-10
968	4.59666498159000E-14	1568.2030	1571.1590	12.65290698	12.78284101	2.880131426E-10	2.885648240E-10
969	4.55809784265000E-14	1568.2030	1571.1600	12.63671199	12.76708025	2.879557635E-10	2.885089694E-10
970	4.51988067791700E-14	1568.2040	1571.1600	12.62047496	12.75127512	2.878892319E-10	2.884529539E-10
971	4.48201148739300E-14	1568.2040	1571.1600	12.60419515	12.73542559	2.878405446E-10	2.883967771E-10
972	4.44448627147800E-14	1568.2040	1571.1600	12.58787454	12.71953346	2.877827091E-10	2.883404448E-10
973	4.40730203027400E-14	1568.2040	1571.1600	12.57150987	12.70359762	2.877247154E-10	2.882839538E-10
974	4.37045476398300E-14	1568.2040	1571.1600	12.55510507	12.68761709	2.876665739E-10	2.882273009E-10
975	4.33394147290500E-14	1568.2040	1571.1600	12.53865722	12.67159548	2.876082777E-10	2.881704977E-10
976	4.29775915724100E-14	1568.2040	1571.1600	12.52216665	12.65552929	2.875498276E-10	2.881135321E-10
977	4.26190481709300E-14	1568.2040	1571.1600	12.50563659	12.63942094	2.874912326E-10	2.880564136E-10
978	4.22637545266200E-14	1568.2040	1571.1600	12.48906328	12.62326895	2.874324806E-10	2.879991362E-10
979	4.19116806414900E-14	1568.2040	1571.1600	12.47245119	12.60707527	2.873735875E-10	2.879417054E-10
980	4.15627865185500E-14	1568.2040	1571.1600	12.45579561	12.59804014	2.873145378E-10	2.878841228E-10
981	4.12170521578200E-14	1568.2040	1571.1600	12.43910067	12.57456038	2.872553426E-10	2.878263797E-10
982	4.08744475632900E-14	1568.2040	1571.1600	12.42236491	12.55824136	2.871960005E-10	2.877684906E-10
983	4.05349327359900E-14	1568.2040	1571.1600	12.40558992	12.54187800	2.871365147E-10	2.877104412E-10
984	4.01984976769200E-14	1568.2040	1571.1600	12.38877259	12.52547405	2.870768755E-10	2.876522434E-10
985	3.98650923891000E-14	1568.2040	1571.1610	12.37191644	12.50902823	2.870170942E-10	2.875938921E-10
986	3.95346968745300E-14	1568.2040	1571.1610	12.35502050	12.49254069	2.869571677E-10	2.875353876E-10
987	3.92072811352200E-14	1568.2050	1571.1610	12.33808614	12.47601304	2.868971007E-10	2.874767361E-10
988	3.88828151721900E-14	1568.2050	1571.1610	12.32110997	12.45944403	2.868368826E-10	2.874179340E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
989	3.85612889864400E-14	1568.2050	1571.1610	12.30409642	12.44283311	2.867765267E-10	2.873589788E-10
990	3.82426425829800E-14	1568.2050	1571.1610	12.28704476	12.42618082	2.867160309E-10	2.872998709E-10
991	3.79268759608200E-14	1568.2050	1571.1610	12.26995193	12.40949125	2.866553862E-10	2.872406258E-10
992	3.76139591209800E-14	1568.2050	1571.1610	12.25282202	12.39275857	2.865946055E-10	2.871812243E-10
993	3.73038520684500E-14	1568.2050	1571.1610	12.23565418	12.37598708	2.865336855E-10	2.871216792E-10
994	3.69965348032500E-14	1568.2050	1571.1610	12.21844776	12.35917594	2.864726244E-10	2.870619881E-10
995	3.66919773273900E-14	1568.2050	1571.1610	12.20120348	12.34232354	2.864114243E-10	2.870021461E-10
996	3.63901596418800E-14	1568.2050	1571.1610	12.18392281	12.32543456	2.863500915E-10	2.869421684E-10
997	3.60910517507100E-14	1568.2050	1571.1610	12.16660243	12.30850425	2.862886132E-10	2.868820400E-10
998	3.57946336519200E-14	1568.2050	1571.1610	12.14924777	12.29153506	2.862270088E-10	2.868217678E-10
999	3.55008753504900E-14	1568.2050	1571.1610	12.13185330	12.27452655	2.861652589E-10	2.867613513E-10
1000	3.52097568464400E-14	1568.2050	1571.1610	12.11442390	12.25748125	2.861033797E-10	2.867007992E-10

**C. RESULTS FOR 50<sup>TH</sup> QUANTILE (MEDIAN) OF ATMOSPHERIC DENSITY**

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
0	1.29740349122449E+00	260.4793	280.1058	28.95990944	28.95990990	3.702754581E-10	3.702754604E-10
1	1.15825255346939E+00	255.3430	277.8188	28.95990939	28.95990992	3.702754580E-10	3.702754606E-10
2	1.03559413438776E+00	250.1319	273.4924	28.95990938	28.95990997	3.702754578E-10	3.702754606E-10
3	9.22265283265306E-01	244.9843	270.2661	28.95990932	28.95991001	3.702754576E-10	3.702754609E-10
4	8.23546863612245E-01	240.0825	273.0928	28.95990930	28.95991004	3.702754575E-10	3.702754610E-10
5	7.320511336040816E-01	235.5558	267.9429	28.95990926	28.95991010	3.702754572E-10	3.702754613E-10
6	6.54681913775510E-01	222.8099	263.1048	28.95990919	28.95991014	3.702754570E-10	3.702754615E-10
7	5.79337913387755E-01	216.2405	262.0672	28.95990947	28.95990987	3.702754583E-10	3.702754602E-10
8	5.10596791102041E-01	211.3878	257.2551	28.95990947	28.95990988	3.702754583E-10	3.702754602E-10
9	4.48367603438776E-01	207.4137	231.5031	28.95990945	28.95990988	3.702754581E-10	3.702754604E-10
10	3.92363801306122E-01	203.9326	229.4133	28.95990943	28.95990991	3.702754580E-10	3.702754605E-10
11	3.44270196673469E-01	210.2791	228.4893	28.95990941	28.95990993	3.702754579E-10	3.702754606E-10
12	3.02990665408163E-01	216.8088	224.6157	28.95990937	28.95990995	3.702754578E-10	3.702754608E-10
13	2.65126960224490E-01	213.8796	224.0537	28.95990933	28.95991001	3.702754575E-10	3.702754610E-10
14	2.31091924000000E-01	211.8042	215.9301	28.95990927	28.95991007	3.702754572E-10	3.702754613E-10
15	1.98827315500000E-01	210.3891	215.4044	28.95990953	28.95990980	3.702754586E-10	3.702754599E-10
16	1.68389527500000E-01	210.2334	221.7311	28.95990950	28.95990985	3.702754583E-10	3.702754601E-10
17	1.41583380000000E-01	210.6125	224.9048	28.95990945	28.95990989	3.702754582E-10	3.702754603E-10
18	1.18103629775510E-01	220.6194	231.9310	28.95990942	28.95990990	3.702754581E-10	3.702754604E-10
19	9.87095880918367E-02	204.8835	230.3219	28.95990936	28.95990997	3.702754578E-10	3.702754607E-10
20	8.25964122367347E-02	203.2575	224.0001	28.95990933	28.95991000	3.702754576E-10	3.702754609E-10
21	6.96380587836735E-02	200.8820	235.7508	28.95990923	28.95991010	3.702754572E-10	3.702754613E-10
22	5.88240270795918E-02	198.6302	226.3542	28.95990949	28.95990985	3.702754584E-10	3.702754601E-10
23	4.96891532755102E-02	197.7263	225.2615	28.95990949	28.95990985	3.702754583E-10	3.702754602E-10
24	4.20085685571429E-02	197.1672	223.0074	28.95990945	28.95990990	3.702754581E-10	3.702754604E-10
25	3.55450947979592E-02	197.0456	222.3911	28.95990940	28.95990992	3.702754579E-10	3.702754606E-10
26	3.01258373877551E-02	196.9141	224.0817	28.95990936	28.95990999	3.702754576E-10	3.702754609E-10
27	2.56265491500000E-02	197.4866	225.9238	28.95990932	28.95991001	3.702754575E-10	3.702754610E-10
28	2.17069407500000E-02	197.9200	227.8937	28.95990954	28.95990981	3.702754586E-10	3.702754599E-10
29	1.83933787000000E-02	199.6017	231.3867	28.95990953	28.95990982	3.702754585E-10	3.702754599E-10
30	1.55930706500000E-02	204.8363	233.7668	28.95990950	28.95990983	3.702754584E-10	3.702754601E-10
31	1.32322113700000E-02	205.2511	236.1160	28.95990946	28.95990988	3.702754582E-10	3.702754603E-10
32	1.12417470500000E-02	207.6464	239.9906	28.95990943	28.95990994	3.702754579E-10	3.702754604E-10
33	9.56369073500000E-03	228.8225	242.2751	28.95990941	28.95990993	3.702754579E-10	3.702754606E-10
34	8.15646320000000E-03	211.9192	244.6722	28.95990936	28.95990995	3.702754578E-10	3.702754608E-10
35	6.97423540500000E-03	214.6391	248.8206	28.95990929	28.95991000	3.702754576E-10	3.702754612E-10
36	5.97952854000000E-03	238.0055	251.5810	28.95990956	28.95990977	3.702754588E-10	3.702754598E-10
37	5.14049172500000E-03	251.4518	254.3276	28.95990950	28.95990979	3.702754586E-10	3.702754601E-10
38	4.43105799000000E-03	222.6091	258.4453	28.95990945	28.95990987	3.702754582E-10	3.702754604E-10
39	3.82919740500000E-03	225.7182	261.1038	28.95990945	28.95990988	3.702754582E-10	3.702754604E-10
40	3.31748123500000E-03	246.6156	263.5361	28.95990940	28.95990993	3.702754579E-10	3.702754606E-10
41	2.88197163000000E-03	247.3315	265.6774	28.95990937	28.95990996	3.702754578E-10	3.702754608E-10
42	2.52349591500000E-03	234.7603	267.4615	28.95990930	28.95991002	3.702754574E-10	3.702754611E-10
43	2.21724003000000E-03	250.3556	268.8215	28.95990954	28.95990977	3.702754587E-10	3.702754599E-10
44	1.95188750000000E-03	240.7761	269.6925	28.95990955	28.95990981	3.702754586E-10	3.702754598E-10
45	1.72096230850000E-03	242.5611	270.0129	28.95990950	28.95990985	3.702754584E-10	3.702754601E-10
46	1.51975774200000E-03	245.6990	269.7515	28.95990949	28.95990987	3.702754583E-10	3.702754601E-10
47	1.34415095100000E-03	246.2323	268.9557	28.95990946	28.95990987	3.702754582E-10	3.702754603E-10
48	1.19060779650000E-03	248.9848	267.7010	28.95990943	28.95990992	3.702754581E-10	3.702754604E-10
49	1.05611810850000E-03	255.1902	266.0656	28.95990939	28.95990994	3.702754580E-10	3.702754606E-10
50	9.38039351500000E-04	255.0248	264.5900	28.95990940	28.95990997	3.702754578E-10	3.702754606E-10
51	8.34164459000000E-04	255.2989	262.3090	28.95990935	28.95990996	3.702754578E-10	3.702754608E-10
52	7.42650178000000E-04	252.4353	259.6474	28.95990932	28.95991005	3.702754574E-10	3.702754611E-10
53	6.61933410500000E-04	249.6767	257.2481	28.95990923	28.95991011	3.702754571E-10	3.702754614E-10
54	5.90504756000000E-04	247.7299	255.6066	28.95990948	28.95990983	3.702754584E-10	3.702754601E-10
55	5.27164771000000E-04	244.9878	254.0152	28.95990948	28.95990987	3.702754583E-10	3.702754601E-10
56	4.70876294500000E-04	242.1312	252.0233	28.95990948	28.95990986	3.702754582E-10	3.702754602E-10
57	4.20698643000000E-04	240.2754	249.9470	28.95990947	28.95990988	3.702754581E-10	3.702754603E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
58	3.75876975500000E-04	238.4217	247.7198	28.95990941	28.95990991	3.702754580E-10	3.702754606E-10
59	3.35752474000000E-04	243.6496	244.2581	28.95990954	28.95990980	3.702754585E-10	3.702754600E-10
60	2.99765944500000E-04	235.4286	239.8306	28.95990937	28.95990998	3.702754576E-10	3.702754608E-10
61	2.67442609500000E-04	233.3528	237.7248	28.95990933	28.95991001	3.702754575E-10	3.702754610E-10
62	2.38385656000000E-04	231.2391	235.5438	28.95990929	28.95991005	3.702754572E-10	3.702754612E-10
63	2.12261523600000E-04	231.5440	233.1167	28.95948988	28.95999060	3.702754739E-10	3.702766140E-10
64	1.88747050450000E-04	223.1961	231.4871	28.95873372	28.96017586	3.702754241E-10	3.702789821E-10
65	1.67576402500000E-04	218.4445	230.5122	28.95819776	28.95926822	3.702780682E-10	3.702812440E-10
66	1.48522038250000E-04	219.7618	233.2342	28.95750923	28.95998077	3.702770323E-10	3.702836075E-10
67	1.31387966500000E-04	216.7659	230.8850	28.95679013	28.95985968	3.702777697E-10	3.702862073E-10
68	1.15984007800000E-04	216.7965	228.2881	28.95609668	28.95862338	3.702817240E-10	3.702885961E-10
69	1.02164020550000E-04	214.4387	220.0197	28.95544159	28.95814615	3.702830045E-10	3.702908278E-10
70	8.97972600500000E-05	212.8590	213.6038	28.95565421	28.95730298	3.702853833E-10	3.702902607E-10
72	7.87589096000000E-05	210.8567	211.5775	28.95509398	28.95695548	3.702867084E-10	3.702922169E-10
73	6.89068135500000E-05	209.5282	210.5865	28.95414394	28.95913743	3.702824014E-10	3.702990139E-10
74	6.01634372500000E-05	206.5811	207.6392	28.95350231	28.95797978	3.702864168E-10	3.703018005E-10
74	5.26915804000000E-05	203.1698	204.5832	28.95276790	28.96050158	3.702821435E-10	3.703051945E-10
75	4.61976078500000E-05	199.4179	201.4099	28.95189372	28.96068976	3.702825416E-10	3.703068335E-10
77	4.04544829500000E-05	195.4602	197.2904	28.95343608	28.96003264	3.702855909E-10	3.703042151E-10
77	3.53108611000000E-05	196.9307	199.3456	28.95079752	28.95250974	3.703082696E-10	3.703154720E-10
78	3.06692325000000E-05	192.1880	196.9380	28.94773604	28.95737942	3.702949072E-10	3.703274472E-10
79	2.64720986500000E-05	186.8020	194.4104	28.94551021	28.95986003	3.702924095E-10	3.703342746E-10
80	2.26859385950000E-05	182.9596	190.7833	28.94333335	28.95908500	3.702959117E-10	3.703408267E-10
81	1.92898327500000E-05	179.4740	188.3744	28.94126179	28.95806911	3.702997550E-10	3.703488705E-10
82	1.62686579400000E-05	176.2264	187.7216	28.93893876	28.95671784	3.703037569E-10	3.703588291E-10
83	1.36088101900000E-05	173.4987	186.2105	28.93663525	28.95489137	3.703075473E-10	3.703674660E-10
84	1.12952510600000E-05	175.3692	184.2806	28.93582253	28.94586623	3.703260325E-10	3.703601052E-10
86	9.30654739000000E-06	194.4542	201.0203	28.93473211	28.93992477	3.703336822E-10	3.703495817E-10
86	7.61802661000000E-06	189.8085	192.6655	28.92622750	28.93073476	3.703456092E-10	3.703539606E-10
87	6.19991582000000E-06	166.5783	196.6389	28.91342811	28.93151556	3.703126014E-10	3.703687978E-10
88	5.02087539000000E-06	163.6945	190.5383	28.90539027	28.92265424	3.702524721E-10	3.703465407E-10
89	4.04976995500000E-06	159.5535	195.1037	28.88904821	28.91707285	3.702012075E-10	3.703108770E-10
90	3.30091543500000E-06	142.7896	195.9017	28.86169033	28.94024662	3.701010013E-10	3.703372783E-10
91	2.81362438346939E-06	134.0600	192.3165	28.84588745	28.92402967	3.700269152E-10	3.703389302E-10
92	2.40693659877551E-06	140.3235	188.5428	28.80557185	28.87767978	3.699159568E-10	3.702715959E-10
93	2.04540804734694E-06	166.0739	184.7927	28.77257931	28.84906243	3.697368558E-10	3.700454291E-10
94	1.72056161755102E-06	165.7330	185.4308	28.72679916	28.83801110	3.695542557E-10	3.699630729E-10
95	1.43071083250000E-06	164.3227	186.7031	28.67504355	28.81427326	3.693371311E-10	3.698130405E-10
96	1.16396378500000E-06	163.4266	186.3890	28.60129696	28.78953272	3.689989933E-10	3.697081224E-10
97	9.44348717500000E-07	169.4750	183.2814	28.52850303	28.73026025	3.687873742E-10	3.695527380E-10
98	7.63930346500000E-07	162.4472	196.4888	28.44724107	28.75411678	3.683279512E-10	3.693650537E-10
99	6.16221274500000E-07	163.0531	190.6427	28.36389227	28.71439540	3.678982859E-10	3.691733160E-10
100	4.95841534500000E-07	165.7328	192.4180	28.26821679	28.67123846	3.675785919E-10	3.689516801E-10
101	3.98319715500000E-07	168.8248	195.6387	28.166426932	28.62492279	3.671328080E-10	3.686901848E-10
102	3.20016261500000E-07	173.1462	209.1921	28.04035731	28.57582843	3.663984007E-10	3.684750364E-10
103	2.58445619000000E-07	178.2114	210.1032	28.79819706	28.52444348	3.663342892E-10	3.682489868E-10
104	2.09779587000000E-07	182.5164	227.7765	28.76482225	28.47130417	3.657274044E-10	3.679954209E-10
105	1.71899682000000E-07	189.8064	237.3209	28.70859148	28.29663374	3.651789159E-10	3.682456012E-10
106	1.44695659300000E-07	198.2976	248.8497	28.61308681	28.23570120	3.646991504E-10	3.680226680E-10
107	1.22191916450000E-07	212.3648	257.6879	28.44567585	28.21640827	3.640708996E-10	3.679332550E-10
108	1.03511996650000E-07	217.0745	265.3913	28.26500185	28.15768004	3.633991033E-10	3.677171348E-10
109	8.74107861122449E-08	223.9520	285.2601	27.16083696	27.98344150	3.628147465E-10	3.675146000E-10
110	7.45397183938775E-08	231.4344	296.5893	27.02758932	28.06015165	3.621574477E-10	3.673676568E-10
111	6.37665734081633E-08	235.5837	306.5557	26.90547079	28.00350797	3.612905177E-10	3.672101093E-10
112	5.47373214000000E-08	237.9997	316.7836	26.73990452	27.89273083	3.609810364E-10	3.670372453E-10
113	4.66709694857143E-08	247.5603	354.9147	26.64794940	27.86113206	3.603560274E-10	3.668740168E-10
114	3.97496358795918E-08	258.3783	380.5366	26.48667481	27.76010030	3.597020794E-10	3.663825661E-10
115	3.40289362408163E-08	270.4682	415.2312	26.31409356	27.64381075	3.590519980E-10	3.662925206E-10
116	2.92193964551020E-08	305.7777	375.9881	26.19882088	27.59075259	3.584092819E-10	3.649568830E-10
117	2.54344651653061E-08	319.3790	419.0781	26.06830102	27.61082541	3.578828370E-10	3.650632564E-10
118	2.23901326163265E-08	334.8377	433.5014	25.94821347	27.55862547	3.573050813E-10	3.649027631E-10
119	1.97758910142857E-08	345.5585	473.4834	25.83159342	27.84603315	3.567634343E-10	3.651494761E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
120	1.75296203142857E-08	361.2089	479.4891	25.78813075	27.49120619	3.562702283E-10	3.651583566E-10
121	1.57822028448980E-08	375.3287	479.0144	25.66562716	27.37906387	3.555557232E-10	3.649746056E-10
122	1.42333262204082E-08	381.3013	493.8938	25.42278220	27.33354830	3.542140505E-10	3.647951556E-10
123	1.28293121204082E-08	392.4786	509.2348	25.31670551	27.28972181	3.536692569E-10	3.646203223E-10
124	1.16004022102041E-08	402.7510	523.1583	25.24335390	27.24767994	3.532837987E-10	3.644507089E-10
125	1.05349777255102E-08	412.6418	526.3658	25.18328976	27.20257421	3.529991284E-10	3.642438550E-10
126	9.60554455714286E-09	422.2176	541.9663	25.09571516	27.09409086	3.527833021E-10	3.638898264E-10
127	8.78957916734694E-09	430.8821	558.6357	25.00458405	27.05602171	3.522839835E-10	3.637299962E-10
128	8.06673442346939E-09	438.4597	575.0270	24.86571701	27.01440126	3.512435650E-10	3.635306203E-10
129	7.42587837367347E-09	445.7771	591.0987	24.77114539	26.84446246	3.507392635E-10	3.626969992E-10
130	6.85521392571429E-09	452.9745	606.6951	24.60337940	26.80740337	3.500770255E-10	3.625302778E-10
131	6.34494875326531E-09	459.5077	621.9303	24.51318165	26.77164311	3.495332222E-10	3.623675714E-10
132	5.88698504020408E-09	465.7906	631.6680	24.42497047	26.73708697	3.487664511E-10	3.622086426E-10
133	5.47450070693878E-09	471.8330	647.0182	24.33260411	26.66964120	3.482887966E-10	3.618689944E-10
134	5.10174153551020E-09	477.6440	662.2142	24.24892021	26.63652660	3.478190277E-10	3.617126212E-10
135	4.76382820346939E-09	483.3885	676.4193	24.16700653	26.52257599	3.473566747E-10	3.611769299E-10
136	4.45660567897959E-09	494.1791	690.9655	24.08673890	26.65489109	3.469012909E-10	3.621864924E-10
137	4.17651354918367E-09	499.3000	705.2347	24.00800168	26.62194579	3.464524601E-10	3.620271586E-10
138	3.92049127897959E-09	504.6682	717.7574	23.91346940	26.58968602	3.456762911E-10	3.618698561E-10
139	3.68589639428571E-09	509.9926	731.3406	23.83539125	26.53489131	3.452346799E-10	3.615014591E-10
140	3.47043514714286E-09	514.3729	744.6576	23.75851922	26.54921604	3.447985463E-10	3.609959161E-10
141	3.27211365061225E-09	519.5341	757.7136	23.68277026	26.51550201	3.443675565E-10	3.612819453E-10
142	3.08918798265306E-09	528.5012	770.5139	23.60807082	26.57463852	3.439386985E-10	3.617576727E-10
143	2.92012925571429E-09	547.7905	783.0634	23.53435128	26.64152698	3.435173097E-10	3.616211753E-10
144	2.78169711000000E-09	563.4880	790.5717	23.46154865	26.61211824	3.431001849E-10	3.612753280E-10
145	2.63578938500000E-09	567.9223	802.2945	23.38960705	26.48252601	3.426870889E-10	3.607698405E-10
146	2.49899300000000E-09	572.2006	816.2197	23.31847521	26.37594224	3.422778069E-10	3.606239095E-10
147	2.37072385500000E-09	577.8573	827.6191	23.24810456	26.36390076	3.418721560E-10	3.602220216E-10
148	2.25124635000000E-09	581.9203	839.5968	23.17845433	26.56497521	3.414699512E-10	3.616311252E-10
149	2.13979924000000E-09	589.2486	853.3681	23.10948651	26.54111887	3.410710343E-10	3.615132787E-10
150	2.03569610000000E-09	624.8212	864.2968	23.04116558	26.55237789	3.406752709E-10	3.613959528E-10
151	1.93832108000000E-09	636.8024	876.1947	22.97346279	26.57702594	3.402825232E-10	3.612790762E-10
152	1.84712242000000E-09	638.6469	900.3870	22.90634870	26.55327655	3.398926923E-10	3.611625829E-10
153	1.76160193500000E-09	642.3628	910.9648	22.83979985	26.52967418	3.395056468E-10	3.609273995E-10
154	1.68131050000000E-09	646.0281	920.9940	22.77379262	26.50620537	3.391213202E-10	3.608130633E-10
155	1.60584303000000E-09	649.5603	930.8076	22.70830734	26.33402500	3.387396248E-10	3.603483735E-10
156	1.53483175750000E-09	652.9575	940.4104	22.64332792	26.30442912	3.383604667E-10	3.600903070E-10
157	1.46794295500000E-09	656.2375	943.2513	22.57883742	26.24005656	3.379838133E-10	3.597189858E-10
158	1.40487338050000E-09	659.3985	953.9204	22.51481985	26.17130095	3.376095890E-10	3.595926964E-10
159	1.34534712900000E-09	662.4448	963.4609	22.45126767	26.12824151	3.372377293E-10	3.592553810E-10
160	1.28911212750000E-09	665.3805	972.8255	22.38816464	26.05222873	3.368682195E-10	3.588034539E-10
161	1.23554291000000E-09	668.2098	982.0176	22.31960544	26.02637886	3.364613508E-10	3.586673473E-10
162	1.18525811800000E-09	666.5436	991.0403	22.25759434	25.96874706	3.360979392E-10	3.583540861E-10
163	1.13762669550000E-09	669.0912	1003.7890	22.19600154	25.94672266	3.357366781E-10	3.582383520E-10
164	1.09247252100000E-09	671.5514	1012.7340	22.13481863	26.09294531	3.353775848E-10	3.591104641E-10
165	1.04963282950000E-09	673.9273	1021.3510	22.07403991	26.12785295	3.350206262E-10	3.592626719E-10
166	1.00895823250000E-09	679.7983	1029.8090	22.01366078	26.10814792	3.346657737E-10	3.591615199E-10
167	9.70311510000000E-10	683.4983	1062.8090	21.95367573	26.10155581	3.343130211E-10	3.591490746E-10
168	9.33564541000000E-10	685.6909	1074.2890	21.89408401	26.08215091	3.339623758E-10	3.590492261E-10
169	8.98600284000000E-10	687.8043	1082.6240	21.83488097	26.06275958	3.336138224E-10	3.589493165E-10
170	8.65310559000000E-10	689.8414	1095.7110	21.77606155	26.04337599	3.332758924E-10	3.588493168E-10
171	8.33594037500000E-10	692.0847	1103.8630	21.71762698	26.02399418	3.329319625E-10	3.587491934E-10
172	8.03358163500000E-10	693.9826	1117.3440	21.65957342	26.00461040	3.325901121E-10	3.586489300E-10
173	7.74515678000000E-10	695.8122	1125.3330	21.60189821	25.98522003	3.322503318E-10	3.585485041E-10
174	7.46986847000000E-10	697.5759	1137.7440	21.54460164	25.96581850	3.319126307E-10	3.584478922E-10
175	7.20696025500000E-10	699.5407	1147.8460	21.48768493	25.96315538	3.315770228E-10	3.586629421E-10
176	6.95574648000000E-10	701.1840	1155.5660	21.49535745	26.10350028	3.316803702E-10	3.592931219E-10
177	6.71556784500000E-10	702.7683	1163.1450	21.43970103	26.08380959	3.313496508E-10	3.591906282E-10
178	6.48582579500000E-10	801.6743	1170.5840	21.38440283	26.06407755	3.310209179E-10	3.590877035E-10
179	6.26595323000000E-10	803.9062	1177.8870	21.32946161	26.04430138	3.306941501E-10	3.589843264E-10
180	6.05542315000000E-10	806.0625	1185.0560	21.27487735	26.02447719	3.303693780E-10	3.588804831E-10
181	5.85374110000000E-10	808.1457	1192.0930	21.22064979	26.00460133	3.300466010E-10	3.587761499E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
182	5.6604451700000E-10	810.1583	1170.6000	21.16677953	25.98467201	3.297258180E-10	3.586713228E-10
183	5.4751025000000E-10	812.1028	1176.8080	21.11326544	25.96468515	3.294070410E-10	3.585659762E-10
184	5.2973072800000E-10	813.9814	1182.8940	21.06010853	25.91409894	3.290902708E-10	3.582078492E-10
185	5.1266787400000E-10	815.7964	1188.8600	21.00730818	25.89357498	3.287755127E-10	3.580991778E-10
186	4.9628601400000E-10	782.1098	1194.0290	20.80904289	25.68516303	3.278304062E-10	3.568717644E-10
187	4.8055142750000E-10	783.5923	1199.7510	20.75300538	25.66238209	3.274918652E-10	3.567488410E-10
188	4.6543259900000E-10	785.0242	1205.6380	20.69733398	25.63952399	3.271554474E-10	3.566252839E-10
189	4.5089981400000E-10	786.4071	1211.4600	20.64175176	25.61658711	3.268211809E-10	3.565010843E-10
190	4.3679685700000E-10	787.7428	1217.1750	20.58642406	25.26536848	3.264890817E-10	3.544800720E-10
191	4.2316380100000E-10	789.0328	1222.7850	20.53147113	25.23867089	3.261591644E-10	3.543319940E-10
192	4.1005295950000E-10	790.2787	1228.2920	20.47689583	25.21187693	3.258314514E-10	3.541831676E-10
193	3.9743994100000E-10	791.4821	1221.6810	20.42270025	25.18498625	3.2550359580E-10	3.540335918E-10
194	3.8530155400000E-10	792.6445	1226.8630	20.36888578	25.15799743	3.251826968E-10	3.538832587E-10
195	3.7361601100000E-10	793.7671	1231.9490	20.31545530	24.73501964	3.248616886E-10	3.519810976E-10
196	3.6236267400000E-10	794.8515	1236.9430	20.26241018	24.71034437	3.245429453E-10	3.518408650E-10
197	3.5152210600000E-10	795.8989	1241.8270	20.20975170	24.68563979	3.242264786E-10	3.517003575E-10
198	3.4107577400000E-10	796.9106	1226.1930	20.15748178	24.66090414	3.239123033E-10	3.515595623E-10
199	3.3100629450000E-10	797.8878	1229.7300	20.10560224	24.63613740	3.236004337E-10	3.514184796E-10
200	3.2129713450000E-10	798.8316	1234.0070	20.05411432	24.61134091	3.232908815E-10	3.512771162E-10
201	3.1195497200000E-10	799.7434	1238.2000	20.00315530	24.58688472	3.229840914E-10	3.511356259E-10
202	3.0291894900000E-10	800.6241	1239.5120	19.95244845	24.53063920	3.226791871E-10	3.508987102E-10
203	2.9419870800000E-10	785.1472	1228.1720	19.90213589	23.91845357	3.223766252E-10	3.468606774E-10
204	2.8578082000000E-10	785.8322	1233.5390	19.85221925	23.93730005	3.220764199E-10	3.469653740E-10
205	2.7765275900000E-10	786.4945	1242.7320	19.80895508	23.90746257	3.218476043E-10	3.467912957E-10
206	2.6980234950000E-10	787.1348	1251.5780	19.76017445	23.87760869	3.215537247E-10	3.466169949E-10
207	2.6221816550000E-10	772.5385	1256.1370	19.71178481	23.84773762	3.212621873E-10	3.464424680E-10
208	2.5488926420000E-10	773.0430	1260.6250	19.70056568	23.81784970	3.211893297E-10	3.462677170E-10
209	2.4780529585000E-10	773.5299	1265.0420	19.65319867	23.78794335	3.209040232E-10	3.460927352E-10
210	2.4095652460000E-10	823.3023	1269.3880	19.60621896	23.75801986	3.206210421E-10	3.459175293E-10
211	2.3433338190000E-10	828.9312	1273.6650	19.61657399	23.72807662	3.206447253E-10	3.457420858E-10
212	2.2792709330000E-10	829.6473	1277.8750	19.57043233	23.69811498	3.203673583E-10	3.455664132E-10
213	2.21729007100000E-10	794.5316	1281.2670	19.58745406	23.66813454	3.204051499E-10	3.453905097E-10
214	2.1573109350000E-10	795.0398	1247.0010	19.63769464	23.63813328	3.206215822E-10	3.452143651E-10
215	2.09925636200000E-10	795.5315	1250.5000	19.59311832	23.60811429	3.203527426E-10	3.450379979E-10
216	2.04305148150000E-10	796.0071	1253.9380	19.54806175	23.57807366	3.200860127E-10	3.448613868E-10
217	1.98862602350000E-10	832.8936	1256.7230	19.50304075	23.54801326	3.198213855E-10	3.446845425E-10
218	1.93591337250000E-10	833.4810	1252.9680	19.45838707	23.51793447	3.195588842E-10	3.445074766E-10
219	1.88484875450000E-10	834.0493	1261.8710	19.41410079	23.60564672	3.192984935E-10	3.449907075E-10
220	1.83537110850000E-10	834.5993	1265.9530	19.37017996	23.57696000	3.190402133E-10	3.448236621E-10
221	1.78742147250000E-10	829.1789	1269.4360	19.25749784	23.56565593	3.183821625E-10	3.447807804E-10
222	1.74094379550000E-10	829.6675	1272.8640	19.21413099	23.53704686	3.181225813E-10	3.446137958E-10
223	1.69588472950000E-10	830.1400	1284.8920	19.17114744	23.55221973	3.178652985E-10	3.546605540E-10
224	1.65219223500000E-10	830.5969	1288.3060	19.12854418	23.52840215	3.176102985E-10	3.545374195E-10
225	1.60981764250000E-10	831.0389	1291.6680	19.08632009	23.66157678	3.173575777E-10	3.551596861E-10
226	1.56871384650000E-10	831.4663	1294.9780	19.04447321	23.63863110	3.171071275E-10	3.550424251E-10
227	1.52883621050000E-10	831.8797	1298.2390	19.00305060	23.61555760	3.168589645E-10	3.549242472E-10
228	1.49014064400000E-10	832.2795	1301.4500	18.96191122	23.62836956	3.166130537E-10	3.549017915E-10
229	1.45258658150000E-10	832.6661	1304.6120	18.87889174	23.60538988	3.161996568E-10	3.547842642E-10
230	1.41613374450000E-10	833.0401	1307.7250	18.83921234	23.58228528	3.159609522E-10	3.546658421E-10
231	1.38074441900000E-10	833.4018	1310.7920	18.79989948	23.55905462	3.157244922E-10	3.545465167E-10
232	1.34638213850000E-10	833.7517	1313.8120	18.76095106	23.53569684	3.154902670E-10	3.544262819E-10
233	1.31315324250000E-10	834.0900	1316.7870	18.72236412	23.51221305	3.151515792E-10	3.543051509E-10
234	1.28097185350000E-10	840.0700	1318.6670	18.68413847	23.48860081	3.149271285E-10	3.541831049E-10
235	1.24970749550000E-10	828.3367	1286.2570	18.56606698	23.46486105	3.142371180E-10	3.540601544E-10
236	1.21932936550000E-10	828.6243	1289.1490	18.52863660	23.33988155	3.140131670E-10	3.533230449E-10
237	1.18980852200000E-10	828.9024	1292.0000	18.49157468	23.31540329	3.137914749E-10	3.531951162E-10
238	1.16111591450000E-10	829.1713	1294.8110	18.45487965	23.29079891	3.135720356E-10	3.530662890E-10
239	1.13322500750000E-10	829.4312	1297.5810	18.41854846	23.26606986	3.133548332E-10	3.529365758E-10
240	1.10610870100000E-10	829.6825	1300.3110	18.38257769	23.01553877	3.131398501E-10	3.515500898E-10
241	1.07974564800000E-10	829.9254	1300.5190	18.34696572	24.98940841	3.129270821E-10	3.514105590E-10
242	1.05410499550000E-10	830.1603	1303.1510	18.31170959	24.96311011	3.127165083E-10	3.512701911E-10
243	1.02916664400000E-10	830.3873	1305.7450	18.27680582	24.93669047	3.125081134E-10	3.511289522E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
244	1.00490841450000E-10	830.6069	1300.2350	18.21155850	24.91015265	3.121797185E-10	3.509868681E-10
245	9.81307821000000E-11	830.8191	1240.6380	18.17791778	24.58033938	3.119780790E-10	3.491837198E-10
246	9.58345348000000E-11	836.8859	1242.2200	18.14461513	24.55199637	3.117785578E-10	3.490293162E-10
247	9.36000113500000E-11	826.2828	1243.7730	18.04500693	24.52354056	3.111219683E-10	3.488740961E-10
248	9.14253097000000E-11	826.4648	1245.2960	18.01260290	24.45340444	3.109286876E-10	3.483314595E-10
249	8.93085525500000E-11	826.6406	1246.7910	17.98053650	24.24917490	3.107375208E-10	3.471379008E-10
250	8.72479784500000E-11	826.8106	1248.2580	17.94880388	24.21844719	3.105484470E-10	3.469682573E-10
251	8.52418606000000E-11	826.9749	1249.6970	17.91740143	24.18760939	3.103614468E-10	3.467978143E-10
252	8.32884870500000E-11	827.1336	1267.9570	17.88632643	24.08001013	3.101765068E-10	3.462918423E-10
253	8.13862765500000E-11	827.2871	1269.4340	17.85557488	24.04922843	3.099936046E-10	3.461213266E-10
254	7.95521962000000E-11	827.4354	1270.8830	17.82514229	24.01834849	3.098127156E-10	3.459500829E-10
255	7.77694890000000E-11	827.5787	1272.3060	17.77804117	23.98737356	3.095679479E-10	3.457781398E-10
256	7.60325980500000E-11	825.7421	1273.7030	17.71210794	23.70149285	3.091438310E-10	3.442258298E-10
257	7.43401530000000E-11	825.8730	1275.0750	17.68314175	23.66945560	3.089718471E-10	3.440459422E-10
258	7.26908686500000E-11	825.9995	1276.4210	17.64887627	23.63733963	3.087803429E-10	3.438654521E-10
259	7.10834598000000E-11	826.1218	1277.7430	17.62063461	23.60514103	3.086127544E-10	3.436843353E-10
260	6.95759579500000E-11	826.2399	1279.0410	17.59268756	22.55504824	3.084470557E-10	3.382815478E-10
261	6.82358381000000E-11	826.3541	1280.3150	17.56503121	22.52251685	3.082832248E-10	3.380918435E-10
262	6.69268879500000E-11	828.0862	1281.5660	17.53766274	22.48996331	3.081212478E-10	3.379019178E-10
263	6.56481391500000E-11	842.2523	1282.7950	17.92997472	22.45738979	3.104654310E-10	3.377117849E-10
264	6.43987847500000E-11	842.3186	1284.0000	17.90215499	22.42479703	3.102996544E-10	3.375214505E-10
265	6.31779821500000E-11	843.6740	1272.4200	17.80251550	22.32188210	3.096378388E-10	3.369290348E-10
266	6.19850501500000E-11	843.7365	1273.6420	17.77556086	22.28930261	3.094780648E-10	3.367379628E-10
267	6.08192263500000E-11	843.7967	1274.8440	17.74886074	22.12642403	3.093199013E-10	3.358069836E-10
268	5.96796290000000E-11	846.8183	1279.6100	17.72241536	22.09374965	3.091633524E-10	3.356142931E-10
269	5.85657121500000E-11	846.8762	1280.7840	17.67423958	22.06107566	3.089246224E-10	3.354215309E-10
270	5.74766375500000E-11	846.9320	1281.9380	17.64867791	21.93499884	3.087728937E-10	3.350604453E-10
271	5.64116908500000E-11	850.8303	1283.0720	17.62335538	21.90454567	3.086227019E-10	3.348768216E-10
272	5.53703058000000E-11	850.8847	1284.1850	17.53971949	21.80040358	3.080724298E-10	3.342777220E-10
273	5.43518451500000E-11	850.9370	1285.2790	17.51521801	21.77009986	3.079278430E-10	3.340944777E-10
274	5.33556968000000E-11	854.6831	1286.3540	17.49095077	21.73982043	3.077847619E-10	3.339113331E-10
275	5.23812638000000E-11	904.8993	1287.4100	17.45341328	21.70956718	3.075927007E-10	3.337283005E-10
276	5.14279892000000E-11	907.4687	1403.2580	17.42985519	23.21744023	3.074536697E-10	3.427690024E-10
277	5.04901582500000E-11	905.6902	1404.8560	17.37445388	23.19119743	3.070969238E-10	3.426138163E-10
278	4.95691510350000E-11	904.7663	1406.4300	17.34706503	23.16491737	3.069457438E-10	3.424583430E-10
279	4.86680945000000E-11	859.4802	1407.9820	17.32446363	23.13860100	3.068128959E-10	3.423025884E-10
280	4.77864679350000E-11	859.5457	1409.5120	17.30207417	23.11224814	3.066814341E-10	3.421465521E-10
281	4.69237772650000E-11	859.6091	1411.0190	17.27989386	23.08586067	3.065513435E-10	3.419902467E-10
282	4.60793548500000E-11	859.6704	1412.5040	17.25792123	23.05943814	3.064226168E-10	3.418336696E-10
283	4.52532685950000E-11	862.8235	1413.9680	17.23615024	23.03298313	3.062952179E-10	3.416768379E-10
284	4.44445224450000E-11	867.6506	1415.4110	17.37569508	23.00649566	3.071898028E-10	3.415197515E-10
285	4.36528518300000E-11	867.7120	1416.8330	17.35125326	22.97997652	3.070475712E-10	3.413624168E-10
286	4.28778267350000E-11	867.7714	1410.6020	17.32703440	22.82496725	3.069068019E-10	3.404228324E-10
287	4.21190377400000E-11	867.8289	1411.9500	17.30303513	22.79802599	3.067674762E-10	3.402625821E-10
288	4.13760978000000E-11	876.3423	1399.8520	17.31232591	22.51843839	3.068178611E-10	3.387117583E-10
289	4.06485430400000E-11	876.4022	1401.1050	17.28902423	22.49103037	3.066821098E-10	3.385473349E-10
290	3.99360670100000E-11	876.4603	1402.3390	17.26593312	22.46361105	3.065477467E-10	3.383827964E-10
291	3.92382763300000E-11	876.5165	1398.4980	17.24305045	22.36872964	3.064147624E-10	3.377123742E-10
292	3.85548091050000E-11	922.0489	1399.6770	17.27801470	22.34100988	3.064995955E-10	3.375462907E-10
293	3.78853225500000E-11	922.2456	1400.8380	17.25731484	22.31328469	3.063788910E-10	3.373801294E-10
294	3.72294722950000E-11	929.9093	1382.8410	17.26655530	21.93895882	3.064110353E-10	3.352624841E-10
295	3.65869340700000E-11	885.0111	1383.8960	17.16026757	21.91087011	3.058875426E-10	3.350924939E-10
296	3.59573860800000E-11	885.0644	1391.4830	17.13845111	21.88279327	3.057619591E-10	3.349225401E-10
297	3.53399869800000E-11	885.1159	1392.2770	17.11682450	21.85472992	3.056376436E-10	3.347526327E-10
298	3.47343211250000E-11	885.1659	1437.1540	17.09538313	21.82668180	3.055145693E-10	3.345827837E-10
299	3.41408318950000E-11	899.9466	1438.2430	17.12503937	21.71492860	3.056352011E-10	3.338076596E-10
300	3.35859484350000E-11	896.8512	1439.3160	17.09747824	21.67768278	3.055140381E-10	3.335811518E-10
301	3.30151319450000E-11	896.9037	1440.3730	17.07698108	21.64961527	3.053958307E-10	3.334114950E-10
302	3.24556745250000E-11	882.0789	1441.4150	17.05665796	21.62156711	3.052787944E-10	3.332419223E-10
303	3.19073065650000E-11	880.3649	1443.9820	17.03650761	22.77845542	3.051629230E-10	3.404961701E-10
304	3.13697609100000E-11	880.0308	1444.9970	17.01652697	22.88502449	3.050482008E-10	3.411068140E-10
305	3.08427936050000E-11	880.0410	1445.9980	17.01262480	22.85779826	3.049833105E-10	3.409467457E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
306	3.03266479500000E-11	880.0507	1446.9840	17.11501099	22.88841865	3.056201547E-10	3.411089208E-10
307	2.98427640800000E-11	880.0601	1447.9550	17.09603503	22.86138089	3.055078650E-10	3.409496855E-10
308	2.93680905400000E-11	880.8536	1448.9120	17.08050720	22.83430419	3.054147921E-10	3.407901673E-10
309	2.89024018750000E-11	901.9239	1449.8540	17.08079342	22.80719007	3.054127878E-10	3.406303756E-10
310	2.84455028300000E-11	904.7877	1450.7830	16.90742980	22.78004125	3.043782037E-10	3.404703284E-10
311	2.79971931000000E-11	904.8060	1451.6980	16.88862935	22.75285670	3.042718140E-10	3.403100189E-10
312	2.75572748550000E-11	907.0024	1452.5990	16.86997609	22.69120983	3.041664409E-10	3.399311839E-10
313	2.71255638300000E-11	904.6238	1453.4870	16.89169911	22.66402871	3.043562617E-10	3.397702136E-10
314	2.67018752650000E-11	904.6456	1454.3610	16.88494995	22.51742095	3.042937368E-10	3.388930479E-10
315	2.62860233100000E-11	904.6667	1455.2230	16.86152991	22.31755811	3.041003075E-10	3.377012137E-10
316	2.58778433050000E-11	904.6871	1441.4140	16.84380017	20.66134939	3.039997760E-10	3.276014589E-10
317	2.54771614800000E-11	918.8380	1442.2100	16.82620768	20.63513545	3.039001979E-10	3.274443368E-10
318	2.50838171350000E-11	918.8789	1442.9930	16.80874960	21.15245732	3.038015581E-10	3.306655156E-10
319	2.46976399650000E-11	945.0928	1443.7650	16.83809171	21.12325905	3.040267578E-10	3.304865976E-10
320	2.43184818450000E-11	932.9946	1425.6180	16.82071686	21.09409549	3.039285579E-10	3.303078757E-10
321	2.39461910850000E-11	933.0195	1426.4670	16.91819626	21.06497106	3.044538099E-10	3.301293766E-10
322	2.35806119350000E-11	927.3633	1427.3030	16.74611125	21.03588303	3.034136619E-10	3.299510866E-10
323	2.32216062700000E-11	903.7473	1428.1280	16.72460267	20.95101115	3.032289829E-10	3.294514051E-10
324	2.28690354700000E-11	903.7627	1428.9420	16.70910201	20.92213110	3.031407311E-10	3.292741118E-10
325	2.25227537850000E-11	903.7775	1429.7440	16.69372404	20.89329589	3.030533445E-10	3.290970942E-10
326	2.21826311100000E-11	903.7919	1430.5350	16.67846636	20.66534176	3.029668098E-10	3.276849476E-10
327	2.18485378350000E-11	936.0789	1435.0940	16.69796355	20.63681392	3.031282756E-10	3.275095900E-10
328	2.15203518750000E-11	936.1165	1435.8720	16.68204097	20.60834433	3.030394845E-10	3.273345814E-10
329	2.11979405500000E-11	936.1530	1436.6400	16.66622916	20.57993563	3.029514898E-10	3.271599386E-10
330	2.08811842500000E-11	936.1886	1437.3980	16.65052551	21.14712069	3.028642783E-10	3.307398500E-10
331	2.05699679200000E-11	941.0391	1438.1440	16.63814525	21.46795783	3.027771045E-10	3.326402776E-10
332	2.02641774950000E-11	936.5573	1446.9470	16.62268093	21.67915617	3.026916987E-10	3.338750082E-10
333	1.99637003950000E-11	936.5751	1447.3390	16.60731816	21.65190212	3.026070363E-10	3.337125018E-10
334	1.96684255250000E-11	936.5924	1447.7240	16.59205456	21.62466222	3.025231047E-10	3.335500512E-10
335	1.93782458500000E-11	907.2213	1457.5310	16.52609926	21.66179028	3.020440787E-10	3.337476928E-10
336	1.90930623550000E-11	907.2321	1457.9170	16.51264692	21.63471032	3.019692237E-10	3.335863248E-10
337	1.88127649350000E-11	907.2425	1458.2960	16.49928715	21.60764812	3.018950588E-10	3.334250351E-10
338	1.85372606150000E-11	907.2526	1458.6690	16.48601770	21.58060132	3.018215712E-10	3.332638109E-10
339	1.82664515370000E-11	918.1738	1459.0350	16.51071084	21.55357128	3.021404302E-10	3.331026582E-10
340	1.80002457100000E-11	918.3446	1459.3940	16.49635074	21.52656161	3.020623398E-10	3.329416016E-10
341	1.77385466000000E-11	939.8812	1459.7480	16.48942405	21.49957117	3.020107897E-10	3.327806336E-10
342	1.74812645300000E-11	941.9933	1460.0950	16.47526017	21.47260166	3.019340770E-10	3.326197658E-10
343	1.72283135550000E-11	935.6592	1454.6870	16.49195785	21.31789105	3.020089597E-10	3.316825723E-10
344	1.69796046600000E-11	935.6716	1455.0140	16.47795464	21.29096178	3.019331309E-10	3.315217999E-10
345	1.67350599200000E-11	914.1391	1455.3350	16.39940182	21.26406228	3.013025822E-10	3.313611828E-10
346	1.64945953700000E-11	914.1476	1448.1730	16.38721656	20.95203904	3.012361804E-10	3.294939594E-10
347	1.62581234800000E-11	914.1559	1443.1750	16.37510255	20.92520175	3.011703442E-10	3.293333655E-10
348	1.60255779100000E-11	914.1640	1443.7510	16.36305798	20.60233995	3.011050643E-10	3.274110071E-10
349	1.57968771700000E-11	972.1437	1444.3200	16.45454440	20.50908390	3.017940009E-10	3.268477014E-10
350	1.55179453150000E-11	930.5683	1444.8800	16.38820201	20.43438327	3.012657500E-10	3.263724543E-10
351	1.53507064000000E-11	922.6861	1445.4330	16.34700990	20.40865203	3.0101111433E-10	3.262171489E-10
352	1.51330960650000E-11	922.6941	1445.9780	16.33531046	20.38298198	3.009481089E-10	3.260622047E-10
353	1.49190449000000E-11	922.7018	1446.5150	16.32367271	21.23314867	3.008855838E-10	3.311118922E-10
354	1.47084784450000E-11	922.7093	1447.0450	16.31209473	21.20563858	3.008235586E-10	3.309455120E-10
355	1.45013338250000E-11	993.4887	1447.5680	16.42394678	21.17816142	3.015903309E-10	3.307793175E-10
356	1.42975476700000E-11	970.6134	1458.6050	16.41074784	21.71657407	3.015197825E-10	3.340155904E-10
357	1.40970515600000E-11	970.6272	1458.9300	16.39761127	21.68952298	3.014497440E-10	3.338529620E-10
358	1.38997891055000E-11	970.6405	1459.2490	16.39929440	21.66248382	3.014553481E-10	3.336903849E-10
359	1.37056978770000E-11	970.6535	1459.5630	16.40747217	21.63545913	3.014303570E-10	3.335278751E-10
360	1.35147163360000E-11	970.6661	1459.8720	16.39543308	21.60844785	3.013650609E-10	3.333654259E-10
361	1.33267882910000E-11	981.3543	1495.6820	16.46583803	21.98349579	3.018024861E-10	3.355795214E-10
362	1.31418527975000E-11	981.3621	1496.0280	16.45345884	21.95696154	3.017348397E-10	3.354207696E-10
363	1.29598530800000E-11	981.5382	1496.3690	16.44114611	21.93043242	3.016677166E-10	3.352620249E-10
364	1.27807525715000E-11	996.0244	1496.7050	16.42889860	21.90390606	3.016011091E-10	3.351032728E-10
365	1.26044776835000E-11	996.0393	1512.7900	16.41671422	22.00606552	3.015350066E-10	3.356682989E-10
366	1.24309731065000E-11	1006.3610	1513.1360	16.47520510	21.97976382	3.018501780E-10	3.355112336E-10
367	1.22601859675000E-11	972.4963	1513.4770	16.30200697	21.95346541	3.008075220E-10	3.353541633E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
368	1.20920789345000E-11	972.5065	1513.8130	16.29091756	21.92717134	3.007485879E-10	3.351970951E-10
369	1.19266031925000E-11	972.5164	1514.1440	16.27987578	21.90088218	3.006900733E-10	3.350400327E-10
370	1.17637152240000E-11	972.5261	1514.4690	16.26888119	21.87459444	3.006319760E-10	3.348829537E-10
371	1.16033616095000E-11	972.5354	1516.0620	16.25793147	21.84831696	3.005742825E-10	3.347259149E-10
372	1.14454992770000E-11	994.4902	1536.4200	16.31127096	21.64153533	3.009031911E-10	3.334507826E-10
373	1.12900855010000E-11	994.5019	1548.0290	16.30008711	21.61519484	3.008438089E-10	3.332930896E-10
374	1.11370726050000E-11	994.5133	1548.3920	16.28895031	21.58887028	3.007848394E-10	3.331354730E-10
375	1.09864182100000E-11	994.5243	1548.7500	16.27785914	21.40535462	3.007262755E-10	3.320582599E-10
376	1.08380852345000E-11	977.2600	1549.1020	16.20848187	21.37993260	3.002818435E-10	3.319056624E-10
377	1.06920266455000E-11	977.2684	1549.4490	16.19807005	21.35453328	3.002277944E-10	3.317531860E-10
378	1.05482007075000E-11	977.2765	1549.7910	16.18769274	21.32915587	3.001740896E-10	3.316008258E-10
379	1.04065759830000E-11	977.2844	1550.1280	16.17734860	21.30380678	3.001207223E-10	3.314486226E-10
380	1.02671110830000E-11	977.2921	1550.4600	16.16703661	21.27848443	3.000676878E-10	3.312965670E-10
381	1.01297597656000E-11	983.6569	1541.1150	16.17126570	21.09004754	3.000867141E-10	3.301318038E-10
382	9.99449609150000E-12	983.6648	1541.4250	16.16106908	21.06479493	3.000343650E-10	3.299799730E-10
383	9.86127426250000E-12	983.6725	1541.7310	16.15090159	21.03957556	2.999823303E-10	3.298283314E-10
384	9.73006363400000E-12	983.6800	1523.0210	16.14076170	20.72575574	2.999306013E-10	3.282063655E-10
385	9.60083375850000E-12	1009.2720	1523.3040	16.20552056	20.70072177	3.003206228E-10	3.280555255E-10
386	9.47353923650000E-12	1009.2810	1514.8320	16.19517633	20.67573531	3.002670813E-10	3.279049676E-10
387	9.34815496750000E-12	1009.2910	1515.0330	16.18486422	20.65079765	3.002138658E-10	3.277547000E-10
388	9.22464594900000E-12	1056.1380	1527.3790	16.30740527	20.68573409	3.011350581E-10	3.279700325E-10
389	9.10298227800000E-12	1056.1510	1527.5840	16.29605369	20.66101571	3.010754895E-10	3.278207195E-10
390	8.98312419900000E-12	1054.0380	1527.7850	16.27690509	20.63634469	3.009578765E-10	3.276716902E-10
391	8.86504715600000E-12	1054.0510	1527.9840	16.26576476	20.61172083	3.008997782E-10	3.275229434E-10
392	8.74872169150000E-12	1054.0630	1528.1790	16.25466281	20.58714341	3.008420359E-10	3.273744745E-10
393	8.634118447700000E-12	1054.0750	1532.4270	16.24359858	20.56261513	3.007846459E-10	3.272263009E-10
394	8.52120321200000E-12	1054.0860	1532.6200	16.23257049	20.53813375	3.007276001E-10	3.270784085E-10
395	8.40995192550000E-12	1052.7000	1532.8090	16.21711141	20.51370365	3.006036083E-10	3.269308252E-10
396	8.30033052550000E-12	1052.7110	1532.9950	16.20643571	20.45578986	3.005486505E-10	3.265790611E-10
397	8.19232024850000E-12	1052.7220	1533.1780	16.19579190	20.43163123	3.004940116E-10	3.264327570E-10
398	8.08588723050000E-12	1052.7320	1533.3580	16.18517909	20.40752625	3.004396867E-10	3.262867793E-10
399	7.98100795500000E-12	1052.7420	1533.5350	16.17459534	20.38347245	3.003856653E-10	3.261411122E-10
400	7.87765880650000E-12	1052.7520	1533.7100	16.16404008	20.35947391	3.003319455E-10	3.259957818E-10
401	7.78419696300000E-12	1057.1990	1528.6970	16.16381888	20.23301665	3.003722396E-10	3.252272607E-10
402	7.66357511600000E-12	1057.2070	1528.8620	16.15315364	20.20905474	3.003182355E-10	3.250818080E-10
403	7.58441829250000E-12	1052.4870	1529.0250	16.13426984	20.18515808	3.001198820E-10	3.249367565E-10
404	7.48669317300000E-12	1052.4960	1516.0720	16.12420085	20.81934424	3.000691769E-10	3.287805635E-10
405	7.39037673600000E-12	1052.5050	1497.1010	16.11415237	20.79231890	3.000187250E-10	3.286183322E-10
406	7.29545615900000E-12	1052.5130	1497.3430	16.10412448	20.76534699	2.999685278E-10	3.284564192E-10
407	7.20189832050000E-12	1052.5210	1497.5820	16.09411567	20.73842872	2.999185769E-10	3.282948259E-10
408	7.10968049600000E-12	1055.8110	1497.8180	16.08845011	20.71156438	2.999501214E-10	3.281335546E-10
409	7.01878496150000E-12	1055.8180	1498.0500	16.07820126	20.68475497	2.998992674E-10	3.279726116E-10
410	6.92919409200000E-12	1044.1480	1489.3790	16.06796836	20.83316174	2.998267357E-10	3.288567408E-10
411	6.84088016250000E-12	1043.4550	1489.6030	16.05772891	20.80645363	2.997046952E-10	3.286965620E-10
412	6.75382074550000E-12	1042.8920	1489.8240	16.04564880	20.7779623	2.996573994E-10	3.285366848E-10
413	6.66799836450000E-12	1042.6110	1490.0420	16.03541369	20.75318804	2.996103120E-10	3.283770996E-10
414	6.58339569150000E-12	1042.6150	1487.4520	16.02588338	20.72663479	2.995634299E-10	3.282178437E-10
415	6.49999034850000E-12	1042.6190	1487.5250	16.016336343	20.70013193	2.995167459E-10	3.280588881E-10
416	6.41776510650000E-12	1042.6220	1487.5960	16.00685271	18.96870276	2.994906491E-10	3.175936627E-10
417	6.33669778550000E-12	1042.6250	1459.1340	15.99735020	20.08004738	2.994352182E-10	3.241901830E-10
418	6.25677120600000E-12	1042.6290	1518.9620	15.98785473	20.05485254	2.993900859E-10	3.240374847E-10
419	6.17796833700000E-12	1042.7060	1519.0550	15.97988509	20.71060269	2.993451317E-10	3.280868067E-10
420	6.10027214750000E-12	1045.7140	1519.1460	15.97875871	20.68452518	2.999303500E-10	3.279302160E-10
421	6.02366065550000E-12	1045.1280	1519.2360	15.96726564	20.65849992	2.992557355E-10	3.277739387E-10
422	5.94811692900000E-12	1044.8310	1530.4940	15.95758868	20.63252823	2.992388660E-10	3.276179832E-10
423	5.87362923450000E-12	1044.8340	1547.4830	15.94820971	20.60660863	2.991937840E-10	3.274623404E-10
424	5.80018064000000E-12	1044.8360	1547.6190	15.93883210	20.58074486	2.991488550E-10	3.273070344E-10
425	5.72774946050000E-12	1044.8390	1547.7530	15.92945483	19.70772419	2.991040752E-10	3.216141648E-10
426	5.65631891250000E-12	1044.8410	1547.8850	15.92007688	19.68384288	2.990776243E-10	3.214751360E-10
427	5.58587914450000E-12	1044.9140	1548.0140	15.91244391	19.66002974	2.990355107E-10	3.213365237E-10
428	5.51641109500000E-12	1045.3390	1548.1420	15.90613934	19.63628221	2.989923277E-10	3.211983115E-10
429	5.44789906950000E-12	1058.4440	1548.2680	15.91225040	19.80938721	2.989490566E-10	3.225012358E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
430	5.38032658150000E-12	1058.4490	1548.3920	15.90304296	20.45266980	2.989059108E-10	3.264850892E-10
431	5.31368714550000E-12	1058.4530	1553.0650	15.89383113	20.42747771	2.988628839E-10	3.263334025E-10
432	5.24795927450000E-12	1060.8250	1553.1660	15.89404442	20.40234367	2.988515908E-10	3.261820686E-10
433	5.18313658200000E-12	1060.8290	1553.2660	15.88490923	20.37726791	2.988090658E-10	3.260310893E-10
434	5.11919258050000E-12	1069.9740	1563.4820	15.89007589	20.35225114	2.988403841E-10	3.258804696E-10
435	5.05612502250000E-12	1069.9780	1563.6050	15.88089244	20.32729391	2.987976698E-10	3.257302125E-10
436	4.99391504500000E-12	1069.9830	1563.7260	15.87170216	19.52901140	2.987550607E-10	3.205356409E-10
437	4.93255136000000E-12	1069.9870	1563.8460	15.86250433	19.50592139	2.987125538E-10	3.204014180E-10
438	4.87201979800000E-12	1071.4020	1563.9630	15.86220022	19.48289866	2.986930670E-10	3.202676071E-10
439	4.81230856600000E-12	1071.4060	1564.0790	15.85310835	19.45994543	2.986512107E-10	3.201342231E-10
440	4.75340505900000E-12	1071.4100	1564.1930	15.84400680	20.13530137	2.986094440E-10	3.245174489E-10
441	4.69529601850000E-12	1151.4560	1564.3050	16.03625761	20.11108546	2.999192277E-10	3.243711892E-10
442	4.63797095850000E-12	1084.1670	1564.4160	15.82879213	20.08693381	2.986501634E-10	3.242253254E-10
443	4.58141211600000E-12	1083.7770	1564.5250	15.81601234	20.06284612	2.985989192E-10	3.240798553E-10
444	4.52561142050000E-12	1083.4220	1564.6320	15.80442052	20.03882371	2.985407868E-10	3.239347882E-10
445	4.47055925700000E-12	1079.9450	1554.3500	15.79509513	20.01486732	2.984576160E-10	3.237901283E-10
446	4.41624408000000E-12	1079.9510	1554.4310	15.78542343	19.99097647	2.984180541E-10	3.236458731E-10
447	4.36265540350000E-12	1079.9560	1541.3440	15.77611457	19.82762515	2.983785529E-10	3.226118143E-10
448	4.30978176120000E-12	1079.9610	1541.4180	15.76678917	19.80429955	2.983391080E-10	3.224705745E-10
449	4.25761274135000E-12	1079.9670	1518.2980	15.75744639	19.78104326	2.982997150E-10	3.223297659E-10
450	4.20613741730000E-12	1079.9720	1518.3430	15.74808502	19.75785764	2.982603700E-10	3.221893967E-10
451	4.15423889945000E-12	1083.1880	1518.3870	15.73886463	19.73559768	2.982367187E-10	3.220505220E-10
452	4.10414176020000E-12	1083.1910	1518.4300	15.73143542	19.71253844	2.981954699E-10	3.219109989E-10
453	4.05470799240000E-12	1083.1940	1573.9830	15.72206939	19.68955187	2.981542543E-10	3.217719283E-10
454	4.00592776850000E-12	1083.3660	1574.0790	15.71624205	19.53470286	2.981218862E-10	3.210922821E-10
455	3.95779077575000E-12	1084.0780	1574.1740	15.75130918	19.51244845	2.981465569E-10	3.209590425E-10
456	3.91028773615000E-12	1084.0820	1574.2670	15.74236512	19.49026803	2.981090462E-10	3.208262605E-10
457	3.86340938160000E-12	1081.2500	1574.3590	15.74173628	19.46816183	2.980349148E-10	3.206939376E-10
458	3.81714698365000E-12	1081.2540	1574.4500	15.73323035	19.58066404	2.979977234E-10	3.213428802E-10
459	3.77149080385000E-12	1081.2580	1574.5390	15.72470152	19.55854610	2.979605471E-10	3.212103220E-10
460	3.72643137125000E-12	1081.2620	1574.6270	15.71614900	19.53649957	2.979233809E-10	3.210782067E-10
461	3.68195443825000E-12	1081.2660	1574.7140	15.70757210	19.51452401	2.978862216E-10	3.209465302E-10
462	3.63805787960000E-12	1081.2700	1574.7990	15.69896980	19.49262012	2.978490647E-10	3.208152986E-10
463	3.59473304110000E-12	1082.7690	1574.8830	15.70505986	19.47078722	2.978459727E-10	3.206845079E-10
464	3.55197279345000E-12	1082.7730	1574.9660	15.69657565	19.44902743	2.9780944117E-10	3.205541706E-10
465	3.50976750215000E-12	1082.7760	1575.0480	15.68806511	19.42733932	2.977728464E-10	3.204242789E-10
466	3.46811006760000E-12	1093.5090	1557.5760	15.68628973	19.40572298	2.977834604E-10	3.202948335E-10
467	3.42699290005000E-12	1093.5130	1557.6400	15.67763737	19.38418046	2.977463024E-10	3.201658468E-10
468	3.38640690465000E-12	1094.1290	1557.7020	15.668895745	18.53648293	2.977091350E-10	3.1531411170E-10
469	3.34634554125000E-12	1094.1330	1607.9710	15.66024882	18.93347813	2.976719544E-10	3.177940698E-10
470	3.30680125970000E-12	1094.1370	1608.0490	15.65151102	18.91459498	2.976347563E-10	3.176817174E-10
471	3.26776601475000E-12	1094.1400	1608.1250	15.64274280	19.37101026	2.975975369E-10	3.200393410E-10
472	3.22923279095000E-12	1094.3270	1608.2000	15.64852931	19.34984965	2.975895607E-10	3.199123727E-10
473	3.19119036535000E-12	1094.3310	1608.2750	15.63989573	19.32875929	2.975530315E-10	3.197858431E-10
474	3.15363484100000E-12	1094.3340	1608.3480	15.63123066	19.30774034	2.975164736E-10	3.196597603E-10
475	3.11655998445000E-12	1094.3380	1608.4200	15.62253310	19.28679326	2.974798824E-10	3.195341267E-10
476	3.07995983975000E-12	1243.7340	1608.4910	15.85034079	19.26591668	2.992232999E-10	3.194089345E-10
477	3.04382693595000E-12	1243.7470	1608.5600	15.84124150	19.24511345	2.991814589E-10	3.192842020E-10
478	3.00815482695000E-12	1208.3470	1634.6170	15.83213905	19.22438056	2.991397102E-10	3.191599097E-10
479	2.97293758155000E-12	1208.3650	1634.6930	15.82303279	19.20371990	2.990980517E-10	3.190360702E-10
480	2.93816776345000E-12	1208.3820	1634.7690	15.81392230	19.18313218	2.990564787E-10	3.189126884E-10
481	2.90383997120000E-12	1197.7210	1634.8430	15.80480674	19.06171037	2.987465270E-10	3.179359342E-10
482	2.86994779335000E-12	1197.7350	1634.9160	15.79568548	19.04149458	2.987061322E-10	3.178139392E-10
483	2.83648483330000E-12	1197.7500	1634.9880	15.78655774	19.02135718	2.986658096E-10	3.176924357E-10
484	2.80344571930000E-12	1197.7640	1635.0590	15.79386774	19.00129690	2.986255550E-10	3.175714158E-10
485	2.77082355470000E-12	1197.7780	1635.1290	15.78495461	19.07562003	2.985853658E-10	3.182095480E-10
486	2.73861299250000E-12	1197.7910	1635.1980	15.776603038	19.05566830	2.985452379E-10	3.180897278E-10
487	2.70680866590000E-12	1197.8040	1635.2660	15.76709418	19.03578849	2.985051670E-10	3.179703615E-10
488	2.67540423275000E-12	1197.8170	1635.3330	15.75814565	19.01597981	2.984651516E-10	3.178514450E-10
489	2.64439485600000E-12	1197.8300	1635.4000	15.74918381	18.99624394	2.984251869E-10	3.177329881E-10
490	2.61377200570000E-12	1227.0090	1635.4650	15.82812476	18.97657992	2.989814032E-10	3.176149855E-10
491	2.58353299795000E-12	1227.0180	1635.5290	15.81965023	18.95698728	2.989428167E-10	3.174974347E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
492	2.55367262930000E-12	1227.0280	1635.5920	15.81116913	18.93746613	2.989043048E-10	3.173803360E-10
493	2.52418560225000E-12	1227.0370	1635.6540	15.80268080	18.91801805	2.988658642E-10	3.172637003E-10
494	2.49506660940000E-12	1227.0460	1635.7160	15.79418487	18.89864227	2.988274927E-10	3.171475226E-10
495	2.46631136325000E-12	1227.0550	1635.7760	15.78568050	18.87933800	2.987891863E-10	3.170317983E-10
496	2.43791407615000E-12	1227.0640	1630.6700	15.75564116	18.78419259	2.987509412E-10	3.164048031E-10
497	2.40986996550000E-12	1227.0720	1630.7280	15.74649370	18.76539650	2.987127562E-10	3.162919042E-10
498	2.38217477350000E-12	1227.0800	1630.7840	15.73733756	19.04056487	2.986746272E-10	3.177805593E-10
499	2.35482322740000E-12	1227.0890	1630.8400	15.72817209	19.02094654	2.986365499E-10	3.176622864E-10
500	2.32781056440000E-12	1226.1600	1630.8950	15.71899703	19.00140241	2.984070963E-10	3.175444799E-10
501	2.30113253660000E-12	1226.1730	1630.9490	15.70981135	18.98192977	2.983683160E-10	3.174271227E-10
502	2.27478440100000E-12	1221.5610	1631.0020	15.54647902	18.96253011	2.978195100E-10	3.173102241E-10
503	2.24876140965000E-12	1221.5740	1631.0550	15.53701891	18.94320332	2.977796845E-10	3.171937845E-10
504	2.22305983945000E-12	1221.5870	1631.1060	15.52753172	18.92394881	2.977398433E-10	3.170777996E-10
505	2.19767495730000E-12	1221.6000	1631.1570	15.51801672	18.90476689	2.976999826E-10	3.169622716E-10
506	2.17260254005000E-12	1218.9940	1596.0070	15.50788947	18.88565758	2.976308487E-10	3.168472014E-10
507	2.14783786450000E-12	1219.0060	1596.0480	15.49839317	18.86662208	2.975913467E-10	3.167325968E-10
508	2.12337772740000E-12	1219.0180	1596.0890	15.48886655	18.84765820	2.975518132E-10	3.166184438E-10
509	2.09921742040000E-12	1219.0290	1596.1290	15.47930910	18.80038998	2.975122453E-10	3.162770898E-10
510	2.07535323525000E-12	1219.0410	1560.0600	15.46972005	18.78172964	2.974726404E-10	3.161647694E-10
511	2.05178098345000E-12	1206.0700	1560.0780	15.46009900	18.76314174	2.974329958E-10	3.160529067E-10
512	2.02849645670000E-12	1206.0730	1560.0950	15.45044526	18.74462671	2.973933095E-10	3.159415043E-10
513	2.00549699140000E-12	1206.0770	1563.1230	15.44075794	18.72618572	2.973535762E-10	3.158305703E-10
514	1.98277738410000E-12	1206.0800	1563.1440	15.43103651	18.70781512	2.973137944E-10	3.157200806E-10
515	1.96033445630000E-12	1206.0830	1563.1640	15.42128053	18.68951830	2.972739622E-10	3.156100580E-10
516	1.93816504930000E-12	1206.0870	1563.1840	15.44965097	18.67129527	2.974203129E-10	3.155005028E-10
517	1.916264463960000E-12	1206.0900	1563.2030	15.59523820	18.65314350	2.977860436E-10	3.153913989E-10
518	1.89463007340000E-12	1206.0930	1569.1600	15.58674310	17.98474759	2.977503063E-10	3.116885963E-10
519	1.87325818215000E-12	1206.0960	1569.1950	15.42084345	17.96941960	2.972317856E-10	3.115977884E-10
520	1.85214514700000E-12	1207.7770	1574.9290	15.41122336	18.02530341	2.971927082E-10	3.119230294E-10
521	1.83128729930000E-12	1207.7800	1574.9490	15.40156750	18.00986891	2.971535709E-10	3.118314343E-10
522	1.81068200515000E-12	1225.4860	1574.9680	15.39187479	17.99450142	2.971143706E-10	3.117402728E-10
523	1.79032510575000E-12	1225.4960	1574.9870	15.38214533	17.97920072	2.970751063E-10	3.116495445E-10
524	1.77021395730000E-12	1225.5050	1575.0060	15.37237770	17.96396714	2.970357720E-10	3.115592516E-10
525	1.75034492085000E-12	1225.5140	1575.0240	15.36257205	17.94880084	2.969963686E-10	3.114693949E-10
526	1.73071485255000E-12	1225.5230	1575.0420	15.35272730	17.93370111	2.969568906E-10	3.113799703E-10
527	1.71132112840000E-12	1225.5320	1575.0600	15.34284314	17.91866711	2.969173378E-10	3.112909732E-10
528	1.69216011440000E-12	1225.1580	1575.0770	15.33291840	17.90369938	2.968777039E-10	3.112024069E-10
529	1.67322867165000E-12	1225.1610	1575.0940	15.38980343	17.88879772	2.971561470E-10	3.111142700E-10
530	1.65452469105000E-12	1225.1640	1575.1110	15.38003668	17.87396150	2.971165304E-10	3.110265592E-10
531	1.63604454355000E-12	1225.1670	1579.1960	15.37023396	17.86024332	2.970768530E-10	3.109392732E-10
532	1.61778510015000E-12	1225.1700	1579.2130	15.50715812	17.84558382	2.974701388E-10	3.108524131E-10
533	1.59974375170000E-12	1225.1720	1579.2300	15.49841497	17.83098883	2.974341637E-10	3.107659755E-10
534	1.58191788905000E-12	1225.1750	1579.2460	15.48964132	17.81645750	2.973981454E-10	3.106799558E-10
535	1.56430488100000E-12	1225.1780	1579.2620	15.4979546	17.80199006	2.975793606E-10	3.105943604E-10
536	1.54689890250000E-12	1225.1810	1579.2770	15.48991239	17.78758643	2.975436111E-10	3.105091827E-10
537	1.52969295215000E-12	1229.7670	1579.2930	15.48182435	17.77324555	2.975644892E-10	3.104244205E-10
538	1.51269129840000E-12	1229.7700	1579.3080	15.30469170	17.75896792	2.97235498E-10	3.103400752E-10
539	1.49589133705000E-12	1228.5670	1579.3230	15.29482815	17.74475280	2.966845649E-10	3.102413786E-10
540	1.47929146895000E-12	1228.5740	1579.3380	15.28492264	17.73060043	2.966454894E-10	3.101579724E-10
541	1.46288808980000E-12	1228.5810	1579.3520	15.27497391	17.71650974	2.966063181E-10	3.100749724E-10
542	1.44667910535000E-12	1228.5880	1579.3660	15.26498188	17.70248125	2.965670499E-10	3.099923819E-10
543	1.43066190645000E-12	1228.5950	1579.3800	15.25494583	17.68851411	2.965276822E-10	3.099101957E-10
544	1.41483440875000E-12	1228.6020	1579.3940	15.24468487	17.67460829	2.964882112E-10	3.098284130E-10
545	1.39919351295000E-12	1228.6090	1579.4080	15.23473905	17.66076331	2.964486365E-10	3.097470330E-10
546	1.38373763475000E-12	1228.6150	1579.4210	15.22456731	17.64697944	2.964089540E-10	3.096660558E-10
547	1.36846367485000E-12	1228.6220	1579.4340	15.21434929	17.63325582	2.963691618E-10	3.095854773E-10
548	1.35336955385000E-12	1228.6280	1579.4470	15.28346727	17.61959256	2.966934578E-10	3.095052982E-10
549	1.33845304880000E-12	1239.5560	1579.4600	15.27350843	17.60598869	2.966540032E-10	3.094255118E-10
550	1.32371005080000E-12	1239.5630	1579.4720	15.26350872	17.59244497	2.966144612E-10	3.093461245E-10
551	1.30913968805000E-12	1239.5690	1579.4840	15.25346761	17.57896037	2.965748294E-10	3.092671293E-10
552	1.29474090600000E-12	1239.5760	1579.4970	15.24338468	17.56553412	2.965351060E-10	3.091885217E-10
553	1.28051060535000E-12	1236.3010	1574.8660	15.23325938	17.49327653	2.964952887E-10	3.087287679E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
554	1.26644721665000E-12	1236.3080	1574.8780	15.33192873	17.48027941	2.966930513E-10	3.086527745E-10
555	1.25254867040000E-12	1236.3140	1574.8890	15.32318939	17.46733943	2.966574410E-10	3.085771624E-10
556	1.23881237725000E-12	1236.3200	1574.9000	15.31441734	17.45445623	2.966217336E-10	3.085019299E-10
557	1.22523627760000E-12	1236.3260	1574.9110	15.30561283	17.44162982	2.965859282E-10	3.084270771E-10
558	1.21181929710000E-12	1236.3310	1574.9210	15.30827133	17.42885972	2.965500216E-10	3.083526013E-10
559	1.19855836615000E-12	1236.3370	1574.9320	15.29903432	17.41614569	2.965140122E-10	3.082785011E-10
560	1.18545191775000E-12	1236.3430	1574.9420	15.16896507	17.40348695	2.961606599E-10	3.082047717E-10
561	1.17249838698000E-12	1236.3480	1574.9520	15.15870489	17.39088412	2.961211382E-10	3.081314175E-10
562	1.15969520471000E-12	1236.3530	1574.9620	15.14839635	17.37833609	2.960814939E-10	3.080584322E-10
563	1.14704080943500E-12	1236.3590	1574.9720	15.13803892	17.36584280	2.960417245E-10	3.079858154E-10
564	1.13453364358500E-12	1256.6030	1574.9820	15.12763157	17.35340377	2.960018269E-10	3.079135639E-10
565	1.12217164310500E-12	1256.6090	1574.9910	15.11717417	17.34101892	2.959617997E-10	3.078416771E-10
566	1.10995274641500E-12	1256.6150	1575.0000	15.10666631	17.32868745	2.959216410E-10	3.077701515E-10
567	1.09787489292500E-12	1256.6210	1575.0100	15.09610734	17.31640966	2.958813481E-10	3.076989878E-10
568	1.08593753704500E-12	1256.6270	1575.0190	15.08549684	17.30418486	2.958409192E-10	3.076281834E-10
569	1.07413761066000E-12	1256.6330	1575.0280	15.07483429	17.29201271	2.958003518E-10	3.075577352E-10
570	1.06247457065500E-12	1256.6390	1562.9040	15.06411877	17.18807329	2.957596428E-10	3.069136663E-10
571	1.05094585490500E-12	1259.9200	1562.9110	15.12614752	17.17648602	2.960380766E-10	3.068468778E-10
572	1.03954991227500E-12	1259.9220	1562.9190	15.11571769	17.16494917	2.959979504E-10	3.067804343E-10
573	1.02828519311500E-12	1259.9240	1562.9270	15.10523980	17.15346234	2.959577024E-10	3.067143320E-10
574	1.01715065277500E-12	1259.9260	1562.9350	15.09471308	17.14202549	2.959173287E-10	3.066485720E-10
575	1.00614373259500E-12	1259.9270	1562.9420	15.08413769	17.13063764	2.958768299E-10	3.065831465E-10
576	9.95263389905000E-13	1276.5410	1562.9490	15.07351257	17.11929873	2.958362017E-10	3.065180577E-10
577	9.84508583520000E-13	1266.1950	1562.9560	15.06283751	17.10800877	2.957954427E-10	3.064533040E-10
578	9.73876251760000E-13	1266.1970	1562.9640	15.05979598	17.09676682	2.957265953E-10	3.063888813E-10
579	9.63366364925000E-13	1266.1990	1562.9710	15.04917223	17.08557302	2.956863313E-10	3.063247893E-10
580	9.52976873315000E-13	1266.2010	1562.9770	15.03849582	17.07442681	2.956459244E-10	3.062610259E-10
581	9.42706232725000E-13	1266.2020	1562.9840	15.02776700	17.06332768	2.956053744E-10	3.061975875E-10
582	9.32552900435000E-13	1266.2040	1562.9910	15.01698452	17.05227562	2.955646774E-10	3.061344747E-10
583	9.22515838725000E-13	1266.2060	1562.9970	15.00614855	17.04126976	2.955238328E-10	3.060716816E-10
584	9.12593506360000E-13	1266.2070	1563.0040	14.99525834	17.03031017	2.954823833E-10	3.060092096E-10
585	9.02783857105000E-13	1266.2090	1557.5980	14.98431323	16.92495524	2.954416909E-10	3.053731214E-10
586	8.93085168755000E-13	1266.2110	1557.6090	14.97331289	16.91459452	2.954003891E-10	3.053144704E-10
587	8.83497081145000E-13	1266.2120	1557.6200	14.96225695	16.90427739	2.953589311E-10	3.052561250E-10
588	8.74018098580000E-13	1272.9670	1557.6310	14.95114479	16.89400333	2.953173148E-10	3.051980812E-10
589	8.64646681805000E-13	1272.9720	1557.6420	14.93997628	16.88377154	2.952755389E-10	3.051403341E-10
590	8.55382302060000E-13	1272.9760	1557.6530	14.92875071	16.87358240	2.952336008E-10	3.050828875E-10
591	8.46222411575000E-13	1273.2340	1557.6630	14.96245437	16.66644447	2.953741658E-10	3.034624303E-10
592	8.37166987085000E-13	1281.0050	1557.6730	14.95138528	16.65783915	2.953328540E-10	3.034023597E-10
593	8.28214492800000E-13	1279.0730	1557.6830	14.94026059	16.64926820	2.952913873E-10	3.033449711E-10
594	8.19362885950000E-13	1279.0750	1557.6930	14.92908111	16.64073254	2.952497626E-10	3.032973821E-10
595	8.10611641240000E-13	1279.0780	1557.7030	14.91784581	16.63223074	2.952079781E-10	3.032500389E-10
596	8.01959728870000E-13	1279.0800	1557.7130	14.91015460	16.99342793	2.951660338E-10	3.058876152E-10
597	7.93405107555000E-13	1279.0830	1557.7230	14.89885696	16.98272477	2.951239239E-10	3.058270217E-10
598	7.84947758980000E-13	1279.0850	1557.7320	14.88750231	16.97206746	2.950816501E-10	3.057667439E-10
599	7.76585643840000E-13	1279.0880	1557.7410	14.87608934	16.96145489	2.950392084E-10	3.057067750E-10
600	7.68317733250000E-13	1279.0900	1557.7500	14.86461844	16.95088749	2.949965988E-10	3.0564711186E-10
601	7.60143000110000E-13	1279.0920	1557.7590	14.98123302	16.94036393	2.958174129E-10	3.055877659E-10
602	7.52060415385000E-13	1279.0950	1557.7680	14.97068073	16.92988478	2.957777593E-10	3.055287212E-10
603	7.44068953310000E-13	1279.0970	1557.7770	14.96007826	16.91944937	2.957379647E-10	3.054699804E-10
604	7.36167081065000E-13	1279.0990	1557.7860	14.94942578	16.90905724	2.956980290E-10	3.054115411E-10
605	7.28354277810000E-13	1279.1010	1557.7940	14.93872235	16.89870827	2.956579507E-10	3.053534024E-10
606	7.20629012705000E-13	1281.9480	1557.8020	14.92796779	16.88840140	2.956177273E-10	3.052955582E-10
607	7.12990764415000E-13	1281.9500	1557.8110	14.91716194	16.87813718	2.955773581E-10	3.052380119E-10
608	7.05438003585000E-13	1281.9520	1557.8190	14.90630375	16.86791427	2.955368397E-10	3.051807558E-10
609	6.97969704375000E-13	1310.6790	1557.8270	14.89539336	16.85773306	2.954961711E-10	3.051237920E-10
610	6.90585348420000E-13	1310.6850	1557.8350	14.88442982	16.84759361	2.954553492E-10	3.050671226E-10
611	6.83283405870000E-13	1310.6900	1557.8430	14.87341355	16.83749409	2.954143756E-10	3.050107345E-10
612	6.76063357865000E-13	1310.6950	1557.8500	14.86234346	16.82743531	2.953732457E-10	3.049546342E-10
613	6.68923676535000E-13	1310.7000	1557.8580	14.85121924	16.81741643	2.953319577E-10	3.048988158E-10
614	6.61863843020000E-13	1278.7150	1552.8450	14.95438868	16.80743709	2.957588442E-10	3.048432785E-10
615	6.54882834945000E-13	1278.7160	1552.8490	14.94346072	16.79749685	2.957179290E-10	3.047880186E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
616	6.47979629935000E-13	1278.7180	1552.8520	14.93247889	16.78759646	2.956768631E-10	3.047330428E-10
617	6.41153710120000E-13	1278.7200	1552.8550	14.92144409	16.77773396	2.956356464E-10	3.046783370E-10
618	6.34403549115000E-13	1278.7210	1552.8580	14.82443994	16.76790914	2.950519818E-10	3.046239011E-10
619	6.27728629545000E-13	1278.7230	1552.8610	14.81321187	16.75812274	2.950107507E-10	3.045697404E-10
620	6.21127426015000E-13	1278.7240	1552.8640	14.80192594	16.74837409	2.949693448E-10	3.045158508E-10
621	6.14599927140000E-13	1278.7260	1552.8670	14.79058124	16.73866203	2.949277613E-10	3.044622245E-10
622	6.08145112030000E-13	1278.7270	1552.8700	14.77917705	16.72898656	2.948859970E-10	3.044088624E-10
623	6.01761959795000E-13	1278.7280	1552.8730	14.76771331	16.71934798	2.948440513E-10	3.043557674E-10
624	5.95449450535000E-13	1278.7300	1562.2680	14.75619008	16.70974505	2.948019241E-10	3.043029304E-10
625	5.89207068855000E-13	1278.7310	1562.2750	14.74460593	16.70017785	2.947596108E-10	3.042503536E-10
626	5.83033289855000E-13	1278.7320	1562.2820	14.73296185	16.69064569	2.947171137E-10	3.041980322E-10
627	5.76928609625000E-13	1298.0950	1562.2890	14.72125537	16.31883038	2.946744246E-10	3.018115672E-10
628	5.70890998265000E-13	1298.0980	1562.2950	14.70948833	16.31086256	2.946315491E-10	3.017700065E-10
629	5.64919941370000E-13	1298.1020	1562.3020	14.69765933	16.29822789	2.945884820E-10	3.015505625E-10
630	5.59015430525000E-13	1298.1050	1562.3080	14.68576763	16.28864426	2.945452212E-10	3.016807594E-10
631	5.53175436820000E-13	1298.1090	1562.3150	14.67381380	16.27907734	2.945017676E-10	3.016340895E-10
632	5.47400456840000E-13	1298.1120	1562.3210	14.66179648	16.26952704	2.944581168E-10	3.015875855E-10
633	5.41688967170000E-13	1301.0160	1562.3270	14.76595235	16.25999229	2.946678734E-10	3.015412457E-10
634	5.36040454395000E-13	1301.0170	1562.3330	14.75411560	16.25047282	2.946242173E-10	3.014950685E-10
635	5.30453901585000E-13	1301.0180	1562.3390	14.74221860	16.24096880	2.945803819E-10	3.014490545E-10
636	5.24928794830000E-13	1291.1600	1562.3450	14.73026069	16.23147940	2.945363648E-10	3.014031939E-10
637	5.19464622200000E-13	1291.1600	1562.3510	14.71824230	16.22200445	2.944921668E-10	3.013574960E-10
638	5.14060871270000E-13	1291.1610	1562.3560	14.87222958	16.21254294	2.954357353E-10	3.013119504E-10
639	5.08716020110000E-13	1291.1610	1562.3620	14.86202309	16.20309540	2.953955812E-10	3.012665579E-10
640	5.03429909795000E-13	1290.8760	1562.3670	14.68320636	16.19366113	2.944391461E-10	3.012213142E-10
641	4.98201826395000E-13	1290.8760	1562.3730	14.67099831	16.18423913	2.943943883E-10	3.011762217E-10
642	4.93031056475000E-13	1290.8770	1562.3780	14.65872826	16.17482959	2.943494427E-10	3.011312776E-10
643	4.87916886105000E-13	1290.8770	1562.3830	14.64639670	16.16543219	2.943043103E-10	3.010864720E-10
644	4.82858754340000E-13	1290.8780	1562.3890	14.63400185	16.15604642	2.942589856E-10	3.010418163E-10
645	4.77855997255000E-13	1290.8780	1562.3940	14.62154485	16.14667208	2.942134714E-10	3.009972982E-10
646	4.72907902900000E-13	1290.8780	1562.3990	14.60902441	16.13730840	2.941677636E-10	3.009529198E-10
647	4.68013908845000E-13	1290.8790	1562.4040	14.59644031	16.12795501	2.941218608E-10	3.009086774E-10
648	4.63173353640000E-13	1290.8790	1562.4090	14.58379219	16.11861175	2.940757615E-10	3.008645719E-10
649	4.58385543670000E-13	1290.8800	1562.4140	14.49921405	16.10927806	2.939372496E-10	3.008205984E-10
650	4.53649796220000E-13	1289.3160	1562.4190	14.48644279	16.09955371	2.938912085E-10	3.007767551E-10
651	4.48965660215000E-13	1289.3170	1562.4230	14.47360697	16.09076917	2.938449617E-10	3.007330425E-10
652	4.44332574710000E-13	1289.3180	1562.4280	14.46070440	16.08186195	2.937985028E-10	3.006894576E-10
653	4.39749928260000E-13	1289.3190	1562.4330	14.44773670	16.07296407	2.937518361E-10	3.006459979E-10
654	4.35217159920000E-13	1289.3200	1562.4370	14.43470130	16.06407502	2.937049533E-10	3.006026613E-10
655	4.30733659235000E-13	1289.3210	1562.4420	14.42160047	16.05519453	2.936578611E-10	3.005594455E-10
656	4.26298966260000E-13	1289.3210	1562.4460	14.40843263	16.04632214	2.936105546E-10	3.005163503E-10
657	4.21912369540000E-13	1289.3220	1562.4500	14.39519825	16.03745758	2.935630339E-10	3.004733735E-10
658	4.17573460125000E-13	1289.3230	1562.4550	14.38189553	16.02860039	2.935152945E-10	3.004305122E-10
659	4.13281627560000E-13	1289.3240	1562.4590	14.36852482	16.01975024	2.934673362E-10	3.003877638E-10
660	4.09036311395000E-13	1289.3250	1562.4630	14.35508744	16.01090683	2.934191629E-10	3.003451300E-10
661	4.04837003165000E-13	1289.3260	1562.4670	14.34158050	16.00206959	2.933707656E-10	3.003026034E-10
662	4.00683192425000E-13	1289.3260	1562.4710	14.32800561	15.99323833	2.933221485E-10	3.002601881E-10
663	3.96574370710000E-13	1295.1410	1562.4750	14.31436083	15.98441265	2.932733057E-10	3.002178782E-10
664	3.92509978065000E-13	1295.1410	1562.4790	14.30064832	15.97559204	2.932242429E-10	3.001756720E-10
665	3.88489556525000E-13	1295.1410	1562.4830	14.28686508	15.96677629	2.931749515E-10	3.001335697E-10
666	3.84512546135000E-13	1295.1420	1562.4870	14.33578386	15.95796496	2.933648636E-10	3.000915680E-10
667	3.80578488435000E-13	1295.1420	1562.4900	14.29755422	15.94915778	2.930587629E-10	3.000496667E-10
668	3.76686925955000E-13	1295.1420	1562.4940	14.28371885	15.97303666	2.930095231E-10	3.000078609E-10
669	3.72837349240000E-13	1295.1430	1562.4980	14.26981147	15.96613328	2.929600471E-10	2.999661518E-10
670	3.69029250320000E-13	1298.5450	1562.5010	14.25583128	15.95923282	2.929103331E-10	2.999245356E-10
671	3.65262221235000E-13	1298.5450	1562.5050	14.24177940	15.95233469	2.928603839E-10	2.998830128E-10
672	3.61535703515000E-13	1298.5450	1562.5080	14.22765343	15.94543873	2.928101916E-10	2.998415778E-10
673	3.57849340195000E-13	1298.5460	1562.5120	14.21345466	15.93854455	2.927597602E-10	2.998002316E-10
674	3.54202622810000E-13	1298.5460	1562.5150	14.19918307	15.93165194	2.927090896E-10	2.997589722E-10
675	3.50595093395000E-13	1298.5460	1562.5190	14.18483676	15.92476050	2.926581730E-10	2.997177974E-10
676	3.47026345970000E-13	1298.5460	1562.5220	14.17041628	15.91786969	2.926070123E-10	2.996767058E-10
677	3.43495922075000E-13	1298.5470	1562.5250	14.15592275	15.91097955	2.925556106E-10	2.996356946E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
678	3.40003414740000E-13	1301.6360	1562.5280	14.14135482	15.90408966	2.925039635E-10	2.995947623E-10
679	3.36548316490000E-13	1301.6360	1562.5310	14.12671031	15.89719958	2.924520636E-10	2.995539075E-10
680	3.33130321355000E-13	1301.6370	1562.5350	14.11199304	15.89030893	2.923999229E-10	2.995131288E-10
681	3.29748921365000E-13	1301.6370	1562.5380	14.09720006	15.88341765	2.923475317E-10	2.994724233E-10
682	3.26403710045000E-13	1301.6370	1562.5410	14.08233120	15.87652510	2.922948896E-10	2.994317903E-10
683	3.23094330925000E-13	1310.6550	1562.5440	14.31832250	15.86963122	2.933852181E-10	2.993912275E-10
684	3.19820378025000E-13	1310.6550	1562.5470	14.30536143	15.86273557	2.933389169E-10	2.993507341E-10
685	3.16581393875000E-13	1309.8180	1562.5500	14.29233873	15.85583791	2.932924139E-10	2.993103063E-10
686	3.13377073000000E-13	1309.8180	1562.5520	14.27925169	15.84893776	2.932457003E-10	2.992699430E-10
687	3.10206908420000E-13	1309.0570	1562.5550	14.26610105	15.84203507	2.931987790E-10	2.992296441E-10
688	3.07070594165000E-13	1309.0570	1562.5580	14.25288714	15.83512919	2.931516495E-10	2.991894067E-10
689	3.03967774755000E-13	1309.0570	1562.5610	14.23961076	15.82822014	2.931043146E-10	2.991492302E-10
690	3.00898044210000E-13	1308.7110	1562.5630	14.22626811	15.82130716	2.930567626E-10	2.991091107E-10
691	2.97860995560000E-13	1308.7110	1562.5660	14.21286267	15.81439047	2.930090034E-10	2.990690478E-10
692	2.94856324320000E-13	1308.7110	1562.5690	14.19939278	15.80746946	2.929610321E-10	2.990290393E-10
693	2.91883624510000E-13	1308.7110	1562.5710	14.18585790	15.80054379	2.929128464E-10	2.989927767E-10
694	2.88942539660000E-13	1308.7120	1562.5740	14.17225880	15.79361326	2.928644488E-10	2.989663407E-10
695	2.86032765780000E-13	1308.7120	1562.5760	14.15859437	15.78667743	2.928158353E-10	2.989399175E-10
696	2.83153896395000E-13	1308.7120	1562.5790	14.15232973	15.77973606	2.928045159E-10	2.989135054E-10
697	2.80305576025000E-13	1308.7120	1562.5810	14.13799110	15.77278892	2.927533376E-10	2.988871043E-10
698	2.77487550685000E-13	1308.7120	1562.5840	14.12358400	15.76583535	2.927019348E-10	2.988607125E-10
699	2.74699413900000E-13	1308.7120	1562.5860	13.95780648	15.75887563	2.920778290E-10	2.988343288E-10
700	2.71940861680000E-13	1306.3540	1562.5880	13.91126505	15.75190890	2.918629782E-10	2.988079511E-10
701	2.69211538050000E-13	1306.3550	1562.5910	13.85051431	15.74493512	2.915259343E-10	2.987815791E-10
702	2.66511139020000E-13	1306.3550	1562.5930	13.83463993	16.00090604	2.914699289E-10	3.003646962E-10
703	2.63839308615000E-13	1306.3550	1562.5950	13.81869135	15.99329112	2.914136751E-10	3.003280064E-10
704	2.61195792850000E-13	1306.3560	1562.5980	13.80266680	15.98568182	2.913571666E-10	3.002914143E-10
705	2.58580237235000E-13	1306.3560	1562.6000	13.78656764	15.97807765	2.913004079E-10	3.002549174E-10
706	2.55992336790000E-13	1306.3570	1562.6020	13.77039197	15.97047827	2.912433924E-10	3.002185143E-10
707	2.53431786535000E-13	1306.3570	1562.6040	13.75414152	15.96288346	2.911861258E-10	3.001822030E-10
708	2.50898282975000E-13	1306.3570	1562.6060	13.73781539	15.95529277	2.911286050E-10	3.001459823E-10
709	2.48391520635000E-13	1306.3580	1562.6080	13.72141308	15.94770593	2.910708280E-10	3.001098499E-10
710	2.45911196020000E-13	1306.3580	1562.6100	13.70493583	15.94012258	2.910127989E-10	3.000738048E-10
711	2.43457054155000E-13	1306.3580	1562.6120	13.68838217	15.93254262	2.909545123E-10	3.000378456E-10
712	2.41028741045000E-13	1306.3590	1562.6140	13.67175309	15.92496553	2.908959721E-10	3.000019701E-10
713	2.38626053205000E-13	1306.3590	1562.6160	13.65504769	15.91739100	2.908371742E-10	2.999661768E-10
714	2.36248635650000E-13	1306.3590	1562.6180	13.63826667	15.90981863	2.907781215E-10	2.999304637E-10
715	2.33896234395000E-13	1306.3600	1562.6200	13.62140883	15.90224825	2.907188094E-10	2.998948296E-10
716	2.31568595950000E-13	1312.5500	1562.6220	13.60447528	15.89467964	2.906592417E-10	2.998592736E-10
717	2.29265466825000E-13	1312.5510	1562.6240	13.58746571	15.88711214	2.905994174E-10	2.998237929E-10
718	2.26986491540000E-13	1312.5520	1562.6260	13.57038046	15.87954582	2.905393369E-10	2.997883867E-10
719	2.24731467600000E-13	1312.5530	1562.6270	13.55321888	15.87197995	2.904789985E-10	2.997530521E-10
720	2.22500141515000E-13	1312.5540	1562.6290	13.56837713	15.86441451	2.904349490E-10	2.997177887E-10
721	2.20292208305000E-13	1312.5550	1562.6310	13.55110764	15.85684923	2.903743711E-10	2.996825956E-10
722	2.18107414975000E-13	1312.5560	1562.6330	13.53376035	15.84928355	2.903135299E-10	2.996474695E-10
723	2.15945508035000E-13	1312.5570	1562.6340	13.51633505	15.84171745	2.902524240E-10	2.996124105E-10
724	2.13806284000000E-13	1312.5580	1562.6360	13.49883179	15.83415027	2.901910539E-10	2.995774152E-10
725	2.11689489875000E-13	1312.5590	1562.6380	13.48125056	15.82658208	2.901294191E-10	2.995424833E-10
726	2.09594821175000E-13	1312.5600	1562.6390	13.46359134	15.81901233	2.900675195E-10	2.995076135E-10
727	2.07522074910000E-13	1312.5610	1562.6410	13.44585508	15.81144045	2.900053584E-10	2.994728021E-10
728	2.05470997590000E-13	1312.5620	1562.6420	13.42804096	15.80386676	2.899429327E-10	2.994380508E-10
729	2.03441336220000E-13	1312.5630	1562.6440	13.41014856	15.79629056	2.898802408E-10	2.994033559E-10
730	2.01432887810000E-13	1312.5640	1562.6450	13.39217902	15.78871162	2.898172867E-10	2.993687163E-10
731	1.99445448875000E-13	1320.6190	1562.6470	13.51080233	15.78112952	2.902591197E-10	2.993341300E-10
732	1.97478716415000E-13	1320.6190	1562.6480	13.49339462	15.77354422	2.901976770E-10	2.992995970E-10
733	1.95532486450000E-13	1320.6190	1562.6500	13.47591439	15.76595502	2.901359925E-10	2.992651137E-10
734	1.93606235230000E-13	1320.6200	1562.6510	13.45836114	15.75836187	2.900740651E-10	2.992306799E-10
735	1.91698729175000E-13	1320.6200	1562.6530	13.44073526	15.75076448	2.900118953E-10	2.991962934E-10
736	1.89811060195000E-13	1320.6200	1562.6540	13.42303640	15.74316246	2.899494822E-10	2.991619538E-10
737	1.87959386310000E-13	1320.6210	1562.6560	13.31199689	15.73555556	2.895624515E-10	2.991276580E-10
738	1.86164056545000E-13	1320.6210	1562.6570	13.29376169	15.72794343	2.894985826E-10	2.990934060E-10
739	1.84386841905000E-13	1320.6210	1562.6580	13.27545228	15.72032545	2.894344607E-10	2.990591941E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
740	1.82627538905000E-13	1318.8890	1555.4370	13.25706672	15.71270214	2.893700792E-10	2.990250240E-10
741	1.80885993075000E-13	1318.8900	1555.4380	13.23860460	15.70507245	2.893054363E-10	2.989908921E-10
742	1.79161951915000E-13	1318.8910	1612.7960	13.22006895	15.95543332	2.892405425E-10	3.005176944E-10
743	1.77455211445000E-13	1318.8910	1612.7970	13.20145641	15.94743992	2.891753863E-10	3.004795922E-10
744	1.75765719185000E-13	1318.8920	1612.7980	13.18276951	15.93945065	2.891099758E-10	3.004415784E-10
745	1.74093120645000E-13	1318.8930	1612.7980	13.16400740	15.93146545	2.890443082E-10	3.004036531E-10
746	1.72436998530000E-13	1318.8940	1612.7990	13.14517075	15.92348358	2.889783859E-10	3.003658120E-10
747	1.70796040060000E-13	1318.8940	1612.8000	13.12625978	15.91550533	2.889122093E-10	3.003280567E-10
748	1.69171555955000E-13	1318.8950	1612.8000	13.10727384	15.90752994	2.888457761E-10	3.002903835E-10
749	1.67563342235000E-13	1318.8960	1612.8010	13.08821270	15.89955711	2.887790854E-10	3.002527908E-10
750	1.65971295920000E-13	1318.8970	1612.8020	13.06907884	15.89158671	2.887121461E-10	3.002152777E-10
751	1.64395213030000E-13	1318.8970	1612.8020	13.04986994	15.88361877	2.886449492E-10	3.001778441E-10
752	1.62834940085000E-13	1318.8980	1612.8030	13.04277036	15.87565229	2.885875260E-10	3.001404859E-10
753	1.61290323605000E-13	1318.8990	1612.8030	13.02341199	15.86768757	2.885198615E-10	3.001032037E-10
754	1.59761159610000E-13	1318.8990	1612.8040	13.00398092	15.85972420	2.884519480E-10	3.000659957E-10
755	1.58247244615000E-13	1321.6120	1612.8050	13.17309865	15.85176151	2.892499252E-10	3.000288589E-10
756	1.56748526635000E-13	1321.6120	1612.8050	13.15511534	15.84379947	2.891843369E-10	2.999917921E-10
757	1.55264800700000E-13	1329.4050	1612.8060	13.13706444	15.83583809	2.891184986E-10	2.999547969E-10
758	1.53795864315000E-13	1329.4060	1612.8060	13.11894365	15.82787664	2.890524106E-10	2.999178684E-10
759	1.52341664505000E-13	1329.4060	1612.8070	13.10075537	15.81991513	2.889860725E-10	2.998810062E-10
760	1.50901897280000E-13	1329.4060	1612.8070	13.08249976	15.81195311	2.889194896E-10	2.998442096E-10
761	1.49476560660000E-13	1329.4060	1612.8080	13.06417484	15.80399027	2.888526554E-10	2.998074763E-10
762	1.48065400165000E-13	1329.4060	1612.8080	13.04578206	15.79602631	2.887855782E-10	2.997708045E-10
763	1.46668313805000E-13	1329.4070	1612.8090	13.01130323	15.78806090	2.887166977E-10	2.997341924E-10
764	1.45285148950000E-13	1329.4070	1612.8090	12.99281805	15.78009423	2.886506794E-10	2.996976416E-10
765	1.43915371885000E-13	1329.4070	1612.8100	12.97426850	15.77212544	2.885052016E-10	2.996611479E-10
766	1.42559198475000E-13	1329.4070	1612.8100	12.95565374	15.76415454	2.884381911E-10	2.996247106E-10
767	1.41216545680000E-13	1329.4070	1612.8110	12.93697323	15.75618118	2.883709536E-10	2.995883281E-10
768	1.39886817490000E-13	1326.3340	1612.8110	12.91822738	15.74820506	2.883034810E-10	2.995519989E-10
769	1.38569224835000E-13	1326.3340	1612.8120	12.89941827	15.74022581	2.882357904E-10	2.995157217E-10
770	1.37264773050000E-13	1326.3340	1612.8120	12.88054398	15.73224320	2.881678661E-10	2.994794948E-10
771	1.35973257165000E-13	1326.3350	1612.8130	12.86160432	15.72425705	2.880997194E-10	2.994433173E-10
772	1.34694575190000E-13	1326.3350	1612.8130	12.84260234	15.71626713	2.880313469E-10	2.994071885E-10
773	1.33428573150000E-13	1326.3350	1612.8140	12.82353498	15.70827287	2.879627449E-10	2.993711049E-10
774	1.32175198565000E-13	1326.3350	1612.8140	12.80440574	15.70027426	2.878939234E-10	2.993350669E-10
775	1.30934197945000E-13	1326.3350	1612.8150	12.78521199	15.69227082	2.878248817E-10	2.992990723E-10
776	1.29705518315000E-13	1326.3350	1612.8150	12.76595475	15.68426249	2.877556126E-10	2.992631200E-10
777	1.28489006690000E-13	1326.3350	1612.8150	12.74663666	15.67624908	2.876861240E-10	2.992272097E-10
778	1.27284560040500E-13	1326.3360	1612.8160	12.72725385	15.66822977	2.876164117E-10	2.991913374E-10
779	1.26092025579500E-13	1326.3360	1612.8160	12.70780983	15.66020492	2.875464812E-10	2.991555043E-10
780	1.24911300525000E-13	1326.3360	1612.8170	12.68830220	15.65217379	2.874763305E-10	2.991197071E-10
781	1.23742231743500E-13	1326.3360	1612.8170	12.66873391	15.64413636	2.874059654E-10	2.990839459E-10
782	1.22584716651000E-13	1326.3360	1612.8170	12.64910399	15.63609210	2.873353759E-10	2.990482181E-10
783	1.21438652614000E-13	1326.3360	1612.8180	12.62941181	15.62804130	2.872645762E-10	2.990125242E-10
784	1.20303886697000E-13	1347.7740	1612.8180	12.60965986	15.61998284	2.871935557E-10	2.989768590E-10
785	1.19180366816000E-13	1347.7740	1612.8190	12.58984713	15.61191708	2.871223207E-10	2.989412254E-10
786	1.18067889535500E-13	1347.7740	1612.8190	12.56997438	15.60384349	2.870843038E-10	2.989056203E-10
787	1.16966352321000E-13	1347.7740	1612.8190	12.55003882	15.59575181	2.870127884E-10	2.988700418E-10
788	1.15875753836000E-13	1347.7740	1612.8200	12.53004670	15.58767222	2.869410624E-10	2.988344909E-10
789	1.14795840145000E-13	1347.7750	1612.8200	12.50999404	15.57957384	2.868691211E-10	2.987989634E-10
790	1.13726559362000E-13	1347.7750	1612.8200	12.52200095	15.57146645	2.867969726E-10	2.987634581E-10
791	1.12667809150500E-13	1347.7750	1612.8210	12.49640217	15.56335027	2.867246162E-10	2.987279770E-10
792	1.11619487124500E-13	1347.7750	1612.8210	12.47636909	15.55522451	2.866520560E-10	2.986925146E-10
793	1.10581440546500E-13	1347.7750	1612.8210	12.45627892	15.54708926	2.865792837E-10	2.986570728E-10
794	1.09553617580000E-13	1347.7750	1612.8220	12.43613195	15.53894388	2.867279134E-10	2.986216474E-10
795	1.08535865487500E-13	1366.5190	1612.8220	12.41592672	15.53078838	2.866569789E-10	2.985862394E-10
796	1.07528132531500E-13	1366.5200	1612.8220	12.39566489	15.52262245	2.865858467E-10	2.985508459E-10
797	1.06530266024000E-13	1366.5200	1612.8230	12.37534654	15.51444588	2.865145173E-10	2.985154672E-10
798	1.05542163727500E-13	1366.5210	1612.8230	12.35497238	15.50625813	2.864429931E-10	2.984801013E-10
799	1.04563773954000E-13	1367.6460	1612.8230	12.33454075	15.49805949	2.863712682E-10	2.984447473E-10
800	1.03594994614500E-13	1337.5730	1612.8230	12.31405556	15.48984906	2.862993559E-10	2.984094024E-10
801	1.02635673070500E-13	1337.5730	1612.8240	12.29351593	15.48162694	2.862272532E-10	2.983740666E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
802	1.01685757683500E-13	1337.5730	1612.8240	12.27291929	15.47339274	2.861549513E-10	2.983387376E-10
803	1.00745095815000E-13	1337.5730	1612.8240	12.25227029	15.46514620	2.860824663E-10	2.983034154E-10
804	9.98136359750000E-14	1337.5730	1612.8250	12.23156707	15.45688734	2.860097916E-10	2.982680992E-10
805	9.88913266240000E-14	1337.5730	1612.8250	12.21081015	15.44861575	2.859369286E-10	2.982327869E-10
806	9.79780151235000E-14	1337.5730	1612.8250	12.19000006	15.44033070	2.858638794E-10	2.981974755E-10
807	9.70735995330000E-14	1337.5730	1612.8250	12.16913813	15.43203242	2.857906485E-10	2.981621658E-10
808	9.61780283625000E-14	1333.5270	1612.8260	12.14822227	15.42372044	2.857172284E-10	2.981268559E-10
809	9.52911491220000E-14	1333.5280	1612.8260	12.12725541	15.41539479	2.856436295E-10	2.980915450E-10
810	9.44129608215000E-14	1333.5280	1612.8260	12.10623797	15.40705501	2.855698533E-10	2.980562324E-10
811	9.35433615205000E-14	1333.5280	1612.8260	12.08516767	15.39870085	2.854958912E-10	2.980209143E-10
812	9.26821483280000E-14	1333.5280	1612.8270	12.06404923	15.39033180	2.854217606E-10	2.979855908E-10
813	9.18293708035000E-14	1333.5280	1612.8270	12.04287844	15.38194812	2.853474454E-10	2.979502622E-10
814	9.09849270065000E-14	1333.5280	1612.8270	12.02165917	15.37354928	2.852729602E-10	2.979149261E-10
815	9.01486646450000E-14	1333.5280	1612.8270	12.00039066	15.36513492	2.851983017E-10	2.978795810E-10
816	8.93204818280000E-14	1333.5280	1612.8280	11.97907315	15.35670491	2.851234706E-10	2.978442248E-10
817	8.85004282140000E-14	1333.5280	1612.8280	11.95770763	15.34825925	2.850484707E-10	2.978088595E-10
818	8.76883009120000E-14	1333.5280	1612.8280	11.93629515	15.33979706	2.849733057E-10	2.977734798E-10
819	8.68840486300000E-14	1333.5280	1612.8280	11.91483389	15.33131886	2.848979684E-10	2.977380881E-10
820	8.60876200760000E-14	1333.5290	1612.8290	11.89332395	15.32282378	2.848224603E-10	2.977026807E-10
821	8.52989135075000E-14	1333.5290	1612.8290	11.87177078	15.31431137	2.847467988E-10	2.976672559E-10
822	8.45178775335000E-14	1333.5290	1612.8290	11.85016975	15.30578251	2.846709691E-10	2.976318157E-10
823	8.37443599610000E-14	1333.5290	1612.8290	11.82852540	15.29723563	2.845949861E-10	2.975963556E-10
824	8.29783600970000E-14	1333.5290	1612.8290	11.80683495	15.28867178	2.845188405E-10	2.975608774E-10
825	8.22197761000000E-14	1333.5290	1612.8300	11.78510000	15.28008955	2.844425377E-10	2.975253769E-10
826	8.14685567770000E-14	1333.5290	1612.8300	11.80790351	15.27148914	2.84666426E-10	2.974898547E-10
827	8.07246004350000E-14	1356.5130	1612.8300	11.78598315	15.26287036	2.845908580E-10	2.974543096E-10
828	7.99878053810000E-14	1356.5130	1612.8300	11.76401613	15.25423306	2.845149180E-10	2.974187404E-10
829	7.92581204220000E-14	1356.5130	1612.8300	11.74200413	15.24557670	2.844773581E-10	2.973831446E-10
830	7.85355448650000E-14	1356.5140	1612.8310	11.71995000	15.23690114	2.843991436E-10	2.973475226E-10
831	7.78199265665000E-14	1356.5140	1612.8310	11.69784768	15.22820659	2.843207595E-10	2.973118731E-10
832	7.71111638830000E-14	1356.5150	1612.8310	11.67570584	15.21949211	2.842422120E-10	2.972761942E-10
833	7.64093066710000E-14	1356.5150	1612.8310	11.65352022	15.21075778	2.841635108E-10	2.972404849E-10
834	7.57141522870000E-14	1356.5150	1560.7470	11.63129059	14.93859428	2.840846452E-10	2.956638694E-10
835	7.50257506370000E-14	1363.3840	1560.7480	11.60902030	14.92958157	2.840397555E-10	2.956300863E-10
836	7.43439496270000E-14	1363.3840	1560.7480	11.58670858	14.92053510	2.839610574E-10	2.955961924E-10
837	7.36687486135000E-14	1363.3840	1560.7490	11.56435757	14.91145538	2.838822168E-10	2.955621865E-10
838	7.29999555200000E-14	1363.3840	1560.7500	11.54196388	14.90234161	2.838032213E-10	2.955280685E-10
839	7.23377403485000E-14	1363.3850	1560.7510	11.51953211	14.89319340	2.837240880E-10	2.954938359E-10
840	7.16817804585000E-14	1363.3850	1560.7520	11.49705989	14.88401132	2.836448071E-10	2.954594911E-10
841	7.10321657880000E-14	1363.3850	1560.7530	11.47455051	14.87479457	2.835653910E-10	2.954250320E-10
842	7.03887948420000E-14	1363.3850	1560.7540	11.45200248	14.86554299	2.834858352E-10	2.953904547E-10
843	6.97516165760000E-14	1363.3850	1560.7550	11.42941929	14.85625652	2.834061501E-10	2.953557628E-10
844	6.91205294455000E-14	1355.6190	1560.7560	11.40679743	14.84693499	2.833263247E-10	2.953209535E-10
845	6.84954824060000E-14	1355.6190	1560.7570	11.38414111	14.83757794	2.832463723E-10	2.952860253E-10
846	6.78764750120000E-14	1355.6190	1560.7580	11.36144953	14.82818516	2.831662921E-10	2.952509793E-10
847	6.72633552190000E-14	1355.6190	1560.7580	11.33872130	14.81875653	2.830860779E-10	2.952158117E-10
848	6.66561225815000E-14	1355.6190	1560.7590	11.31595943	14.80929230	2.830057405E-10	2.951805238E-10
849	6.60547261045000E-14	1355.6190	1560.7600	11.29316542	14.79979156	2.829252851E-10	2.951451142E-10
850	6.54590642435000E-14	1355.6190	1560.7610	11.27033652	14.79025443	2.828447011E-10	2.951095841E-10
851	6.48691366520000E-14	1355.6190	1560.7620	11.24747645	14.78068081	2.827640036E-10	2.950739279E-10
852	6.42848417855000E-14	1344.7660	1560.7630	11.22458513	14.77107013	2.826831906E-10	2.950381503E-10
853	6.37061287480000E-14	1344.7660	1560.7630	11.20166106	14.76142259	2.826022570E-10	2.950022458E-10
854	6.31328960445000E-14	1344.7660	1560.7640	11.17870854	14.75173798	2.825212189E-10	2.949662168E-10
855	6.25651937790000E-14	1344.7660	1560.7650	11.15572387	14.74201519	2.824400621E-10	2.949300625E-10
856	6.20029205555000E-14	1344.7660	1560.7660	11.13271332	14.73225538	2.823588090E-10	2.948937782E-10
857	6.14459748790000E-14	1344.7660	1560.7660	11.10967092	14.72245783	2.822774388E-10	2.948573676E-10
858	6.08943564030000E-14	1344.7660	1560.7670	11.08660301	14.71262194	2.821959734E-10	2.948208277E-10
859	6.03480141820000E-14	1341.2620	1560.7680	11.06350784	14.70274791	2.821144070E-10	2.947841585E-10
860	5.98068468200000E-14	1341.2620	1560.7690	11.04038428	14.69283542	2.820327347E-10	2.947473608E-10
861	5.92708539705000E-14	1341.2620	1560.7700	11.225585447	14.67289465	2.823877677E-10	2.947104294E-10
862	5.87399847375000E-14	1341.2620	1560.7700	11.23241277	14.66286532	2.823058390E-10	2.946361734E-10
863	5.82141376755000E-14	1341.2620	1560.7710	11.23241277	14.66286532	2.823058390E-10	2.946361734E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
864	5.76933125370000E-14	1341.2620	1560.7710	11.20893698	14.65279749	2.822237891E-10	2.945988454E-10
865	5.71774078765000E-14	1341.2620	1560.7720	11.18543008	14.64269034	2.821416288E-10	2.945613843E-10
866	5.66664232980000E-14	1341.2620	1560.7730	11.16189259	14.63254301	2.820593595E-10	2.945237886E-10
867	5.61603080540000E-14	1341.2620	1560.7730	11.13832269	14.62235587	2.819769752E-10	2.944860560E-10
868	5.56590083775000E-14	1341.2620	1560.7740	11.11472562	14.61212944	2.818944937E-10	2.944481856E-10
869	5.51623914895000E-14	1341.2620	1560.7750	11.09109866	14.60186251	2.818119056E-10	2.944101822E-10
870	5.46705425895000E-14	1341.2620	1560.7750	11.06744134	14.59155518	2.817292095E-10	2.943720404E-10
871	5.41833098310000E-14	1341.2620	1560.7760	11.04375890	14.58120753	2.816464234E-10	2.943337572E-10
872	5.37006929170000E-14	1341.2620	1560.7770	11.02004843	14.57081947	2.815635371E-10	2.942953374E-10
873	5.32226915010000E-14	1341.2620	1560.7770	10.99631104	14.56039033	2.814805543E-10	2.942567778E-10
874	5.277492042365000E-14	1341.2620	1560.7780	10.80380491	14.54991990	2.809911525E-10	2.942180789E-10
875	5.22801803265000E-14	1341.2620	1560.7790	10.78017757	14.53940895	2.809081549E-10	2.941792364E-10
876	5.18156195235000E-14	1341.2620	1560.7790	10.75653052	14.52885630	2.808250839E-10	2.941402554E-10
877	5.13554204315000E-14	1341.2620	1560.7800	10.73286687	14.51826176	2.807419504E-10	2.941011287E-10
878	5.08996332535000E-14	1341.2620	1560.7800	10.70918272	14.50762580	2.806587407E-10	2.940618609E-10
879	5.04480961915000E-14	1341.2630	1560.7810	10.68548532	14.49694836	2.805754798E-10	2.940224500E-10
880	5.00008492495000E-14	1341.2630	1560.7810	10.66177125	14.48622809	2.804921560E-10	2.939828930E-10
881	4.95578265300000E-14	1341.2630	1560.7820	10.63804348	14.47546583	2.804087797E-10	2.939431924E-10
882	4.91189823355000E-14	1341.2630	1560.7830	10.61430025	14.46466126	2.803253447E-10	2.939033443E-10
883	4.86842809695000E-14	1341.2630	1560.7830	10.59054218	14.45381430	2.802418532E-10	2.938633540E-10
884	4.82536767840000E-14	1341.2630	1560.7840	10.56677170	14.44292500	2.801583133E-10	2.938232133E-10
885	4.78271391820000E-14	1341.2630	1560.7840	10.54298973	14.43199200	2.800747287E-10	2.937829261E-10
886	4.74046173665000E-14	1341.2630	1560.7850	10.51919436	14.42101681	2.799910926E-10	2.937424901E-10
887	4.69860707395000E-14	1358.5710	1560.7850	10.49539034	14.19006858	2.799074215E-10	2.937019063E-10
888	4.65714737540000E-14	1358.5710	1560.7860	10.47157361	14.17872173	2.798237014E-10	2.936611739E-10
889	4.61607757120000E-14	1358.5710	1560.7860	10.44775100	14.16732971	2.797399557E-10	2.936202891E-10
890	4.57539409665000E-14	1358.5710	1560.7870	10.42391623	14.15589308	2.796561631E-10	2.935792539E-10
891	4.53509289195000E-14	1358.5710	1560.7870	10.40007607	14.14441321	2.795723465E-10	2.935380728E-10
892	4.49517090235000E-14	1358.5710	1560.7880	10.37623078	14.13288730	2.794885071E-10	2.934967360E-10
893	4.45562406310000E-14	1358.5720	1560.7880	10.35237589	14.01352838	2.794046297E-10	2.930501438E-10
894	4.41644830945000E-14	1358.5720	1560.7890	10.32851600	14.00143792	2.793207299E-10	2.930068055E-10
895	4.37764059655000E-14	1358.5720	1560.7890	10.30465098	13.98930044	2.792368072E-10	2.929632993E-10
896	4.33919684975000E-14	1358.5720	1560.7900	10.28078343	13.97711595	2.791528713E-10	2.926744888E-10
897	4.30111352910000E-14	1358.5720	1560.7900	10.25691063	13.96488537	2.790689121E-10	2.926305957E-10
898	4.263387565995000E-14	1358.5720	1577.5730	10.23303716	14.46252009	2.789849455E-10	2.936188525E-10
899	4.22601491250000E-14	1358.5730	1577.5730	10.20915808	14.45183187	2.789009548E-10	2.935794123E-10
900	4.18899251190000E-14	1358.5730	1577.5730	10.18528041	14.44110340	2.788169643E-10	2.935400465E-10
901	4.15231681335000E-14	1358.5730	1577.5730	10.16140125	14.43033395	2.787329634E-10	2.935005532E-10
902	4.11598425710000E-14	1358.5730	1577.5740	10.13752530	14.41952198	2.786489691E-10	2.934609270E-10
903	4.07999179335000E-14	1358.5730	1577.5740	10.11364713	14.40866952	2.785649624E-10	2.934211743E-10
904	4.04433536725000E-14	1358.5730	1577.5740	10.08977119	14.39777469	2.784809585E-10	2.933812886E-10
905	4.00901293900000E-14	1358.5730	1577.5740	10.06589951	14.38683790	2.783969649E-10	2.933412715E-10
906	3.97401994380000E-14	1358.5730	1577.5740	10.04202897	14.37585946	2.783129704E-10	2.933011235E-10
907	3.93935383685000E-14	1358.5740	1577.5750	10.01816401	14.36483899	2.782289903E-10	2.932608431E-10
908	3.90501156835000E-14	1358.5740	1577.5750	9.99430393	14.35377577	2.781450229E-10	2.932204282E-10
909	3.87099009840000E-14	1358.5740	1577.5750	9.97044807	14.34267080	2.780610652E-10	2.931798816E-10
910	3.83728536225000E-14	1358.5740	1577.5750	9.94659809	14.33152196	2.779771238E-10	2.931391966E-10
911	3.80389482500000E-14	1358.5740	1577.5750	9.92275581	14.32033116	2.778932043E-10	2.930983785E-10
912	3.77081593690000E-14	1358.5740	1577.5750	9.89892028	14.30909815	2.778093035E-10	2.930574268E-10
913	3.73804464310000E-14	1358.5740	1577.5760	9.87509330	14.29782223	2.777254279E-10	2.930163391E-10
914	3.70557891370000E-14	1358.5740	1577.5760	9.85127636	14.28650158	2.776415829E-10	2.929751092E-10
915	3.67341518895000E-14	1358.5750	1577.5760	9.82747124	14.27514032	2.775577738E-10	2.929337503E-10
916	3.64155093890000E-14	1358.5750	1577.5760	9.80367410	14.26373307	2.774739883E-10	2.928922451E-10
917	3.60998260380000E-14	1358.5750	1577.5760	9.77988903	14.25228436	2.773902405E-10	2.928506073E-10
918	3.57870814880000E-14	1358.5750	1577.5760	9.75611229	14.24079024	2.773065170E-10	2.928088252E-10
919	3.54772402900000E-14	1349.4880	1577.5760	9.73235332	14.22925330	2.772228510E-10	2.927669059E-10
920	3.51702770455000E-14	1349.4880	1577.5770	9.70860390	14.21767300	2.771392135E-10	2.928269078E-10
921	3.48661612565000E-14	1349.4880	1577.5770	9.68487282	14.20604793	2.770556357E-10	2.927828739E-10
922	3.45648675740000E-14	1349.4880	1577.5770	9.66115268	14.19437873	2.769720913E-10	2.927386810E-10
923	3.42663705995000E-14	1347.4850	1577.5770	9.63744945	14.18266639	2.768886013E-10	2.926943333E-10
924	3.39706398845000E-14	1347.4850	1577.5770	9.61376362	14.17090764	2.768051676E-10	2.926498293E-10
925	3.36776550805000E-14	1347.4850	1577.5770	9.59009326	14.15910685	2.767217835E-10	2.926051669E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
926	3.33873757380000E-14	1347.4650	1577.5770	9.56644183	14.14725923	2.766384608E-10	2.925603480E-10
927	3.30997915095000E-14	1347.4650	1577.5780	9.54280700	14.13536789	2.765551917E-10	2.925153685E-10
928	3.28148670450000E-14	1347.4650	1577.5780	9.51919262	14.12343273	2.764719893E-10	2.924702364E-10
929	3.25325768470000E-14	1347.4650	1577.5780	9.49559851	14.11145225	2.763888534E-10	2.924249404E-10
930	3.22528955665000E-14	1347.4650	1577.5780	9.47202615	14.09942536	2.763057890E-10	2.923794868E-10
931	3.19758029540000E-14	1347.4650	1577.5780	9.44847257	14.08735468	2.762227858E-10	2.923338770E-10
932	3.17012685115000E-14	1347.4650	1577.5780	9.42494208	14.07523862	2.761398586E-10	2.922881046E-10
933	3.14292719895000E-14	1347.4650	1577.5780	9.40143165	14.06307767	2.760569972E-10	2.922421747E-10
934	3.11597828900000E-14	1347.4650	1577.5780	9.37794800	14.05087004	2.759742250E-10	2.921960833E-10
935	3.08927860135000E-14	1347.4650	1577.5790	9.35448584	14.03861834	2.758915234E-10	2.921498347E-10
936	3.06282459110000E-14	1347.4650	1577.5790	9.33104882	14.02632095	2.758089053E-10	2.921034185E-10
937	3.03661472345000E-14	1347.4650	1577.5790	9.30763763	14.01397744	2.757263730E-10	2.920568475E-10
938	3.01064646845000E-14	1347.4660	1577.5790	9.28425236	14.00158759	2.756439270E-10	2.920101130E-10
939	2.98491779620000E-14	1347.4660	1577.5790	9.26089416	13.98915249	2.755615713E-10	2.919632169E-10
940	2.95942566680000E-14	1347.4660	1577.5790	9.23756054	13.97667193	2.754792971E-10	2.919161568E-10
941	2.93416804540000E-14	1347.4660	1577.5790	9.21425762	13.96414463	2.753971260E-10	2.918689393E-10
942	2.90914290705000E-14	1347.4660	1577.5790	9.19098356	13.95157112	2.753150515E-10	2.918215576E-10
943	2.88434771190000E-14	1347.4660	1577.5790	9.16773824	13.93895239	2.752330731E-10	2.917740124E-10
944	2.85978094000000E-14	1347.4660	1577.5800	9.14452048	13.92628656	2.751511868E-10	2.917263076E-10
945	2.83543954650000E-14	1347.4660	1577.5800	9.12133549	13.91357429	2.750694109E-10	2.916784376E-10
946	2.81132201145000E-14	1347.4660	1577.5800	9.09818128	13.90081631	2.749877385E-10	2.916304046E-10
947	2.78742529000000E-14	1347.4660	1577.5800	9.07505893	13.88801142	2.749061731E-10	2.915822080E-10
948	2.76374836720000E-14	1347.4660	1577.5800	9.05197119	13.87516049	2.748247248E-10	2.915338503E-10
949	2.74028871310000E-14	1347.4660	1577.5800	9.02891315	13.86226266	2.747433760E-10	2.914853291E-10
950	2.71704378290000E-14	1347.4660	1577.5800	9.00589134	13.84931769	2.746621498E-10	2.914366437E-10
951	2.69401206160000E-14	1347.4660	1577.5800	8.98290317	13.83632653	2.745810371E-10	2.913877940E-10
952	2.67119101430000E-14	1347.4660	1608.6060	8.85994915	13.94148075	2.745000398E-10	2.922107842E-10
953	2.64857962110000E-14	1347.4660	1608.6060	8.93703008	13.92876784	2.744191605E-10	2.921642150E-10
954	2.62617433710000E-14	1347.4660	1608.6060	8.91414930	13.91601217	2.743384112E-10	2.921175076E-10
955	2.60397464740000E-14	1347.4660	1608.6060	8.89130390	13.90321428	2.742577816E-10	2.920706648E-10
956	2.58197802700000E-14	1347.4660	1608.6060	8.86849547	13.89037427	2.741772772E-10	2.920236858E-10
957	2.56018193605000E-14	1347.4660	1608.6060	8.84572627	13.87749178	2.740969061E-10	2.919765698E-10
958	2.53858535960000E-14	1347.4660	1608.6060	8.82299558	13.86456611	2.740166658E-10	2.919293141E-10
959	2.51718626775000E-14	1347.4660	1608.6060	8.80030366	13.85159787	2.739365570E-10	2.918819206E-10
960	2.49598213055000E-14	1347.4660	1608.6060	8.77765164	13.83858702	2.738565840E-10	2.918343888E-10
961	2.47497142805000E-14	1347.4660	1608.6060	8.75503978	13.82553264	2.737767475E-10	2.917867158E-10
962	2.45415263040000E-14	1347.4660	1608.6060	8.73246882	13.81243618	2.736970503E-10	2.917389063E-10
963	2.43352371265000E-14	1347.4660	1608.6060	8.70993923	13.79929616	2.736174939E-10	2.916909548E-10
964	2.41308264985000E-14	1347.4660	1608.6070	8.68745207	13.78611293	2.735380821E-10	2.916428628E-10
965	2.39282792205000E-14	1347.4660	1608.6070	8.66500708	13.77288701	2.734588141E-10	2.915946316E-10
966	2.37275749935000E-14	1347.4660	1608.6070	8.64260548	13.75961779	2.733796941E-10	2.915462588E-10
967	2.35286986180000E-14	1347.4660	1608.6070	8.62024751	13.74630537	2.733007229E-10	2.914977452E-10
968	2.33316297950000E-14	1347.4660	1608.6070	8.59793340	13.73294957	2.732219016E-10	2.914490899E-10
969	2.31363533250000E-14	1347.4660	1608.6070	8.57566456	13.71954957	2.731432349E-10	2.914002892E-10
970	2.29428489585000E-14	1347.4660	1608.6070	8.55344079	13.70610709	2.730647223E-10	2.913513498E-10
971	2.27511064965000E-14	1347.4660	1608.6070	8.53126277	13.69262096	2.729863661E-10	2.913022671E-10
972	2.25611057390000E-14	1347.4660	1608.6070	8.50913087	13.67909145	2.729081676E-10	2.912530419E-10
973	2.23728314370000E-14	1347.4660	1608.6070	8.48704646	13.66551930	2.728301317E-10	2.912036769E-10
974	2.21862632915000E-14	1347.4660	1608.6070	8.46500905	13.65190229	2.727522566E-10	2.911541638E-10
975	2.20013861525000E-14	1347.4660	1608.6070	8.44301951	13.63824162	2.726745457E-10	2.911045069E-10
976	2.18181848205000E-14	1347.4660	1608.6070	8.42107826	13.62453814	2.725970002E-10	2.910547090E-10
977	2.16366440465000E-14	1347.4660	1608.6070	8.39918594	13.61079057	2.725196223E-10	2.910047657E-10
978	2.14567486310000E-14	1347.4660	1608.6070	8.37734298	13.59699949	2.724424139E-10	2.909546787E-10
979	2.12784833745000E-14	1347.4660	1608.6070	8.35554987	13.58316507	2.723653763E-10	2.909044484E-10
980	2.11018280275000E-14	1347.4660	1608.6070	8.33380654	13.56928663	2.722885097E-10	2.908540722E-10
981	2.09267723910000E-14	1347.4660	1608.6070	8.31211491	13.55536407	2.722118205E-10	2.908035502E-10
982	2.07533013645000E-14	1347.4660	1608.6070	8.29047373	13.54139730	2.721353046E-10	2.907528813E-10
983	2.05813945995000E-14	1347.4660	1608.6070	8.26888490	13.52738775	2.720589686E-10	2.907020706E-10
984	2.04110470460000E-14	1347.4660	1608.6070	8.24734780	13.51333350	2.719828103E-10	2.906511113E-10
985	2.02422335500000E-14	1347.4660	1608.6070	8.22586329	13.49923622	2.719068329E-10	2.906000092E-10
986	2.00749434265000E-14	1347.4660	1608.6070	8.20443195	13.48509480	2.718310384E-10	2.905487600E-10
987	1.99091620610000E-14	1347.4660	1608.6070	8.18305419	13.47090964	2.717554280E-10	2.904973655E-10

Altitude	Density	Min Temp	Max Temp	Min MW	Max MW	Min CD	Max CD
988	1.97448740095000E-14	1347.4660	1608.6070	8.10166310	13.45668041	2.714705744E-10	2.904458238E-10
989	1.95820742220000E-14	1347.4660	1608.6070	8.08103801	13.44240782	2.713976143E-10	2.903941378E-10
990	1.94207323490000E-14	1347.4660	1608.6070	8.06046601	13.42809170	2.713248376E-10	2.903423064E-10
991	1.92608483410000E-14	1347.4660	1608.6070	8.03994831	13.41372982	2.712522483E-10	2.902903219E-10
992	1.91024069490000E-14	1347.4660	1608.6070	8.01948509	13.39932608	2.711798473E-10	2.902381977E-10
993	1.89453880225000E-14	1347.4660	1608.6070	7.99907642	13.38487747	2.711076347E-10	2.901859232E-10
994	1.87897813625000E-14	1347.4660	1608.6070	7.97872349	13.37038546	2.710356145E-10	2.901335035E-10
995	1.86355717695000E-14	1347.4660	1608.6070	7.95842582	13.35585010	2.709637853E-10	2.900809383E-10
996	1.84827490940000E-14	1347.4660	1608.6070	7.93818420	13.34126998	2.708921497E-10	2.900282232E-10
997	1.83312982355000E-14	1347.4660	1608.6070	7.91799867	13.32664655	2.708207083E-10	2.899753625E-10
998	1.81812088960000E-14	1347.4660	1608.6070	7.89786934	13.31197950	2.707494609E-10	2.899223556E-10
999	1.80324660245000E-14	1347.4660	1608.6070	7.87779706	13.29726884	2.706784110E-10	2.898692019E-10
1000	1.78850594220000E-14	1347.4660	1608.6070	7.85778190	13.28251360	2.706075588E-10	2.898158981E-10

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