

A SURVEY OF THE WIND ENERGY POTENTIAL OF KANSAS

by

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A MASTER'S THESIS

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requirements for the degree

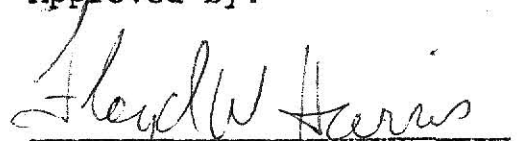
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PREFACE

The objectives of the project described in this report was to estimate the amount of energy that could be extracted from Kansas winds as well as to process wind data from the National Climatic Center in a usable form to enable the Department of Electrical Engineering at Kansas State University to make meaningful studies on the feasibility of wind energy as an alternate source of energy.

I gratefully acknowledge the patient help and suggestions received from Professor Floyd W. Harris and Professor Gary L. Johnson. I would also like to thank the Department of Electrical Engineering in giving me the chance to continue my advanced studies.

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TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION.	1
II. WIND ENERGY AND ITS EXTRACTION.	4
The Nature of Wind Energy	4
Wind Data and Site Selection.	6
The EPDA/NASA Machine	10
Wind Turbine Models	10
III. DESCRIPTION OF DATA AND ITS PROCESSING.	15
Data Collection	15
Wind Speed Adjustment for Different Heights	16
Organization of Data.	18
The Computation of the Table of Collectible Energy.	27
IV. A DISCUSSION OF KANSAS WIND AND THE ENERGY THAT CAN BE COLLECTED FROM IT	35
The Variability of Dodge City Winds	35
The Effect of Pated Velocity on Power Output.	49
Wind Energy in Perspective.	49
A Means of Estimating Wind Energy from the Average Velocity.	51
The Limitations of Wind Energy.	58
BIBLIOGRAPHY.	63
APPENDIX A (Dodge City Jan 1948-Dec 1973)	65
APPENDIX B (Topeka, Jan 1948 - Dec 1973).	96
APPENDIX C (Goodland Jan 1958-Dec 1973)	123
APPENDIX D (Russell Jan 1950-Dec 1967; Jan 1970 - Dec 1973)	152
APPENDIX E (Wichita Jan 1948-Dec 1952; Jan 1954 - Dec 1973)	178
APPENDIX F (Grandview Jan 1955-Dec 1970).	209

TABLE OF CONTENTS (Cont'd)

Chapter	Page
APPENDIX G (Chanute Jan 1948 - Dec 1964)	229
APPENDIX H (Concordia Jan 1963 - Dec 1970) . . .	249

LIST OF FIGURES

Figure		Page
2-1	Proposed Type of Terrain Modification for Purpose of Augmenting Average Wind Speeds	7
2-2	The Predicted Power Output of the ERDA/NASA Machine as a Function of Wind Speed	11
3-1	Comparison of Reed's Formula and 1/7th Law	19
3-2	A Graphical Picture of the Number of Observations with Respect to Directions for the Wind Speeds Occurring in the Interval 7-10 Knots	22
3-3	A Graphical Picture of the Number of Observations with Respect to Directions for the Wind Speeds Occurring in the Interval 11-16 Knots	23
3-4	A Graphical Picture of the Number of Observations with Respect to Directions for the Wind Speeds Occurring in the Interval 17-21 Knots	24
3-5	Figure Showing Directions	26
4-1	Weibull Density Curve from Dodge City, Kansas, for the year 1973	40
4-2	Wind Speed Distribution for Dodge City, Kansas, a 10 Year Average Extending from 1962 to 1973	42
4-3	Velocity Conversion Curves Utilizing Reed's Formula	43

LIST OF FIGURES (Cont'd)

Figure		Page
4-4	The Distribution of Energy with Respect to Velocity for Dodge City, 1964-1973	45
4-5	Examination of the Effect of Rated Velocity on Collectible Energy from Dodge City, Kansas, for 1964-1973	47
4-6	Predicted Energy Output for ERDA/NASA Machine from Dodge City for the Year 1969	52
4-7	Predicted Energy Output for ERDA/NASA Machine from Dodge City for the Year 1972	53
4-8	Bulk Energy from ERDA/NASA Machine 1962-1973	54
4-9	Best Fit Line of Energy vs. Average Velocity from Dodge City for 1969	56
4-10	Best Fit Line of Energy vs. Average Velocity from Dodge City for 1971	57
4-11	Energy Predicted by the ERDA Machine from Dodge City	59
4-12	Energy Predicted by the V-Cubed Model from Dodge City	60
4-13	Variation of Energy Potential from Site to Site	62

LIST OF TABLES

Table		Page
3-1	Anerometer Heights at Kansas Cities Over the Years of Interest	17
3-2	The Normalized Months for Energy Calculations	27
3-3	Comparison of $P(V_i)$ for EPDA Model and the B-Cubed Model	32
3-4	Table of Collectible Energy for Dodge City for the year 1973	33
4-1	Bivariate Distribution, Dodge City, Years 1972, 1973	37
4-2	Seasonal Variation of Wind Speed and Direction from Dodge City for 1972 and 1973	39
4-3	Collectible Energy from Dodge City, Kansas for 1973	48
4-4	Comparison of Wind Energy Estimates with Electrical Demand at Garden City	50

CHAPTER I

INTRODUCTION

The interest in the development of the windmill in recent times stems from its association with electricity. The windmill was first used as a prime mover for the generation of electrical energy just before the turn of the century [1].

The contributions of the windmill to the development of the Western United States involved an estimated 6.5 million units built in this country between 1880 and 1930. Although most of them were used for pumping water and running sawmills, some were used to generate electricity. In the Midwest as recently as 1950 there were about 50,000 small wind generators in service, the most common brands of which were Windcharger (200 to 1200W) and Jacobs (1.5 to 3 KW) [2].

In the past, however, there was never a sustained effort to develop large scale wind energy collection systems that were cost effective. This in part may have been due to the availability of relatively cheap fossil fuel. Furthermore, steam plants supplied energy on demand, whereas wind generators could not because of the variability of the wind itself.

In recent years there has been a growing awareness in some quarters that the bulk of the United States' future energy needs are not going to be met by hydroelectric plants, nuclear fueled

and fossil fueled plants alone, as has been the case in the past. The present fuel shortage makes it quite apparent that future energy needs will have to be supplied from a variety of sources, such as coal, oil, nuclear, geothermal, direct solar, and of interest here, the wind.

The purpose of this thesis is to use existing National Climatic Center data to develop suitable information which is judged to be useful in evaluating the wind energy potential of Kansas. This was accomplished by producing tables from the data that reflected the variation of the wind speed as well as the direction throughout each year. Tables showing the variation of the average velocity, the wind direction throughout an average day for each season of the year, the variation of the wind speed for each month, and finally estimates of the energy that can be extracted from the wind each month of the year were also developed. This was accomplished for data taken at several sites in Kansas and over a period of several years.

To estimate the amount of energy that can be collected by a wind energy collection system, two models of a wind energy collection system (WECS) were constructed based on the EPDA/NASA wind turbine that EPDA is considering installing near Russell, Kansas. With the EPDA model the power output curve expressed as a function of the windspeed was used to estimate the wind energy content of Kansas winds. While for the V-cubed model, the cube of the wind speeds was used to estimate the power output of a wind energy collection system, and from these power estimates the wind energy content of Kansas was computed. These estimates are presented

according to the months of each year for several Kansas sites in the appendices of this thesis as well as the other tables mentioned.

Curves were prepared from the tables which reflected the effect of the rated velocity of the system upon the amount of energy collected by a particular wind energy collection system. From these curves, estimates can be made of the performance of a wind energy collection system, with a particular rated velocity in the different geographic regions of Kansas.

The reader should be aware that the material presented in this thesis represents a first effort to evaluate the wind energy potential of the State of Kansas, and that the data used was in many ways adequate only for estimating trends in rather gross terms. As this type of study is repeated with more and better data the results should gradually approach results that may be accepted with more confidence as a more reliable estimate of the wind energy potential of Kansas. However, the data presented in the appendices of this thesis will provide an initial estimate of the wind energy potential of Kansas. When data becomes available from the operation of large scale wind energy collection systems, the information may be adjusted to provide a more accurate estimate of the wind energy potential of Kansas [3].

CHAPTER II

WIND ENERGY AND ITS EXTRACTION

In order to calculate the amount of extractable energy in the wind, it was necessary to determine a suitable model of a wind turbine that reflects reasonable design constraints. In this chapter a brief discussion is made of the power that is available in the wind and the various methods of extracting this power. A model will then be constructed based on what is judged to be the most suitable design for extracting energy from Kansas winds.

The Nature of Wind Energy

The energy in the wind for the most part is kinetic in nature, and results from the movement of air molecules. The energy possessed by a fluid of density, ρ , passing through a streamline tube of cross-sectional area, A , in unit time may be calculated by the following equation [4]:

$$KE = 1/2 \rho V^3 A \quad (2-1)$$

where V is the fluid velocity.

Wind Power

For an ideal energy extracting device, one which is free of

friction loss, to extract all of this energy, the air would have to be halted thus "clogging" the propellor. However, by making some assumptions about the extracting device and the flow through it, an estimate of the velocity decrease across the propellor blades for maximum power output may be determined.

Assuming an ideal propellor turbine, one which is capable of removing energy from a stream of air by decreasing its total pressure, but without any friction or vortex losses, and an air flow approaching the turbine at constant velocity and free of turbulence, an estimate of the extractable power, P , may be calculated as a function of the velocity decrease through the propellor blades by [5]

$$P = 2A V^3 (a^3 - 2a^2 + a) \quad (2-2)$$

where a is the velocity decrease through the propellor blades.

The maximum power developed occurs when $a = 1/3$, making the maximum extractable power [6].

$$P = (16/27) \frac{1}{2} V^3 A \quad (2-3)$$

Defining the maximum power coefficient to be the ratio of the maximum power that can be extracted to the total amount of power that is present in the wind per unit time, the maximum power coefficient for an ideal propellor turbine is

$$C_p = \frac{\frac{8}{27} V^3 A}{\frac{1}{2} V^3 A} = 16/27 \quad (2-4)$$

This thesis will treat available power as the major meteorological parameter as opposed to maximum extractable power.

Therefore, in an area of one square meter perpendicular to the flow of wind, the power developed per unit area by the wind may be calculated by [7]

$$\begin{aligned}\frac{P}{A} &= .6125 V^3 W M^{-2}, V \text{ in m/s} & (2-5) \\ &= .05472 V^3 W M^{-2}, V \text{ in MPH} \\ &= .08355 V^3 W M^{-2}, V \text{ in knots}\end{aligned}$$

Wind Data and Site Selection

The cubic response to wind speed requires use of the climatological distribution of speeds, rather than average speed, for calculating wind power. If the wind is a steady 6.7 m/s (15 mph), 185 $W M^{-2}$ is available. If it blows 4.5 m/s (10 mph) half the time and 8.9 m/s (20 mph) half the time, again averaging 6.7 m/s (15 mph), it yields an average power of 245 $W M^{-2}$ [8].

Due to the cubic power response of the wind, geographical considerations are important in the selection of a proper site. The increase of wind speeds with height makes the placement of wind turbines on hills or like elevated regions an attractive prospect. The other alternative to using geography to take advantage of the height phenomena is to elevate the wind turbine above ground by supporting structure, but this increases the cost of the energy extracted. Taking advantage of geographic configurations that act to increase wind speed will benefit power generation. Factors such as man-made obstructions, accessibility and the distance the power is to be transmitted must be evaluated along with the geographic consideration to determine the location

of a suitable site. Figure 2-1 shows a proposed site modification to improve average wind speed [9].

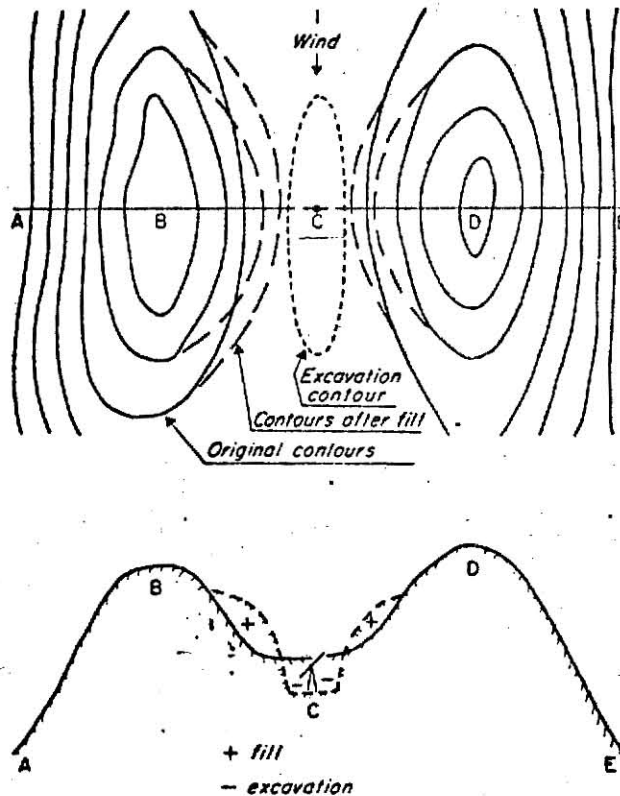


Fig. 2-1. (Taken from Reference '9)
Proposed type of terrain modification for
the purpose of augmenting average wind speed

A Review of Wind Rotors

The types of rotors used to extract the power in the wind are generally either vertical axis or horizontal axis machines. Each machine has characteristics that make it suitable to certain tasks.

The vertical axis wind rotors differ from the horizontal axis machines mainly in their ability to operate equally well regardless of wind direction. This allows the vertical axis machines

to extract energy from gusts without first being oriented into the wind, eliminating the need for heading controls. The most prominent types of vertical axis wind rotors are the Darrieus Rotor and the Savonius Rotor, which are discussed in the following paragraphs.

Darrieus Rotors are lift devices, characterized by curved blades with airfoil cross-sections. The Darrieus Rotor has a relatively low starting torque but high tip to wind speed ratios making for high power output per given rotor weight [10]. The maximum power coefficient of the Darrieus Rotor is around .35 but has the disadvantage of not being self-starting [11]. Extensive development has been undertaken by the National Research Council of Canada since the early 1970's on the Darrieus Rotor and it has the potential to become a major competitor to the propellor type wind rotor [12].

The Savonius Rotor is thought by many to be a predominately drag-type device with S-shaped design [13]. It may operate in a lift mode under some circumstances which need further study. This device operates as a two-stage turbine wherein the wind impinging on the concave side is circulated through the center of the rotor to the back of the convex side, thus decreasing what might otherwise be a high negative pressure region. The Savonius Rotor has a maximum power coefficient of around .31 [14] but is characterized by a low tip speed to wind speed ratio. The amount of rotor material required is higher than that for other rotor types, which may limit major applications. The major application of the Savonius Rotor in the past has been pumping water and

ventilating buildings.

One disadvantage of vertical axis turbines is that it is very difficult to design and build a practical furling device to protect these machines in high winds [15].

Horizontal-axis rotors can be divided into two classes, head-on and cross-wind rotors, but only the head-on rotor will be discussed here since it is the superior type. The horizontal-axis rotor may either be a lift or drag type device. Lift is preferred since a higher tip speed to wind speed ratio can be achieved. Of the horizontal-axis rotors, the high speed two-blade type is the most prominent for electric generation.

The high speed two-blade propellor turbine has a very high maximum power coefficient ranging between .4 and .45. This type has a high-tip speed ratio and thus has less need for step-up gearing arrangements. Two-blade machines, however, have a vibration problem during orientation. These difficulties disappear completely for three-blade systems, but the addition of more blade decreases the economy of rotor design and the tip-speed ratio [16].

The horizontal axis propellor turbine seems to be the preferred machine as far as federal support is concerned. With the proposal to install the ERDA/NASA machine in Russell County, Kansas, it appears that the propellor turbines will have the most impact, at least initially, in Kansas wind energy collections.

The ERDA/NASA Machine

The ERDA/NASA Experimental 100 KW Unit is composed of a horizontal, downwind rotor, 125 feet in diameter, designed for a rated capacity of 100 KW in an 18 MPH wind. The expected coefficient of power for the rotor blade is .375 and the power train efficiency is .75 with a cut-in wind speed of 8 miles per hour. The rotor for this system is designed to operate at a constant speed of 40 RPM. This is accomplished by adjusting the load on the generator for wind speeds between 8 and 18 miles per hour and maintaining constant power output between 18 and 60 miles per hour by varying the propellor pitch and feathering the propellor for wind speeds in excess of 60 MPH [17].

The rotor, transmission train, generator and controls are mounted on a bedplate on top of a tower 100 feet tall. The mechanism for rotating the bedplate at the top of the tower at a speed of 1/6th RPM is a pitch change mechanism as well as a yaw control mechanism. Torque is transmitted from the rotor hub to the electric alternator through a gear box with a speed ratio of 45/1. The alternator is rated at 125 KVA at 1800 RPM, and weighs about 1425 pounds. Figure (2-2) shows the predicted power output as a function of wind speeds for the ERDA/NASA experimental machine [18].

Wind Turbine Models

The two models constructed to evaluate the wind energy potential of Kansas were patterned after the ERDA/NASA experimental

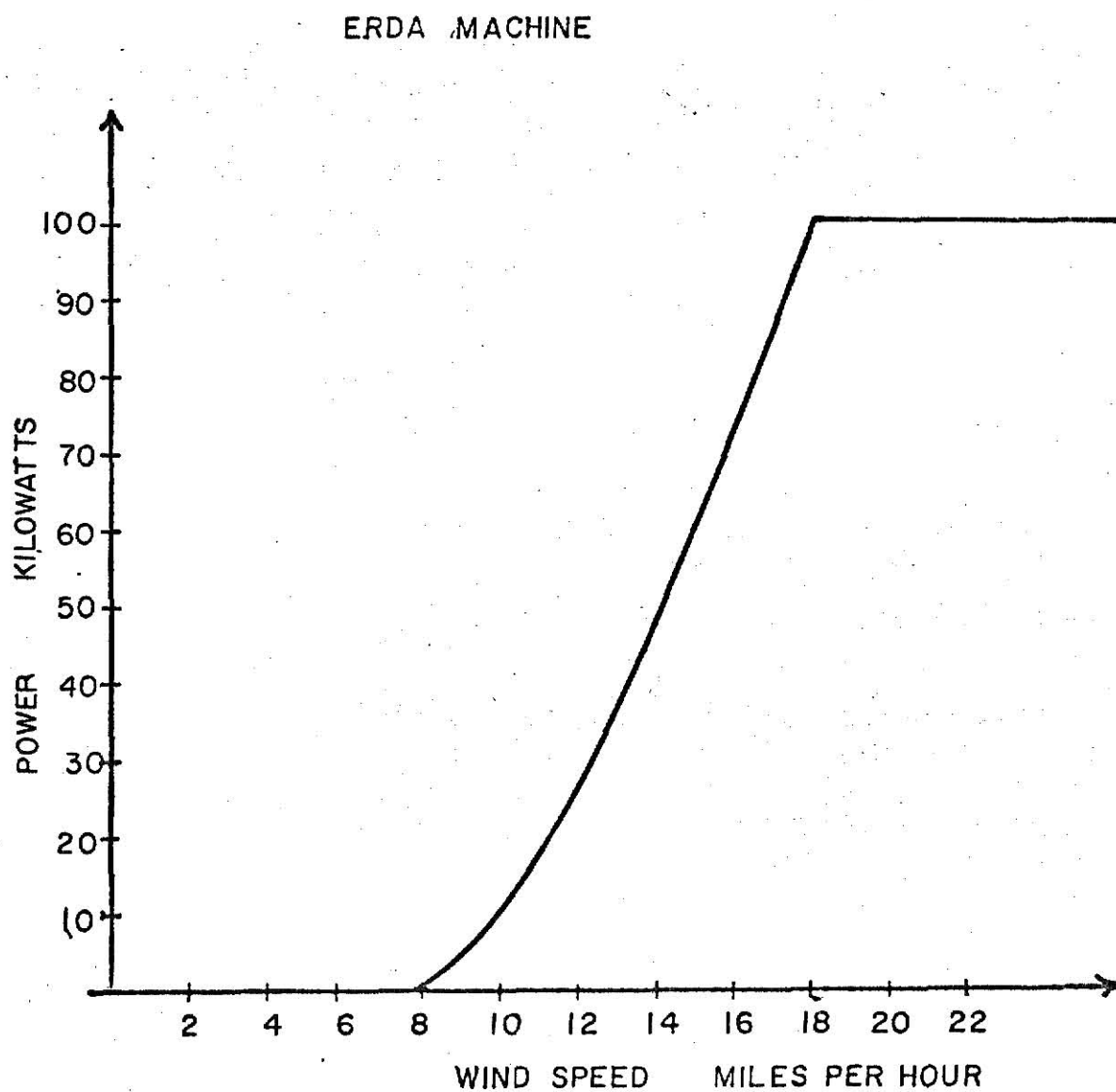


Fig. 2-2. The predicted power output of the ERDA/NASA machine as a function of wind speed.

model. The first model, named the ERDA model, used the power output of the ERDA/NASA experimental machine as a function of wind speeds as shown in Figure 2-2, as the base for calculating the wind energy potential of Kansas. The exact manner in which this curve was used to make the calculations is described in Chapter III. The second model, named the V-cubed model, assumed that the collection system would employ a synchronous AC generator, and therefore must maintain a constant rotor speed, with this being accomplished by adjusting the generator loading or changing the airfoil geometry. In line with the ERDA/NASA experimental machine, it was assumed that the power output was negligible for wind speeds less than some cut-in speed for both models. The power output was assumed to increase as the cube of wind velocity between the cut-in speed and the rated velocity of the wind machine for the V-cubed model. For wind speeds greater than the rated velocity of the machine, the power output was assumed constant. A cut-out speed of 46 miles per hour at instrument height was chosen for reasons discussed in the next chapter. A maximum power coefficient of .25 was assumed for the V-cubed model for all wind speeds between cut-in and rated wind speed. With power train efficiencies around 75%, propellor blade efficiencies around 38% and generator efficiencies around 92%, this was felt to be a good conservative estimate. The assumption of one efficiency over all operating points is not actually the best assumption. Adaptability of energy calculations to different machines was a primary consideration in the assumed constant efficiency. With this assumption an adjustment of the energy

calculations for different efficiencies becomes a simple calculation.

$$E_n = \frac{E_o \times I_{ff}}{.25} \quad (2-6)$$

where E_n is the new energy, E_o is the old energy and I_{ff} is the new efficiency desired.

Initial energy calculations were made with design parameters, cut-in speed, rated speed, and cut-out speed for the V-cubed model in agreement with those for the ERDA/NASA machine, in order that a comparison of our model with the ERDA/NASA machine might be made, thus demonstrating the feasibility of the V-cubed model. Subsequent calculations were made varying these design parameters to study their effect on power output.

In summary, the power in the wind is due to the kinetic energy of air molecules. The maximum amount of energy that can be collected by a propellor turbine is 59% of the total kinetic energy of the wind, with typical machines collecting between 10% and 45%. Taking advantage of natural geographic diffusers can increase the velocity through the turbines and thus increase their power output.

Of the multitude of wind machines built in the past, the ERDA/NASA experimental machine was considered the most suitable machine to use as a model, and was the only one discussed in detail. A mathematical model was constructed based on this machine. Another model, termed the V-cubed model, was also constructed. It deviated from the ERDA/NASA model by the assumption of a constant efficiency over all operating points in the

range of wind speeds between cut-in and rated speeds.

CHAPTER III

DESCRIPTION OF DATA AND ITS PROCESSING

Chapter II described the power in the wind and presented two models by which an estimate of the amount of extractable energy can be computed. This is only part of the problem in that reliable wind data must be collected from a representative number of sites before the wind energy potential of Kansas can be evaluated. The data used in this work was collected at three hour intervals at National Weather Service stations located in different geographic regions of Kansas. This data was supplied through the courtesy of Professor Dean Dark of the Kansas State Department of Physics.

DATA COLLECTION

United States Weather Service wind speed reporting requirements presently specify a manual estimate of the average wind speed over a one minute interval once every hour. Studies indicate that the true average wind speed over an hour is somewhat higher than the average as determined in this manner [19]. Power calculations using hourly information will typically be low by about 10% due to the third degree variations of power with velocity [20]. Because of its immediate availability, data at 3-hour intervals was used in this study leading to a conservative

estimate of collectible energy.

The standard type of anemometer used by the National Weather Service to record the wind speed is the vertical axis rotating cup anemometer. Some minor changes in design and recording methods have been made in the past; however the instrument remains basically the same. This type of anemometer tends to lag behind the variations in the wind as well as smooth them out [21].

The standard anemometer height has been defined in most publications as 10m (33 feet). However, data taken at primary Kansas weather stations prior to 1974 was not recorded at this recommended height. Instrument heights of around 6m (20 feet) are typical for Kansas weather stations between 1961 and 1973. Prior to 1961, instrument heights varied widely from station to station with heights ranging from a high of 22.3m (73 feet) at Topeka, Kansas, between 1950 and 1951, to a low of 7.62m (25 feet) between 1949 and 1960 at Goodland, Kansas. Table 3-1 shows the height of the instruments at each weather station considered in this thesis, and the time periods when these heights were applicable.

Wind Speed Adjustment for Different Heights

The blade diameter of the ERDA/NASA machine was 38.1m (125 feet) with a hub height of 30.48m (100 feet) making it necessary to adjust the velocity data accumulated at a lower height to the hub height of the ERDA/NASA machine. The wind speed was adjusted for height by Reed's formula [22].

TABLE 3-1

ANEMOMETER HEIGHTS AT KANSAS CITIES OVER
THE YEARS OF INTEREST

Site				
Concordia	16 May 1962	-	Present	21 feet
Dodge City	1 July 1942	-	12 April 1961	58 feet
	12 April 1961	-	Present	20 feet
Goodland	14 December 1943	-	11 May 1949	43 feet
	11 May 1949	-	9 June 1960	25 feet
	9 June 1960	-	23 March 1964	31 feet
	23 March 1964	-	18 May 1965	35 feet
	18 May 1965	-	2 March 1966	20 feet
	3 March 1966	-	Present	21 feet
Russell	8 August 1949	-	Present	29 feet
Chanute	1 January 1948	-	1 January 1956	42 feet
	1 January 1956	-	November 1959	43 feet
	1 December 1959	-	January 1970	51 feet
	January 1970	-	Present	22 feet
Grandview (Mo.)	* March 1954	-	March 1955	76 feet
	April 1955	-	February 1957	25 feet
	March 1957	-	February 1958	96 feet
	March 1958	-	November 1961	10 feet
	December 1961	-	Present	21 feet
Topeka	* January 1948	-	20 November 1950	58 feet
	November 1950	-	November 1951	73 feet
	November 1951	-	June 1954	58 feet
	August 1956	-	August 1964	72 feet
	August 1964	-	Present	25 feet
Wichita	* September 1944	-	November 1953	61 feet
	December 1953	-	July 1967	32 feet
	July 1967	-	Present	25 feet

*The exact day the anemometer height changed was not available for all cities.

$$V_2 / V_1 = (Z_2 / Z_1)^{0.27960 + 0.03265 \ln Z_1}$$

$$V_1^{0.10528 \ln Z_1 - (0.09831 + 0.05502 \ln Z_2 + 0.006424 \ln Z_1 \ln Z_2)}$$

where V_1 is the velocity at instrument height, V_2 is the velocity at the new height, Z_1 is the instrument height, and Z_2 is the velocity at the new height.

A simpler and more common equation describing the variation of wind speed with height is [23]

$$(V_2 / V_1) = (Z_2 / Z_1)^{1/7} \quad (3-2)$$

Reed's formula gives a more conservative estimate of the velocity increase with height at higher wind speed than this "one-seventh" law. In the lower wind speeds Reed's formula is more optimistic than the one-seventh law in predicting this increase. Figure 3-1 shows a comparison of Reed's formula with the one-seventh law for predicting velocity change with $Z_1 = 6.1\text{m}$ (20 feet) and $Z_2 = 30.48\text{m}$ (100 feet). The intersection of the two curves is at 4.77 m/s (20.55 knots) where they both predict the same increase in velocity.

Organization of Data

After obtaining the data the next step was to organize it into a form that will enable a reliable initial estimate of the wind energy potential of Kansas to be calculated. This was accomplished by preparing bivariate (direction vs. speed) distributions and estimating the amount of energy that could be

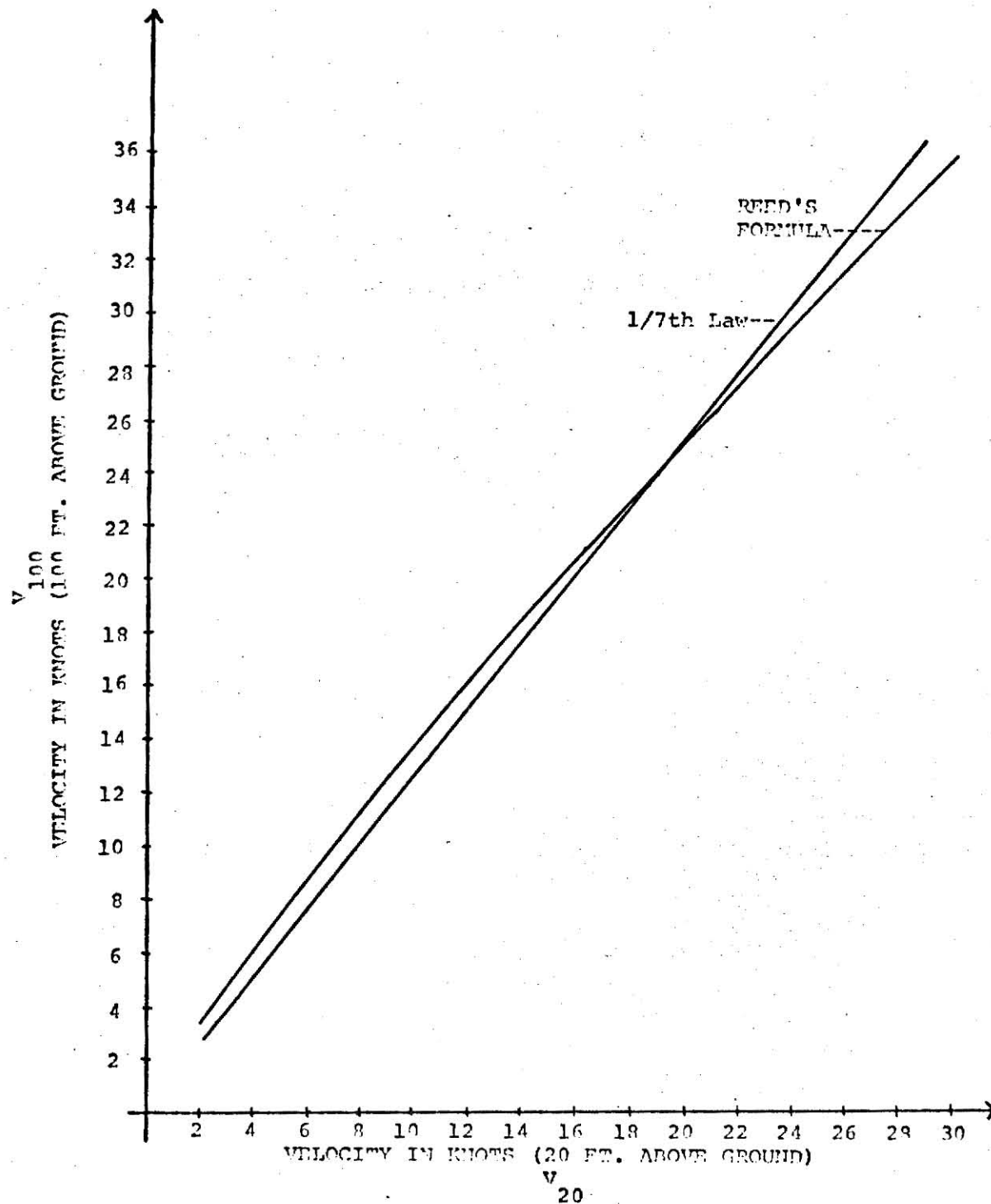


Figure 3-1. Comparison of Reed's Formula & 1/7th Law

extracted by our machine models using the data. The bivariate distributions were prepared for time intervals ranging from an average day to a year in length. The energy estimates were made for each month of the year using the two machine models discussed in Chapter II over the years for which the data was available. The average velocity and the cube root of the average of the cubed velocities (root mean cube) were calculated for the same time periods in order to study their relation to the estimated wind energy extracted.

Four tables were generated from the data from which an assessment of the energy potential of Kansas could be made. The first table showed the bivariate distribution of wind for Kansas weather stations for each year. The second table showed a modified bivariate distribution for the seasons of the year. The third table showed the variation of wind speeds for each month. The fourth table contains the results of our energy estimates for the ERDA/NASA machine and the energy predicted by our V-cubed model. Examples of these tables and their interpretation will be given in Chapter IV. A complete set of the results is contained in the appendices of this thesis.

The first table, labeled the Bivariate Distribution, shows the percentage of time the wind speeds were in the range of

- 0 - 6 knots
- 7 - 10 knots
- 11 - 16 knots
- 17 - 21 knots
- 22 knots and greater

for each direction on a sixteen point compass. This table was computed by sorting the wind velocities by direction and then sorting the speeds for each direction into the intervals listed above. The information was then normalized with respect to the number of observations. Polar plots were then made for the selected years from the information printed in the frequency tables. Figures 3-2, 3-3 and 3-4 are typical of those polar plots. The frequency tables were generated for each year that appropriate data was available. Randomly selected years were extracted to show the bivariate distributions for each month. Tables containing this information over many years were computed, but the breakdowns were uneven due to the variations in instrument heights over the years studied.

The Three Hourly Summary Table presented the seasonal variations in velocity and wind direction through the seasons.

The standard make-up of the seasons was changed to a more convenient chronological interval than that which is generally taken to be the length of the seasons. The seasons were chosen as follows:

Winter	December 1 - February 28
Spring	March 1 - May 30
Summer	June 1 - August 31
Fall	September 1 - November 30.

For each hour of the day for which recorded information existed, the average velocity and the number of observations from the four principal directions, North, East, South and West, were computed. The observations from the other twelve

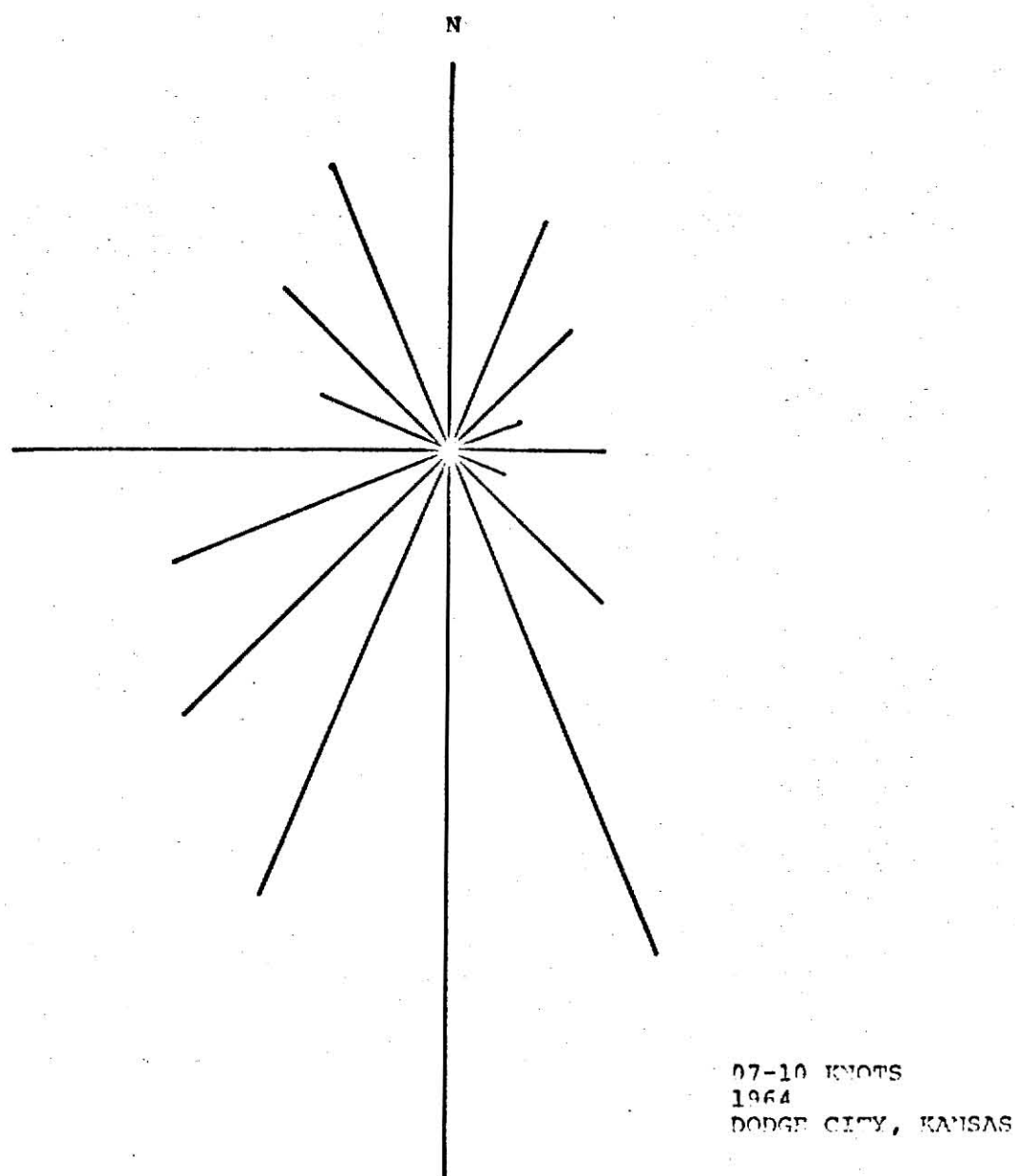


Fig. 3-2. A graphical picture of the number of observations with respect to directions for the wind speeds occurring in the interval 7-10 knots.

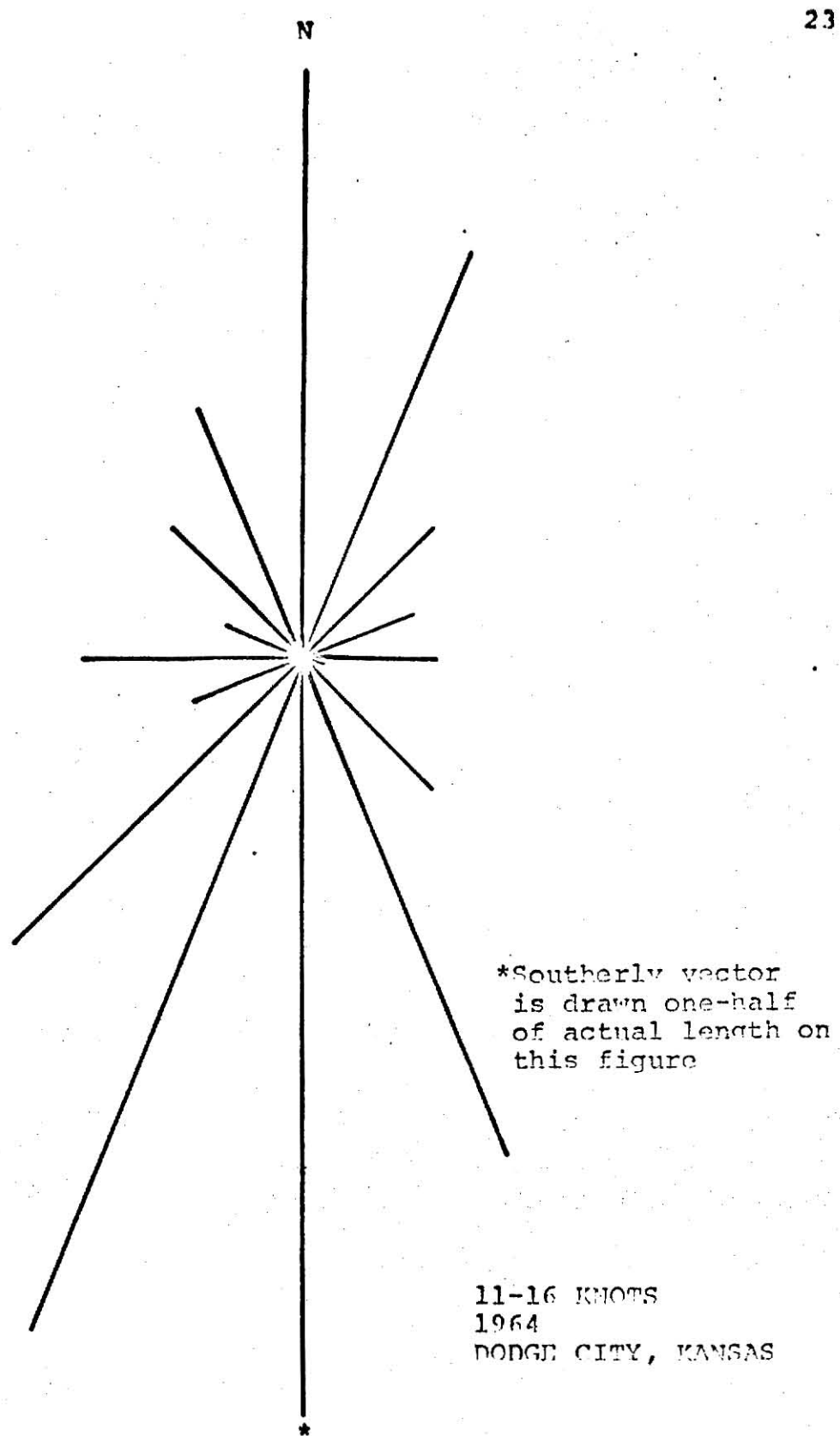


Fig. 3-3. A graphical picture of the number of observations with respect to directions for the wind speeds occurring in the interval 11-16 knots.

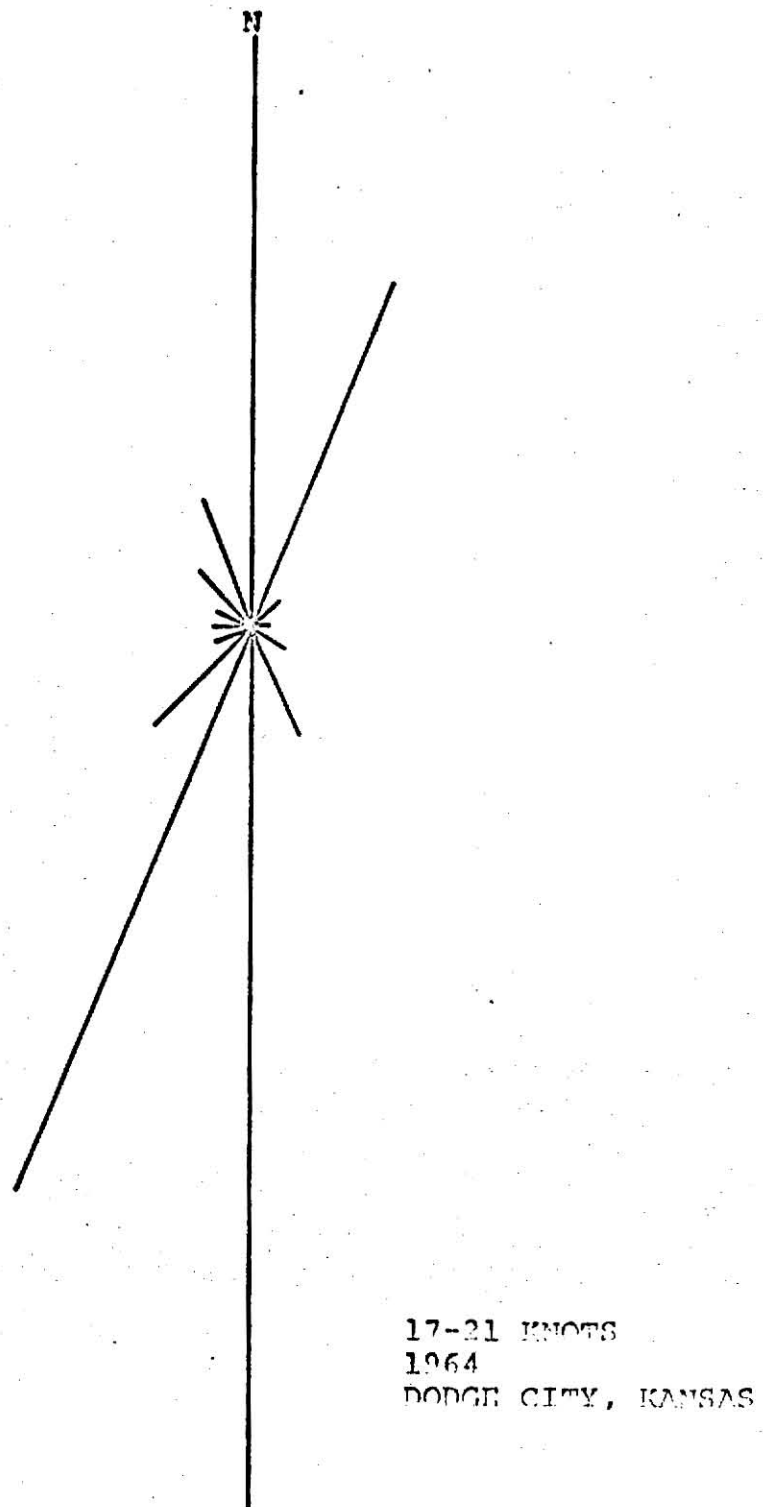


Fig. 3-4. A graphical picture of the number of observations with respect to directions for the wind speeds occurring in the interval 17-21 knots.

directions were assigned to the primary directions as shown in Fig. 3-5. Tabulations were made in the same manner as those made for the frequency tables.

The final table of this type produced was the Wind Speed Distribution Table, and is useful for wind speed distribution studies. This table displays the number of times in a month that the data was recorded at a particular speed. The information from this table was punched out on standard computer cards to provide a compressed form of the data that is on the tapes. Speeds up to forty knots were recorded in this manner and higher speeds were discarded. This typically resulted in the discarding of one in every thousand data points. Forty knots was selected because it enabled the tabulated information to be punched on one standard computer card of eighty characters for each month. Many wind machines are fully feathered at high wind speeds, making the discarding of these points reasonable.

The unequal length of the months make it difficult to compare the energy content of one month with another month. For example, if for February and October the wind speed was a constant twelve knots, the amount of energy generated in February would be 6.930 KWH/M^2 less than October due to the difference in the lengths of the two months. The solution to this problem employed was to normalize the months to a standard length of 30 days. The new chronological periods of the months are shown in Table 3-2.

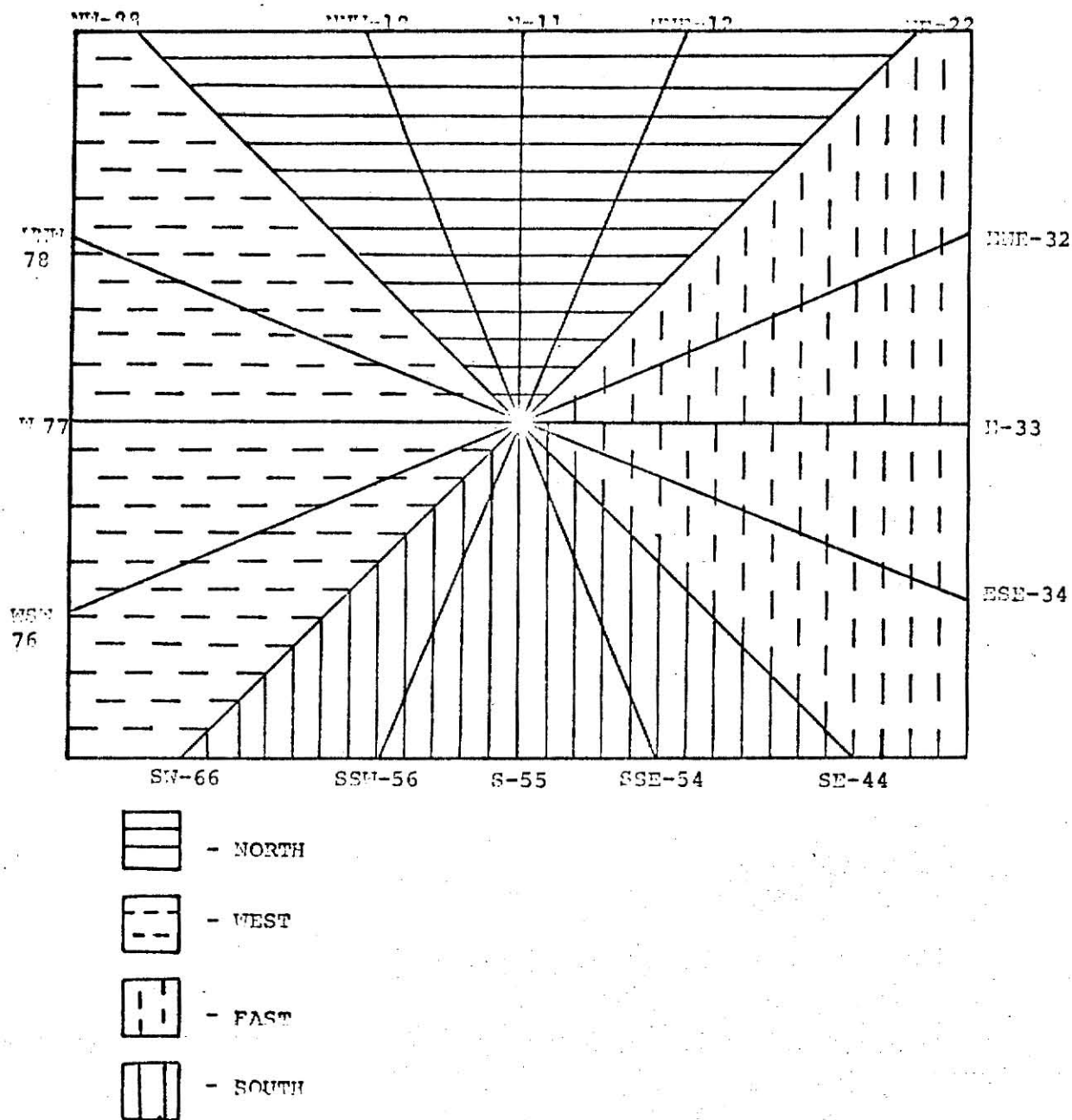


Fig. 3-4. For hourly summary table: Shows directions labeled North, East, South, West. All 45° directions are divided evenly between the two adjoining regions.

TABLE 3-2

THE NORMALIZED MONTHS FOR ENERGY CALCULATIONS

MONTH	DURATION
January	January 1 - January 30
February	January 31 - March 1
March	March 2 - March 31
April	April 1 - April 30
May	May 1 - May 30
June	June 1 - June 30
July	July 1 - July 30
August	August 1 - August 30
September	September 1 - September 30
October	October 1 - October 30
November	November 1 - November 30
December	December 1 - December 30

The effect of the days omitted from Table 3-2 was eliminated by setting the recorded wind speed to zero except for December 31st. December 31st was omitted by ending the year after three hundred sixty-four days. The extra day that a leap year introduces was not recorded on the Weather Bureau tapes. Although the first column in the Tabulated Results Table was labeled one knot, this column also contained the number of times a reading of calm (0 knots) was recorded by Weather Bureau observers or artificially generated by normalizing the months to a standard length of 30 days.

The Computation of the Table of Collectible Energy

The Table of Collectible Energy was arranged in accordance with the objectives of this report as stated in Chapter I. The information contained in this table was calculated from the data processed for the Tabulated Results Table. Presented in the

Table of Collectible Energy for each month of the year is the average velocity, the root mean cube velocity, and the energy that could be extracted by the ERDA/NASA machine and a wind machine operating in a manner similar to the V-cubed model.

The root mean cube (RMC) velocity could be calculated from equation (3-3)

$$RMC = \left(\frac{\sum_{i=1}^N V_i^3 n_i}{N} \right)^{1/3}$$

where n_i is the number of data points at wind speed V_i and N is the number of total distinct wind velocities.

Using the information processed for the Tabulated Results Table, equation 3-3 was modified to the following form:

$$RMC = \left(\frac{\sum_{i=1}^{40} V_i^3 n_i}{40} \right)^{1/3}$$

The average velocity was computed in a similar manner by:

$$\text{Average Velocity} = \frac{\sum_{i=1}^{40} V_i n_i}{N} \quad (3-5)$$

The average speed and RMC speed at the instrument height and at 100 feet are displayed in the first four columns of the Table of Collectible Energy for each site.

The RMC speed was calculated for the purpose of establishing an index by which the energy content of a site could be

estimated.

It was believed initially that the RMC speed would give a better indication of the wind energy content than the average speed because of the third order variation of power with wind speed, a conjecture which was not borne out for the system studied in this thesis.

To compute the amount of collectible energy from each site throughout Kansas the power output curve for the wind energy collection system was numerically integrated. With the use of the accumulated number of observations of each wind speed, the numerical method commonly called the Rectangular Rule was used, since it required the minimum amount of calculations. Equation 3-6 was used to compute the amount of energy that could be extracted by a wind energy collection system.

$$E(V_i) = \sum_{i=1}^{40} n_i P(V_i) IK \quad (3-6)$$

where n_i is the number of observations at each wind speed for each month. $P(V_i)$ is the power output of the wind machine at a particular wind speed. I is the time increment. K is a conversion factor used to adjust units.

Obtaining the function $P(V_i)$ is the main obstacle in evaluating equation (3-6). The power output of the ERDA/NASA wind machine was obtained using the function shown in Figure 2-1. From this curve the power output of the ERDA/NASA wind machine was determined at discreet integer wind speeds. To determine $P(V_i)$ for the V-cubed model was a simpler task, which amounted

to evaluating equation (3-7) for each wind speed.

$$P(V_i) = KV_i^3 U(V_i - V_{ci}) U(V_r - V_i) + KV_r^3 U(V_i - V_r) U(V_{co} - V_i)$$

$$i = 1, 2, \text{-----} 40 \quad (3-7)$$

In this equation V_{ci} is the cut in wind speed of the wind machine, V_r is the rated velocity of the wind machine, V_i is the discreet wind speed recorded between (1-40) knots, U is the unit step function, K is the constant which corrects units and takes into account efficiency, and V_{co} is the cut-out wind speed of the wind machine.

Since the data was recorded at integer wind speeds measured in knots (nautical miles per hour) and generally at an instrument height much lower than the desired hub height of the wind machine, a third order Newton interpolating polynomial was used to compute the value of $P(V_i)$ for the ERDA/NASA machine. An example of how this was accomplished is provided below:

$V_{20} = 7$ knots at an instrument height of 20 feet with a desired hub height of 100 feet.

By Reed's Formula:

$$V_{100} = 1.83563 (V_{20})^{.8751}$$

$$= 10.1 \text{ knots}$$

$$V_{100} = 10.1 \text{ knots} \times 1.15 \frac{\text{mph}}{\text{knots}} = 11.588 \text{ miles per hour}$$

$$P(V_{100}) = 23.18 \text{ KW}$$

Table (3-3) shows the $P(V_i)$ as a function of each significant wind speed for both the ERDA/NASA machine and the V-cubed model. Wind speeds are in knots and power output is in kilowatts.

The computed energy collected from both machine models is displayed in the right hand columns of the Table of Collectible Energy as shown in Table 3-4. The computed amount of energy that could be collected by each model is displayed in two forms for each machine. The figures listed in the column labeled "V-CUBED, CODE=1" give the amount of energy per month that could be extracted from the wind by the V-cubed model machine operating at a hub height of 100 feet. The figures in the column labeled "ERDA, CODE=1" give the total energy per month which would be expected from the ERDA machine. "CODE=3" is the same as "CODE=1" except that the energy has been divided by the rotor area to give an energy density in KWH/M^2 . "CODE=2" gives the energy density in KWH/M^2 for the two models at the anemometer height rather than the corrected height of 100 feet. If the anemometer height is less than 62.5 feet, the ERDA machine blades would strike the ground. The program was coded to give an energy density of zero for this condition. All wind speeds are listed in knots and the energies are given in megawatt hours for the total amount of energy that can be extracted (CODE=1) and kilowatt hours per meter squared for that which is normalized with respect to rotor area (CODE=2 and CODE=3).

For Dodge City from the year 1973 a sample table of collectible energy is displayed in Table 3-4.

TABLE 3-3
COMPARISON OF $P(V_i)$ FOR ERDA MODEL
AND THE V-CUBED MODEL

V_{20_i}	V_{100_i}	$P_1 (V_{i_{100}})$	$P_2 (V_{i_{100}})$
1 knots	1.83	0	0
2 knots	3.37	0	0
3 knots	4.80	0	0
4 knots	6.18	0	0
5 knots	7.51	2.97 KW	10.09 KW
6 knots	8.80	11.828 KW	16.23 KW
7 knots	10.08	23.18 KW	24.40 KW
8 knots	11.32	38.18 KW	34.56 KW
9 knots	12.56	55.72 KW	47.20 KW
10 knots	13.77	73.0 KW	62.20 KW
11 knots	14.97	90.27 KW	79.88 KW
12 knots	16.15	100.00 KW	97.53 KW
13 knots	17.32	100.00 KW	97.53 KW
14 knots	18.48	100.00 KW	97.53 KW
15 knots	19.63	100.00 KW	97.53 KW
16 knots	20.77	100.00 KW	97.53 KW
17 knots	21.90	100.00 KW	97.53 KW
18 knots	23.0	100.00 KW	97.53 KW

TABLE 3-4

MONTH		AVGVEL	AVGVEL	RMCVEL	RMCVEL	VCURED	VCURED	VCURED	ERDA	ERDA	ERDA	ERDA	INFORMATION	1972
OLD HT		NEW HT	OLD HT	NEW HT	VCURED	VCURED	VCURED	VCURED	CODE=1	CODE=2	CODE=3	CODE=2	CODE=3	
JAN.	12.13	15.28	14.12	17.41	47.10	29.45	41.31	49.54	0.00	43.46	RUSSELL KANSAS	0.00	43.46	
FEB.	11.29	14.29	13.79	16.55	41.14	25.61	36.08	43.19	0.00	37.89	RUSSELL COUNTY	0.00	37.89	
MAR.	12.11	15.25	14.13	17.44	46.40	30.79	40.70	48.11	0.00	42.20	CORRECTED HT. 100 FT.	0.00	42.20	
APR.	10.82	13.75	13.09	16.19	40.45	24.51	35.48	42.15	0.00	36.97	INSTRUMENT HT. 29 FT.	0.00	36.97	
MAY.	9.77	12.55	11.54	14.51	35.95	20.21	31.54	37.43	0.00	32.83	PEAK LIMIT IS 16 KNTS.	0.00	32.83	
JUNE	9.02	11.65	10.97	13.92	32.43	16.74	28.45	34.02	0.00	29.84	FRICT. LIM. IS 7KNTS.	0.00	29.84	
JULY	10.85	13.81	12.72	15.84	41.16	24.22	36.10	43.25	0.00	37.94	CODE=1 COR. HT. BULK MWH.	0.00	37.94	
AUG.	9.39	12.10	11.07	13.98	34.24	18.40	30.03	35.95	0.00	31.53	CODE=2 ORG. HT. PER	0.00	31.53	
SEP.	9.99	12.78	11.98	14.99	37.07	21.50	32.52	38.77	0.00	34.00	UNIT AREA KWH/M**2	0.00	34.00	
OCT.	10.06	12.83	12.33	15.36	36.94	22.19	32.40	38.70	0.00	33.94	CODE=3 COR. HT. PER.	0.00	33.94	
NOV.	10.00	12.75	12.61	15.61	34.64	21.12	30.39	35.82	0.00	31.42	UNIT AREA KWH/M**2	0.00	31.42	
DEC.	10.62	13.62	11.95	15.01	39.55	21.67	34.69	41.57	0.00	36.55	WIND SPEEDS ARE IN KNOTS.	0.00	36.55	
SUMS	10.50	13.39	12.61	15.68	467.08	276.41	409.68	488.60	0.00	428.56		0.00	428.56	

MONTH		AVGVEL	AVGVEL	RMCVEL	RMCVEL	VCURED	VCURED	VCURED	ERDA	ERDA	ERDA	ERDA	INFORMATION	1973
OLD HT		NEW HT	OLD HT	NEW HT	VCURED	VCURED	VCURED	VCURED	CODE=1	CODE=2	CODE=3	CODE=2	CODE=3	
JAN.	10.45	13.33	12.76	15.79	36.76	21.67	32.24	38.64	0.00	33.89	RUSSELL KANSAS	0.00	33.89	
FEB.	10.86	13.84	12.71	15.81	40.56	23.68	35.58	42.57	0.00	37.34	RUSSELL COUNTY	0.00	37.34	
MAR.	13.88	17.26	16.19	19.70	52.59	36.83	46.13	54.54	0.00	47.84	CORRECTED HT. 100 FT.	0.00	47.84	
APR.	13.80	17.21	15.50	19.12	53.24	36.90	46.70	55.80	0.00	48.95	INSTRUMENT HT. 29 FT.	0.00	48.95	
MAY.	10.41	13.25	13.01	16.05	36.48	22.02	32.00	38.13	0.00	33.44	PEAK LIMIT IS 16 KNTS.	0.00	33.44	
JUNE	11.44	14.49	13.51	16.71	42.54	26.29	37.31	44.70	0.00	39.21	FRICT. LIM. IS 7KNTS.	0.00	39.21	
JULY	11.68	14.83	13.05	16.29	46.60	27.96	40.87	49.45	0.00	43.37	CODE=1 COR. HT. BULK MWH.	0.00	43.37	
AUG.	11.52	14.63	13.00	16.21	45.19	27.15	39.64	47.52	0.00	41.68	CODE=2 ORG. HT. PER	0.00	41.68	
SEP.	9.38	12.12	11.19	14.06	31.53	16.61	27.65	32.72	0.00	28.70	UNIT AREA KWH/M**2	0.00	28.70	
OCT.	10.65	13.60	12.31	15.39	40.09	22.92	35.16	42.37	0.00	37.17	CODE=3 COR. HT. PER.	0.00	37.17	
NOV.	10.32	13.19	12.24	15.28	38.21	22.15	33.52	40.10	0.00	35.17	UNIT AREA KWH/M**2	0.00	35.17	
DEC.	11.96	15.16	13.61	16.85	44.15	27.56	38.72	46.30	0.00	40.61	WIND SPEEDS ARE IN KNOTS.	0.00	40.61	
SUMS	11.36	14.41	13.40	16.58	507.94	311.73	445.52	532.83	0.00	467.36		0.00	467.36	

To enable a prediction of the amount of energy that could be extracted from either machine model knowing the average velocity, a linear regression analysis was made to determine the best fit line relating the average velocity and the monthly energy extracted by our models. The best fit line was constructed from the data for one year from each site as well as the data over twenty-six years for Dodge City.

CHAPTER IV

A DISCUSSION OF KANSAS WIND AND THE ENERGY THAT CAN BE COLLECTED FROM IT

In Chapter III we discussed how the data from the Kansas weather stations was processed to display the variability as well as the energy content of the wind at those sites. In this chapter we will be concerned with the interpretation of the results in an effort to evaluate the wind energy potential of Kansas. Rather than present a superficial discussion of each area from which data was available, we elected to discuss in depth the wind energy potential at Dodge City, Kansas, and include in the appendices the information necessary for a similar treatment of the other areas to be made. Unless otherwise specified, all graphs presented for Dodge City will be a ten year average extending from January 1st, 1964 through December 31st, 1973.

The Variability of Dodge City Winds

The data obtained for this study was adequate for the indication of general trends in direction. The variation of direction with wind speeds is displayed in Table 4-1 for Dodge City. In this table it can be seen that the southerly directions account for 36% of the observations. This includes SSW and SSE as well as S data from Table 4-1. In the wind speeds greater

than eleven knots, the southerly directions account for 43.7% of the observations while the northerly directions account for 28% of the observations, making 71.7% of the observation along the north-south axis. It appears from these results that for wind turbine systems which are directionally dependent, an orientation along the north-south axis should provide maximum energy collection.

The variation of the wind speeds and directions through an average day for each season for Dodge City is displayed in Table 4-2. From this table a few general observations of the behavior of the wind from season to season can be made.

The wind velocities from the year 1972 for Dodge City, Kansas attain their highest magnitudes in the spring months with an average daily speed of 12.43 knots, and their lowest magnitudes in the summer months with a daily average speed of 10.01 knots. These results can be obtained by averaging the data in the average velocity column for the appropriate season. The average velocity fluctuates more during the day in the summer months than during any other season and fluctuates less in the winter months than any other season. The southerly directions, as defined above, are recorded more frequently than any other direction for all seasons with the highest number of southerly observations being reported between midnight and 3 p.m. Between 3 p.m. and 11 p.m. the easterly directions are recorded more frequently than these directions are observed between the hours midnight and 3 p.m. Over the entire year the wind speeds attain the highest magnitudes from noon to 3 p.m. and the lowest

TABLE 4-2

THE HOURLY SUMMARY TABLE FOR WINTER, 1973

HR	LB	AVG	UP	DOWN	EAST	WEST
HR	LB	AVG	UP	DOWN	EAST	WEST
2400	3	10.8444	30	0.21222	0.11657	0.33333
0100	3	10.7778	29	0.13222	0.11111	0.31111
0600	3	11.0000	36	0.33556	0.10556	0.26667
0900	3	11.4000	28	0.32722	0.10556	0.25556
1200	3	12.1111	31	0.36667	0.09444	0.25556
1500	3	12.7222	32	0.36667	0.11111	0.25556
1800	3	13.0000	32	0.31111	0.11111	0.25556
2100	3	13.0000	32	0.27222	0.15556	0.34444

Indiana City
Instrument Height
1972-1973 20 Feet

THE HOURLY SUMMARY TABLE FOR SPRING, 1973

HR	LB	AVG	UP	DOWN	EAST	WEST
HR	LB	AVG	UP	DOWN	EAST	WEST
2400	4	11.5000	21	0.27778	0.15556	0.33333
0100	4	11.1111	29	0.20000	0.11111	0.31111
0600	4	11.1111	21	0.31111	0.11111	0.31111
0900	4	12.0000	36	0.41278	0.09278	0.28571
1200	4	12.7059	31	0.41278	0.09278	0.28571
1500	4	13.0000	36	0.41278	0.09278	0.28571
1800	4	13.0000	36	0.41278	0.09278	0.28571
2100	4	13.0000	36	0.41278	0.09278	0.28571

THE HOURLY SUMMARY TABLE FOR SUMMER, 1973

HR	LB	AVG	UP	DOWN	EAST	WEST
HR	LB	AVG	UP	DOWN	EAST	WEST
2400	4	13.0000	25	0.15133	0.13637	0.44133
0300	4	13.0000	16	0.15133	0.13637	0.44133
0600	4	13.0000	16	0.15133	0.13637	0.44133
0900	4	13.0000	21	0.15133	0.13637	0.44133
1200	4	13.0000	21	0.15133	0.13637	0.44133
1500	4	13.0000	21	0.15133	0.13637	0.44133
1800	4	13.0000	21	0.15133	0.13637	0.44133
2100	4	13.0000	21	0.15133	0.13637	0.44133

THE HOURLY SUMMARY TABLE FOR FALL, 1973

HR	LB	AVG	UP	DOWN	EAST	WEST
HR	LB	AVG	UP	DOWN	EAST	WEST
2400	4	13.0000	21	0.25222	0.15556	0.33333
0300	4	13.0000	21	0.25222	0.15556	0.33333
0600	4	13.0000	21	0.25222	0.15556	0.33333
0900	4	13.0000	21	0.25222	0.15556	0.33333
1200	4	13.0000	21	0.25222	0.15556	0.33333
1500	4	13.0000	21	0.25222	0.15556	0.33333
1800	4	13.0000	21	0.25222	0.15556	0.33333
2100	4	13.0000	21	0.25222	0.15556	0.33333

THE HOURLY SUMMARY TABLE FOR WINTER, 1972

HR	LB	AVG	UP	DOWN	EAST	WEST
HR	LB	AVG	UP	DOWN	EAST	WEST
2400	3	12.5556	22	0.25556	0.15556	0.33333
0100	3	12.5556	22	0.25556	0.15556	0.33333
0600	3	12.5556	22	0.25556	0.15556	0.33333
0900	3	12.5556	22	0.25556	0.15556	0.33333
1200	3	12.5556	22	0.25556	0.15556	0.33333
1500	3	12.5556	22	0.25556	0.15556	0.33333
1800	3	12.5556	22	0.25556	0.15556	0.33333
2100	3	12.5556	22	0.25556	0.15556	0.33333

THE HOURLY SUMMARY TABLE FOR SPRING, 1972

HR	LB	AVG	UP	DOWN	EAST	WEST
HR	LB	AVG	UP	DOWN	EAST	WEST
2400	4	11.5000	21	0.27778	0.15556	0.33333
0100	4	11.5000	21	0.27778	0.15556	0.33333
0600	4	11.5000	21	0.27778	0.15556	0.33333
0900	4	11.5000	21	0.27778	0.15556	0.33333
1200	4	11.5000	21	0.27778	0.15556	0.33333
1500	4	11.5000	21	0.27778	0.15556	0.33333
1800	4	11.5000	21	0.27778	0.15556	0.33333
2100	4	11.5000	21	0.27778	0.15556	0.33333

THE HOURLY SUMMARY TABLE FOR SUMMER, 1972

HR	LB	AVG	UP	DOWN	EAST	WEST
HR	LB	AVG	UP	DOWN	EAST	WEST
2400	4	13.0000	17	0.20222	0.13637	0.44133
0300	4	13.0000	17	0.20222	0.13637	0.44133
0600	4	13.0000	17	0.20222	0.13637	0.44133
0900	4	13.0000	17	0.20222	0.13637	0.44133
1200	4	13.0000	17	0.20222	0.13637	0.44133
1500	4	13.0000	17	0.20222	0.13637	0.44133
1800	4	13.0000	17	0.20222	0.13637	0.44133
2100	4	13.0000	17	0.20222	0.13637	0.44133

THE HOURLY SUMMARY TABLE FOR FALL, 1972

HR	LB	AVG	UP	DOWN	EAST	WEST
HR	LB	AVG	UP	DOWN	EAST	WEST
2400	4	13.0000	21	0.25222	0.15556	0.33333
0300	4	13.0000	21	0.25222	0.15556	0.33333
0600	4	13.0000	21	0.25222	0.15556	0.33333
0900	4	13.0000	21	0.25222	0.15556	0.33333
1200	4	13.0000	21	0.25222	0.15556	0.33333
1500	4	13.0000	21	0.25222	0.15556	0.33333
1800	4	13.0000	21	0.25222	0.15556	0.33333
2100	4	13.0000	21	0.25222	0.15556	0.33333

magnitude in the early morning hours from midnight to 6 a.m.

To display the distribution and density of the wind speed and power, several curves were drawn based on computations made utilizing the tabulated information from Dodge City, Kansas found in the appendices.

It has been shown that the Weibull distribution correlates well with Kansas wind and is commonly used for characterizing the wind. [24] It is analytically tractable giving mean and variance as gamma functions.

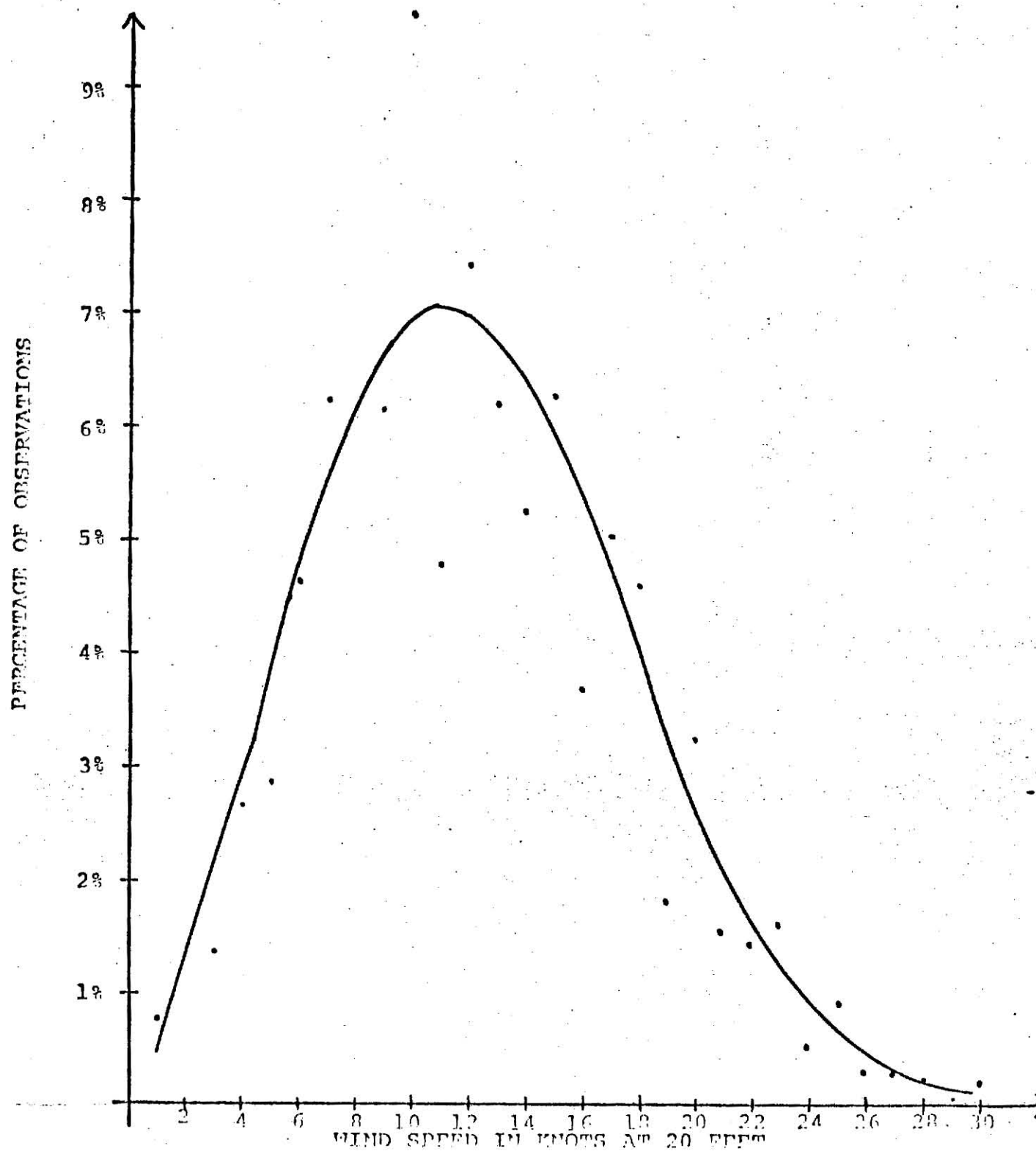
A form of the Weibull density function is given in equation (4-1):

$$f(x) = (\gamma/\theta) x^{\gamma-1} \exp(-x^{\gamma}/\theta); \quad x \geq 0, \gamma > 0, \theta > 0 \quad (4-1)$$

A. Clifford Cohen provides a method by which the parameters, γ and θ may be estimated. [24] Using this method, values for γ and θ were estimated to be 2.3957 and 543.29. Shown in Fig. (4-1) is the Weibull distribution of Dodge City winds for 1973. It is suspected that the irregularities occurring at five and ten knots are due to systematic errors on the part of the observers as opposed to natural occurring physical phenomena.

The irregularities displayed in Fig. (4-1) were reduced by considering the frequency distribution of the wind as opposed to the density. From the tabulated data the wind speed distribution curve was computed by use of equation (4-2).

$$P(V_j) = \frac{\sum_{i=1}^j n_i V_i}{\sum_{i=1}^N n_i V_i} \quad (4-2)$$



, Figure 4-1. Weibull density curve from Dodge City, Kansas, for the year 1973.

where N is the number of unique wind speeds, n_i is the number of observations at wind speed V_i in the range of interest, and V_i is the wind speed.

The Effect of Rated Velocity on Power Output

This type of distribution curve is shown in Figure (4-2). From this curve, estimates can be made of the amount of time that a wind energy collection system will operate at rated power output. Care must be taken in making this estimate for the abscissa displays the wind speeds occurring at 20 feet above the ground. The abscissa must be scaled upward to predict the wind distribution at higher elevations. Figure (4-3) provides a convenient set of curves for scaling the wind speed observations made at 20 feet above the ground to those speeds that would occur at the higher altitudes of 50 feet, 100 feet, 200 feet and 300 feet by use of Reed's Formula. For the ERDA/NASA machine with a hub height of 100 feet, with a rated velocity of 16 knots and cut-in speed of 7 knots, rated power will be produced 24% of the time and no power at all will be produced during approximately 20% of the time over an average year.

A given cumulative energy distribution of the wind provides a performance estimate for a particular wind energy collection system at Dodge City. The cumulative energy distribution of the wind may be computed with Equation (4-3):

$$E(V_j) = \sum_{i=1}^j I \cdot V_i^3 \cdot n_i \quad (4-3)$$

$$j = 1, 2, 3, \dots, 40$$

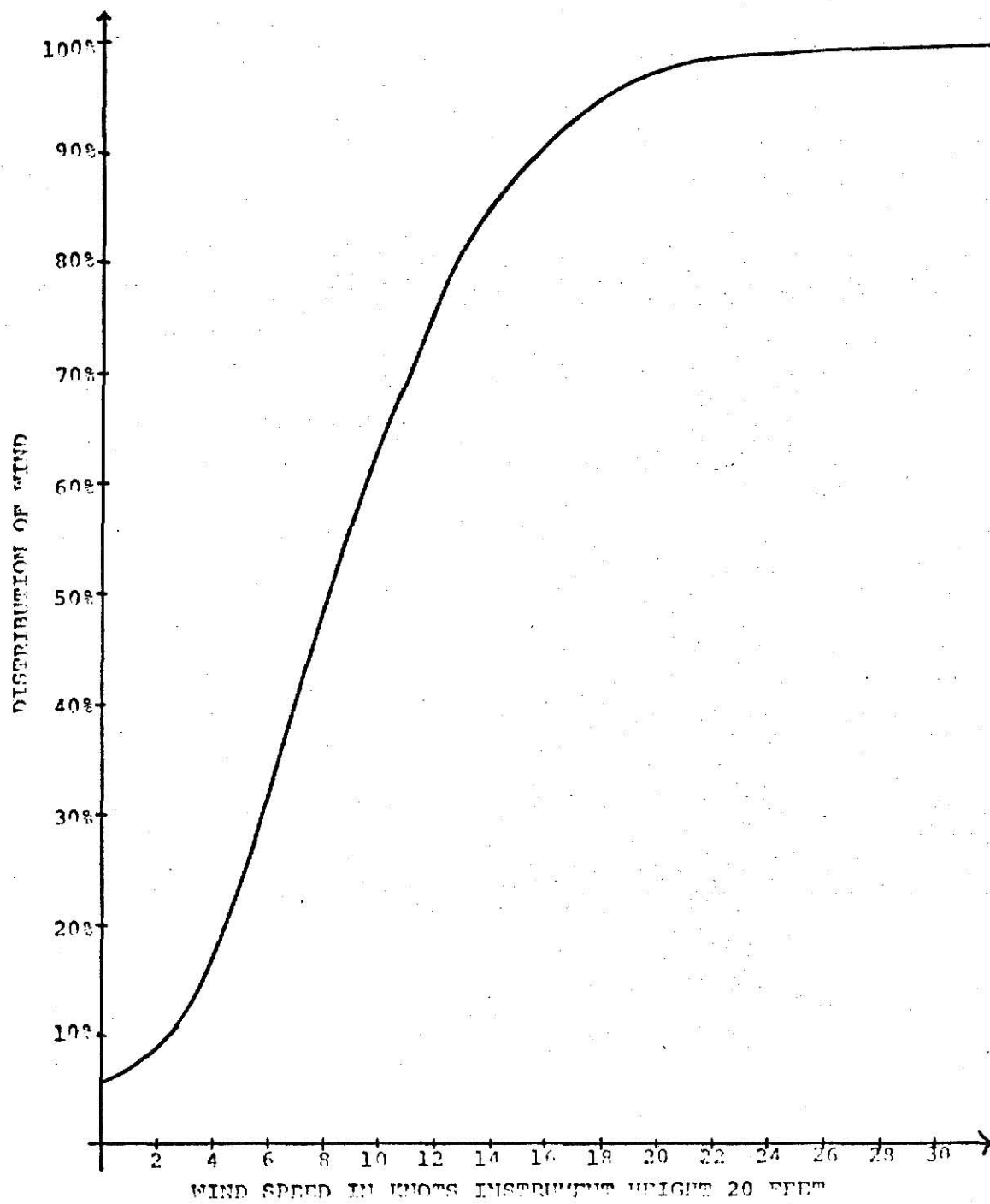


Figure 4-2. Wind speed distribution for Dodge City, Kansas,
a 10 year average extending from 1964 to 1973.

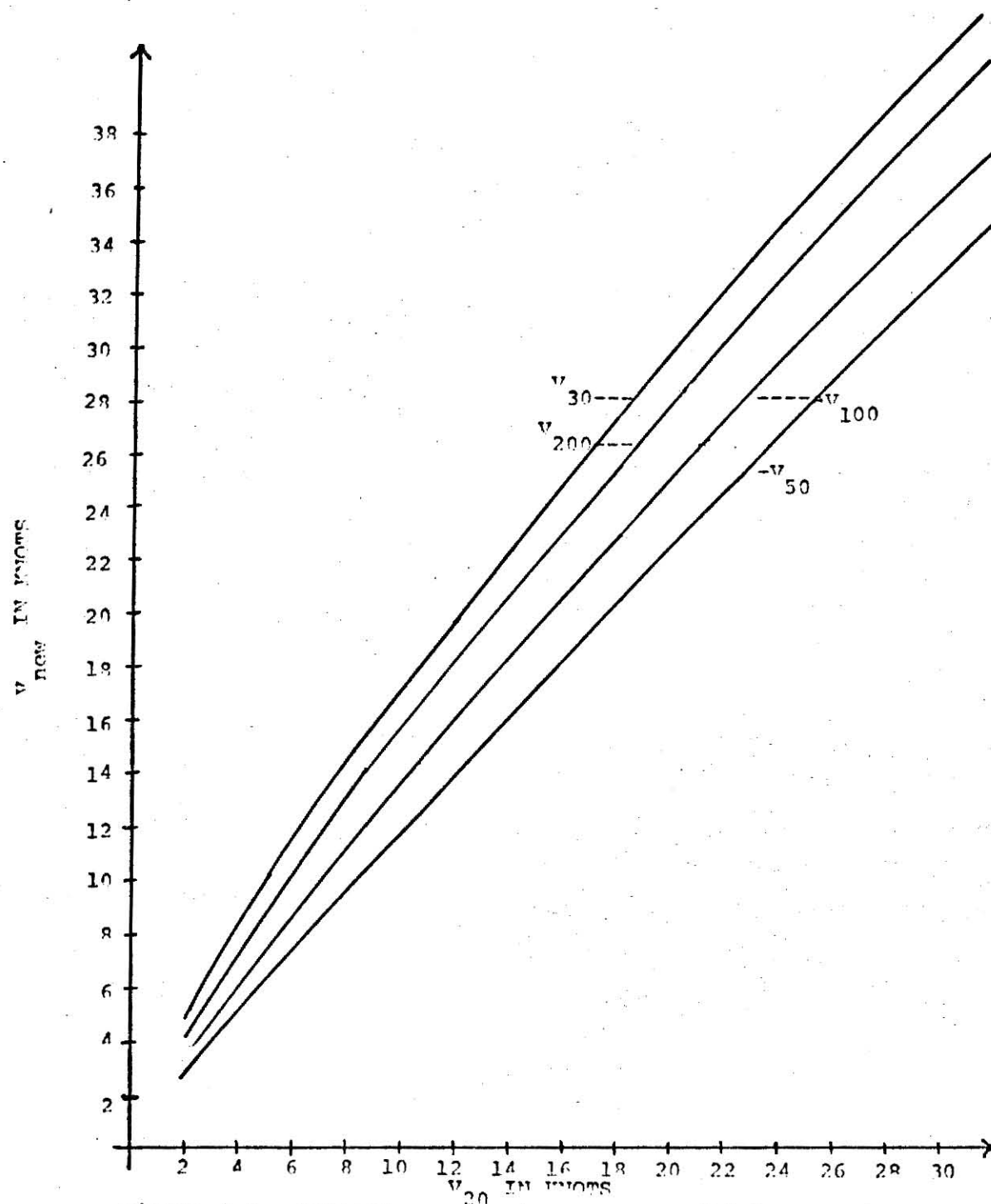


Figure 4-3. Velocity conversion curves utilizing Reed's Formula.

where $E(V_j)$ is the available wind energy at speeds less than and equal to V_j , V_j is a wind speed, I is a constant accounting for efficiency and units, t is the time interval chosen, and n_i is the number of observations of the wind speed V_i .

The total energy in the wind for a given period of time may be computed in a similar manner with equation (4-4):

$$E \text{ Total} = \sum_{i=1}^{40} I t V_i^3 n_i \quad (4-4)$$

Equations (4-3) and (4-4) assume that the rectangular method for integration provides a reasonable estimate of the energy content of the wind. Expressing the energy distribution of the wind as a normalized quantity, equation (4-5) becomes

$$\frac{E(V_j)}{E \text{ Total}} = \frac{\sum_{i=1}^j I t V_i^3 n_i}{\sum_{i=1}^{40} I t V_i^3 n_i} = \frac{\sum_{i=1}^j V_i^3 n_i}{\sum_{i=1}^{40} V_i^3 n_i} \quad (4-5)$$

With the assumption that a wind energy collection system operates at a constant efficiency over all wind speeds, curves constructed by evaluating equation (4-5) provide estimates of the performance of a WECS with various rated velocities.

Equation (4-5) depends upon observation height, making it necessary to compute the energy distribution of the wind at several heights. This information computed from equation (4-5) is displayed in Fig. (4-4) for Dodge City with wind speed data corrected to heights of 50 feet, 100 feet, 200 feet and 300 feet. The wind speeds shown on the abscissa of Fig. (4-4) are those occurring at the height corresponding to each curve. By studying

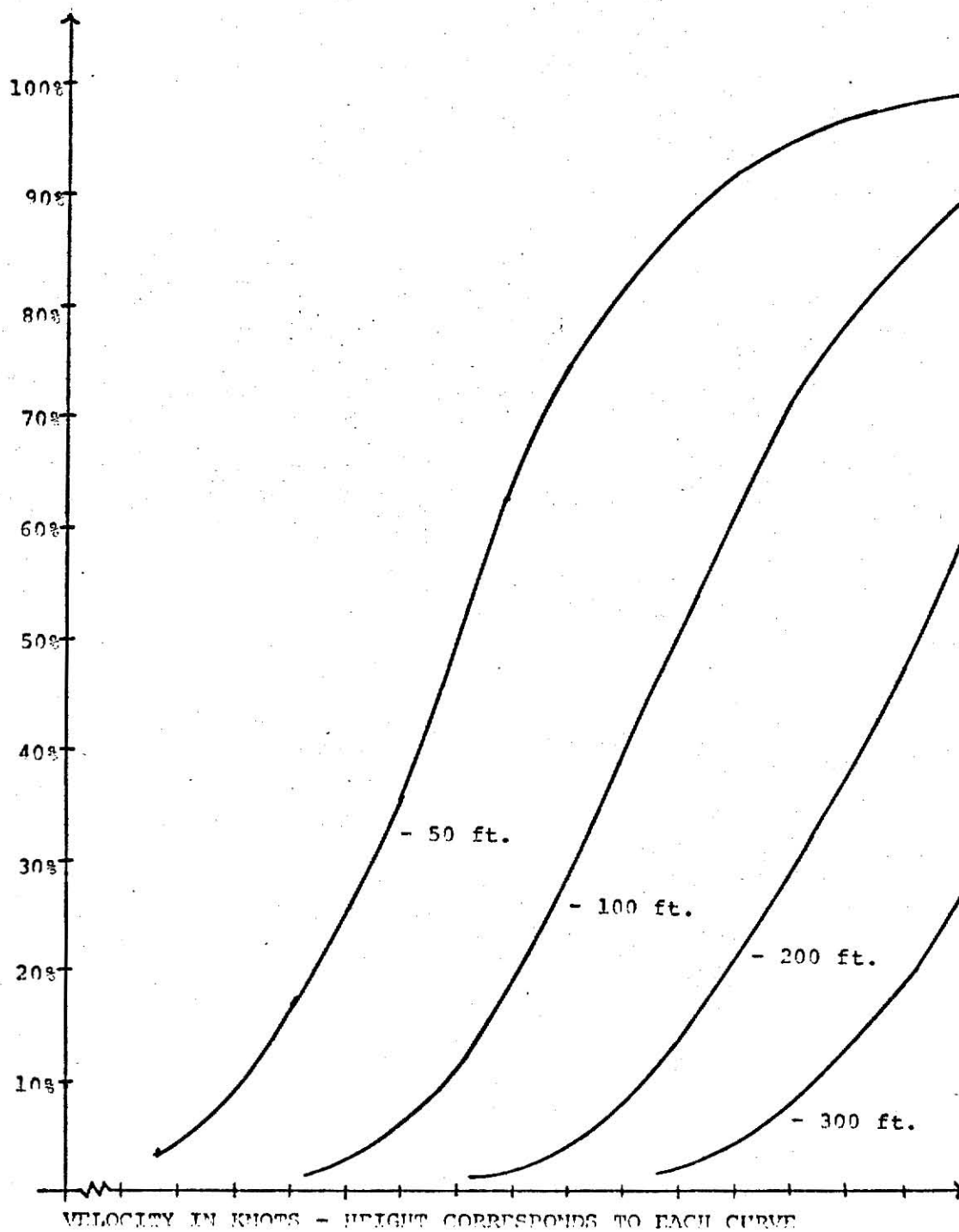


Fig. 4-4. The distribution of energy with respect to velocity for Dodge City, Kansas, 1964-1973.

Fig. (4-4) it can be estimated that 4% of the collectible energy in the wind occurs at wind speeds below 16 knots (100 feet). This collectible energy varies with the height and this collectible energy is the energy a WECS could extract if it operated at constant efficiency over all wind speeds and its power output varied directly with the cube of wind speed over all possible wind speeds.

The high percentage of collectible energy that lies above the rated velocity of the ERDA/NASA machine (16 knots) indicates that a significant percentage of the collectible energy is lost by maintenance of a constant power output of 100 KW for wind speeds greater than 16 knots. Probably a higher percentage of collectible energy may be extracted by increasing the rated velocity of the system slightly.

To examine the variation of the collectible energy with the rated speed of the WECS, curves were drawn displaying the collectible energy as a function of rated velocity. Equation (4-6) was derived in a similar manner as Equation (4-5) and rests on the same assumptions. Equation (4-6) was used to estimate the energy output of a wind machine, operating in a manner similar to our V-cubed model, as a function of the rated wind speed.

$$E_j = \frac{\sum_{i=1}^j v_j^3 n_i + \sum_{i=j+1}^{40} n_j v_j^3}{\sum_{i=1}^{40} n_i v_i^3} \quad (4-6)$$

E_j is the percentage of energy extracted with a particular rated wind speed and n_i is the number of recorded observations for each

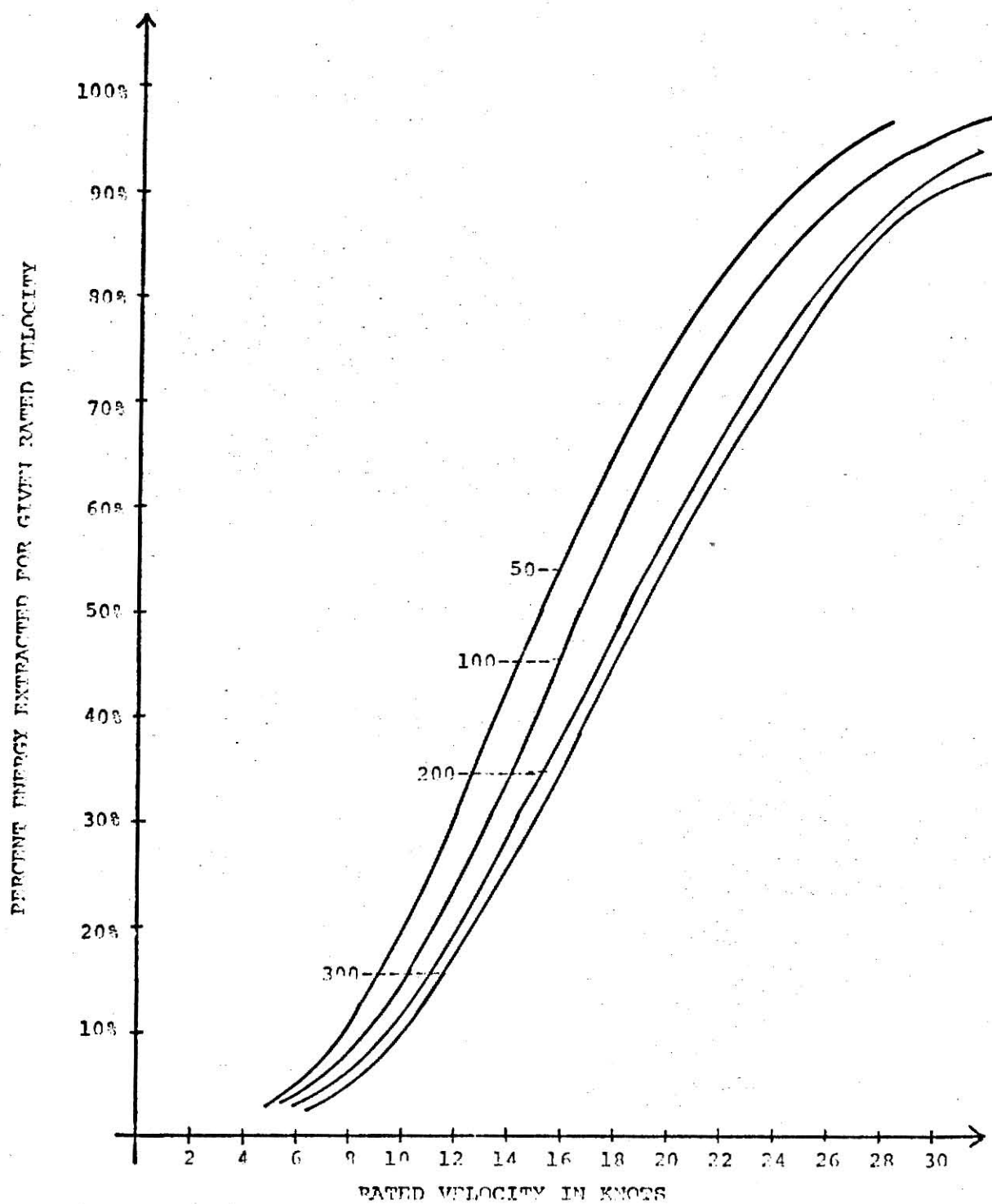


Figure 4-5. Examination of the effect of rated velocity on collectible energy from Dodge City, Kansas, for 1964-1973.

TABLE 4-3

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVVEL OLD HT	RMVVEL NEW HT	VCUBED CODE=1	VCUBED CODE=2	VCUBED CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1973
JAN.	11.050	14.250	13.556	17.450	43.471	21.752	33.130	40.031	0.0	40.419	DODGE CITY	
FEB.	11.117	14.950	13.209	17.103	45.293	24.148	39.728	47.369	0.0	41.548	FORD COUNTY	
MAR.	13.408	17.602	13.936	20.272	52.943	32.834	46.437	55.109	0.0	44.337	CORRECTED HT. 100 FT.	
APR.	13.150	17.326	15.343	19.591	52.391	31.563	45.953	54.625	0.0	47.913	INSTRUMENT HT. 20 FT.	
MAY.	12.171	16.052	15.032	18.095	46.205	25.169	40.528	48.231	0.0	42.304	PEAK LIMIT IS 16 KNTS.	
JUNE	11.262	15.147	12.760	16.904	46.303	24.790	43.614	43.577	0.0	42.608	FRICT. LIM. IS 7KNTS.	
JULY	10.646	14.270	11.735	15.592	45.348	21.977	39.776	47.502	0.0	41.665	CODE=1 COR. HT. BULK MWH.	
AUG.	10.825	14.654	12.274	16.177	44.999	23.564	39.469	46.969	0.0	41.197	CODE=2 GRG. HT. PER	
SEP.	10.204	13.931	11.777	15.577	41.182	21.232	36.130	42.574	0.0	37.342	UNIT AREA KWH/M**2	
OCT.	10.696	14.840	12.522	16.450	45.357	24.076	39.784	47.344	0.0	41.526	CODE=3 COR.HT. PER.	
NOV.	10.492	14.202	12.270	16.109	42.935	21.922	37.703	45.422	0.0	39.940	UNIT AREA KWH/M**2	
DEC.	12.262	16.365	14.059	18.135	50.597	27.972	44.373	53.322	0.0	46.770	WIND SPEEDS ARE IN KNOTS.	
SUMS	11.44	15.35	13.54	17.49	557.07	302.00	438.62	533.12	0.0	511.47		

wind speed.

Shown in Fig. (4-5) are the curves obtained in this manner for heights of 50 feet, 100 feet, 200 feet and 300 feet. The abscissa of the graph gives the wind speeds in knots at the heights corresponding to each curve. Fig. (4-5) can be used to estimate that the effect of rated wind velocity on a WECS performance in terms of the percentage of available energy that can be collected.

The ERDA/NASA machine has a rated velocity of 16 knots at 100 feet and with this rated velocity it is estimated that only 45% of the collectible energy would be extracted. For a wind machine to extract 90% of the collectible energy, this machine would have to be designed to deliver rated power at 24.2 knots. However, Fig. (4-3) shows that with this rated velocity the WECS would generate rated power for only 5% of the year or the equivalent of about sixteen days.

Wind Energy In Perspective

In Chapter III a discussion was made as to how the amount of energy that could be collected from the wind was to be estimated. Shown in Table 4-3 is an estimate of the amount of energy that can be collected by wind machines similar to the V-cubed model machine and the ERDA/NASA machine operating in Dodge City, Kansas, for the year 1973. General information concerning the site where the data was collected is listed in the rightmost column of the table. To put these computed energy figures in perspective, Table 4-4 is included. This table lists the

electrical energy consumption per year for Garden City, located 50 miles northwest of Dodge City, in a similar geographic region of Kansas.

TABLE 4-4

COMPARISON OF WIND ENERGY ESTIMATES WITH ELECTRICAL DEMAND AT GARDEN CITY

Year	Energy Consumed	Energy Prod. by ERDA Machine
1962	27.14 GWH	.49 GWH
1963	31.74 GWH	.57 GWH
1964	34.45 GWH	.62 GWH
1965	35.51 GWH	.57 GWH
1966	37.66 GWH	.57 GWH
1967	37.99 GWH	.57 GWH
1968	43.52 GWH	.59 GWH
1969	58.84 GWH	.53 GWH
1970	63.30 GWH	.55 GWH
1971	53.34 GWH	.56 GWH
1972	65.45 GWH	.54 GWH
1973	67.26 GWH	.51 GWH

If Garden City were to be supplied entirely by WECS operating in a similar manner as the ERDA/NASA machine, 121 ERDA/NASA wind units would have to be in operation in 1972 in order to generate the same amount of electrical energy as that which was consumed at Garden City. The energy demand at Garden City has increased at an exponential rate over the years shown. To supply the increase in demand from 1972 to 1973 an additional 11 WECS would have had to be put in operation.

Obviously the variability of the wind makes any attempt to satisfy the total electric demand of Garden City in this manner not feasible.

The variability of available energy throughout the year presents another problem associated with wind energy collection

systems. The peak demand at Garden City usually occurs in the month of August, however, the amount of energy available from August winds as compared with other months is small. The monthly variation in the amount of energy that could be extracted from the wind is shown in Fig. (4-6) and (4-7), for the years 1969 and 1972 for Dodge City, Kansas. The year 1972 has the highest standard deviation (6.34) of the ten year interval mentioned at the start of this chapter while 1969 has the lowest (3.69) for those years. The available energy is lower in July and August than at any other time during the year, while the greatest amount of energy is available in March and April. This pattern was displayed by all 26 years of data from which these tables were produced for Dodge City, Kansas.

A Means of Estimating Wind Energy from the Average Velocity

The variation in the annual available energy for the last twelve years is displayed in Fig. (4-8). The standard deviation of the energy output for the ERDA machine over these twelve years is 35.09 and the mean energy output is 540.3 MWH.

The average wind speed and the root mean cube of the wind speed provide an estimate of the amount of energy that can be collected monthly. Obviously the higher the average velocity or the RMC velocity, the greater the amount of energy that can be extracted in a month. The average velocity at the corrected heights correlates well with the energy output of both models considered. A typical value for the correlation coefficient for average velocity and the estimate of energy

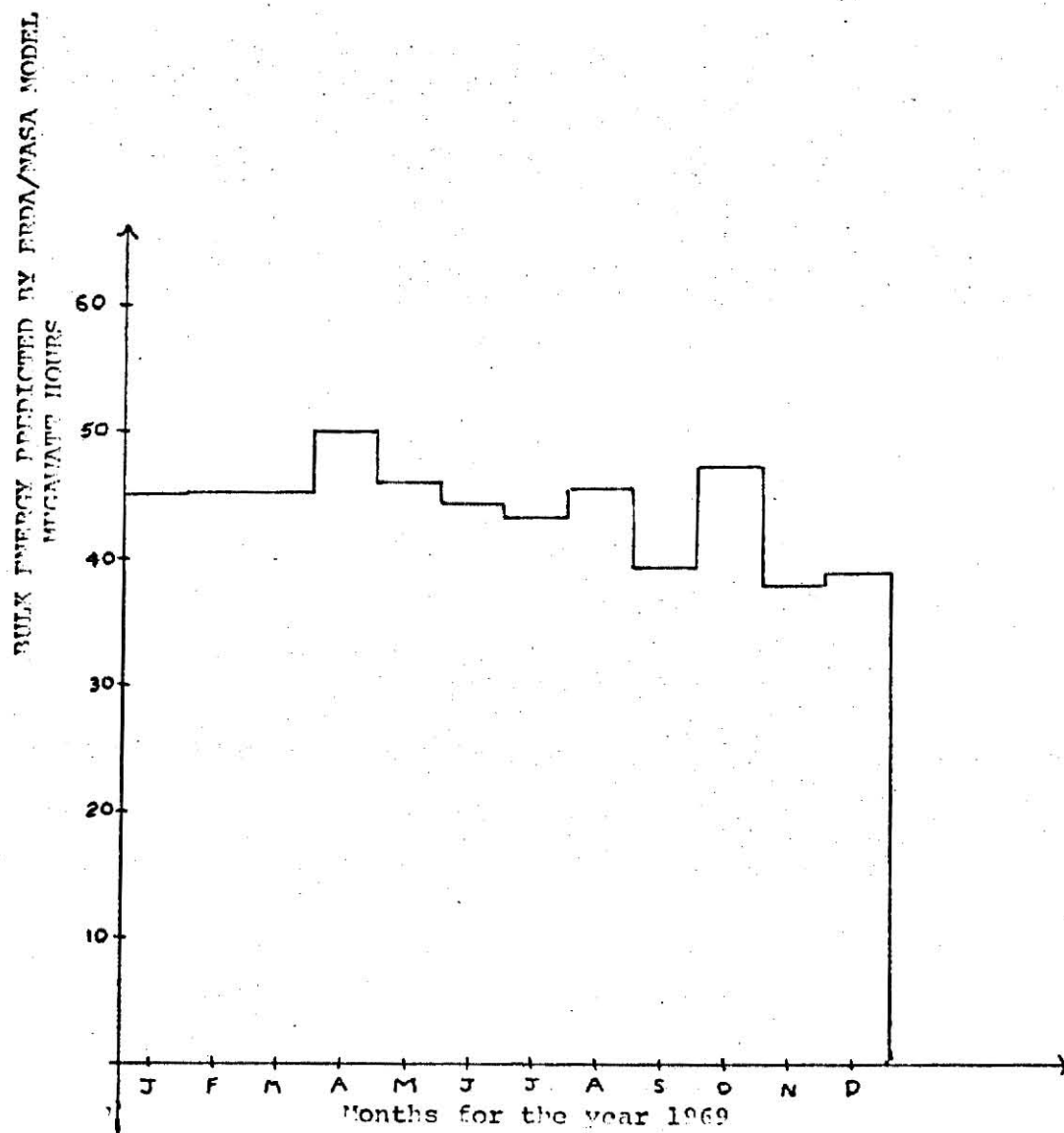


Figure 4-6. Predicted energy output for ERDA/NASA machine from Dodge City, Kansas, for the year 1969.

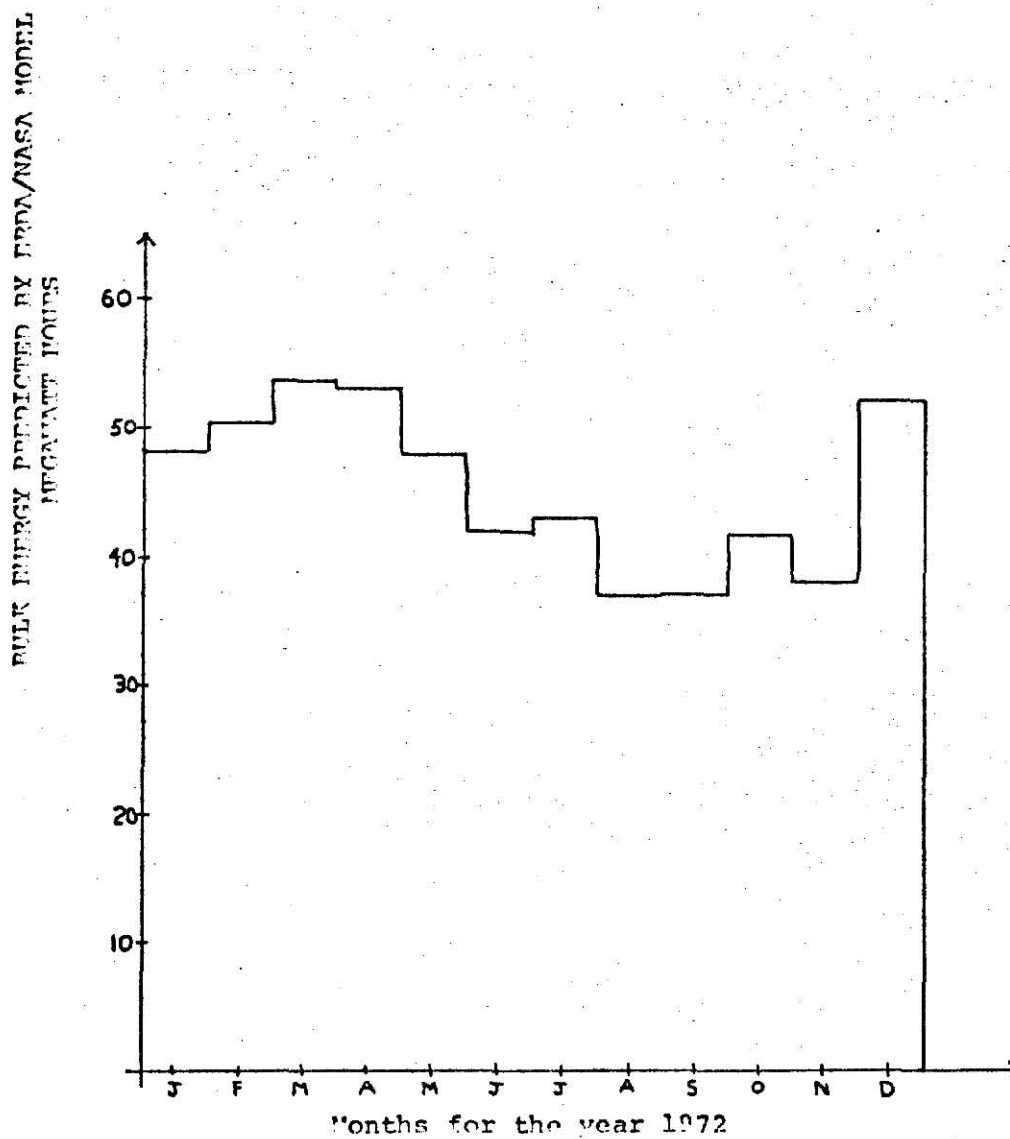


Figure 4-7. Predicted energy output for FEDA/NASA machine from Dodge City, Kansas, for the year 1972.

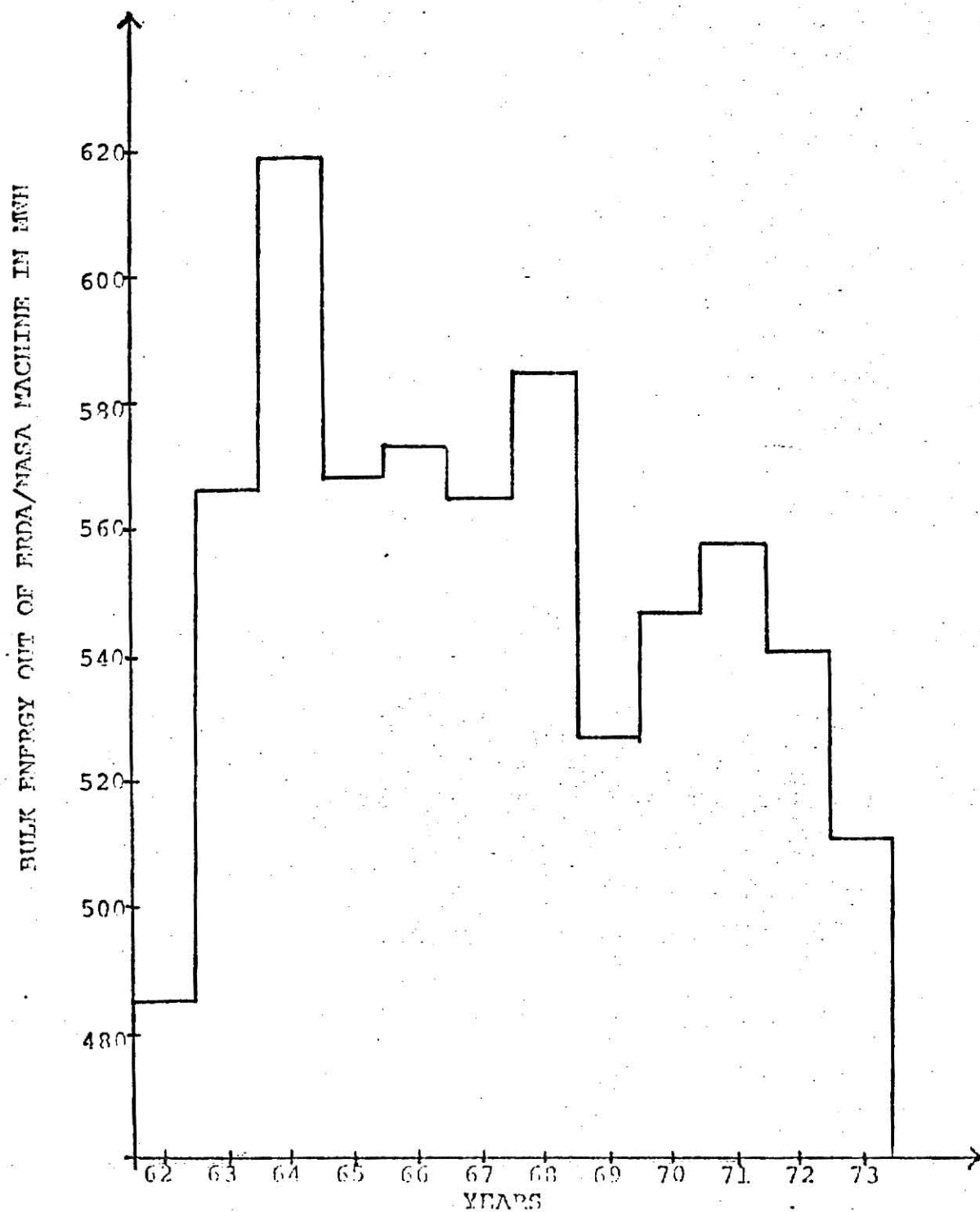


Figure 4-3. Bulk energy from ERDA/NASA Machine 1962-1973.

per unit are extracted using the ERDA/NASA machine is .96.

The RMC velocity correlates well with the energy figures but it has a typically lower correlation coefficient than that of the average velocity. A typical value for the correlation coefficient for the height adjusted RMC velocity and the energy output of the ERDA/NASA machine per unit area is .88. These results seem puzzling at first glance, but when one considers that the ERDA/NASA machine has a rated velocity of 16 knots with the power output remaining constant for wind speeds with magnitudes greater than this rated velocity and does not vary as the cube of the wind speed for these speeds, the results seem reasonable. If the rated velocity is increased to 26 knots for example, the RMC velocity does become the better predictor of the amount of energy that can be extracted by the V-cubed model. The coefficient of correlation for the RMC velocity and the energy per unit rotor area for the B-cubed model with a rated velocity of 26 knots is .99 while the correlation coefficient for the average velocity is .97.

The high correlation between the average velocity and the monthly energy output of the ERDA/NASA machine suggests that a linear relationship exists between the average velocity and the energy output of both the ERDA/NASA machine, and the V-cubed model machine. Figures 4-9 and 4-10 show typical best fit lines obtained from the linear regression analysis for 1969 and 1971. The box at the top of the graph provides an indication of the amount of error involved in using the parameter for the best fit line to compute the energy extracted by the appropriate machines.

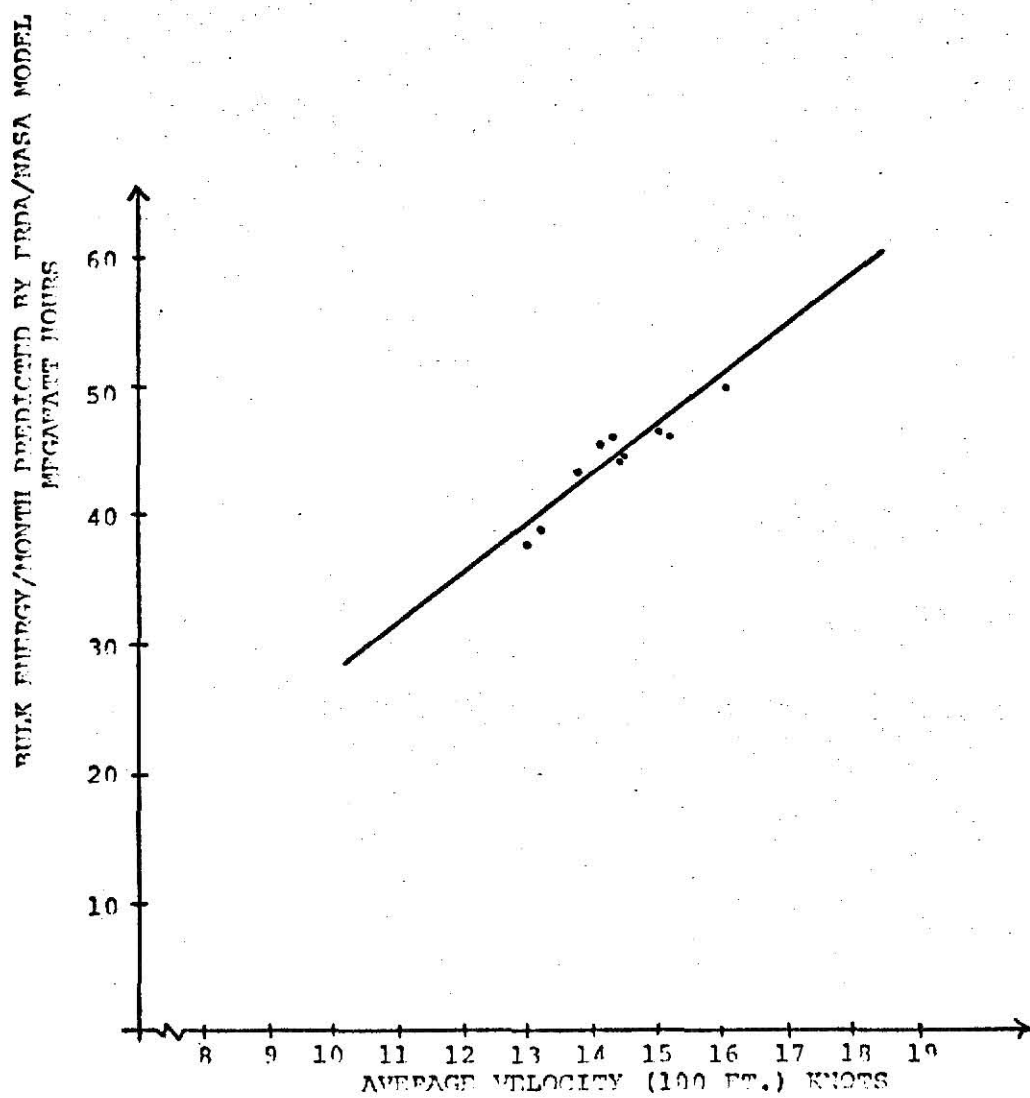


Fig. 4-9. Best fit line of energy vs. average velocity from Dodge City, Kansas, for 1969.

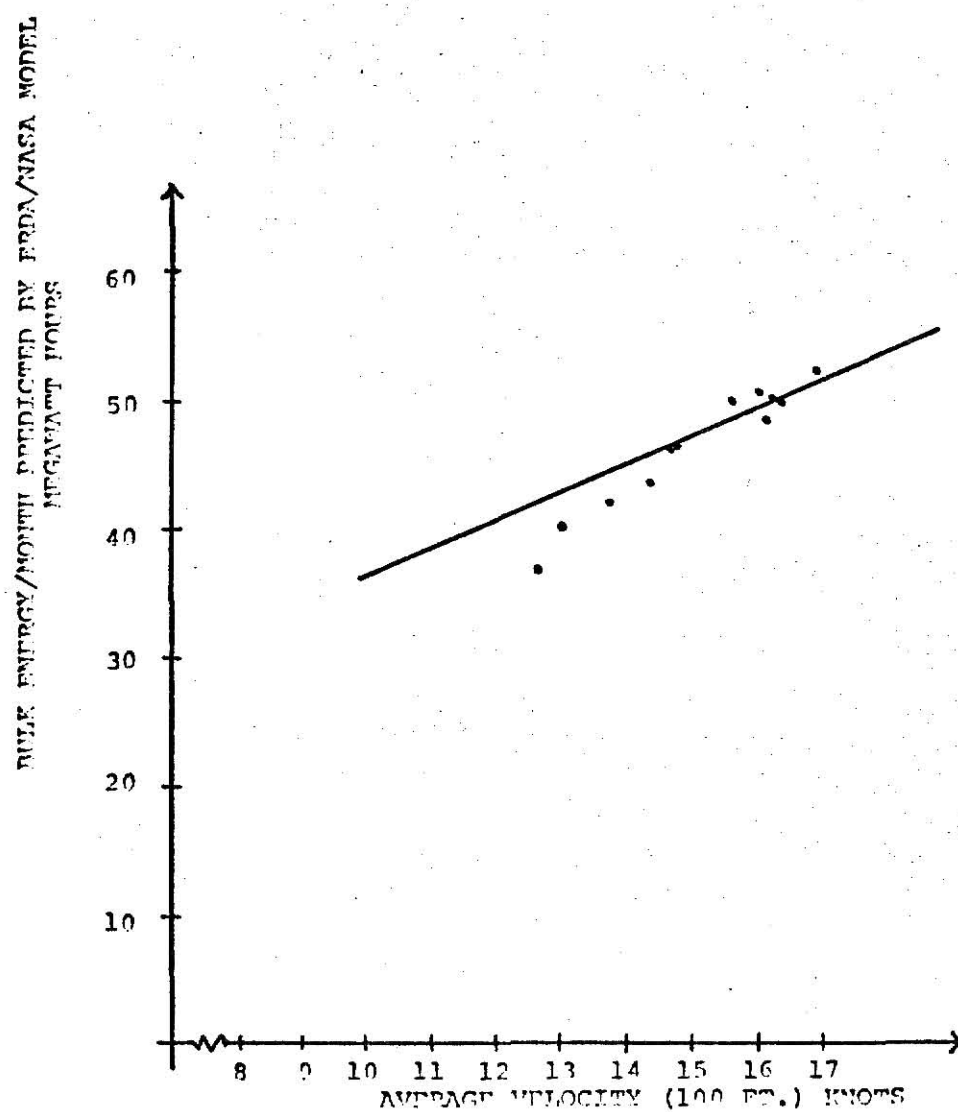


Figure 4-10. Best fit line of energy vs. average velocity from Dodge City, Kansas for 1971.

A linear regression analysis was made to determine the parameters for the best fit line for the energy per unit rotor area for both the EPDA/NASA and the V-cubed model machines with respect to average wind speed for the 26 years for which data was available for Dodge City, Kansas. This linear relationship is demonstrated in Figure 4-11 along with the linear relationship between average velocity and the per unit energy for representative years.

It appears from Figures 4-11 and 4-12 that the best fit lines computed from 26 years of data agree well in the range of interest with the lines computed from the data for a year, although the parameters determining the lines vary.

The Limitations of Wind Energy

It appears that the energy that can be extracted from the wind is too diffuse to supply a large percentage of the electrical energy demands of Kansas. For example, it is estimated that 1 Megawatt machine operated at Dodge City with a rated velocity of 17.4 knots, a blade diameter of 235 feet, a hub height of 274 feet and a cut-in speed of 7 knots [25] would have supplied in 1972 2630 MWH. The total demand throughout the State of Kansas for 1972 was 16.95 GWH, neglecting the losses at generating plants [26]. Using this crude estimate it would take 6457 machines located in the region around Dodge City to match MWH for MWH the amount of energy that could be extracted by WECS operating in a similar region of Kansas as Dodge City with the amount of energy consumed throughout the state. Obviously the variability

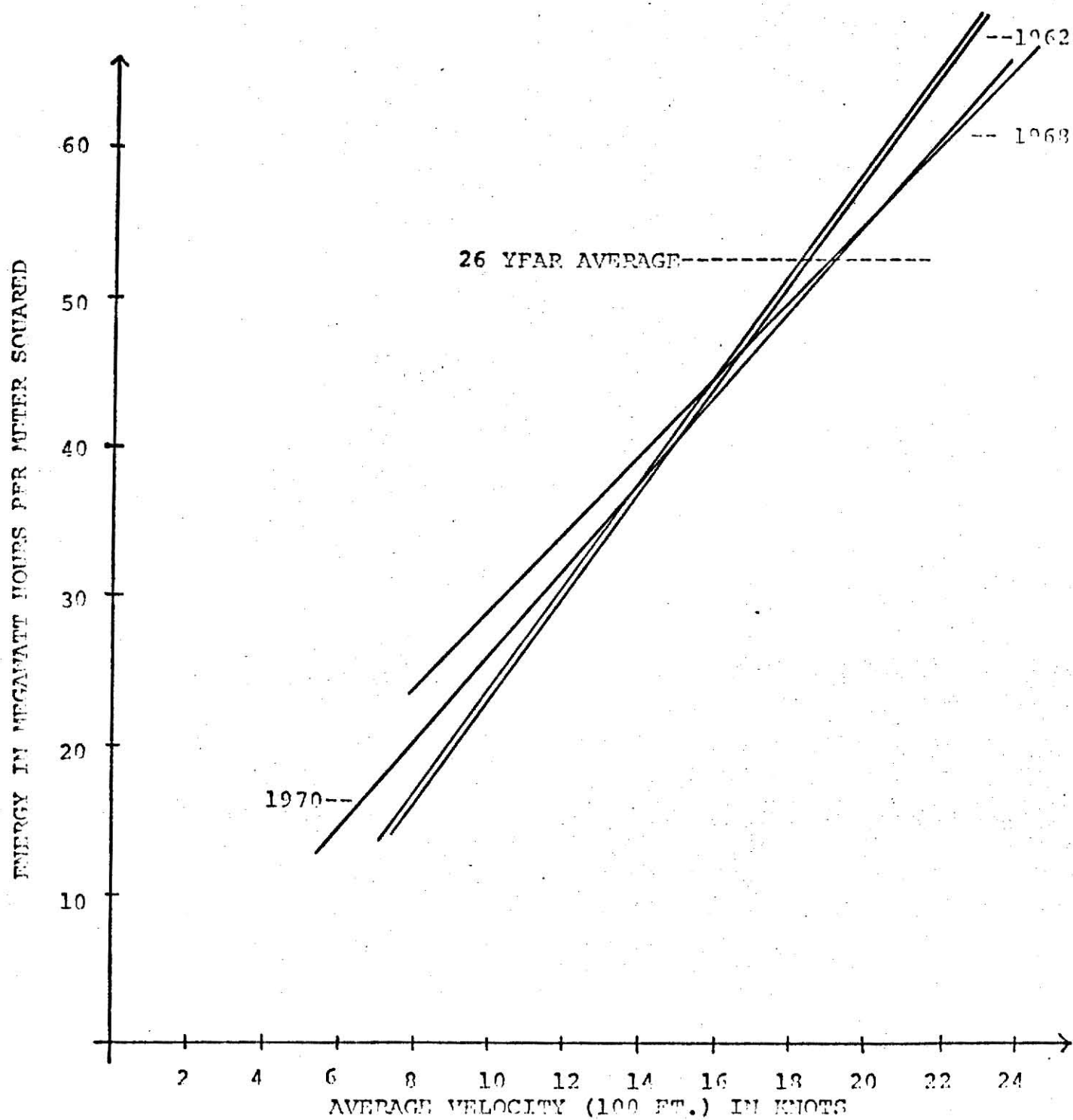


Fig. 4-11. Energy predicted by the FEPA machine from Dodge City, Kansas.

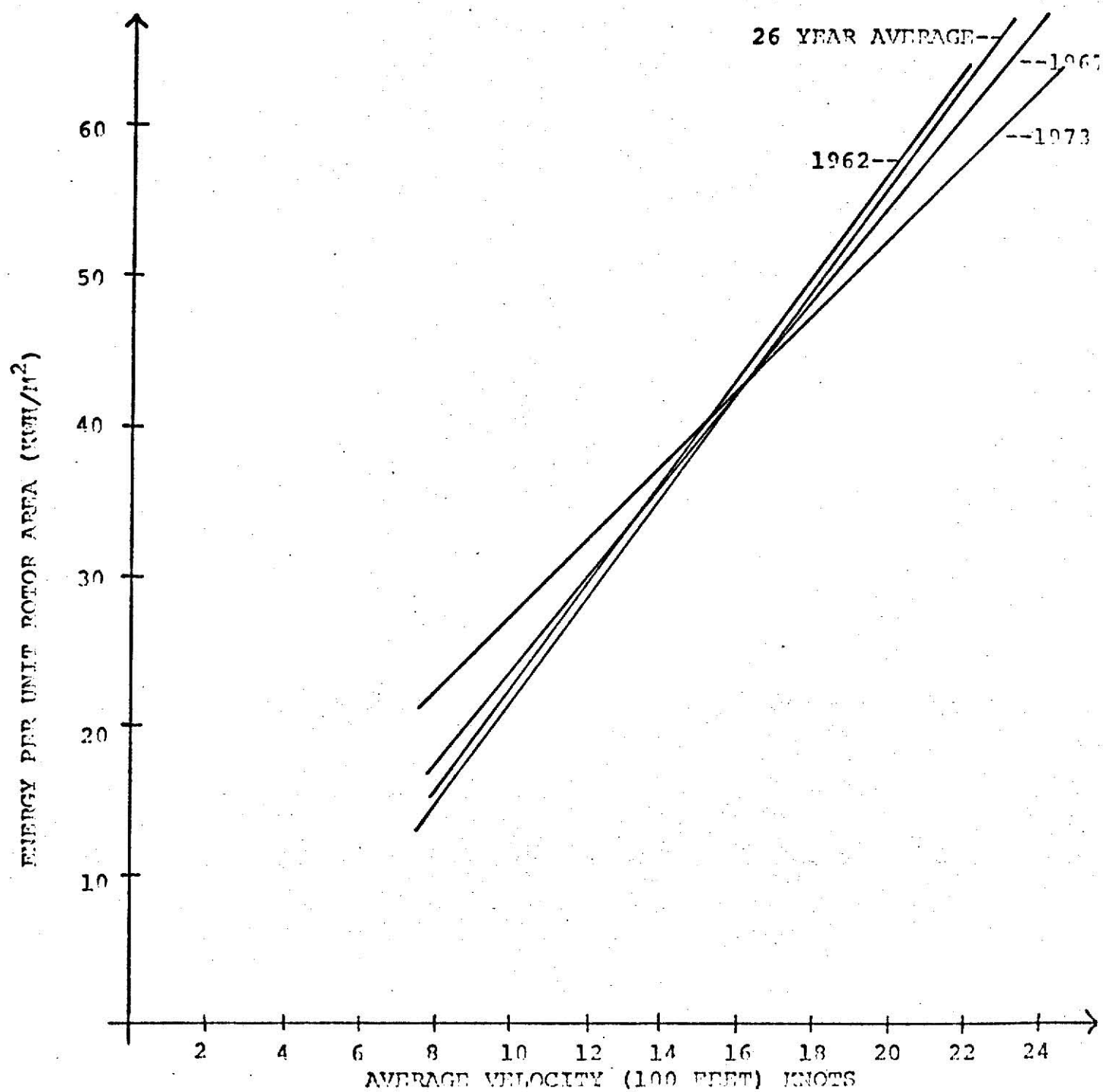


Figure 4-12. Energy predicted by the V-cubed model from Dodge City.

of the wind and the variability of demand would make it not feasible to satisfy the total electric demand in Kansas in this manner.

Figure (4-13) shows the net amount of energy that could be extracted annually by WECS operating at several sites throughout Kansas. From the information displayed in Figure (4-13) it appears that most of the energy in the wind is available at sites located in the western and central areas of the State of Kansas, the difference between sites being as great as a factor of 4 for some years.

The energy from Kansas winds is too diffuse and variable to make its use as a primary energy system practical for satisfying the electrical energy demand of typical Kansas communities. It would appear that the major application of wind energy collection systems in Kansas is in small scale operations. One of those uses could be supplementing the power generated from conventional power plants to reduce the amount of non-renewable fuel consumed. Another may be in agricultural application. The use of wind energy in the latter operation will need an extensive examination of the economic feasibility of WECS.

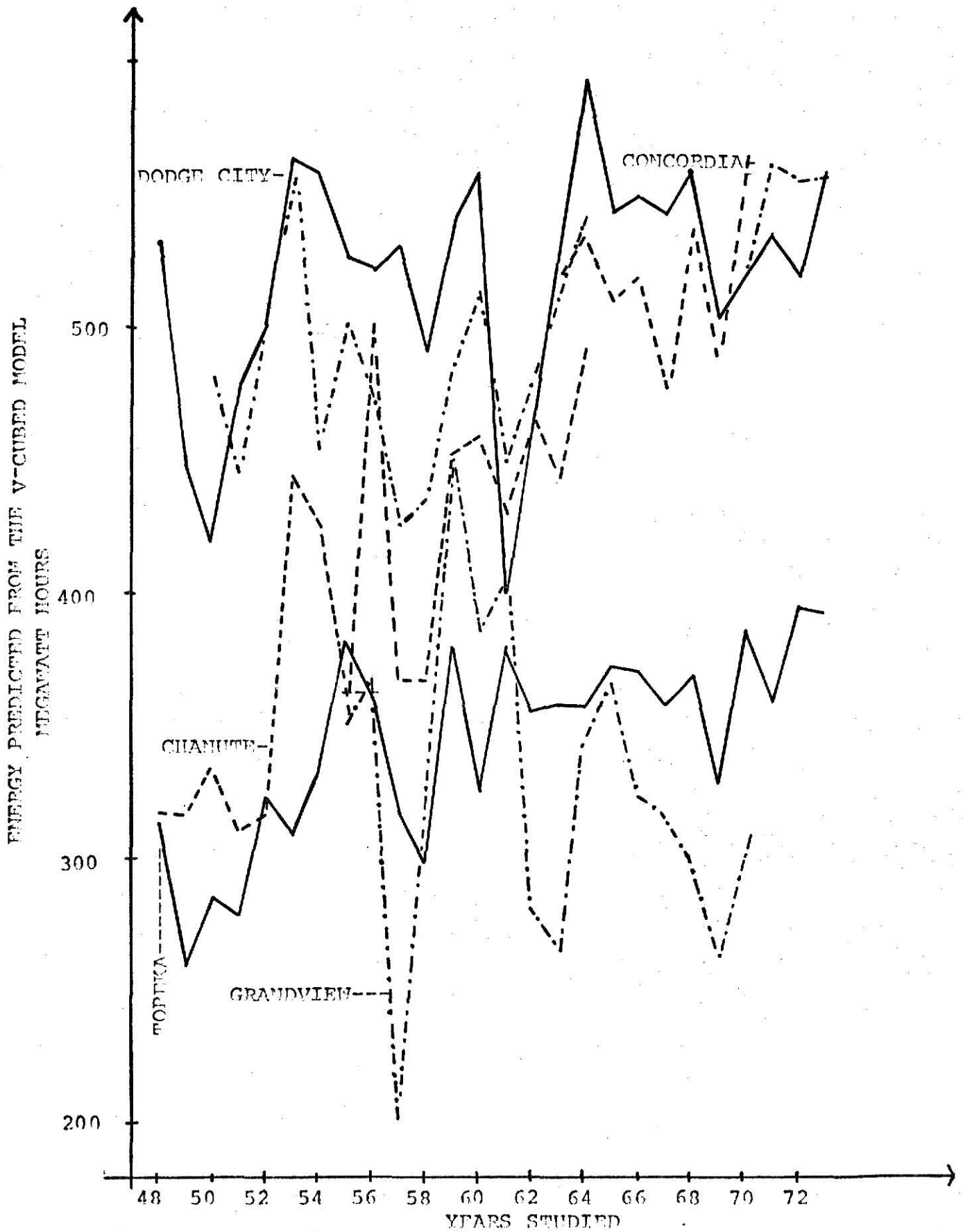


Figure 4-13. Variation of energy potential from site to site.

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APPENDIX A

TABLES

Dodge City

JAN 1948 - DEC 1973

DIR	00-06	07-10	11-16	17-21	22-28	SUMS
N	0.009	0.017	0.036	0.016	0.015	0.067
NE	0.007	0.014	0.027	0.013	0.013	0.077
NE	0.011	0.025	0.030	0.010	0.002	0.079
E	0.006	0.012	0.024	0.003	0.001	0.031
E	0.017	0.010	0.011	0.002	0.0	0.034
SE	0.014	0.011	0.011	0.001	0.0	0.024
SE	0.012	0.022	0.033	0.005	0.002	0.089
SE	0.009	0.025	0.043	0.016	0.006	0.086
S	0.010	0.013	0.042	0.016	0.016	0.123
SW	0.006	0.031	0.022	0.012	0.004	0.068
SW	0.017	0.029	0.023	0.011	0.005	0.065
W	0.009	0.009	0.037	0.001	0.000	0.024
W	0.009	0.007	0.037	0.002	0.001	0.024
W	0.017	0.017	0.027	0.001	0.001	0.023
W	0.011	0.017	0.027	0.004	0.001	0.054
W	0.015	0.015	0.018	0.004	0.007	0.054
CALM	0.012	0.0	0.0	0.0	0.0	0.002
SUMS	0.140	0.227	0.264	0.129	0.040	0.340

Bivariate Distribution

Dodge City

Years

1948 1951

1949 1952

1950 1953

Instrument Height

1948-1953 58 Feet

DIR	00-06	07-10	11-16	17-21	22-28	SUMS
N	0.006	0.021	0.032	0.017	0.013	0.089
NE	0.006	0.013	0.025	0.011	0.008	0.071
NE	0.009	0.021	0.023	0.011	0.005	0.074
E	0.007	0.011	0.037	0.003	0.002	0.037
E	0.012	0.011	0.011	0.002	0.000	0.032
SE	0.002	0.010	0.023	0.005	0.000	0.023
SE	0.009	0.022	0.052	0.016	0.005	0.061
S	0.006	0.035	0.063	0.025	0.013	0.162
SW	0.012	0.024	0.043	0.021	0.013	0.155
SW	0.010	0.024	0.031	0.011	0.013	0.087
W	0.010	0.017	0.010	0.003	0.000	0.043
W	0.011	0.013	0.037	0.009	0.003	0.082
W	0.006	0.012	0.034	0.001	0.001	0.024
W	0.007	0.013	0.021	0.005	0.003	0.054
W	0.009	0.011	0.019	0.004	0.004	0.047
CALM	0.002	0.0	0.0	0.0	0.0	0.002
SUMS	0.116	0.276	0.284	0.142	0.040	0.340

DIR	00-06	07-10	11-16	17-21	22-28	SUMS
N	0.004	0.013	0.032	0.013	0.010	0.072
NE	0.002	0.011	0.022	0.013	0.013	0.061
NE	0.006	0.011	0.018	0.010	0.002	0.052
E	0.003	0.013	0.012	0.003	0.002	0.033
E	0.004	0.010	0.010	0.003	0.001	0.027
SE	0.004	0.007	0.010	0.002	0.001	0.026
SE	0.005	0.011	0.021	0.009	0.004	0.049
S	0.007	0.025	0.061	0.022	0.008	0.122
S	0.006	0.031	0.074	0.042	0.021	0.174
SW	0.007	0.019	0.031	0.017	0.015	0.089
SW	0.008	0.026	0.030	0.009	0.007	0.050
W	0.005	0.023	0.012	0.005	0.002	0.045
W	0.004	0.017	0.012	0.001	0.001	0.027
W	0.002	0.010	0.021	0.009	0.011	0.054
W	0.004	0.011	0.018	0.001	0.001	0.026
CALM	0.000	0.0	0.0	0.0	0.0	0.000
SUMS	0.033	0.276	0.284	0.142	0.040	0.340

DIR	00-06	07-10	11-16	17-21	22-28	SUMS
N	0.024	0.013	0.033	0.012	0.015	0.094
NE	0.005	0.003	0.013	0.010	0.009	0.050
NE	0.007	0.026	0.003	0.005	0.001	0.041
E	0.005	0.011	0.016	0.001	0.000	0.034
E	0.011	0.014	0.024	0.002	0.000	0.052
SE	0.004	0.014	0.019	0.002	0.001	0.039
SE	0.010	0.017	0.028	0.007	0.002	0.057
S	0.010	0.019	0.049	0.019	0.009	0.106
S	0.009	0.020	0.034	0.010	0.017	0.147
SW	0.010	0.014	0.047	0.017	0.013	0.116
SW	0.022	0.025	0.083	0.003	0.001	0.060
W	0.006	0.010	0.036	0.001	0.001	0.037
W	0.011	0.010	0.039	0.002	0.000	0.032
W	0.006	0.006	0.009	0.001	0.001	0.015
W	0.010	0.012	0.023	0.005	0.001	0.063
W	0.003	0.005	0.013	0.009	0.011	0.043
CALM	0.001	0.0	0.0	0.0	0.0	0.001
SUMS	0.113	0.279	0.304	0.135	0.115	0.340

DIR	00-06	07-10	11-16	17-21	22-28	SUMS
N	0.009	0.013	0.024	0.013	0.016	0.078
NE	0.009	0.016	0.023	0.003	0.010	0.064
NE	0.010	0.013	0.017	0.004	0.006	0.054
E	0.003	0.010	0.009	0.001	0.001	0.024
E	0.003	0.009	0.009	0.001	0.000	0.028
SE	0.005	0.013	0.005	0.003	0.0	0.016
SE	0.016	0.013	0.016	0.003	0.001	0.053
S	0.014	0.033	0.043	0.012	0.006	0.108
S	0.023	0.041	0.095	0.032	0.017	0.220
SW	0.010	0.023	0.036	0.014	0.012	0.093
SW	0.023	0.021	0.020	0.005	0.003	0.069
W	0.017	0.011	0.005	0.003	0.001	0.023
W	0.010	0.009	0.003	0.003	0.001	0.028
W	0.003	0.006	0.005	0.001	0.003	0.021
W	0.015	0.016	0.016	0.003	0.006	0.054
W	0.005	0.012	0.017	0.003	0.011	0.049
CALM	0.003	0.0	0.0	0.0	0.0	0.003
SUMS	0.105	0.263	0.306	0.102	0.096	0.340

DIR	00-06	07-10	11-16	17-21	22-28	SUMS
N	0.012	0.013	0.033	0.013	0.015	0.102
NE	0.003	0.014	0.022	0.013	0.009	0.067
NE	0.017	0.023	0.021	0.007	0.005	0.078
E	0.010	0.010	0.011	0.003	0.001	0.035
E	0.011	0.011	0.011	0.000	0.001	0.041
SE	0.003	0.013	0.007	0.0	0.025	0.025
SE	0.009	0.021	0.021	0.003	0.003	0.070
S	0.009	0.020	0.020	0.004	0.001	0.064
S	0.021	0.047	0.076	0.027	0.016	0.186
SW	0.010	0.027	0.023	0.014	0.010	0.086
SW	0.024	0.027	0.036	0.005	0.006	0.107
W	0.005	0.010	0.009	0.001	0.000	0.025
W	0.012	0.003	0.003	0.001	0.001	0.025
W	0.010	0.001	0.004	0.001	0.001	0.024
W	0.011	0.011	0.018	0.001	0.003	0.046
CALM	0.001	0.0	0.0	0.0	0.0	0.001
SUMS	0.105	0.263	0.306	0.102	0.096	0.340

DIR	00-06	07-10	11-16	17-21	22-ON	SUMS
N.	0.005	0.014	0.029	0.021	0.012	0.081
NNE	0.006	0.021	0.035	0.014	0.009	0.085
NE	0.004	0.025	0.026	0.006	0.004	0.063
ENE	0.005	0.013	0.012	0.003	0.001	0.026
E	0.005	0.013	0.005	0.001	0.002	0.026
ENE	0.007	0.016	0.011	0.002	0.001	0.027
SE	0.011	0.029	0.026	0.009	0.001	0.067
SSE	0.005	0.022	0.015	0.001	0.001	0.034
S	0.004	0.022	0.015	0.001	0.001	0.034
SSW	0.008	0.017	0.013	0.001	0.001	0.031
SW	0.005	0.013	0.016	0.002	0.001	0.034
WSW	0.004	0.011	0.011	0.002	0.001	0.027
W	0.005	0.011	0.012	0.001	0.001	0.024
WNW	0.008	0.011	0.017	0.001	0.001	0.031
W	0.008	0.012	0.015	0.001	0.001	0.034
WNW	0.004	0.012	0.023	0.001	0.001	0.034
CAL	0.002	0.0	0.0	0.0	0.0	0.002
SUMS	0.093	0.256	0.302	0.175	0.044	

bi-variate distribution

Node City

Years

1954 1957

1955 1958

1956 1959

Instrument Weight

1954-1959 53 Feet

DIR	00-06	07-10	11-16	17-21	22-ON	SUMS
N.	0.007	0.023	0.034	0.015	0.005	0.084
NNE	0.008	0.023	0.034	0.015	0.007	0.085
NE	0.007	0.019	0.022	0.004	0.003	0.053
ENE	0.005	0.013	0.014	0.004	0.001	0.024
E	0.005	0.013	0.016	0.001	0.001	0.030
ENE	0.007	0.024	0.028	0.005	0.001	0.063
SE	0.009	0.033	0.045	0.021	0.003	0.111
SSE	0.005	0.023	0.024	0.002	0.001	0.055
S	0.007	0.019	0.024	0.001	0.001	0.040
SSW	0.008	0.021	0.016	0.005	0.002	0.053
SW	0.005	0.015	0.017	0.001	0.001	0.034
WSW	0.007	0.013	0.011	0.002	0.001	0.031
W	0.007	0.013	0.017	0.002	0.001	0.034
WNW	0.004	0.016	0.020	0.005	0.001	0.053
W	0.001	0.0	0.0	0.0	0.0	0.001
CAL	0.105	0.247	0.432	0.143	0.055	
SUMS						

DIR	00-06	07-10	11-16	17-21	22-ON	SUMS
N.	0.007	0.017	0.027	0.023	0.021	0.085
NNE	0.004	0.019	0.033	0.014	0.008	0.076
NE	0.007	0.015	0.017	0.004	0.002	0.036
ENE	0.003	0.009	0.009	0.003	0.000	0.024
E	0.003	0.006	0.013	0.002	0.001	0.023
ENE	0.003	0.009	0.014	0.001	0.001	0.027
SE	0.008	0.016	0.019	0.005	0.001	0.044
SSE	0.003	0.023	0.021	0.002	0.001	0.054
S	0.011	0.033	0.036	0.004	0.001	0.102
SSW	0.010	0.027	0.032	0.003	0.001	0.073
SW	0.004	0.023	0.029	0.002	0.001	0.054
WSW	0.005	0.012	0.009	0.001	0.001	0.027
W	0.005	0.012	0.009	0.001	0.001	0.027
WNW	0.003	0.011	0.010	0.004	0.001	0.026
W	0.003	0.006	0.016	0.004	0.001	0.026
CAL	0.001	0.0	0.0	0.0	0.0	0.001
SUMS						

DIR	00-06	07-10	11-16	17-21	22-ON	SUMS
N.	0.005	0.012	0.016	0.022	0.014	0.100
NNE	0.003	0.016	0.019	0.019	0.016	0.094
NE	0.002	0.010	0.017	0.006	0.001	0.036
ENE	0.003	0.009	0.010	0.001	0.000	0.022
E	0.003	0.010	0.008	0.002	0.0	0.024
ENE	0.002	0.014	0.021	0.000	0.000	0.035
SE	0.004	0.012	0.016	0.003	0.0	0.035
SSE	0.005	0.026	0.043	0.015	0.005	0.094
S	0.008	0.034	0.045	0.016	0.001	0.124
SSW	0.008	0.025	0.043	0.013	0.003	0.146
SW	0.005	0.019	0.013	0.005	0.003	0.046
WSW	0.002	0.012	0.005	0.001	0.002	0.022
W	0.002	0.011	0.004	0.002	0.000	0.027
WNW	0.007	0.013	0.009	0.001	0.001	0.035
W	0.006	0.010	0.015	0.002	0.003	0.035
WNW	0.005	0.014	0.015	0.003	0.009	0.077
W	0.001	0.0	0.0	0.0	0.0	0.001
CAL	0.070	0.249	0.423	0.171	0.087	
SUMS						

DIR	00-06	07-10	11-16	17-21	22-ON	SUMS
N.	0.007	0.016	0.021	0.014	0.017	0.075
NNE	0.005	0.012	0.023	0.017	0.009	0.056
NE	0.007	0.015	0.026	0.016	0.010	0.071
ENE	0.004	0.014	0.011	0.006	0.001	0.032
E	0.005	0.011	0.012	0.004	0.001	0.032
ENE	0.005	0.014	0.009	0.002	0.000	0.030
SE	0.008	0.017	0.033	0.012	0.008	0.088
SSE	0.010	0.021	0.041	0.021	0.006	0.105
S	0.007	0.021	0.042	0.015	0.015	0.144
SSW	0.009	0.021	0.049	0.016	0.016	0.126
SW	0.009	0.025	0.029	0.017	0.010	0.090
WSW	0.008	0.019	0.016	0.003	0.003	0.048
W	0.006	0.017	0.019	0.003	0.001	0.027
WNW	0.004	0.008	0.008	0.003	0.002	0.026
W	0.005	0.016	0.021	0.005	0.004	0.051
WNW	0.003	0.012	0.017	0.007	0.007	0.046
W	0.0	0.0	0.0	0.0	0.0	0.003
CAL	0.103	0.259	0.396	0.178	0.104	
SUMS						

DIR	00-06	07-10	11-16	17-21	22-ON	SUMS
N.	0.004	0.014	0.025	0.017	0.013	0.071
NNE	0.005	0.013	0.024	0.016	0.011	0.073
NE	0.003	0.020	0.032	0.010	0.004	0.074
ENE	0.002	0.016	0.014	0.006	0.002	0.045
E	0.007	0.014	0.009	0.002	0.001	0.033
ENE	0.006	0.012	0.011	0.002	0.0	0.031
SE	0.006	0.018	0.023	0.003	0.000	0.041
SSE	0.008	0.022	0.044	0.024	0.005	0.107
S	0.004	0.024	0.033	0.037	0.015	0.134
SSW	0.009	0.023	0.037	0.026	0.010	0.102
SW	0.010	0.023	0.013	0.010	0.005	0.070
WSW	0.006	0.018	0.013	0.003	0.000	0.041
W	0.004	0.019	0.006	0.002	0.001	0.027
WNW	0.007	0.010	0.016	0.005	0.002	0.040
W	0.005	0.012	0.015	0.008	0.003	0.044
WNW	0.001	0.011	0.014	0.011	0.007	0.045
CAL	0.002	0.0	0.0	0.0	0.0	0.002
SUMS						

DIR	03-06	07-10	11-16	17-21	22-04	5045
N	0.005	0.017	0.019	0.007	0.001	0.000
NE	0.013	0.024	0.027	0.009	0.002	0.000
NE	0.012	0.019	0.011	0.001	0.000	0.000
NE	0.016	0.007	0.007	0.001	0.000	0.000
E	0.010	0.012	0.002	0.002	0.000	0.000
ESE	0.006	0.013	0.007	0.001	0.000	0.000
SE	0.009	0.014	0.004	0.003	0.000	0.000
SE	0.017	0.009	0.009	0.004	0.000	0.000
S	0.010	0.007	0.003	0.002	0.000	0.000
SW	0.008	0.007	0.001	0.002	0.000	0.000
SW	0.009	0.007	0.001	0.002	0.000	0.000
WSW	0.010	0.009	0.001	0.001	0.000	0.000
W	0.009	0.017	0.009	0.003	0.000	0.000
WNW	0.007	0.011	0.003	0.001	0.000	0.000
W	0.006	0.009	0.001	0.003	0.000	0.000
NW	0.011	0.006	0.001	0.004	0.000	0.000
NW	0.011	0.006	0.001	0.004	0.000	0.000
CALN	0.006	0.000	0.000	0.000	0.000	0.000
SUN	0.001	0.000	0.000	0.000	0.000	0.000

Bivariate Distribution

Dodge City
Years
1960 1963
1961 1964
1962 1965

DIR	03-06	07-10	11-16	17-21	22-04	5045
N	0.005	0.025	0.025	0.023	0.011	0.011
NE	0.010	0.019	0.026	0.019	0.005	0.000
NE	0.007	0.011	0.011	0.002	0.000	0.000
NE	0.003	0.007	0.007	0.001	0.000	0.000
E	0.004	0.010	0.001	0.001	0.000	0.000
ESE	0.004	0.004	0.004	0.000	0.000	0.000
SE	0.009	0.014	0.011	0.002	0.000	0.000
SE	0.016	0.003	0.002	0.005	0.001	0.000
S	0.011	0.007	0.000	0.005	0.001	0.000
SW	0.007	0.001	0.000	0.003	0.000	0.000
SW	0.003	0.004	0.004	0.001	0.000	0.000
WSW	0.003	0.004	0.004	0.001	0.000	0.000
W	0.003	0.003	0.007	0.002	0.001	0.000
WNW	0.003	0.003	0.005	0.002	0.001	0.000
W	0.003	0.003	0.005	0.002	0.001	0.000
NW	0.003	0.003	0.005	0.002	0.001	0.000
NW	0.003	0.003	0.005	0.002	0.001	0.000
CALN	0.000	0.000	0.000	0.000	0.000	0.000
SUN	0.000	0.000	0.000	0.000	0.000	0.000

Instrument Height

1960-1962 58 Feet
1962-1965 20 Feet

DIR	03-06	07-10	11-16	17-21	22-04	5045
N	0.008	0.022	0.024	0.023	0.013	0.010
NE	0.014	0.027	0.029	0.019	0.009	0.000
NE	0.011	0.016	0.013	0.003	0.000	0.000
NE	0.009	0.010	0.009	0.001	0.000	0.000
E	0.014	0.011	0.005	0.001	0.000	0.000
ESE	0.006	0.009	0.004	0.001	0.000	0.000
SE	0.006	0.012	0.009	0.002	0.000	0.000
SE	0.021	0.004	0.007	0.004	0.000	0.000
S	0.008	0.005	0.001	0.003	0.000	0.000
SW	0.007	0.000	0.004	0.001	0.000	0.000
SW	0.009	0.007	0.001	0.005	0.001	0.000
WSW	0.009	0.007	0.001	0.005	0.001	0.000
W	0.013	0.001	0.006	0.002	0.000	0.000
WNW	0.013	0.001	0.006	0.002	0.000	0.000
W	0.013	0.001	0.006	0.002	0.000	0.000
NW	0.013	0.001	0.006	0.002	0.000	0.000
NW	0.013	0.001	0.006	0.002	0.000	0.000
CALN	0.000	0.000	0.000	0.000	0.000	0.000
SUN	0.000	0.000	0.000	0.000	0.000	0.000

DIR	03-06	07-10	11-16	17-21	22-04	5045
N	0.005	0.009	0.023	0.012	0.014	0.004
NE	0.009	0.017	0.025	0.021	0.010	0.007
NE	0.011	0.019	0.019	0.005	0.001	0.000
NE	0.003	0.010	0.013	0.003	0.001	0.000
E	0.009	0.009	0.010	0.001	0.000	0.000
ESE	0.006	0.013	0.017	0.009	0.001	0.000
SE	0.012	0.017	0.016	0.014	0.001	0.000
SE	0.004	0.022	0.008	0.032	0.014	0.000
S	0.004	0.010	0.010	0.002	0.002	0.000
SW	0.004	0.007	0.009	0.009	0.009	0.000
SW	0.004	0.007	0.009	0.009	0.009	0.000
WSW	0.004	0.007	0.009	0.009	0.009	0.000
W	0.004	0.007	0.009	0.009	0.009	0.000
WNW	0.004	0.007	0.009	0.009	0.009	0.000
W	0.004	0.007	0.009	0.009	0.009	0.000
NW	0.004	0.007	0.009	0.009	0.009	0.000
NW	0.004	0.007	0.009	0.009	0.009	0.000
CALN	0.000	0.000	0.000	0.000	0.000	0.000
SUN	0.000	0.000	0.000	0.000	0.000	0.000

DIR	03-06	07-10	11-16	17-21	22-04	5045
N	0.011	0.014	0.025	0.009	0.005	0.003
NE	0.014	0.021	0.024	0.014	0.005	0.009
NE	0.014	0.019	0.013	0.005	0.000	0.000
NE	0.009	0.011	0.004	0.000	0.000	0.000
E	0.011	0.007	0.003	0.001	0.000	0.000
ESE	0.009	0.003	0.007	0.002	0.000	0.000
SE	0.011	0.003	0.007	0.002	0.000	0.000
SE	0.011	0.003	0.007	0.002	0.000	0.000
S	0.011	0.003	0.007	0.002	0.000	0.000
SW	0.011	0.003	0.007	0.002	0.000	0.000
SW	0.011	0.003	0.007	0.002	0.000	0.000
WSW	0.011	0.003	0.007	0.002	0.000	0.000
W	0.011	0.003	0.007	0.002	0.000	0.000
WNW	0.011	0.003	0.007	0.002	0.000	0.000
W	0.011	0.003	0.007	0.002	0.000	0.000
NW	0.011	0.003	0.007	0.002	0.000	0.000
NW	0.011	0.003	0.007	0.002	0.000	0.000
CALN	0.000	0.000	0.000	0.000	0.000	0.000
SUN	0.000	0.000	0.000	0.000	0.000	0.000

DIR	03-06	07-10	11-16	17-21	22-04	5045
N	0.011	0.023	0.029	0.009	0.003	0.004
NE	0.014	0.024	0.028	0.009	0.000	0.004
NE	0.014	0.011	0.009	0.002	0.000	0.000
NE	0.010	0.007	0.004	0.000	0.000	0.000
E	0.012	0.015	0.003	0.000	0.000	0.000
ESE	0.011	0.011	0.003	0.000	0.000	0.000
SE	0.014	0.005	0.009	0.001	0.000	0.000
SE	0.011	0.005	0.005	0.001	0.000	0.000
S	0.017	0.004	0.009	0.013	0.005	0.000
SW	0.017	0.004	0.009	0.013	0.005	0.000
SW	0.017	0.004	0.009	0.013	0.005	0.000
WSW	0.017	0.004	0.009	0.013	0.005	0.000
W	0.017	0.004	0.009	0.013	0.005	0.000
WNW	0.017	0.004	0.009	0.013	0.005	0.000
W	0.017	0.004	0.009	0.013	0.005	0.000
NW	0.017	0.004	0.009	0.013	0.005	0.000
NW	0.017	0.004	0.009	0.013	0.005	0.000
CALN	0.000	0.000	0.000	0.000	0.000	0.000
SUN	0.000	0.000	0.000	0.000	0.000	0.000

DIF	00-06	07-10	11-16	17-21	22-26	SUMS
N	0.016	0.027	0.037	0.019	0.005	0.105
NE	0.014	0.017	0.016	0.007	0.001	0.055
NE	0.014	0.016	0.016	0.003	0.0	0.055
E	0.019	0.011	0.009	0.001	0.0	0.039
E	0.019	0.016	0.010	0.0	0.0	0.039
SE	0.015	0.021	0.009	0.001	0.000	0.045
SE	0.013	0.022	0.005	0.000	0.0	0.035
SE	0.019	0.042	0.045	0.009	0.0	0.115
S	0.014	0.044	0.078	0.027	0.004	0.172
SW	0.007	0.021	0.022	0.009	0.001	0.061
SW	0.012	0.022	0.009	0.006	0.001	0.045
WSW	0.007	0.011	0.007	0.001	0.000	0.032
WSW	0.010	0.017	0.005	0.001	0.0	0.033
WSW	0.005	0.011	0.003	0.000	0.0	0.023
W	0.009	0.021	0.015	0.003	0.000	0.053
W	0.010	0.019	0.013	0.007	0.000	0.053
CALM	0.009	0.0	0.0	0.0	0.0	0.009
SUMS	0.205	0.361	0.520	0.093	0.020	

bivariate Distribution

Podne City

Years

1966 1969

1967 1970

1968 1971

Instrument Height

1966-1971 20 Feet

DIF	00-06	07-10	11-16	17-21	22-26	SUMS
N	0.012	0.023	0.024	0.025	0.009	0.103
NE	0.012	0.011	0.024	0.009	0.002	0.056
NE	0.012	0.017	0.016	0.002	0.0	0.037
E	0.016	0.011	0.004	0.001	0.000	0.033
E	0.011	0.009	0.007	0.002	0.0	0.032
SE	0.010	0.019	0.015	0.003	0.001	0.053
SE	0.019	0.036	0.026	0.009	0.000	0.084
S	0.015	0.069	0.063	0.035	0.000	0.177
SW	0.010	0.029	0.026	0.014	0.000	0.078
SW	0.011	0.031	0.014	0.001	0.0	0.047
WSW	0.012	0.026	0.013	0.001	0.000	0.047
WSW	0.011	0.027	0.005	0.000	0.000	0.037
WSW	0.005	0.009	0.006	0.001	0.000	0.027
W	0.008	0.013	0.015	0.004	0.000	0.022
W	0.006	0.013	0.018	0.012	0.006	0.059
CALM	0.005	0.0	0.0	0.0	0.0	0.005
SUMS	0.133	0.365	0.294	0.123	0.035	

DIF	00-06	07-10	11-16	17-21	22-26	SUMS
N	0.012	0.024	0.033	0.019	0.009	0.095
NE	0.012	0.017	0.022	0.011	0.004	0.056
NE	0.010	0.013	0.016	0.005	0.000	0.035
E	0.005	0.011	0.010	0.002	0.0	0.023
E	0.012	0.016	0.003	0.001	0.0	0.032
SE	0.012	0.013	0.009	0.001	0.000	0.034
SE	0.012	0.023	0.015	0.009	0.000	0.053
S	0.019	0.054	0.027	0.009	0.000	0.109
SW	0.013	0.026	0.023	0.045	0.012	0.117
SW	0.012	0.022	0.019	0.006	0.000	0.061
WSW	0.012	0.022	0.007	0.001	0.000	0.032
WSW	0.011	0.014	0.011	0.001	0.000	0.023
WSW	0.004	0.009	0.006	0.001	0.000	0.023
W	0.005	0.013	0.004	0.001	0.000	0.023
W	0.005	0.013	0.004	0.001	0.000	0.023
CALM	0.007	0.017	0.011	0.005	0.000	0.034
SUMS	0.214	0.3	0.294	0.123	0.035	

DIF	00-06	07-10	11-16	17-21	22-26	SUMS
N	0.011	0.025	0.022	0.007	0.007	0.087
NE	0.011	0.024	0.014	0.004	0.000	0.049
NE	0.016	0.016	0.013	0.002	0.0	0.037
E	0.024	0.015	0.009	0.001	0.0	0.039
E	0.013	0.017	0.026	0.002	0.0	0.039
SE	0.029	0.012	0.006	0.000	0.000	0.028
SE	0.017	0.013	0.002	0.000	0.000	0.022
S	0.013	0.020	0.007	0.000	0.000	0.032
S	0.012	0.037	0.033	0.010	0.011	0.111
SW	0.005	0.014	0.013	0.004	0.000	0.057
SW	0.005	0.017	0.012	0.001	0.000	0.049
WSW	0.007	0.013	0.008	0.000	0.000	0.033
WSW	0.011	0.017	0.024	0.001	0.0	0.033
WSW	0.007	0.011	0.008	0.001	0.000	0.028
W	0.007	0.016	0.006	0.000	0.000	0.033
W	0.011	0.017	0.016	0.007	0.000	0.068
CALM	0.003	0.0	0.0	0.0	0.0	0.003
SUMS	0.193	0.353	0.324	0.140	0.038	

DIF	00-06	07-10	11-16	17-21	22-26	SUMS
N	0.017	0.017	0.030	0.021	0.011	0.092
NE	0.019	0.019	0.019	0.012	0.004	0.059
NE	0.015	0.019	0.013	0.007	0.001	0.050
E	0.019	0.009	0.009	0.001	0.0	0.032
E	0.013	0.011	0.006	0.001	0.0	0.036
SE	0.012	0.013	0.010	0.001	0.000	0.036
SE	0.016	0.022	0.019	0.004	0.000	0.058
S	0.013	0.032	0.037	0.010	0.000	0.088
S	0.016	0.034	0.030	0.014	0.014	0.106
SW	0.010	0.026	0.010	0.003	0.000	0.048
SW	0.019	0.029	0.018	0.006	0.001	0.064
WSW	0.011	0.021	0.013	0.003	0.000	0.044
WSW	0.011	0.021	0.009	0.003	0.001	0.034
WSW	0.005	0.011	0.009	0.001	0.0	0.024
W	0.009	0.013	0.009	0.003	0.001	0.041
W	0.009	0.016	0.009	0.011	0.003	0.050
CALM	0.011	0.0	0.0	0.0	0.0	0.011
SUMS	0.193	0.352	0.315	0.137	0.043	

DIF	00-06	07-10	11-16	17-21	22-26	SUMS
N	0.010	0.031	0.033	0.027	0.004	0.110
NE	0.007	0.019	0.015	0.009	0.003	0.069
NE	0.011	0.020	0.010	0.003	0.000	0.033
E	0.007	0.017	0.010	0.002	0.0	0.025
E	0.012	0.012	0.005	0.0	0.0	0.027
SE	0.010	0.013	0.004	0.001	0.000	0.021
SE	0.011	0.014	0.002	0.001	0.000	0.041
S	0.013	0.047	0.055	0.042	0.010	0.116
S	0.014	0.047	0.024	0.009	0.001	0.061
SW	0.010	0.010	0.013	0.002	0.000	0.046
SW	0.005	0.021	0.006	0.001	0.0	0.036
WSW	0.011	0.013	0.007	0.000	0.000	0.037
WSW	0.006	0.017	0.014	0.003	0.001	0.034
WSW	0.006	0.012	0.016	0.006	0.000	0.063
W	0.005	0.019	0.022	0.014	0.005	0.062
W	0.012	0.0	0.0	0.0	0.0	0.012

PI	09--09	07--10	11--16	17--21	22--26	SUMS
1	0.011	0.026	0.031	0.019	0.007	0.094
2	0.012	0.023	0.027	0.013	0.002	0.079
3	0.013	0.017	0.013	0.001	0.0	0.039
4	0.012	0.011	0.004	0.0	0.0	0.030
5	0.016	0.016	0.007	0.001	0.0	0.039
6	0.012	0.004	0.006	0.003	0.0	0.026
7	0.013	0.020	0.017	0.002	0.001	0.053
8	0.011	0.013	0.004	0.004	0.0	0.046
9	0.014	0.009	0.003	0.000	0.000	0.003
10	0.014	0.027	0.031	0.009	0.001	0.075
11	0.013	0.023	0.023	0.002	0.0	0.064
12	0.004	0.005	0.003	0.001	0.001	0.044
13	0.011	0.016	0.007	0.001	0.001	0.037
14	0.004	0.012	0.012	0.002	0.000	0.031
15	0.006	0.014	0.016	0.003	0.001	0.040
16	0.006	0.013	0.021	0.004	0.001	0.050
17	0.013	0.0	0.0	0.0	0.0	0.010
18	0.004	0.002	0.004	0.000	0.000	0.022

Bivariate Distribution

Dodge City

Years

1972

1973

Instrument Weight

1972-1973 20 Feet

PI	09--09	07--10	11--16	17--21	22--26	SUMS
1	0.012	0.025	0.040	0.021	0.013	0.110
2	0.011	0.019	0.024	0.009	0.001	0.056
3	0.013	0.013	0.013	0.001	0.001	0.042
4	0.007	0.012	0.007	0.0	0.0	0.027
5	0.014	0.013	0.004	0.000	0.0	0.040
6	0.006	0.013	0.004	0.001	0.0	0.024
7	0.004	0.021	0.016	0.002	0.0	0.047
8	0.005	0.006	0.009	0.005	0.001	0.087
9	0.013	0.009	0.000	0.003	0.007	0.197
10	0.009	0.013	0.003	0.007	0.002	0.065
11	0.009	0.025	0.019	0.004	0.002	0.059
12	0.009	0.021	0.009	0.001	0.001	0.041
13	0.009	0.017	0.010	0.001	0.001	0.038
14	0.004	0.012	0.014	0.001	0.001	0.030
15	0.006	0.019	0.019	0.006	0.002	0.055
16	0.004	0.015	0.005	0.017	0.010	0.075
17	0.003	0.0	0.0	0.0	0.0	0.002
18	0.004	0.042	0.009	0.000	0.001	0.041

THE HOURLY SUMMARY TABLE FOR WIN. 1949

HR	LB	AVG. VEL.	UB	DIR.	ETH.	STH.	WEST
2400	2	14.53333	42	0.32222	0.08333	0.41111	0.18233
0300	2	14.53333	43	0.32778	0.33333	0.35000	0.23333
0600	2	14.53333	42	0.33333	0.33333	0.35555	0.21667
0900	2	14.53333	35	0.32333	0.35555	0.36667	0.24444
1200	1	15.30000	43	0.35000	0.39333	0.43000	0.23333
1500	1	15.67778	41	0.31111	0.39667	0.43000	0.19444
1800	2	14.30000	37	0.36667	0.13333	0.47222	0.12222
2100	2	14.15555	35	0.32222	0.13333	0.37776	0.16111

Hodge City
Instrument Height
1948-1949 50 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1949

HR	LB	AVG. VEL.	UB	DIR.	ETH.	STH.	WEST
2400	2	14.53333	42	0.32222	0.08333	0.41111	0.18233
0300	2	14.53333	43	0.32778	0.33333	0.35000	0.23333
0600	2	14.53333	42	0.33333	0.33333	0.35555	0.21667
0900	2	14.53333	35	0.32333	0.35555	0.36667	0.24444
1200	1	15.30000	43	0.35000	0.39333	0.43000	0.23333
1500	1	15.67778	41	0.31111	0.39667	0.43000	0.19444
1800	2	14.30000	37	0.36667	0.13333	0.47222	0.12222
2100	2	14.15555	35	0.32222	0.13333	0.37776	0.16111

THE HOURLY SUMMARY TABLE FOR SPR. 1949

HR	LB	AVG. VEL.	UB	DIR.	ETH.	STH.	WEST
2400	2	13.23333	35	0.21196	0.16443	0.50300	0.11237
0300	2	11.35173	29	0.26087	0.13073	0.46196	0.16449
0600	0	11.35073	37	0.26630	0.12503	0.46674	0.20175
0900	1	13.58473	39	0.24457	0.15217	0.41324	0.19222
1200	3	13.51957	40	0.24013	0.17335	0.36674	0.18471
1500	1	13.61957	35	0.27174	0.15448	0.23991	0.13471
1800	1	14.03217	52	0.26317	0.24457	0.13217	0.09234
2100	2	14.00217	33	0.26457	0.27174	0.42735	0.05435

THE HOURLY SUMMARY TABLE FOR SPR. 1949

HR	LB	AVG. VEL.	UB	DIR.	ETH.	STH.	WEST
2400	2	13.23333	35	0.21196	0.16443	0.50300	0.11237
0300	2	11.35173	29	0.26087	0.13073	0.46196	0.16449
0600	0	11.35073	37	0.26630	0.12503	0.46674	0.20175
0900	1	13.58473	39	0.24457	0.15217	0.41324	0.19222
1200	3	13.51957	40	0.24013	0.17335	0.36674	0.18471
1500	1	13.61957	35	0.27174	0.15448	0.23991	0.13471
1800	1	14.03217	52	0.26317	0.24457	0.13217	0.09234
2100	2	14.00217	33	0.26457	0.27174	0.42735	0.05435

THE HOURLY SUMMARY TABLE FOR SUM. 1949

HR	LB	AVG. VEL.	UB	DIR.	ETH.	STH.	WEST
2400	2	9.54343	22	0.15217	0.15741	0.44153	0.04491
0300	0	9.34783	17	0.20652	0.11957	0.55783	0.03435
0600	1	9.18478	22	0.29109	0.13337	0.55578	0.10376
0900	0	10.40913	23	0.16443	0.14133	0.51630	0.15217
1200	1	10.74265	22	0.14674	0.17391	0.58152	0.06732
1500	0	11.69565	25	0.16648	0.17391	0.63326	0.04343
1800	1	10.93470	23	0.13343	0.17391	0.65217	0.04343
2100	1	9.56552	19	0.13043	0.27174	0.56236	0.01065

THE HOURLY SUMMARY TABLE FOR SUM. 1949

HR	LB	AVG. VEL.	UB	DIR.	ETH.	STH.	WEST
2400	2	9.54343	22	0.15217	0.15741	0.44153	0.04491
0300	0	9.34783	17	0.20652	0.11957	0.55783	0.03435
0600	1	9.18478	22	0.29109	0.13337	0.55578	0.10376
0900	0	10.40913	23	0.16443	0.14133	0.51630	0.15217
1200	1	10.74265	22	0.14674	0.17391	0.58152	0.06732
1500	0	11.69565	25	0.16648	0.17391	0.63326	0.04343
1800	1	10.93470	23	0.13343	0.17391	0.65217	0.04343
2100	1	9.56552	19	0.13043	0.27174	0.56236	0.01065

THE HOURLY SUMMARY TABLE FOR FALL 1949

HR	LB	AVG. VEL.	UB	DIR.	ETH.	STH.	WEST
2400	0	13.06505	20	0.19749	0.08242	0.54745	0.15534
0300	1	10.20670	20	0.31976	0.03242	0.44435	0.25871
0600	1	10.20670	26	0.32220	0.07612	0.41758	0.20231
0900	2	11.33461	24	0.27670	0.05335	0.42204	0.22227
1200	0	11.37312	29	0.23136	0.12013	0.42308	0.06330
1500	0	11.35714	26	0.31353	0.10947	0.47263	0.06771
1800	2	10.46154	21	0.29670	0.14235	0.50549	0.05445
2100	2	11.06136	21	0.19231	0.16435	0.55435	0.10460

THE HOURLY SUMMARY TABLE FOR FALL 1949

HR	LB	AVG. VEL.	UB	DIR.	ETH.	STH.	WEST
2400	0	13.06505	20	0.19749	0.08242	0.54745	0.15534
0300	1	10.20670	20	0.31976	0.03242	0.44435	0.25871
0600	1	10.20670	26	0.32220	0.07612	0.41758	0.20231
0900	2	11.33461	24	0.27670	0.05335	0.42204	0.22227
1200	0	11.37312	29	0.23136	0.12013	0.42308	0.06330
1500	0	11.35714	26	0.31353	0.10947	0.47263	0.06771
1800	2	10.46154	21	0.29670	0.14235	0.50549	0.05445
2100	2	11.06136	21	0.19231	0.16435	0.55435	0.10460

THE HOURLY SUMMARY TABLE FOR WIND, 1951

HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	11.1000	29	0.2333	0.1222	0.0500	0.2444	0.2355
0300	0	10.4333	30	0.3000	0.0500	0.0500	0.2722	0.2355
0600	0	10.8444	30	0.3556	0.0389	0.0389	0.2722	0.2355
0900	2	10.7889	25	0.3722	0.0611	0.0611	0.2500	0.2155
1200	1	12.0333	27	0.3333	0.0500	0.0500	0.2667	0.2777
1500	2	12.0000	26	0.3556	0.0444	0.0444	0.2333	0.2555
1800	1	10.4889	24	0.3667	0.1111	0.1111	0.3011	0.2411
2100	1	11.5000	28	0.3111	0.1222	0.1222	0.3333	0.2444

THE HOURLY SUMMARY TABLE FOR SUN, 1951

HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
2400	1	12.5333	23	0.2777	0.1777	0.1777	0.4167	0.1333
0300	2	12.4222	30	0.3622	0.1587	0.1587	0.3622	0.1587
0600	3	12.1333	35	0.3657	0.1343	0.1343	0.3573	0.1413
0900	3	12.8557	39	0.3674	0.1143	0.1143	0.3573	0.1343
1200	2	14.0435	36	0.4133	0.1143	0.1143	0.3750	0.0573
1500	2	15.0000	35	0.3927	0.1474	0.1474	0.3233	0.1273
1800	1	13.4778	34	0.3783	0.2117	0.2117	0.3573	0.0573
2100	2	12.7333	32	0.3152	0.3233	0.3233	0.2833	0.3522

THE HOURLY SUMMARY TABLE FOR SUN, 1951

HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	11.2822	39	0.1674	0.2991	0.2991	0.4073	0.2411
0300	1	12.0556	20	0.1791	0.2424	0.2424	0.4557	0.2411
0600	3	9.9222	22	0.1791	0.2717	0.2717	0.4291	0.1322
0900	2	11.3557	24	0.1874	0.1731	0.1731	0.4109	0.1322
1200	0	11.0133	23	0.2222	0.1731	0.1731	0.4109	0.1322
1500	2	11.5333	25	0.1793	0.2373	0.2373	0.5217	0.2573
1800	0	11.6043	28	0.1358	0.3263	0.3263	0.4725	0.2411
2100	2	11.1733	24	0.2019	0.3750	0.3750	0.3750	0.2411

THE HOURLY SUMMARY TABLE FOR FALL, 1951

HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
2400	2	11.3613	23	0.2087	0.1861	0.1861	0.4554	0.1433
0300	1	12.0556	30	0.2743	0.1534	0.1534	0.3714	0.2073
0600	2	12.3622	31	0.3020	0.1504	0.1504	0.2612	0.2473
0900	3	13.1861	28	0.3406	0.1317	0.1317	0.3163	0.2073
1200	2	12.8119	30	0.3615	0.1263	0.1263	0.3723	0.1533
1500	3	13.6277	33	0.3676	0.1267	0.1267	0.4013	0.1317
1800	2	11.1733	24	0.3720	0.1634	0.1634	0.3833	0.2767
2100	2	11.4059	24	0.1970	0.2030	0.2030	0.5396	0.2573

Rodge City
Instrument Weight
1950-1951 58 Feet

THE HOURLY SUMMARY TABLE FOR WIND, 1950

HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
2400	1	11.1778	26	0.2333	0.1056	0.0583	0.2333	0.0778
0300	2	11.0556	29	0.2389	0.0722	0.0722	0.2389	0.1444
0600	3	11.2222	29	0.2778	0.0611	0.0611	0.2389	0.1722
0900	2	11.3333	30	0.3333	0.0444	0.0444	0.2389	0.2167
1200	3	11.1111	37	0.2844	0.0778	0.0778	0.2333	0.1933
1500	3	11.2000	41	0.3000	0.0944	0.0944	0.2667	0.1278
1800	2	10.7222	24	0.2667	0.1611	0.1611	0.2667	0.2556
2100	3	11.2667	26	0.2556	0.1444	0.1444	0.2667	0.2333

THE HOURLY SUMMARY TABLE FOR SUN, 1950

HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	12.1722	26	0.2500	0.1733	0.1733	0.4370	0.0765
0300	3	12.4222	29	0.3043	0.1250	0.1250	0.3974	0.1304
0600	3	11.1333	33	0.3333	0.1250	0.1250	0.3532	0.2173
0900	3	14.3122	35	0.3404	0.1197	0.1197	0.3645	0.1873
1200	3	14.6133	36	0.4285	0.1433	0.1433	0.3043	0.1250
1500	3	14.7000	37	0.3889	0.1700	0.1700	0.3065	0.1167
1800	2	14.2174	35	0.3473	0.2097	0.2097	0.3312	0.0973
2100	3	12.0422	35	0.2556	0.3263	0.3263	0.3957	0.0326

THE HOURLY SUMMARY TABLE FOR SUN, 1950

HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
2400	2	10.7500	23	0.1521	0.2052	0.2052	0.5543	0.0366
0300	1	9.3333	22	0.1848	0.1500	0.1500	0.5957	0.1561
0600	3	9.2174	24	0.1674	0.2301	0.2301	0.5055	0.1561
0900	1	10.2391	23	0.1555	0.1521	0.1521	0.5055	0.1474
1200	1	11.4313	28	0.1633	0.2019	0.2019	0.5000	0.1304
1500	1	11.2133	28	0.1561	0.2457	0.2457	0.5217	0.0765
1800	3	12.7174	30	0.1547	0.2019	0.2019	0.5924	0.0217
2100	3	11.4304	28	0.1087	0.3035	0.3035	0.5000	0.0666

THE HOURLY SUMMARY TABLE FOR FALL, 1950

HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
HR	LB	AVG.	DB	NTH.	DIRECTION	EAST	STH.	WEST
2400	2	10.3622	14	0.1970	0.2142	0.2142	0.4396	0.1433
0300	2	10.5456	26	0.2012	0.1317	0.1317	0.4287	0.1433
0600	2	11.1473	30	0.3461	0.1267	0.1267	0.3791	0.1433
0900	1	12.3556	30	0.3267	0.1153	0.1153	0.4059	0.1433
1200	2	12.3722	30	0.2562	0.2030	0.2030	0.4013	0.1373
1500	2	12.2175	30	0.2675	0.2030	0.2030	0.4109	0.1317
1800	1	12.5671	24	0.2373	0.2475	0.2475	0.4650	0.0714
2100	1	10.3722	26	0.2527	0.2623	0.2623	0.4708	0.0595

THE HOURLY SUMMARY TABLE FOR WIN. 1952

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
2400	2	12.1333	37	0.2722	0.1389	0.3333	0.2556
0300	1	12.5556	25	0.2833	0.1111	0.2722	0.3333
0600	2	12.5556	30	0.3278	0.0944	0.2278	0.3500
0900	3	12.5556	37	0.3778	0.0833	0.2278	0.3111
1200	1	14.1111	37	0.3889	0.0833	0.2944	0.2333
1500	2	14.7778	29	0.3778	0.0944	0.3278	0.2000
1800	3	11.7778	23	0.3167	0.2333	0.3111	0.1889
2100	3	12.0000	27	0.2423	0.2111	0.3444	0.1611

Dodge City
Instrument Weight
1952-1953 58 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1953

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
2400	2	12.7222	35	0.2833	0.0722	0.2667	0.3778
0300	5	12.9778	30	0.3222	0.1222	0.2444	0.4111
0600	5	13.5555	35	0.3667	0.0444	0.1944	0.4944
0900	2	13.6111	36	0.3667	0.0444	0.1233	0.4955
1200	2	14.6000	39	0.3500	0.0667	0.1444	0.3233
1500	0	14.7778	30	0.3556	0.0833	0.2333	0.2167
1800	3	11.5778	31	0.3000	0.1933	0.2844	0.2222
2100	3	12.2222	36	0.2611	0.1611	0.3167	0.2211

THE HOURLY SUMMARY TABLE FOR SPR. 1952

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
2400	2	12.1333	34	0.2934	0.1847	0.4017	0.1195
0300	3	12.1000	27	0.2717	0.1848	0.3695	0.1848
0600	3	12.2323	33	0.3365	0.1657	0.3366	0.1735
0900	1	14.2173	40	0.3365	0.1571	0.3423	0.1955
1200	3	14.7778	39	0.3333	0.1761	0.3473	0.1143
1500	2	14.7778	42	0.3532	0.1791	0.3130	0.0815
1800	3	13.7500	31	0.3532	0.2804	0.4206	0.0304
2100	3	12.3733	26	0.3209	0.1122	0.3260	0.0304

THE HOURLY SUMMARY TABLE FOR SUM. 1952

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
2400	3	13.2717	30	0.3700	0.1521	0.6795	0.0929
0300	2	11.5333	26	0.1143	0.1087	0.6630	0.1143
0600	3	11.5717	25	0.1795	0.0973	0.6413	0.0815
0900	2	14.5333	35	0.1358	0.1343	0.5271	0.2052
1200	2	14.3043	26	0.1195	0.1358	0.6358	0.1070
1500	3	14.0197	29	0.1037	0.1143	0.6636	0.0973
1800	3	14.5333	34	0.1195	0.1521	0.6358	0.0815
2100	3	14.1347	38	0.0866	0.2500	0.6413	0.0217

THE HOURLY SUMMARY TABLE FOR FALL 1952

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
2400	3	11.2670	23	0.1970	0.1428	0.5109	0.1435
0300	2	11.5634	30	0.2037	0.0934	0.4505	0.2725
0600	4	11.5277	26	0.2472	0.0644	0.4175	0.2473
0900	3	13.3257	24	0.2693	0.1317	0.4415	0.2417
1200	2	14.4950	26	0.2637	0.1703	0.3842	0.1812
1500	3	11.2570	37	0.2362	0.1478	0.4286	0.1081
1800	3	11.5417	29	0.2010	0.1429	0.4301	0.0362
2100	3	11.5634	29	0.2047	0.1863	0.4801	0.1138

THE HOURLY SUMMARY TABLE FOR SPR. 1953

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
2400	3	13.8657	26	0.2173	0.2361	0.4104	0.1335
0300	3	13.4732	30	0.3073	0.1057	0.4184	0.1634
0600	2	13.3336	30	0.3423	0.0866	0.3526	0.2139
0900	6	16.5942	36	0.3803	0.1195	0.3215	0.1634
1200	3	16.1739	30	0.3312	0.1413	0.3152	0.2116
1500	3	15.0632	35	0.3073	0.1571	0.3526	0.1735
1800	3	14.6073	39	0.3260	0.2052	0.4130	0.0535
2100	3	14.0955	35	0.2687	0.2577	0.4235	0.0575

THE HOURLY SUMMARY TABLE FOR SUM. 1953

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
2400	3	13.3893	31	0.0691	0.2352	0.7179	0.0277
0300	3	12.3570	30	0.1037	0.1791	0.6545	0.0431
0600	3	11.8196	30	0.1195	0.1273	0.6253	0.0735
0900	3	15.3209	31	0.1087	0.1561	0.6576	0.0735
1200	3	15.2173	31	0.0652	0.1873	0.7352	0.0431
1500	3	15.5543	24	0.0769	0.2173	0.6795	0.0717
1800	6	15.2391	29	0.0491	0.2370	0.6630	0.0431
2100	5	13.9913	26	0.0340	0.2717	0.5576	0.0361

THE HOURLY SUMMARY TABLE FOR FALL 1953

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
2400	3	12.5549	30	0.2142	0.1267	0.5143	0.1426
0300	2	11.6593	28	0.2197	0.1039	0.5109	0.1593
0600	4	12.2198	28	0.2527	0.0424	0.4615	0.2030
0900	3	13.8613	29	0.2637	0.0900	0.4263	0.2145
1200	3	14.7123	29	0.2912	0.0762	0.4753	0.1244
1500	4	14.5164	29	0.2712	0.0593	0.5233	0.1244
1800	0	12.0198	26	0.2637	0.1046	0.5233	0.0242
2100	3	12.5695	22	0.2142	0.1379	0.5346	0.1037

THE HOURLY SUMMARY TABLE FOR WIN. 1954

HR	LA	AVG. VEL.	UB	NTN.	DIRECTION	STH.	WEST
2400	4	13.11111	36	0.33689	0.35556	0.28389	0.31667
0300	3	12.93333	30	0.41111	0.44444	0.23333	0.31111
0600	4	12.76667	31	0.42778	0.43889	0.21111	0.32222
0900	3	13.45556	33	0.45556	0.42778	0.23333	0.21222
1200	3	14.48557	43	0.47778	0.36111	0.27222	0.17778
1500	3	14.48557	50	0.41111	0.37222	0.30000	0.21667
1800	2	12.43333	42	0.40556	0.37222	0.27778	0.14444
2100	4	12.14444	33	0.31667	0.44444	0.35556	0.23333

Nodge City
Instrument Height
1954-1955 58 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1955

HR	LA	AVG. VEL.	UB	NTN.	DIRECTION	STH.	WEST
2400	4	13.64444	35	0.35556	0.12778	0.28333	0.23333
0300	3	13.23333	30	0.36667	0.09444	0.26111	0.27778
0600	4	13.11111	31	0.40000	0.07222	0.28667	0.25556
0900	3	13.48889	31	0.41111	0.06667	0.28500	0.27222
1200	3	15.17778	33	0.43333	0.17778	0.34444	0.23333
1500	0	15.17778	34	0.46667	0.09444	0.23333	0.19444
1800	3	13.11111	37	0.34444	0.19444	0.31111	0.15000
2100	0	12.27778	25	0.36111	0.13889	0.41667	0.17222

THE HOURLY SUMMARY TABLE FOR SPR. 1954

HR	LA	AVG. VEL.	UB	NTN.	DIRECTION	STH.	WEST
2400	4	13.35557	27	0.23333	0.22222	0.50000	0.04348
0300	3	13.25556	26	0.28889	0.23552	0.41348	0.08096
0600	4	12.93333	23	0.26667	0.18778	0.34239	0.10426
0900	3	13.66667	30	0.35556	0.15556	0.26413	0.08696
1200	3	14.77778	43	0.33333	0.23552	0.23503	0.10870
1500	3	15.24444	37	0.33333	0.15556	0.18448	0.08152
1800	3	13.25557	32	0.25556	0.24457	0.44022	0.05078
2100	3	13.24443	30	0.21111	0.24261	0.45109	0.05333

THE HOURLY SUMMARY TABLE FOR SUM. 1954

HR	LA	AVG. VEL.	UB	NTN.	DIRECTION	STH.	WEST
2400	3	11.13333	27	0.18333	0.33666	0.69022	0.05978
0300	3	12.37500	30	0.18478	0.07065	0.70109	0.03348
0600	2	11.23333	20	0.18478	0.06522	0.69555	0.03435
0900	3	13.33333	24	0.13667	0.03665	0.70109	0.02339
1200	2	14.21733	24	0.12500	0.07265	0.73913	0.05222
1500	4	14.47933	30	0.12500	0.03678	0.73370	0.08152
1800	3	15.22174	25	0.14130	0.03595	0.71196	0.09978
2100	4	13.43333	20	0.15761	0.14130	0.67391	0.02717

THE HOURLY SUMMARY TABLE FOR FALL 1954

HR	LA	AVG. VEL.	UB	NTN.	DIRECTION	STH.	WEST
2400	4	11.03297	27	0.30220	0.03495	0.56344	0.08242
0300	3	12.36741	23	0.25374	0.05695	0.54945	0.13736
0600	3	12.16483	24	0.32418	0.02193	0.48901	0.14484
0900	3	14.10143	27	0.33333	0.04396	0.48901	0.12088
1200	5	15.46154	33	0.35174	0.03495	0.47253	0.11538
1500	3	15.17532	28	0.41209	0.07692	0.43696	0.07143
1800	3	11.11867	26	0.40110	0.06054	0.46832	0.05495
2100	3	14.03297	20	0.33320	0.12637	0.51648	0.05495

THE HOURLY SUMMARY TABLE FOR SPR. 1955

HR	LA	AVG. VEL.	UB	NTN.	DIRECTION	STH.	WEST
2400	3	13.93333	36	0.23333	0.13333	0.43333	0.13333
0300	2	13.03333	25	0.21739	0.14130	0.46156	0.17556
0600	2	12.77174	27	0.27717	0.07239	0.42335	0.20109
0900	4	15.01095	35	0.28304	0.11413	0.36957	0.22322
1200	2	16.21733	45	0.23370	0.15217	0.36457	0.27557
1500	2	16.16166	43	0.21739	0.15217	0.40761	0.22333
1800	2	15.36657	35	0.25543	0.21739	0.41209	0.11413
2100	4	14.84733	30	0.22826	0.24457	0.42335	0.03763

THE HOURLY SUMMARY TABLE FOR SUM. 1955

HR	LA	AVG. VEL.	UB	NTN.	DIRECTION	STH.	WEST
2400	3	11.78261	22	0.08152	0.19322	0.62248	0.03578
0300	3	10.63043	22	0.09239	0.13043	0.62117	0.12572
0600	2	10.13043	22	0.17935	0.07305	0.62500	0.12543
0900	0	12.97826	26	0.15761	0.11557	0.59239	0.11557
1200	0	13.25100	22	0.13326	0.15217	0.63328	0.11557
1500	3	13.57609	24	0.08152	0.16304	0.77335	0.07656
1800	3	14.14130	42	0.04696	0.14674	0.71196	0.05495
2100	2	12.52174	23	0.14130	0.19555	0.52500	0.03394

THE HOURLY SUMMARY TABLE FOR FALL 1955

HR	LA	AVG. VEL.	UB	NTN.	DIRECTION	STH.	WEST
2400	3	11.46313	22	0.22527	0.16484	0.43407	0.17532
0300	3	11.76923	25	0.23626	0.13137	0.36244	0.22322
0600	2	11.58242	24	0.26923	0.14286	0.30769	0.22322
0900	2	12.91209	29	0.30769	0.12088	0.34366	0.23377
1200	1	14.72327	32	0.26374	0.13689	0.34311	0.23676
1500	0	14.36764	27	0.24022	0.17377	0.43696	0.14348
1800	3	12.34152	30	0.25275	0.18631	0.50249	0.15457
2100	2	12.04505	26	0.21974	0.20331	0.50320	0.27532

THE HOURLY SUMMARY TABLE FOR WIN. 1956

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	3	11.3333	23	0.2333	0.2333	0.2833	0.1722
0300	3	11.3333	26	0.1667	0.1667	0.2500	0.2667
0600	3	11.3333	23	0.4333	0.1500	0.2333	0.2111
0900	2	11.1111	24	0.3556	0.1778	0.1944	0.2122
1200	3	12.2222	26	0.1333	0.1333	0.2500	0.2167
1500	3	12.2222	26	0.2778	0.2056	0.2167	0.1889
1800	4	11.1111	25	0.1333	0.2044	0.2800	0.0833
2100	3	11.5556	24	0.1111	0.2444	0.3556	0.0889

Podgo City
Instrument Height
1956-1957 50 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1956

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	3	13.3333	30	0.2333	0.2119	0.4519	0.0983
0300	3	13.3333	32	0.2333	0.1735	0.3697	0.2119
0600	3	12.2222	30	0.4519	0.1587	0.2717	0.2370
0900	3	15.2222	38	0.2933	0.1467	0.3078	0.2370
1200	3	15.2222	38	0.3333	0.1393	0.3312	0.2692
1500	2	15.2222	30	0.3333	0.1701	0.3643	0.1648
1800	2	15.2222	35	0.3333	0.2043	0.3369	0.1026
2100	4	13.3333	28	0.2556	0.2891	0.3910	0.0943

THE HOURLY SUMMARY TABLE FOR SUM. 1956

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	3	11.3333	24	0.3333	0.1666	0.6410	0.0766
0300	4	11.3333	24	0.1333	0.1639	0.5705	0.1387
0600	3	11.3333	25	0.1750	0.1674	0.5039	0.1387
0900	3	13.3333	23	0.1639	0.1087	0.5705	0.1674
1200	3	13.3333	23	0.1413	0.1729	0.5973	0.0866
1500	3	13.3333	24	0.1304	0.1922	0.5973	0.0815
1800	3	13.3333	26	0.1141	0.2637	0.5812	0.0321
2100	2	13.3333	27	0.1250	0.2543	0.5652	0.0943

THE HOURLY SUMMARY TABLE FOR FALL 1956

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	3	12.3333	23	0.2337	0.1648	0.4782	0.1267
0300	3	12.3333	26	0.2337	0.1208	0.4723	0.1733
0600	3	12.3333	23	0.2337	0.0762	0.4723	0.1861
0900	3	14.6667	28	0.2747	0.0934	0.4069	0.2227
1200	4	13.3333	30	0.3267	0.1257	0.4178	0.1267
1500	2	13.3333	24	0.2524	0.0939	0.4670	0.1782
1800	3	13.3333	26	0.2467	0.1529	0.4395	0.0980
2100	3	13.3333	23	0.2467	0.2030	0.4395	0.0934

THE HOURLY SUMMARY TABLE FOR WIN. 1957

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	3	11.6667	22	0.2500	0.1500	0.3722	0.2167
0300	3	11.7111	24	0.3222	0.1222	0.4556	0.2500
0600	3	11.4444	26	0.3111	0.1111	0.3833	0.2444
0900	3	12.1111	25	0.4000	0.2000	0.2722	0.2111
1200	3	13.6111	26	0.3633	0.1555	0.3111	0.2133
1500	1	13.2222	24	0.4556	0.1111	0.4333	0.1833
1800	3	11.6667	25	0.3333	0.1511	0.3333	0.1111
2100	3	11.5556	22	0.3556	0.1333	0.3633	0.1278

THE HOURLY SUMMARY TABLE FOR SPR. 1957

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	4	13.6667	37	0.3697	0.1932	0.3696	0.1726
0300	3	13.6667	45	0.3206	0.1922	0.3536	0.1357
0600	3	13.6667	48	0.3536	0.1678	0.3478	0.1143
0900	0	15.6667	47	0.3206	0.1922	0.3536	0.1157
1200	0	15.6667	35	0.2894	0.2119	0.3674	0.3023
1500	3	15.6667	33	0.2717	0.2223	0.3536	0.1200
1800	2	15.6667	34	0.2943	0.2387	0.3974	0.2766
2100	2	13.3333	40	0.3122	0.2637	0.4536	0.2766

THE HOURLY SUMMARY TABLE FOR SUM. 1957

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	2	12.6667	29	0.1639	0.2370	0.5705	0.0361
0300	2	11.6667	23	0.2370	0.1467	0.5163	0.1326
0600	3	11.6667	24	0.2910	0.2109	0.4723	0.1200
0900	3	12.6667	24	0.2010	0.1250	0.5163	0.1511
1200	0	13.6667	26	0.2370	0.1387	0.5434	0.3700
1500	0	13.6667	20	0.1521	0.2172	0.5434	0.3652
1800	2	14.3333	35	0.1357	0.2386	0.4370	0.2317
2100	5	13.1111	33	0.1250	0.2943	0.5434	0.2304

THE HOURLY SUMMARY TABLE FOR FALL 1957

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	5	12.4667	29	0.2257	0.1267	0.5109	0.1376
0300	2	11.6667	21	0.2670	0.0471	0.4723	0.1426
0600	5	12.5833	26	0.3168	0.0762	0.4236	0.1432
0900	5	13.7033	32	0.3139	0.1153	0.4236	0.1432
1200	4	14.6514	34	0.3020	0.0939	0.4405	0.1525
1500	4	14.6450	27	0.3076	0.1349	0.4505	0.1317
1800	5	12.6237	25	0.3139	0.1439	0.4723	0.0713
2100	3	12.6450	23	0.2257	0.1646	0.5000	0.1037

THE HOURLY SUMMARY TABLE FOR WIN. 1958

HOUR	LB	AVG. VEL.	UB	DIRECTION		NTH.	STM.	WEST
				EAST				
2400	3	11.4333	24	0.2944	0.1000	0.3500	0.2556	0.2556
0300	2	11.7333	26	0.2644	0.1000	0.2889	0.3167	0.3167
0600	2	11.7333	26	0.2644	0.1000	0.2889	0.3167	0.3167
0900	3	12.5333	32	0.3111	0.1278	0.2611	0.3000	0.3000
1200	3	12.5333	32	0.3111	0.1278	0.2611	0.3000	0.3000
1500	3	12.5333	32	0.3111	0.1278	0.2611	0.3000	0.3000
1800	3	12.5333	32	0.3111	0.1278	0.2611	0.3000	0.3000
2100	3	12.5333	32	0.3111	0.1278	0.2611	0.3000	0.3000

Dodge City

Instrument Height

1958-1959 58 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1958

TIME	LB	AVG. VEL.	UB	DIRECTION		NTH.	STM.	WEST
				EAST				
0400	3	11.4333	24	0.2944	0.2237	0.3536	0.1197	
0700	2	11.7333	26	0.3440	0.1703	0.3035	0.1648	
0800	3	12.4733	30	0.3750	0.1767	0.3152	0.1902	
0900	3	12.4733	32	0.3364	0.1731	0.3345	0.1290	
1200	3	12.4733	30	0.2491	0.2149	0.3478	0.1358	
1500	3	12.4733	34	0.3478	0.1927	0.3478	0.1161	
1800	3	12.4733	34	0.3478	0.1927	0.3478	0.0657	
2100	4	12.0333	28	0.2554	0.2152	0.3209	0.1036	

THE HOURLY SUMMARY TABLE FOR SUM. 1958

HOUR	LB	AVG. VEL.	UB	DIRECTION		NTH.	STM.	WEST
				EAST				
2400	3	11.3333	24	0.1694	0.33978	0.48370	0.33804	
0300	3	11.2313	20	0.17235	0.18673	0.32717	0.10870	
0600	3	11.3313	23	0.21139	0.19565	0.46739	0.13637	
0900	3	11.4743	25	0.23652	0.14674	0.50543	0.14130	
1200	4	12.7174	30	0.25000	0.18478	0.46739	0.07743	
1500	3	12.4732	30	0.17935	0.21109	0.55435	0.06527	
1800	2	12.3733	28	0.22052	0.22563	0.51630	0.02174	
2100	5	12.1333	24	0.13387	0.36413	0.47026	0.02174	

THE HOURLY SUMMARY TABLE FOR FALL 1958

TIME	LB	AVG. VEL.	UB	DIRECTION		NTH.	STM.	WEST
				EAST				
0000	3	12.3333	27	0.2143	0.1483	0.2143	0.5274	0.1098
0300	2	11.4333	25	0.2143	0.3769	0.2143	0.4951	0.2087
0600	3	12.5333	23	0.2476	0.3769	0.2476	0.4455	0.2362
0900	3	12.5333	23	0.2476	0.1534	0.2476	0.4505	0.1848
1200	3	12.5333	32	0.2327	0.1318	0.2327	0.5000	0.1424
1500	3	12.5333	27	0.2327	0.1424	0.2327	0.4832	0.1624
1800	3	12.5333	27	0.2327	0.3730	0.2327	0.5436	0.3693
2100	3	12.5333	25	0.2327	0.1733	0.2327	0.5859	0.0859

THE HOURLY SUMMARY TABLE FOR WIN. 1959

HOUR	LB	AVG. VEL.	UB	DIRECTION		NTH.	STM.	WEST
				EAST				
2400	3	12.4575	27	0.31356	0.08475	0.31356	0.27581	0.27581
0300	3	12.42203	25	0.33051	0.08475	0.33051	0.25563	0.25563
0600	4	13.23720	24	0.33351	0.07627	0.33351	0.25663	0.25424
0900	0	12.78220	28	0.36746	0.07627	0.36746	0.21125	0.21125
1200	3	12.42372	24	0.35593	0.07627	0.35593	0.17747	0.17747
1500	0	18.27113	26	0.35593	0.09322	0.35593	0.15254	0.15254
1800	2	12.56437	26	0.33351	0.15254	0.33351	0.25643	0.25643
2100	4	12.42361	30	0.36746	0.13354	0.36746	0.21540	0.21540

THE HOURLY SUMMARY TABLE FOR SPR. 1959

HOUR	LB	AVG. VEL.	UB	DIRECTION		RTH.	STM.	WEST
				EAST				
2400	4	14.1759	35	0.2119	0.19565	0.2119	0.11413	0.11413
0300	6	14.17425	30	0.26987	0.11643	0.26987	0.140417	0.140417
0600	5	14.18304	37	0.30435	0.14133	0.30435	0.145326	0.145326
0900	4	15.13652	33	0.39130	0.06522	0.39130	0.16548	0.16548
1200	3	16.05912	36	0.38587	0.09152	0.38587	0.14782	0.14782
1500	4	16.13043	40	0.38269	0.13043	0.38269	0.14142	0.14142
1800	3	16.17133	36	0.38269	0.13043	0.38269	0.14142	0.14142
2100	3	16.19587	29	0.25543	0.27717	0.25543	0.140217	0.140217

THE HOURLY SUMMARY TABLE FOR SUM. 1959

HOUR	LB	AVG. VEL.	UB	DIRECTION		NTH.	STM.	WEST
				EAST				
2400	3	11.2638	23	0.11957	0.12500	0.11957	0.12717	0.12717
0300	3	9.6413	20	0.13413	0.14134	0.13413	0.06822	0.06822
0600	3	9.6413	20	0.13761	0.13726	0.13761	0.06217	0.06217
0900	3	11.0309	23	0.13043	0.09239	0.13043	0.05152	0.05152
1200	0	11.7301	27	0.12500	0.17391	0.12500	0.04361	0.04361
1500	3	12.2699	25	0.11957	0.22243	0.11957	0.06548	0.06548
1800	4	13.7173	35	0.11957	0.18478	0.11957	0.07174	0.07174
2100	4	12.9434	26	0.11413	0.19022	0.11413	0.07174	0.07174

THE HOURLY SUMMARY TABLE FOR FALL 1959

HOUR	LB	AVG. VEL.	UB	DIRECTION		NTH.	STM.	WEST
				EAST				
2400	3	13.1208	29	0.28022	0.09890	0.28022	0.53357	0.38741
0300	3	13.3451	29	0.34220	0.07612	0.34220	0.47832	0.14278
0600	5	12.6435	23	0.34615	0.06543	0.34615	0.37912	0.28771
0900	4	12.63132	29	0.34766	0.06341	0.34766	0.43112	0.16484
1200	3	14.0025	35	0.35714	0.06890	0.35714	0.41755	0.12437
1500	4	14.0301	26	0.36813	0.09381	0.36813	0.46154	0.07252
1800	2	13.1623	21	0.37912	0.14435	0.37912	0.44450	0.28747
2100	3	13.1974	25	0.35165	0.13187	0.35165	0.47932	0.23342

THE HOURLY SUMMARY TABLE FOR WIN. 1960

HR	LB	AVG. VEL.	UH	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	12.7555	28	0.3200	0.1389	0.3389	0.2222	0.2222
0300	4	13.1859	29	0.3167	0.1222	0.2889	0.2722	0.2722
0600	4	13.4555	31	0.2944	0.0889	0.2633	0.2333	0.2333
0900	4	13.7778	28	0.3444	0.0889	0.2444	0.2722	0.2722
1200	4	14.0000	32	0.4556	0.1056	0.2833	0.1556	0.1556
1500	4	14.7778	27	0.3444	0.1333	0.2889	0.1833	0.1833
1800	4	12.5556	25	0.4111	0.1222	0.2833	0.1333	0.1333
2100	3	13.3333	27	0.5000	0.1556	0.2833	0.2000	0.2000

Hodge City
Instrument Height
1060-1061 58 Feet

THE HOURLY SUMMARY TABLE FOR W14. 1961

HR	LB	AVG. VEL.	UH	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	12.1444	28	0.3000	0.1056	0.2533	0.2111	0.2111
0300	4	13.1556	29	0.3500	0.0889	0.2333	0.2377	0.2377
0600	3	12.4444	30	0.2889	0.0722	0.2222	0.4167	0.4167
0900	3	12.7556	25	0.3222	0.0722	0.2556	0.3556	0.3556
1200	4	14.5333	31	0.4167	0.0333	0.2277	0.2222	0.2222
1500	4	14.8889	33	0.3444	0.0667	0.2667	0.2722	0.2722
1800	3	12.1778	28	0.3389	0.1500	0.3056	0.1556	0.1556
2100	3	12.1333	24	0.2833	0.1222	0.2333	0.2111	0.2111

THE HOURLY SUMMARY TABLE FOR SPR. 1960

HR	LB	AVG. VEL.	UH	NTH.	DIRECTION	EAST	STH.	WEST
2400	2	13.3556	30	0.1722	0.2321	0.4071	0.1195	0.1195
0300	4	13.4333	30	0.2352	0.1357	0.4509	0.2052	0.2052
0600	4	14.3778	30	0.2991	0.0352	0.4291	0.1556	0.1556
0900	3	15.7222	35	0.3265	0.0622	0.4639	0.1467	0.1467
1200	4	16.4444	30	0.3078	0.1373	0.4552	0.1250	0.1250
1500	3	15.1111	33	0.3639	0.1143	0.4783	0.0760	0.0760
1800	3	15.3889	33	0.3265	0.2119	0.4843	0.0866	0.0866
2100	3	14.5222	31	0.3543	0.3043	0.4867	0.0434	0.0434

THE HOURLY SUMMARY TABLE FOR SUM. 1960

HR	LB	AVG. VEL.	UH	NTH.	DIRECTION	EAST	STH.	WEST
2400	5	12.1194	22	0.1917	0.2333	0.5348	0.0765	0.0765
0300	5	12.3107	24	0.1517	0.1848	0.5448	0.1195	0.1195
0600	3	11.5217	32	0.1956	0.1571	0.5217	0.1195	0.1195
0900	3	13.1556	25	0.1956	0.1571	0.5304	0.1070	0.1070
1200	3	14.5556	30	0.1678	0.2019	0.5130	0.0978	0.0978
1500	3	13.2222	33	0.2352	0.1793	0.5691	0.0652	0.0652
1800	5	15.3043	33	0.2637	0.1633	0.5304	0.0321	0.0321
2100	4	13.4333	25	0.1571	0.3043	0.4619	0.0760	0.0760

THE HOURLY SUMMARY TABLE FOR FALL 1960

HR	LB	AVG. VEL.	UH	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	13.1752	33	0.1812	0.1317	0.5059	0.1703	0.1703
0300	3	12.5111	28	0.2178	0.0604	0.5247	0.1921	0.1921
0600	3	12.5654	26	0.2747	0.0429	0.4780	0.2630	0.2630
0900	4	12.7912	32	0.2527	0.1040	0.4059	0.2087	0.2087
1200	3	13.5263	34	0.2773	0.1089	0.4059	0.1483	0.1483
1500	3	13.4444	30	0.2623	0.1782	0.4059	0.0714	0.0714
1800	3	12.5111	23	0.3120	0.1762	0.4556	0.1040	0.1040
2100	3	13.1333	30	0.2362	0.1861	0.4615	0.1040	0.1040

THE HOURLY SUMMARY TABLE FOR SPR. 1961

HR	LB	AVG. VEL.	UH	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	12.6556	37	0.2687	0.2633	0.3043	0.1571	0.1571
0300	0	12.5522	30	0.2457	0.2019	0.3078	0.2375	0.2375
0600	0	11.3750	28	0.2687	0.1735	0.3295	0.2222	0.2222
0900	3	14.2500	32	0.4047	0.1729	0.2457	0.1725	0.1725
1200	3	15.1556	36	0.3356	0.2119	0.2343	0.1571	0.1571
1500	3	15.4889	38	0.2833	0.1644	0.2152	0.2152	0.2152
1800	0	14.4778	35	0.3478	0.2233	0.3078	0.0478	0.0478
2100	0	12.9111	31	0.3122	0.3267	0.2637	0.0765	0.0765

THE HOURLY SUMMARY TABLE FOR SUM. 1961

HR	LB	AVG. VEL.	UH	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.2393	20	0.1143	0.1521	0.6363	0.0239	0.0239
0300	3	7.5217	17	0.1073	0.1343	0.5522	0.1556	0.1556
0600	3	7.5556	14	0.1922	0.1326	0.4723	0.2375	0.2375
0900	2	9.2378	21	0.1200	0.1674	0.4519	0.2633	0.2633
1200	0	9.4673	15	0.0896	0.1791	0.5043	0.2105	0.2105
1500	0	10.2500	22	0.1937	0.1922	0.5491	0.1272	0.1272
1800	0	10.5610	28	0.0773	0.2052	0.5357	0.3551	0.3551
2100	0	7.3259	17	0.1032	0.1955	0.5571	0.3551	0.3551

THE HOURLY SUMMARY TABLE FOR FALL 1961

HR	LB	AVG. VEL.	UH	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.3624	23	0.2478	0.0644	0.5217	0.1153	0.1153
0300	0	9.3654	22	0.2623	0.0549	0.4673	0.1921	0.1921
0600	0	9.2857	23	0.3183	0.0593	0.3712	0.2527	0.2527
0900	3	10.7326	22	0.3218	0.0792	0.3111	0.1978	0.1978
1200	0	11.2527	26	0.3466	0.0714	0.3550	0.1556	0.1556
1500	3	12.3214	24	0.3571	0.1624	0.4615	0.1272	0.1272
1800	0	9.2967	22	0.3316	0.3171	0.4572	0.3551	0.3551
2100	0	9.1133	22	0.2973	0.3741	0.5247	0.3551	0.3551

THE HOURLY SUMMARY TABLE FOR WIN. 1963

HR	LB	AVG.	UR	DIR.	STH.	WST.
HR	LB	AVG.	UR	DIR.	STH.	WST.
2400	0	0.52222	17	0.30556	0.3000	0.32333
0300	0	0.92222	18	0.35000	0.36111	0.29444
0600	3	0.64444	23	0.27778	0.25000	0.25556
0900	3	10.05555	27	0.37778	0.05000	0.23333
1200	3	11.97778	27	0.45556	0.37778	0.18889
1500	3	11.66667	26	0.50000	0.58333	0.27222
1800	0	0.77778	22	0.45111	0.10556	0.33333
2100	3	0.47778	19	0.36111	0.11667	0.33333

Dodge City
Instrument Height
1962-1963 20 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1963

HR	LB	AVG.	UR	DIR.	STH.	WST.
HR	LB	AVG.	UR	DIR.	STH.	WST.
2400	0	10.36957	26	0.21196	0.22829	0.40761
0300	4	9.99111	22	0.21739	0.15217	0.46667
0600	3	4.66304	21	0.26333	0.12500	0.17429
0900	3	12.40333	32	0.24457	0.15217	0.21196
1200	3	12.99111	27	0.26691	0.11111	0.16278
1500	4	13.19556	24	0.23261	0.13537	0.14143
1800	0	12.19556	24	0.27174	0.16453	0.14143
2100	3	10.33333	22	0.25000	0.32443	0.11957

THE HOURLY SUMMARY TABLE FOR SUM. 1963

HR	LB	AVG.	UR	DIR.	STH.	WST.
HR	LB	AVG.	UR	DIR.	STH.	WST.
2400	0	10.36957	19	0.11957	0.11413	0.71739
0300	0	9.55556	19	0.13043	0.09239	0.69217
0600	3	9.66733	19	0.16448	0.09239	0.37500
0900	3	12.34733	22	0.11957	0.09733	0.11413
1200	3	13.08633	23	0.11957	0.13537	0.25000
1500	3	13.21522	24	0.08152	0.17391	0.05122
1800	0	12.22222	23	0.07609	0.16000	0.34444
2100	5	10.66133	21	0.10226	0.10092	0.57333

THE HOURLY SUMMARY TABLE FOR FALL 1963

HR	LB	AVG.	UR	DIR.	STH.	WST.
HR	LB	AVG.	UR	DIR.	STH.	WST.
2400	0	0.68132	18	0.13187	0.07692	0.62089
0300	0	0.47253	17	0.15385	0.05495	0.53444
0600	0	10.03297	22	0.16448	0.09400	0.47000
0900	3	11.78022	27	0.22527	0.04945	0.46352
1200	3	12.03133	24	0.21629	0.05495	0.17522
1500	3	13.05494	26	0.21473	0.06394	0.57333
1800	0	9.66667	19	0.19132	0.12147	0.41578
2100	3	9.53166	17	0.17582	0.11538	0.64444

THE HOURLY SUMMARY TABLE FOR WIN. 1962

HR	LB	AVG.	UR	DIR.	STH.	WST.
HR	LB	AVG.	UR	DIR.	STH.	WST.
2400	0	0.20314	31	0.36641	0.03675	0.20414
0300	0	0.30000	24	0.26441	0.34237	0.24376
0600	0	0.11111	26	0.26441	0.02542	0.33556
0900	0	0.30526	18	0.36441	0.04237	0.33889
1200	3	11.71111	26	0.25763	0.05045	0.31556
1500	0	11.39333	23	0.43223	0.08475	0.22034
1800	0	0.18544	21	0.37321	0.04675	0.18644
2100	0	0.17306	21	0.05000	0.07627	0.13559

THE HOURLY SUMMARY TABLE FOR SPR. 1962

HR	LB	AVG.	UR	DIR.	STH.	WST.
HR	LB	AVG.	UR	DIR.	STH.	WST.
2400	0	0.76000	20	0.25000	0.16874	0.51087
0300	0	0.30000	23	0.09183	0.52717	0.07365
0600	0	0.23333	23	0.11413	0.45952	0.13478
0900	0	0.27174	26	0.01152	0.62391	0.21196
1200	0	0.20000	20	0.11413	0.46165	0.14139
1500	3	11.25413	34	0.26007	0.14139	0.46165
1800	0	0.11000	27	0.27174	0.13537	0.07883
2100	0	0.13592	26	0.23370	0.10473	0.08891

THE HOURLY SUMMARY TABLE FOR SUM. 1962

HR	LB	AVG.	UR	DIR.	STH.	WST.
HR	LB	AVG.	UR	DIR.	STH.	WST.
2400	0	0.31667	19	0.14133	0.19022	0.60822
0300	0	0.42945	17	0.23109	0.12500	0.55435
0600	0	0.38774	18	0.23373	0.13537	0.52717
0900	3	10.70556	20	0.21739	0.14674	0.50000
1200	3	12.77174	26	0.17391	0.12500	0.60226
1500	3	12.62667	26	0.17391	0.17435	0.58556
1800	0	12.00000	20	0.11413	0.26691	0.01957
2100	0	0.80000	20	0.19217	0.27283	0.58152

THE HOURLY SUMMARY TABLE FOR FALL 1962

HR	LB	AVG.	UR	DIR.	STH.	WST.
HR	LB	AVG.	UR	DIR.	STH.	WST.
2400	0	0.26723	21	0.25275	0.13197	0.49451
0300	0	0.31854	18	0.25824	0.09930	0.46154
0600	0	0.71625	18	0.21121	0.11533	0.36264
0900	0	0.45421	20	0.30220	0.08791	0.18681
1200	0	10.19473	22	0.31319	0.10440	0.46505
1500	3	11.06581	42	0.29571	0.16444	0.46703
1800	0	0.59441	22	0.25374	0.10740	0.47253
2100	0	0.56000	20	0.21973	0.17033	0.54396

THE HOURLY SUMMARY TABLE FOR WIN. 1964

HOUR	LA	LB	AVG. VEL.	DIRECTION		NTH.	STN.	WEST
				EA	EA			
2400	3	10.7033	25	0.26067	0.03333	0.28339	0.28339	0.30000
0300	3	11.0333	25	0.26444	0.03333	0.30333	0.30333	0.30000
0600	3	11.0333	25	0.13333	0.03333	0.24444	0.24444	0.38333
0900	3	12.1111	25	0.13333	0.04444	0.17222	0.17222	0.38444
1200	3	13.0222	25	0.25556	0.05000	0.21111	0.21111	0.28333
1500	3	13.0222	25	0.41333	0.05556	0.26667	0.26667	0.24444
1800	3	13.0222	25	0.39444	0.07222	0.30556	0.30556	0.19444
2100	3	9.7033	25	0.35556	0.06444	0.32778	0.32778	0.21111

THE HOURLY SUMMARY TABLE FOR SPR. 1964

HOUR	LA	LB	AVG. VEL.	DIRECTION		NTH.	STN.	WEST
				EA	EA			
2400	3	12.0174	27	0.23372	0.09239	0.48913	0.48913	0.18478
0300	4	12.0174	31	0.26067	0.07065	0.50000	0.50000	0.16848
0600	4	11.0333	24	0.25000	0.05000	0.43478	0.43478	0.25000
0900	3	11.0333	31	0.13152	0.10325	0.42935	0.42935	0.13387
1200	3	12.1674	27	0.22000	0.09783	0.52000	0.52000	0.15217
1500	3	12.0174	27	0.25000	0.07065	0.48913	0.48913	0.15217
1800	3	12.0174	27	0.25000	0.09239	0.46106	0.46106	0.11957
2100	2	11.0217	30	0.28261	0.15217	0.47283	0.47283	0.09239

THE HOURLY SUMMARY TABLE FOR SUM. 1964

HOUR	LA	LB	AVG. VEL.	DIRECTION		NTH.	STN.	WEST
				EA	EA			
2400	3	11.0333	25	0.16130	0.16334	0.67391	0.67391	0.02174
0300	3	12.0174	27	0.12500	0.11057	0.68478	0.68478	0.07065
0600	3	12.0174	27	0.13761	0.10470	0.59783	0.59783	0.12500
0900	3	12.0174	27	0.17935	0.11413	0.55635	0.55635	0.14130
1200	2	12.0174	27	0.16304	0.11413	0.59783	0.59783	0.12500
1500	3	12.0174	27	0.16348	0.14674	0.59239	0.59239	0.08152
1800	3	12.0174	27	0.15217	0.10373	0.66304	0.66304	0.07065
2100	3	11.0333	25	0.16674	0.17935	0.61413	0.61413	0.05978

THE HOURLY SUMMARY TABLE FOR FALL 1964

HOUR	LA	LB	AVG. VEL.	DIRECTION		NTH.	STN.	WEST
				EA	EA			
2400	3	11.0333	25	0.22527	0.09341	0.54945	0.54945	0.09800
0300	3	11.0333	21	0.24725	0.07892	0.53297	0.53297	0.13187
0600	3	11.0333	21	0.29121	0.03846	0.45804	0.45804	0.21229
0900	3	12.0174	25	0.34066	0.05495	0.43407	0.43407	0.13736
1200	3	12.0174	25	0.34066	0.11334	0.42957	0.42957	0.09341
1500	3	12.0174	25	0.32516	0.10989	0.49451	0.49451	0.06004
1800	3	12.0174	27	0.30720	0.11538	0.51194	0.51194	0.03846
2100	3	11.0333	25	0.26225	0.11538	0.56242	0.56242	0.06304

THE HOURLY SUMMARY TABLE FOR WIN. 1965

HOUR	LA	LB	AVG. VEL.	DIRECTION		NTH.	STN.	WEST
				EA	EA			
2400	3	11.0222	24	0.32222	0.03333	0.42222	0.42222	0.22222
0300	3	12.0174	31	0.34444	0.03333	0.39556	0.39556	0.26667
0600	3	12.0174	35	0.36111	0.01667	0.31111	0.31111	0.23333
0900	3	12.0174	30	0.32333	0.01667	0.32222	0.32222	0.27778
1200	3	13.0222	30	0.37778	0.04444	0.31667	0.31667	0.26111
1500	3	13.0222	30	0.31667	0.03333	0.35556	0.35556	0.25556
1800	3	12.0174	26	0.36111	0.06667	0.41667	0.41667	0.24444
2100	3	11.0333	25	0.39444	0.03333	0.42778	0.42778	0.13333

THE HOURLY SUMMARY TABLE FOR SPR. 1965

HOUR	LA	LB	AVG. VEL.	DIRECTION		NTH.	STN.	WEST
				EA	EA			
2400	4	11.0678	30	0.30978	0.03152	0.52174	0.52174	0.26667
0300	3	11.0678	25	0.30978	0.03152	0.47379	0.47379	0.15443
0600	3	11.0678	27	0.31522	0.07065	0.41304	0.41304	0.17935
0900	3	12.0174	29	0.36557	0.05973	0.40317	0.40317	0.14674
1200	3	12.0174	26	0.36413	0.04152	0.39130	0.39130	0.14130
1500	3	12.0174	26	0.32065	0.11413	0.61413	0.61413	0.13527
1800	3	12.0174	27	0.29891	0.15217	0.44565	0.44565	0.06239
2100	3	9.5673	23	0.26067	0.15585	0.44322	0.44322	0.06239

THE HOURLY SUMMARY TABLE FOR SUM. 1965

HOUR	LA	LB	AVG. VEL.	DIRECTION		NTH.	STN.	WEST
				EA	EA			
2400	3	12.0174	24	0.16674	0.20109	0.52363	0.52363	0.02174
0300	3	12.0174	25	0.16304	0.17391	0.54348	0.54348	0.11957
0600	3	12.0174	13	0.15217	0.22243	0.54565	0.54565	0.15761
0900	3	11.0333	21	0.17935	0.17335	0.54174	0.54174	0.16678
1200	3	11.0333	23	0.18478	0.15761	0.57565	0.57565	0.05425
1500	3	11.0333	22	0.18478	0.18478	0.54391	0.54391	0.06304
1800	3	11.0333	22	0.13587	0.22243	0.53565	0.53565	0.04346
2100	3	9.2934	19	0.19022	0.21731	0.57565	0.57565	0.0

THE HOURLY SUMMARY TABLE FOR FALL 1965

HOUR	LA	LB	AVG. VEL.	DIRECTION		NTH.	STN.	WEST
				EA	EA			
2400	3	9.7033	20	0.26374	0.08791	0.52159	0.52159	0.11536
0300	3	9.4435	19	0.25275	0.07143	0.42557	0.42557	0.04725
0600	4	9.4615	18	0.26374	0.10465	0.51565	0.51565	0.02022
0900	4	11.7148	26	0.27473	0.12331	0.41239	0.41239	0.16661
1200	3	13.0222	24	0.27073	0.09239	0.45204	0.45204	0.15345
1500	3	12.7637	24	0.28073	0.06593	0.51593	0.51593	0.12437
1800	3	9.1538	25	0.30720	0.11533	0.44565	0.44565	0.06239
2100	3	9.1099	23	0.26176	0.11533	0.52267	0.52267	0.06239

Node City
Instrument Height
1964-1965 20 Feet

THE HOURLY SUMMARY TABLE FOR WIL 1969

HR	LA	AVG. VEL.	DIR.	NTN.	EAST	STN.	WEST
2400	0	10.52542	24	0.28014	0.19492	0.42273	0.35137
0700	0	10.44353	21	0.29061	0.13539	0.44215	0.10169
0800	0	9.24765	19	0.21956	0.39322	0.42373	0.14744
0900	0	10.67747	24	0.32233	0.14507	0.34746	0.16649
1200	0	11.44576	30	0.30508	0.12712	0.40048	0.12712
1500	0	11.27119	24	0.37283	0.16949	0.34746	0.39322
1800	0	9.99330	23	0.30508	0.31355	0.34746	0.31355
2100	0	10.36709	24	0.24576	0.30533	0.36483	0.32542

Node City
Instrument Height
1968-1969 20 Feet

THE HOURLY SUMMARY TABLE FOR SPR 1969

HR	LA	AVG. VEL.	DIR.	NTN.	EAST	STN.	WEST
2400	0	9.93473	30	0.21730	0.23513	0.34774	0.12550
0300	2	9.72323	31	0.26037	0.19022	0.34574	0.15217
0600	3	10.53261	30	0.26620	0.16843	0.36413	0.20109
0900	0	12.38095	32	0.27717	0.14104	0.40701	0.14130
1200	0	11.36922	30	0.33122	0.17201	0.35276	0.15443
1500	4	13.01174	30	0.22834	0.20552	0.34587	0.11437
1800	5	11.99569	23	0.32679	0.28761	0.24434	0.10325
2100	0	10.31387	30	0.25000	0.30778	0.33560	0.36239

THE HOURLY SUMMARY TABLE FOR SUM 1969

HR	LA	AVG. VEL.	DIR.	NTN.	EAST	STN.	WEST
2400	3	9.46739	22	0.16304	0.20652	0.54753	0.32261
0300	0	8.87609	20	0.19222	0.14130	0.51267	0.14674
0600	0	8.59130	17	0.17391	0.17435	0.52717	0.13670
0900	0	11.23913	20	0.16304	0.20139	0.44565	0.16022
1200	0	11.30935	26	0.14130	0.17435	0.51937	0.13751
1500	4	11.97116	27	0.17391	0.20139	0.52376	0.31176
1800	2	11.95582	23	0.18478	0.21251	0.44565	0.36352
2100	4	9.32029	24	0.13587	0.43217	0.42201	0.32334

THE HOURLY SUMMARY TABLE FOR FALL 1969

HR	LA	AVG. VEL.	DIR.	NTN.	EAST	STN.	WEST
2400	0	9.24709	23	0.25824	0.13137	0.45055	0.14645
0300	0	8.75924	18	0.23626	0.09361	0.43354	0.31672
0600	4	9.12081	17	0.25775	0.11534	0.42734	0.20379
0900	2	11.17532	23	0.29670	0.08242	0.40559	0.21474
1200	0	12.52747	23	0.35165	0.12939	0.40559	0.12058
1500	0	11.44615	25	0.31768	0.15345	0.40559	0.13792
1800	2	9.37947	20	0.32720	0.17592	0.41503	0.17323
2100	3	9.37911	23	0.24725	0.14339	0.43307	0.17353

THE HOURLY SUMMARY TABLE FOR WIN 1969

HR	LA	AVG. VEL.	DIR.	NTN.	EAST	STN.	WEST
2400	3	10.47771	23	0.23333	0.37778	0.36687	0.21667
0300	0	10.17591	23	0.36011	0.33599	0.31111	0.26667
0600	3	11.50945	24	0.37030	0.33849	0.27373	0.30000
0900	3	11.55503	24	0.31438	0.39556	0.30556	0.30000
1200	0	12.45585	26	0.37222	0.32778	0.21667	0.30000
1500	0	11.47744	24	0.41111	0.08333	0.33889	0.15556
1800	0	9.70537	21	0.30887	0.13000	0.46667	0.10000
2100	0	10.31111	25	0.32222	0.11667	0.34444	0.18333

THE HOURLY SUMMARY TABLE FOR SPR 1969

HR	LA	AVG. VEL.	DIR.	NTN.	EAST	STN.	WEST
2400	4	11.23526	23	0.25513	0.14130	0.42935	0.17351
0300	0	10.17591	23	0.36011	0.33599	0.25000	0.25000
0600	3	11.50945	24	0.37030	0.33849	0.30635	0.29891
0900	3	12.45503	24	0.27500	0.10726	0.28261	0.23913
1200	3	13.18488	26	0.43741	0.34152	0.30635	0.20052
1500	4	12.75942	26	0.29438	0.17035	0.29438	0.23826
1800	0	10.31130	26	0.29438	0.16304	0.46257	0.15217
2100	3	11.10545	20	0.24381	0.28652	0.41304	0.36522

THE HOURLY SUMMARY TABLE FOR SUM 1969

HR	LA	AVG. VEL.	DIR.	NTN.	EAST	STN.	WEST
2400	0	9.93545	25	0.11957	0.17391	0.65217	0.37261
0300	3	9.72323	23	0.19130	0.11413	0.70100	0.34343
0600	3	9.35585	23	0.13587	0.09249	0.69565	0.07609
0900	0	12.67191	25	0.19265	0.38152	0.61957	0.37065
1200	4	12.44130	25	0.13487	0.12500	0.66843	0.37865
1500	3	12.11174	25	0.15761	0.18478	0.61957	0.32904
1800	2	10.13078	22	0.19130	0.19555	0.59783	0.35435
2100	3	9.85587	20	0.14074	0.24913	0.59783	0.60543

THE HOURLY SUMMARY TABLE FOR FALL 1969

HR	LA	AVG. VEL.	DIR.	NTN.	EAST	STN.	WEST
2400	0	9.24709	23	0.25824	0.07143	0.52198	0.12637
0300	4	9.45117	20	0.22527	0.04396	0.44451	0.23026
0600	3	10.15563	21	0.27762	0.07347	0.47809	0.24724
0900	3	11.13913	21	0.33769	0.04396	0.41209	0.23626
1200	3	11.75942	27	0.33516	0.06344	0.44505	0.15034
1500	2	12.43130	24	0.32967	0.08342	0.46505	0.13736
1800	3	10.13078	23	0.27762	0.15439	0.44505	0.08242
2100	0	9.75424	23	0.25824	0.13132	0.46703	0.08742

THE HOURLY SUMMARY TABLE FOR WIN. 1970

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
VELOCITY								
2400	3	9.6007	25	0.25000	0.13333	0.36111	0.24444	0.24444
0300	3	9.3856	22	0.33333	0.06111	0.32222	0.28333	0.28333
0600	3	9.0000	18	0.31667	0.06111	0.28889	0.33333	0.33333
0900	3	8.8444	13	0.31667	0.06667	0.26667	0.32778	0.32778
1200	3	13.0555	23	0.39444	0.10556	0.29444	0.20556	0.20556
1500	3	12.7778	26	0.43333	0.10000	0.27222	0.13333	0.13333
1800	3	12.7778	17	0.40556	0.15556	0.31667	0.10000	0.10000
2100	3	12.4444	15	0.33556	0.13333	0.37778	0.17778	0.17778

Dodge City
Instrument Height
[070-107] 20 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1970

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
VELOCITY								
2400	3	12.3333	27	0.21739	0.19322	0.44022	0.14130	0.14130
0300	3	12.2222	23	0.21196	0.16333	0.36413	0.23213	0.23213
0600	3	12.3333	28	0.27717	0.13773	0.26491	0.30435	0.30435
0900	3	12.0000	24	0.33676	0.10870	0.29363	0.26087	0.26087
1200	3	13.0000	29	0.42139	0.11901	0.32065	0.21196	0.21196
1500	3	12.6667	26	0.37500	0.11557	0.34783	0.18478	0.18478
1800	3	12.6667	23	0.28333	0.19022	0.34783	0.17191	0.17191
2100	3	12.4017	25	0.19556	0.30435	0.37500	0.10266	0.10266

THE HOURLY SUMMARY TABLE FOR SUM. 1970

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
VELOCITY								
2400	3	12.5556	29	0.12500	0.19022	0.38596	0.09783	0.09783
0300	3	12.5556	23	0.17935	0.19783	0.20326	0.11557	0.11557
0600	3	12.7778	20	0.17935	0.11557	0.25404	0.15761	0.15761
0900	3	12.5556	20	0.23813	0.13943	0.32717	0.10326	0.10326
1200	3	12.2222	24	0.18478	0.19478	0.32174	0.10470	0.10470
1500	3	12.3333	27	0.16333	0.19022	0.36522	0.07365	0.07365
1800	3	12.1956	19	0.17791	0.19365	0.38152	0.04591	0.04591
2100	3	12.3333	26	0.29239	0.30696	0.50543	0.06522	0.06522

THE HOURLY SUMMARY TABLE FOR FALL 1970

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
VELOCITY								
2400	3	12.2889	23	0.26374	0.13187	0.43407	0.17033	0.17033
0300	3	12.7542	24	0.28571	0.10443	0.39560	0.21429	0.21429
0600	3	12.7542	26	0.31319	0.07692	0.37363	0.22377	0.22377
0900	3	12.3821	30	0.37812	0.09341	0.32418	0.20330	0.20330
1200	3	12.4613	22	0.40110	0.12033	0.35714	0.12088	0.12088
1500	3	12.4444	27	0.37714	0.13137	0.36913	0.13187	0.13187
1800	3	12.4571	23	0.39165	0.16484	0.37263	0.10889	0.10889
2100	3	12.4257	30	0.28222	0.17332	0.45506	0.08791	0.08791

THE HOURLY SUMMARY TABLE FOR WIN. 1971

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
VELOCITY								
2400	3	10.7333	34	0.26444	0.11111	0.37222	0.27222	0.27222
0300	4	10.5556	25	0.27222	0.07222	0.33333	0.33333	0.33333
0600	4	10.3222	30	0.35556	0.05000	0.28333	0.36111	0.36111
0900	4	11.0278	30	0.35556	0.08333	0.22222	0.33333	0.33333
1200	3	12.0000	30	0.34444	0.11111	0.43333	0.25000	0.25000
1500	3	13.3333	33	0.36111	0.12222	0.32222	0.14444	0.14444
1800	0	9.3222	29	0.35556	0.17222	0.26667	0.35444	0.35444
2100	0	10.0111	35	0.27222	0.11111	0.43333	0.16667	0.16667

THE HOURLY SUMMARY TABLE FOR SPR. 1971

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
VELOCITY								
2400	0	11.6313	24	0.23826	0.13556	0.43333	0.12557	0.12557
0300	4	11.3622	26	0.25543	0.12500	0.34239	0.27717	0.27717
0600	4	10.9582	27	0.27717	0.14130	0.30435	0.27717	0.27717
0900	0	12.6133	35	0.32065	0.13557	0.34239	0.14232	0.14232
1200	0	14.6525	43	0.35676	0.12000	0.36557	0.15761	0.15761
1500	3	12.2622	43	0.34783	0.15217	0.33152	0.16667	0.16667
1800	3	12.7222	40	0.33152	0.20500	0.33222	0.10000	0.10000
2100	0	10.8483	32	0.25543	0.27717	0.41333	0.06556	0.06556

THE HOURLY SUMMARY TABLE FOR SUM. 1971

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
VELOCITY								
2400	3	9.9217	22	0.07609	0.20352	0.53337	0.08152	0.08152
0300	0	8.5000	20	0.15761	0.09783	0.55676	0.17151	0.17151
0600	0	8.5147	20	0.13043	0.10326	0.57334	0.15017	0.15017
0900	0	11.4562	23	0.13043	0.20139	0.51630	0.11957	0.11957
1200	0	12.1347	23	0.07609	0.21196	0.63226	0.09783	0.09783
1500	3	12.0021	25	0.06391	0.21139	0.66204	0.07523	0.07523
1800	0	12.2343	26	0.05978	0.25037	0.63537	0.07351	0.07351
2100	0	9.6303	30	0.09696	0.28201	0.56522	0.05543	0.05543

THE HOURLY SUMMARY TABLE FOR FALL 1971

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
VELOCITY								
2400	0	10.1361	22	0.22527	0.07163	0.49451	0.17532	0.17532
0300	0	10.5163	24	0.23077	0.06593	0.45955	0.21972	0.21972
0600	0	10.1533	21	0.29670	0.04965	0.41204	0.21075	0.21075
0900	3	12.2522	26	0.33516	0.07163	0.39560	0.16753	0.16753
1200	3	12.0233	27	0.30769	0.09696	0.37653	0.15534	0.15534
1500	3	12.1344	25	0.31319	0.11533	0.41233	0.15534	0.15534
1800	0	10.6267	27	0.29670	0.15333	0.43527	0.09443	0.09443
2100	0	10.6153	23	0.24176	0.18132	0.47253	0.09443	0.09443

THE HOURLY SUMMARY TABLE FOR WIN. 1973

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.8444	20	0.37222	0.11567	0.36267	0.23973	0.23973
0300	3	13.77778	26	0.32222	0.11111	0.30111	0.23556	0.23556
0600	6	11.60000	36	0.30556	0.10556	0.24444	0.24444	0.24444
0900	9	11.60000	24	0.32222	0.10556	0.25556	0.31667	0.31667
1200	3	12.33333	24	0.36667	0.15444	0.32222	0.21667	0.21667
1500	3	12.39222	25	0.36667	0.11111	0.23333	0.23333	0.23333
1800	3	9.90000	23	0.31111	0.13333	0.37778	0.17778	0.17778
2100	0	10.00000	32	0.27222	0.15556	0.34444	0.21667	0.21667

Dodge City
Instrument Height
1972-1973 20 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1973

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	4	11.50000	29	0.27778	0.15217	0.34239	0.22333	0.22333
0300	4	11.16667	25	0.29348	0.11413	0.21522	0.27778	0.27778
0600	4	11.71778	24	0.33152	0.04596	0.27778	0.33435	0.33435
0900	3	11.50000	24	0.47326	0.09239	0.24444	0.19444	0.19444
1200	3	15.74556	29	1.65739	0.10225	0.23333	0.14111	0.14111
1500	3	14.83333	26	1.42591	0.12500	0.25491	0.15217	0.15217
1800	3	12.44444	32	0.45652	0.12500	0.35222	0.26667	0.26667
2100	2	10.66667	39	0.38043	0.20552	0.32055	0.19239	0.19239

THE HOURLY SUMMARY TABLE FOR SUM. 1973

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.01317	25	1.14123	0.12587	0.64133	0.27365	0.27365
0300	2	7.11957	16	0.12500	0.07591	0.65751	0.14133	0.14133
0600	0	8.92391	18	0.15217	0.09793	0.56596	0.15217	0.15217
0900	3	11.03913	21	0.14473	0.10326	0.53804	0.17381	0.17381
1200	4	12.13043	22	0.17291	0.18217	0.51087	0.15217	0.15217
1500	4	12.47426	25	0.14133	0.12587	0.51087	0.15217	0.15217
1800	4	12.47426	21	0.13043	0.15473	0.45217	0.15217	0.15217
2100	3	9.47426	17	0.12500	0.27778	0.55261	0.26667	0.26667

THE HOURLY SUMMARY TABLE FOR FALL 1973

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	4	10.19780	21	0.28022	0.15236	0.46352	0.26667	0.26667
0300	3	12.31663	24	0.25275	0.09261	0.45534	0.14286	0.14286
0600	3	10.07692	21	0.23625	0.12037	0.35011	0.24725	0.24725
0900	4	11.20479	20	0.27070	0.15034	0.30720	0.24725	0.24725
1200	3	12.13187	24	0.32413	0.17382	0.31297	0.17382	0.17382
1500	3	11.79121	25	0.29679	0.27527	0.35714	0.12587	0.12587
1800	3	9.62437	14	0.23571	0.21627	0.39559	0.15444	0.15444
2100	3	9.97407	24	0.27473	0.25526	0.35011	0.17382	0.17382

THE HOURLY SUMMARY TABLE FOR WIN. 1972

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	12.15556	23	0.23333	0.15556	0.40556	0.17222	0.17222
0300	2	12.02222	23	0.27778	0.07778	0.35567	0.30556	0.30556
0600	3	13.00000	22	0.27778	0.07222	0.39444	0.28333	0.28333
0900	3	17.02222	23	0.35556	0.05556	0.30000	0.26667	0.26667
1200	0	12.00000	29	0.37322	0.10000	0.34444	0.16111	0.16111
1500	0	12.00000	23	0.34444	0.12778	0.30000	0.14444	0.14444
1800	0	9.00000	21	0.25000	0.16111	0.41111	0.10000	0.10000
2100	0	6.00000	23	0.26111	0.13333	0.42222	0.07778	0.07778

THE HOURLY SUMMARY TABLE FOR SPR. 1972

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	11.00000	29	0.26667	0.13043	0.40217	0.15556	0.15556
0300	0	11.00000	22	0.22222	0.11957	0.35000	0.28261	0.28261
0600	3	11.00000	24	0.27778	0.11957	0.34239	0.26630	0.26630
0900	3	13.00000	23	0.39133	0.09239	0.20348	0.22283	0.22283
1200	0	12.00000	27	0.33152	0.16761	0.26439	0.15761	0.15761
1500	0	13.00000	23	0.45239	0.14133	0.35870	0.15761	0.15761
1800	0	12.00000	23	0.40000	0.19022	0.36413	0.11613	0.11613
2100	0	10.15217	26	0.24444	0.25543	0.40217	0.08696	0.08696

THE HOURLY SUMMARY TABLE FOR SUM. 1972

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	4	7.00000	17	0.09239	0.20692	0.59239	0.10870	0.10870
0300	3	8.00000	21	0.13043	0.13043	0.61957	0.12500	0.12500
0600	2	8.00000	18	0.16304	0.10326	0.59239	0.14133	0.14133
0900	0	10.00000	20	0.17075	0.10370	0.55078	0.13043	0.13043
1200	0	11.00000	20	0.15751	0.15217	0.59239	0.08696	0.08696
1500	0	11.00000	23	0.13043	0.17381	0.51413	0.09229	0.09229
1800	0	10.00000	22	0.09239	0.25543	0.37009	0.05978	0.05978
2100	0	8.00000	19	0.07000	0.24444	0.43597	0.04891	0.04891

THE HOURLY SUMMARY TABLE FOR FALL 1972

HR	LB	AVG.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.00000	23	0.20000	0.12098	0.53297	0.12098	0.12098
0300	0	8.00000	18	0.22222	0.12098	0.48901	0.14286	0.14286
0600	0	8.00000	20	0.24444	0.09261	0.48901	0.17033	0.17033
0900	0	10.00000	20	0.29121	0.06593	0.40559	0.22527	0.22527
1200	3	11.00000	20	0.29679	0.12637	0.41758	0.15934	0.15934
1500	3	12.00000	20	0.31319	0.12038	0.43637	0.12098	0.12098
1800	0	9.00000	20	0.29121	0.18681	0.43956	0.30044	0.30044
2100	0	8.00000	20	0.23625	0.27225	0.42057	0.08791	0.08791

YEAR	SPEEDS		EXCESS= 12																																									
1948	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				
JAN.	0	5	5	11	6	5	12	17	3	33	23	15	12	17	24	10	7	5	6	1	6	2	10	1	1	1	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FEB.	0	3	10	5	6	19	3	6	13	24	14	13	16	5	13	19	12	5	4	5	3	10	2	3	3	0	4	3	0	1	4	0	2	2	1	0	0	0	0	0	0	0	0	
MAR.	0	1	7	6	5	11	9	6	11	23	11	9	10	13	11	19	7	4	13	6	10	4	11	3	3	3	2	1	3	4	0	0	1	1	1	0	1	0	0	0	0	0	0	
APR.	0	0	2	1	3	2	5	8	19	9	16	14	19	26	18	15	11	5	8	11	9	9	2	7	2	1	3	4	3	1	1	2	1	0	0	0	0	0	0	0	0	0	0	
MAY.	0	3	3	6	11	8	9	7	14	16	11	13	12	15	20	16	13	7	6	9	4	4	4	5	1	2	4	2	1	3	0	0	1	0	0	0	0	0	0	0	0	0	0	
JUNE	0	0	9	3	3	8	12	6	16	19	22	27	14	14	15	16	13	5	5	2	5	2	5	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
JULY	0	1	6	3	6	9	8	7	32	22	14	21	12	25	19	3	12	6	3	5	3	5	1	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	0	0	6	4	3	8	14	13	22	46	19	14	15	16	19	14	3	2	5	3	5	3	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	0	0	3	4	4	6	11	6	10	11	30	13	15	17	20	12	27	13	5	3	10	4	4	9	4	2	9	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	1	0	3	4	4	6	8	11	8	31	19	17	12	10	18	19	3	7	5	6	3	4	5	4	2	3	0	5	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	0	4	2	1	5	4	9	6	9	20	11	12	15	10	11	21	7	3	6	11	3	6	13	5	6	5	6	2	0	1	4	4	0	1	0	0	0	0	0	0	0	0	0	0
DEC.	0	2	6	5	5	5	7	10	17	19	12	15	16	18	19	25	9	3	12	4	6	4	5	2	1	4	1	2	1	5	0	1	1	0	2	0	0	0	0	0	0	0	0	

YEAR	SPEEDS	EXCESS= 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1949	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
JAN.	0	7	4	13	3	9	7	3	11	10	8	7	12	6	11	24	9	5	2	7	6	9	11	7	6	4	2	7	7	10	4	4	1	0	4	1	0	4	0	0	0	0
FEB.	2	3	7	11	3	9	11	5	13	20	10	15	12	9	19	16	8	4	15	7	3	13	7	5	3	3	1	1	1	1	3	0	0	0	0	0	0	0	0	0	0	0
MAR.	0	2	3	9	6	6	8	8	17	6	10	17	14	13	9	6	16	5	7	7	7	4	1	6	2	0	7	0	0	2	4	0	2	0	2	0	2	0	0	0	0	0
APR.	1	2	7	13	13	9	12	12	17	20	20	12	16	8	16	5	7	7	4	1	6	2	0	7	0	0	2	4	0	2	4	0	0	2	0	2	0	2	0	0	0	0
MAY.	2	3	10	13	13	14	8	20	22	10	16	11	5	12	18	3	4	15	4	3	7	0	4	3	7	0	0	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	1	5	23	8	10	14	13	13	25	11	9	22	12	6	15	11	3	5	4	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	4	2	15	8	13	6	19	12	23	37	19	15	14	13	16	12	11	2	1	0	4	0	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	1	4	7	14	14	17	18	15	18	23	15	14	13	16	12	11	2	1	1	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	1	5	10	5	8	14	19	6	23	25	21	9	13	13	13	19	3	5	0	4	3	1	9	5	3	1	0	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	1	3	12	4	7	4	12	15	17	24	16	12	14	11	16	23	12	4	6	4	0	5	2	7	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	0	4	12	13	11	13	19	21	24	22	22	13	20	5	5	5	7	1	1	0	0	0	1	2	1	1	2	0	1	2	0	1	0	0	0	0	0	0	0	0	0	0
DEC.	2	2	11	6	7	13	13	5	13	26	23	12	23	11	12	16	9	5	0	5	4	2	3	0	2	0	2	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0

YEAR	SPEEDS		EXCESS= 3																																							
1950	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
JAN.	0	4	10	8	8	17	15	9	18	30	13	10	17	12	15	12	3	5	2	6	7	1	4	4	3	1	3	2	1	0	9	0	0	0	0	0	0	1	0	0	0	0
FEB.	2	2	16	6	5	13	12	29	29	25	14	15	7	16	13	9	4	6	2	2	6	4	5	6	0	3	2	0	0	1	4	0	1	2	0	2	0	2	0	0	0	0
MAR.	0	3	8	3	5	7	12	9	10	23	16	16	19	12	14	15	14	1	11	5	4	5	6	0	3	2	0	0	1	4	0	1	2	0	2	0	2	0	0	0	0	0
APR.	0	2	7	10	9	6	9	6	22	24	14	16	26	7	8	19	7	2	10	1	2	6	4	5	0	3	0	0	2	0	6	0	1	2	0	0	0	0	0	0	0	0
MAY.	0	1	8	8	5	6	8	13	16	23	16	14	15	11	17	13	14	4	0	8	2	12	5	2	0	3	0	0	0	2	4	0	0	0	0	0	0	0	0	0	0	0
JUNE	4	4	6	7	5	9	11	7	13	23	6	12	21	4	14	22	17	6	11	3	5	9	9	2	0	1	0	6	0	3	0	0	0	0	0	0	0	0	0	0	0	0
JULY	1	2	9	8	16	17	16	18	22	30	19	10	15	5	11	13	7	3	9	3	2	1	3	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	2	4	19	16	13	19	15	22	23	23	11	7	18	10	11	6	5	2	2	1	4	2	3	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	1	4	9	6	15	22	18	13	28	29	17	13	14	7	3	4	5	1	3	5	1	2	3	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	1	3	7	8	9	10	13	23	32	17	19	26	5	8	13	5	2	7	7	3	5	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	2	4	11	10	9	18	14	11	16	22	18	7	0	9	7	14	6	4	1	2	9	3	4	0	0	0	0	0	1	0	5	0	0	0	0	0	0	0	0	0	0	0
DEC.	2	8	21	6	11	15	17	23	35	34	13	16	15	3	9	3	4	0	1	0	0	0	0	0	1	0	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0

YEAR	SPEEDS																															EXCESS= 0																			
1951	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40											
JAN.	3	2	12	5	4	8	13	11	12	23	20	19	13	14	14	14	6	7	4	4	3	3	1	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0										
FEB.	2	4	4	10	9	5	18	7	22	23	10	18	19	19	11	8	9	4	4	5	3	5	13	4	0	4	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0									
MAR.	0	3	6	4	10	6	4	8	20	30	7	11	13	10	18	19	13	4	5	4	2	6	12	4	0	5	0	3	0	0	2	1	2	0	2	2	2	2	2	2	2	2									
APR.	0	2	5	1	6	4	8	7	15	26	15	14	23	4	13	26	10	4	5	10	8	16	2	2	3	2	0	1	1	3	0	1	1	0	0	0	0	0	0	0	0										
MAY.	2	2	11	8	9	11	10	11	24	29	15	14	14	3	14	15	9	3	7	2	8	4	6	1	1	0	1	0	1	0	2	1	0	1	0	0	0	0	0	0	0										
JUNE	4	12	9	15	6	16	15	27	33	12	14	8	8	9	10	1	5	2	7	5	7	1	0	0	2	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0										
JULY	1	4	11	8	5	13	13	20	35	14	13	21	9	14	9	11	7	6	4	1	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										
AUG.	1	2	11	4	8	8	14	10	22	32	17	18	19	11	16	11	13	3	3	5	4	1	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										
SEP.	1	5	10	8	9	8	13	9	7	25	15	17	23	10	16	15	1	5	7	10	4	6	5	7	0	3	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0										
OCT.	0	2	2	5	7	9	14	16	14	29	15	14	15	6	13	17	21	3	9	2	8	7	9	2	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0										
NOV.	0	2	7	4	5	7	16	16	23	26	13	16	15	13	12	13	13	3	4	5	1	6	5	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0										

YEAR	SPEEDS		EXCESS= 2		YEAR																																					
1952	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
JAN.	1	1	13	2	5	13	10	11	14	39	19	18	15	6	12	19	9	5	8	1	4	6	4	1	1	4	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
FEB.	1	3	7	8	6	9	8	9	24	24	17	15	16	11	19	16	9	4	6	4	8	7	7	8	2	2	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	1	1	7	3	6	7	8	9	15	22	17	11	10	12	17	13	15	4	8	9	8	7	7	8	2	2	1	1	1	2	1	1	0	1	0	0	0	0	0	0	0	0
APR.	0	2	6	7	5	7	16	6	13	18	17	10	27	13	11	33	11	9	6	4	8	7	7	3	0	2	1	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	0	4	11	4	9	14	12	14	15	22	13	14	26	6	12	14	10	6	10	9	4	7	5	8	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	0	0	5	4	3	7	6	7	12	23	12	11	17	8	11	23	13	7	9	9	8	11	12	7	2	7	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	0	1	1	7	5	4	6	22	21	22	20	13	6	15	20	8	7	7	11	9	11	9	11	4	4	1	3	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
AUG.	0	2	4	4	3	6	16	8	14	30	14	20	31	4	14	24	13	9	6	6	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	0	1	9	3	5	10	7	9	15	39	16	16	23	10	16	18	12	5	7	10	7	2	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	0	3	7	14	4	9	14	9	20	33	23	15	0	15	14	16	10	4	5	2	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	0	2	5	2	6	4	8	10	17	35	14	14	21	16	13	15	11	5	6	2	11	5	1	0	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	0	2	3	1	0	10	21	26	17	39	16	17	17	12	7	14	12	2	7	4	1	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wind Speed Density

By the Month

London City

Years

YEAR	SPEEDS																															EXCESS= 0											
1953	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
JAN.	0	3	5	2	4	8	12	3	19	23	15	14	19	13	13	25	11	2	9	5	7	5	4	6	1	4	1	0	0	0	3	0	0	0	0	2	2	0	0	0	0		
FEB.	0	0	3	1	7	3	7	8	13	34	12	16	21	9	5	14	15	7	7	3	10	11	9	10	1	2	1	2	3	2	1	0	0	0	0	0	1	0	0	1	0	0	
MAR.	0	1	3	3	6	5	6	9	14	25	11	14	16	6	17	23	11	4	12	9	8	2	17	6	3	7	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0
APR.	0	0	3	3	3	5	4	7	6	28	16	13	23	10	3	21	8	7	10	10	6	8	11	2	0	6	1	0	4	6	1	1	0	0	0	0	0	2	0	1	0	0	0
MAY.	0	0	3	3	3	5	10	10	21	7	14	26	9	20	20	16	5	7	10	5	8	11	2	0	4	1	4	2	3	3	1	0	0	1	0	0	0	0	0	1	0	0	0
JUNE	0	0	1	1	1	4	6	4	7	15	6	11	17	13	16	31	17	6	13	8	13	10	8	7	1	10	0	4	3	3	4	0	0	0	0	0	0	0	0	0	0	0	0
JULY	0	0	7	3	9	12	5	21	27	16	9	20	7	13	22	19	4	11	11	3	5	4	2	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	0	0	7	5	8	3	18	7	13	33	11	17	24	6	13	22	22	3	5	7	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	0	0	5	8	6	9	10	5	20	22	20	16	24	14	10	11	11	4	12	3	9	4	3	0	1	5	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	0	2	6	1	7	2	13	2	7	27	25	17	22	14	10	11	5	7	2	10	13	10	3	2	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	0	0	5	3	4	7	12	10	16	17	21	19	16	13	13	14	10	8	6	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	0	0	4	1	2	8	13	9	18	44	15	17	9	11	7	26	14	4	9	5	5	5	3	11	4	1	3	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0

Instrument Weight

1952-1955 58 Feet

YEAR	SPEEDS				EXCESS= 4																																					
1954	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
JAN.	0	0	5	5	8	14	20	10	17	29	25	13	10	9	12	25	8	6	4	5	2	4	2	2	9	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FEB.	0	0	5	2	4	2	8	7	13	30	15	15	29	7	17	21	12	3	10	8	4	3	5	3	2	3	7	2	1	3	6	0	1	2	0	0	1	0	0	0	0	
MAR.	0	0	1	2	8	7	10	10	13	26	19	12	21	10	9	24	5	3	6	3	5	7	8	2	3	7	2	1	3	6	0	1	0	0	0	0	0	0	1	0	0	0
APR.	0	0	1	3	2	1	9	4	9	26	20	17	23	10	21	15	7	10	11	4	11	7	11	1	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	0	0	5	0	4	11	13	6	14	23	10	14	20	13	4	29	39	7	9	8	3	4	4	2	0	4	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	0	1	3	2	1	0	2	4	7	23	13	10	21	6	16	22	23	6	21	9	16	14	1	5	1	3	2	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0
JULY	0	1	6	5	5	8	12	11	35	21	14	35	14	13	23	12	3	2	4	3	3	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	0	0	2	3	3	4	10	7	14	38	18	9	27	12	15	39	14	5	6	4	5	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	0	0	2	1	8	9	12	9	16	27	12	16	23	7	23	32	7	6	14	9	6	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	0	1	5	4	6	4	8	11	16	28	15	14	26	11	12	22	9	7	7	11	5	2	6	5	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	0	0	2	3	4	3	6	11	12	36	13	13	27	12	13	20	12	4	4	9	6	7	3	3	2	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	0	1	0	3	4	3	5	11	12	32	19	14	22	11	13	26	5	9	4	12	14	10	6	4	0	0	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0

YEAR	SPEEDS	EXCESS= 3	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29</
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YEAR	SPEEDS				EXCESS=				0																																							
1964	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40								
JAN.	2	0	1	5	3	17	17	26	27	27	3	26	14	8	14	3	9	3	2	7	6	0	6	0	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
FEB.	3	2	4	5	3	12	13	32	22	30	13	15	6	12	9	7	10	11	4	7	4	5	0	2	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
MAR.	1	1	7	7	9	21	23	9	25	13	12	14	15	20	19	14	5	6	8	5	0	6	2	2	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0					
APR.	1	0	3	3	4	12	13	20	11	23	8	13	19	14	13	8	16	12	5	15	2	3	7	2	2	1	3	0	1	2	0	1	0	0	1	0	0	1	0	0	0	0	0					
MAY.	3	0	4	5	3	8	12	12	16	16	13	12	10	16	24	17	13	14	5	14	3	7	11	2	3	2	1	3	0	2	1	0	0	0	0	0	0	0	0	0	0	0						
JUNE	1	2	9	4	15	13	19	20	12	17	8	21	17	17	14	9	9	11	3	7	3	5	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
JULY	8	0	2	10	8	6	15	25	11	20	17	21	14	11	22	9	15	13	4	6	1	3	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
AUG.	10	1	6	10	11	15	11	26	12	22	12	15	23	10	11	9	12	12	3	4	4	6	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
SEP.	4	0	3	6	6	12	14	15	16	23	4	20	11	13	14	7	13	13	5	8	7	4	0	5	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0					
OCT.	4	0	3	13	8	12	21	22	18	20	13	22	14	11	9	5	6	11	1	6	1	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
NOV.	12	0	3	5	2	11	6	20	18	22	9	17	18	14	14	11	12	10	8	7	5	1	3	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
DEC.	9	0	1	4	7	4	17	24	14	33	18	20	12	13	13	10	20	13	6	5	4	3	3	1	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0						

Wind Speed Density

by the North

North City

Year

YEAR	SPEEDS										EXCESS= 0																															
1965	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
JAN.	0	0	0	0	4	7	12	15	24	13	30	17	19	9	16	12	13	8	10	2	8	3	1	5	0	2	3	1	2	0	2	0	0	0	0	1	0	0	0	0	0	0
FEB.	7	0	4	5	9	7	12	22	27	17	13	12	9	14	8	7	3	15	1	6	1	4	7	3	4	1	6	3	1	2	2	1	0	0	0	0	0	0	0	0	0	0
MAR.	6	0	3	10	8	12	19	18	14	18	10	10	14	13	20	10	7	12	3	4	6	3	4	8	6	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	6	0	2	3	7	1	19	29	28	32	9	20	16	11	15	9	13	2	4	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	5	0	3	5	4	11	6	19	21	15	3	12	19	16	20	14	12	14	9	14	4	7	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	5	0	1	7	12	13	18	19	17	24	12	15	16	22	24	3	4	13	4	7	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	12	0	2	12	13	10	24	21	18	31	19	15	11	10	16	19	5	9	1	1	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	9	0	3	6	19	20	14	26	14	32	18	9	12	22	12	7	5	4	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	1	0	2	7	9	19	17	24	12	19	14	17	25	11	17	14	7	4	6	5	0	7	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	7	0	5	15	13	32	35	16	17	13	10	3	7	0	10	3	7	0	10	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	9	0	3	9	14	15	24	26	28	25	10	15	11	14	19	3	13	4	9	3	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	1	0	5	9	15	16	27	26	19	14	15	8	10	16	13	13	3	12	2	6	4	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Instrument Failure

1964-1967 20 feet

YEAR	SPEEDS	EXCESS=	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1966	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
JAN.	3	0	3	13	10	26	25	34	17	13	13	14	13	17	9	2	10	3	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	2	0	2	9	10	16	14	22	33	20	15	15	15	9	6	3	6	7	3	7	5	7	5	2	3	5	3	0	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2
MAR.	5	4	2	9	5	15	20	14	17	15	13	17	5	13	5	11	17	5	7	1	5	7	5	2	3	5	3	0	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2
APR.	0	0	4	5	6	16	21	22	15	16	12	12	9	20	15	10	13	12	7	9	6	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	8	0	7	6	6	19	21	20	18	27	16	12	12	10	16	6	11	3	9	7	2	7	2	4	1	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	0	0	5	2	11	6	11	10	14	11	14	9	24	25	14	10	17	13	11	5	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	9	0	3	3	13	25	20	8	20	20	10	10	10	14	4	9	7	9	1	5	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	8	0	3	7	19	20	31	21	26	24	17	14	14	4	9	7	9	1	5	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	0	1	6	8	13	26	31	27	27	7	21	14	12	11	2	7	4	3	3	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	0	1	5	13	16	11	16	26	19	15	9	15	14	14	11	3	10	13	6	7	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	9	1	5	11	16	11	16	26	19	15	9	15	14	14	11	3	10	13	6	7	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	1	0	5	3	13	12	31	29	29	21	12	12	23	12	5	11	7	13	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

YEAR	SPEEDS	EXCESS=	0	1	2
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[illegible]

ATTACHED TO COVER SHEET

H^+ concentration

የጥንታዊው የግንባታ ስራ

64
4
73
C
2

[illegible]

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMGVEL OLD HT	RMGVEL NEW HT	VCURB1 CODE=1	VCURB2 CODE=2	VCURB3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1948
JAN.	12.029	11.128	11.126	11.589	19.107	21.310	14.301	41.067	0.0	33.284	ODDGE CITY	
FEB.	13.113	16.775	15.439	19.113	31.223	31.096	16.195	41.077	0.0	34.135	FOOD COUNTY	
MAR.	11.162	19.976	17.568	19.698	33.775	35.743	33.191	41.087	0.0	42.139	ANEM. HT. 58FT.	
APR.	11.180	17.595	11.714	19.923	34.973	34.313	33.174	41.124	0.0	33.630	COR. HT. 100FT.	
MAY.	13.496	16.879	16.160	17.715	34.589	34.241	33.113	41.089	0.0	41.128	PEAK LT. 17 KNTS.	
JUNE	12.029	11.136	11.356	15.113	39.711	21.163	33.393	41.073	0.0	38.466	FRIC LT. 7 KNTS	
JULY	12.471	11.260	11.407	15.925	39.657	33.116	38.999	41.205	0.0	41.406	CODE=1 COR. HT. BULK MHH.	
AUG.	11.742	11.137	13.356	16.792	37.831	26.763	33.183	41.159	0.0	35.225	CODE=2 DRG. HT. PER	
SEP.	13.350	14.844	15.279	16.826	35.423	34.519	33.339	41.075	0.0	42.168	UNIT AREA KWH/M**2	
OCT.	13.308	14.787	15.917	17.094	33.891	32.367	33.498	41.494	0.0	40.781	CODE=3 COR. HT. PER.	
NOV.	14.016	13.816	19.021	21.093	36.833	35.278	40.900	41.355	0.0	42.852	UNIT AREA KWH/M**2	
DEC.	14.658	16.233	17.197	14.990	48.556	37.329	42.998	51.092	0.0	44.814	WIND SPEEDS ARE IN KNOTS.	
SUMS	13.30	14.96	15.14	17.58	531.62	409.19	463.13	500.95	0.0	492.02		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMGVEL OLD HT	RMGVEL NEW HT	VCURB1 CODE=1	VCURB2 CODE=2	VCURB3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1949
JAN.	16.583	11.190	20.297	22.079	49.513	40.770	41.692	51.750	0.0	45.391	ODDGE CITY	
FEB.	13.721	16.820	15.360	17.511	53.125	33.600	37.347	45.255	0.0	39.694	FOOD COUNTY	
MAR.	16.350	17.287	19.798	21.499	53.833	41.436	44.535	51.156	0.0	46.624	ANEM. HT. 53FT.	
APR.	12.479	16.301	16.579	18.073	38.333	29.213	31.523	43.363	0.0	35.406	COR. HT. 100FT.	
MAY.	11.758	13.113	16.615	16.070	36.113	27.513	31.576	37.434	0.0	33.159	PEAK LT. 17 KNTS.	
JUNE	9.996	11.235	12.057	13.408	33.192	21.395	26.432	31.914	0.0	27.997	FRIC LT. 7 KNTS	
JULY	10.137	11.133	12.020	13.159	29.695	29.544	26.232	31.717	0.0	27.320	CODE=1 COR. HT. BULK MHH.	
AUG.	9.733	10.963	11.451	12.767	23.440	19.085	24.945	33.337	0.0	26.509	CODE=2 DRG. HT. PER	
SEP.	11.375	12.711	17.699	15.122	35.940	26.363	31.567	34.043	0.0	33.373	UNIT AREA KWH/M**2	
OCT.	11.792	12.174	12.744	15.198	33.895	28.331	34.115	40.939	0.0	35.939	CODE=3 COR. HT. PER.	
NOV.	9.642	10.843	12.763	13.553	26.193	17.913	23.056	27.387	0.0	24.451	UNIT AREA KWH/M**2	
DEC.	12.300	13.732	14.293	15.762	39.450	24.985	34.622	42.070	0.0	36.900	WIND SPEEDS ARE IN KNOTS.	
SUMS	12.15	13.53	15.27	16.73	447.43	334.71	392.49	471.25	0.0	413.34		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMGVEL OLD HT	RMGVEL NEW HT	VCURB1 CODE=1	VCURB2 CODE=2	VCURB3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1950
JAN.	11.829	12.633	14.345	15.774	38.041	29.555	31.630	37.940	0.0	33.278	ODDGE CITY	
FEB.	11.104	12.433	13.264	14.565	33.653	24.340	29.513	33.725	0.0	31.335	FOOD COUNTY	
MAR.	13.821	15.711	17.344	18.837	43.035	33.427	38.537	46.380	0.0	40.681	ANEM. HT. 53FT.	
APR.	13.150	14.607	15.154	17.675	41.075	31.370	36.328	43.557	0.0	33.214	COR. HT. 100FT.	
MAY.	13.137	14.595	15.821	17.351	42.575	32.493	37.452	44.917	0.0	39.397	PEAK LT. 17 KNTS.	
JUNE	13.442	14.017	15.358	17.613	44.336	34.726	38.383	46.405	0.0	40.703	FRIC LT. 7 KNTS	
JULY	10.492	11.779	12.577	13.932	30.513	21.904	26.764	32.101	0.0	23.157	CODE=1 COR. HT. BULK MHH.	
AUG.	9.467	10.663	11.793	13.081	26.052	19.070	22.359	27.381	0.0	24.023	CODE=2 DRG. HT. PER	
SEP.	10.325	11.353	12.204	13.323	27.711	19.324	24.306	29.220	0.0	25.629	UNIT AREA KWH/M**2	
OCT.	11.359	12.733	13.133	14.513	35.671	25.574	31.258	38.163	0.0	33.476	CODE=3 COR. HT. PER.	
NOV.	11.079	12.759	14.433	15.311	32.153	24.378	24.203	33.718	0.0	29.575	UNIT AREA KWH/M**2	
DEC.	9.638	10.816	12.045	13.357	25.314	17.062	22.204	26.723	0.0	23.440	WIND SPEEDS ARE IN KNOTS.	
SUMS	11.54	12.89	14.33	15.75	412.17	303.67	367.66	442.25	0.0	337.91		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMGVEL OLD HT	RMGVEL NEW HT	VCURB1 CODE=1	VCURB2 CODE=2	VCURB3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1951
JAN.	11.962	13.352	14.029	15.495	39.763	29.314	34.831	42.236	0.0	37.046	ODDGE CITY	
FEB.	12.250	13.652	14.746	16.227	39.078	28.550	34.276	41.350	0.0	36.269	FOOD COUNTY	
MAR.	14.771	15.754	17.559	19.148	45.221	35.241	39.664	47.356	0.0	41.546	ANEM. HT. 58FT.	
APR.	14.100	15.633	16.426	18.013	46.923	36.276	41.074	49.350	0.0	43.286	COR. HT. 100FT.	
MAY.	12.042	13.424	14.943	16.390	36.668	27.607	32.162	38.558	0.0	33.820	PEAK LT. 17 KNTS.	
JUNE	11.117	12.433	14.353	15.455	32.203	23.397	24.246	33.324	0.0	29.668	FRIC LT. 7 KNTS	
JULY	10.862	12.161	12.616	14.307	34.153	24.355	29.956	36.302	0.0	31.842	CODE=1 COR. HT. BULK MHH.	
AUG.	11.350	12.705	14.137	15.506	35.464	26.130	31.963	38.762	0.0	33.999	CODE=2 DRG. HT. PER	
SEP.	12.737	14.170	15.315	16.327	41.493	31.535	36.745	44.452	0.0	38.990	UNIT AREA KWH/M**2	
OCT.	12.954	14.417	15.135	16.556	41.746	31.495	36.616	43.742	0.0	38.367	CODE=3 COR. HT. PER.	
NOV.	11.354	12.695	12.353	14.782	35.801	25.826	32.279	38.887	0.0	34.109	UNIT AREA KWH/M**2	
DEC.	13.904	15.456	15.724	17.667	46.303	34.327	40.614	49.414	0.0	43.342	WIND SPEEDS ARE IN KNOTS.	
SUMS	12.41	13.83	15.20	16.58	477.12	355.66	413.50	504.24	0.0	442.28		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMGVEL OLD HT	RMGVEL NEW HT	VCURB1 CODE=1	VCURB2 CODE=2	VCURB3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1952
JAN.	12.253	13.673	14.555	15.730	33.713	29.031	34.132	41.244	0.0	36.176	ODDGE CITY	
FEB.	12.292	13.796	14.554	16.043	39.495	29.791	34.093	42.176	0.0	36.994	FOOD COUNTY	
MAR.	14.148	15.600	16.473	18.063	46.703	34.064	41.064	48.961	0.0	42.044	ANEM. HT. 58FT.	
APR.	13.313	14.765	15.510	17.160	44.849	34.089	39.373	47.160	0.0	41.373	COR. HT. 100FT.	
MAY.	12.356	13.532	14.210	15.755	33.691	29.190	33.943	40.766	0.0	35.757	PEAK LT. 17 KNTS.	
JUNE	14.922	16.510	17.136	18.823	49.602	37.451	43.907	51.971	0.0	45.585	FRIC LT. 7 KNTS	
JULY	14.296	15.853	16.537	18.127	47.362	36.352	41.532	50.123	0.0	43.961	CODE=1 COR. HT. BULK MHH.	
AUG.	12.154	13.574	14.684	15.746	31.553	23.797	26.467	44.151	0.0	38.725	CODE=2 DRG. HT. PER	
SEP.	12.363	14.009	14.742	16.741	43.333	31.527	37.131	45.972	0.0	39.446	UNIT AREA KWH/M**2	
OCT.	11.766	12.692	13.763	14.668	35.514	29.493	31.384	27.688	0.0	32.881	CODE=3 COR. HT. PER.	
NOV.	12.449	14.669	15.748	16.743	41.540	30.121	36.495	44.101	0.0	34.444	UNIT AREA KWH/M**2	
DEC.	11.366	12.720	12.771	14.177	34.223	24.664	30.445	36.734	0.0	32.222	WIND SPEEDS ARE IN KNOTS.	
SUMS	12.77	14.27	15.71	16.92	501.75	378.23	449.10	529.85	0.0	464.75		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVVEL OLD HT	RMVVEL NEW HT	VCMV01 CODE=1	VCMV02 CODE=2	VCMV03 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1953
JAN.	13.708	15.525	16.539	18.189	53.331	35.193	50.206	43.329	0.0	43.333	DODGE CITY	
FEB.	14.975	15.550	17.772	18.382	47.659	37.134	41.794	50.239	0.0	44.111	FORD COUNTY	
MAR.	16.637	16.709	18.439	18.693	44.813	38.451	41.470	51.146	0.0	43.862	ANEM. HT. 58FT.	
APR.	15.137	16.725	17.652	19.533	49.112	44.523	43.378	51.903	0.0	45.525	COR. HT. 100FT.	
MAY.	15.000	15.597	17.628	19.052	50.456	39.307	46.256	52.981	0.0	46.477	PEAK LT. 17 KNTS.	
JUNE	15.696	15.797	18.828	20.351	57.551	46.459	53.483	63.087	0.0	52.703	FRIC LT. 7 KNTS	
JULY	13.133	14.619	15.199	16.732	47.495	33.522	38.150	45.719	0.0	40.097	CODE=1 COR. HT. BULK MWH.	
AUG.	12.479	13.916	13.935	15.397	43.521	31.079	37.295	44.847	0.0	39.337	CODE=2 ORG. HT. PER	
SEP.	12.958	14.419	15.185	16.719	42.334	31.646	37.176	45.182	0.0	39.560	UNIT AREA KWH/M**2	
OCT.	13.067	14.554	14.430	16.914	46.726	35.126	41.944	49.570	0.0	43.523	CODE=3 COR.HT. PER.	
NOV.	12.517	14.049	14.543	16.147	44.177	32.523	37.473	45.553	0.0	40.043	UNIT AREA KWH/M**2	
DEC.	13.962	15.517	15.357	17.410	45.236	34.671	39.671	47.517	0.0	41.578	WIND SPEEDS ARE IN KNOTS.	
SUMS	14.04	15.57	16.34	17.92	500.29	434.54	493.77	593.19	0.0	520.33		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVVEL OLD HT	RMVVEL NEW HT	VCMV01 CODE=1	VCMV02 CODE=2	VCMV03 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1954
JAN.	11.733	13.114	13.738	15.177	37.211	27.525	32.639	39.143	0.0	34.333	DODGE CITY	
FEB.	13.917	15.438	15.315	17.831	47.910	38.658	41.146	49.733	0.0	43.595	FORD COUNTY	
MAR.	14.333	15.427	17.132	18.774	45.817	35.258	40.187	48.317	0.0	42.350	ANEM. HT. 58FT.	
APR.	14.825	15.427	16.532	18.165	51.115	39.645	44.323	54.362	0.0	47.419	COR. HT. 100FT.	
MAY.	13.956	15.428	15.456	17.543	47.315	37.476	41.939	50.211	0.0	44.041	PEAK LT. 17 KNTS.	
JUNE	15.496	17.558	17.441	19.175	58.407	45.505	49.475	59.375	0.0	51.216	FRIC LT. 7 KNTS	
JULY	12.129	13.553	13.532	15.053	41.462	31.164	34.543	44.735	0.0	39.238	CODE=1 COR. HT. BULK MWH.	
AUG.	12.933	14.420	14.121	15.643	46.115	34.594	40.449	43.850	0.0	42.850	CODE=2 ORG. HT. PER	
SEP.	13.104	14.585	14.412	16.149	45.627	34.711	40.129	48.073	0.0	42.166	UNIT AREA KWH/M**2	
OCT.	13.142	14.622	15.119	16.545	44.475	33.634	39.011	47.107	0.0	41.313	CODE=3 COR.HT. PER.	
NOV.	13.271	14.745	15.453	17.035	44.967	33.942	39.441	47.730	0.0	41.839	UNIT AREA KWH/M**2	
DEC.	14.912	16.531	16.531	18.249	50.234	34.430	44.106	53.133	0.0	46.635	WIND SPEEDS ARE IN KNOTS.	
SUMS	13.63	15.29	15.66	17.22	559.40	426.49	489.79	590.11	0.0	517.60		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVVEL OLD HT	RMVVEL NEW HT	VCMV01 CODE=1	VCMV02 CODE=2	VCMV03 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1955
JAN.	13.512	15.021	15.288	16.949	47.023	35.724	41.245	49.363	0.0	43.297	DODGE CITY	
FEB.	13.733	15.226	15.755	17.313	42.342	32.757	37.129	44.243	0.0	34.837	FORD COUNTY	
MAR.	14.971	16.559	17.334	18.971	53.052	38.334	43.911	52.353	0.0	45.358	ANEM. HT. 58FT.	
APR.	15.579	17.194	18.198	19.766	51.062	40.059	44.737	53.765	0.0	47.158	COR. HT. 100FT.	
MAY.	14.038	15.584	16.445	18.033	46.885	35.790	41.125	43.490	0.0	42.382	PEAK LT. 17 KNTS.	
JUNE	13.462	14.959	15.526	17.033	44.977	34.560	39.452	47.471	0.0	41.623	FRIC LT. 7 KNTS	
JULY	13.383	14.374	15.383	16.939	45.554	34.935	40.044	43.373	0.0	42.156	CODE=1 COR. HT. BULK MWH.	
AUG.	10.442	11.773	11.555	12.393	33.830	20.538	27.042	33.166	0.0	29.391	CODE=2 ORG. HT. PER	
SEP.	13.438	14.933	15.424	16.785	44.574	34.934	39.097	46.419	0.0	40.715	UNIT AREA KWH/M**2	
OCT.	12.362	13.420	14.457	15.945	39.451	29.227	35.042	42.503	0.0	37.280	CODE=3 COR.HT. PER.	
NOV.	12.112	13.501	14.539	16.028	39.145	28.531	34.335	41.507	0.0	35.407	UNIT AREA KWH/M**2	
DEC.	12.967	14.457	14.489	16.006	43.122	32.152	37.824	45.725	0.0	40.107	WIND SPEEDS ARE IN KNOTS.	
SUMS	13.34	14.83	15.62	17.16	525.63	399.21	461.04	553.99	0.0	435.92		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVVEL OLD HT	RMVVEL NEW HT	VCMV01 CODE=1	VCMV02 CODE=2	VCMV03 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1956
JAN.	12.938	13.255	13.110	14.437	33.373	24.363	29.272	35.222	0.0	30.894	DODGE CITY	
FEB.	12.087	13.491	14.255	15.713	37.713	27.514	33.079	39.780	0.0	34.892	FORD COUNTY	
MAR.	13.787	15.290	16.403	18.161	44.894	34.430	39.377	47.203	0.0	41.407	ANEM. HT. 58FT.	
APR.	13.946	15.473	16.344	17.913	45.725	34.139	40.197	44.372	0.0	42.423	COR. HT. 100FT.	
MAY.	15.250	16.863	17.244	18.931	51.605	40.767	45.264	54.046	0.0	47.405	PEAK LT. 17 KNTS.	
JUNE	14.112	15.680	15.190	16.735	53.295	43.582	46.746	55.103	0.0	49.209	FRIC LT. 7 KNTS	
JULY	11.292	12.641	13.294	14.710	35.325	25.381	30.721	36.780	0.0	32.261	CODE=1 COR. HT. BULK MWH.	
AUG.	12.604	14.054	14.297	15.799	42.443	31.258	37.227	44.597	0.0	39.205	CODE=2 ORG. HT. PER	
SEP.	13.321	15.355	15.473	17.343	47.545	36.241	41.733	50.233	0.0	44.109	UNIT AREA KWH/M**2	
OCT.	13.879	15.398	16.236	17.314	44.332	34.266	38.655	46.087	0.0	40.426	CODE=3 COR.HT. PER.	
NOV.	12.958	14.432	15.375	16.725	42.290	31.913	37.094	44.640	0.0	39.154	UNIT AREA KWH/M**2	
DEC.	12.417	14.308	14.377	15.575	43.217	30.835	37.907	45.155	0.0	40.511	WIND SPEEDS ARE IN KNOTS.	
SUMS	13.12	14.60	15.23	16.76	521.21	391.55	457.16	549.41	0.0	481.93		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVVEL OLD HT	RMVVEL NEW HT	VCMV01 CODE=1	VCMV02 CODE=2	VCMV03 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1957
JAN.	12.687	13.916	14.503	16.102	41.071	30.571	36.024	43.321	0.0	37.997	DODGE CITY	
FEB.	11.447	13.241	13.364	15.322	33.137	24.303	33.462	41.274	0.0	35.325	FORD COUNTY	
MAR.	14.962	15.470	17.323	19.576	52.532	37.669	42.332	51.430	0.0	45.111	ANEM. HT. 58FT.	
APR.	14.762	16.334	17.210	19.341	44.410	37.431	42.462	51.353	0.0	44.779	COR. HT. 100FT.	
MAY.	13.427	14.357	14.950	17.351	39.911	30.536	34.470	41.079	0.0	42.189	PEAK LT. 17 KNTS.	
JUNE	13.857	14.355	16.518	17.995	44.317	33.363	38.960	45.916	0.0	41.063	FRIC LT. 7 KNTS	
JULY	12.036	13.547	13.321	15.331	41.857	30.066	26.450	44.129	0.0	38.707	CODE=1 COR. HT. BULK MWH.	
AUG.	12.729	14.195	14.199	16.617	46.505	37.254	39.378	47.605	0.0	41.579	CODE=2 ORG. HT. PER	
SEP.	12.649	13.920	13.633	16.533	41.439	31.197	36.064	45.160	0.0	38.734	UNIT AREA KWH/M**2	
OCT.	12.103	13.356	13.339	16.913	46.607	36.291	42.634	51.238	0.0	44.042	CODE=3 COR.HT. PER.	
NOV.	12.650	13.461	14.477	16.277	44.418	31.390	34.864	44.255	0.0	34.318	UNIT AREA KWH/M**2	
DEC.	13.471	14.186	16.159	16.717	44.214	32.445	38.665	47.053	0.0	41.201	WIND SPEEDS ARE IN KNOTS.	
SUMS	13.23	14.71	15.60	16.93	527.97	355.42	403.09	554.34	0.0	609.73		

MNTH	AVGVEL	AVGVEL	RMVVEL	RMVVEL	VCOR=1	VCOR=2	VCOR=3	ERDA	ERDA	ERDA	INFORMATION	1958
OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3			
JAN.	11.744	11.177	11.411	11.458	39.471	37.036	34.577	42.375	0.0	36.934	BRIDGE CITY	
FEB.	11.554	11.165	11.359	11.394	36.997	34.189	31.741	40.272	0.0	31.118	FORD COUNTY	
MAR.	11.567	11.114	11.292	11.192	38.131	35.941	33.089	37.441	0.0	32.041	CORRECTED HT. 100 FT.	
APR.	11.438	11.192	11.700	11.701	43.648	39.731	35.694	43.076	0.0	37.743	INSTRUMENT HT. 50 FT.	
MAY.	11.130	11.079	11.543	11.626	43.534	39.443	35.690	41.777	0.0	37.962	PEAK LIMIT IS 15 KNTS.	
JUNE	11.667	11.976	11.845	11.841	48.357	36.918	33.078	47.958	0.0	42.065	FRIC. LIM. 15 KNTS.	
JULY	11.538	11.400	11.461	11.867	42.011	37.235	33.633	44.511	0.0	37.042	CODE=1 COR. HT. BULK M/H.	
AUG.	11.125	11.168	11.737	11.357	33.165	29.430	24.993	35.428	0.0	30.987	CODE=2 ORG. HT. PER	
SEP.	11.771	11.493	11.757	11.320	46.237	39.785	36.555	48.599	0.0	42.623	UNIT AREA KWH/M**2	
OCT.	11.758	11.158	11.229	11.589	37.754	29.987	33.115	40.206	0.0	35.265	CODE=3 COR.HT. PER.	
NOV.	11.458	11.454	11.457	11.141	41.256	30.597	35.147	44.703	0.0	34.403	UNIT AREA KWH/M**2	
DEC.	11.554	11.022	11.056	11.527	41.330	31.378	36.251	49.777	0.0	34.573	WIND SPEEDS ARE IN KNOTS.	
SUMS	12.42	11.83	11.35	11.83	389.03	357.43	329.77	519.51	0.0	455.87		

MNTH	AVGVEL	AVGVEL	RMVVEL	RMVVEL	VCOR=1	VCOR=2	VCOR=3	ERDA	ERDA	ERDA	INFORMATION	1959
OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3			
JAN.	11.458	11.114	11.375	11.533	41.763	31.093	30.635	44.181	0.0	38.752	BRIDGE CITY	
FEB.	11.079	11.555	11.918	11.450	49.021	32.643	32.489	47.728	0.0	41.864	FORD COUNTY	
MAR.	11.912	11.038	11.216	11.374	50.332	39.333	44.147	52.985	0.0	46.474	ANEM. HT. 50FT.	
APR.	11.033	11.630	11.213	11.355	50.774	31.274	44.535	53.232	0.0	48.743	COR. HT. 100FT.	
MAY.	11.943	11.589	11.630	11.276	52.757	41.177	46.274	55.514	0.0	48.693	PEAK LT. 17 KNTS.	
JUNE	11.596	11.153	11.424	11.530	43.074	32.313	37.782	45.236	0.0	39.677	FRIC. LT. 7 KNTS.	
JULY	11.029	11.195	11.321	11.565	22.405	19.247	19.652	23.328	0.0	20.762	CODE=1 COR. HT. BULK M/H.	
AUG.	11.954	11.435	11.437	11.001	45.313	33.157	39.745	47.953	0.0	42.061	CODE=2 ORG. HT. PER	
SEP.	11.193	11.124	11.433	11.057	43.452	30.754	42.499	51.277	0.0	44.975	UNIT AREA KWH/M**2	
OCT.	11.933	11.406	11.720	11.227	43.865	22.645	34.475	46.282	0.0	40.595	CODE=3 COR.HT. PER.	
NOV.	11.737	11.234	11.012	11.549	45.761	33.234	41.915	49.433	0.0	43.359	UNIT AREA KWH/M**2	
DEC.	11.379	11.425	11.748	11.315	45.635	34.599	40.027	43.055	0.0	42.151	WIND SPEEDS ARE IN KNOTS.	
SUMS	13.41	11.91	11.64	11.18	535.16	404.07	470.27	565.27	0.0	495.81		

MNTH	AVGVEL	AVGVEL	RMVVEL	RMVVEL	VCOR=1	VCOR=2	VCOR=3	ERDA	ERDA	ERDA	INFORMATION	1960
OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3			
JAN.	11.500	11.536	11.740	11.225	37.344	23.137	33.669	40.177	0.0	35.243	BRIDGE CITY	
FEB.	11.171	11.722	11.955	11.447	48.793	36.490	42.762	51.703	0.0	45.354	FORD COUNTY	
MAR.	11.500	11.075	11.773	11.771	51.910	39.895	45.531	54.674	0.0	47.959	ANEM. HT. 50FT.	
APR.	11.571	11.752	11.328	11.351	56.090	45.328	49.198	53.344	0.0	51.174	COR. HT. 100FT.	
MAY.	11.050	11.592	11.111	11.450	47.414	35.817	41.593	50.254	0.0	44.079	PEAK LT. 17 KNTS.	
JUNE	11.679	11.208	11.299	11.860	47.263	35.533	41.460	50.114	0.0	43.956	FRIC. LT. 7 KNTS.	
JULY	11.196	11.616	11.554	11.854	24.110	35.843	43.769	43.769	0.0	38.391	CODE=1 COR. HT. BULK M/H.	
AUG.	11.204	11.767	11.783	11.375	50.209	33.647	44.032	52.900	0.0	46.407	CODE=2 ORG. HT. PER	
SEP.	11.325	11.749	11.125	11.517	41.597	31.192	36.485	47.670	0.0	38.304	UNIT AREA KWH/M**2	
OCT.	11.358	11.329	11.085	11.190	42.619	31.120	37.332	45.218	0.0	39.662	CODE=3 COR.HT. PER.	
NOV.	11.529	11.012	11.065	11.519	45.512	34.517	39.920	44.105	0.0	42.194	UNIT AREA KWH/M**2	
DEC.	11.942	11.493	11.437	11.400	46.525	31.832	43.809	43.957	0.0	42.942	WIND SPEEDS ARE IN KNOTS.	
SUMS	13.71	11.23	11.76	11.32	557.14	420.76	488.62	537.90	0.0	515.65		

MNTH	AVGVEL	AVGVEL	RMVVEL	RMVVEL	VCOR=1	VCOR=2	VCOR=3	ERDA	ERDA	ERDA	INFORMATION	1961
OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3			
JAN.	11.171	11.662	11.338	11.511	45.012	23.167	39.451	47.708	0.0	41.345	BRIDGE CITY	
FEB.	11.325	11.761	11.119	11.549	40.003	29.509	35.087	42.201	0.0	37.015	FORD COUNTY	
MAR.	11.679	11.762	11.503	11.222	51.222	34.850	44.928	53.705	0.0	47.241	ANEM. HT. 50FT.	
APR.	11.876	11.193	11.541	11.133	49.834	35.054	40.202	47.851	0.0	41.971	COR. HT. 100FT.	
MAY.	11.700	11.125	11.339	11.322	39.472	27.271	34.621	41.537	0.0	36.433	PEAK LT. 17 KNTS.	
JUNE	11.008	11.735	11.225	11.519	24.942	17.548	22.442	27.579	0.0	24.140	FRIC. LT. 7 KNTS.	
JULY	11.175	11.357	11.079	11.372	24.214	16.420	21.257	25.472	0.0	22.342	CODE=1 COR. HT. BULK M/H.	
AUG.	11.954	11.036	11.671	11.333	17.642	11.505	15.474	13.335	0.0	16.056	CODE=2 ORG. HT. PER	
SEP.	11.350	11.697	11.379	11.407	36.317	26.442	31.854	38.217	0.0	33.521	UNIT AREA KWH/M**2	
OCT.	11.262	11.447	11.420	11.691	25.032	16.730	21.079	24.961	0.0	21.876	CODE=3 COR.HT. PER.	
NOV.	11.046	11.179	11.220	11.161	23.966	17.140	21.021	25.189	0.0	22.093	UNIT AREA KWH/M**2	
DEC.	11.592	11.316	11.205	11.161	21.352	15.965	21.798	25.502	0.0	22.525	WIND SPEEDS ARE IN KNOTS.	
SUMS	11.05	11.37	11.60	11.69	351.63	290.00	349.64	414.59	0.0	367.16		

MNTH	AVGVEL	AVGVEL	RMVVEL	RMVVEL	VCOR=1	VCOR=2	VCOR=3	ERDA	ERDA	ERDA	INFORMATION	1962
OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3			
JAN.	11.912	11.474	11.267	11.361	37.425	11.744	12.827	39.337	0.0	35.241	BRIDGE CITY	
FEB.	11.550	11.040	11.705	11.371	44.023	11.818	11.596	37.254	0.0	32.477	FORD COUNTY	
MAR.	11.550	11.241	11.379	11.255	51.560	22.244	22.443	43.319	0.0	37.956	CORRECTED HT. 100 FT.	
APR.	11.592	11.125	11.065	11.154	44.622	21.640	11.876	35.637	0.0	33.811	INSTRUMENT HT. 20 FT.	
MAY.	11.779	11.344	11.099	11.249	46.416	21.054	44.239	52.395	0.0	46.394	PEAK LIMIT IS 15 KNTS.	
JUNE	11.117	11.761	11.391	11.655	44.743	21.493	35.334	42.727	0.0	37.477	FRIC. LIM. 15 KNTS.	
JULY	11.237	11.914	11.341	11.151	46.571	19.124	34.377	44.597	0.0	33.800	CODE=1 COR. HT. BULK M/H.	
AUG.	11.717	11.302	11.295	11.990	39.147	11.287	34.381	40.377	0.0	35.871	CODE=2 ORG. HT. PER	
SEP.	11.779	11.093	11.274	11.026	44.711	11.436	42.697	38.737	0.0	33.977	UNIT AREA KWH/M**2	
OCT.	11.779	11.015	11.373	11.521	47.674	11.516	42.169	37.700	0.0	36.541	CODE=3 COR.HT. PER.	
NOV.	11.879	11.275	11.291	11.917	47.731	11.115	42.563	34.904	0.0	31.192	UNIT AREA KWH/M**2	
DEC.	11.542	11.136	11.103	11.523	44.785	11.844	41.110	37.521	0.0	32.094	WIND SPEEDS ARE IN KNTS.	
SUMS	11.93	11.53	11.39	11.63	564.82	204.98	407.73	465.89	0.0	526.19		

MONTH	AVGVFL	AVGVFL	RMVFL	RMVFL	VMOURD	VMOURD	VMOURD	ERDA	ERDA	ERDA	INFORMATION	1963
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	9.967	15.545	12.779	15.991	35.458	19.656	31.978	37.396	0.0	37.396	ODDGE CITY	
FEB.	10.138	15.313	12.837	15.336	35.314	21.026	36.453	44.414	0.0	38.955	FORD COUNTY	
MAR.	15.146	17.489	15.411	17.655	50.317	32.455	36.625	56.189	0.0	47.849	CORRECTED HT. 100 FT.	
APR.	12.434	15.156	13.556	17.531	50.311	24.817	32.135	46.755	0.0	42.524	INSTRUMENT HT. 20 FT.	
MAY.	11.333	15.689	11.719	16.463	50.733	16.326	34.391	41.624	0.0	36.910	PEAK LIMIT IS 16 KNTS.	
JUNE	11.983	15.873	13.599	17.491	50.859	29.033	44.613	53.296	0.0	46.747	FRICT. LIM. IS 7KNTS.	
JULY	17.017	16.363	13.531	17.813	50.147	29.413	44.963	52.431	0.0	45.984	CODE=1 COR. HT. BULK MAH.	
AUG.	19.721	16.549	15.137	18.020	45.192	21.571	32.639	47.550	0.0	41.767	CODE=2 DRG. HT. PER.	
SEP.	10.333	14.679	12.477	16.352	44.842	21.773	32.432	47.273	0.0	41.464	UNIT AREA KWH/M**2	
OCT.	10.737	13.958	11.593	15.270	42.531	19.527	32.104	45.279	0.0	39.715	CODE=3 COR.HT. PER.	
NOV.	10.793	14.501	12.314	15.633	43.463	21.466	34.143	45.992	0.0	43.341	UNIT AREA KWH/M**2	
DEC.	11.537	15.539	13.228	17.217	47.822	23.473	41.945	51.495	0.0	42.642	WIND SPEEDS ARE IN KNOTS.	
SUMS	11.96	14.93	12.91	16.82	50.67	23.15	47.13	56.54	0.0	496.93		

MONTH	AVGVFL	AVGVFL	RMVFL	RMVFL	VMOURD	VMOURD	VMOURD	ERDA	ERDA	ERDA	INFORMATION	1964
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	11.867	15.427	15.018	18.079	47.596	26.111	41.333	53.181	0.0	44.020	ODDGE CITY	
FEB.	11.458	15.327	13.743	17.713	45.803	24.773	39.973	47.557	0.0	41.410	FORD COUNTY	
MAR.	12.508	16.557	14.598	18.593	41.513	21.749	43.516	51.924	0.0	45.943	CORRECTED HT. 100 FT.	
APR.	13.304	15.051	15.493	20.779	54.347	31.992	46.793	59.329	0.0	48.794	INSTRUMENT HT. 20 FT.	
MAY.	14.374	13.671	15.593	17.909	58.449	37.283	48.444	57.767	0.0	50.644	PEAK LIMIT IS 16 KNTS.	
JUNE	11.787	15.996	13.460	17.396	47.520	27.527	41.748	49.344	0.0	43.281	FRICT. LIM. IS 7KNTS.	
JULY	12.017	16.043	13.345	17.945	49.720	28.338	43.611	52.054	0.0	45.558	CODE=1 COR. HT. BULK MAH.	
AUG.	11.412	15.299	13.446	17.437	45.313	29.201	40.359	41.374	0.0	42.167	CODE=2 DRG. HT. PER.	
SEP.	12.421	16.972	14.777	19.181	51.350	31.286	45.479	54.153	0.0	47.439	UNIT AREA KWH/M**2	
OCT.	10.762	14.495	13.024	16.362	42.747	22.594	37.503	45.886	0.0	39.371	CODE=3 COR.HT. PER.	
NOV.	12.054	16.010	14.533	18.175	48.955	31.477	43.316	52.397	0.0	45.959	UNIT AREA KWH/M**2	
DEC.	12.767	16.975	14.320	19.501	52.473	30.462	46.030	55.360	0.0	48.555	WIND SPEEDS ARE IN KNOTS.	
SUMS	12.29	16.32	14.48	18.59	50.150	34.9.80	513.82	619.44	0.0	543.33		

MONTH	AVGVFL	AVGVFL	RMVFL	RMVFL	VMOURD	VMOURD	VMOURD	ERDA	ERDA	ERDA	INFORMATION	1965
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	12.450	16.375	14.151	18.931	44.927	24.486	42.715	51.439	0.0	45.092	ODDGE CITY	
FEB.	12.452	17.031	15.113	20.277	47.469	24.235	47.371	53.397	0.0	44.205	FORD COUNTY	
MAR.	12.397	16.374	15.002	19.144	47.365	24.945	41.509	49.645	0.0	43.544	CORRECTED HT. 100 FT.	
APR.	10.987	14.313	12.524	16.463	43.979	24.417	40.329	48.659	0.0	42.690	INSTRUMENT HT. 20 FT.	
MAY.	12.804	16.463	14.494	18.732	52.277	33.065	43.353	54.476	0.0	47.782	PEAK LIMIT IS 16 KNTS.	
JUNE	11.217	15.070	12.933	16.910	46.311	25.560	41.059	48.985	0.0	42.966	FRICT. LIM. IS 7KNTS.	
JULY	10.212	13.893	11.453	15.550	41.453	20.753	35.359	43.461	0.0	38.471	CODE=1 COR. HT. BULK MAH.	
AUG.	10.017	13.630	11.500	15.254	40.426	19.722	35.458	42.546	0.0	37.318	CODE=2 DRG. HT. PER.	
SEP.	11.412	15.313	13.134	17.132	47.469	25.252	41.536	45.452	0.0	43.402	UNIT AREA KWH/M**2	
OCT.	10.071	13.720	11.758	15.513	39.222	19.543	34.403	41.130	0.0	36.076	CODE=3 COR.HT. PER.	
NOV.	9.733	13.773	11.517	15.328	35.509	19.252	33.355	43.584	0.0	35.597	UNIT AREA KWH/M**2	
DEC.	11.512	15.576	13.494	17.494	45.238	25.157	39.723	47.274	0.0	41.465	WIND SPEEDS ARE IN KNOTS.	
SUMS	11.31	15.17	13.44	17.39	542.09	302.04	475.43	558.45	0.0	498.60		

MONTH	AVGVFL	AVGVFL	RMVFL	RMVFL	VMOURD	VMOURD	VMOURD	ERDA	ERDA	ERDA	INFORMATION	1966
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	10.167	13.404	12.156	15.940	39.022	20.285	34.227	40.595	0.0	35.605	ODDGE CITY	
FEB.	10.371	14.034	12.706	16.473	40.077	20.243	35.152	42.071	0.0	36.491	FORD COUNTY	
MAR.	13.762	17.641	17.139	21.429	51.348	32.432	45.039	53.651	0.0	47.058	CORRECTED HT. 100 FT.	
APR.	12.467	16.529	14.521	18.580	49.458	30.465	43.371	51.566	0.0	45.233	INSTRUMENT HT. 20 FT.	
MAY.	12.137	16.159	14.219	18.377	44.171	25.364	42.252	50.595	0.0	44.373	PEAK LIMIT IS 16 KNTS.	
JUNE	14.054	13.384	15.934	20.344	55.431	34.441	46.584	54.553	0.0	51.367	FRICT. LIM. IS 7KNTS.	
JULY	11.642	15.630	12.976	17.045	43.758	27.249	42.544	52.077	0.0	45.478	CODE=1 COR. HT. BULK MAH.	
AUG.	10.521	14.303	11.310	15.743	43.377	21.076	38.037	46.028	0.0	40.372	CODE=2 DRG. HT. PER.	
SEP.	10.100	13.761	11.311	15.534	40.469	19.493	35.496	42.749	0.0	37.495	UNIT AREA KWH/M**2	
OCT.	11.754	15.689	13.972	17.385	46.659	27.174	40.334	48.819	0.0	42.321	CODE=3 COR.HT. PER.	
NOV.	10.279	13.909	12.430	16.237	40.436	21.752	35.911	42.303	0.0	37.105	UNIT AREA KWH/M**2	
DEC.	13.542	14.351	11.310	15.636	42.602	21.142	37.367	44.883	0.0	39.367	WIND SPEEDS ARE IN KNOTS.	
SUMS	11.48	15.37	13.69	17.65	547.97	306.72	449.63	573.90	0.0	503.33		

MONTH	AVGVFL	AVGVFL	RMVFL	RMVFL	VMOURD	VMOURD	VMOURD	ERDA	ERDA	ERDA	INFORMATION	1967
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	10.946	14.739	13.982	16.161	43.593	22.924	38.157	45.999	0.0	39.996	ODDGE CITY	
FEB.	11.600	15.490	13.354	17.360	45.054	25.365	40.393	48.166	0.0	42.243	FORD COUNTY	
MAR.	12.479	16.412	14.593	18.362	49.299	26.775	43.241	51.168	0.0	44.861	CORRECTED HT. 100 FT.	
APR.	14.494	13.794	14.144	20.599	57.747	29.099	50.651	59.465	0.0	52.539	INSTRUMENT HT. 20 FT.	
MAY.	11.537	15.473	13.451	17.500	47.371	27.441	41.559	49.339	0.0	43.323	PEAK LIMIT IS 16 KNTS.	
JUNE	11.583	15.433	14.219	18.205	44.910	27.047	39.333	46.827	0.0	41.074	FRICT. LIM. IS 7KNTS.	
JULY	9.559	13.133	12.517	16.515	38.117	17.111	31.933	40.161	0.0	30.139	CODE=1 COR. HT. BULK MAH.	
AUG.	9.460	12.476	11.476	15.284	36.594	15.913	33.364	38.169	0.0	33.454	CODE=2 DRG. HT. PER.	
SEP.	10.142	13.773	12.135	15.914	43.233	20.146	35.261	42.317	0.0	36.454	UNIT AREA KWH/M**2	
OCT.	12.929	15.574	15.019	19.164	47.533	29.274	44.354	51.593	0.0	49.259	CODE=3 COR.HT. PER.	
NOV.	9.679	13.108	11.763	15.465	36.489	19.192	32.441	38.461	0.0	34.084	UNIT AREA KWH/M**2	
DEC.	12.473	17.146	14.791	19.912	51.411	21.533	45.099	53.993	0.0	47.279	WIND SPEEDS ARE IN KNOTS.	
SUMS	11.60	15.26	13.62	17.69	541.51	304.59	475.43	565.82	0.0	476.33		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMCVEL OLD HT	RMCVEL NEW HT	VCMR=1 CODE=1	VCMR=2 CODE=2	VCMR=3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1968
JAN.	10.738	11.377	11.717	12.117	41.253	31.536	37.051	34.385	0.0	34.385	DODGE CITY	
FEB.	10.771	11.516	12.058	12.593	44.365	32.331	34.650	40.411	0.0	41.150	FORD COUNTY	
MAR.	13.562	14.509	15.813	16.865	53.962	37.308	48.767	56.811	0.0	49.387	CORRECTED HT. 100 FT.	
APR.	13.175	14.127	15.437	16.584	51.781	33.558	48.518	51.541	0.0	46.963	INSTRUMENT HT. 20 FT.	
MAY.	11.500	12.207	13.113	14.363	47.339	29.253	41.251	49.433	0.0	41.363	PEAK LIMIT IS 16 KNTS.	
JUNE	12.179	13.116	14.069	15.216	50.276	30.603	44.068	51.441	0.0	45.097	FRICT. LIM. IS 7KNTS.	
JULY	13.036	14.156	15.476	16.896	62.587	38.433	37.327	43.243	0.0	39.683	CODE=1 COR. HT. BULK WH.	
AUG.	10.433	11.734	12.191	13.312	47.701	23.942	41.840	51.735	0.0	44.233	CODE=2 DRG. HT. PER	
SEP.	11.250	12.176	13.003	14.097	47.179	26.751	41.178	49.181	0.0	43.127	UNIT AREA KWH/M**2	
OCT.	11.492	12.283	13.364	14.322	45.331	21.635	40.199	41.307	0.0	42.372	CODE=3 COR.HT. PER.	
NOV.	9.871	11.458	11.890	12.997	41.777	19.315	34.012	40.761	0.0	35.751	UNIT AREA KWH/M**2	
DEC.	11.546	13.397	14.152	15.147	60.872	28.171	41.112	50.045	0.0	43.318	WIND SPEEDS ARE IN KNOTS.	
SUMS	11.37	12.25	13.34	14.31	557.62	326.14	480.13	505.53	0.0	513.59		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMCVEL OLD HT	RMCVEL NEW HT	VCMR=1 CODE=1	VCMR=2 CODE=2	VCMR=3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1969
JAN.	10.717	11.434	12.790	13.335	42.353	21.547	37.590	41.304	0.0	39.169	DODGE CITY	
FEB.	10.454	11.160	12.306	13.124	42.717	21.279	37.668	45.163	0.0	39.611	FORD COUNTY	
MAR.	11.308	12.158	13.493	14.753	43.635	23.233	38.273	45.031	0.0	40.375	CORRECTED HT. 100 FT.	
APR.	12.042	13.030	14.217	15.283	47.644	27.599	41.709	49.131	0.0	43.708	INSTRUMENT HT. 20 FT.	
MAY.	10.832	11.238	12.390	13.447	43.915	22.311	38.519	49.411	0.0	40.267	PEAK LIMIT IS 16 KNTS.	
JUNE	10.675	11.426	12.813	13.463	42.457	22.160	37.240	44.291	0.0	38.350	FRICT. LIM. IS 7KNTS.	
JULY	10.363	11.746	11.490	13.243	41.362	19.262	26.017	43.073	0.0	37.760	CODE=1 COR. HT. BULK WH.	
AUG.	10.362	11.106	11.793	13.305	43.351	21.333	38.024	45.457	0.0	39.371	CODE=2 DRG. HT. PER	
SEP.	9.417	10.936	10.762	12.595	37.146	15.539	32.617	39.112	0.0	34.324	UNIT AREA KWH/M**2	
OCT.	11.108	11.924	12.938	14.413	45.621	23.424	43.015	47.410	0.0	41.594	CODE=3 COR.HT. PER.	
NOV.	9.446	12.930	11.449	13.368	38.921	16.909	31.555	37.574	0.0	33.049	UNIT AREA KWH/M**2	
DEC.	9.596	13.187	11.163	14.302	37.351	15.747	32.430	34.754	0.0	33.995	WIND SPEEDS ARE IN KNTS.	
SUMS	10.48	11.19	12.41	13.22	503.50	258.43	441.63	527.62	0.0	462.79		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMCVEL OLD HT	RMCVEL NEW HT	VCMR=1 CODE=1	VCMR=2 CODE=2	VCMR=3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1970
JAN.	9.325	10.133	10.314	11.421	35.671	18.334	31.233	37.494	0.0	32.447	DODGE CITY	
FEB.	9.723	10.515	11.439	12.104	37.493	17.593	33.325	40.147	0.0	35.214	FORD COUNTY	
MAR.	10.175	11.806	12.254	13.320	40.152	20.135	35.218	41.887	0.0	36.740	CORRECTED HT. 100 FT.	
APR.	12.525	14.523	15.301	16.553	46.988	20.623	41.216	48.574	0.0	42.503	INSTRUMENT HT. 20 FT.	
MAY.	11.359	12.250	13.174	14.172	45.747	21.029	40.126	47.934	0.0	42.044	PEAK LIMIT IS 16 KNTS.	
JUNE	12.417	13.467	14.501	15.723	50.331	20.062	44.273	52.557	0.0	46.103	FRICT. LIM. IS 7KNTS.	
JULY	11.379	12.303	12.950	14.342	47.483	25.821	41.648	50.051	0.0	43.491	CODE=1 COR. HT. BULK WH.	
AUG.	9.583	13.172	10.920	14.534	33.253	16.313	33.557	40.727	0.0	35.722	CODE=2 DRG. HT. PER	
SEP.	11.366	15.801	14.545	16.507	45.107	27.423	39.477	46.575	0.0	40.940	UNIT AREA KWH/M**2	
OCT.	10.325	14.595	12.932	16.795	42.375	22.597	37.124	44.555	0.0	39.115	CODE=3 COR.HT. PER.	
NOV.	11.867	15.739	14.463	16.529	45.944	27.534	40.249	47.363	0.0	41.531	UNIT AREA KWH/M**2	
DEC.	11.367	15.313	13.150	17.372	45.670	23.467	40.059	46.467	0.0	42.512	WIND SPEEDS ARE IN KNTS.	
SUMS	11.04	14.35	13.20	17.10	521.72	233.30	457.51	547.07	0.0	479.45		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMCVEL OLD HT	RMCVEL NEW HT	VCMR=1 CODE=1	VCMR=2 CODE=2	VCMR=3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1971
JAN.	10.617	11.342	13.101	13.357	40.840	20.535	35.322	43.195	0.0	37.387	DODGE CITY	
FEB.	12.150	13.093	15.254	15.275	46.156	24.569	40.485	48.174	0.0	42.255	FORD COUNTY	
MAR.	12.833	13.917	15.446	16.310	50.134	21.542	43.973	52.043	0.0	45.553	CORRECTED HT. 100 FT.	
APR.	12.046	13.045	13.978	14.917	44.229	20.562	42.303	50.484	0.0	44.281	INSTRUMENT HT. 20 FT.	
MAY.	12.733	14.303	13.735	17.927	51.705	30.155	45.351	53.962	0.0	47.332	PEAK LIMIT IS 16 KNTS.	
JUNE	12.221	13.666	14.557	15.593	47.312	29.593	41.937	44.661	0.0	43.735	FRICT. LIM. IS 7KNTS.	
JULY	10.192	12.850	12.043	15.971	40.683	20.455	35.860	42.631	0.0	37.392	CODE=1 COR. HT. BULK WH.	
AUG.	9.182	12.632	10.106	14.345	34.711	15.940	30.446	36.345	0.0	31.979	CODE=2 DRG. HT. PER	
SEP.	11.775	15.646	13.906	17.974	47.442	24.445	41.656	49.591	0.0	43.585	UNIT AREA KWH/M**2	
OCT.	10.962	14.765	12.778	16.708	44.437	24.558	38.977	46.471	0.0	40.760	CODE=3 COR.HT. PER.	
NOV.	10.762	14.734	12.378	16.343	44.963	20.105	39.443	46.356	0.0	41.186	UNIT AREA KWH/M**2	
DEC.	9.433	12.935	11.253	14.908	37.041	18.124	32.524	38.642	0.0	33.494	WIND SPEEDS ARE IN KNTS.	
SUMS	11.22	13.04	13.47	17.40	534.45	280.95	464.74	554.46	0.0	489.84		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMCVEL OLD HT	RMCVEL NEW HT	VCMR=1 CODE=1	VCMR=2 CODE=2	VCMR=3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1972
JAN.	11.317	12.144	13.306	14.257	49.131	25.651	40.462	43.321	0.0	42.343	DODGE CITY	
FEB.	11.155	12.784	13.155	14.155	44.725	26.257	41.461	50.237	0.0	42.255	FORD COUNTY	
MAR.	12.459	13.941	14.723	15.396	51.132	30.466	46.601	51.391	0.0	46.641	CORRECTED HT. 100 FT.	
APR.	11.621	12.669	13.407	14.353	43.655	21.171	40.440	50.600	0.0	45.215	INSTRUMENT HT. 20 FT.	
MAY.	11.609	12.642	12.658	13.675	45.644	24.225	39.891	44.705	0.0	41.913	PEAK LIMIT IS 16 KNTS.	
JUNE	9.633	13.649	11.746	14.643	39.349	14.455	34.513	41.159	0.0	36.137	FRICT. LIM. IS 7KNTS.	
JULY	10.162	12.794	11.551	14.695	41.676	16.455	36.678	44.673	0.0	37.692	CODE=1 COR. HT. BULK WH.	
AUG.	9.109	12.493	11.090	14.959	35.119	16.423	31.893	36.675	0.0	32.167	CODE=2 DRG. HT. PER	
SEP.	9.156	12.622	10.992	13.151	35.566	15.779	31.245	37.001	0.0	32.454	UNIT AREA KWH/M**2	
OCT.	9.871	12.589	11.559	13.166	34.591	14.329	30.716	43.442	0.0	35.566	CODE=3 COR.HT. PER.	
NOV.	9.121	12.523	10.400	14.546	36.179	14.743	31.666	37.025	0.0	33.263	UNIT AREA KWH/M**2	
DEC.	11.492	13.577	13.094	16.960	49.766	25.185	44.321	51.321	0.0	45.514	WIND SPEEDS ARE IN KNTS.	
SUMS	10.69	11.69	12.65	14.79	514.78	254.29	434.29	531.15	0.0	479.01		

[illegible]

APPENDIX B

TABLES

Topeka

JAN 1948 - DEC 1973

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N.	0.017	0.031	0.022	0.003	0.0	0.073
NWE.	0.012	0.019	0.009	0.001	0.0	0.041
NE.	0.022	0.021	0.009	0.001	0.0	0.052
E.	0.016	0.016	0.008	0.001	0.0	0.041
ESE.	0.020	0.023	0.012	0.002	0.0	0.057
SE.	0.019	0.022	0.014	0.002	0.001	0.054
SSE.	0.019	0.019	0.022	0.006	0.001	0.065
S.	0.028	0.023	0.035	0.015	0.002	0.113
SSW.	0.017	0.021	0.025	0.005	0.002	0.072
SW.	0.022	0.011	0.007	0.001	0.0	0.041
WSW.	0.014	0.009	0.003	0.001	0.0	0.027
W.	0.024	0.016	0.007	0.001	0.0	0.048
WNW.	0.019	0.015	0.012	0.002	0.0	0.045
NW.	0.018	0.021	0.029	0.013	0.003	0.074
NNE.	0.012	0.022	0.031	0.011	0.003	0.074
CALM.	0.037	0.0	0.0	0.0	0.0	0.037
SUMS	0.347	0.317	0.236	0.069	0.011	

Bivariate Distribution

Topoka

Years

1948 1951

1949 1952

1950 1953

Instrument Height

1948-1950 58 Feet

1950 1951 73 Feet

1951-1953 58 Feet

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N.	0.012	0.022	0.022	0.004	0.001	0.062
NWE.	0.013	0.021	0.016	0.004	0.0	0.054
NE.	0.016	0.020	0.012	0.002	0.0	0.054
E.	0.022	0.017	0.017	0.001	0.0	0.057
ESE.	0.016	0.021	0.013	0.003	0.0	0.053
SE.	0.022	0.022	0.015	0.001	0.0	0.060
SSE.	0.015	0.029	0.010	0.007	0.001	0.062
S.	0.024	0.036	0.064	0.021	0.011	0.152
SSW.	0.013	0.017	0.024	0.007	0.001	0.055
SW.	0.016	0.011	0.007	0.001	0.0	0.037
WSW.	0.009	0.003	0.006	0.003	0.001	0.024
W.	0.026	0.019	0.017	0.006	0.001	0.073
WNW.	0.014	0.016	0.013	0.005	0.002	0.051
NW.	0.018	0.017	0.017	0.007	0.0	0.055
NNE.	0.012	0.016	0.014	0.006	0.002	0.051
CALM.	0.057	0.0	0.0	0.0	0.0	0.057
SUMS	0.327	0.313	0.262	0.075	0.021	

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N.	0.015	0.014	0.014	0.004	0.000	0.047
NWE.	0.009	0.016	0.011	0.001	0.001	0.033
NE.	0.018	0.019	0.006	0.003	0.0	0.044
E.	0.023	0.013	0.004	0.003	0.001	0.045
ESE.	0.024	0.013	0.006	0.003	0.001	0.055
SE.	0.022	0.023	0.012	0.002	0.000	0.055
SSE.	0.016	0.019	0.017	0.002	0.000	0.055
S.	0.018	0.033	0.045	0.015	0.003	0.117
SSW.	0.010	0.042	0.066	0.016	0.005	0.130
SW.	0.012	0.013	0.023	0.006	0.002	0.052
WSW.	0.011	0.027	0.006	0.002	0.000	0.034
W.	0.021	0.009	0.006	0.001	0.0	0.037
WNW.	0.021	0.019	0.008	0.001	0.0	0.043
NW.	0.018	0.020	0.013	0.005	0.002	0.052
NNE.	0.014	0.016	0.023	0.007	0.003	0.053
CALM.	0.016	0.024	0.000	0.002	0.000	0.045
SUMS	0.069	0.2	0.2	0.2	0.0	

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N.	0.016	0.017	0.022	0.005	0.003	0.083
NWE.	0.007	0.011	0.010	0.002	0.000	0.030
NE.	0.013	0.013	0.013	0.004	0.001	0.060
E.	0.019	0.017	0.008	0.002	0.001	0.038
ESE.	0.024	0.017	0.003	0.003	0.0	0.049
SE.	0.008	0.008	0.009	0.0	0.000	0.026
SSE.	0.023	0.025	0.015	0.001	0.0	0.064
S.	0.013	0.027	0.017	0.003	0.002	0.062
SSW.	0.022	0.005	0.007	0.004	0.007	0.037
SW.	0.016	0.003	0.003	0.019	0.014	0.034
WSW.	0.013	0.009	0.003	0.001	0.004	0.030
W.	0.019	0.010	0.010	0.003	0.001	0.039
WNW.	0.024	0.014	0.001	0.001	0.001	0.073
NW.	0.013	0.011	0.004	0.002	0.005	0.045
NNE.	0.014	0.008	0.006	0.003	0.002	0.033
CALM.	0.023	0.0	0.0	0.007	0.002	0.038
SUMS	0.253	0.237	0.240	0.063	0.042	

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N.	0.024	0.023	0.018	0.003	0.0	0.073
NWE.	0.013	0.014	0.008	0.001	0.0	0.036
NE.	0.010	0.003	0.003	0.003	0.0	0.021
E.	0.016	0.003	0.002	0.000	0.0	0.021
ESE.	0.026	0.015	0.004	0.001	0.000	0.050
SE.	0.024	0.029	0.009	0.001	0.000	0.063
SSE.	0.027	0.003	0.007	0.010	0.002	0.066
S.	0.041	0.014	0.043	0.017	0.008	0.147
SSW.	0.023	0.017	0.014	0.004	0.001	0.059
SW.	0.012	0.009	0.003	0.003	0.000	0.027
WSW.	0.011	0.004	0.003	0.003	0.0	0.013
W.	0.020	0.016	0.019	0.002	0.003	0.048
WNW.	0.021	0.013	0.009	0.002	0.001	0.046
NW.	0.018	0.011	0.018	0.005	0.002	0.055
NNE.	0.019	0.020	0.029	0.007	0.001	0.075
CALM.	0.072	0.0	0.0	0.0	0.0	0.072
SUMS	0.213	0.271	0.213	0.055	0.017	

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N.	0.017	0.017	0.021	0.007	0.001	0.064
NWE.	0.011	0.017	0.015	0.002	0.0	0.055
NE.	0.012	0.017	0.009	0.001	0.000	0.041
E.	0.018	0.003	0.006	0.001	0.000	0.034
ESE.	0.028	0.010	0.006	0.001	0.0	0.049
SE.	0.024	0.009	0.004	0.000	0.000	0.037
SSE.	0.022	0.017	0.007	0.001	0.000	0.058
S.	0.022	0.033	0.015	0.003	0.001	0.061
SSW.	0.023	0.009	0.006	0.019	0.003	0.058
SW.	0.026	0.009	0.002	0.019	0.010	0.064
WSW.	0.019	0.014	0.007	0.004	0.003	0.053
W.	0.019	0.004	0.003	0.003	0.003	0.017
WNW.	0.017	0.003	0.001	0.001	0.000	0.027
NW.	0.013	0.016	0.005	0.005	0.002	0.044
NNE.	0.022	0.016	0.017	0.005	0.002	0.061
CALM.	0.016	0.016	0.000	0.012	0.004	0.048
SUMS	0.278	0.23	0.2	0.2	0.0	

DIR	00--06	07--10	11--16	17--21	22--24	SUMS
N	0.011	0.027	0.029	0.014	0.001	0.076
NHE	0.007	0.016	0.016	0.010	0.002	0.051
NE	0.013	0.015	0.013	0.007	0.001	0.044
NHE	0.013	0.016	0.013	0.007	0.001	0.044
E	0.018	0.034	0.023	0.006	0.001	0.079
ESE	0.022	0.027	0.014	0.005	0.001	0.063
SE	0.017	0.025	0.012	0.002	0.001	0.056
SSE	0.011	0.018	0.018	0.006	0.001	0.054
S	0.014	0.034	0.035	0.020	0.001	0.112
SSW	0.013	0.020	0.022	0.007	0.001	0.057
SW	0.013	0.009	0.009	0.001	0.001	0.032
WSW	0.012	0.012	0.004	0.001	0.001	0.036
W	0.013	0.023	0.012	0.002	0.001	0.037
WNW	0.012	0.015	0.015	0.007	0.001	0.055
NW	0.012	0.011	0.010	0.005	0.001	0.040
NNW	0.011	0.010	0.016	0.005	0.001	0.052
CALA	0.091	0.0	0.0	0.0	0.0	0.091
SUMS	0.393	0.312	0.258	0.102	0.025	

bivariate distribution

Tropoka

Years

1954 1957

1955 1958

1956 1959

Instrument Height

1954-1959 72 Feet

DIR	00--06	07--10	11--16	17--21	22--24	SUMS
N	0.013	0.029	0.037	0.013	0.002	0.094
NHE	0.008	0.013	0.010	0.003	0.000	0.035
NE	0.010	0.015	0.010	0.007	0.000	0.037
NHE	0.013	0.015	0.016	0.003	0.002	0.051
E	0.029	0.022	0.015	0.007	0.000	0.073
ESE	0.014	0.011	0.013	0.002	0.001	0.034
SE	0.012	0.013	0.013	0.003	0.001	0.032
SSE	0.015	0.021	0.028	0.014	0.001	0.077
S	0.036	0.024	0.047	0.019	0.002	0.142
SSW	0.013	0.017	0.014	0.003	0.001	0.044
SW	0.012	0.012	0.007	0.001	0.000	0.033
WSW	0.013	0.007	0.002	0.001	0.001	0.023
W	0.013	0.023	0.013	0.002	0.001	0.042
WNW	0.013	0.016	0.010	0.003	0.001	0.035
NW	0.011	0.013	0.016	0.007	0.002	0.052
NNW	0.011	0.013	0.016	0.007	0.002	0.052
CALA	0.072	0.0	0.0	0.0	0.0	0.072
SUMS	0.340	0.289	0.268	0.089	0.013	

DIR	00--06	07--10	11--16	17--21	22--24	SUMS
N	0.014	0.021	0.030	0.013	0.007	0.094
NHE	0.007	0.011	0.017	0.002	0.001	0.033
NE	0.010	0.011	0.010	0.001	0.000	0.032
NHE	0.012	0.011	0.011	0.004	0.001	0.039
E	0.024	0.022	0.014	0.004	0.001	0.055
ESE	0.014	0.020	0.012	0.001	0.000	0.035
SE	0.016	0.023	0.013	0.001	0.001	0.053
SSE	0.012	0.021	0.033	0.019	0.003	0.063
S	0.025	0.041	0.071	0.043	0.008	0.183
SSW	0.014	0.015	0.016	0.007	0.001	0.052
SW	0.012	0.004	0.003	0.002	0.001	0.027
WSW	0.007	0.009	0.003	0.002	0.001	0.020
W	0.017	0.019	0.012	0.005	0.001	0.035
WNW	0.004	0.013	0.014	0.011	0.002	0.034
NW	0.011	0.013	0.016	0.010	0.005	0.055
NNW	0.011	0.014	0.019	0.010	0.005	0.055
CALA	0.046	0.0	0.0	0.0	0.0	0.046
SUMS	0.254	0.273	0.303	0.134	0.023	

DIR	00--06	07--10	11--16	17--21	22--24	SUMS
N	0.013	0.020	0.026	0.004	0.000	0.068
NHE	0.009	0.012	0.013	0.001	0.000	0.026
NE	0.016	0.017	0.007	0.000	0.000	0.036
NHE	0.015	0.017	0.005	0.001	0.000	0.038
E	0.028	0.029	0.009	0.002	0.000	0.068
ESE	0.016	0.025	0.020	0.002	0.001	0.053
SE	0.017	0.023	0.013	0.004	0.000	0.058
SSE	0.011	0.027	0.032	0.011	0.002	0.063
S	0.032	0.042	0.045	0.014	0.002	0.126
SSW	0.015	0.027	0.027	0.004	0.002	0.079
SW	0.011	0.011	0.006	0.002	0.000	0.030
WSW	0.011	0.003	0.004	0.001	0.000	0.024
W	0.017	0.014	0.004	0.001	0.000	0.035
WNW	0.018	0.025	0.017	0.004	0.000	0.065
NW	0.011	0.021	0.027	0.010	0.002	0.070
NNW	0.008	0.022	0.022	0.007	0.003	0.052
CALA	0.058	0.0	0.0	0.0	0.0	0.058
SUMS	0.296	0.337	0.277	0.076	0.013	

DIR	00--06	07--10	11--16	17--21	22--24	SUMS
N	0.009	0.014	0.027	0.013	0.003	0.065
NHE	0.007	0.011	0.013	0.001	0.001	0.034
NE	0.003	0.013	0.009	0.000	0.000	0.021
NHE	0.011	0.012	0.013	0.001	0.000	0.037
E	0.023	0.022	0.013	0.007	0.001	0.067
ESE	0.019	0.027	0.026	0.004	0.000	0.056
SE	0.012	0.016	0.017	0.006	0.000	0.052
SSE	0.012	0.014	0.021	0.007	0.003	0.053
S	0.016	0.023	0.050	0.032	0.006	0.128
SSW	0.016	0.019	0.038	0.015	0.002	0.101
SW	0.009	0.014	0.010	0.003	0.001	0.036
WSW	0.004	0.005	0.006	0.002	0.001	0.018
W	0.015	0.019	0.009	0.002	0.000	0.047
WNW	0.014	0.023	0.018	0.005	0.001	0.073
NW	0.009	0.014	0.017	0.004	0.001	0.045
NNW	0.010	0.015	0.023	0.016	0.002	0.058
CALA	0.053	0.0	0.0	0.0	0.0	0.053
SUMS	0.260	0.287	0.310	0.121	0.022	

DIR	00--06	07--10	11--16	17--21	22--24	SUMS
N	0.012	0.017	0.029	0.011	0.001	0.071
NHE	0.008	0.014	0.020	0.010	0.000	0.052
NE	0.008	0.013	0.011	0.001	0.000	0.033
NHE	0.012	0.012	0.013	0.002	0.000	0.041
E	0.014	0.022	0.019	0.004	0.000	0.059
ESE	0.016	0.021	0.021	0.001	0.000	0.059
SE	0.011	0.019	0.019	0.004	0.001	0.053
SSE	0.013	0.018	0.032	0.012	0.003	0.078
S	0.014	0.024	0.036	0.028	0.008	0.110
SSW	0.012	0.022	0.024	0.014	0.005	0.077
SW	0.013	0.013	0.010	0.003	0.000	0.041
WSW	0.010	0.010	0.008	0.002	0.001	0.031
W	0.014	0.021	0.011	0.003	0.000	0.049
WNW	0.013	0.021	0.013	0.008	0.002	0.057
NW	0.010	0.014	0.017	0.010	0.001	0.052
NNW	0.010	0.025	0.019	0.011	0.001	0.059
CALA	0.065	0.0	0.0	0.0	0.0	0.065
SUMS	0.264	0.285	0.299	0.127	0.025	

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N	0.009	0.019	0.024	0.013	0.035	0.070
NNE	0.009	0.014	0.016	0.003	0.001	0.023
NE	0.008	0.010	0.009	0.001	0.0	0.024
NNE	0.013	0.016	0.014	0.002	0.001	0.032
E	0.023	0.026	0.018	0.006	0.001	0.073
ESE	0.015	0.027	0.014	0.004	0.001	0.067
SE	0.016	0.024	0.016	0.005	0.001	0.062
SSE	0.015	0.021	0.025	0.009	0.005	0.075
S	0.017	0.032	0.034	0.027	0.013	0.153
SSW	0.016	0.021	0.025	0.014	0.003	0.061
SW	0.005	0.014	0.009	0.003	0.001	0.022
WSW	0.009	0.009	0.003	0.003	0.000	0.022
W	0.019	0.006	0.012	0.002	0.001	0.061
WNW	0.004	0.014	0.016	0.006	0.003	0.049
W	0.006	0.013	0.016	0.007	0.002	0.042
NW	0.005	0.006	0.019	0.011	0.003	0.043
CALM	0.059	0.0	0.0	0.0	0.0	0.059
SUMS	0.252	0.341	0.293	0.116	0.039	

Bivariate Distribution

Tapeka

Years

1960 1963

1961 1964

1962 1965

Instrument Height

1960-1964 72 Feet

1964-1975 20 Feet

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N	0.014	0.017	0.034	0.013	0.033	0.101
NNE	0.007	0.011	0.010	0.003	0.0	0.023
NE	0.008	0.008	0.008	0.002	0.001	0.024
NNE	0.014	0.014	0.005	0.005	0.001	0.033
E	0.026	0.029	0.019	0.007	0.001	0.072
ESE	0.016	0.018	0.017	0.002	0.001	0.052
SE	0.013	0.014	0.021	0.010	0.001	0.053
SSE	0.031	0.034	0.021	0.031	0.013	0.153
S	0.012	0.013	0.026	0.011	0.003	0.060
SSW	0.011	0.014	0.017	0.003	0.001	0.029
SW	0.010	0.009	0.007	0.003	0.002	0.024
WSW	0.021	0.027	0.017	0.005	0.001	0.071
W	0.015	0.014	0.014	0.003	0.003	0.049
WNW	0.008	0.009	0.011	0.003	0.002	0.034
W	0.006	0.011	0.014	0.009	0.003	0.042
NW	0.005	0.006	0.019	0.011	0.003	0.043
CALM	0.050	0.0	0.0	0.0	0.0	0.050
SUMS	0.247	0.263	0.291	0.124	0.039	

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N	0.011	0.020	0.021	0.008	0.003	0.063
NNE	0.003	0.023	0.023	0.007	0.001	0.059
NE	0.004	0.012	0.010	0.004	0.0	0.034
NNE	0.004	0.009	0.009	0.003	0.000	0.033
E	0.015	0.015	0.016	0.003	0.0	0.052
ESE	0.006	0.023	0.015	0.003	0.001	0.073
SE	0.004	0.013	0.008	0.001	0.0	0.047
SSE	0.014	0.017	0.015	0.005	0.002	0.053
S	0.013	0.031	0.034	0.021	0.003	0.107
SSW	0.015	0.031	0.032	0.020	0.004	0.104
SW	0.012	0.016	0.016	0.005	0.002	0.055
WSW	0.007	0.005	0.007	0.002	0.001	0.022
W	0.016	0.004	0.011	0.002	0.003	0.053
WNW	0.004	0.022	0.020	0.005	0.002	0.069
W	0.005	0.005	0.020	0.004	0.001	0.036
NW	0.011	0.016	0.017	0.007	0.001	0.052
CALM	0.032	0.0	0.0	0.0	0.0	0.032
SUMS	0.243	0.253	0.274	0.105	0.023	

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N	0.010	0.016	0.031	0.012	0.003	0.073
NNE	0.006	0.022	0.020	0.001	0.003	0.057
NE	0.008	0.011	0.009	0.003	0.001	0.035
NNE	0.012	0.019	0.016	0.003	0.001	0.046
E	0.019	0.027	0.018	0.006	0.001	0.071
ESE	0.009	0.023	0.017	0.007	0.002	0.064
SE	0.012	0.023	0.008	0.003	0.001	0.047
SSE	0.012	0.017	0.009	0.007	0.004	0.060
S	0.025	0.021	0.046	0.025	0.010	0.134
SSW	0.012	0.024	0.041	0.017	0.003	0.101
SW	0.011	0.016	0.016	0.003	0.001	0.046
WSW	0.012	0.025	0.003	0.002	0.001	0.023
W	0.012	0.015	0.010	0.001	0.0	0.039
WNW	0.009	0.023	0.011	0.006	0.000	0.048
W	0.011	0.017	0.017	0.006	0.001	0.060
NW	0.008	0.013	0.022	0.013	0.005	0.058
CALM	0.035	0.0	0.0	0.0	0.0	0.035
SUMS	0.239	0.294	0.307	0.124	0.036	

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N	0.017	0.023	0.027	0.013	0.003	0.077
NNE	0.007	0.012	0.013	0.004	0.0	0.035
NE	0.013	0.008	0.011	0.003	0.000	0.035
NNE	0.012	0.019	0.005	0.003	0.000	0.041
E	0.027	0.032	0.022	0.007	0.0	0.088
ESE	0.021	0.024	0.017	0.006	0.001	0.069
SE	0.013	0.027	0.012	0.003	0.0	0.057
SSE	0.025	0.023	0.020	0.009	0.003	0.062
S	0.019	0.029	0.043	0.023	0.010	0.135
SSW	0.010	0.029	0.029	0.013	0.002	0.075
SW	0.009	0.013	0.011	0.004	0.0	0.037
WSW	0.007	0.005	0.004	0.001	0.0	0.018
W	0.013	0.005	0.009	0.005	0.001	0.049
WNW	0.012	0.022	0.011	0.005	0.002	0.050
W	0.012	0.019	0.019	0.013	0.004	0.061
NW	0.008	0.017	0.020	0.013	0.003	0.061
CALM	0.038	0.0	0.0	0.0	0.0	0.048
SUMS	0.243	0.294	0.307	0.124	0.036	

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N.	0.029	0.035	0.025	0.037	0.032	0.208
NHE	0.009	0.012	0.005	0.001	0.001	0.028
NE	0.014	0.013	0.006	0.003	0.001	0.037
EHE	0.030	0.019	0.004	0.002	0.001	0.056
E	0.047	0.026	0.011	0.002	0.001	0.087
SE	0.040	0.017	0.009	0.001	0.001	0.068
SEH	0.021	0.023	0.004	0.001	0.001	0.050
SSE	0.015	0.024	0.007	0.001	0.001	0.048
S	0.027	0.015	0.013	0.011	0.011	0.078
SSH	0.013	0.015	0.009	0.003	0.001	0.041
SH	0.015	0.009	0.004	0.001	0.001	0.038
WSH	0.009	0.007	0.002	0.001	0.001	0.029
W	0.020	0.020	0.008	0.001	0.001	0.049
WH	0.019	0.020	0.015	0.004	0.001	0.059
WHE	0.014	0.012	0.013	0.003	0.001	0.043
W	0.011	0.012	0.020	0.006	0.001	0.070
WHE	0.011	0.012	0.020	0.006	0.001	0.070
CALM	0.117	0.0	0.0	0.0	0.0	0.117
SUMS	0.450	0.310	0.149	0.047	0.033	

ivariate Distribution

Topoka

Years

1966 1969

1967 1970

1968 1971

Instrument Height

1966-1971 20 Feet

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N.	0.024	0.031	0.043	0.037	0.032	0.207
NHE	0.007	0.010	0.005	0.001	0.001	0.026
NE	0.011	0.013	0.006	0.001	0.001	0.032
EHE	0.017	0.015	0.009	0.001	0.001	0.043
E	0.027	0.022	0.013	0.001	0.001	0.064
SE	0.019	0.011	0.004	0.001	0.001	0.036
SEH	0.018	0.013	0.008	0.002	0.001	0.042
SSE	0.019	0.023	0.017	0.002	0.001	0.052
S	0.027	0.023	0.009	0.014	0.015	0.108
SSH	0.017	0.030	0.025	0.016	0.009	0.077
SH	0.020	0.014	0.004	0.001	0.001	0.040
WSH	0.011	0.005	0.004	0.001	0.001	0.028
W	0.019	0.019	0.011	0.001	0.001	0.051
WH	0.020	0.013	0.015	0.002	0.001	0.053
WHE	0.013	0.012	0.018	0.004	0.001	0.048
W	0.019	0.014	0.017	0.005	0.001	0.056
WHE	0.019	0.014	0.017	0.005	0.001	0.056
CALM	0.197	0.0	0.0	0.0	0.0	0.197
SUMS	0.300	0.311	0.256	0.049	0.034	

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N.	0.028	0.033	0.033	0.032	0.034	0.200
NHE	0.011	0.014	0.007	0.001	0.001	0.034
NE	0.019	0.014	0.006	0.001	0.001	0.039
EHE	0.022	0.013	0.003	0.001	0.001	0.039
E	0.030	0.022	0.007	0.001	0.001	0.061
SE	0.014	0.017	0.006	0.001	0.001	0.039
SEH	0.020	0.017	0.007	0.001	0.001	0.040
SSE	0.019	0.023	0.013	0.002	0.001	0.057
S	0.033	0.024	0.021	0.010	0.010	0.108
SSH	0.024	0.024	0.026	0.006	0.003	0.082
SH	0.018	0.013	0.003	0.001	0.001	0.039
WSH	0.010	0.005	0.003	0.001	0.001	0.029
W	0.024	0.022	0.014	0.002	0.001	0.053
WH	0.018	0.014	0.013	0.004	0.001	0.050
WHE	0.012	0.015	0.012	0.004	0.001	0.046
W	0.019	0.014	0.014	0.002	0.001	0.050
WHE	0.019	0.014	0.014	0.002	0.001	0.050
CALM	0.197	0.0	0.0	0.0	0.0	0.197
SUMS	0.300	0.311	0.256	0.049	0.034	

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N.	0.023	0.023	0.033	0.007	0.000	0.091
NHE	0.011	0.012	0.014	0.001	0.001	0.038
NE	0.013	0.013	0.015	0.001	0.001	0.041
EHE	0.015	0.013	0.007	0.001	0.001	0.038
E	0.019	0.014	0.012	0.001	0.001	0.054
SE	0.017	0.015	0.009	0.003	0.001	0.043
SEH	0.022	0.019	0.009	0.001	0.000	0.051
SSE	0.014	0.011	0.011	0.003	0.001	0.039
S	0.021	0.021	0.020	0.011	0.001	0.104
SSH	0.016	0.019	0.024	0.005	0.001	0.064
SH	0.020	0.020	0.014	0.003	0.001	0.058
WSH	0.011	0.010	0.005	0.001	0.001	0.027
W	0.016	0.011	0.009	0.001	0.002	0.036
WH	0.014	0.010	0.011	0.003	0.001	0.039
WHE	0.013	0.009	0.012	0.007	0.003	0.044
W	0.013	0.014	0.014	0.008	0.002	0.048
WHE	0.013	0.014	0.014	0.008	0.002	0.048
CALM	0.125	0.0	0.0	0.0	0.0	0.125
SUMS	0.413	0.421	0.242	0.064	0.009	

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N.	0.021	0.025	0.040	0.010	0.001	0.096
NHE	0.010	0.013	0.010	0.002	0.001	0.034
NE	0.009	0.012	0.008	0.003	0.001	0.030
EHE	0.015	0.013	0.005	0.003	0.001	0.035
E	0.017	0.015	0.009	0.001	0.001	0.047
SE	0.014	0.014	0.006	0.001	0.001	0.044
SEH	0.014	0.013	0.004	0.001	0.001	0.044
SSE	0.016	0.015	0.005	0.001	0.001	0.042
S	0.021	0.023	0.029	0.003	0.001	0.083
SSH	0.019	0.015	0.013	0.003	0.001	0.051
SH	0.021	0.021	0.008	0.002	0.000	0.054
WSH	0.018	0.013	0.009	0.004	0.001	0.049
W	0.013	0.009	0.013	0.002	0.000	0.039
WH	0.010	0.010	0.012	0.005	0.001	0.043
WHE	0.010	0.010	0.012	0.005	0.001	0.043
CALM	0.124	0.0	0.0	0.0	0.0	0.124
SUMS	0.424	0.425	0.234	0.051	0.006	

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N.	0.022	0.027	0.029	0.004	0.001	0.087
NHE	0.005	0.007	0.004	0.001	0.001	0.019
NE	0.012	0.012	0.004	0.001	0.001	0.026
EHE	0.018	0.009	0.002	0.001	0.001	0.029
E	0.025	0.013	0.007	0.001	0.001	0.050
SE	0.013	0.017	0.003	0.001	0.001	0.039
SEH	0.019	0.019	0.005	0.001	0.000	0.042
SSE	0.022	0.030	0.016	0.002	0.001	0.070
S	0.024	0.032	0.034	0.012	0.002	0.178
SSH	0.019	0.015	0.017	0.009	0.001	0.065
SH	0.018	0.011	0.004	0.001	0.001	0.035
WSH	0.010	0.009	0.005	0.001	0.001	0.025
W	0.023	0.023	0.008	0.003	0.001	0.058
WH	0.019	0.017	0.016	0.003	0.001	0.061
WHE	0.018	0.017	0.016	0.003	0.001	0.061
W	0.018	0.017	0.016	0.003	0.001	0.061
WHE	0.018	0.017	0.016	0.003	0.001	0.061
CALM	0.103	0.0	0.0	0.0	0.0	0.103
SUMS	0.421	0.421	0.223	0.067	0.008	

THE HOURLY SUMMARY TABLE FOR WIL. 1949

HOUR	LB	AVG. VEL.	UP	DIRECTION		STH.	WST
				EAST	WEST		
2400	0	8.1774	22	0.20332	0.16111	0.25556	0.24444
0300	0	8.1774	25	0.30000	0.14444	0.27778	0.22222
0600	0	9.1111	33	0.23333	0.20000	0.21111	0.28889
0900	0	8.1222	26	0.20111	0.20000	0.25000	0.25000
1200	2	10.6567	24	0.32222	0.15556	0.34111	0.21111
1500	0	10.4222	25	0.35000	0.14444	0.26667	0.23333
1800	0	8.5133	19	0.36111	0.17222	0.24444	0.16667
2100	0	8.5111	23	0.30000	0.18444	0.21557	0.26111

THE HOURLY SUMMARY TABLE FOR SPR. 1949

HOUR	LB	AVG. VEL.	UP	DIRECTION		STH.	WST
				EAST	WEST		
2400	0	6.3547	22	0.23913	0.25334	0.25344	0.10324
0300	0	6.4374	17	0.21146	0.20491	0.22326	0.18394
0600	0	6.9726	14	0.20652	0.29391	0.27717	0.15717
0900	0	10.0945	26	0.21739	0.24557	0.33996	0.15751
1200	0	11.7714	34	0.23913	0.22325	0.42334	0.15337
1500	0	12.2226	33	0.25543	0.18576	0.42334	0.15337
1800	0	10.0347	26	0.34220	0.14565	0.35329	0.05622
2100	0	7.6097	21	0.25000	0.25543	0.23152	0.12343

THE HOURLY SUMMARY TABLE FOR SUM. 1949

HOUR	LB	AVG. VEL.	UP	DIRECTION		STH.	WST
				EAST	WEST		
2400	0	4.9313	16	0.13547	0.22233	0.38547	0.02152
0300	0	4.4679	16	0.13043	0.25000	0.33152	0.13326
0600	0	4.6097	17	0.14130	0.21129	0.41522	0.11413
0900	0	7.7651	21	0.22263	0.18473	0.48913	0.05478
1200	0	8.5696	18	0.22420	0.23370	0.43478	0.05239
1500	1	9.8094	23	0.27174	0.21739	0.47324	0.03261
1800	1	7.5709	19	0.22263	0.31522	0.41442	0.04444
2100	0	5.9130	16	0.15217	0.25543	0.36139	0.05478

THE HOURLY SUMMARY TABLE FOR FALL 1949

HOUR	LB	AVG. VEL.	UP	DIRECTION		STH.	WST
				EAST	WEST		
2400	0	5.79121	23	0.15989	0.12333	0.33462	0.16750
0300	0	5.4555	22	0.15365	0.13015	0.35165	0.23326
0600	0	5.55234	22	0.13736	0.13461	0.34613	0.23376
0900	0	8.0911	24	0.15934	0.10739	0.42303	0.25275
1200	0	11.5247	26	0.23022	0.09341	0.49113	0.16231
1500	0	11.2377	23	0.25824	0.12363	0.42557	0.13132
1800	0	6.9248	24	0.21778	0.15331	0.31753	0.12337
2100	0	6.02494	22	0.16484	0.18132	0.37412	0.12157

Topeka
Instrument Height
1940-1949 50 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1948

HOUR	LB	AVG. VEL.	UP	DIRECTION		STH.	WST
				EAST	WEST		
2400	0	7.4391	24	0.33051	0.16254	0.22034	0.21186
0300	0	7.52712	23	0.25424	0.14437	0.26271	0.21119
0600	0	8.35335	24	0.32248	0.13169	0.22301	0.21186
0900	0	9.43220	26	0.32203	0.11017	0.27466	0.23729
1200	0	11.3134	31	0.34746	0.06730	0.27966	0.25474
1500	0	11.22034	30	0.37284	0.07527	0.27966	0.22024
1800	0	8.46746	21	0.35135	0.11864	0.27966	0.20339
2100	0	8.1095	19	0.36441	0.09322	0.29661	0.19492

THE HOURLY SUMMARY TABLE FOR SPR. 1948

HOUR	LB	AVG. VEL.	UP	DIRECTION		STH.	WST
				EAST	WEST		
2400	0	4.8908	30	0.21739	0.17295	0.33152	0.15217
0300	0	5.3343	28	0.21196	0.24457	0.32609	0.15217
0600	0	9.1343	24	0.23261	0.19843	0.25000	0.15474
0900	3	13.3130	42	0.23261	0.17935	0.25326	0.18478
1200	1	15.3433	40	0.28404	0.17391	0.43478	0.10326
1500	2	14.2332	34	0.24901	0.23109	0.46957	0.13043
1800	3	12.3556	28	0.33435	0.19555	0.37500	0.12500
2100	0	10.3709	50	0.27174	0.19022	0.32509	0.12500

THE HOURLY SUMMARY TABLE FOR SUM. 1948

HOUR	LB	AVG. VEL.	UP	DIRECTION		STH.	WST
				EAST	WEST		
2400	0	6.13473	27	0.23096	0.22233	0.40761	0.14170
0300	0	5.3743	17	0.13547	0.19555	0.38043	0.12500
0600	0	5.4557	19	0.11413	0.17391	0.36413	0.14130
0900	0	10.13473	23	0.15217	0.14674	0.44022	0.25000
1200	2	10.5261	35	0.15761	0.16843	0.48370	0.19022
1500	0	10.51087	19	0.14130	0.11413	0.54348	0.19022
1800	3	8.91304	19	0.13043	0.18751	0.57365	0.14130
2100	0	7.35470	21	0.10326	0.18478	0.52174	0.09239

THE HOURLY SUMMARY TABLE FOR FALL 1948

HOUR	LB	AVG. VEL.	UP	DIRECTION		STH.	WST
				EAST	WEST		
2400	0	7.33547	23	0.10989	0.24725	0.28022	0.28275
0300	0	6.5594	22	0.18631	0.24132	0.24176	0.28222
0600	0	6.0327	16	0.12637	0.21978	0.22527	0.32967
0900	0	8.2674	31	0.15385	0.17592	0.31319	0.31119
1200	0	11.50347	23	0.20379	0.11332	0.38462	0.22527
1500	0	12.1543	30	0.21478	0.19780	0.36264	0.20479
1800	0	8.59341	22	0.23626	0.19780	0.36264	0.13132
2100	0	7.08441	19	0.15934	0.19780	0.29670	0.21479

THE HOURLY SUMMARY TABLE FOR WIN. 1950

HR	LA	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.3222	23	0.2667	0.1944	0.3444	0.1500
0300	0	7.3000	24	0.2389	0.1611	0.3222	0.2000
0600	0	7.3333	24	0.2500	0.1722	0.3333	0.1611
0900	0	7.3111	23	0.2722	0.1722	0.3500	0.1289
1200	0	7.2222	23	0.2778	0.1557	0.4167	0.1556
1500	0	7.2222	23	0.2778	0.1278	0.3778	0.1722
1800	0	7.2778	13	0.2944	0.2356	0.3167	0.1667
2100	0	7.2556	23	0.2889	0.1933	0.3444	0.1667

THE HOURLY SUMMARY TABLE FOR SPR. 1950

HR	LA	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.5778	35	0.2667	0.1667	0.3444	0.1087
0300	0	7.5222	28	0.2370	0.2119	0.2778	0.1467
0600	0	7.5000	30	0.2019	0.2313	0.2717	0.2119
0900	0	7.5111	35	0.2593	0.2179	0.2826	0.2222
1200	0	7.5111	35	0.2543	0.1575	0.3152	0.1922
1500	0	7.5222	43	0.3543	0.1394	0.3152	0.1667
1800	0	7.5222	34	0.3269	0.1674	0.3570	0.1357
2100	0	7.5222	33	0.2556	0.1922	0.3570	0.1157

THE HOURLY SUMMARY TABLE FOR SUM. 1950

HR	LA	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.7556	18	0.1419	0.2556	0.4402	0.0622
0300	0	7.5111	20	0.1527	0.1956	0.3667	0.1197
0600	0	7.5222	22	0.1793	0.1639	0.4021	0.0394
0900	0	7.5111	24	0.1793	0.1922	0.4519	0.1474
1200	0	7.5111	21	0.2663	0.1357	0.4782	0.1070
1500	0	7.5222	23	0.1402	0.2119	0.4453	0.1679
1800	0	7.5222	19	0.2062	0.2179	0.4063	0.0691
2100	0	7.5222	17	0.1575	0.2352	0.3967	0.0321

THE HOURLY SUMMARY TABLE FOR FALL 1950

HR	LA	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.5222	26	0.2178	0.1533	0.3020	0.1435
0300	0	7.5222	26	0.2178	0.1433	0.3020	0.2030
0600	0	7.5222	26	0.2178	0.1533	0.3241	0.1921
0900	0	7.5222	26	0.2121	0.1267	0.4615	0.1483
1200	0	7.5222	26	0.1401	0.1387	0.3763	0.1139
1500	0	7.5222	26	0.3481	0.1970	0.3481	0.0989
1800	0	7.5222	26	0.2062	0.2178	0.3351	0.0971
2100	0	7.5222	26	0.2252	0.2333	0.3267	0.1426

THE HOURLY SUMMARY TABLE FOR WIN. 1951

HR	LA	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.4389	20	0.2611	0.1667	0.2556	0.2500
0300	0	7.4222	22	0.2500	0.1667	0.2111	0.2722
0600	0	7.4667	19	0.2667	0.2111	0.2111	0.2667
0900	0	7.4556	22	0.2944	0.1556	0.2778	0.2778
1200	0	7.4667	35	0.2667	0.1167	0.2778	0.2778
1500	0	7.4667	22	0.3278	0.1589	0.2556	0.2556
1800	0	7.4222	22	0.3356	0.1778	0.2511	0.2511
2100	0	7.4222	22	0.2667	0.1933	0.2511	0.2500

THE HOURLY SUMMARY TABLE FOR SPR. 1951

HR	LA	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.7426	19	0.2445	0.2179	0.2370	0.2179
0300	0	7.7426	22	0.2253	0.1947	0.2370	0.2370
0600	0	7.7426	20	0.2179	0.2179	0.2370	0.2370
0900	0	7.7426	26	0.2370	0.1947	0.2370	0.2370
1200	0	7.7426	28	0.2370	0.1947	0.2370	0.2370
1500	0	7.7426	26	0.2370	0.1947	0.2370	0.2370
1800	0	7.7426	20	0.2370	0.1947	0.2370	0.2370
2100	0	7.7426	23	0.2370	0.2370	0.2370	0.2370

THE HOURLY SUMMARY TABLE FOR SUM. 1951

HR	LA	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.5556	21	0.1570	0.2556	0.2556	0.2556
0300	0	7.5556	22	0.2556	0.2556	0.2556	0.2556
0600	0	7.5556	21	0.2370	0.2556	0.2556	0.2556
0900	0	7.5556	19	0.2556	0.2556	0.2556	0.2556
1200	0	7.5556	19	0.2556	0.2556	0.2556	0.2556
1500	0	7.5556	17	0.2556	0.2556	0.2556	0.2556
1800	0	7.5556	21	0.2556	0.2556	0.2556	0.2556
2100	0	7.5556	17	0.2556	0.2556	0.2556	0.2556

THE HOURLY SUMMARY TABLE FOR FALL 1951

HR	LA	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.5556	17	0.2556	0.2556	0.2556	0.2556
0300	0	7.5556	26	0.2556	0.2556	0.2556	0.2556
0600	0	7.5556	28	0.2556	0.2556	0.2556	0.2556
0900	0	7.5556	21	0.2556	0.2556	0.2556	0.2556
1200	0	7.5556	26	0.2556	0.2556	0.2556	0.2556
1500	0	7.5556	22	0.2556	0.2556	0.2556	0.2556
1800	0	7.5556	19	0.2556	0.2556	0.2556	0.2556
2100	0	7.5556	19	0.2556	0.2556	0.2556	0.2556

moepa
Instrument Height
1950-1951 73 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1952

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	5.3444	33	0.26444	0.18339	0.29389	0.25556	0.25556
0300	0	4.2222	24	0.26667	0.20000	0.29444	0.25556	0.25556
0600	0	5.2555	23	0.26111	0.18389	0.27222	0.24444	0.24444
0900	0	10.1555	35	0.25455	0.19444	0.21111	0.29444	0.29444
1200	0	11.4777	34	0.25444	0.11667	0.30500	0.27778	0.27778
1500	2	11.0000	30	0.23333	0.18333	0.26111	0.31667	0.31667
1800	0	9.2222	21	0.25556	0.22778	0.23333	0.25000	0.25000
2100	0	4.2222	22	0.25555	0.25555	0.26111	0.23089	0.23089

Tape 2

Instrument height

1952-1953 58 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1952

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.0739	23	0.22201	0.23913	0.19022	0.19022	0.19022
0300	0	8.1343	20	0.23370	0.25243	0.18478	0.19022	0.19022
0600	0	11.4777	23	0.23013	0.20109	0.17935	0.22826	0.22826
0900	0	11.0739	23	0.23045	0.17391	0.27174	0.21196	0.21196
1200	2	12.2555	30	0.22659	0.15761	0.32609	0.19022	0.19022
1500	0	10.5000	20	0.23643	0.19382	0.26087	0.14674	0.14674
1800	0	8.5000	26	0.23801	0.23370	0.22283	0.13587	0.13587

THE HOURLY SUMMARY TABLE FOR SUM. 1952

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	5.9133	22	0.13053	0.26037	0.49457	0.04891	0.04891
0300	0	9.1343	19	0.08152	0.19348	0.19130	0.10326	0.10326
0600	0	7.2222	19	0.14674	0.26457	0.42391	0.07609	0.07609
0900	0	11.0739	23	0.11413	0.28804	0.49457	0.08152	0.08152
1200	0	12.5000	29	0.11497	0.27717	0.48370	0.11457	0.11457
1500	4	13.5739	31	0.14574	0.21739	0.54348	0.02339	0.02339
1800	2	12.3333	30	0.19565	0.10435	0.48370	0.01630	0.01630
2100	0	9.3152	23	0.13587	0.33152	0.46739	0.04348	0.04348

THE HOURLY SUMMARY TABLE FOR FALL 1952

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	6.2500	30	0.17582	0.15934	0.31868	0.20330	0.20330
0300	0	5.5222	20	0.18661	0.13187	0.30223	0.21429	0.21429
0600	0	5.3555	17	0.17033	0.15934	0.21429	0.26923	0.26923
0900	0	9.3134	22	0.26374	0.18422	0.37363	0.26725	0.26725
1200	3	11.5834	23	0.31868	0.07602	0.39011	0.21429	0.21429
1500	3	11.5534	23	0.23032	0.12537	0.35165	0.22176	0.22176
1800	0	7.5000	21	0.20923	0.14235	0.40559	0.12637	0.12637
2100	0	7.1777	13	0.19305	0.10132	0.39462	0.15934	0.15934

THE HOURLY SUMMARY TABLE FOR WIN. 1953

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.2777	17	0.12778	0.14444	0.24223	0.24223	0.24223
0300	0	7.1333	18	0.15556	0.12722	0.26667	0.24223	0.24223
0600	0	8.0700	21	0.16667	0.13333	0.27778	0.24223	0.24223
0900	0	9.0667	24	0.21111	0.10556	0.29444	0.24223	0.24223
1200	0	10.4444	21	0.23333	0.11667	0.24111	0.24223	0.24223
1500	3	10.4444	24	0.22222	0.12778	0.26667	0.24223	0.24223
1800	0	7.7111	25	0.25556	0.12389	0.22778	0.24223	0.24223
2100	0	7.7111	26	0.16667	0.15556	0.27223	0.24223	0.24223

THE HOURLY SUMMARY TABLE FOR SPR. 1953

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.5239	26	0.23913	0.22243	0.22243	0.22243	0.22243
0300	0	7.4247	26	0.23052	0.22413	0.21196	0.21196	0.21196
0600	0	8.1304	30	0.23109	0.20434	0.17935	0.22243	0.22243
0900	2	11.9021	30	0.22243	0.20434	0.30557	0.20109	0.20109
1200	2	13.2174	35	0.25543	0.19022	0.31522	0.25543	0.25543
1500	2	13.0709	27	0.27174	0.20562	0.27177	0.24457	0.24457
1800	0	10.5634	22	0.24457	0.29343	0.19343	0.27177	0.27177
2100	0	7.7429	22	0.23052	0.25500	0.27177	0.19343	0.19343

THE HOURLY SUMMARY TABLE FOR SUM. 1953

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	6.8336	19	0.15761	0.26037	0.42335	0.04348	0.04348
0300	0	5.9782	22	0.19022	0.17391	0.41304	0.17391	0.17391
0600	0	6.3597	22	0.22243	0.21196	0.32609	0.26923	0.26923
0900	0	8.8043	21	0.16304	0.23370	0.47424	0.27305	0.27305
1200	2	11.4130	23	0.19022	0.21196	0.53241	0.05622	0.05622
1500	0	11.5217	26	0.19022	0.21739	0.52717	0.05622	0.05622
1800	2	9.7237	20	0.19022	0.26430	0.42223	0.07305	0.07305
2100	0	7.6304	21	0.15217	0.23913	0.44555	0.26522	0.26522

THE HOURLY SUMMARY TABLE FOR FALL 1953

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	6.2527	17	0.12637	0.23525	0.38418	0.16231	0.16231
0300	0	6.1428	18	0.13187	0.15385	0.29121	0.21429	0.21429
0600	0	6.1750	16	0.13187	0.17592	0.39223	0.25824	0.25824
0900	0	9.9455	23	0.14835	0.17922	0.41209	0.19783	0.19783
1200	3	12.2637	23	0.20330	0.13736	0.47253	0.16021	0.16021
1500	0	11.3247	22	0.18681	0.15924	0.43456	0.16231	0.16231
1800	0	8.0217	14	0.24725	0.21770	0.32457	0.14132	0.14132
2100	0	6.9233	19	0.17582	0.24176	0.36264	0.13187	0.13187

THE HOURLY SUMMARY TABLE FOR MIN. 1954

HR	LB	AVG. VEL.	US	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.52333	28	0.21667	0.16111	0.32222	0.24444	0.24444
0300	0	8.72833	22	0.23000	0.15000	0.31111	0.27222	0.27222
0600	0	8.12222	26	0.22222	0.16111	0.25556	0.27778	0.27778
0900	0	9.42000	21	0.23333	0.12778	0.24889	0.31667	0.31667
1200	0	11.34444	24	0.27722	0.36111	0.35000	0.29444	0.29444
1500	0	11.21111	21	0.30000	0.37778	0.33889	0.27222	0.27222
1800	0	8.46667	20	0.24444	0.13333	0.31667	0.23889	0.23889
2100	0	8.37778	20	0.24444	0.13333	0.37778	0.21111	0.21111

Topeka
Instrument Height
1954-1955 58 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1954

HR	LB	AVG. VEL.	US	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.40735	24	0.19815	0.21196	0.29871	0.16304	0.16304
0300	0	7.57639	22	0.26650	0.23109	0.19072	0.17935	0.17935
0600	0	8.31774	22	0.21196	0.23913	0.21196	0.20652	0.20652
0900	0	10.31251	23	0.29491	0.20652	0.29348	0.15761	0.15761
1200	0	12.21067	26	0.26047	0.25000	0.23251	0.18478	0.18478
1500	0	12.17341	28	0.27174	0.20109	0.32065	0.19565	0.19565
1800	0	11.38935	21	0.30918	0.23370	0.27117	0.17935	0.17935
2100	0	8.47273	24	0.25000	0.26630	0.26087	0.12500	0.12500

THE HOURLY SUMMARY TABLE FOR SUM. 1954

HR	LB	AVG. VEL.	US	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.80217	20	0.13058	0.32365	0.39130	0.09239	0.09239
0300	0	7.89213	17	0.12540	0.23104	0.35870	0.05783	0.05783
0600	0	8.33343	17	0.23152	0.29348	0.38043	0.10326	0.10326
0900	0	9.26957	19	0.10326	0.26630	0.44365	0.17391	0.17391
1200	0	10.25052	21	0.11513	0.24457	0.46759	0.17391	0.17391
1500	0	11.44348	30	0.17435	0.27174	0.44555	0.09239	0.09239
1800	0	8.33343	19	0.15217	0.22609	0.45139	0.04391	0.04391
2100	0	7.71174	35	0.11413	0.35870	0.43878	0.04891	0.04891

THE HOURLY SUMMARY TABLE FOR FALL 1954

HR	LB	AVG. VEL.	US	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.73333	17	0.17033	0.23176	0.30220	0.17582	0.17582
0300	0	7.70022	21	0.14254	0.25275	0.31868	0.26879	0.26879
0600	0	7.12222	20	0.12617	0.24725	0.27474	0.21978	0.21978
0900	0	12.53844	22	0.13132	0.24725	0.34315	0.18132	0.18132
1200	0	12.42154	24	0.21427	0.14435	0.43386	0.10780	0.10780
1500	0	12.07122	23	0.25275	0.11735	0.47807	0.13181	0.13181
1800	0	7.26673	20	0.24725	0.15664	0.43437	0.04941	0.04941
2100	0	8.13333	24	0.23077	0.23077	0.33516	0.11736	0.11736

THE HOURLY SUMMARY TABLE FOR WIN. 1955

HR	LB	AVG. VEL.	US	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.06567	28	0.26667	0.12222	0.30000	0.24444	0.24444
0300	0	8.54333	23	0.23889	0.17778	0.25556	0.25556	0.25556
0600	0	8.64444	23	0.27273	0.21667	0.21111	0.25556	0.25556
0900	0	9.54333	22	0.23333	0.14444	0.23333	0.23333	0.23333
1200	0	11.67778	23	0.27222	0.17778	0.23333	0.23333	0.23333
1500	0	11.20000	22	0.30556	0.13333	0.25444	0.21667	0.21667
1800	0	9.37778	22	0.30000	0.15000	0.26667	0.23333	0.23333
2100	0	8.62222	24	0.23889	0.16667	0.23333	0.23333	0.23333

THE HOURLY SUMMARY TABLE FOR SPR. 1955

HR	LB	AVG. VEL.	US	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.73913	22	0.17935	0.29368	0.27174	0.15761	0.15761
0300	0	8.86957	23	0.18474	0.25000	0.23370	0.16322	0.16322
0600	0	9.08595	25	0.20652	0.25000	0.25543	0.20325	0.20325
0900	0	13.36957	30	0.26630	0.22426	0.32630	0.14017	0.14017
1200	0	15.65217	28	0.23913	0.21196	0.33537	0.13217	0.13217
1500	2	14.97301	26	0.23613	0.16843	0.47535	0.15394	0.15394
1800	0	11.93113	30	0.24826	0.25443	0.33222	0.15317	0.15317
2100	0	9.06565	20	0.22263	0.30973	0.33152	0.11413	0.11413

THE HOURLY SUMMARY TABLE FOR SUM. 1955

HR	LB	AVG. VEL.	US	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.38243	18	0.27609	0.27174	0.41348	0.13278	0.13278
0300	0	6.25037	20	0.07065	0.27174	0.35326	0.13373	0.13373
0600	0	6.94348	19	0.11413	0.19322	0.35043	0.11337	0.11337
0900	0	10.11957	21	0.12500	0.20109	0.44457	0.15761	0.15761
1200	0	11.31322	22	0.17935	0.26630	0.42335	0.25218	0.25218
1500	0	12.31572	20	0.17935	0.27174	0.44322	0.19232	0.19232
1800	2	12.59378	20	0.19222	0.30435	0.47223	0.23211	0.23211
2100	0	7.38243	22	0.11413	0.35870	0.35770	0.20573	0.20573

THE HOURLY SUMMARY TABLE FOR FALL 1955

HR	LB	AVG. VEL.	US	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.23077	25	0.17033	0.15335	0.25171	0.22337	0.22337
0300	0	8.13333	20	0.15934	0.21073	0.27473	0.22337	0.22337
0600	0	9.07297	18	0.19334	0.21073	0.27473	0.22337	0.22337
0900	0	12.13441	25	0.23077	0.16132	0.25165	0.14331	0.14331
1200	0	13.49355	25	0.28871	0.16631	0.35165	0.17582	0.17582
1500	0	13.14286	24	0.26921	0.18641	0.46413	0.17582	0.17582
1800	0	9.07297	20	0.26374	0.19334	0.36113	0.12917	0.12917
2100	0	9.06396	25	0.13132	0.15335	0.35714	0.20573	0.20573

THE HOURLY SUMMARY TABLE FOR WIN. 1957

HR	LB	AVG. VEL.	UB	NTM.	DIRECTION	EAST	STM.	WEST
2400	0	7.68849	20	0.30556	0.17774	0.18333	0.18333	0.18333
0300	0	8.03000	25	0.30556	0.16111	0.17222	0.17222	0.17222
0600	0	7.93333	20	0.25000	0.15000	0.15000	0.15000	0.15000
0900	0	9.44444	29	0.28333	0.15555	0.24444	0.24444	0.24444
1200	0	11.40000	25	0.34444	0.12222	0.22222	0.22222	0.22222
1500	0	11.26557	25	0.33487	0.11957	0.23487	0.23487	0.23487
1800	0	8.71111	20	0.36111	0.16333	0.23333	0.23333	0.23333
2100	0	8.00000	20	0.30000	0.16111	0.24444	0.24444	0.24444

THE HOURLY SUMMARY TABLE FOR SPR. 1957

HR	LB	AVG. VEL.	UB	NTM.	DIRECTION	EAST	STM.	WEST
2400	0	8.72323	22	0.21190	0.31522	0.22313	0.22313	0.22313
0300	0	8.55455	25	0.23413	0.26657	0.14304	0.14304	0.14304
0600	0	8.77174	27	0.23413	0.27174	0.17391	0.17391	0.17391
0900	0	13.01047	33	0.25543	0.24444	0.26030	0.26030	0.26030
1200	0	13.49913	29	0.22826	0.20761	0.28261	0.28261	0.28261
1500	0	14.13043	27	0.21739	0.29391	0.32045	0.32045	0.32045
1800	3	12.53000	25	0.29291	0.27174	0.29343	0.29343	0.29343
2100	0	9.91304	23	0.24457	0.36413	0.22325	0.22325	0.22325

THE HOURLY SUMMARY TABLE FOR SUM. 1957

HR	LB	AVG. VEL.	UB	NTM.	DIRECTION	EAST	STM.	WEST
2400	0	7.55435	20	0.12300	0.28261	0.34543	0.34543	0.34543
0300	0	6.31522	18	0.17391	0.20133	0.34543	0.34543	0.34543
0600	0	6.61957	18	0.15217	0.23370	0.28304	0.28304	0.28304
0900	0	9.46521	23	0.13070	0.24657	0.41344	0.41344	0.41344
1200	0	11.45913	25	0.16130	0.24457	0.46730	0.46730	0.46730
1500	0	11.77174	23	0.11557	0.25591	0.45139	0.45139	0.45139
1800	0	11.03261	25	0.16448	0.26027	0.47825	0.47825	0.47825
2100	0	8.03696	17	0.09783	0.36957	0.39130	0.39130	0.39130

THE HOURLY SUMMARY TABLE FOR FALL 1957

HR	LB	AVG. VEL.	UB	NTM.	DIRECTION	EAST	STM.	WEST
2400	0	7.25775	24	0.21429	0.24725	0.19331	0.19331	0.19331
0300	0	6.47253	18	0.17582	0.20879	0.20879	0.20879	0.20879
0600	0	6.47912	18	0.15385	0.21974	0.17562	0.17562	0.17562
0900	0	9.50549	20	0.22527	0.24176	0.26374	0.26374	0.26374
1200	0	11.13621	23	0.24725	0.23525	0.26325	0.26325	0.26325
1500	0	11.81319	30	0.27473	0.23077	0.24725	0.24725	0.24725
1800	0	8.92308	21	0.31868	0.29121	0.21429	0.21429	0.21429
2100	0	7.82417	23	0.19231	0.27473	0.20133	0.20133	0.20133

Topoka
Instrument Height
1956-1957 72 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1956

HR	LB	AVG. VEL.	UB	NTM.	DIRECTION	EAST	STM.	WEST
2400	0	9.10000	20	0.31111	0.24444	0.20556	0.20556	0.20556
0300	0	8.42222	20	0.33333	0.17222	0.18889	0.18889	0.18889
0600	0	8.67778	20	0.30000	0.23333	0.17222	0.17222	0.17222
0900	0	10.50000	24	0.30000	0.21111	0.24444	0.24444	0.24444
1200	0	10.33333	23	0.32222	0.26667	0.20556	0.20556	0.20556
1500	0	11.43333	25	0.31657	0.24444	0.27778	0.27778	0.27778
1800	0	8.72222	20	0.26111	0.23444	0.21667	0.21667	0.21667
2100	0	9.33333	24	0.33444	0.22222	0.17778	0.17778	0.17778

THE HOURLY SUMMARY TABLE FOR SPR. 1956

HR	LB	AVG. VEL.	UB	NTM.	DIRECTION	EAST	STM.	WEST
2400	0	13.06443	20	0.21156	0.19032	0.29091	0.29091	0.29091
0300	0	13.01047	24	0.16478	0.19032	0.27717	0.27717	0.27717
0600	0	13.19666	29	0.21739	0.15781	0.27174	0.27174	0.27174
0900	0	13.25733	24	0.21739	0.18478	0.32609	0.32609	0.32609
1200	0	14.03771	24	0.25000	0.17391	0.31352	0.31352	0.31352
1500	3	14.42311	30	0.22726	0.18478	0.31522	0.31522	0.31522
1800	0	12.71774	34	0.28804	0.21190	0.27174	0.27174	0.27174
2100	0	13.72326	26	0.22948	0.20139	0.30978	0.30978	0.30978

THE HOURLY SUMMARY TABLE FOR SUM. 1956

HR	LB	AVG. VEL.	UB	NTM.	DIRECTION	EAST	STM.	WEST
2400	0	7.43474	16	0.12500	0.29348	0.36957	0.36957	0.36957
0300	0	7.54783	10	0.09239	0.29143	0.35870	0.35870	0.35870
0600	0	6.36679	24	0.10473	0.29148	0.37500	0.37500	0.37500
0900	0	10.21773	22	0.13567	0.27174	0.43478	0.43478	0.43478
1200	0	12.61231	22	0.17735	0.20139	0.49457	0.49457	0.49457
1500	0	13.04095	24	0.23013	0.20652	0.45552	0.45552	0.45552
1800	0	13.19217	20	0.16344	0.34783	0.42391	0.42391	0.42391
2100	0	8.13470	20	0.13043	0.36674	0.34239	0.34239	0.34239

THE HOURLY SUMMARY TABLE FOR FALL 1956

HR	LB	AVG. VEL.	UB	NTM.	DIRECTION	EAST	STM.	WEST
2400	0	9.00000	24	0.21978	0.12537	0.34615	0.34615	0.34615
0300	0	8.03786	28	0.21429	0.14835	0.21978	0.21978	0.21978
0600	0	8.47553	24	0.15934	0.28022	0.28022	0.28022	0.28022
0900	0	11.43552	30	0.20879	0.14035	0.35165	0.35165	0.35165
1200	0	13.74725	30	0.19231	0.15934	0.39560	0.39560	0.39560
1500	0	14.38451	31	0.29022	0.07692	0.41208	0.41208	0.41208
1800	0	13.47254	20	0.26823	0.15934	0.43955	0.43955	0.43955
2100	0	9.04931	30	0.20330	0.17033	0.39462	0.39462	0.39462

THE HOURLY SUMMARY TABLE FOR WIN. 1959

HOURLY	LB	AVG.	VEL.	UP	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.3778	20	0.2333	0.1333	0.2222	0.2222	0.2444	0.2444
0300	0	8.1333	24	0.2333	0.1333	0.2111	0.2722	0.2722	0.2722
0600	0	8.3333	24	0.2667	0.1667	0.2333	0.2556	0.2556	0.2556
0900	0	8.5556	25	0.2667	0.2333	0.2333	0.2667	0.2667	0.2667
1200	0	12.1111	23	0.2778	0.2056	0.2667	0.2333	0.2333	0.2333
1500	0	12.2778	26	0.2944	0.1556	0.2500	0.2667	0.2667	0.2667
1800	0	8.7778	21	0.3333	0.1333	0.1944	0.1889	0.1889	0.1889
2100	0	9.5556	24	0.2667	0.1778	0.2389	0.2167	0.2167	0.2167

Mopora

Instrument Height
1958-1959 72 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1959

HOURLY	LB	AVG.	VEL.	UP	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.8125	23	0.2400	0.1429	0.1922	0.1630	0.1630	0.1630
0300	0	8.1111	22	0.2222	0.1667	0.1649	0.2179	0.2179	0.2179
0600	0	7.5556	21	0.2556	0.1333	0.1902	0.1902	0.1902	0.1902
0900	0	8.7778	24	0.2444	0.1667	0.1955	0.1793	0.1793	0.1793
1200	0	12.2778	24	0.2333	0.2556	0.2073	0.1587	0.1587	0.1587
1500	0	11.1111	21	0.2444	0.1667	0.2174	0.1649	0.1649	0.1649
1800	0	11.1111	21	0.2444	0.1667	0.2174	0.1649	0.1649	0.1649
2100	0	7.1047	20	0.2444	0.1522	0.1878	0.1902	0.1902	0.1902

THE HOURLY SUMMARY TABLE FOR SUM. 1959

HOURLY	LB	AVG.	VEL.	UP	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	6.5556	19	0.1304	0.2062	0.2857	0.0929	0.0929	0.0929
0300	0	6.3333	25	0.1304	0.1922	0.2714	0.1358	0.1358	0.1358
0600	0	6.2222	33	0.1579	0.2119	0.2717	0.1143	0.1143	0.1143
0900	0	6.1556	29	0.2283	0.1793	0.4183	0.1358	0.1358	0.1358
1200	0	10.5556	20	0.2243	0.2174	0.4750	0.1521	0.1521	0.1521
1500	0	12.0000	21	0.2226	0.2062	0.4148	0.1587	0.1587	0.1587
1800	0	6.5556	20	0.2370	0.1773	0.4283	0.0543	0.0543	0.0543
2100	0	7.5556	25	0.1674	0.3326	0.3827	0.0491	0.0491	0.0491

THE HOURLY SUMMARY TABLE FOR FALL 1959

HOURLY	LB	AVG.	VEL.	UP	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	3.1538	22	0.1289	0.1921	0.3911	0.2087	0.2087	0.2087
0300	0	7.5556	28	0.1533	0.1594	0.3862	0.2637	0.2637	0.2637
0600	0	7.5556	23	0.0341	0.1743	0.3824	0.2912	0.2912	0.2912
0900	0	12.1752	25	0.1534	0.1208	0.4604	0.2572	0.2572	0.2572
1200	0	12.1538	25	0.1780	0.1040	0.4801	0.1978	0.1978	0.1978
1500	0	12.1538	20	0.1241	0.1137	0.4001	0.1861	0.1861	0.1861
1800	0	9.1234	27	0.2727	0.1733	0.4753	0.1049	0.1049	0.1049
2100	0	8.3549	25	0.1443	0.1732	0.4356	0.1703	0.1703	0.1703

THE HOURLY SUMMARY TABLE FOR WIN. 1959

HOURLY	LB	AVG.	VEL.	UP	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.7333	25	0.3056	0.1356	0.2774	0.2127	0.2127	0.2127
0300	0	9.3449	26	0.3278	0.0778	0.2859	0.2522	0.2522	0.2522
0600	0	9.5774	22	0.3111	0.1167	0.2833	0.2667	0.2667	0.2667
0900	0	10.6222	23	0.2633	0.1274	0.2222	0.2333	0.2333	0.2333
1200	0	11.5556	23	0.2222	0.0933	0.2000	0.2556	0.2556	0.2556
1500	0	12.6333	24	0.3389	0.0444	0.1611	0.2556	0.2556	0.2556
1800	0	10.1047	22	0.3722	0.3667	0.3000	0.1778	0.1778	0.1778
2100	0	9.8889	35	0.3056	0.1056	0.2774	0.1556	0.1556	0.1556

THE HOURLY SUMMARY TABLE FOR SPR. 1959

HOURLY	LB	AVG.	VEL.	UP	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	11.5556	24	0.1956	0.2333	0.3265	0.1763	0.1763	0.1763
0300	0	10.6667	26	0.2222	0.2222	0.2667	0.1763	0.1763	0.1763
0600	0	10.3217	26	0.1847	0.2556	0.3122	0.2111	0.2111	0.2111
0900	0	13.4679	25	0.2717	0.2013	0.2556	0.1157	0.1157	0.1157
1200	0	15.4291	30	0.2826	0.1649	0.3074	0.1517	0.1517	0.1517
1500	0	15.6791	28	0.3532	0.1933	0.3357	0.1534	0.1534	0.1534
1800	0	16.0806	40	0.2933	0.1956	0.3266	0.1634	0.1634	0.1634
2100	0	11.3261	33	0.2637	0.2222	0.3152	0.1556	0.1556	0.1556

THE HOURLY SUMMARY TABLE FOR SUM. 1959

HOURLY	LB	AVG.	VEL.	UP	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.5556	24	0.1143	0.2370	0.3619	0.3578	0.3578	0.3578
0300	0	7.1413	21	0.1357	0.2222	0.3552	0.3578	0.3578	0.3578
0600	0	6.6413	18	0.0866	0.2931	0.4565	0.3578	0.3578	0.3578
0900	0	9.3573	21	0.3929	0.1878	0.4167	0.3756	0.3756	0.3756
1200	0	11.4347	22	0.1413	0.1735	0.4143	0.3756	0.3756	0.3756
1500	0	12.3750	26	0.1739	0.1956	0.3756	0.3756	0.3756	0.3756
1800	0	11.3035	23	0.1733	0.2370	0.3326	0.3261	0.3261	0.3261
2100	0	9.3261	25	0.1197	0.3526	0.4726	0.3717	0.3717	0.3717

THE HOURLY SUMMARY TABLE FOR FALL 1959

HOURLY	LB	AVG.	VEL.	UP	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.6134	24	0.1978	0.2623	0.3743	0.1735	0.1735	0.1735
0300	0	8.5934	25	0.2933	0.2129	0.3022	0.1931	0.1931	0.1931
0600	0	8.3026	21	0.2057	0.2127	0.2527	0.1813	0.1813	0.1813
0900	0	10.4263	20	0.2197	0.2129	0.3139	0.1861	0.1861	0.1861
1200	0	13.1039	26	0.2472	0.1473	0.4175	0.1735	0.1735	0.1735
1500	0	14.0947	25	0.2377	0.1931	0.3311	0.1735	0.1735	0.1735
1800	0	10.6134	22	0.2667	0.2327	0.3267	0.1735	0.1735	0.1735
2100	0	8.7912	25	0.2933	0.2476	0.2743	0.1632	0.1632	0.1632

THE HOURLY SUMMARY TABLE FOR WIN. 1961

HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
2400	0	8.1111	25	0.26667	0.17222	0.26667	0.17222
0300	0	8.8778	24	0.27778	0.20333	0.27778	0.20333
0600	0	9.2333	32	0.28333	0.19444	0.28333	0.19444
0900	0	9.8111	23	0.30556	0.14444	0.30556	0.14444
1200	3	12.2556	26	0.23333	0.20333	0.23333	0.20333
1500	2	12.6667	23	0.33333	0.13333	0.33333	0.13333
1800	0	10.6111	29	0.23333	0.15111	0.23333	0.15111
2100	0	9.6778	22	0.29444	0.14444	0.29444	0.14444

Topoka
Instrument Height
1960-1961 72 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1961

HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
2400	0	13.8667	25	0.23333	0.30976	0.23333	0.30976
0300	0	10.4444	23	0.21739	0.27717	0.21739	0.27717
0600	0	11.7222	25	0.24457	0.29333	0.24457	0.29333
0900	0	14.2667	25	0.34935	0.24221	0.34935	0.24221
1200	3	15.4231	21	0.24457	0.24221	0.24457	0.24221
1500	4	16.0267	35	0.33333	0.26527	0.33333	0.26527
1800	0	13.4444	23	0.36413	0.31973	0.36413	0.31973
2100	0	10.1494	23	0.29348	0.20974	0.29348	0.20974

THE HOURLY SUMMARY TABLE FOR SUM. 1961

HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
2400	0	8.5438	20	0.03152	0.29348	0.03152	0.29348
0300	0	6.9333	18	0.11413	0.27717	0.11413	0.27717
0600	0	6.9130	22	0.14674	0.28436	0.14674	0.28436
0900	0	9.5522	23	0.11413	0.25543	0.11413	0.25543
1200	3	11.5622	24	0.17391	0.22325	0.17391	0.22325
1500	4	12.2393	24	0.16848	0.21739	0.16848	0.21739
1800	3	11.1731	27	0.19565	0.23913	0.19565	0.23913
2100	0	8.2500	25	0.15217	0.20976	0.15217	0.20976

THE HOURLY SUMMARY TABLE FOR FALL 1961

HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
2400	0	9.9560	25	0.16231	0.14435	0.16231	0.14435
0300	0	9.2747	23	0.18681	0.21427	0.18681	0.21427
0600	0	9.4175	20	0.19231	0.21473	0.19231	0.21473
0900	0	11.9530	26	0.28725	0.11538	0.28725	0.11538
1200	0	14.2762	27	0.23077	0.10440	0.23077	0.10440
1500	0	13.6812	28	0.25824	0.07143	0.25824	0.07143
1800	0	11.4175	27	0.32413	0.13736	0.32413	0.13736
2100	0	9.2039	22	0.22527	0.16444	0.22527	0.16444

THE HOURLY SUMMARY TABLE FOR WIN. 1960

HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
2400	0	7.1889	24	0.27222	0.18889	0.27222	0.18889
0300	0	8.5349	20	0.26111	0.22778	0.26111	0.22778
0600	0	9.7667	21	0.27778	0.20333	0.27778	0.20333
0900	0	9.5494	21	0.21667	0.21667	0.21667	0.21667
1200	3	11.8778	24	0.31667	0.27778	0.31667	0.27778
1500	3	11.7778	30	0.29444	0.21111	0.29444	0.21111
1800	0	9.8111	24	0.30000	0.18333	0.30000	0.18333
2100	0	9.3333	22	0.26389	0.21111	0.26389	0.21111

THE HOURLY SUMMARY TABLE FOR SPR. 1960

HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
2400	0	8.7850	20	0.14133	0.20109	0.14133	0.20109
0300	0	8.2500	25	0.15761	0.25000	0.15761	0.25000
0600	0	9.5281	26	0.11413	0.29348	0.11413	0.29348
0900	0	12.9333	24	0.21196	0.21196	0.21196	0.21196
1200	3	14.2174	27	0.22413	0.19022	0.22413	0.19022
1500	5	15.3639	28	0.27174	0.14133	0.27174	0.14133
1800	3	13.3333	20	0.32609	0.14674	0.32609	0.14674
2100	0	9.8321	23	0.25543	0.20109	0.25543	0.20109

THE HOURLY SUMMARY TABLE FOR SUM. 1960

HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
2400	0	7.4378	20	0.14674	0.27717	0.14674	0.27717
0300	0	7.1850	20	0.17935	0.23370	0.17935	0.23370
0600	0	7.3000	16	0.19743	0.28436	0.19743	0.28436
0900	0	9.6726	23	0.19022	0.22825	0.19022	0.22825
1200	3	11.4362	25	0.20109	0.20109	0.20109	0.20109
1500	0	12.4324	23	0.21196	0.20652	0.21196	0.20652
1800	0	11.4324	25	0.16303	0.30435	0.16303	0.30435
2100	0	8.5522	18	0.14674	0.28561	0.14674	0.28561

THE HOURLY SUMMARY TABLE FOR FALL 1960

HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIR.	STH.	WEST
2400	0	7.0297	27	0.20322	0.16434	0.20322	0.16434
0300	0	7.1585	28	0.19730	0.25824	0.19730	0.25824
0600	0	7.5274	32	0.17202	0.21629	0.17202	0.21629
0900	0	9.3564	25	0.17582	0.13132	0.17582	0.13132
1200	0	12.0540	28	0.22527	0.10440	0.22527	0.10440
1500	3	12.7124	26	0.26923	0.08242	0.26923	0.08242
1800	0	9.4175	24	0.28121	0.18385	0.28121	0.18385
2100	0	7.5639	24	0.23626	0.19743	0.23626	0.19743

THE HOURLY SUMMARY TABLE FOR WIN. 1963

HR	LB	AVG.	UB	NTM.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	9.16667	23	0.30000	0.21667	0.23889	0.22222
0100	0	9.30000	25	0.26111	0.21111	0.23889	0.22222
0600	0	9.13889	25	0.25556	0.20000	0.21667	0.23000
0900	0	10.27778	25	0.29444	0.17778	0.24444	0.23889
1200	0	12.13333	22	0.38889	0.16111	0.25889	0.22222
1500	0	12.70000	20	0.39556	0.23333	0.27778	0.24444
1800	0	10.26667	20	0.27778	0.12778	0.29444	0.21667
2100	0	9.92222	24	0.31111	0.15556	0.26667	0.21111

THE HOURLY SUMMARY TABLE FOR SPR. 1963

HR	LB	AVG.	UB	NTM.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	10.63333	20	0.15000	0.23333	0.31222	0.15761
0100	0	9.61997	24	0.09783	0.20691	0.27174	0.15265
0600	0	9.29999	25	0.11097	0.26633	0.27174	0.25542
0900	0	12.40217	24	0.14100	0.28261	0.22656	0.23552
1200	0	15.30645	35	0.16304	0.25000	0.34239	0.22828
1500	0	14.32639	30	0.21194	0.22324	0.35779	0.15922
1800	0	14.17391	28	0.25343	0.29000	0.23151	0.12717
2100	0	11.35870	23	0.16304	0.23891	0.22634	0.15442

THE HOURLY SUMMARY TABLE FOR SUM. 1963

HR	LB	AVG.	UB	NTM.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	8.10370	22	0.37065	0.23293	0.29674	0.23242
0100	0	7.32605	17	0.09152	0.29991	0.43175	0.25445
0600	0	7.56338	22	0.13847	0.35325	0.32425	0.37573
0900	0	11.11957	20	0.13326	0.27174	0.49457	0.21152
1200	3	12.23696	23	0.15751	0.27174	0.30543	0.35972
1500	3	12.71739	20	0.14674	0.27174	0.49457	0.35972
1800	4	12.16304	30	0.17535	0.34733	0.46156	0.31257
2100	0	9.14130	17	0.10825	0.46196	0.37650	0.25543

THE HOURLY SUMMARY TABLE FOR FALL 1963

HR	LB	AVG.	UB	NTM.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	7.57143	30	0.39341	0.21176	0.33911	0.12252
0100	0	6.52747	19	0.07692	0.20333	0.34066	0.12252
0600	0	6.56944	17	0.07143	0.24725	0.27673	0.25273
0900	0	10.45055	31	0.14236	0.16414	0.46733	0.21429
1200	0	12.21778	30	0.14691	0.13147	0.45055	0.25273
1500	3	12.27516	25	0.24176	0.12334	0.45451	0.14254
1800	0	9.46352	26	0.17583	0.21429	0.43427	0.12252
2100	0	7.56614	13	0.15495	0.20673	0.34115	0.11252

- Tonoka
Instrument Height
1962-1963 72 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1962

HR	LB	AVG.	UB	NTM.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	9.73333	22	0.27778	0.20556	0.20000	0.29444
0100	0	8.97778	25	0.28333	0.17222	0.28333	0.28333
0600	0	10.32222	21	0.22778	0.19333	0.19444	0.37222
0900	3	10.33333	20	0.29444	0.17778	0.21667	0.31111
1200	3	12.37778	24	0.26667	0.13333	0.23333	0.26667
1500	3	12.37778	25	0.22778	0.12222	0.25556	0.24444
1800	0	12.16667	24	0.30000	0.17778	0.25556	0.22222
2100	0	9.95556	25	0.28333	0.16444	0.23889	0.24444

THE HOURLY SUMMARY TABLE FOR SPR. 1962

HR	LB	AVG.	UB	NTM.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	10.55778	36	0.16104	0.26087	0.35870	0.16104
0100	0	9.92652	29	0.16808	0.25000	0.33152	0.17391
0600	0	10.91170	26	0.16704	0.32065	0.27174	0.20652
0900	0	14.35415	23	0.16883	0.21739	0.38987	0.19565
1200	0	15.21174	28	0.19022	0.22828	0.39130	0.19022
1500	0	15.81957	28	0.22329	0.18478	0.40117	0.18478
1800	0	14.33370	25	0.18965	0.23261	0.36413	0.14674
2100	0	11.72243	26	0.17391	0.27174	0.37500	0.15217

THE HOURLY SUMMARY TABLE FOR SUM. 1962

HR	LB	AVG.	UB	NTM.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	7.72243	10	0.11064	0.30435	0.36957	0.09783
0100	0	7.11457	13	0.13083	0.25000	0.32699	0.14130
0600	0	6.64130	20	0.08152	0.35870	0.26087	0.12500
0900	0	9.79113	25	0.15761	0.25543	0.38063	0.14130
1200	0	11.42670	22	0.19022	0.23013	0.42915	0.09783
1500	0	11.39710	25	0.20652	0.26087	0.44022	0.08152
1800	0	10.82665	20	0.20109	0.30783	0.44322	0.02717
2100	0	8.11657	22	0.17925	0.33152	0.34723	0.04348

THE HOURLY SUMMARY TABLE FOR FALL 1962

HR	LB	AVG.	UB	NTM.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	7.23525	20	0.23379	0.24176	0.32927	0.14286
0100	0	6.82410	22	0.21878	0.23077	0.22527	0.20330
0600	0	7.51643	21	0.25075	0.26374	0.23077	0.16494
0900	0	10.19740	21	0.25255	0.24629	0.28571	0.22527
1200	0	11.33111	22	0.26623	0.20374	0.34615	0.13127
1500	0	11.78555	21	0.27473	0.19440	0.40110	0.11538
1800	0	9.21130	20	0.25946	0.33769	0.30270	0.09000
2100	0	8.25346	13	0.24176	0.26374	0.31310	0.11538

THE HOURLY SUMMARY TABLE FOR WIN. 1964

HOOR	LA	AVG.	UH	NTM.	DIRECTION	STH.	WEST
		VEL.					
2400	0	8.45599	24	0.20356	0.12222	0.20333	0.31111
0300	0	9.23334	32	0.21667	0.10000	0.25000	0.35556
0600	0	8.52222	30	0.17778	0.16667	0.22222	0.34444
0900	0	10.13333	30	0.17778	0.13333	0.30556	0.30000
1200	0	13.92222	35	0.50556	0.04333	0.26111	0.33889
1500	3	15.11111	30	0.33333	0.08333	0.22222	0.33889
1800	0	10.94444	25	0.30556	0.10556	0.24444	0.33333
2100	0	9.71111	22	0.24444	0.17222	0.26667	0.29444

Topoka

Instrument Height,

1964-

1965-

THE HOURLY SUMMARY TABLE FOR SPR. 1964

HOOR	LA	AVG.	UH	NTM.	DIRECTION	STH.	WEST
		VEL.					
2400	0	12.94512	28	0.14133	0.27174	0.42391	0.14133
0300	0	11.41334	28	0.14133	0.25543	0.34233	0.19556
0600	0	10.83473	28	0.16022	0.25513	0.31522	0.21196
0900	0	14.33425	33	0.18478	0.21719	0.35879	0.23913
1200	4	14.52173	23	0.20652	0.19565	0.59130	0.20652
1500	3	16.35130	30	0.23913	0.15217	0.39130	0.21720
1800	3	15.25352	30	0.23913	0.18478	0.39130	0.19022
2100	3	12.42331	30	0.19022	0.26037	0.34783	0.15761

THE HOURLY SUMMARY TABLE FOR SUM. 1964

HOOR	LA	AVG.	UH	NTM.	DIRECTION	STH.	WEST
		VEL.					
2400	0	8.41334	24	0.11413	0.39133	0.32065	0.13043
0300	0	8.94343	20	0.14974	0.34233	0.32609	0.11957
0600	0	7.03665	22	0.09239	0.39133	0.29891	0.15217
0900	0	15.70552	23	0.09239	0.33370	0.41948	0.10870
1200	0	11.72261	26	0.14133	0.29371	0.42935	0.09783
1500	3	12.63970	23	0.13567	0.33595	0.44565	0.08152
1800	3	11.38957	24	0.11957	0.35070	0.44022	0.08152
2100	0	7.10870	23	0.09239	0.44565	0.38687	0.03261

THE HOURLY SUMMARY TABLE FOR FALL 1964

HOOR	LA	AVG.	UH	NTM.	DIRECTION	STH.	WEST
		VEL.					
2400	0	5.52301	18	0.18681	0.18681	0.31319	0.11338
0300	0	5.94347	18	0.18681	0.20879	0.28571	0.14286
0600	0	6.04926	18	0.18132	0.24725	0.29679	0.14286
0900	0	8.71623	20	0.15780	0.17033	0.37363	0.10132
1200	0	10.56045	19	0.15275	0.11533	0.45055	0.15934
1500	0	10.62637	22	0.17374	0.13734	0.47308	0.16486
1800	0	7.15345	18	0.20330	0.23527	0.42308	0.13440
2100	0	5.32297	20	0.13132	0.20330	0.3316	0.11533

THE HOURLY SUMMARY TABLE FOR WIN. 1965

HOOR	LA	AVG.	UH	NTM.	DIRECTION	STH.	WEST
		VEL.					
2400	0	7.51111	21	0.27778	0.12778	0.27222	0.17778
0300	0	8.06667	22	0.27222	0.14444	0.22222	0.25556
0600	0	7.20000	20	0.28889	0.16667	0.21111	0.18333
0900	0	8.33333	22	0.32222	0.18333	0.26111	0.13444
1200	0	9.70000	21	0.29444	0.11667	0.35000	0.25556
1500	0	9.45556	20	0.28149	0.13333	0.35000	0.25556
1800	0	8.06667	22	0.30556	0.15556	0.33333	0.18333
2100	0	7.81111	18	0.27778	0.14111	0.22222	0.22222

THE HOURLY SUMMARY TABLE FOR SPR. 1965

HOOR	LA	AVG.	UH	NTM.	DIRECTION	STH.	WEST
		VEL.					
2400	0	9.39435	21	0.21136	0.14133	0.33133	0.15761
0300	0	7.77626	20	0.22263	0.16334	0.34233	0.25556
0600	0	7.02391	20	0.22826	0.15022	0.25533	0.14479
0900	0	11.23713	26	0.25543	0.15217	0.36577	0.21156
1200	0	12.65217	25	0.28803	0.11927	0.39574	0.17351
1500	3	12.66334	24	0.26087	0.14674	0.36477	0.20139
1800	0	11.26647	23	0.27717	0.13473	0.34783	0.14543
2100	0	9.07937	20	0.24457	0.21136	0.35533	0.25556

THE HOURLY SUMMARY TABLE FOR SUM. 1965

HOOR	LA	AVG.	UH	NTM.	DIRECTION	STH.	WEST
		VEL.					
2400	0	5.60470	17	0.09783	0.23373	0.35567	0.04522
0300	0	5.23261	17	0.07609	0.28291	0.34233	0.15317
0600	0	5.20652	17	0.13043	0.31532	0.28261	0.25556
0900	0	7.77174	16	0.19370	0.24394	0.30150	0.12000
1200	0	9.26237	18	0.15217	0.24971	0.41843	0.06783
1500	0	9.55435	18	0.15761	0.24834	0.40761	0.12500
1800	0	8.02174	22	0.15761	0.32065	0.43843	0.27363
2100	0	5.50783	15	0.11413	0.32065	0.35573	0.25556

THE HOURLY SUMMARY TABLE FOR FALL 1965

HOOR	LA	AVG.	UH	NTM.	DIRECTION	STH.	WEST
		VEL.					
2400	0	5.71428	17	0.17582	0.18132	0.26670	0.11332
0300	0	5.28571	16	0.14286	0.21978	0.25627	0.22527
0600	0	5.07692	15	0.12637	0.19231	0.24725	0.21429
0900	0	7.90720	20	0.19440	0.15534	0.31813	0.26482
1200	0	10.57253	22	0.17582	0.14435	0.41759	0.23626
1500	0	10.70121	20	0.17582	0.19643	0.42567	0.24725
1800	0	6.16113	14	0.16444	0.23377	0.36413	0.14286
2100	0	5.30560	16	0.12934	0.23377	0.27421	0.25556

THE HOURLY SUMMARY TABLE FOR WIN. 1966

HR	LB	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.7777	20	0.2111	0.1889	0.2111	0.1889
0300	0	7.7777	20	0.2500	0.1778	0.2333	0.1933
0600	0	11.1444	20	0.2500	0.2444	0.2444	0.2056
0900	0	11.1444	20	0.2722	0.2356	0.2444	0.1778
1200	0	11.1444	20	0.3356	0.1556	0.2778	0.2500
1500	0	11.1444	20	0.3778	0.1333	0.2778	0.2611
1800	0	11.1444	20	0.3778	0.1778	0.2778	0.1444
2100	0	7.7777	20	0.2333	0.1889	0.2611	0.1833

THE HOURLY SUMMARY TABLE FOR SUM. 1966

HR	LB	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.7777	20	0.2062	0.2500	0.2286	0.1517
0300	0	7.7777	20	0.1933	0.1933	0.2056	0.1933
0600	0	7.7777	20	0.1933	0.1933	0.2056	0.1933
0900	0	11.1444	20	0.2111	0.1333	0.2056	0.2556
1200	0	11.1444	20	0.2537	0.1633	0.1633	0.2500
1500	0	11.1444	20	0.2633	0.1633	0.2056	0.2556
1800	0	11.1444	20	0.2633	0.1633	0.2056	0.1733
2100	0	7.7777	20	0.2717	0.1922	0.2056	0.1633

THE HOURLY SUMMARY TABLE FOR SUM. 1966

HR	LB	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.7777	20	0.2709	0.2445	0.2429	0.0438
0300	0	7.7777	20	0.2445	0.2052	0.2526	0.0578
0600	0	7.7777	20	0.2445	0.2052	0.2526	0.0578
0900	0	11.1444	20	0.2445	0.2052	0.2526	0.0578
1200	0	11.1444	20	0.2445	0.2052	0.2526	0.0578
1500	0	11.1444	20	0.2445	0.2052	0.2526	0.0578
1800	0	11.1444	20	0.2445	0.2052	0.2526	0.0578
2100	0	7.7777	20	0.2445	0.2052	0.2526	0.0578

THE HOURLY SUMMARY TABLE FOR FALL 1966

HR	LB	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.7777	20	0.1923	0.1263	0.2857	0.0489
0300	0	7.7777	20	0.1923	0.1263	0.2857	0.0489
0600	0	7.7777	20	0.1923	0.1263	0.2857	0.0489
0900	0	7.7777	20	0.1923	0.1263	0.2857	0.0489
1200	0	7.7777	20	0.1923	0.1263	0.2857	0.0489
1500	0	7.7777	20	0.1923	0.1263	0.2857	0.0489
1800	0	7.7777	20	0.1923	0.1263	0.2857	0.0489
2100	0	7.7777	20	0.1923	0.1263	0.2857	0.0489

THE HOURLY SUMMARY TABLE FOR WIN. 1957

HR	LB	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.7777	20	0.2111	0.1278	0.3222	0.2278
0300	0	7.7777	20	0.2167	0.1333	0.2833	0.2111
0600	0	7.7777	20	0.2722	0.1611	0.2278	0.2333
0900	0	7.7777	20	0.2667	0.1500	0.2278	0.2778
1200	0	11.1444	20	0.2722	0.1556	0.2778	0.2111
1500	0	11.1444	20	0.3111	0.1333	0.3111	0.2111
1800	0	7.7777	20	0.2722	0.1722	0.2500	0.1333
2100	0	7.7777	20	0.2611	0.1611	0.2222	0.1778

THE HOURLY SUMMARY TABLE FOR SUM. 1957

HR	LB	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.7777	20	0.1667	0.2445	0.3429	0.2556
0300	0	7.7777	20	0.1933	0.2222	0.3111	0.1611
0600	0	7.7777	20	0.2333	0.2667	0.2500	0.1333
0900	0	11.1444	20	0.1933	0.2667	0.2500	0.1333
1200	0	11.1444	20	0.1933	0.2667	0.2500	0.1333
1500	0	11.1444	20	0.2222	0.2500	0.2500	0.2222
1800	0	11.1444	20	0.2222	0.2500	0.2500	0.2222
2100	0	7.7777	20	0.2222	0.2500	0.2500	0.2222

THE HOURLY SUMMARY TABLE FOR SUM. 1957

HR	LB	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.7777	20	0.1333	0.1739	0.2952	0.2222
0300	0	7.7777	20	0.1333	0.1739	0.2952	0.2222
0600	0	7.7777	20	0.1333	0.1739	0.2952	0.2222
0900	0	7.7777	20	0.1333	0.1739	0.2952	0.2222
1200	0	7.7777	20	0.1333	0.1739	0.2952	0.2222
1500	0	7.7777	20	0.1333	0.1739	0.2952	0.2222
1800	0	7.7777	20	0.1333	0.1739	0.2952	0.2222
2100	0	7.7777	20	0.1333	0.1739	0.2952	0.2222

THE HOURLY SUMMARY TABLE FOR FALL 1957

HR	LB	AVG. VEL.	DIR.	NTH.	EAST	STH.	WEST
2400	0	7.7777	20	0.1263	0.1204	0.2377	0.1312
0300	0	7.7777	20	0.1263	0.1204	0.2377	0.1312
0600	0	7.7777	20	0.1263	0.1204	0.2377	0.1312
0900	0	7.7777	20	0.1263	0.1204	0.2377	0.1312
1200	0	7.7777	20	0.1263	0.1204	0.2377	0.1312
1500	0	7.7777	20	0.1263	0.1204	0.2377	0.1312
1800	0	7.7777	20	0.1263	0.1204	0.2377	0.1312
2100	0	7.7777	20	0.1263	0.1204	0.2377	0.1312

Topeka
Instrument Height
1966-1967 20 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1963

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2400	0	0.42867	17	0.27222	0.14444	0.25000	0.20000
2300	0	0.35555	13	0.27222	0.15000	0.21667	0.20556
2200	0	0.42444	23	0.29444	0.16111	0.19444	0.19444
2100	0	0.53667	23	0.29444	0.15000	0.27778	0.23333
2000	0	1.01111	23	0.27778	0.15000	0.27778	0.22222
1900	0	1.01111	23	0.27222	0.16111	0.28889	0.24444
1800	0	0.91111	23	0.25556	0.19444	0.24444	0.19444
2100	0	0.64444	20	0.28333	0.16111	0.26111	0.18333

Toneka

Instrument Weight

1968-1969 20 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1959

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2400	0	0.17778	22	0.25000	0.28333	0.17222	0.21222
2300	0	0.86667	24	0.23333	0.30556	0.13333	0.21111
2200	0	0.70000	25	0.21667	0.25000	0.12889	0.22778
2100	0	0.13333	25	0.21667	0.28333	0.13333	0.22778
2000	0	0.43333	22	0.26111	0.23333	0.21111	0.21556
1900	0	0.14444	23	0.25000	0.26111	0.21111	0.21556
1800	0	0.67778	23	0.29444	0.21222	0.18333	0.21111
2100	0	0.67778	27	0.23333	0.26333	0.16111	0.21556

THE HOURLY SUMMARY TABLE FOR SPR. 1963

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2400	0	1.75870	25	0.22283	0.11957	0.31522	0.14674
2300	0	0.63473	20	0.20109	0.15217	0.22283	0.18479
2200	0	0.75413	20	0.14674	0.18479	0.27174	0.24657
2100	0	1.14217	20	0.23913	0.13317	0.33152	0.27174
2000	0	1.22325	26	0.21739	0.15761	0.33043	0.24457
1900	0	1.14891	21	0.25543	0.11957	0.34783	0.27117
1800	0	1.05873	21	0.25000	0.14133	0.30435	0.30435
2100	0	0.73473	19	0.22826	0.17935	0.32065	0.19265

THE HOURLY SUMMARY TABLE FOR SUM. 1968

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2400	0	0.53659	20	0.08152	0.23652	0.50543	0.36522
2300	0	0.70855	23	0.11411	0.10326	0.42935	0.14674
2200	0	0.14133	13	0.10370	0.18474	0.45652	0.07665
2100	0	0.34733	20	0.10326	0.23652	0.57065	0.09783
2000	0	0.40717	18	0.13043	0.12500	0.63043	0.10326
1900	0	0.42739	20	0.13043	0.18474	0.58152	0.08152
1800	0	0.78278	13	0.13870	0.23913	0.58152	0.07665
2100	0	0.10473	17	0.08093	0.30435	0.46196	0.07665

THE HOURLY SUMMARY TABLE FOR FALL 1968

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2400	0	0.51319	18	0.13187	0.09341	0.28022	0.16484
2300	0	0.38294	13	0.14286	0.09341	0.27473	0.20330
2200	0	0.53554	17	0.12068	0.19780	0.24725	0.21429
2100	0	0.31317	20	0.19780	0.07143	0.40659	0.23626
2000	0	0.34179	23	0.28571	0.06593	0.31758	0.19780
1900	0	1.00113	20	0.29121	0.06044	0.45055	0.16881
1800	0	0.71543	20	0.23769	0.10344	0.37363	0.14644
2100	0	0.55544	20	0.19743	0.10647	0.26615	0.13187

THE HOURLY SUMMARY TABLE FOR SPR. 1959

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2400	0	0.19565	20	0.24457	0.21739	0.20552	0.15761
2300	0	0.27174	25	0.22283	0.15565	0.17391	0.15761
2200	0	0.59813	20	0.24457	0.18474	0.17391	0.16444
2100	0	0.10304	22	0.29344	0.19222	0.27717	0.18474
2000	0	0.46522	26	0.28604	0.16474	0.30974	0.23109
1900	0	0.86957	20	0.28261	0.21761	0.31552	0.22222
1800	0	0.30174	20	0.30974	0.25522	0.28261	0.19222
2100	0	0.70900	22	0.21739	0.26633	0.25543	0.14133

THE HOURLY SUMMARY TABLE FOR SUM. 1959

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2400	0	0.502174	16	0.13043	0.25543	0.32065	0.25425
2300	0	0.70144	18	0.14133	0.22222	0.26633	0.12522
2200	0	0.81522	20	0.15761	0.25543	0.20552	0.11557
2100	0	0.31522	26	0.14133	0.23370	0.42391	0.14774
2000	0	0.36522	25	0.15217	0.25000	0.32474	0.09783
1900	0	0.20652	20	0.15217	0.29348	0.47825	0.30222
1800	0	0.82609	15	0.13043	0.24733	0.42361	0.25496
2100	0	0.33656	16	0.13587	0.30435	0.35326	0.34344

THE HOURLY SUMMARY TABLE FOR FALL 1959

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2400	0	0.52575	18	0.14835	0.23377	0.16481	0.17311
2300	0	0.27472	18	0.14286	0.26375	0.17033	0.15122
2200	0	0.50341	13	0.17633	0.21629	0.23522	0.15222
2100	0	0.81317	20	0.14835	0.20330	0.33515	0.25324
2000	0	0.97422	20	0.17033	0.19231	0.40659	0.23377
1900	0	0.70330	16	0.22527	0.15334	0.33011	0.20330
1800	0	0.26413	17	0.24725	0.22222	0.30769	0.14222
2100	0	0.91090	20	0.15934	0.21474	0.30222	0.17522

THE HOURLY SUMMARY TABLE FOR WIN. 1970

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.0007	25	0.29444	0.14444	0.22222	0.18333	0.18333
0300	0	7.0000	22	0.25556	0.13889	0.22778	0.24444	0.24444
0600	0	7.0111	23	0.26667	0.15556	0.18333	0.25000	0.25000
0900	0	8.0222	30	0.26667	0.13889	0.21111	0.31667	0.31667
1200	1	10.0144	23	0.35556	0.12222	0.24444	0.27778	0.27778
1500	3	10.0556	20	0.35556	0.13333	0.28333	0.22778	0.22778
1800	0	8.0111	18	0.37222	0.14444	0.22778	0.21111	0.21111
2100	0	7.0222	16	0.33333	0.16667	0.25556	0.15556	0.15556

THE HOURLY SUMMARY TABLE FOR SPR. 1970

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.0013	19	0.19263	0.23913	0.30835	0.14130	0.14130
0300	0	7.0133	18	0.15761	0.20652	0.26047	0.17500	0.17500
0600	0	6.0133	19	0.14674	0.21196	0.27117	0.14674	0.14674
0900	0	10.0043	23	0.16333	0.17391	0.39130	0.21739	0.21739
1200	3	12.0133	23	0.17335	0.15334	0.37500	0.28261	0.28261
1500	2	12.0133	26	0.19366	0.20632	0.39674	0.20109	0.20109
1800	0	10.0039	25	0.21739	0.20652	0.41848	0.14674	0.14674
2100	0	7.0039	19	0.21196	0.22283	0.36957	0.11957	0.11957

THE HOURLY SUMMARY TABLE FOR SUM. 1970

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	6.00870	18	0.14974	0.16304	0.40761	0.05435	0.05435
0300	0	5.00370	15	0.16304	0.11413	0.35326	0.07609	0.07609
0600	0	5.02361	17	0.14674	0.21196	0.29348	0.13043	0.13043
0900	0	8.07361	20	0.16217	0.16848	0.50000	0.14674	0.14674
1200	0	5.0056	16	0.19332	0.13537	0.51530	0.11413	0.11413
1500	0	5.00243	19	0.23213	0.16478	0.47876	0.05435	0.05435
1800	0	4.0113	19	0.19222	0.26630	0.50000	0.31261	0.31261
2100	0	6.00435	17	0.16848	0.27174	0.42391	0.33806	0.33806

THE HOURLY SUMMARY TABLE FOR FALL 1970

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	5.00341	20	0.17592	0.14246	0.25824	0.22527	0.22527
0300	0	6.02277	17	0.19780	0.10939	0.29121	0.31429	0.31429
0600	0	6.02277	17	0.13147	0.18132	0.26823	0.26275	0.26275
0900	0	8.02872	24	0.20379	0.10939	0.32867	0.26374	0.26374
1200	0	11.00000	20	0.25275	0.14246	0.33516	0.23626	0.23626
1500	0	10.00842	20	0.31468	0.04791	0.35165	0.19780	0.19780
1800	0	4.01271	18	0.29121	0.15236	0.39860	0.15934	0.15934
2100	0	6.02277	21	0.16346	0.17592	0.28571	0.16484	0.16484

THE HOURLY SUMMARY TABLE FOR WIN. 1971

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.04444	23	0.27222	0.12639	0.22778	0.22778	0.22778
0300	0	7.07778	13	0.24333	0.12778	0.26111	0.26111	0.26111
0600	0	7.01111	18	0.32778	0.08889	0.24444	0.24444	0.24444
0900	0	7.06667	17	0.31111	0.16111	0.22222	0.22222	0.22222
1200	0	9.07778	25	0.26111	0.15667	0.27778	0.27778	0.27778
1500	0	10.00000	27	0.31111	0.11111	0.26667	0.26667	0.26667
1800	0	7.00000	22	0.27778	0.25556	0.23333	0.23333	0.23333
2100	0	6.04444	28	0.23333	0.15000	0.24444	0.24444	0.24444

THE HOURLY SUMMARY TABLE FOR SPR. 1971

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.00217	24	0.20109	0.21739	0.22630	0.22630	0.22630
0300	0	7.00217	24	0.19565	0.23013	0.20109	0.23013	0.23013
0600	0	7.00000	26	0.19565	0.23013	0.18444	0.18444	0.18444
0900	0	9.00000	26	0.15761	0.23379	0.23379	0.23379	0.23379
1200	0	11.02639	27	0.19565	0.22630	0.24259	0.24259	0.24259
1500	3	12.00000	26	0.22223	0.20632	0.34557	0.34557	0.34557
1800	0	10.07391	25	0.25943	0.21359	0.22630	0.22630	0.22630
2100	0	7.00043	23	0.19022	0.22293	0.27717	0.27717	0.27717

THE HOURLY SUMMARY TABLE FOR SUM. 1971

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	5.04348	18	0.07065	0.21739	0.41334	0.30778	0.30778
0300	0	4.04348	12	0.10326	0.19217	0.29441	0.30778	0.30778
0600	0	4.11957	14	0.13043	0.25652	0.26654	0.30778	0.30778
0900	0	7.04348	16	0.12500	0.20109	0.47253	0.47253	0.47253
1200	0	8.11739	19	0.15217	0.20109	0.43478	0.43478	0.43478
1500	0	5.17291	16	0.19022	0.17535	0.52717	0.52717	0.52717
1800	0	7.00000	16	0.14674	0.21739	0.22630	0.22630	0.22630
2100	0	5.02639	14	0.11413	0.33695	0.34674	0.34674	0.34674

THE HOURLY SUMMARY TABLE FOR FALL 1971

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	6.00330	17	0.20879	0.13187	0.34615	0.34615	0.34615
0300	0	6.07143	17	0.18132	0.13187	0.34615	0.34615	0.34615
0600	0	6.07143	18	0.17333	0.15934	0.34056	0.34056	0.34056
0900	0	8.00330	20	0.19780	0.09341	0.35423	0.35423	0.35423
1200	0	10.03363	22	0.21974	0.09341	0.34234	0.34234	0.34234
1500	0	11.03187	23	0.23077	0.07143	0.44555	0.44555	0.44555
1800	0	7.00015	20	0.23626	0.19441	0.42333	0.42333	0.42333
2100	0	6.02277	20	0.16691	0.17592	0.35571	0.35571	0.35571

Topoka
Instrument Height
1970-1971 20 Feet

THE HOURLY SUMMARY TABLE FOR WIND, 1972

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.1722	22	0.26111	0.2222	0.2667	0.2778	0.1278
0300	0	7.5022	20	0.2722	0.2000	0.2722	0.2111	0.2111
0600	0	7.8800	18	0.2667	0.1633	0.2633	0.2111	0.2111
0900	0	8.2544	23	0.2500	0.2167	0.2722	0.1833	0.2000
1200	0	8.5733	25	0.2611	0.1500	0.3333	0.2000	0.2167
1500	0	12.1544	23	0.3122	0.1500	0.3889	0.2167	0.2167
1800	0	7.2533	18	0.2667	0.2833	0.2611	0.1056	0.1444
2100	0	7.5022	18	0.2555	0.2778	0.2389	0.1444	0.1444

THE HOURLY SUMMARY TABLE FOR SPR, 1972

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.1739	22	0.2309	0.2991	0.2226	0.1956	0.1956
0300	0	7.1017	20	0.2500	0.3078	0.1634	0.2119	0.2119
0600	0	4.1733	20	0.3078	0.2938	0.1634	0.1793	0.1793
0900	0	11.3360	21	0.2867	0.2119	0.3122	0.1576	0.1576
1200	0	12.2317	25	0.2543	0.2119	0.3122	0.1922	0.1922
1500	0	13.2322	24	0.2500	0.2691	0.2717	0.2119	0.2119
1800	0	10.1122	21	0.3065	0.2821	0.2634	0.1196	0.1196
2100	0	7.5933	26	0.2913	0.3545	0.2934	0.1430	0.1430

THE HOURLY SUMMARY TABLE FOR SUM, 1972

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	5.1231	14	0.1597	0.2826	0.4130	0.1032	0.1032
0300	0	5.5562	15	0.1674	0.2938	0.3783	0.1032	0.1032
0600	0	3.1763	16	0.1410	0.2383	0.3670	0.1143	0.1143
0900	0	3.2693	18	0.1321	0.1731	0.4783	0.2010	0.2010
1200	0	9.5634	18	0.1793	0.1521	0.5130	0.1413	0.1413
1500	0	10.2217	20	0.1567	0.1730	0.5489	0.1304	0.1304
1800	0	9.3769	20	0.1565	0.2019	0.5130	0.0652	0.0652
2100	0	5.1334	17	0.1674	0.3122	0.4679	0.0491	0.0491

THE HOURLY SUMMARY TABLE FOR FALL, 1972

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	5.4131	19	0.2362	0.2198	0.2912	0.1099	0.1099
0300	0	7.1894	16	0.2142	0.2362	0.2692	0.1267	0.1267
0600	0	6.5435	19	0.2257	0.2257	0.2912	0.1153	0.1153
0900	0	8.3891	18	0.2417	0.2033	0.3791	0.1538	0.1538
1200	0	10.5679	20	0.2634	0.1428	0.4758	0.1648	0.1648
1500	0	13.3762	19	0.2702	0.1445	0.4859	0.1585	0.1585
1800	0	7.3732	18	0.2302	0.1812	0.3516	0.1538	0.1538
2100	0	7.1894	19	0.2327	0.1979	0.3763	0.1064	0.1064

THE HOURLY SUMMARY TABLE FOR WIND, 1973

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.7111	23	0.3444	0.1833	0.2778	0.2778	0.1722
0300	0	8.4444	22	0.2944	0.1333	0.3556	0.2722	0.2722
0600	0	8.4444	21	0.3111	0.1111	0.2778	0.2444	0.2444
0900	0	9.0000	23	0.3444	0.1500	0.2667	0.1944	0.1944
1200	0	10.7000	20	0.3222	0.1278	0.2778	0.2722	0.2722
1500	0	10.7000	26	0.3500	0.1000	0.2644	0.2444	0.2444
1800	0	8.6111	19	0.3111	0.1778	0.2667	0.2333	0.2333
2100	0	8.6000	22	0.3222	0.1500	0.2600	0.1944	0.1944

THE HOURLY SUMMARY TABLE FOR SPR, 1973

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.1843	21	0.2500	0.2226	0.1922	0.2019	0.2019
0300	0	8.3313	23	0.2373	0.1843	0.2373	0.2373	0.2373
0600	0	8.3313	22	0.2019	0.2119	0.2373	0.2717	0.2717
0900	0	10.7654	23	0.2691	0.2019	0.2543	0.2543	0.2543
1200	0	12.2179	26	0.3689	0.1634	0.2331	0.1793	0.1793
1500	0	12.2521	26	0.2354	0.2119	0.2373	0.1934	0.1934
1800	0	11.1634	25	0.3613	0.1843	0.2444	0.1413	0.1413
2100	0	8.5435	20	0.2554	0.2554	0.2500	0.1648	0.1648

THE HOURLY SUMMARY TABLE FOR SUM, 1973

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	6.4726	17	0.0578	0.2291	0.4679	0.1079	0.1079
0300	0	5.9773	16	0.1370	0.2019	0.3957	0.2109	0.2109
0600	0	5.5435	13	0.0813	0.2444	0.3474	0.1370	0.1370
0900	0	8.5217	18	0.1521	0.1195	0.5217	0.1474	0.1474
1200	0	9.4133	16	0.1576	0.1793	0.5130	0.1474	0.1474
1500	0	10.1195	20	0.1304	0.1731	0.5576	0.1357	0.1357
1800	0	9.7242	17	0.1791	0.2444	0.4813	0.0726	0.0726
2100	0	6.8369	23	0.1648	0.2369	0.4163	0.0434	0.0434

THE HOURLY SUMMARY TABLE FOR FALL, 1973

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	6.3736	17	0.1703	0.2527	0.2773	0.1594	0.1594
0300	0	6.4535	17	0.1932	0.2362	0.3267	0.1204	0.1204
0600	0	6.4066	19	0.2142	0.2475	0.2330	0.1623	0.1623
0900	0	8.4945	19	0.2326	0.2582	0.3076	0.1426	0.1426
1200	0	9.5274	20	0.2333	0.2257	0.3550	0.1426	0.1426
1500	0	9.7582	21	0.2524	0.1979	0.4130	0.1317	0.1317
1800	0	6.7257	13	0.2377	0.2923	0.2674	0.1227	0.1227
2100	0	6.2617	19	0.1971	0.2691	0.2524	0.1079	0.1079

Topoka
Instrument No. 1012
1972-1973 20 Feet

YEAR	SPEEDS																																								EXCESS=	0
1952	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
JAN.	8	3	13	18	12	15	17	16	21	25	11	9	4	10	4	3	15	2	5	2	3	5	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
FEB.	8	2	26	16	8	13	20	10	30	29	12	10	10	8	12	6	4	4	4	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	12	4	21	4	7	18	13	11	17	24	11	11	12	5	6	13	13	3	6	4	2	5	3	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	10	4	26	15	9	14	13	6	19	33	5	14	18	9	11	13	3	3	6	1	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	30	4	27	11	12	15	14	7	22	21	7	18	15	12	11	14	8	1	3	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	10	1	15	8	9	11	13	6	21	22	9	3	20	9	13	23	14	2	5	3	1	8	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	19	1	17	15	12	10	15	11	19	21	12	9	13	8	13	19	22	0	3	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	19	1	11	16	14	19	29	12	21	35	4	19	3	6	9	13	8	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	29	7	33	10	14	15	17	15	27	19	9	15	7	6	5	6	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	24	5	35	14	13	17	12	9	23	14	7	9	7	6	19	8	7	2	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	14	4	27	12	21	9	14	19	15	22	13	7	14	6	9	15	11	1	5	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	11	1	21	15	12	21	15	22	19	36	17	21	11	4	9	8	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wind Speed Density

By the Month

Tempesta

Years

1952

1953

1954

1955

Instrument Height

1952-1954 73 feet

1954-1955 58 feet

YEAR	SPEED	EXCESS=	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1953	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
JAN.	15	7	31	13	8	13	20	15	18	24	8	10	9	15	6	4	3	3	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FEB.	13	6	25	11	15	21	12	14	22	17	8	16	12	8	12	14	11	2	2	0	1	3	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MAR.	17	4	24	18	21	17	10	19	29	15	6	11	12	4	6	12	11	1	2	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
APR.	12	4	6	8	15	18	15	20	31	6	9	14	14	7	20	15	1	5	0	1	5	0	1	3	4	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
MAY.	24	7	11	15	12	16	15	13	21	11	16	13	13	3	14	8	2	8	2	0	5	4	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
JUNE	6	1	3	13	8	16	19	9	12	26	14	17	12	10	19	22	13	0	5	0	5	3	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
JULY	34	4	27	17	19	19	8	21	21	3	10	11	10	4	9	2	0	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AUG.	30	4	27	14	21	9	33	14	20	23	5	10	8	6	10	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SEP.	15	1	23	9	8	11	22	12	19	24	9	11	5	9	13	22	12	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OCT.	29	4	21	12	13	20	13	22	28	7	12	6	7	10	7	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NOV.	22	3	25	12	19	19	21	16	18	20	4	9	12	10	9	11	6	1	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
DEC.	9	1	14	22	15	21	20	9	13	19	10	15	17	15	13	9	9	2	5	5	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

YEAR	SPEEDS	EXCESS=	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1954	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
JAN.	8	4	30	13	12	24	27	14	17	13	6	22	10	7	8	6	7	0	2	1	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	8	3	9	13	9	28	27	9	19	20	6	14	14	8	10	20	7	0	5	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	12	4	15	15	17	11	12	5	23	16	8	14	17	8	9	16	16	2	6	2	3	3	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	5	0	6	3	9	14	17	9	23	31	9	13	10	9	13	15	26	1	6	3	3	4	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	45	1	32	19	9	10	17	11	22	28	4	10	8	5	7	3	9	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	6	0	12	15	5	9	26	11	19	31	10	14	16	10	8	20	21	1	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	24	4	13	14	23	13	22	12	25	32	12	8	15	8	7	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	24	0	11	8	10	14	20	10	23	40	11	13	20	8	10	14	8	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	13	1	13	9	10	25	14	22	41	8	13	10	7	11	14	10	1	3	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	6	1	13	7	13	25	22	12	24	34	7	11	11	12	9	19	7	1	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	31	4	12	11	9	19	12	17	15	34	9	10	12	3	6	20	4	0	0	4	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	18	5	21	14	9	10	17	9	15	21	10	14	12	15	10	13	16	5	4	1	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

YEAR	SPEEDS	EXCESS= 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1956	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37 <td>38</td> <td>39</td> <td>40</td>	38	39	40		
JAN.	16	3	7	11	16	20	15	16	17	24	13	21	16	12	12	3	4	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	11	2	7	13	16	17	20	29	10	19	10	13	15	10	12	12	7	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	15	1	5	6	14	11	12	14	16	17	0	13	9	5	11	14	15	16	3	4	2	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	17	0	4	11	17	9	6	8	14	21	8	7	20	5	16	14	8	7	21	3	16	2	8	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	13	0	7	9	13	7	12	5	18	12	17	21	20	14	13	9	30	4	10	0	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	21	0	19	9	14	13	16	18	13	36	12	19	7	13	8	4	9	7	2	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	28	4	12	12	23	25	22	27	15	22	9	19	5	8	6	2	1	5	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	20	0	5	12	17	8	17	25	13	35	10	29	10	12	7	8	5	7	3	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	20	1	7	14	12	9	15	12	15	15	3	17	16	13	12	6	13	13	5	6	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	33	1	6	12	14	16	14	10	8	20	8	16	9	13	6	4	14	7	3	12	2	3	1	3	0	1	2	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	21	0	2	6	7	13	10	22	10	23	14	14	10	16	21	15	10	11	1	5	0	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	11	0	3	14	19	16	21	7	29	11	14	5	15	18	6	7	7	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wind Speed Density
by the Month
Tosaka

YEAR	SPEEDS	EXCESS= 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1957	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
JAN.	26	0	7	14	9	18	14	27	10	20	8	10	10	17	6	10	9	10	1	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	29	0	3	13	21	24	17	22	9	23	12	15	5	12	10	6	5	3	1	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	22	0	3	10	8	10	15	12	14	21	11	13	7	5	11	11	13	9	3	16	1	8	4	2	7	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	14	0	5	6	17	19	12	17	12	22	6	12	8	5	14	14	7	15	5	15	4	7	2	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	24	0	12	16	15	9	16	16	17	15	9	16	12	11	9	12	4	11	6	15	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	21	1	7	10	10	12	16	19	16	34	10	17	11	13	12	8	7	6	1	7	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	27	1	3	13	13	21	17	21	13	38	13	13	14	9	7	4	6	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	31	0	7	13	13	21	17	21	13	38	13	13	14	9	7	4	6	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	44	0	8	16	24	12	27	17	24	27	7	10	9	6	5	9	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	19	0	8	14	19	17	22	20	26	13	17	11	11	8	7	3	0	5	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	20	0	5	9	16	14	21	20	16	22	12	13	5	13	14	11	6	10	1	7	1	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	15	0	11	16	24	11	17	17	23	13	12	13	8	11	8	11	5	8	1	2	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Instrument Height
1956-1959 72 Feet

YEAR	SPEEDS	EXCESS=	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1958	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
JAN.	24	0	10	19	25	17	16	19	11	24	9	10	12	11	7	2	6	6	2	4	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	15	0	7	10	12	15	16	21	12	22	14	15	17	19	11	6	8	4	3	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	14	0	6	13	12	11	13	14	14	22	12	16	17	10	9	8	11	3	6	1	4	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	20	0	13	11	11	12	17	15	9	28	11	12	14	13	13	4	9	2	13	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	33	0	12	20	26	19	15	17	12	22	10	11	6	12	11	6	7	3	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	17	0	7	11	17	13	14	14	15	22	10	20	16	14	17	9	10	9	1	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	33	0	17	21	15	13	22	17	14	28	5	11	6	4	11	7	5	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	43	0	33	21	22	19	19	22	8	14	9	11	4	5	8	6	2	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	16	1	14	18	19	15	10	18	17	19	9	12	10	12	12	3	10	1	6	2	2	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	7	0	11	22	27	23	18	27	16	18	11	22	6	13	9	4	7	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	12	0	13	13	18	13	11	23	8	23	9	13	13	10	16	5	5	11	1	7	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	8	0	6	25	17	17	15	23	12	30	13	20	10	11	13	5	12	3	2	4	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

YEAR	SPEEDS	EXCESS= 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
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YEAR	SPEEDS				EXCESS=				J																																							
YEAR	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40								
1969	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39 <td>40</td>	40								
JAN.	13	0	15	21	17	19	29	28	10	27	8	8	3	5	3	7	2	4	0	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
FEB.	20	0	19	17	29	21	23	25	14	16	7	14	7	6	10	6	3	5	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
MAR.	15	0	4	17	10	14	15	10	10	13	10	13	9	24	21	8	14	19	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
APR.	27	0	13	11	13	13	20	11	7	17	8	14	12	6	10	12	8	13	8	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
MAY.	29	0	3	19	21	24	17	17	18	31	5	14	13	7	4	8	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
JUNE	20	0	15	24	12	23	19	20	10	24	13	7	15	11	11	5	3	4	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
JULY	31	0	11	38	21	26	30	23	13	19	5	7	4	10	2	4	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
AUG.	28	0	20	21	20	22	26	25	14	23	4	8	6	11	7	3	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
SEP.	37	0	12	24	21	32	17	14	18	27	3	11	7	5	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
OCT.	40	0	9	19	15	11	13	21	9	21	10	23	10	12	12	5	2	4	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
NOV.	40	0	4	23	18	19	24	22	7	24	15	12	6	6	9	3	1	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
DEC.	17	0	14	25	16	18	25	8	14	21	7	12	12	4	5	11	3	11	1	8	1	5	1	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						

Wind Speed Density

by the month

1969

Years

1969

1969

1970

1971

Instrument Height

1000-1071 20 Feet

YEAR	SPEEDS	EXCESS=	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1970	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
JAN.	15	0	8	14	22	20	21	19	15	26	7	22	9	21	7	5	4	3	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	14	0	12	19	18	22	16	23	10	19	3	17	16	7	11	8	4	7	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	31	0	2	12	12	16	17	13	13	21	19	20	14	14	9	5	6	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	21	0	8	13	20	10	7	14	8	20	11	22	14	14	10	15	9	2	4	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	22	0	16	17	16	21	19	24	7	26	7	12	8	13	9	10	7	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	21	0	14	10	16	15	19	25	12	14	10	20	11	16	11	8	8	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	41	0	5	20	26	17	19	27	19	24	9	10	6	15	4	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	39	0	9	28	21	23	37	29	13	20	13	12	6	1	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	25	0	12	24	17	27	22	20	8	24	13	11	7	12	11	2	2	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	44	0	11	23	19	14	21	13	15	17	12	6	7	10	10	7	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	23	0	7	16	25	15	30	17	9	21	6	12	7	18	11	11	2	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	31	0	4	36	22	14	17	16	13	27	8	10	9	7	13	7	3	2	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

YEAR	SPEEDS										EXCESS= 0																														
1971	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
JAN.	21	0	8	33	19	21	24	18	14	21	3	12	12	10	10	3	4	4	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	22	0	7	13	12	16	23	27	15	23	6	13	12	11	8	3	5	4	3	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	24	0	4	12	15	15	20	13	14	13	17	11	6	14	13	3	5	1	9	1	1	2	4	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	19	0	6	19	19	19	19	10	25	11	9	12	17	13	4	5	4	5	6	1	3	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	24	0	5	25	21	24	18	22	15	22	16	20	11	6	10	4	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	29	0	5	22	30	17	18	23	15	16	11	12	13	19	5	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	40	0	10	10	19	27	19	28	9	11	7	9	5	6	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	56	0	13	20	34	24	22	22	15	13	7	10	7	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	29	0	19	17	21	17	18	14	14	23	6	16	7	10	13	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	24	0	12	25	32	23	27	15	6	21	3	10	9	10	13	5	1	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	23	0	4	13	13	27	25	21	13	13	15	14	17	8	7	4	6	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	20	0	21	25	37	28	15	20	12	20	7	15	9	2	7	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

YEAR	SPEEDS																																								EXCESS= 0																																							
1972	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																								
JAN.	14	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
FEB.	13	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
MAR.	5	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
APR.	7	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
MAY.	21	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
JUNE	11	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
JULY	19	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
AUG.	15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																							
SEP.	17	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
OCT.	25	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
NOV.	22	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
DEC.	6	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						

YEAR	SPEEDS																																								EXCESS= 0																																							
1973	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																								
JAN.	9	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
FEB.	5	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
MAR.	15	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
APR.	5	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
MAY.	21	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
JUNE	5	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
JULY	17	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
AUG.	26	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
SEP.	14	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
OCT.	37	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
NOV.	19	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						
DEC.	11	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																						

Wind Speed Density

by mo. month

code

Year

1972

1973

Instrument Weight

1972-1973 20 feet

Wind Speed In Knots

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVEL OLD HT	RMVEL NEW HT	VCUBED CODE=1	VCUBED CODE=2	VCUBED CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1946
JAN.	9.26	10.44	11.14	13.12	25.66	18.37	22.51	26.86	0.0	21.96	TOPEKA KANSAS	
FEB.	9.11	10.26	12.03	13.29	21.37	16.66	20.93	24.94	0.0	21.54	POTTAWATOMIE COUNTY	
MAR.	11.42	13.22	15.40	18.49	35.84	29.47	36.18	40.93	0.0	35.95	CORRECTED HT. 100 FT.	
APR.	11.34	14.42	17.32	18.86	41.81	32.24	36.41	43.17	0.0	38.04	INSTRUMENT HT. 58 FT.	
MAY.	9.13	10.26	12.84	14.12	24.10	16.34	20.33	24.16	0.0	21.19	PEAK LIMIT IS 15 KNTS.	
JUNE	8.87	10.01	11.12	12.58	23.19	16.13	20.91	24.93	0.0	21.34	FRICT. LIM. IS 7KNTS.	
JULY	9.37	9.47	13.69	11.82	22.21	15.18	19.44	23.32	0.0	20.46	CODE=1 COR. HT. BULK MWH.	
AUG.	7.87	8.93	9.75	10.91	18.62	11.84	16.33	19.30	0.0	16.93	CODE=2 ORG. HT. PER	
SEP.	8.44	9.53	11.05	12.73	21.91	15.95	20.09	23.99	0.0	21.04	UNIT AREA KWH/M**2	
OCT.	8.06	9.11	10.79	11.99	21.44	14.82	18.81	22.83	0.0	20.07	CODE=3 COR.HT. PER.	
NOV.	9.50	10.64	12.17	13.44	27.59	18.95	24.29	29.15	0.0	25.57	UNIT AREA KWH/M**2	
DEC.	9.16	10.32	12.22	13.47	23.14	18.91	20.30	24.23	0.0	21.28	WIND SPEEDS ARE IN KNOTS.	
SUMS	9.46	10.64	12.63	13.92	313.00	222.94	274.54	327.70	0.0	287.43		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVEL OLD HT	RMVEL NEW HT	VCUBED CODE=1	VCUBED CODE=2	VCUBED CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1949
JAN.	10.12	11.38	11.90	13.23	30.17	20.54	26.46	31.89	0.0	27.97	TOPEKA KANSAS	
FEB.	8.23	9.30	11.05	12.26	21.33	15.17	18.89	22.40	0.0	19.65	POTTAWATOMIE COUNTY	
MAR.	10.17	11.39	13.55	14.49	29.45	22.11	25.44	30.60	0.0	26.84	CORRECTED HT. 100 FT.	
APR.	8.30	9.35	11.72	12.94	21.79	15.46	19.11	22.93	0.0	20.11	INSTRUMENT HT. 58 FT.	
MAY.	8.95	10.10	11.25	12.51	24.94	17.55	21.79	25.05	0.0	22.86	PEAK LIMIT IS 15 KNTS.	
JUNE	7.49	8.50	10.90	11.16	18.06	12.36	16.63	20.00	0.0	17.54	FRICT. LIM. IS 7KNTS.	
JULY	7.14	8.12	9.39	10.51	15.40	11.09	14.73	17.73	0.0	15.55	CODE=1 COR. HT. BULK MWH.	
AUG.	5.88	6.74	8.21	9.23	11.62	7.31	10.19	12.21	0.0	10.71	CODE=2 ORG. HT. PER	
SEP.	6.90	7.85	9.61	10.73	16.43	11.41	14.81	17.73	0.0	15.55	UNIT AREA KWH/M**2	
OCT.	8.31	9.37	11.49	12.72	22.31	16.09	19.57	23.26	0.0	20.40	CODE=3 COR.HT. PER.	
NOV.	8.39	9.13	11.38	12.60	20.59	14.74	18.06	21.39	0.0	18.76	UNIT AREA KWH/M**2	
DEC.	9.26	10.42	12.54	13.82	25.39	18.22	22.27	26.60	0.0	23.33	WIND SPEEDS ARE IN KNOTS.	
SUMS	8.24	9.30	11.20	12.41	260.34	193.41	228.35	272.80	0.0	239.23		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVEL OLD HT	RMVEL NEW HT	VCUBED CODE=1	VCUBED CODE=2	VCUBED CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1950
JAN.	9.35	11.05	12.62	13.75	29.41	22.11	25.79	31.03	0.0	27.22	TOPEKA KANSAS	
FEB.	8.63	9.74	11.51	12.75	23.54	16.32	20.74	24.83	0.0	21.62	POTTAWATOMIE COUNTY	
MAR.	11.71	13.34	15.14	16.59	37.35	28.42	32.76	39.07	0.0	34.27	CORRECTED HT. 100 FT.	
APR.	11.54	12.86	14.70	16.15	37.02	28.36	32.47	39.03	0.0	34.23	INSTRUMENT HT. 58 FT.	
MAY.	9.71	10.83	13.65	14.96	27.61	20.56	24.22	28.83	0.0	25.29	PEAK LIMIT IS 15 KNTS.	
JUNE	9.82	11.01	12.43	13.83	30.46	22.32	26.71	32.10	0.0	28.15	FRICT. LIM. IS 7KNTS.	
JULY	5.99	6.96	8.35	9.37	12.14	7.67	10.65	12.79	0.0	11.22	CODE=1 COR. HT. BULK MWH.	
AUG.	6.15	7.04	8.33	9.35	11.51	7.32	10.39	11.95	0.0	10.49	CODE=2 ORG. HT. PER	
SEP.	6.55	7.46	9.12	10.20	14.97	10.21	13.13	15.76	0.0	13.82	UNIT AREA KWH/M**2	
OCT.	7.35	8.33	10.51	11.66	13.32	12.80	16.07	19.13	0.0	16.78	CODE=3 COR.HT. PER.	
NOV.	9.11	10.23	12.91	14.22	25.54	19.42	22.40	26.57	0.0	23.31	UNIT AREA KWH/M**2	
DEC.	7.51	8.54	9.97	11.11	15.54	10.61	13.63	15.75	0.0	13.82	WIND SPEEDS ARE IN KNOTS.	
SUMS	8.66	9.75	12.03	13.28	233.51	206.31	248.67	296.89	0.0	260.41		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVEL OLD HT	RMVEL NEW HT	VCUBED CODE=1	VCUBED CODE=2	VCUBED CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1951
JAN.	8.49	9.10	10.36	11.56	21.25	14.15	18.64	22.03	0.00	19.32	TOPEKA KANSAS	
FEB.	8.94	9.58	11.16	11.85	22.35	17.37	19.60	22.93	0.00	20.11	SHAWNEE COUNTY	
MAR.	11.57	12.43	13.96	14.76	35.03	28.90	31.60	37.45	0.00	32.65	CORRECTED HT. 100 FT.	
APR.	11.54	12.29	13.64	14.44	36.17	29.93	31.73	37.27	0.00	32.69	INSTRUMENT HT. 73 FT.	
MAY.	8.92	9.56	11.10	11.80	23.40	17.93	20.53	23.57	0.00	20.57	PEAK LIMIT IS 16 KNTS.	
JUNE	7.66	8.24	9.58	10.32	16.57	11.77	14.53	16.40	0.00	14.39	FRICT. LIM. IS 7KNTS.	
JULY	6.96	7.50	9.35	9.96	14.23	10.33	12.50	14.23	0.00	12.48	CODE=1 COR. HT. BULK MWH.	
AUG.	7.34	8.43	9.76	10.40	16.45	12.05	14.43	16.95	0.00	14.87	CODE=2 ORG. HT. PER	
SEP.	8.25	8.85	10.43	11.34	19.57	13.60	16.29	18.47	0.00	16.20	UNIT AREA KWH/M**2	
OCT.	8.91	9.55	10.35	11.55	22.13	16.32	19.41	22.80	0.00	20.00	CODE=3 COR.HT. PER.	
NOV.	8.64	9.26	10.77	11.46	22.00	16.67	19.30	23.04	0.00	20.21	UNIT AREA KWH/M**2	
DEC.	10.78	11.51	13.33	14.07	27.79	22.99	26.13	30.55	0.00	26.40	WIND SPEEDS ARE IN KNOTS.	
SUMS	9.05	9.69	11.46	12.16	274.95	213.84	246.68	289.69	0.00	250.54		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVEL OLD HT	RMVEL NEW HT	VCUBED CODE=1	VCUBED CODE=2	VCUBED CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1952
JAN.	9.83	11.05	12.33	13.46	27.83	21.40	24.41	28.53	0.0	25.37	TOPEKA KANSAS	
FEB.	9.12	10.27	11.19	12.47	25.41	17.56	22.28	26.64	0.0	23.34	POTTAWATOMIE COUNTY	
MAR.	10.62	11.97	13.84	15.22	31.26	23.59	27.42	32.76	0.0	28.73	CORRECTED HT. 100 FT.	
APR.	9.72	10.93	12.15	13.49	24.97	20.91	25.41	30.68	0.0	26.91	INSTRUMENT HT. 58 FT.	
MAY.	9.29	10.46	11.62	12.92	27.94	19.75	24.51	29.64	0.0	26.03	PEAK LIMIT IS 15 KNTS.	
JUNE	11.55	12.89	14.23	15.63	37.52	28.62	32.91	39.25	0.0	34.43	FRICT. LIM. IS 7KNTS.	
JULY	10.22	11.47	12.38	13.75	32.15	24.75	28.19	33.70	0.0	29.54	CODE=1 COR. HT. BULK MWH.	
AUG.	9.25	10.16	10.76	12.24	26.11	16.34	21.15	25.17	0.0	22.03	CODE=2 ORG. HT. PER	
SEP.	7.79	8.29	9.34	10.43	17.43	11.41	15.29	18.15	0.0	16.34	UNIT AREA KWH/M**2	
OCT.	7.95	8.99	10.37	12.04	21.94	15.07	18.46	22.01	0.0	19.31	CODE=3 COR.HT. PER.	
NOV.	9.27	10.43	11.34	13.13	25.63	19.49	23.40	27.94	0.0	24.51	UNIT AREA KWH/M**2	
DEC.	7.13	10.00	10.21	11.45	22.49	14.96	20.00	24.25	0.0	21.14	WIND SPEEDS ARE IN KNOTS.	
SUMS	9.19	10.47	11.91	13.21	324.13	231.41	264.47	339.45	0.0	297.15		

MONTH	AVGVEL	AVGVEL	RMVVEL	RMVVEL	VCURD	VCURD	VCURD	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	9.70	9.70	10.44	11.45	21.99	14.77	14.27	21.11	0.0	20.29	TOPEKA KANSAS
FEB.	9.71	10.37	11.98	13.27	26.19	14.15	22.97	27.34	0.0	23.98	POTTAWATOMIE COUNTY
MAR.	9.15	10.29	12.96	13.83	24.32	18.33	21.33	25.47	0.0	22.23	CORRECTED HT. 100 FT.
APR.	10.30	12.10	13.37	14.71	33.29	24.49	28.20	34.82	0.0	30.94	INSTRUMENT HT. 58 FT.
MAY.	10.98	11.31	12.96	14.29	29.87	21.73	28.05	31.40	0.0	27.54	PEAK LIMIT IS 16 KNTS.
JUNE	10.90	12.21	12.37	14.72	35.17	25.70	30.35	37.01	0.0	32.43	FRIC. LIM. IS 7KNTS.
JULY	7.66	8.69	10.18	11.34	18.86	12.84	15.54	19.89	0.0	17.45	CODE=1 COR. HT. BULK MHH.
AUG.	7.64	8.68	9.74	10.39	14.54	12.04	14.30	19.15	0.0	16.83	CODE=2 COR. HT. PER.
SEP.	9.50	11.89	11.71	13.02	24.53	20.61	25.07	29.60	0.0	25.96	UNIT AREA KWH/M**2
OCT.	7.80	8.45	10.11	11.39	20.05	13.55	17.57	20.95	0.0	18.39	CODE=3 COR.HT. PER.
NOV.	8.25	9.73	10.70	11.92	22.14	15.33	19.46	23.11	0.0	20.27	UNIT AREA KWH/M**2
DEC.	10.05	11.30	12.11	13.46	23.94	21.13	26.29	31.73	0.0	27.83	WIND SPEEDS ARE IN KNOTS.
SUMS	9.10	10.26	11.67	12.95	333.86	219.15	270.61	323.50	0.0	213.82	

MONTH	AVGVEL	AVGVEL	RMVVEL	RMVVEL	VCURD	VCURD	VCURD	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	8.50	9.81	10.77	11.92	21.33	14.54	19.15	22.93	0.0	20.11	TOPEKA KANSAS
FEB.	9.36	11.09	12.13	13.35	28.91	20.52	25.36	30.24	0.0	26.55	POTTAWATOMIE COUNTY
MAR.	10.34	11.59	12.99	14.37	31.95	23.34	28.04	33.71	0.0	29.57	CORRECTED HT. 100 FT.
APR.	11.53	12.89	13.59	15.02	39.71	27.54	32.20	38.37	0.0	33.66	INSTRUMENT HT. 58 FT.
MAY.	7.47	8.47	9.44	11.14	19.03	13.10	15.74	19.95	0.0	17.43	PEAK LIMIT IS 16 KNTS.
JUNE	10.38	11.84	12.11	13.47	32.60	23.45	28.59	34.23	0.0	30.00	FRIC. LIM. IS 7KNTS.
JULY	8.06	9.15	9.77	10.95	23.12	12.89	17.65	21.27	0.0	18.66	CODE=1 COR. HT. BULK MHH.
AUG.	9.63	10.55	11.77	13.05	23.40	18.12	24.56	28.73	0.0	26.34	CODE=2 COR. HT. PER.
SEP.	9.57	10.89	11.53	12.94	28.19	19.73	24.73	29.44	0.0	25.83	UNIT AREA KWH/M**2
OCT.	9.87	11.11	11.73	13.05	23.49	20.11	24.99	29.83	0.0	26.18	CODE=3 COR.HT. PER.
NOV.	8.68	9.79	11.25	12.50	23.95	17.10	21.01	25.22	0.0	22.12	UNIT AREA KWH/M**2
DEC.	10.07	11.31	12.31	13.66	31.84	23.31	27.96	33.59	0.0	29.46	WIND SPEEDS ARE IN KNOTS.
SUMS	9.51	10.70	11.75	13.06	331.73	235.47	290.97	348.49	0.0	305.67	

MONTH	AVGVEL	AVGVEL	RMVVEL	RMVVEL	VCURD	VCURD	VCURD	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	9.26	10.44	11.32	12.81	25.45	15.75	23.21	27.95	0.0	24.52	TOPEKA KANSAS
FEB.	10.26	11.50	13.07	14.42	29.03	21.35	25.51	30.35	0.0	26.62	POTTAWATOMIE COUNTY
MAR.	12.69	14.13	14.97	16.39	41.46	31.96	36.37	43.33	0.0	38.01	CORRECTED HT. 100 FT.
APR.	11.57	12.91	14.42	15.37	36.13	27.45	31.69	37.76	0.0	33.12	INSTRUMENT HT. 58 FT.
MAY.	10.31	12.10	13.29	14.70	35.76	25.53	31.37	37.63	0.0	33.01	PEAK LIMIT IS 16 KNTS.
JUNE	10.27	11.52	12.44	13.82	33.27	24.29	29.19	35.22	0.0	30.89	FRIC. LIM. IS 7KNTS.
JULY	9.36	10.55	11.50	12.80	27.47	19.23	24.10	28.90	0.0	25.35	CODE=1 COR. HT. BULK MHH.
AUG.	8.02	9.10	9.83	11.02	20.53	12.26	19.05	21.80	0.0	19.12	CODE=2 COR. HT. PER.
SEP.	10.51	11.78	12.74	14.13	34.19	25.17	29.99	35.95	0.0	31.53	UNIT AREA KWH/M**2
OCT.	10.03	11.32	12.27	13.62	30.35	22.03	27.07	32.37	0.0	28.39	CODE=3 COR.HT. PER.
NOV.	10.49	11.75	12.34	14.23	32.28	23.77	28.29	33.83	0.0	29.67	UNIT AREA KWH/M**2
DEC.	10.90	12.23	12.49	13.83	34.76	24.29	30.49	37.10	0.0	32.54	WIND SPEEDS ARE IN KNOTS.
SUMS	10.35	11.61	12.72	14.09	382.23	278.15	335.30	402.20	0.0	352.77	

MONTH	AVGVEL	AVGVEL	RMVVEL	RMVVEL	VCURD	VCURD	VCURD	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	9.45	10.15	11.28	12.03	25.59	19.12	22.45	26.47	0.00	23.22	TOPEKA KANSAS
FEB.	9.75	10.46	11.77	12.55	26.93	20.52	23.63	27.25	0.00	24.90	SHAWNEE COUNTY
MAR.	11.92	12.71	14.49	15.35	36.89	30.05	32.36	37.55	0.00	32.94	CORRECTED HT. 100 FT.
APR.	11.95	12.64	14.52	15.37	35.83	29.59	32.24	37.37	0.00	33.21	INSTRUMENT HT. 72 FT.
MAY.	12.44	13.77	14.37	15.24	40.60	32.35	35.01	42.27	0.00	37.07	PEAK LIMIT IS 16 KNTS.
JUNE	9.82	10.52	12.31	13.03	26.68	20.35	23.80	27.45	0.00	24.07	FRIC. LIM. IS 7KNTS.
JULY	7.92	8.55	9.81	10.47	16.54	11.37	14.60	18.75	0.00	14.69	CODE=1 COR. HT. BULK MHH.
AUG.	9.85	10.53	11.61	12.33	24.22	19.67	23.00	27.17	0.00	23.83	CODE=2 COR. HT. PER.
SEP.	10.83	11.58	13.71	14.52	32.30	25.35	28.33	33.27	0.00	29.13	UNIT AREA KWH/M**2
OCT.	10.35	11.06	13.93	14.72	29.21	23.24	25.62	30.21	0.00	26.49	CODE=3 COR.HT. PER.
NOV.	11.15	11.91	13.59	14.41	34.54	24.95	30.33	35.32	0.00	30.72	UNIT AREA KWH/M**2
DEC.	9.46	10.60	11.32	12.57	26.77	20.68	23.50	26.44	0.00	23.37	WIND SPEEDS ARE IN KNOTS.
SUMS	10.44	11.18	12.93	13.73	359.13	279.22	315.05	367.91	0.00	322.70	

MONTH	AVGVEL	AVGVEL	RMVVEL	RMVVEL	VCURD	VCURD	VCURD	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	9.77	10.66	12.56	13.31	27.15	21.19	23.82	27.80	0.00	24.46	TOPEKA KANSAS
FEB.	8.60	9.64	10.76	11.67	24.55	17.93	20.71	24.71	0.00	19.15	SHAWNEE COUNTY
MAR.	11.97	12.75	14.62	15.42	35.62	28.44	31.25	36.22	0.00	31.77	CORRECTED HT. 100 FT.
APR.	11.64	12.42	14.32	15.17	34.87	24.19	31.59	35.23	0.00	30.90	INSTRUMENT HT. 72 FT.
MAY.	10.51	11.25	13.09	13.90	30.76	24.53	25.94	31.59	0.00	27.71	PEAK LIMIT IS 16 KNTS.
JUNE	9.83	10.54	12.11	12.89	27.12	20.84	23.19	27.64	0.00	24.24	FRIC. LIM. IS 7KNTS.
JULY	9.90	9.57	10.31	11.54	21.54	15.95	18.33	22.33	0.00	19.67	CODE=1 COR. HT. BULK MHH.
AUG.	9.11	9.79	11.12	11.66	24.52	14.29	21.51	26.65	0.00	21.62	CODE=2 COR. HT. PER.
SEP.	8.99	7.56	8.33	9.57	11.72	6.55	12.04	14.55	0.00	11.95	UNIT AREA KWH/M**2
OCT.	9.35	10.05	11.49	12.24	24.23	19.21	21.55	26.35	0.00	21.30	CODE=3 COR.HT. PER.
NOV.	9.99	10.64	12.28	13.05	27.73	21.31	25.54	27.94	0.00	24.91	UNIT AREA KWH/M**2
DEC.	10.64	11.59	13.11	14.22	34.11	23.76	26.91	30.65	0.00	27.05	WIND SPEEDS ARE IN KNOTS.
SUMS	9.77	10.47	12.39	13.15	317.57	205.19	274.11	324.35	0.00	244.63	

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMGVEL OLD HT	RMGVEL NEW HT	VGOR=1 CODE=1	VGOR=2 CODE=2	VGOR=3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION
											1958
JAN.	9.76	9.41	11.62	12.39	21.35	19.19	19.74	21.49	0.00	19.18	TOPEKA KANSAS
FEB.	10.20	10.99	12.23	13.07	20.45	22.69	26.10	30.74	0.00	26.57	SHAWNEE COUNTY
MAR.	10.96	11.30	12.45	13.65	20.94	22.69	27.10	32.13	0.00	28.10	CORRECTED HT. 100 FT.
APR.	10.09	10.81	12.54	13.37	20.93	22.41	26.90	29.30	0.00	28.96	INSTRUMENT HT. 72 FT.
MAY.	8.34	8.03	10.87	11.31	23.44	18.36	17.96	20.71	0.00	18.15	PEAK LIMIT IS 15 KNTS.
JUNE	10.31	11.04	12.37	13.16	20.68	23.47	26.91	31.48	0.00	27.61	FRIC. LIM. IS 7KNTS.
JULY	8.44	9.33	11.45	12.18	19.32	14.88	17.18	19.50	0.00	17.19	CODE=1 COR. HT. BULK MWH.
AUG.	8.80	7.36	9.23	9.97	13.84	10.08	12.14	13.61	0.00	11.94	CODE=2 PRG. HT. PER
SEP.	9.65	10.34	12.45	13.12	20.20	20.33	22.98	26.72	0.00	23.44	UNIT AREA KWH/M**2
OCT.	9.81	9.43	10.90	11.67	20.71	18.57	18.16	20.86	0.00	18.30	CODE=3 COR.HT. PER.
NOV.	10.10	10.32	13.33	13.70	21.13	21.74	24.87	28.52	0.00	25.02	UNIT AREA KWH/M**2
DEC.	9.89	11.62	11.62	12.38	20.05	14.62	22.45	26.93	0.00	23.31	WIND SPEEDS ARE IN KNOTS.
SUMS	9.33	10.01	11.83	12.53	207.11	226.15	260.52	301.40	0.00	234.81	

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMGVEL OLD HT	RMGVEL NEW HT	VGOR=1 CODE=1	VGOR=2 CODE=2	VGOR=3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION
											1959
JAN.	11.27	12.04	14.06	14.43	33.35	26.30	24.25	33.78	0.00	29.63	TOPEKA KANSAS
FEB.	10.70	11.45	12.63	13.43	30.93	27.51	27.13	31.46	0.00	27.50	SHAWNEE COUNTY
MAR.	12.93	14.81	17.45	17.45	44.54	38.38	38.19	45.33	0.00	40.20	CORRECTED HT. 100 FT.
APR.	12.09	12.90	14.19	15.05	34.35	30.83	32.64	39.20	0.00	34.46	INSTRUMENT HT. 72 FT.
MAY.	12.45	13.20	14.35	15.71	33.93	31.24	34.15	40.57	0.00	35.41	PEAK LIMIT IS 15 KNTS.
JUNE	9.35	10.04	11.50	12.35	23.54	17.71	20.54	24.07	0.00	21.11	FRIC. LIM. IS 7KNTS.
JULY	7.34	3.45	10.16	10.35	17.82	13.13	14.72	17.99	0.00	15.75	CODE=1 COR. HT. BULK MWH.
AUG.	10.89	11.65	12.71	13.82	33.10	29.65	25.31	33.92	0.00	29.75	CODE=2 PRG. HT. PER
SEP.	10.41	11.14	12.79	13.54	32.57	25.23	23.39	33.55	0.00	29.44	UNIT AREA KWH/M**2
OCT.	9.81	10.51	12.51	13.25	26.17	20.12	22.95	26.83	0.00	23.54	CODE=3 COR.HT. PER.
NOV.	10.72	11.47	13.36	14.17	31.64	24.97	27.75	32.13	0.00	28.18	UNIT AREA KWH/M**2
DEC.	10.28	11.01	12.68	13.47	27.31	21.64	24.39	23.24	0.00	24.77	WIND SPEEDS ARE IN KNOTS.
SUMS	10.81	11.56	13.36	14.15	372.00	295.83	332.43	337.47	0.00	339.86	

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMGVEL OLD HT	RMGVEL NEW HT	VGOR=1 CODE=1	VGOR=2 CODE=2	VGOR=3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION
											1960
JAN.	9.98	10.71	12.17	12.94	26.15	19.41	22.44	26.63	0.00	23.35	TOPEKA KANSAS
FEB.	9.56	10.27	11.19	11.94	23.95	17.36	21.11	24.43	0.00	21.61	SHAWNEE COUNTY
MAR.	10.75	11.50	13.35	14.14	28.75	22.10	25.21	29.66	0.00	26.02	CORRECTED HT. 100 FT.
APR.	13.30	14.15	15.71	16.61	41.24	33.20	36.18	41.97	0.00	36.81	INSTRUMENT HT. 72 FT.
MAY.	10.44	11.19	12.33	13.13	29.83	22.35	26.17	30.29	0.00	26.57	PEAK LIMIT IS 15 KNTS.
JUNE	10.23	10.97	12.01	12.79	27.72	21.06	24.31	28.46	0.00	24.97	FRIC. LIM. IS 7KNTS.
JULY	7.67	8.27	10.09	10.76	16.21	11.32	14.22	15.92	0.00	13.97	CODE=1 COR. HT. BULK MWH.
AUG.	10.51	11.25	12.30	13.59	29.77	23.11	26.11	30.30	0.00	26.58	CODE=2 PRG. HT. PER
SEP.	8.20	8.82	10.43	11.14	19.63	14.64	17.25	20.02	0.00	17.56	UNIT AREA KWH/M**2
OCT.	8.45	9.09	11.03	11.74	23.13	18.82	17.65	20.93	0.00	18.35	CODE=3 COR.HT. PER.
NOV.	10.25	10.97	13.13	13.92	23.72	22.37	25.19	28.97	0.00	25.41	UNIT AREA KWH/M**2
DEC.	11.75	12.56	13.91	14.75	33.90	26.49	29.73	34.40	0.00	30.17	WIND SPEEDS ARE IN KNOTS.
SUMS	10.09	10.81	12.53	13.31	326.04	249.73	285.98	332.19	0.00	291.37	

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMGVEL OLD HT	RMGVEL NEW HT	VGOR=1 CODE=1	VGOR=2 CODE=2	VGOR=3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION
											1961
JAN.	9.81	10.52	12.39	13.15	25.67	19.44	22.52	25.81	0.00	22.64	TOPEKA KANSAS
FEB.	9.56	10.27	11.29	12.05	24.47	18.03	21.46	25.29	0.00	22.13	SHAWNEE COUNTY
MAR.	12.80	13.64	15.06	15.85	41.41	33.44	36.32	42.60	0.00	37.36	CORRECTED HT. 100 FT.
APR.	13.28	14.13	15.55	16.45	42.72	35.65	38.35	44.47	0.00	39.01	INSTRUMENT HT. 72 FT.
MAY.	12.32	13.14	14.56	15.42	33.01	26.08	28.34	32.03	0.00	34.23	PEAK LIMIT IS 15 KNTS.
JUNE	9.70	10.40	12.17	12.94	25.77	20.53	23.48	26.97	0.00	23.65	FRIC. LIM. IS 7KNTS.
JULY	10.14	10.87	12.15	12.93	24.69	21.79	25.17	29.48	0.00	25.86	CODE=1 COR. HT. BULK MWH.
AUG.	9.46	9.11	10.40	11.10	18.63	13.79	16.34	18.33	0.00	16.51	CODE=2 PRG. HT. PER
SEP.	11.80	12.60	14.25	15.09	33.63	24.13	21.25	35.15	0.00	31.72	UNIT AREA KWH/M**2
OCT.	11.20	11.95	14.21	15.03	31.86	25.24	27.94	32.16	0.00	28.21	CODE=3 COR.HT. PER.
NOV.	10.32	11.05	12.44	13.23	27.76	22.58	26.10	30.01	0.00	26.32	UNIT AREA KWH/M**2
DEC.	9.95	10.63	11.64	12.40	24.20	19.65	22.98	26.73	0.00	23.44	WIND SPEEDS ARE IN KNOTS.
SUMS	10.78	11.53	13.20	14.00	370.63	262.32	285.27	377.52	0.00	331.13	

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMGVEL OLD HT	RMGVEL NEW HT	VGOR=1 CODE=1	VGOR=2 CODE=2	VGOR=3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION
											1962
JAN.	10.34	11.50	12.96	13.75	41.47	25.40	27.60	31.49	0.00	27.62	TOPEKA KANSAS
FEB.	11.20	11.98	13.15	13.85	32.64	25.44	28.45	32.48	0.00	28.48	SHAWNEE COUNTY
MAR.	12.45	13.60	14.99	15.87	41.75	33.46	36.27	42.39	0.00	37.18	CORRECTED HT. 100 FT.
APR.	11.40	12.14	13.14	13.91	32.72	25.45	28.70	33.37	0.00	29.27	INSTRUMENT HT. 72 FT.
MAY.	14.35	15.25	16.54	17.44	47.17	33.73	41.37	44.34	0.00	42.44	PEAK LIMIT IS 15 KNTS.
JUNE	9.05	9.70	11.54	12.28	24.02	18.10	20.48	24.57	0.00	21.55	FRIC. LIM. IS 7KNTS.
JULY	8.81	9.44	11.01	11.64	21.11	16.62	18.51	21.44	0.00	18.43	CODE=1 COR. HT. BULK MWH.
AUG.	10.02	10.76	12.19	12.97	26.55	21.56	24.14	29.62	0.00	25.98	CODE=2 PRG. HT. PER
SEP.	4.70	5.34	12.70	11.91	20.13	14.72	17.46	19.48	0.00	17.54	UNIT AREA KWH/M**2
OCT.	9.61	10.31	11.13	11.84	25.83	20.11	22.86	25.77	0.00	22.62	CODE=3 COR.HT. PER.
NOV.	9.26	9.95	11.46	12.21	24.04	19.11	21.19	24.26	0.00	21.28	UNIT AREA KWH/M**2
DEC.	9.77	11.04	11.73	12.99	25.73	19.04	21.45	26.51	0.00	23.17	WIND SPEEDS ARE IN KNOTS.
SUMS	10.49	11.24	12.94	13.76	354.01	275.11	311.50	360.10	0.00	315.45	

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVEL OLD HT	RMVEL NEW HT	VOUSE1 CODE=1	VOUSE2 CODE=2	VOUSE3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION
											1963
JAN.	13.67	11.71	13.91	14.23	23.77	22.24	26.21	28.85	0.00	29.01	TOPEKA KANSAS
FEB.	11.25	11.09	13.19	13.74	31.77	26.13	27.85	32.40	0.00	29.37	SHAWNEE COUNTY
MAR.	13.75	15.09	18.35	16.95	31.29	31.78	40.80	43.25	0.00	37.94	CORRECTED HT. 100 FT.
APR.	13.65	13.67	14.79	16.17	39.15	31.57	35.73	40.05	0.00	35.12	INSTRUMENT HT. 72 FT.
MAY.	11.13	11.89	11.81	14.63	32.43	28.57	28.35	31.13	0.00	29.06	PEAK LIMIT IS 16 KNTS.
JUNE	10.83	11.59	12.95	13.76	32.86	28.49	28.55	31.25	0.00	29.17	FRIC. LIM. IS 7KNTS.
JULY	9.78	10.50	11.53	12.40	27.37	24.95	24.40	28.05	0.00	24.60	CODE=1 COR. HT. BULK WIND
AUG.	9.80	10.52	11.88	12.45	27.83	24.85	24.15	24.39	0.00	24.90	CODE=2 DRG. HT. PER
SEP.	8.96	9.62	11.59	12.21	24.49	18.92	21.39	24.83	0.00	21.92	UNIT AREA KWH/M**2
OCT.	9.10	9.67	11.93	12.55	22.56	16.94	19.79	22.51	0.00	19.66	CODE=3 COR. HT. PER
NOV.	9.14	10.32	11.36	12.33	21.92	18.15	20.98	24.54	0.00	21.53	UNIT AREA KWH/M**2
DEC.	9.82	10.54	12.52	13.29	24.39	18.13	21.60	24.45	0.00	21.46	WIND SPEEDS ARE IN KNOTS.
SUMS	10.50	11.24	13.16	13.95	357.61	277.04	311.65	383.66	0.00	318.97	

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVEL OLD HT	RMVEL NEW HT	VOUSE1 CODE=1	VOUSE2 CODE=2	VOUSE3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION
											1964
JAN.	10.93	11.67	13.33	14.14	31.62	27.74	27.73	32.13	0.00	28.13	TOPEKA KANSAS
FEB.	11.59	12.37	12.09	14.83	35.49	24.14	31.17	34.45	0.00	29.00	SHAWNEE COUNTY
MAR.	13.70	14.57	15.76	16.67	35.55	30.55	40.04	43.53	0.00	40.44	CORRECTED HT. 100 FT.
APR.	14.40	15.30	16.57	17.51	37.73	33.53	41.30	48.53	0.00	42.54	INSTRUMENT HT. 72 FT.
MAY.	13.54	14.43	15.94	16.94	42.78	36.37	37.51	44.11	0.00	39.59	PEAK LIMIT IS 16 KNTS.
JUNE	13.87	14.53	13.16	16.17	31.76	24.68	27.56	32.52	0.00	28.61	FRIC. LIM. IS 7KNTS.
JULY	10.07	10.81	12.31	12.73	27.24	20.91	23.60	27.95	0.00	24.51	CODE=1 COR. HT. BULK WIND
AUG.	9.16	9.85	11.35	12.10	23.13	17.45	20.29	23.75	0.00	20.84	CODE=2 DRG. HT. PER
SEP.	7.83	8.44	10.73	10.71	17.04	12.37	14.95	17.14	0.00	15.04	UNIT AREA KWH/M**2
OCT.	6.57	7.11	9.05	9.53	13.24	9.23	11.84	13.55	0.00	11.43	CODE=3 COR. HT. PER
NOV.	8.69	9.34	10.93	11.65	22.53	16.38	19.76	22.71	0.00	19.02	UNIT AREA KWH/M**2
DEC.	8.53	9.20	10.37	11.03	19.47	14.10	17.09	19.70	0.00	17.28	WIND SPEEDS ARE IN KNOTS.
SUMS	10.49	11.23	13.17	13.97	357.15	273.95	313.27	365.21	0.00	320.34	

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVEL OLD HT	RMVEL NEW HT	VOUSE1 CODE=1	VOUSE2 CODE=2	VOUSE3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION
											1965
JAN.	8.16	11.31	13.23	13.56	30.57	14.34	26.51	31.98	15.77	28.05	TOPEKA KANSAS
FEB.	9.42	12.84	11.34	15.51	35.44	14.11	32.01	37.73	23.32	23.09	SHAWNEE COUNTY
MAR.	10.31	13.60	12.75	16.51	40.41	23.45	35.79	42.29	24.65	37.09	CORRECTED HT. 100 FT.
APR.	9.77	13.29	11.31	15.54	39.13	20.25	34.36	41.76	21.32	36.01	INSTRUMENT HT. 20 FT.
MAY.	9.82	13.35	11.75	15.52	40.75	21.35	35.75	42.29	23.14	37.09	PEAK LIMIT IS 15 KNTS.
JUNE	7.83	10.55	9.45	12.00	23.93	11.54	25.39	30.82	11.53	27.03	FRIC. LIM. IS 7KNTS.
JULY	7.02	9.94	8.32	11.59	23.36	9.32	20.93	24.87	9.21	21.81	CODE=1 COR. HT. BULK WIND
AUG.	6.63	9.41	8.71	11.79	21.81	7.17	19.13	22.55	8.33	19.73	CODE=2 DRG. HT. PER
SEP.	7.95	11.03	9.77	13.15	30.14	12.75	26.43	31.42	13.45	27.56	UNIT AREA KWH/M**2
OCT.	7.16	10.06	9.47	12.65	24.05	9.67	21.10	24.59	10.27	21.56	CODE=3 COR. HT. PER
NOV.	6.66	9.29	9.32	12.43	21.17	9.83	18.57	21.73	9.97	19.04	UNIT AREA KWH/M**2
DEC.	8.94	12.25	11.52	15.03	34.03	17.21	29.65	35.25	13.15	30.93	WIND SPEEDS ARE IN KNOTS.
SUMS	8.31	11.48	10.62	14.07	371.30	175.91	326.11	386.54	135.43	335.05	

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVEL OLD HT	RMVEL NEW HT	VOUSE1 CODE=1	VOUSE2 CODE=2	VOUSE3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION
											1966
JAN.	8.92	12.29	10.51	14.14	35.73	15.97	31.34	37.99	17.03	32.53	TOPEKA KANSAS
FEB.	7.92	10.25	10.41	13.83	31.34	14.92	27.22	32.43	15.97	28.45	SHAWNEE COUNTY
MAR.	11.49	15.23	14.51	18.56	44.21	23.29	39.78	45.75	28.38	40.13	CORRECTED HT. 100 FT.
APR.	9.85	13.32	12.31	16.10	34.72	22.64	33.95	40.17	23.74	35.73	INSTRUMENT HT. 20 FT.
MAY.	8.77	12.36	11.01	14.57	33.20	17.07	29.12	34.72	15.30	30.45	PEAK LIMIT IS 15 KNTS.
JUNE	8.07	11.11	10.29	13.79	29.72	14.44	26.07	31.85	15.05	27.05	FRIC. LIM. IS 7KNTS.
JULY	7.17	10.13	8.37	12.65	25.91	9.53	21.94	25.04	9.19	22.75	CODE=1 COR. HT. BULK WIND
AUG.	6.51	9.23	8.72	11.80	21.93	8.55	19.28	22.69	8.92	19.90	CODE=2 DRG. HT. PER
SEP.	5.78	8.31	7.76	10.65	17.59	8.75	15.63	18.11	5.53	15.84	UNIT AREA KWH/M**2
OCT.	8.30	11.46	11.47	15.01	31.80	17.90	27.80	33.09	18.83	24.02	CODE=3 COR. HT. PER
NOV.	7.67	11.03	10.51	13.92	22.79	14.34	26.13	31.15	14.99	27.33	UNIT AREA KWH/M**2
DEC.	8.97	11.24	10.00	13.40	30.01	15.61	26.32	30.75	14.26	27.15	WIND SPEEDS ARE IN KNOTS.
SUMS	8.24	11.36	10.81	14.26	368.40	182.61	324.45	392.95	191.27	335.89	

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVEL OLD HT	RMVEL NEW HT	VOUSE1 CODE=1	VOUSE2 CODE=2	VOUSE3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION
											1967
JAN.	9.30	13.67	11.56	14.22	35.31	14.15	31.85	37.37	21.57	33.21	TOPEKA KANSAS
FEB.	10.04	13.41	12.51	16.17	34.75	21.37	32.75	35.34	22.79	34.54	SHAWNEE COUNTY
MAR.	9.95	13.69	12.24	16.02	39.77	21.76	34.84	41.63	22.31	34.56	CORRECTED HT. 100 FT.
APR.	13.01	15.77	12.30	17.89	46.35	26.45	43.67	49.43	27.43	42.48	INSTRUMENT HT. 20 FT.
MAY.	8.62	11.92	11.33	14.46	33.63	19.31	29.50	35.21	19.16	30.84	PEAK LIMIT IS 15 KNTS.
JUNE	6.98	9.95	9.09	12.24	23.63	9.20	20.33	24.62	9.53	21.60	FRIC. LIM. IS 7KNTS.
JULY	5.65	9.22	7.93	10.43	19.71	5.11	17.78	19.63	5.10	18.71	CODE=1 COR. HT. BULK WIND
AUG.	5.63	9.12	7.52	10.67	18.71	5.20	16.55	17.49	5.31	16.44	CODE=2 DRG. HT. PER
SEP.	5.60	7.77	7.59	10.55	16.23	4.53	15.23	16.71	4.68	14.66	UNIT AREA KWH/M**2
OCT.	10.09	12.09	11.35	14.89	35.93	16.09	31.73	37.73	17.18	32.22	CODE=3 COR. HT. PER
NOV.	6.52	9.25	8.55	11.63	21.73	8.75	19.45	22.65	8.43	19.47	UNIT AREA KWH/M**2
DEC.	8.73	12.05	11.68	14.22	31.75	16.71	27.63	31.85	17.11	30.56	WIND SPEEDS ARE IN KNOTS.
SUMS	8.46	11.15	10.62	13.99	357.54	176.35	327.99	371.35	174.01	325.92	

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMCVEL OLD HT	RMCVEL NEW HT	VCORR1 CODE=1	VCORR2 CODE=2	VCORR3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION
											1968
JAN.	8.05	11.19	10.25	13.82	29.92	12.85	29.81	29.65	13.13	26.02	TOPEKA KANSAS
FEB.	8.99	11.22	10.66	13.81	29.45	13.77	29.29	29.63	13.72	26.03	SHAWNEE COUNTY
MAR.	10.59	10.24	12.69	10.81	31.15	15.75	30.03	27.54	19.53	30.53	CORRECTED HT. 100 FT.
APR.	9.82	11.73	11.73	16.81	37.66	23.32	33.03	38.09	23.43	34.10	INSTRUMENT HT. 20 FT.
MAY.	8.45	11.70	10.38	16.05	31.63	16.47	27.72	31.05	15.01	29.03	PEAK LIMIT IS 15 KNTS.
JUNE	9.36	11.59	10.59	16.16	31.51	16.72	27.64	31.33	15.06	28.97	FRIC. LIM. IS 7KNTS.
JULY	6.90	9.81	8.53	11.75	21.75	7.99	19.08	23.51	8.05	19.75	CODE=1 COR. HT. BULK MWH.
AUG.	7.55	10.43	9.36	12.64	23.35	10.73	23.12	27.53	11.10	24.15	CODE=2 OPG. HT. PER
SEP.	6.44	9.66	8.77	11.92	23.43	8.31	20.55	24.33	8.21	21.39	UNIT AREA KWH/M**2
OCT.	8.20	10.30	10.55	16.12	31.77	15.55	23.74	31.24	10.57	30.05	CODE=3 COR.HT. PER.
NOV.	7.42	10.36	9.67	12.95	27.15	11.51	23.41	28.45	11.86	24.97	UNIT AREA KWH/M**2
DEC.	9.93	11.43	12.63	16.35	35.81	19.40	31.47	37.23	20.83	32.65	WIND SPEEDS ARE IN KNOTS.
SUMS	8.44	11.52	10.76	14.22	284.54	177.9	423.29	343.73	145.93	376.54	

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMCVEL OLD HT	RMCVEL NEW HT	VCORR1 CODE=1	VCORR2 CODE=2	VCORR3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION
											1969
JAN.	8.77	12.09	10.75	14.25	32.72	14.90	28.70	34.15	15.34	29.95	TOPEKA KANSAS
FEB.	8.25	11.80	10.84	13.09	30.35	16.75	26.50	31.52	15.72	27.65	SHAWNEE COUNTY
MAR.	9.30	12.72	12.17	15.34	33.15	20.90	30.46	36.71	20.32	32.20	CORRECTED HT. 100 FT.
APR.	9.29	11.64	10.54	14.11	31.40	14.93	27.45	32.56	14.62	28.42	INSTRUMENT HT. 20 FT.
MAY.	7.67	10.73	9.63	12.94	28.55	11.54	25.15	29.65	12.33	26.01	PEAK LIMIT IS 15 KNTS.
JUNE	8.14	11.42	10.50	14.31	29.40	13.75	25.73	31.23	14.30	27.39	FRIC. LIM. IS 7KNTS.
JULY	6.43	9.10	8.51	11.51	19.12	7.12	16.77	19.42	7.34	17.04	CODE=1 COR. HT. BULK MWH.
AUG.	6.77	8.97	8.13	11.11	19.16	6.71	16.31	19.61	6.75	17.20	CODE=2 OPG. HT. PER
SEP.	6.99	9.76	8.86	11.73	23.15	8.34	20.32	23.33	8.36	20.90	UNIT AREA KWH/M**2
OCT.	7.60	10.61	9.41	13.11	25.22	12.01	23.52	27.91	12.55	24.48	CODE=3 COR.HT. PER.
NOV.	6.99	9.77	9.34	13.06	24.90	12.07	20.96	24.29	12.64	21.30	UNIT AREA KWH/M**2
DEC.	7.64	10.72	9.48	12.76	27.13	10.57	23.79	29.33	10.84	24.84	WIND SPEEDS ARE IN KNOTS.
SUMS	7.69	10.72	10.02	13.34	327.53	166.73	287.33	339.53	151.93	297.79	

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMCVEL OLD HT	RMCVEL NEW HT	VCORR1 CODE=1	VCORR2 CODE=2	VCORR3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION
											1970
JAN.	8.42	12.16	10.58	14.14	35.15	15.81	30.83	36.59	16.45	32.09	TOPEKA KANSAS
FEB.	9.23	12.61	11.78	15.18	35.16	17.81	30.84	36.42	16.73	31.95	SHAWNEE COUNTY
MAR.	9.07	12.41	11.11	14.75	37.67	19.12	33.05	39.57	19.58	34.71	CORRECTED HT. 100 FT.
APR.	10.24	13.90	12.50	16.45	42.14	24.14	36.97	43.74	25.39	38.36	INSTRUMENT HT. 20 FT.
MAY.	8.99	12.24	10.97	14.54	33.51	16.90	29.39	34.92	17.38	30.63	PEAK LIMIT IS 15 KNTS.
JUNE	9.76	12.23	11.36	14.67	35.90	17.93	31.48	37.28	19.33	32.70	FRIC. LIM. IS 7KNTS.
JULY	7.50	10.52	9.33	12.62	27.17	11.04	23.83	28.45	11.32	24.99	CODE=1 COR. HT. BULK MWH.
AUG.	6.78	9.66	8.27	11.39	22.31	7.05	19.57	23.33	6.95	20.46	CODE=2 OPG. HT. PER
SEP.	7.13	10.50	9.97	13.32	20.44	12.46	24.94	29.58	13.14	25.95	UNIT AREA KWH/M**2
OCT.	7.17	10.03	9.46	12.71	26.01	11.51	22.91	27.12	12.14	23.79	CODE=3 COR.HT. PER.
NOV.	8.66	11.91	10.39	14.43	32.85	16.36	28.41	33.84	17.35	29.72	UNIT AREA KWH/M**2
DEC.	9.19	11.36	10.47	13.90	29.72	14.35	26.17	31.10	15.04	27.28	WIND SPEEDS ARE IN KNOTS.
SUMS	8.45	11.65	10.66	14.14	386.05	183.54	339.51	402.03	192.97	352.63	

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMCVEL OLD HT	RMCVEL NEW HT	VCORR1 CODE=1	VCORR2 CODE=2	VCORR3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION
											1971
JAN.	8.00	11.12	10.19	13.57	28.81	13.15	25.27	29.35	13.87	26.18	TOPEKA KANSAS
FEB.	9.05	12.33	11.57	15.13	34.13	16.11	29.84	35.36	17.26	31.45	SHAWNEE COUNTY
MAR.	10.32	13.86	12.27	17.09	39.97	22.41	35.06	41.76	23.41	36.63	CORRECTED HT. 100 FT.
APR.	9.99	13.51	12.46	15.23	39.03	21.09	34.23	40.31	22.24	35.62	INSTRUMENT HT. 20 FT.
MAY.	8.31	11.56	9.93	13.42	31.35	13.24	27.93	33.31	13.61	29.22	PEAK LIMIT IS 15 KNTS.
JUNE	7.59	10.74	9.55	12.89	24.78	12.04	25.42	29.99	12.30	26.30	FRIC. LIM. IS 7KNTS.
JULY	6.44	9.21	8.16	11.17	17.23	6.85	17.44	20.03	6.87	17.57	CODE=1 COR. HT. BULK MWH.
AUG.	6.02	8.65	7.73	10.67	15.75	5.73	16.44	19.10	5.76	16.75	CODE=2 OPG. HT. PER
SEP.	8.36	11.52	10.70	14.18	31.96	15.26	28.03	33.25	16.15	29.16	UNIT AREA KWH/M**2
OCT.	7.55	10.55	9.73	13.32	26.32	11.63	23.93	26.77	12.47	23.48	CODE=3 COR.HT. PER.
NOV.	8.48	11.73	10.39	13.88	32.87	14.47	28.83	34.17	15.24	29.97	UNIT AREA KWH/M**2
DEC.	7.29	10.30	9.00	12.19	24.45	9.25	21.46	24.96	9.59	21.89	WIND SPEEDS ARE IN KNOTS.
SUMS	8.12	11.26	10.46	12.86	397.15	161.44	313.18	369.65	169.50	324.23	

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMCVEL OLD HT	RMCVEL NEW HT	VCORR1 CODE=1	VCORR2 CODE=2	VCORR3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION
											1972
JAN.	9.18	12.55	11.37	15.00	30.35	15.16	31.45	37.23	19.19	32.70	TOPEKA KANSAS
FEB.	9.14	12.53	11.35	14.93	36.17	16.64	29.97	39.73	17.77	31.34	SHAWNEE COUNTY
MAR.	10.45	14.14	12.28	16.12	40.94	22.59	37.79	44.04	23.77	39.47	CORRECTED HT. 100 FT.
APR.	10.01	13.61	11.96	15.42	39.90	20.61	36.99	41.72	21.85	36.60	INSTRUMENT HT. 20 FT.
MAY.	8.56	11.86	10.35	13.93	32.50	14.31	28.51	34.11	14.57	29.92	PEAK LIMIT IS 15 KNTS.
JUNE	7.69	10.74	9.25	12.59	27.25	10.37	23.90	28.67	10.70	24.43	FRIC. LIM. IS 7KNTS.
JULY	7.06	11.15	9.56	12.80	29.54	10.99	25.93	29.62	11.41	25.93	CODE=1 COR. HT. BULK MWH.
AUG.	7.22	10.29	8.72	11.94	25.75	9.69	23.84	24.69	4.49	21.44	CODE=2 OPG. HT. PER
SEP.	8.28	11.50	9.91	13.37	32.53	13.55	28.53	36.25	14.78	30.33	UNIT AREA KWH/M**2
OCT.	7.76	10.61	9.32	13.17	28.54	11.12	26.04	29.42	13.29	26.15	CODE=3 COR.HT. PER.
NOV.	9.22	11.53	10.26	13.71	31.44	14.93	27.59	32.71	14.64	28.69	UNIT AREA KWH/M**2
DEC.	9.57	13.13	11.91	14.93	37.33	17.55	32.75	39.92	15.13	34.22	WIND SPEEDS ARE IN KNOTS.
SUMS	8.68	11.99	10.60	14.11	396.61	166.61	366.19	442.36	186.44	361.69	

APPENDIX C

TABLES

Goodland

JAN 1950

DEC 1973

Bivariate Distribution

Goodland

Years

1950 1953

1951 1954

1952 1955

Instrument Height

1950-1955 25 Feet

DIR	00-06	07-10	11-16	17-21	22-26	SUMS
N	0.007	0.011	0.015	0.011	0.005	0.049
NNE	0.007	0.012	0.012	0.003	0.001	0.023
NE	0.005	0.010	0.013	0.007	0.001	0.026
NNE	0.005	0.010	0.008	0.004	0.000	0.017
E	0.004	0.007	0.006	0.002	0.000	0.019
ESE	0.004	0.013	0.014	0.005	0.001	0.027
SE	0.012	0.025	0.037	0.017	0.008	0.099
SSE	0.004	0.037	0.026	0.013	0.004	0.074
S	0.037	0.021	0.023	0.017	0.004	0.102
SSW	0.007	0.014	0.027	0.012	0.002	0.052
SW	0.009	0.028	0.024	0.004	0.000	0.065
WSW	0.015	0.066	0.021	0.004	0.000	0.105
W	0.009	0.019	0.009	0.001	0.000	0.028
WNW	0.014	0.021	0.017	0.002	0.000	0.055
W	0.017	0.027	0.029	0.024	0.020	0.118
NNW	0.004	0.015	0.020	0.016	0.016	0.071
CALM	0.016	0.0	0.0	0.0	0.0	0.016
SUMS	0.143	0.322	0.318	0.155	0.043	

DIR	00-06	07-10	11-16	17-21	22-26	SUMS
N	0.014	0.017	0.024	0.008	0.006	0.069
NNE	0.010	0.014	0.011	0.003	0.001	0.039
NE	0.010	0.017	0.009	0.001	0.000	0.034
NNE	0.007	0.009	0.005	0.000	0.000	0.019
E	0.010	0.003	0.006	0.000	0.000	0.024
ESE	0.016	0.020	0.008	0.003	0.000	0.043
SE	0.015	0.024	0.020	0.004	0.000	0.063
SSE	0.013	0.034	0.033	0.010	0.000	0.110
S	0.017	0.036	0.042	0.015	0.002	0.104
SSW	0.011	0.029	0.032	0.007	0.000	0.079
SW	0.016	0.021	0.013	0.001	0.000	0.051
WSW	0.023	0.042	0.018	0.001	0.000	0.074
W	0.014	0.024	0.008	0.000	0.000	0.046
WNW	0.019	0.028	0.017	0.002	0.000	0.058
W	0.010	0.024	0.025	0.013	0.007	0.075
NNW	0.014	0.014	0.022	0.020	0.012	0.061
CALM	0.025	0.0	0.0	0.0	0.0	0.025
SUMS	0.238	0.350	0.279	0.094	0.031	

DIR	00-06	07-10	11-16	17-21	22-26	SUMS
N	0.008	0.017	0.021	0.012	0.006	0.064
NNE	0.009	0.004	0.011	0.005	0.001	0.024
NE	0.006	0.009	0.006	0.003	0.000	0.024
NNE	0.003	0.012	0.009	0.000	0.000	0.024
E	0.005	0.007	0.006	0.002	0.000	0.020
ESE	0.011	0.014	0.015	0.003	0.001	0.044
SE	0.012	0.021	0.024	0.007	0.003	0.067
SSE	0.009	0.033	0.044	0.013	0.008	0.112
S	0.011	0.036	0.045	0.020	0.005	0.115
SSW	0.016	0.014	0.027	0.009	0.003	0.060
SW	0.012	0.025	0.021	0.004	0.000	0.054
WSW	0.028	0.039	0.013	0.000	0.000	0.069
W	0.014	0.021	0.005	0.001	0.000	0.040
WNW	0.011	0.021	0.016	0.003	0.001	0.052
W	0.010	0.017	0.021	0.004	0.000	0.052
NNW	0.010	0.014	0.030	0.017	0.015	0.063
CALM	0.043	0.0	0.0	0.0	0.0	0.043
SUMS	0.207	0.313	0.313	0.115	0.052	

DIR	00-06	07-10	11-16	17-21	22-26	SUMS
N	0.012	0.020	0.026	0.003	0.006	0.072
NNE	0.014	0.013	0.016	0.005	0.001	0.043
NE	0.012	0.020	0.016	0.004	0.001	0.053
NNE	0.005	0.004	0.007	0.001	0.001	0.023
E	0.007	0.007	0.006	0.001	0.000	0.024
ESE	0.004	0.013	0.006	0.001	0.000	0.020
SE	0.018	0.026	0.032	0.006	0.002	0.084
SSE	0.012	0.033	0.040	0.013	0.005	0.101
S	0.013	0.031	0.037	0.015	0.005	0.100
SSW	0.016	0.016	0.022	0.005	0.001	0.050
SW	0.031	0.051	0.026	0.005	0.001	0.114
WSW	0.022	0.035	0.010	0.000	0.000	0.068
W	0.013	0.015	0.004	0.000	0.000	0.034
WNW	0.013	0.016	0.009	0.002	0.001	0.042
W	0.015	0.013	0.016	0.008	0.013	0.068
NNW	0.013	0.019	0.025	0.013	0.007	0.077
CALM	0.016	0.0	0.0	0.0	0.0	0.016
SUMS	0.223	0.327	0.298	0.090	0.047	

DIR	00-06	07-10	11-16	17-21	22-26	SUMS
N	0.024	0.027	0.034	0.021	0.010	0.121
NNE	0.014	0.016	0.014	0.001	0.001	0.047
NE	0.014	0.013	0.011	0.002	0.000	0.041
NNE	0.009	0.007	0.004	0.000	0.000	0.022
E	0.010	0.008	0.004	0.000	0.000	0.022
ESE	0.010	0.010	0.008	0.001	0.000	0.028
SE	0.017	0.033	0.028	0.007	0.001	0.086
SSE	0.014	0.031	0.029	0.010	0.004	0.088
S	0.015	0.023	0.035	0.015	0.003	0.104
SSW	0.026	0.011	0.017	0.006	0.001	0.058
SW	0.027	0.040	0.021	0.001	0.000	0.090
WSW	0.022	0.029	0.005	0.001	0.001	0.053
W	0.015	0.013	0.002	0.000	0.000	0.030
WNW	0.015	0.020	0.010	0.001	0.000	0.048
W	0.019	0.027	0.021	0.012	0.004	0.083
NNW	0.014	0.018	0.023	0.011	0.008	0.074
CALM	0.021	0.0	0.0	0.0	0.0	0.021
SUMS	0.272	0.343	0.265	0.090	0.040	

DIR	00-06	07-10	11-16	17-21	22-26	SUMS
N	0.011	0.016	0.024	0.013	0.002	0.066
NNE	0.008	0.012	0.011	0.004	0.001	0.036
NE	0.007	0.010	0.008	0.003	0.000	0.024
NNE	0.005	0.007	0.004	0.003	0.001	0.021
E	0.005	0.005	0.004	0.000	0.000	0.016
ESE	0.004	0.004	0.007	0.000	0.000	0.024
SE	0.014	0.014	0.032	0.007	0.003	0.092
SSE	0.010	0.033	0.041	0.016	0.007	0.108
S	0.010	0.025	0.037	0.019	0.003	0.093
SSW	0.007	0.014	0.022	0.005	0.001	0.053
SW	0.014	0.030	0.023	0.002	0.000	0.077
WSW	0.014	0.041	0.013	0.001	0.000	0.069
W	0.013	0.020	0.008	0.003	0.000	0.041
WNW	0.011	0.021	0.015	0.003	0.001	0.052
W	0.013	0.021	0.032	0.020	0.008	0.120
NNW	0.009	0.013	0.021	0.016	0.011	0.073
CALM	0.021	0.0	0.0	0.0	0.0	0.021
SUMS	0.344	0.346	0.304	0.115	0.041	

Bivariate Distribution

Goodland

Years

1962 1970

1963 1971

1964 1972

Instrument Height

1962-1964 31 Feet

1970-1972 21 Feet

	00-06	07-10	11-16	17-21	22-26	SUMS
DIR	0.009	0.013	0.025	0.013	0.001	0.063
N	0.007	0.012	0.019	0.006	0.0	0.033
NE	0.007	0.009	0.008	0.002	0.0	0.023
E	0.016	0.014	0.013	0.002	0.0	0.033
SE	0.005	0.011	0.019	0.011	0.001	0.033
S	0.020	0.032	0.029	0.015	0.012	0.111
SW	0.010	0.023	0.034	0.006	0.001	0.071
SSW	0.011	0.023	0.022	0.004	0.001	0.059
WSW	0.012	0.017	0.016	0.001	0.0	0.033
W	0.018	0.017	0.014	0.002	0.0	0.033
WS	0.013	0.014	0.014	0.002	0.001	0.033
WSSW	0.015	0.022	0.023	0.005	0.001	0.059
CALM	0.015	0.0	0.0	0.0	0.0	0.013
SUMS	0.104	0.145	0.124	0.112	0.021	0.321

	00-06	07-10	11-16	17-21	22-26	SUMS
DIR	0.009	0.011	0.022	0.012	0.003	0.033
N	0.007	0.011	0.017	0.004	0.0	0.033
NE	0.007	0.011	0.017	0.004	0.0	0.033
E	0.013	0.019	0.016	0.001	0.0	0.033
SE	0.005	0.012	0.021	0.003	0.001	0.033
S	0.015	0.029	0.025	0.012	0.002	0.111
SW	0.006	0.024	0.022	0.006	0.001	0.059
SSW	0.009	0.027	0.022	0.007	0.001	0.059
WSW	0.012	0.031	0.016	0.004	0.001	0.059
W	0.015	0.015	0.012	0.004	0.001	0.059
WS	0.013	0.014	0.015	0.005	0.001	0.059
WSSW	0.017	0.023	0.029	0.003	0.001	0.059
CALM	0.010	0.0	0.0	0.0	0.0	0.013
SUMS	0.119	0.145	0.124	0.120	0.027	0.321

	00-06	07-10	11-16	17-21	22-26	SUMS
DIR	0.007	0.021	0.024	0.014	0.001	0.071
N	0.007	0.011	0.019	0.001	0.0	0.033
NE	0.007	0.011	0.019	0.001	0.0	0.033
E	0.013	0.017	0.016	0.001	0.0	0.033
SE	0.004	0.011	0.014	0.001	0.0	0.033
S	0.016	0.029	0.029	0.013	0.002	0.111
SW	0.007	0.023	0.026	0.005	0.001	0.059
SSW	0.007	0.023	0.027	0.005	0.001	0.059
WSW	0.010	0.029	0.016	0.001	0.001	0.059
W	0.015	0.017	0.019	0.001	0.001	0.059
WS	0.013	0.014	0.014	0.001	0.001	0.059
WSSW	0.017	0.023	0.029	0.003	0.001	0.059
CALM	0.010	0.0	0.0	0.0	0.0	0.013
SUMS	0.119	0.145	0.124	0.120	0.027	0.321

	00-06	07-10	11-16	17-21	22-26	SUMS
DIR	0.012	0.014	0.024	0.011	0.005	0.064
N	0.013	0.014	0.014	0.011	0.003	0.056
NE	0.013	0.014	0.014	0.011	0.003	0.056
E	0.013	0.014	0.014	0.011	0.003	0.056
SE	0.013	0.014	0.014	0.011	0.003	0.056
S	0.013	0.014	0.014	0.011	0.003	0.056
SW	0.013	0.014	0.014	0.011	0.003	0.056
SSW	0.013	0.014	0.014	0.011	0.003	0.056
WSW	0.013	0.014	0.014	0.011	0.003	0.056
W	0.013	0.014	0.014	0.011	0.003	0.056
WS	0.013	0.014	0.014	0.011	0.003	0.056
WSSW	0.013	0.014	0.014	0.011	0.003	0.056
CALM	0.013	0.014	0.014	0.011	0.003	0.056
SUMS	0.119	0.145	0.124	0.120	0.027	0.321

	00-06	07-10	11-16	17-21	22-26	SUMS
DIR	0.012	0.014	0.017	0.012	0.005	0.064
N	0.013	0.014	0.014	0.011	0.003	0.056
NE	0.013	0.014	0.014	0.011	0.003	0.056
E	0.013	0.014	0.014	0.011	0.003	0.056
SE	0.013	0.014	0.014	0.011	0.003	0.056
S	0.013	0.014	0.014	0.011	0.003	0.056
SW	0.013	0.014	0.014	0.011	0.003	0.056
SSW	0.013	0.014	0.014	0.011	0.003	0.056
WSW	0.013	0.014	0.014	0.011	0.003	0.056
W	0.013	0.014	0.014	0.011	0.003	0.056
WS	0.013	0.014	0.014	0.011	0.003	0.056
WSSW	0.013	0.014	0.014	0.011	0.003	0.056
CALM	0.013	0.014	0.014	0.011	0.003	0.056
SUMS	0.119	0.145	0.124	0.120	0.027	0.321

	00-06	07-10	11-16	17-21	22-26	SUMS
DIR	0.012	0.014	0.017	0.012	0.005	0.064
N	0.013	0.014	0.014	0.011	0.003	0.056
NE	0.013	0.014	0.014	0.011	0.003	0.056
E	0.013	0.014	0.014	0.011	0.003	0.056
SE	0.013	0.014	0.014	0.011	0.003	0.056
S	0.013	0.014	0.014	0.011	0.003	0.056
SW	0.013	0.014	0.014	0.011	0.003	0.056
SSW	0.013	0.014	0.014	0.011	0.003	0.056
WSW	0.013	0.014	0.014	0.011	0.003	0.056
W	0.013	0.014	0.014	0.011	0.003	0.056
WS	0.013	0.014	0.014	0.011	0.003	0.056
WSSW	0.013	0.014	0.014	0.011	0.003	0.056
CALM	0.013	0.014	0.014	0.011	0.003	0.056
SUMS	0.119	0.145	0.124	0.120	0.027	0.321

	3-1-20	7-1-19	11-16	17-21	22-18	SUMS
1	0.339	0.115	0.034	0.315	0.205	0.364
2	0.040	0.013	0.017	0.033	0.001	0.036
3	0.035	0.005	0.005	0.031	0.0	0.025
4	0.036	0.007	0.005	0.01	0.003	0.013
5	0.015	0.015	0.015	0.035	0.0	0.041
6	0.004	0.011	0.013	0.031	0.001	0.027
7	0.004	0.011	0.015	0.034	0.001	0.024
8	0.010	0.013	0.013	0.012	0.014	0.114
9	0.003	0.003	0.003	0.016	0.013	0.117
10	0.003	0.003	0.003	0.006	0.003	0.058
11	0.003	0.003	0.003	0.001	0.0	0.001
12	0.003	0.003	0.003	0.0	0.0	0.002
13	0.003	0.003	0.003	0.003	0.003	0.026
14	0.003	0.003	0.003	0.003	0.003	0.026
15	0.003	0.003	0.003	0.003	0.003	0.026
16	0.003	0.003	0.003	0.003	0.003	0.026
17	0.003	0.003	0.003	0.003	0.003	0.026
18	0.003	0.003	0.003	0.003	0.003	0.026
19	0.003	0.003	0.003	0.003	0.003	0.026
20	0.003	0.003	0.003	0.003	0.003	0.026
21	0.003	0.003	0.003	0.003	0.003	0.026
22	0.003	0.003	0.003	0.003	0.003	0.026
23	0.003	0.003	0.003	0.003	0.003	0.026
24	0.003	0.003	0.003	0.003	0.003	0.026
25	0.003	0.003	0.003	0.003	0.003	0.026
26	0.003	0.003	0.003	0.003	0.003	0.026
27	0.003	0.003	0.003	0.003	0.003	0.026
28	0.003	0.003	0.003	0.003	0.003	0.026
29	0.003	0.003	0.003	0.003	0.003	0.026
30	0.003	0.003	0.003	0.003	0.003	0.026
31	0.003	0.003	0.003	0.003	0.003	0.026
32	0.003	0.003	0.003	0.003	0.003	0.026
33	0.003	0.003	0.003	0.003	0.003	0.026
34	0.003	0.003	0.003	0.003	0.003	0.026
35	0.003	0.003	0.003	0.003	0.003	0.026
36	0.003	0.003	0.003	0.003	0.003	0.026
37	0.003	0.003	0.003	0.003	0.003	0.026
38	0.003	0.003	0.003	0.003	0.003	0.026
39	0.003	0.003	0.003	0.003	0.003	0.026
40	0.003	0.003	0.003	0.003	0.003	0.026
41	0.003	0.003	0.003	0.003	0.003	0.026
42	0.003	0.003	0.003	0.003	0.003	0.026
43	0.003	0.003	0.003	0.003	0.003	0.026
44	0.003	0.003	0.003	0.003	0.003	0.026
45	0.003	0.003	0.003	0.003	0.003	0.026
46	0.003	0.003	0.003	0.003	0.003	0.026
47	0.003	0.003	0.003	0.003	0.003	0.026
48	0.003	0.003	0.003	0.003	0.003	0.026
49	0.003	0.003	0.003	0.003	0.003	0.026
50	0.003	0.003	0.003	0.003	0.003	0.026

Bivariate Distribution

Goodland

Years

1973

Instrument Height

1975 21 feet

THE HOURLY SUMMARY TABLE FOR WIN. 1951

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	4.38899	30	0.16667	0.32778	0.22222	0.22222	0.22222
0300	0	8.16567	24	0.20556	0.31111	0.22778	0.22778	0.22778
0600	0	3.46667	23	0.28000	0.22222	0.18889	0.18889	0.18889
0900	0	10.33489	21	0.33333	0.22222	0.19444	0.19444	0.19444
1200	0	11.85555	21	0.45556	0.24444	0.20556	0.20556	0.20556
1500	0	10.56667	24	0.46111	0.25556	0.26667	0.26667	0.26667
1800	0	7.66667	28	0.22778	0.33444	0.27222	0.27222	0.27222
2100	3	8.99000	24	0.20556	0.05000	0.31667	0.31667	0.31667

Goodland
Instrument Height
1950-1951 25 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1951

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.71739	23	0.33152	0.36522	0.43217	0.43217	0.43217
0300	0	10.43474	29	0.36413	0.33404	0.33656	0.33656	0.33656
0600	0	10.55435	30	0.41304	0.06431	0.28804	0.28804	0.28804
0900	0	12.61522	32	0.50543	0.35373	0.27174	0.27174	0.27174
1200	1	13.55435	32	0.53203	0.37603	0.29343	0.29343	0.29343
1500	0	13.44565	30	0.53261	0.42329	0.24347	0.24347	0.24347
1800	0	10.76937	26	0.42935	0.16848	0.30476	0.30476	0.30476
2100	0	13.64133	33	0.28261	0.13537	0.34214	0.34214	0.34214

THE HOURLY SUMMARY TABLE FOR SUM. 1951

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.06522	22	0.21196	0.23373	0.42391	0.42391	0.42391
0300	0	7.76087	18	0.18473	0.19565	0.35674	0.35674	0.35674
0600	0	9.73913	20	0.26630	0.16304	0.40721	0.40721	0.40721
0900	0	9.27174	23	0.33696	0.12530	0.35326	0.35326	0.35326
1200	2	9.82609	21	0.32697	0.16848	0.41304	0.41304	0.41304
1500	0	10.23913	20	0.25543	0.28261	0.40217	0.40217	0.40217
1800	3	9.43696	23	0.23013	0.40761	0.33656	0.33656	0.33656
2100	0	8.46957	22	0.17391	0.35326	0.38043	0.38043	0.38043

THE HOURLY SUMMARY TABLE FOR FALL 1951

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	2	9.94437	23	0.18132	0.12637	0.35714	0.35714	0.35714
0300	0	8.43956	17	0.20879	0.12088	0.26374	0.26374	0.26374
0600	0	8.58242	18	0.21978	0.12088	0.25275	0.25275	0.25275
0900	2	11.00300	23	0.35165	0.09320	0.26374	0.26374	0.26374
1200	0	11.19780	25	0.35714	0.11533	0.28022	0.28022	0.28022
1500	0	10.12038	20	0.35714	0.16641	0.30220	0.30220	0.30220
1800	0	7.92308	20	0.26374	0.25824	0.35624	0.35624	0.35624
2100	0	9.20879	24	0.19780	0.16641	0.38462	0.38462	0.38462

THE HOURLY SUMMARY TABLE FOR WIN. 1950

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	9.33051	23	0.18664	0.35035	0.35593	0.35593	0.35593
0300	3	9.28330	22	0.18664	0.06733	0.32203	0.32203	0.32203
0600	3	8.71146	19	0.23339	0.33490	0.28814	0.28814	0.28814
0900	2	9.87466	22	0.35593	0.46237	0.23729	0.23729	0.23729
1200	3	11.15254	24	0.77468	0.11017	0.34766	0.34766	0.34766
1500	3	11.27119	28	0.33593	0.16437	0.39831	0.39831	0.39831
1800	0	8.55932	22	0.23729	0.16102	0.44068	0.44068	0.44068
2100	1	9.32642	23	0.23339	0.10160	0.42373	0.42373	0.42373

THE HOURLY SUMMARY TABLE FOR SPR. 1950

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	10.28281	24	0.22243	0.19022	0.28804	0.28804	0.28804
0300	3	10.16304	35	0.23370	0.14133	0.23370	0.23370	0.23370
0600	3	11.51557	36	0.26047	0.11957	0.20652	0.20652	0.20652
0900	3	11.16304	43	0.38043	0.13043	0.22283	0.22283	0.22283
1200	0	13.12609	41	0.16937	0.13043	0.28804	0.28804	0.28804
1500	3	13.70652	34	0.35526	0.17022	0.29343	0.29343	0.29343
1800	0	11.34069	26	0.36957	0.25543	0.29343	0.29343	0.29343
2100	2	13.82609	32	0.22826	0.23913	0.34239	0.34239	0.34239

THE HOURLY SUMMARY TABLE FOR SUM. 1950

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	2	9.34743	24	0.15761	0.17391	0.48913	0.48913	0.48913
0300	0	8.73913	20	0.16304	0.11957	0.42391	0.42391	0.42391
0600	0	9.22391	24	0.25543	0.16848	0.34239	0.34239	0.34239
0900	0	11.23913	26	0.36057	0.10326	0.41848	0.41848	0.41848
1200	0	12.33261	25	0.24457	0.23370	0.44022	0.44022	0.44022
1500	0	12.76251	35	0.21196	0.28261	0.42391	0.42391	0.42391
1800	0	11.47565	26	0.16304	0.43152	0.44022	0.44022	0.44022
2100	0	10.39133	23	0.10870	0.26630	0.50000	0.50000	0.50000

THE HOURLY SUMMARY TABLE FOR FALL 1950

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.40154	22	0.17033	0.07143	0.45055	0.45055	0.45055
0300	0	9.21368	22	0.18681	0.07692	0.32967	0.32967	0.32967
0600	0	9.26374	21	0.23879	0.04945	0.32419	0.32419	0.32419
0900	0	11.77725	32	0.35165	0.09890	0.31868	0.31868	0.31868
1200	0	12.49460	31	0.33516	0.13736	0.33165	0.33165	0.33165
1500	0	12.39458	27	0.31319	0.14780	0.37363	0.37363	0.37363
1800	3	13.76673	25	0.23179	0.23077	0.42553	0.42553	0.42553
2100	0	13.18941	24	0.17033	0.11533	0.48901	0.48901	0.48901

THE HOURLY SUMMARY TABLE FOR WIN. 1952

HOOR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	1	10.21859	24	0.15111	0.04474	0.28589	0.19644	0.50556
0300	3	10.50032	24	0.17778	0.05526	0.17778	0.19644	0.56111
0600	3	11.22333	30	0.15111	0.05526	0.17778	0.19644	0.57778
0900	3	12.30000	30	0.25556	0.04474	0.25556	0.25556	0.43333
1200	3	13.11111	30	0.32222	0.06111	0.31111	0.31111	0.29444
1500	3	11.33333	27	0.21667	0.04474	0.30000	0.30000	0.26667
1800	3	11.10000	24	0.22222	0.11333	0.32222	0.32222	0.26111
2100	3	12.72222	24	0.17778	0.11667	0.33889	0.33889	0.35556

Goodland
Instrument Height
1952-1953 25 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1952

HOOR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	13.17733	26	0.23333	0.16848	0.32669	0.32669	0.22826
0300	3	13.55556	26	0.25556	0.13333	0.23261	0.23261	0.29891
0600	3	13.47733	24	0.25556	0.07500	0.27717	0.27717	0.34783
0900	3	13.72222	30	0.33333	0.10322	0.28904	0.28904	0.19022
1200	3	13.72222	30	0.33333	0.10322	0.28904	0.28904	0.10970
1500	3	11.33333	27	0.21667	0.04474	0.30000	0.30000	0.26667
1800	3	11.10000	24	0.22222	0.11333	0.32222	0.32222	0.26111
2100	3	12.72222	24	0.17778	0.11667	0.33889	0.33889	0.35556

THE HOURLY SUMMARY TABLE FOR SUM. 1952

HOOR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	10.51500	27	0.15248	0.15217	0.36348	0.36348	0.11413
0300	3	9.33333	27	0.20139	0.08479	0.46196	0.46196	0.21739
0600	3	10.57733	29	0.18476	0.10322	0.42935	0.42935	0.25000
0900	3	11.72222	21	0.32339	0.08606	0.46665	0.46665	0.11413
1200	3	11.33333	24	0.30378	0.15761	0.43552	0.43552	0.06522
1500	3	11.57733	24	0.22622	0.25543	0.45109	0.45109	0.05435
1800	3	11.57733	24	0.21146	0.26639	0.42391	0.42391	0.02717
2100	3	13.11111	20	0.11587	0.23913	0.54348	0.54348	0.07065

THE HOURLY SUMMARY TABLE FOR FALL 1952

HOOR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	10.10759	20	0.19780	0.06944	0.37363	0.37363	0.35714
0300	3	9.33333	21	0.19780	0.02747	0.29121	0.29121	0.46154
0600	3	9.33333	24	0.20139	0.02198	0.21429	0.21429	0.52198
0900	3	11.91279	24	0.37363	0.09393	0.29670	0.29670	0.21478
1200	3	12.33333	33	0.35516	0.11987	0.30311	0.30311	0.16484
1500	3	12.21678	33	0.35418	0.11538	0.37363	0.37363	0.17582
1800	3	9.33333	30	0.27473	0.14240	0.43007	0.43007	0.10440
2100	3	12.20314	23	0.17682	0.09341	0.43607	0.43607	0.26374

THE HOURLY SUMMARY TABLE FOR WTH. 1953

HOOR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	4	10.83333	29	0.21667	0.03437	0.14444	0.14444	0.50000
0300	0	11.08333	33	0.19644	0.02222	0.36556	0.36556	0.58333
0600	0	12.92222	30	0.18333	0.02222	0.10556	0.10556	0.46667
0900	0	12.25556	29	0.25556	0.04444	0.10000	0.10000	0.55556
1200	0	13.25556	29	0.36111	0.06111	0.17778	0.17778	0.35556
1500	0	12.22222	30	0.37778	0.04444	0.10111	0.10111	0.44444
1800	0	10.27778	30	0.24444	0.10000	0.32222	0.32222	0.40556
2100	3	10.71111	33	0.17778	0.06111	0.16444	0.16444	0.56667

THE HOURLY SUMMARY TABLE FOR SPR. 1953

HOOR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	11.65556	24	0.20109	0.17391	0.27174	0.27174	0.34239
0300	0	11.44556	28	0.22826	0.14674	0.22233	0.22233	0.35333
0600	0	11.63666	35	0.26067	0.09433	0.22526	0.22526	0.36557
0900	3	16.49133	34	0.38870	0.19161	0.25200	0.25200	0.23373
1200	3	15.33666	35	0.32666	0.17391	0.27174	0.27174	0.21180
1500	0	14.51333	30	0.30978	0.14474	0.27717	0.27717	0.21739
1800	0	11.34743	23	0.25000	0.29444	0.32913	0.32913	0.18476
2100	0	11.53261	20	0.19478	0.28261	0.29343	0.29343	0.21739

THE HOURLY SUMMARY TABLE FOR SUM. 1953

HOOR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	11.30666	25	0.13943	0.20582	0.51265	0.51265	0.08152
0300	0	10.46739	19	0.20152	0.22125	0.47293	0.47293	0.15965
0600	0	11.77174	23	0.11413	0.20109	0.46457	0.46457	0.16444
0900	0	13.09733	22	0.16394	0.19322	0.36333	0.36333	0.11857
1200	0	13.21739	24	0.15761	0.22626	0.45413	0.45413	0.10136
1500	3	14.02174	24	0.14130	0.33152	0.47293	0.47293	0.25444
1800	5	13.79443	28	0.16543	0.35326	0.45109	0.45109	0.32717
2100	1	12.31522	29	0.12500	0.39974	0.42174	0.42174	0.34444

THE HOURLY SUMMARY TABLE FOR FALL 1953

HOOR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	11.01949	29	0.14266	0.35495	0.42110	0.42110	0.27317
0300	0	10.18631	32	0.15385	0.05425	0.23571	0.23571	0.45259
0600	0	9.74725	32	0.14935	0.06944	0.24775	0.24775	0.44721
0900	0	11.59341	26	0.37363	0.07692	0.26374	0.26374	0.27473
1200	0	11.59341	26	0.36813	0.14236	0.26670	0.26670	0.14435
1500	0	11.50849	26	0.37669	0.16844	0.36813	0.36813	0.14435
1800	0	9.93333	26	0.23377	0.27177	0.37363	0.37363	0.21317
2100	3	10.67033	28	0.17033	0.17033	0.42756	0.42756	0.21317

THE HOURLY SUMMARY TABLE FOR WIN. 1954

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.5555	23	0.2222	0.0344	0.2111	0.5111	0.5111
0300	4	10.2033	23	0.2500	0.0167	0.1778	0.5556	0.5556
0600	2	10.3333	23	0.2389	0.0333	0.1778	0.5500	0.5500
0900	0	10.4733	23	0.2944	0.0211	0.1722	0.4611	0.4611
1200	0	11.0333	23	0.3011	0.0333	0.1778	0.4611	0.4611
1500	2	10.5000	23	0.3778	0.0722	0.2222	0.3556	0.3556
1800	0	10.5000	20	0.2389	0.0333	0.3222	0.3333	0.3333
2100	3	10.2667	22	0.1989	0.0556	0.2389	0.5167	0.5167

Goodland
Instrument Height
1954-1955 25 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1954

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.1133	30	0.2223	0.1683	0.3030	0.1956	0.1956
0300	0	9.1733	28	0.2052	0.1739	0.3122	0.2608	0.2608
0600	3	10.1633	30	0.2283	0.1521	0.3526	0.2717	0.2717
0900	0	12.0000	33	0.2880	0.1521	0.3526	0.1848	0.1848
1200	3	13.1533	35	0.2989	0.1357	0.3913	0.1739	0.1739
1500	0	13.1933	39	0.3035	0.1573	0.3657	0.1304	0.1304
1800	3	12.1267	31	0.3373	0.1522	0.2657	0.1769	0.1769
2100	3	11.1956	30	0.2373	0.3073	0.3122	0.1304	0.1304

THE HOURLY SUMMARY TABLE FOR SUM. 1954

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	5.2341	23	0.1353	0.1793	0.5438	0.1250	0.1250
0300	0	7.0017	19	0.1630	0.1674	0.4728	0.1630	0.1630
0600	0	8.5037	19	0.1922	0.3676	0.4378	0.2717	0.2717
0900	0	10.0543	22	0.2717	0.1739	0.4168	0.1197	0.1197
1200	0	5.3657	23	0.1873	0.1630	0.4723	0.1604	0.1604
1500	0	10.4722	20	0.2052	0.2119	0.5326	0.0380	0.0380
1800	0	9.3509	23	0.1576	0.2500	0.5491	0.0326	0.0326
2100	0	9.0522	24	0.1576	0.4457	0.5304	0.0380	0.0380

THE HOURLY SUMMARY TABLE FOR FALL 1954

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	5.3287	20	0.1703	0.0341	0.2743	0.3950	0.3950
0300	0	8.0110	20	0.1535	0.0693	0.2584	0.4560	0.4560
0600	0	9.0339	23	0.1703	0.0694	0.1973	0.5495	0.5495
0900	0	11.1233	25	0.3712	0.0879	0.2575	0.2475	0.2475
1200	0	11.1333	25	0.3717	0.1107	0.2857	0.1812	0.1812
1500	0	11.4553	22	0.3462	0.1485	0.3462	0.0890	0.0890
1800	0	8.7113	18	0.2584	0.1631	0.1406	0.1594	0.1594
2100	0	9.3377	21	0.1978	0.1931	0.0912	0.2743	0.2743

THE HOURLY SUMMARY TABLE FOR WIN. 1955

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.3444	25	0.1889	0.0611	0.2389	0.4689	0.4689
0300	0	9.4222	21	0.2444	0.0278	0.2167	0.4689	0.4689
0600	0	9.3000	23	0.2333	0.0167	0.1843	0.5278	0.5278
0900	0	10.3000	25	0.3500	0.0167	0.1773	0.3773	0.3773
1200	0	11.1773	25	0.4611	0.0344	0.2355	0.2667	0.2667
1500	0	9.7444	24	0.4611	0.1056	0.2355	0.1722	0.1722
1800	0	8.7333	24	0.2778	0.0500	0.2167	0.3333	0.3333
2100	0	9.0300	23	0.2444	0.0556	0.2122	0.4056	0.4056

THE HOURLY SUMMARY TABLE FOR SPR. 1955

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	12.0767	25	0.1922	0.0923	0.4235	0.2554	0.2554
0300	0	11.1956	25	0.2173	0.0543	0.2543	0.3657	0.3657
0600	0	11.7067	37	0.2500	0.0543	0.2116	0.4235	0.4235
0900	0	14.6303	32	0.3803	0.1067	0.2591	0.2010	0.2010
1200	0	14.1473	35	0.2989	0.1457	0.3657	0.1413	0.1413
1500	0	14.7533	32	0.2900	0.2317	0.3587	0.1123	0.1123
1800	0	12.2697	30	0.2337	0.2232	0.3587	0.1577	0.1577
2100	0	11.6761	28	0.1684	0.1357	0.4256	0.1848	0.1848

THE HOURLY SUMMARY TABLE FOR SUM. 1955

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.0873	23	0.0312	0.1304	0.5812	0.3673	0.3673
0300	0	8.4239	18	0.1032	0.1143	0.5107	0.1521	0.1521
0600	0	9.4891	24	0.1684	0.1253	0.4235	0.1793	0.1793
0900	0	11.1413	27	0.2052	0.1684	0.4619	0.1197	0.1197
1200	0	11.9239	32	0.1684	0.1793	0.5133	0.0923	0.0923
1500	0	12.8913	30	0.1343	0.2717	0.4373	0.3973	0.3973
1800	0	11.9347	25	0.1413	0.3543	0.4257	0.2217	0.2217
2100	0	10.3366	24	0.1032	0.2119	0.5066	0.2543	0.2543

THE HOURLY SUMMARY TABLE FOR FALL 1955

HOUR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	11.0549	23	0.1703	0.1273	0.2937	0.3267	0.3267
0300	0	10.0830	24	0.1643	0.0379	0.2571	0.4054	0.4054
0600	0	10.2417	30	0.1593	0.0822	0.2147	0.4691	0.4691
0900	0	12.5604	28	0.3516	0.1375	0.2507	0.2743	0.2743
1200	0	13.1752	27	0.3184	0.1979	0.2012	0.1563	0.1563
1500	0	12.9347	31	0.3615	0.2030	0.3089	0.0869	0.0869
1800	0	10.4175	35	0.2362	0.2743	0.1574	0.1066	0.1066
2100	0	10.7912	24	0.1980	0.2089	0.3516	0.2246	0.2246

THE HOURLY SUMMARY TABLE FOR WIN. 1956

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.71222	18	0.15000	0.07778	0.26667	0.46111	
0300	0	8.55555	19	0.18333	0.36667	0.23089	0.43889	
0600	0	8.55555	27	0.15556	0.07778	0.20556	0.48333	
0900	0	10.05555	32	0.23333	0.37333	0.22778	0.41111	
1200	0	10.33333	28	0.34444	0.06667	0.28333	0.27222	
1500	0	9.33333	26	0.31667	0.13333	0.31667	0.15000	
1800	0	8.91111	20	0.22222	0.19444	0.37222	0.18889	
2100	0	8.57778	21	0.15556	0.11111	0.31667	0.35000	

Goodland
Instrument Height
1956-1957 25 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1956

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.33333	26	0.19556	0.17391	0.33152	0.28804	
0300	0	12.15217	27	0.26667	0.09152	0.23089	0.33870	
0600	0	10.33333	20	0.26667	0.12500	0.19022	0.36413	
0900	0	12.13333	32	0.37133	0.17391	0.21195	0.16868	
1200	0	12.12174	20	0.34413	0.18474	0.25000	0.19022	
1500	0	12.33333	27	0.26667	0.16868	0.28261	0.17435	
1800	0	10.22222	21	0.23913	0.34739	0.28261	0.11413	
2100	0	10.21739	27	0.17391	0.26037	0.35326	0.15761	

THE HOURLY SUMMARY TABLE FOR SUM. 1956

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.29348	28	0.12500	0.15761	0.47283	0.22283	
0300	0	8.44565	26	0.19556	0.14133	0.26957	0.26087	
0600	0	9.02174	22	0.16394	0.17435	0.34239	0.29348	
0900	0	10.21739	21	0.19556	0.26457	0.34239	0.17391	
1200	0	9.34534	23	0.24457	0.29543	0.38263	0.13970	
1500	0	11.34733	20	0.21739	0.25304	0.39130	0.08152	
1800	0	10.37333	25	0.15761	0.39435	0.46739	0.04891	
2100	0	9.97326	25	0.14567	0.27174	0.50000	0.07065	

THE HOURLY SUMMARY TABLE FOR FALL 1956

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.37333	29	0.15934	0.09390	0.37363	0.35714	
0300	0	10.76122	25	0.21973	0.07692	0.31368	0.36264	
0600	0	10.76122	33	0.25775	0.07435	0.25275	0.43407	
0900	0	13.16483	30	0.35165	0.07143	0.26374	0.29121	
1200	0	13.16483	30	0.36264	0.09391	0.36264	0.17033	
1500	0	11.34733	31	0.33516	0.12083	0.37012	0.16434	
1800	0	9.75333	27	0.17391	0.18474	0.41750	0.23377	
2100	0	10.33333	27	0.14565	0.14133	0.46194	0.23626	

THE HOURLY SUMMARY TABLE FOR WIN. 1957

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.02289	20	0.17778	0.03333	0.21111	0.57778	
0300	0	8.57778	23	0.17222	0.05000	0.12333	0.53111	
0600	0	9.16667	27	0.18333	0.06667	0.15000	0.57222	
0900	0	11.10000	27	0.33333	0.11111	0.22778	0.41111	
1200	1	12.20000	28	0.40000	0.11111	0.33333	0.13333	
1500	0	10.33333	23	0.35000	0.15556	0.31111	0.12556	
1800	0	8.45555	29	0.25556	0.17222	0.38333	0.23333	
2100	0	8.95555	19	0.20556	0.06667	0.35000	0.31111	

THE HOURLY SUMMARY TABLE FOR SPR. 1957

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.11957	33	0.22826	0.23370	0.31522	0.21152	
0300	0	9.47391	35	0.23370	0.14674	0.34239	0.23370	
0600	0	10.33333	35	0.25543	0.15217	0.26087	0.26533	
0900	0	12.94555	33	0.36413	0.23104	0.29491	0.14133	
1200	0	12.37609	30	0.28333	0.21195	0.25891	0.17391	
1500	0	13.34733	36	0.31522	0.24457	0.27174	0.14133	
1800	0	11.21739	24	0.30973	0.30435	0.27174	0.27355	
2100	0	10.97326	30	0.21739	0.24457	0.35326	0.13343	

THE HOURLY SUMMARY TABLE FOR SUM. 1957

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.27174	16	0.13587	0.13587	0.35827	0.16478	
0300	0	7.95435	14	0.16394	0.12500	0.35226	0.27174	
0600	0	6.24783	20	0.17391	0.10326	0.21522	0.35778	
0900	0	8.76037	18	0.28261	0.11557	0.25217	0.13343	
1200	0	9.22626	25	0.23370	0.14674	0.45478	0.12343	
1500	0	10.53201	25	0.16394	0.23370	0.46739	0.11413	
1800	4	9.04478	29	0.19022	0.27174	0.47826	0.35435	
2100	0	8.66304	25	0.16488	0.26037	0.52351	0.37055	

THE HOURLY SUMMARY TABLE FOR FALL 1957

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.72527	17	0.19780	0.10440	0.40111	0.38571	
0300	0	8.44565	28	0.21973	0.09833	0.35165	0.39670	
0600	0	8.44565	20	0.23626	0.08264	0.24871	0.35165	
0900	0	10.20879	23	0.31863	0.07692	0.32264	0.21778	
1200	0	10.44450	23	0.35714	0.14235	0.33164	0.15265	
1500	0	10.46154	20	0.37263	0.15385	0.33164	0.11536	
1800	0	7.33316	17	0.20479	0.23626	0.47826	0.27222	
2100	0	8.33165	21	0.16091	0.21739	0.35714	0.27129	

THE HOURLY SUMMARY TABLE FOR MIN. 1958

HOUR	LA	AVG. VEL.	DIR.	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.40300	28	0.16667	0.03939	0.25000	0.52222	0.48333
0300	0	8.61111	26	0.22778	0.03939	0.21667	0.48333	0.48333
0600	0	9.51111	26	0.21667	0.03939	0.17222	0.48333	0.48333
0900	0	8.77778	28	0.23889	0.06667	0.19444	0.41667	0.41667
1200	0	11.53333	32	0.40000	0.07778	0.27778	0.23333	0.23333
1500	0	12.65556	30	0.43333	0.09444	0.27222	0.18889	0.18889
1800	0	9.01111	27	0.23889	0.12222	0.16111	0.20000	0.20000
2100	0	8.53333	27	0.18889	0.05556	0.19556	0.38889	0.38889

Goodland
Instrument Height
1958-1959 25 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1958

HOUR	LA	AVG. VEL.	DIR.	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.50000	30	0.23370	0.20109	0.33152	0.21196	0.21196
0300	0	9.53333	30	0.28261	0.14130	0.29891	0.26457	0.26457
0600	0	8.94913	26	0.27717	0.16304	0.28261	0.25543	0.25543
0900	0	11.54556	36	0.33435	0.17491	0.30978	0.20109	0.20109
1200	1	11.78261	36	0.32065	0.24457	0.32609	0.10870	0.10870
1500	3	11.83333	32	0.23803	0.20891	0.36743	0.06522	0.06522
1800	0	10.24733	27	0.23413	0.25873	0.33152	0.05973	0.05973
2100	0	9.25000	24	0.20109	0.26087	0.37500	0.13343	0.13343

THE HOURLY SUMMARY TABLE FOR SUM. 1958

HOUR	LA	AVG. VEL.	DIR.	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.37733	24	0.08522	0.19303	0.48913	0.22826	0.22826
0300	0	7.85556	19	0.11413	0.16674	0.39674	0.30978	0.30978
0600	0	9.14023	22	0.25000	0.10958	0.26630	0.29343	0.29343
0900	0	10.57667	22	0.25891	0.17391	0.37883	0.13587	0.13587
1200	0	13.58478	24	0.24457	0.18478	0.48370	0.04343	0.04343
1500	0	11.56733	23	0.17391	0.25000	0.51087	0.04343	0.04343
1800	0	10.51333	25	0.14674	0.30435	0.48370	0.05435	0.05435
2100	0	9.91333	25	0.10870	0.22826	0.52174	0.08606	0.08606

THE HOURLY SUMMARY TABLE FOR FALL 1958

HOUR	LA	AVG. VEL.	DIR.	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.37333	21	0.17033	0.07592	0.30011	0.30769	0.30769
0300	0	8.33333	20	0.18132	0.04395	0.31319	0.40505	0.40505
0600	0	8.78667	22	0.18132	0.04396	0.26923	0.47253	0.47253
0900	0	11.23077	32	0.34668	0.04395	0.29121	0.26923	0.26923
1200	0	11.59154	26	0.33668	0.14285	0.34066	0.17582	0.17582
1500	0	11.37692	27	0.29121	0.17582	0.36264	0.13736	0.13736
1800	0	8.46733	23	0.25024	0.15934	0.44505	0.09341	0.09341
2100	0	9.41733	23	0.17033	0.07592	0.52198	0.19231	0.19231

THE HOURLY SUMMARY TABLE FOR WIN. 1959

HOUR	LA	AVG. VEL.	DIR.	NTH.	DIRECTION	EAST	STH.	WEST
0200	0	9.96410	22	0.14447	0.09322	0.21146	0.21146	0.21146
0500	0	9.37250	25	0.16949	0.11064	0.16949	0.21146	0.21146
0800	0	8.85441	22	0.22034	0.03775	0.16949	0.21146	0.21146
1100	3	10.93223	24	0.31356	0.12236	0.16949	0.21146	0.21146
1400	0	11.37293	26	0.31356	0.11017	0.16949	0.21146	0.21146
1700	2	9.24146	27	0.27766	0.21359	0.21146	0.21146	0.21146
2000	0	9.23129	25	0.19192	0.12712	0.21146	0.21146	0.21146
2300	0	9.67797	20	0.22034	0.07627	0.21146	0.21146	0.21146

THE HOURLY SUMMARY TABLE FOR SPR. 1959

HOUR	LA	AVG. VEL.	DIR.	NTH.	DIRECTION	EAST	STH.	WEST
0700	0	11.2174	28	0.25543	0.13325	0.25543	0.25543	0.25543
1000	0	11.02000	31	0.29891	0.03649	0.25543	0.25543	0.25543
1300	0	12.95632	32	0.40022	0.07065	0.25543	0.25543	0.25543
1600	2	13.03233	28	0.45137	0.14131	0.25543	0.25543	0.25543
1900	0	13.66543	20	0.40217	0.12547	0.25543	0.25543	0.25543
2200	4	14.10473	25	0.41235	0.15022	0.25543	0.25543	0.25543
2500	0	10.21739	28	0.28941	0.23225	0.25543	0.25543	0.25543
2800	0	10.6743	31	0.29343	0.13325	0.25543	0.25543	0.25543

THE HOURLY SUMMARY TABLE FOR SUM. 1959

HOUR	LA	AVG. VEL.	DIR.	NTH.	DIRECTION	EAST	STH.	WEST
0200	0	9.60873	22	0.10870	0.07609	0.25543	0.25543	0.25543
0500	0	8.95322	16	0.09674	0.03748	0.25543	0.25543	0.25543
0800	0	11.16204	22	0.26047	0.10670	0.25543	0.25543	0.25543
1100	0	11.96222	25	0.22243	0.18478	0.25543	0.25543	0.25543
1400	0	12.05217	24	0.16843	0.12022	0.25543	0.25543	0.25543
1700	0	12.36735	27	0.12500	0.23743	0.25543	0.25543	0.25543
2000	0	13.63739	25	0.11057	0.21729	0.25543	0.25543	0.25543
2300	0	10.92217	26	0.10236	0.16648	0.25543	0.25543	0.25543

THE HOURLY SUMMARY TABLE FOR FALL 1959

HOUR	LA	AVG. VEL.	DIR.	NTH.	DIRECTION	EAST	STH.	WEST
0200	0	9.55344	24	0.23077	0.03762	0.24725	0.40505	0.40505
0500	0	8.93111	23	0.24176	0.07143	0.18611	0.40505	0.40505
0800	0	10.91542	21	0.30223	0.07143	0.17522	0.40505	0.40505
1100	0	12.86113	31	0.41759	0.11534	0.24725	0.24725	0.24725
1400	0	12.03297	30	0.33662	0.10460	0.24725	0.17522	0.17522
1700	0	10.05440	25	0.37912	0.12022	0.24725	0.17522	0.17522
2000	0	9.25374	27	0.23077	0.13725	0.24725	0.24725	0.24725
2300	0	9.57143	32	0.23077	0.03762	0.24725	0.24725	0.24725

THE HOURLY SUMMARY TABLE FOR APR. 1964

HOURLY	LA	AVG.	UP	WTH.	DIRECTION	STH.	WEST
		VEL.					
0200	3	12.1111	35	0.2122	0.2122	0.1217	0.5500
0300	3	12.1011	35	0.2056	0.2056	0.0888	0.5611
0400	4	12.2010	35	0.2111	0.2111	0.1000	0.5500
0500	3	12.1011	35	0.2130	0.2130	0.0555	0.5500
0600	3	12.1011	35	0.2122	0.2122	0.0555	0.2722
0700	3	12.1011	35	0.2122	0.2122	0.1777	0.2889
0800	3	12.1011	35	0.2122	0.2122	0.1667	0.2722
0900	3	12.1011	35	0.2122	0.2122	0.1667	0.2722
1000	3	12.1011	35	0.2122	0.2122	0.1667	0.2722
1100	3	12.1011	35	0.2122	0.2122	0.1667	0.2722
1200	3	12.1011	35	0.2122	0.2122	0.1667	0.2722
1300	3	12.1011	35	0.2122	0.2122	0.1667	0.2722
1400	3	12.1011	35	0.2122	0.2122	0.1667	0.2722
1500	3	12.1011	35	0.2122	0.2122	0.1667	0.2722
1600	3	12.1011	35	0.2122	0.2122	0.1667	0.2722
1700	3	12.1011	35	0.2122	0.2122	0.1667	0.2722
1800	3	12.1011	35	0.2122	0.2122	0.1667	0.2722
1900	3	12.1011	35	0.2122	0.2122	0.1667	0.2722
2000	3	12.1011	35	0.2122	0.2122	0.1667	0.2722
2100	3	12.1011	35	0.2122	0.2122	0.1667	0.2722
2200	3	12.1011	35	0.2122	0.2122	0.1667	0.2722
2300	3	12.1011	35	0.2122	0.2122	0.1667	0.2722

Goodland

Instrument Height

1964 31 Feet

1970 21 Feet

THE HOURLY SUMMARY TABLE FOR APR. 1964

HOURLY	LA	AVG.	UP	WTH.	DIRECTION	STH.	WEST
		VEL.					
0200	3	12.1111	41	0.2223	0.2223	0.3412	0.3045
0300	3	12.1011	35	0.2122	0.2122	0.2037	0.3674
0400	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
0500	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
0600	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
0700	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
0800	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
0900	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
1000	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
1100	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
1200	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
1300	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
1400	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
1500	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
1600	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
1700	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
1800	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
1900	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
2000	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
2100	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
2200	3	12.1011	35	0.2122	0.2122	0.2037	0.2944
2300	3	12.1011	35	0.2122	0.2122	0.2037	0.2944

THE HOURLY SUMMARY TABLE FOR APR. 1964

HOURLY	LA	AVG.	UP	WTH.	DIRECTION	STH.	WEST
		VEL.					
0200	3	12.1111	27	0.1900	0.1900	0.5000	0.1668
0300	3	12.1011	27	0.1845	0.1845	0.4652	0.2774
0400	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
0500	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
0600	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
0700	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
0800	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
0900	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
1000	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
1100	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
1200	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
1300	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
1400	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
1500	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
1600	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
1700	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
1800	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
1900	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
2000	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
2100	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
2200	3	12.1011	27	0.1773	0.1773	0.4370	0.1517
2300	3	12.1011	27	0.1773	0.1773	0.4370	0.1517

THE HOURLY SUMMARY TABLE FOR APR. 1964

HOURLY	LA	AVG.	UP	WTH.	DIRECTION	STH.	WEST
		VEL.					
0200	3	12.1111	24	0.2107	0.2107	0.3763	0.3119
0300	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
0400	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
0500	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
0600	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
0700	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
0800	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
0900	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
1000	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
1100	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
1200	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
1300	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
1400	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
1500	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
1600	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
1700	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
1800	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
1900	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
2000	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
2100	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
2200	3	12.1011	26	0.2077	0.2077	0.3119	0.3674
2300	3	12.1011	26	0.2077	0.2077	0.3119	0.3674

THE HOURLY SUMMARY TABLE FOR APR. 1970

HOURLY	LA	AVG.	UP	WTH.	DIRECTION	STH.	WEST
		VEL.					
0200	3	9.6139	26	0.1722	0.1722	0.2454	0.5524
0300	3	9.6111	22	0.1722	0.1722	0.2454	0.5524
0400	4	9.3333	16	0.2222	0.2222	0.1544	0.5544
0500	0	12.1444	26	0.4111	0.4111	0.2222	0.2222
0600	0	11.3333	26	0.4277	0.4277	0.2222	0.2222
0700	0	9.9555	22	0.3167	0.3167	0.2222	0.2222
0800	0	9.6111	22	0.2222	0.2222	0.2222	0.2222
0900	5	9.7444	17	0.2222	0.2222	0.2222	0.2222

THE HOURLY SUMMARY TABLE FOR APR. 1970

HOURLY	LA	AVG.	UP	WTH.	DIRECTION	STH.	WEST
		VEL.					
0200	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
0300	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
0400	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
0500	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
0600	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
0700	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
0800	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
0900	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
1000	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
1100	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
1200	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
1300	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
1400	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
1500	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
1600	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
1700	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
1800	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
1900	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
2000	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
2100	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
2200	3	12.9561	23	0.2052	0.2052	0.2454	0.5524
2300	3	12.9561	23	0.2052	0.2052	0.2454	0.5524

THE HOURLY SUMMARY TABLE FOR APR. 1970

TIME	WIND	WAVE	SEA	FO	RAIN	TEMP	WIND	WAVE
0200	0	0	8.1193	12	0.1613	0.1699	0.7153	0.2673
0300	0	0	8.5152	20	0.0929	0.3535	0.7529	0.2472
0400	3	0	10.7322	21	0.2222	0.1134	0.6156	0.2754
0500	11.02	0	10.5333	25	0.2252	0.2357	0.5571	0.2754
0600	3	11.1613	24	0.1413	0.2225	0.2824	0.5872	0.2752
0700	3	10.5111	24	0.1474	0.2217	0.3153	0.5152	0.2753
0800	0	2.7513	23	0.1576	0.2552	0.5552	0.5673	0.2753
0900	0	9699.6	3	0.1576	0.1534	0.5675	0.5755	0.2755

YEAR	SPEEDS										EXCESS=																															
1954	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
JAN.	0	0	10	10	15	11	30	25	23	42	15	8	9	9	6	5	4	1	2	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	0	1	4	5	9	12	25	25	27	40	13	13	12	8	9	5	9	1	1	2	1	5	1	1	2	2	0	3	2	0	2	0	0	0	0	0	0	0	0	0	0	0
MAR.	0	1	0	8	6	17	15	24	16	25	0	21	14	4	12	4	10	1	1	9	4	2	3	4	1	1	2	1	3	2	5	1	3	2	0	0	0	0	0	0	0	0
APR.	0	1	7	10	13	14	14	13	20	26	21	9	14	11	10	9	23	3	4	4	3	4	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	0	7	12	8	16	17	18	22	34	14	19	20	13	9	6	9	3	7	1	2	2	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE.	0	7	8	11	17	0	11	23	32	13	17	20	11	13	10	17	5	3	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY.	0	0	17	16	17	16	24	21	22	30	14	10	9	5	2	5	8	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	0	0	17	17	15	21	21	19	20	23	21	16	10	11	7	7	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	0	0	21	19	18	23	17	21	25	14	12	13	6	8	7	5	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	0	0	2	9	20	23	22	20	19	14	8	10	15	7	18	7	10	9	1	8	1	1	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	0	0	2	8	7	20	17	31	21	15	13	17	13	9	15	7	5	5	3	4	5	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	0	0	0	4	10	17	24	26	24	26	18	16	8	10	13	7	6	10	4	5	1	3	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wind Speed Density

By The Month

Goodland

Years

1954

1955

1956

1957

Instrument Height

1954-1957 25 Feet

YEAR	SPEEDS										EXCESS=																														
1955	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
JAN.	0	0	4	10	18	21	26	34	29	24	15	10	17	10	12	4	3	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	0	1	7	15	25	29	29	24	15	10	17	10	12	6	6	13	9	4	5	3	4	1	3	2	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
MAR.	3	2	5	9	15	23	9	22	9	14	6	12	9	14	6	10	13	9	10	7	14	2	7	4	4	3	1	0	2	0	1	0	1	0	0	0	0	0	0	0	0
APR.	0	1	6	5	10	7	13	15	14	13	14	17	8	9	12	9	12	9	10	14	4	8	7	5	6	2	0	1	1	3	0	2	1	0	0	0	0	0	0	0	0
MAY.	0	0	1	4	11	10	17	9	14	22	14	10	7	11	14	12	13	9	7	8	9	7	4	4	6	1	1	2	1	0	1	0	1	0	0	0	0	0	0	0	0
JUNE	1	0	1	4	9	15	16	11	22	14	15	13	18	17	13	10	13	7	6	2	3	3	3	3	3	1	0	2	1	0	1	0	1	0	0	0	0	0	0	0	0
JULY	1	0	1	9	15	17	18	24	11	21	13	25	14	15	6	10	1	1	8	3	1	8	3	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	1	2	1	9	11	15	14	23	12	19	16	24	16	13	16	11	8	1	3	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	2	4	2	6	9	7	15	18	12	17	13	15	22	12	13	19	8	9	7	11	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	1	1	2	13	14	17	19	14	15	21	23	12	16	9	8	8	7	5	6	2	2	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	1	0	2	9	8	14	19	24	12	25	15	12	16	9	13	11	5	8	7	6	2	2	2	2	1	1	0	2	0	1	0	0	0	0	1	0	0	0	0	0	
DEC.	1	0	1	10	19	8	16	23	22	27	9	18	18	14	18	9	5	2	1	3	3	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

YEAR	SPRINGS										EXCESS										EXCESS																				
YEAR	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1956	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
JAN.	0	3	2	9	22	32	25	22	22	17	8	8	6	7	4	4	2	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	0	2	15	13	13	22	28	27	12	13	7	11	9	3	8	4	3	7	0	0	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MAR.	0	1	7	8	9	20	26	21	16	11	10	12	14	16	6	15	9	2	6	4	3	2	1	2	0	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	0	3	0	1	23	21	20	21	23	15	5	10	12	13	6	10	0	0	10	4	2	0	1	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	0	2	5	6	11	8	20	19	9	31	13	13	16	11	23	12	12	1	3	11	2	2	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	0	0	0	4	13	15	13	12	12	19	8	18	14	15	25	14	14	9	9	13	1	2	1	0	3	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
JULY	1	10	10	12	19	22	26	20	12	25	12	12	10	11	11	3	6	2	4	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	0	3	15	13	23	25	26	15	23	11	7	9	8	13	3	2	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	0	1	4	17	15	13	15	26	19	20	11	15	13	13	8	9	6	2	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	1	5	10	13	9	14	20	17	27	15	15	7	10	20	8	11	7	1	6	2	3	0	4	2	0	2	0	2	1	0	1	0	0	0	0	0	0	0	0	0	0
NOV.	0	2	1	6	3	9	15	21	12	13	10	17	9	16	7	16	10	3	12	2	3	5	3	2	0	3	2	0	2	0	1	0	0	1	0	0	1	0	0	0	0
DEC.	1	2	4	4	12	14	26	17	25	29	21	17	9	15	18	9	4	1	5	4	2	0	0	2	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0

YEAR	SPEEDS					EXCESS																																					
1957	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
JAN.	0	4	2	13	19	15	25	30	17	16	21	12	18	9	7	5	5	3	1	6	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
FEB.	0	5	6	16	14	22	22	21	15	17	12	12	8	10	17	6	8	5	3	9	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	1	6	2	6	13	5	18	13	23	27	10	12	12	9	14	9	4	12	2	4	0	3	2	4	3	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0
APR.	0	8	3	13	12	18	9	23	19	15	10	15	10	15	7	9	7	8	11	12	3	1	3	3	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY	0	4	3	8	12	17	12	14	15	23	6	15	21	13	20	7	5	8	4	10	3	3	3	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	0	2	4	8	15	17	24	13	23	6	15	19	11	10	12	7	5	7	4	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	0	2	11	16	25	22	24	21	24	17	13	11	6	12	12	2	3	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	0	5	14	18	13	13	31	21	15	16	19	9	7	12	12	3	4	5	1	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	0	4	10	20	20	24	17	17	27	17	8	9	6	12	4	8	2	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	0	5	16	16	12	27	23	24	22	8	16	11	9	14	6	12	7	4	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	0	5	2	14	18	32	27	28	16	19	17	11	7	6	8	4	3	7	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	0	4	3	8	21	16	23	29	24	27	11	13	5	6	14	4	6	4	1	4	1	1	1	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VCURD	VCURD	VCURD	ERDA	ERDA	ERDA	INFORMATION	1950
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	9.675	12.789	11.789	14.791	35.875	14.701	31.487	37.595	0.0	31.067	GOODLAND KAN	
FEB.	9.967	13.119	11.887	15.167	17.075	12.465	31.583	39.207	0.0	34.438		
MAR.	12.383	15.330	15.336	19.829	15.544	27.557	39.995	47.768	0.0	41.923	ANEM. HT. 25FT.	
APR.	10.754	13.933	14.337	17.516	38.737	23.073	33.981	40.631	0.0	35.467	COR. HT. 100FT.	
MAY.	12.433	15.446	15.158	18.737	38.030	27.533	40.474	43.835	0.0	42.807	PEAK LT. 17 KNTS.	
JUNE	11.754	15.173	15.037	17.576	43.937	25.768	40.336	46.401	0.0	42.808	FRIC LT. 7 KNTS	
JULY	10.292	13.475	12.533	15.769	43.154	22.011	35.223	42.274	0.0	37.380	CODE=1 COR. HT. BULK WH.	
AUG.	10.325	13.530	12.246	15.593	40.132	21.432	35.201	42.161	0.0	36.981	CODE=2 COR.HT. PER.	
SEP.	10.387	13.609	12.215	15.593	33.392	21.169	34.993	42.246	0.0	37.055	UNIT AREA KWH/M**2	
OCT.	10.321	13.476	12.446	15.896	43.111	23.334	37.989	46.036	0.0	40.380	CODE=3 DRG. HT. PER	
NOV.	10.547	13.727	13.449	16.161	37.221	23.154	35.499	41.347	0.0	36.266	UNIT AREA KWH/M**2	
DEC.	8.771	11.825	11.310	14.035	29.843	13.497	26.173	31.933	0.0	28.009	WIND SPEEDS ARE IN KNOTS.	
SUMS	10.57	13.90	13.22	16.59	401.92	263.99	422.70	508.79	0.0	446.27		

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VCURD	VCURD	VCURD	ERDA	ERDA	ERDA	INFORMATION	1951
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	9.425	12.417	11.643	14.857	35.499	14.181	31.177	37.563	0.0	32.947	GOODLAND KAN	
FEB.	9.971	13.085	12.445	15.740	35.233	21.004	31.866	36.371	0.0	33.349		
MAR.	11.808	15.167	15.073	18.590	42.752	27.553	37.499	44.431	0.0	38.972	AN-M. HT. 25FT.	
APR.	13.450	15.940	15.211	18.389	45.116	30.014	43.450	48.328	0.0	42.340	COR. HT. 100FT.	
MAY.	10.767	13.904	14.485	17.933	37.559	23.287	32.947	39.332	0.0	34.499	PEAK LT. 17 KNTS.	
JUNE	9.567	12.595	11.916	15.154	35.349	12.959	30.120	35.060	0.0	31.829	FRIC LT. 7 KNTS	
JULY	9.454	12.500	11.795	15.091	35.117	17.894	27.925	34.795	0.0	31.335	CODE=1 COR. HT. BULK WH.	
AUG.	8.192	10.919	10.307	13.420	29.374	14.535	25.764	31.247	0.0	27.407	CODE=2 COR.HT. PER.	
SEP.	9.184	12.140	11.390	14.569	33.543	17.417	29.419	35.493	0.0	31.132	UNIT AREA KWH/M**2	
OCT.	9.058	12.740	11.670	14.994	33.894	13.151	31.571	33.250	0.0	33.550	CODE=3 COR. HT. PER	
NOV.	9.696	12.779	11.443	14.659	37.663	19.487	32.509	39.521	0.0	34.665	UNIT AREA KWH/M**2	
DEC.	11.475	14.862	14.148	17.669	42.230	24.231	37.085	45.243	0.0	39.583	WIND SPEEDS ARE IN KNOTS.	
SUMS	10.14	13.25	12.90	16.11	477.96	249.66	392.29	469.29	0.0	411.62		

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VCURD	VCURD	VCURD	ERDA	ERDA	ERDA	INFORMATION	1952
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	10.979	14.181	12.264	16.195	41.649	23.592	36.522	44.126	0.0	38.704	GOODLAND KAN	
FEB.	11.529	14.899	13.759	17.492	44.135	20.503	33.667	46.571	0.0	40.843		
MAR.	12.100	15.494	15.547	19.116	44.467	27.752	39.003	46.579	0.0	40.355	ANEM. HT. 25FT.	
APR.	11.937	15.410	14.879	18.469	43.951	27.862	38.550	46.122	0.0	40.455	COR. HT. 100FT.	
MAY.	10.250	13.414	12.233	15.593	39.367	21.388	33.915	42.389	0.0	37.120	PEAK LT. 17 KNTS.	
JUNE	11.137	14.494	13.017	16.493	42.752	25.314	37.499	45.175	0.0	39.626	FRIC LT. 7 KNTS	
JULY	11.304	14.637	13.221	16.749	45.755	27.192	43.152	43.425	0.0	42.475	CODE=1 COR. HT. BULK WH.	
AUG.	10.367	13.233	11.702	15.031	39.836	20.316	34.941	42.203	0.0	37.027	CODE=2 COR.HT. PER.	
SEP.	10.646	13.379	12.957	16.354	39.791	22.780	34.893	41.732	0.0	36.610	UNIT AREA KWH/M**2	
OCT.	9.492	12.546	11.100	14.326	36.933	17.797	32.342	39.637	0.0	34.313	CODE=3 DRG. HT. PER	
NOV.	11.512	14.928	14.760	18.287	42.973	25.305	37.692	45.443	0.0	39.359	UNIT AREA KWH/M**2	
DEC.	10.371	13.615	11.912	15.267	40.312	21.937	35.797	42.831	0.0	38.489	WIND SPEEDS ARE IN KNOTS.	
SUMS	10.95	14.23	13.32	16.75	502.82	238.74	441.03	532.35	0.0	466.94		

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VCURD	VCURD	VCURD	ERDA	ERDA	ERDA	INFORMATION	1953
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	12.158	15.657	14.677	18.257	45.911	25.943	43.270	43.932	0.0	42.463	GOODLAND KAN	
FEB.	12.337	15.842	15.340	18.921	45.607	25.506	40.003	43.454	0.0	42.500		
MAR.	12.921	16.598	15.932	19.154	49.532	31.723	47.446	52.207	0.0	45.772	ANEM. HT. 25FT.	
APR.	12.637	16.187	15.515	19.146	47.657	29.327	41.803	50.319	0.0	44.136	COR. HT. 100FT.	
MAY.	12.825	16.387	15.486	19.206	47.321	31.577	41.945	50.120	0.0	43.261	PEAK LT. 17 KNTS.	
JUNE	12.787	16.510	14.550	19.295	51.572	33.516	45.235	54.026	0.0	47.448	FRIC LT. 7 KNTS	
JULY	12.442	16.227	14.352	18.092	52.215	34.033	45.799	54.735	0.0	48.009	CODE=1 COR. HT. BULK WH.	
AUG.	11.475	15.359	13.544	17.169	48.133	29.409	42.223	50.793	0.0	44.552	CODE=2 COR.HT. PER.	
SEP.	10.500	13.703	12.705	16.093	43.355	23.394	35.396	42.417	0.0	37.265	UNIT AREA KWH/M**2	
OCT.	10.817	14.031	12.319	15.773	40.851	24.457	35.371	43.082	0.0	37.798	CODE=3 DRG. HT. PER	
NOV.	10.304	13.957	13.377	17.236	49.221	22.473	35.279	43.213	0.0	37.904	UNIT AREA KWH/M**2	
DEC.	11.946	15.591	13.771	17.343	45.840	25.337	40.218	49.240	0.0	43.189	WIND SPEEDS ARE IN KNOTS.	
SUMS	12.02	15.44	14.44	18.03	555.72	238.45	417.44	527.66	0.0	515.45		

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VCURD	VCURD	VCURD	ERDA	ERDA	ERDA	INFORMATION	1954
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	9.438	12.484	11.136	14.771	34.233	16.861	30.064	26.575	0.0	32.359	GOODLAND KAN	
FEB.	10.354	14.149	13.356	16.714	19.494	20.948	24.992	42.570	0.0	37.352		
MAR.	12.423	15.643	15.145	19.739	43.132	25.584	37.184	45.359	0.0	39.521	ANEM. HT. 25FT.	
APR.	11.259	14.594	13.505	16.999	42.986	25.479	37.774	46.294	0.0	39.728	COR. HT. 100FT.	
MAY.	10.133	13.714	11.733	15.763	41.253	23.593	35.316	42.155	0.0	37.973	PEAK LT. 17 KNTS.	
JUNE	11.933	14.329	12.314	16.113	50.317	25.197	33.675	46.519	0.0	40.820	FRIC LT. 7 KNTS	
JULY	8.387	11.262	7.992	12.992	23.435	12.437	24.941	29.434	0.0	26.189	CODE=1 COR. HT. BULK WH.	
AUG.	8.409	11.714	10.451	13.555	22.545	11.314	23.542	34.504	0.0	30.265	CODE=2 COR.HT. PER.	
SEP.	8.417	11.641	10.405	13.075	23.353	11.479	23.341	33.334	0.0	25.697	UNIT AREA KWH/M**2	
OCT.	10.254	13.098	12.679	15.983	37.923	21.912	33.321	39.137	0.0	34.345	CODE=3 DRG. HT. PER	
NOV.	10.129	13.277	12.409	15.765	39.732	21.312	34.956	41.626	0.0	33.635	UNIT AREA KWH/M**2	
DEC.	11.137	14.669	13.132	16.648	42.262	23.439	37.069	45.681	0.0	37.191	WIND SPEEDS ARE IN KNOTS.	
SUMS	10.15	13.40	12.61	15.73	381.38	207.57	371.65	476.37	0.0	415.31		

MNTH	AVGVCL	AVGVCL	RMVCL	RMVCL	VCURD	VCURD	VCURD	ERDA	ERDA	ERDA	INFORMATION	1955
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	9.363	12.361	10.404	11.567	32.751	16.592	23.717	34.233	0.0	10.264	GOODLAND KAN	
FEB.	9.198	12.058	11.503	12.528	30.829	15.759	27.061	31.443	0.0	27.927		
MAR.	12.252	15.669	13.432	19.073	47.553	23.127	39.379	41.513	0.0	43.202	ANEM. HT. 25FT.	
APR.	11.155	16.703	13.259	20.054	43.635	32.353	40.559	50.775	0.0	44.536	COR. HT. 100FT.	
MAY.	11.279	16.975	13.277	20.005	44.593	32.733	42.710	50.854	0.0	44.605	PEAK LT. 17 KNTS.	
JUNE	12.050	15.489	14.510	18.123	47.192	33.849	41.393	49.536	0.0	47.493	FRICT LT. 7 KNTS	
JULY	10.221	13.355	12.167	15.706	30.129	11.668	35.198	42.374	0.0	36.936	CODE=1 COR. HT. BULK MAH.	
AUG.	9.313	12.941	11.857	15.181	33.058	21.418	35.127	42.151	0.0	36.980	CODE=2 COR.HT. PER.	
SEP.	11.417	14.742	11.572	17.145	46.053	26.317	40.394	43.175	0.0	42.255	UNIT AREA KWH/M**2	
OCT.	11.267	14.575	14.137	17.590	41.532	24.943	36.472	43.653	0.0	38.289	CODE=3 ORG. HT. PER	
NOV.	10.937	14.055	13.318	16.771	41.369	24.238	35.281	43.475	0.0	34.133	UNIT AREA KWH/M**2	
DEC.	10.371	13.569	12.753	15.522	41.083	22.011	35.965	43.140	0.0	37.837	WIND SPEEDS ARE IN KNOTS.	
SUMS	11.07	14.33	13.74	17.21	532.81	295.45	441.03	526.75	0.0	462.03		

MNTH	AVGVCL	AVGVCL	RMVCL	RMVCL	VCURD	VCURD	VCURD	ERDA	ERDA	ERDA	INFORMATION	1956
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	9.100	12.344	11.593	14.273	31.486	15.311	27.617	32.758	0.0	28.733	GOODLAND KAN	
FEB.	9.229	12.537	11.756	14.384	34.895	13.191	30.508	36.109	0.0	32.374		
MAR.	11.442	14.754	14.254	17.758	43.127	24.338	37.328	45.137	0.0	39.591	ANEM. HT. 25FT.	
APR.	10.567	13.863	13.704	16.706	33.173	22.635	34.355	41.314	0.0	35.974	COR. HT. 100FT.	
MAY.	11.287	14.640	13.271	16.782	44.753	24.477	39.287	47.354	0.0	41.272	PEAK LT. 17 KNTS.	
JUNE	12.521	16.208	14.563	18.273	50.274	32.244	44.101	52.248	0.0	45.828	FRICT LT. 7 KNTS	
JULY	8.729	11.595	10.104	12.403	31.479	15.523	27.311	32.375	0.0	28.793	CODE=1 COR. HT. BULK MAH.	
AUG.	8.243	11.099	10.136	13.088	27.797	12.445	24.342	28.754	0.0	25.221	CODE=2 COR.HT. PER.	
SEP.	10.000	13.137	11.371	15.183	38.135	21.561	33.449	40.342	0.0	35.297	UNIT AREA KWH/M**2	
OCT.	11.325	14.659	13.939	17.423	42.673	25.475	37.426	44.394	0.0	39.465	CODE=3 ORG. HT. PER	
NOV.	12.542	16.029	15.600	19.245	46.787	30.047	41.038	48.543	0.0	42.846	UNIT AREA KWH/M**2	
DEC.	10.333	14.174	12.551	15.951	42.159	22.165	35.979	44.754	0.0	39.255	WIND SPEEDS ARE IN KNOTS.	
SUMS	10.53	13.73	12.99	16.36	472.76	267.40	414.67	445.54	0.0	434.65		

MNTH	AVGVCL	AVGVCL	RMVCL	RMVCL	VCURD	VCURD	VCURD	ERDA	ERDA	ERDA	INFORMATION	1957
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	9.379	12.384	11.438	14.625	34.865	17.202	20.591	36.733	0.0	32.047	GOODLAND KAN	
FEB.	9.792	12.346	12.171	15.451	35.770	20.124	31.332	37.211	0.0	32.639		
MAR.	11.579	14.463	15.291	18.777	41.974	25.313	36.816	44.177	0.0	38.745	ANEM. HT. 25FT.	
APR.	11.471	14.805	14.264	17.762	42.242	25.313	37.352	44.166	0.0	38.739	COR. HT. 100FT.	
MAY.	11.533	14.850	14.084	17.553	44.697	26.373	39.205	48.563	0.0	40.845	PEAK LT. 17 KNTS.	
JUNE	9.521	12.533	11.313	14.744	36.353	13.553	31.836	38.187	0.0	33.495	FRICT LT. 7 KNTS	
JULY	7.879	10.565	9.734	12.651	27.355	12.076	23.945	26.450	0.0	24.955	CODE=1 COR. HT. BULK MAH.	
AUG.	8.471	11.256	10.773	13.834	29.840	14.955	26.173	31.144	0.0	27.317	CODE=2 COR.HT. PER.	
SEP.	8.683	11.549	10.725	13.307	30.393	15.163	26.663	31.753	0.0	27.852	UNIT AREA KWH/M**2	
OCT.	9.804	12.906	11.695	14.373	36.653	19.592	32.149	34.476	0.0	33.746	CODE=3 ORG. HT. PER	
NOV.	8.675	11.543	10.730	13.783	30.085	14.249	26.372	31.272	0.0	27.429	UNIT AREA KWH/M**2	
DEC.	9.658	12.751	11.760	14.963	34.145	17.393	29.970	35.381	0.0	31.472	WIND SPEEDS ARE IN KNOTS.	
SUMS	9.70	12.74	12.22	15.46	424.37	227.73	372.22	443.92	0.0	389.28		

MNTH	AVGVCL	AVGVCL	RMVCL	RMVCL	VCURD	VCURD	VCURD	ERDA	ERDA	ERDA	INFORMATION	1958
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	8.000	10.749	9.590	12.541	27.303	11.536	23.948	29.310	0.0	24.832	GOODLAND KAN	
FEB.	11.150	14.432	14.455	17.877	33.913	21.582	34.126	40.825	0.0	35.633		
MAR.	9.279	12.273	11.243	14.413	34.168	17.033	30.584	36.735	0.0	32.222	ANEM. HT. 25FT.	
APR.	11.304	14.608	14.853	18.244	38.761	22.347	33.908	40.473	0.0	35.500	COR. HT. 100FT.	
MAY.	9.771	12.936	12.133	15.464	35.132	17.522	30.315	36.933	0.0	32.307	PEAK LT. 17 KNTS.	
JUNE	10.737	14.346	12.848	16.405	42.535	23.152	37.309	44.399	0.0	39.936	FRICT LT. 7 KNTS	
JULY	9.767	12.842	11.829	15.163	36.509	19.424	32.023	38.447	0.0	33.723	CODE=1 COR. HT. BULK MAH.	
AUG.	9.200	12.172	11.314	14.472	33.419	16.660	29.313	35.922	0.0	30.718	CODE=2 COR.HT. PER.	
SEP.	11.087	14.398	13.128	16.629	44.011	26.026	33.603	48.275	0.0	40.587	UNIT AREA KWH/M**2	
OCT.	8.754	11.621	11.239	14.282	30.258	14.387	26.540	31.416	0.0	27.907	CODE=3 ORG. HT. PER	
NOV.	9.567	12.553	12.070	15.321	36.005	14.772	31.511	37.377	0.0	32.223	UNIT AREA KWH/M**2	
DEC.	10.112	13.319	11.853	14.153	37.542	19.693	32.929	39.523	0.0	34.666	WIND SPEEDS ARE IN KNOTS.	
SUMS	9.90	12.99	12.37	15.63	435.25	232.72	381.74	466.33	0.0	400.23		

MNTH	AVGVCL	AVGVCL	RMVCL	RMVCL	VCURD	VCURD	VCURD	ERDA	ERDA	ERDA	INFORMATION	1959
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	8.064	10.602	10.114	12.545	33.115	14.001	20.669	26.653	0.0	27.398	GOODLAND KAN	
FEB.	9.115	10.567	10.107	12.405	32.115	14.001	20.669	26.653	0.0	26.653	SUB-PHASE 100 FT.	
MAR.	10.115	14.002	13.222	16.255	41.702	24.001	30.669	36.653	0.0	31.722	COR. HT. 100 FT.	
APR.	11.311	14.664	13.551	17.222	43.115	25.001	31.669	38.653	0.0	34.261	ANEM. HT. 25 FT.	
MAY.	11.321	14.711	13.775	17.255	43.115	25.001	31.669	38.653	0.0	34.261	COR. HT. 100 FT.	
JUNE	11.533	14.692	13.555	17.111	43.115	25.001	31.669	38.653	0.0	34.261	PEAK LT. 17 KNTS	
JULY	11.064	14.337	13.337	16.555	43.115	25.001	31.669	38.653	0.0	34.261	CODE=1 COR. HT. BULK MAH.	
AUG.	10.793	14.117	13.117	16.333	43.115	25.001	31.669	38.653	0.0	34.261	CODE=2 COR. HT. PER.	
SEP.	10.793	14.117	13.117	16.333	43.115	25.001	31.669	38.653	0.0	34.261	UNIT AREA KWH/M**2	
OCT.	10.793	14.117	13.117	16.333	43.115	25.001	31.669	38.653	0.0	34.261	CODE=3 ORG. HT. PER	
NOV.	10.793	14.117	13.117	16.333	43.115	25.001	31.669	38.653	0.0	34.261	UNIT AREA KWH/M**2	
DEC.	10.793	14.117	13.117	16.333	43.115	25.001	31.669	38.653	0.0	34.261	WIND SPEEDS ARE IN KNOTS.	
SUMS	10.793	14.117	13.117	16.333	43.115	25.001	31.669	38.653	0.0	34.261		

UNIT	AVG. 1	AVG. 2	AVG. 3	AVG. 4	AVG. 5	AVG. 6	AVG. 7	AVG. 8	AVG. 9	AVG. 10	AVG. 11	AVG. 12	AVG. 13	AVG. 14	AVG. 15	AVG. 16	AVG. 17	AVG. 18	AVG. 19	AVG. 20	AVG. 21	AVG. 22	AVG. 23	AVG. 24	AVG. 25	AVG. 26	AVG. 27	AVG. 28	AVG. 29	AVG. 30	AVG. 31	AVG. 32	AVG. 33	AVG. 34	AVG. 35	AVG. 36	AVG. 37	AVG. 38	AVG. 39	AVG. 40	AVG. 41	AVG. 42	AVG. 43	AVG. 44	AVG. 45	AVG. 46	AVG. 47	AVG. 48	AVG. 49	AVG. 50	AVG. 51	AVG. 52	AVG. 53	AVG. 54	AVG. 55	AVG. 56	AVG. 57	AVG. 58	AVG. 59	AVG. 60	AVG. 61	AVG. 62	AVG. 63	AVG. 64	AVG. 65	AVG. 66	AVG. 67	AVG. 68	AVG. 69	AVG. 70	AVG. 71	AVG. 72	AVG. 73	AVG. 74	AVG. 75	AVG. 76	AVG. 77	AVG. 78	AVG. 79	AVG. 80	AVG. 81	AVG. 82	AVG. 83	AVG. 84	AVG. 85	AVG. 86	AVG. 87	AVG. 88	AVG. 89	AVG. 90	AVG. 91	AVG. 92	AVG. 93	AVG. 94	AVG. 95	AVG. 96	AVG. 97	AVG. 98	AVG. 99	AVG. 100	AVG. 101	AVG. 102	AVG. 103	AVG. 104	AVG. 105	AVG. 106	AVG. 107	AVG. 108	AVG. 109	AVG. 110	AVG. 111	AVG. 112	AVG. 113	AVG. 114	AVG. 115	AVG. 116	AVG. 117	AVG. 118	AVG. 119	AVG. 120	AVG. 121	AVG. 122	AVG. 123	AVG. 124	AVG. 125	AVG. 126	AVG. 127	AVG. 128	AVG. 129	AVG. 130	AVG. 131	AVG. 132	AVG. 133	AVG. 134	AVG. 135	AVG. 136	AVG. 137	AVG. 138	AVG. 139	AVG. 140	AVG. 141	AVG. 142	AVG. 143	AVG. 144	AVG. 145	AVG. 146	AVG. 147	AVG. 148	AVG. 149	AVG. 150	AVG. 151	AVG. 152	AVG. 153	AVG. 154	AVG. 155	AVG. 156	AVG. 157	AVG. 158	AVG. 159	AVG. 160	AVG. 161	AVG. 162	AVG. 163	AVG. 164	AVG. 165	AVG. 166	AVG. 167	AVG. 168	AVG. 169	AVG. 170	AVG. 171	AVG. 172	AVG. 173	AVG. 174	AVG. 175	AVG. 176	AVG. 177	AVG. 178	AVG. 179	AVG. 180	AVG. 181	AVG. 182	AVG. 183	AVG. 184	AVG. 185	AVG. 186	AVG. 187	AVG. 188	AVG. 189	AVG. 190	AVG. 191	AVG. 192	AVG. 193	AVG. 194	AVG. 195	AVG. 196	AVG. 197	AVG. 198	AVG. 199	AVG. 200	AVG. 201	AVG. 202	AVG. 203	AVG. 204	AVG. 205	AVG. 206	AVG. 207	AVG. 208	AVG. 209	AVG. 210	AVG. 211	AVG. 212	AVG. 213	AVG. 214	AVG. 215	AVG. 216	AVG. 217	AVG. 218	AVG. 219	AVG. 220	AVG. 221	AVG. 222	AVG. 223	AVG. 224	AVG. 225	AVG. 226	AVG. 227	AVG. 228	AVG. 229	AVG. 230	AVG. 231	AVG. 232	AVG. 233	AVG. 234	AVG. 235	AVG. 236	AVG. 237	AVG. 238	AVG. 239	AVG. 240	AVG. 241	AVG. 242	AVG. 243	AVG. 244	AVG. 245	AVG. 246	AVG. 247	AVG. 248	AVG. 249	AVG. 250	AVG. 251	AVG. 252	AVG. 253	AVG. 254	AVG. 255	AVG. 256	AVG. 257	AVG. 258	AVG. 259	AVG. 260	AVG. 261	AVG. 262	AVG. 263	AVG. 264	AVG. 265	AVG. 266	AVG. 267	AVG. 268	AVG. 269	AVG. 270	AVG. 271	AVG. 272	AVG. 273	AVG. 274	AVG. 275	AVG. 276	AVG. 277	AVG. 278	AVG. 279	AVG. 280	AVG. 281	AVG. 282	AVG. 283	AVG. 284	AVG. 285	AVG. 286	AVG. 287	AVG. 288	AVG. 289	AVG. 290	AVG. 291	AVG. 292	AVG. 293	AVG. 294	AVG. 295	AVG. 296	AVG. 297	AVG. 298	AVG. 299	AVG. 300	AVG. 301	AVG. 302	AVG. 303	AVG. 304	AVG. 305	AVG. 306	AVG. 307	AVG. 308	AVG. 309	AVG. 310	AVG. 311	AVG. 312	AVG. 313	AVG. 314	AVG. 315	AVG. 316	AVG. 317	AVG. 318	AVG. 319	AVG. 320	AVG. 321	AVG. 322	AVG. 323	AVG. 324	AVG. 325	AVG. 326	AVG. 327	AVG. 328	AVG. 329	AVG. 330	AVG. 331	AVG. 332	AVG. 333	AVG. 334	AVG. 335	AVG. 336	AVG. 337	AVG. 338	AVG. 339	AVG. 340	AVG. 341	AVG. 342	AVG. 343	AVG. 344	AVG. 345	AVG. 346	AVG. 347	AVG. 348	AVG. 349	AVG. 350	AVG. 351	AVG. 352	AVG. 353	AVG. 354	AVG. 355	AVG. 356	AVG. 357	AVG. 358	AVG. 359	AVG. 360	AVG. 361	AVG. 362	AVG. 363	AVG. 364	AVG. 365	AVG. 366	AVG. 367	AVG. 368	AVG. 369	AVG. 370	AVG. 371	AVG. 372	AVG. 373	AVG. 374	AVG. 375	AVG. 376	AVG. 377	AVG. 378	AVG. 379	AVG. 380	AVG. 381	AVG. 382	AVG. 383	AVG. 384	AVG. 385	AVG. 386	AVG. 387	AVG. 388	AVG. 389	AVG. 390	AVG. 391	AVG. 392	AVG. 393	AVG. 394	AVG. 395	AVG. 396	AVG. 397	AVG. 398	AVG. 399	AVG. 400	AVG. 401	AVG. 402	AVG. 403	AVG. 404	AVG. 405	AVG. 406	AVG. 407	AVG. 408	AVG. 409	AVG. 410	AVG. 411	AVG. 412	AVG. 413	AVG. 414	AVG. 415	AVG. 416	AVG. 417	AVG. 418	AVG. 419	AVG. 420	AVG. 421	AVG. 422	AVG. 423	AVG. 424	AVG. 425	AVG. 426	AVG. 427	AVG. 428	AVG. 429	AVG. 430	AVG. 431	AVG. 432	AVG. 433	AVG. 434	AVG. 435	AVG. 436	AVG. 437	AVG. 438	AVG. 439	AVG. 440	AVG. 441	AVG. 442	AVG. 443	AVG. 444	AVG. 445	AVG. 446	AVG. 447	AVG. 448	AVG. 449	AVG. 450	AVG. 451	AVG. 452	AVG. 453	AVG. 454	AVG. 455	AVG. 456	AVG. 457	AVG. 458	AVG. 459	AVG. 460	AVG. 461	AVG. 462	AVG. 463	AVG. 464	AVG. 465	AVG. 466	AVG. 467	AVG. 468	AVG. 469	AVG. 470	AVG. 471	AVG. 472	AVG. 473	AVG. 474	AVG. 475	AVG. 476	AVG. 477	AVG. 478	AVG. 479	AVG. 480	AVG. 481	AVG. 482	AVG. 483	AVG. 484	AVG. 485	AVG. 486	AVG. 487	AVG. 488	AVG. 489	AVG. 490	AVG. 491	AVG. 492	AVG. 493	AVG. 494	AVG. 495	AVG. 496	AVG. 497	AVG. 498	AVG. 499	AVG. 500	AVG. 501	AVG. 502	AVG. 503	AVG. 504	AVG. 505	AVG. 506	AVG. 507	AVG. 508	AVG. 509	AVG. 510	AVG. 511	AVG. 512	AVG. 513	AVG. 514	AVG. 515	AVG. 516	AVG. 517	AVG. 518	AVG. 519	AVG. 520	AVG. 521	AVG. 522	AVG. 523	AVG. 524	AVG. 525	AVG. 526	AVG. 527	AVG. 528	AVG. 529	AVG. 530	AVG. 531	AVG. 532	AVG. 533	AVG. 534	AVG. 535	AVG. 536	AVG. 537	AVG. 538	AVG. 539	AVG. 540	AVG. 541	AVG. 542	AVG. 543	AVG. 544	AVG. 545	AVG. 546	AVG. 547	AVG. 548	AVG. 549	AVG. 550	AVG. 551	AVG. 552	AVG. 553	AVG. 554	AVG. 555	AVG. 556	AVG. 557	AVG. 558	AVG. 559	AVG. 560	AVG. 561	AVG. 562	AVG. 563	AVG. 564	AVG. 565	AVG. 566	AVG. 567	AVG. 568	AVG. 569	AVG. 570	AVG. 571	AVG. 572	AVG. 573	AVG. 574	AVG. 575	AVG. 576	AVG. 577	AVG. 578	AVG. 579	AVG. 580	AVG. 581	AVG. 582	AVG. 583	AVG. 584	AVG. 585	AVG. 586	AVG. 587	AVG. 588	AVG. 589	AVG. 590	AVG. 591	AVG. 592	AVG. 593	AVG. 594	AVG. 595	AVG. 596	AVG. 597	AVG. 598	AVG. 599	AVG. 600	AVG. 601	AVG. 602	AVG. 603	AVG. 604	AVG. 605	AVG. 606	AVG. 607	AVG. 608	AVG. 609	AVG. 610	AVG. 611	AVG. 612	AVG. 613	AVG. 614	AVG. 615	AVG. 616	AVG. 617	AVG. 618	AVG. 619	AVG. 620	AVG. 621	AVG. 622	AVG. 623	AVG. 624	AVG. 625	AVG. 626	AVG. 627	AVG. 628	AVG. 629	AVG. 630	AVG. 631	AVG. 632	AVG. 633	AVG. 634	AVG. 635	AVG. 636	AVG. 637	AVG. 638	AVG. 639	AVG. 640	AVG. 641	AVG. 642	AVG. 643	AVG. 644	AVG. 645	AVG. 646	AVG. 647	AVG. 648	AVG. 649	AVG. 650	AVG. 651	AVG. 652	AVG. 653	AVG. 654	AVG. 655	AVG. 656	AVG. 657	AVG. 658	AVG. 659	AVG. 660	AVG. 661	AVG. 662	AVG. 663	AVG. 664	AVG. 665	AVG. 666	AVG. 667	AVG. 668	AVG. 669	AVG. 670	AVG. 671	AVG. 672	AVG. 673	AVG. 674	AVG. 675	AVG. 676	AVG. 677	AVG. 678	AVG. 679	AVG. 680	AVG. 681	AVG. 682	AVG. 683	AVG. 684	AVG. 685	AVG. 686	AVG. 687	AVG. 688	AVG. 689	AVG. 690	AVG. 691	AVG. 692	AVG. 693	AVG. 694	AVG. 695	AVG. 696	AVG. 697	AVG. 698	AVG. 699	AVG. 700	AVG. 701	AVG. 702	AVG. 703	AVG. 704	AVG. 705	AVG. 706	AVG. 707	AVG. 708	AVG. 709	AVG. 710	AVG. 711	AVG. 712	AVG. 713	AVG. 714	AVG. 715	AVG. 716	AVG. 717	AVG. 718	AVG. 719	AVG. 720	AVG. 721	AVG. 722	AVG. 723	AVG. 724	AVG. 725	AVG. 726	AVG. 727	AVG. 728	AVG. 729	AVG. 730	AVG. 731	AVG. 732	AVG. 733	AVG. 734	AVG. 735	AVG. 736	AVG. 737	AVG. 738	AVG. 739	AVG. 740	AVG. 741	AVG. 742	AVG. 743	AVG. 744	AVG. 745	AVG. 746	AVG. 747	AVG. 748	AVG. 749	AVG. 750	AVG. 751	AVG. 752	AVG. 753	AVG. 754	AVG. 755	AVG. 756	AVG. 757	AVG. 758	AVG. 759	AVG. 760	AVG. 761	AVG. 762	AVG. 763	AVG. 764	AVG. 765	AVG. 766	AVG. 767	AVG. 768	AVG. 769	AVG. 770	AVG. 771	AVG. 772	AVG. 773	AVG. 774	AVG. 775	AVG. 776	AVG. 777	AVG. 778	AVG. 779	AVG. 780	AVG. 781	AVG. 782	AVG. 783	AVG. 784	AVG. 785	AVG. 786	AVG. 787	AVG. 788	AVG. 789	AVG. 790	AVG. 791	AVG. 792	AVG. 793	AVG. 794	AVG. 795	AVG. 796	AVG. 797	AVG. 798	AVG. 799	AVG. 800	AVG. 801	AVG. 802	AVG. 803	AVG. 804	AVG. 805	AVG. 806	AVG. 807	AVG. 808	AVG. 809	AVG. 810	AVG. 811	AVG. 812	AVG. 813	AVG. 814	AVG. 815	AVG. 816	AVG. 817	AVG. 818	AVG. 819	AVG. 820	AVG. 821	AVG. 822	AVG. 823	AVG. 824	AVG. 825	AVG. 826	AVG. 827	AVG. 828	AVG. 829	AVG. 830	AVG. 831	AVG. 832	AVG. 833	AVG. 834	AVG. 835	AVG. 836	AVG. 837	AVG. 838	AVG. 839	AVG. 840	AVG. 841	AVG. 842	AVG. 843	AVG. 844	AVG. 845	AVG. 846	AVG. 847	AVG. 848	AVG. 849	AVG. 850	AVG. 851	AVG. 852	AVG. 853	AVG. 854	AVG. 855	AVG. 856	AVG. 857	AVG. 858	AVG. 859	AVG. 860	AVG. 861	AVG. 862	AVG. 863	AVG. 864	AVG. 865	AVG. 866	AVG. 867	AVG. 868	AVG. 869	AVG. 870	AVG. 871	AVG. 872	AVG. 873	AVG. 874	AVG. 875	AVG. 876	AVG. 877	AVG. 878	AVG. 879	AVG. 880	AVG. 881	AVG. 882	AVG. 883	AVG. 884	AVG. 885	AVG. 886	AVG. 887	AVG. 888	AVG. 889	AVG. 890	AVG. 891	AVG. 892	AVG. 893	AVG. 894	AVG. 895	AVG. 896	AVG. 897	AVG. 898	AVG. 899	AVG. 900	AVG. 901	AVG. 902	AVG. 903	AVG. 904	AVG. 905	AVG. 906	AVG. 907	AVG. 908	AVG. 909	AVG. 910	AVG. 911	AVG. 912	AVG. 913	AVG. 914	AVG. 915	AVG. 916	AVG. 917	AVG. 918	AVG. 919	AVG. 920	AVG. 921	AVG. 922	AVG. 923	AVG. 924	AVG. 925	AVG. 926	AVG. 927	AVG. 928	AVG. 929	AVG. 930	AVG. 931	AVG. 932	AVG. 933	AVG. 934	AVG. 935	AVG. 936	AVG. 937	AVG. 938	AVG. 939	AVG. 940	AVG. 941	AVG. 942	AVG. 943	AVG. 944	AVG. 945	AVG. 946	AVG. 947	AVG. 948	AVG. 949	AVG. 950	AVG. 951	AVG. 952	AVG. 953	AVG. 954	AVG. 955	AVG. 956	AVG. 957	AVG. 958	AVG. 959	AVG. 960	AVG. 961	AVG. 962	AVG. 963	AVG. 964	AVG. 965	AVG. 966	AVG. 967	AVG. 968	AVG. 969	AVG. 970	AVG. 971	AVG. 972	AVG. 973	AVG. 974	AVG. 975	AVG. 976	AVG. 977	AVG. 978	AVG. 979	AVG. 980	AVG. 981	AVG. 982	AVG. 983	AVG. 984	AVG. 985	AVG. 986	AVG. 987	AVG. 988	AVG. 989	AVG. 990	AVG. 991	AVG. 992	AVG. 993	AVG. 994	AVG. 995	AVG. 996	AVG. 997	AVG. 998	AVG. 999	AVG. 1000	AVG. 1001	AVG. 1002	AVG. 1003	AVG. 1004	AVG. 1005	AVG. 1006	AVG. 1007	AVG. 1008	AVG. 1009	AVG. 1010	AVG. 1011	AVG. 1012	AVG. 1013	AVG. 1014	AVG. 1015	AVG. 1016	AVG. 1017	AVG. 1018	AVG. 1019	AVG. 1020	AVG. 1021	AVG. 1022	AVG. 1023	AVG. 1024	AVG. 1025	AVG. 1026	AVG. 1027	AVG. 1028	AVG. 1029	AVG. 1030	AVG. 1031	AVG. 1032	AVG. 1033	AVG. 1034	AVG. 1035	AVG. 1036	AVG. 1037
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[illegible]

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	AVGVEL OLD HT	AVGVEL NEW HT	WVHD=1 CODE=1	WVHD=2 CODE=2	WVHD=3 CODE=3	FRDA CODE=1	FRDA CODE=2	FRDA CODE=3	INFORMATION	1972
JAN.	11.24	15.61	12.97	16.25	43.47	24.90	40.75	49.01	0.0	12.98	GOODLAND KANSAS	
FEB.	11.40	15.19	13.27	17.14	47.13	24.84	41.30	49.99	0.0	43.37	SHERMAN COUNTY	
MAR.	12.10	14.00	14.05	18.64	53.87	21.84	44.46	52.40	0.0	48.31	CORRECTION HT. 100 FT.	
APR.	12.42	16.36	14.79	18.78	50.13	23.97	44.62	52.74	0.0	46.25	INSTRUMENT HT. 21 FT.	
MAY.	12.01	15.55	13.57	17.73	50.44	24.22	44.34	52.90	0.0	46.31	PEAK LIMIT IS 15 KNOTS.	
JUNE	10.17	13.74	11.77	15.45	41.23	19.74	46.21	43.26	0.0	37.75	FRUIT LIM. IS TNRD.	
JULY	11.15	14.52	12.63	16.70	45.35	25.43	40.22	47.91	0.0	42.02	CODE=1 COR. HT. PULK WY.	
AUG.	10.55	14.61	13.46	16.27	45.74	24.53	40.12	47.32	0.0	41.94	CODE=2 USC. HT. PER	
SEP.	10.76	14.44	12.29	16.07	44.31	22.30	39.77	46.56	0.0	40.34	UNIT AREA KWH/KW2	
OCT.	10.63	14.77	12.60	16.36	41.74	22.73	36.65	43.64	0.0	33.25	CODE=3 COR.HT. PER.	
NOV.	10.04	13.54	12.15	15.76	39.73	19.57	34.45	41.98	0.0	36.73	UNIT AREA KWH/KW2	
DEC.	12.01	15.99	13.55	17.47	51.29	24.39	44.86	54.17	0.0	47.51	WIND SPEEDS ARE IN KNOTS.	
SUMS	11.23	15.00	13.07	16.52	554.71	296.00	438.55	532.27	0.0	510.72		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	PNGVEL OLD HT	PNGVEL NEW HT	VCURD CODE=1	VCURD CODE=2	VCURD CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1973
JAN.	10.97	14.66	13.37	17.13	42.32	32.55	38.46	44.42	0.0	38.95	GORLAND KANSAS	.
FEB.	10.04	13.51	11.78	15.42	29.99	19.25	34.12	41.67	0.0	36.55	SHERMAN COUNTY	.
MAR.	13.01	17.05	15.15	19.23	52.23	32.54	45.15	54.23	0.0	47.56	CORRECTED HT. 130 FT.	.
APR.	13.37	17.90	15.26	19.45	59.90	33.80	44.16	57.46	0.0	50.47	INSTRUMENT HT. 21 FT.	.
MAY.	11.72	15.54	14.52	18.36	44.97	25.95	29.10	45.53	0.0	40.21	PEAK LIMIT IS 16 KNOTS.	.
JUNE	10.75	14.44	12.30	14.68	44.53	22.21	23.13	46.43	0.0	43.77	PEAK, LIM. IS 7 KNOTS.	.
JULY	10.49	13.14	12.29	15.29	42.91	21.93	27.64	44.61	0.0	35.13	CODE=1 COR. HT. BULK VED.	.
AUG.	11.24	15.65	12.62	16.49	45.77	25.78	41.13	49.15	0.0	43.12	CODE=2 LOG. HT. PER	.
SEP.	11.24	15.16	12.79	16.10	47.52	26.42	41.77	45.87	0.0	43.74	UNIT AREA KWH/HHZ	.
OCT.	10.65	14.20	12.62	15.35	41.91	21.75	38.75	44.26	0.0	38.42	CODE=3 CORRECT. PER.	.
NOV.	10.67	14.30	12.71	16.42	43.03	23.31	37.79	45.15	0.0	39.64	UNIT AREA KWH/HHZ	.
DEC.	13.17	17.35	16.69	18.82	55.95	31.97	49.12	57.45	0.0	50.75	WIND SPEEDS ARE IN KNOTS.	.
SUMS	11.45	15.25	13.45	17.32	555.11	307.17	435.49	531.40	0.0	519.31		.

APPENDIX D

TABLES

Russell

JAN 1950 - DEC 1967
JAN 1970 - DEC 1973

DIR	30-36	37-41	41-46	47-51	52-57	58-63
M	0.007	0.021	0.030	0.017	0.007	0.005
ME	0.009	0.010	0.024	0.045	0.034	0.023
MF	0.017	0.024	0.026	0.030	0.0	0.07
MG	0.005	0.015	0.016	0.035	0.041	0.052
M	0.011	0.016	0.033	0.021	0.0	0.034
SE	0.000	0.001	0.006	0.021	0.000	0.013
SE	0.039	0.025	0.012	0.032	0.030	0.043
SE	0.004	0.021	0.021	0.026	0.0	0.055
S	0.010	0.037	0.067	0.021	0.001	0.038
S33	0.007	0.035	0.067	0.034	0.033	0.042
S4	0.011	0.031	0.036	0.011	0.030	0.052
S5	0.014	0.016	0.019	0.022	0.020	0.037
S	0.007	0.012	0.024	0.031	0.021	0.033
S8W	0.006	0.007	0.026	0.021	0.0	0.018
M4	0.010	0.009	0.012	0.004	0.001	0.035
NA	0.003	0.016	0.019	0.015	0.036	0.054
CAL	0.023	0.0	0.0	0.0	0.0	0.030
S143	0.015	0.023	0.030	0.046	0.033	0.030

[illegible]

SHIP	09--30	07--10	11--16	17--31	22--28	29--30
66	0.519	0.520	0.526	0.511	0.504	0.500
67	0.515	0.511	0.524	0.510	0.503	0.507
68	0.527	0.526	0.519	0.504	0.510	0.501
69E	0.513	0.514	0.511	0.502	0.5	0.525
70	0.511	0.507	0.511	0.502	0.5	0.512
71E	0.508	0.511	0.505	0.501	0.500	0.505
72	0.514	0.512	0.505	0.500	0.5	0.501
73E	0.51	0.514	0.516	0.501	0.5	0.501
74	0.523	0.537	0.535	0.502	0.501	0.515
75E	0.519	0.505	0.552	0.515	0.503	0.515
76	0.524	0.515	0.532	0.504	0.501	0.521
77E	0.511	0.510	0.515	0.503	0.500	0.515
78	0.511	0.514	0.502	0.500	0.5	0.527
79E	0.503	0.515	0.502	0.501	0.501	0.515
80	0.513	0.512	0.509	0.502	0.5	0.527
81E	0.509	0.517	0.514	0.511	0.505	0.501
82E	0.515	0.5	0.5	0.5	0.5	0.515
83E	0.503	0.5	0.5	0.5	0.5	0.515
84E	0.503	0.5	0.5	0.5	0.5	0.515
85E	0.503	0.5	0.5	0.5	0.5	0.515
86E	0.503	0.5	0.5	0.5	0.5	0.515
87E	0.503	0.5	0.5	0.5	0.5	0.515
88E	0.503	0.5	0.5	0.5	0.5	0.515
89E	0.503	0.5	0.5	0.5	0.5	0.515
90E	0.503	0.5	0.5	0.5	0.5	0.515
91E	0.503	0.5	0.5	0.5	0.5	0.515
92E	0.503	0.5	0.5	0.5	0.5	0.515
93E	0.503	0.5	0.5	0.5	0.5	0.515
94E	0.503	0.5	0.5	0.5	0.5	0.515
95E	0.503	0.5	0.5	0.5	0.5	0.515
96E	0.503	0.5	0.5	0.5	0.5	0.515
97E	0.503	0.5	0.5	0.5	0.5	0.515
98E	0.503	0.5	0.5	0.5	0.5	0.515
99E	0.503	0.5	0.5	0.5	0.5	0.515
100E	0.503	0.5	0.5	0.5	0.5	0.515

Bivariate Distribution

History

Years

1956 1959

1957 1960

1958 1961

Instrument Height

1956-1961 29 Feet

Year	1936-37	1937-38	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47	1947-48	1948-49	1949-50	1950-51	1951-52	1952-53	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39	2039-40	2040-41	2041-42	2042-43	2043-44	2044-45	2045-46	2046-47	2047-48	2048-49	2049-50	2050-51	2051-52	2052-53	2053-54	2054-55	2055-56	2056-57	2057-58	2058-59	2059-60	2060-61	2061-62	2062-63	2063-64	2064-65	2065-66	2066-67	2067-68	2068-69	2069-70	2070-71	2071-72	2072-73	2073-74	2074-75	2075-76	2076-77	2077-78	2078-79	2079-80	2080-81	2081-82	2082-83	2083-84	2084-85	2085-86	2086-87	2087-88	2088-89	2089-90	2090-91	2091-92	2092-93	2093-94	2094-95	2095-96	2096-97	2097-98	2098-99	2099-00	2100-01	2101-02	2102-03	2103-04	2104-05	2105-06	2106-07	2107-08	2108-09	2109-10	2110-11	2111-12	2112-13	2113-14	2114-15	2115-16	2116-17	2117-18	2118-19	2119-20	2120-21	2121-22	2122-23	2123-24	2124-25	2125-26	2126-27	2127-28	2128-29	2129-30	2130-31	2131-32	2132-33	2133-34	2134-35	2135-36	2136-37	2137-38	2138-39	2139-40	2140-41	2141-42	2142-43	2143-44	2144-45	2145-46	2146-47	2147-48	2148-49	2149-50	2150-51	2151-52	2152-53	2153-54	2154-55	2155-56	2156-57	2157-58	2158-59	2159-60	2160-61	2161-62	2162-63	2163-64	2164-65	2165-66	2166-67	2167-68	2168-69	2169-70	2170-71	2171-72	2172-73	2173-74	2174-75	2175-76	2176-77	2177-78	2178-79	2179-80	2180-81	2181-82	2182-83	2183-84	2184-85	2185-86	2186-87	2187-88	2188-89	2189-90	2190-91	2191-92	2192-93	2193-94	2194-95	2195-96	2196-97	2197-98	2198-99	2199-00	2200-01	2201-02	2202-03	2203-04	2204-05	2205-06	2206-07	2207-08	2208-09	2209-10	2210-11	2211-12	2212-13	2213-14	2214-15	2215-16	2216-17	2217-18	2218-19	2219-20	2220-21	2221-22	2222-23	2223-24	2224-25	2225-26	2226-27	2227-28	2228-29	2229-30	2230-31	2231-32	2232-33	2233-34	2234-35	2235-36	2236-37	2237-38	2238-39	2239-40	2240-41	2241-42	2242-43	2243-44	2244-45	2245-46	2246-47	2247-48	2248-49	2249-50	2250-51	2251-52	2252-53	2253-54	2254-55	2255-56	2256-57	2257-58	2258-59	2259-60	2260-61	2261-62	2262-63	2263-64	2264-65	2265-66	2266-67	2267-68	2268-69	2269-70	2270-71	2271-72	2272-73	2273-74	2274-75	2275-76	2276-77	2277-78	2278-79	2279-80	2280-81	2281-82	2282-83	2283-84	2284-85	2285-86	2286-87	2287-88	2288-89	2289-90	2290-91	2291-92	2292-93	2293-94	2294-95	2295-96	2296-97	2297-98	2298-99	2299-00	2300-01	2301-02	2302-03	2303-04	2304-05	2305-06	2306-07	2307-08	2308-09	2309-10	2310-11	2311-12	2312-13	2313-14	2314-15	2315-16	2316-17	2317-18	2318-19	2319-20	2320-21	2321-22	2322-23	2323-24	2324-25	2325-26	2326-27	2327-28	2328-29	2329-30	2330-31	2331-32	2332-33	2333-34	2334-35	2335-36	2336-37	2337-38	2338-39	2339-40	2340-41	2341-42	2342-43	2343-44	2344-45	2345-46	2346-47	2347-48	2348-49	2349-50	2350-51	2351-52	2352-53	2353-54	2354-55	2355-56	2356-57	2357-58	2358-59	2359-60	2360-61	2361-62	2362-63	2363-64	2364-65	2365-66	2366-67	2367-68	2368-69	2369-70	2370-71	2371-72	2372-73	2373-74	2374-75	2375-76	2376-77	2377-78	2378-79	2379-80	2380-81	2381-82	2382-83	2383-84	2384-85	2385-86	2386-87	2387-88	2388-89	2389-90	2390-91	2391-92	2392-93	2393-94	2394-95	2395-96	2396-97	2397-98	2398-99	2399-00	2400-01	2401-02	2402-03	2403-04	2404-05	2405-06	2406-07	2407-08	2408-09	2409-10	2410-11	2411-12	2412-13	2413-14	2414-15	2415-16	2416-17	2417-18	2418-19	2419-20	2420-21	2421-22	2422-23	2423-24	2424-25	2425-26	2426-27	2427-28	2428-29	2429-30	2430-31	2431-32	2432-33	2433-34	2434-35	2435-36	2436-37	2437-38	2438-39	2439-40	2440-41	2441-42	2442-43	2443-44	2444-45	2445-46	2446-47	2447-48	2448-49	2449-50	2450-51	2451-52	2452-53	2453-54	2454-55	2455-56	2456-57	2457-58	2458-59	2459-60	2460-61	2461-62	2462-63	2463-64	2464-65	2465-66	2466-67	2467-68	2468-69	2469-70	2470-71	2471-72	2472-73	2473-74	2474-75	2475-76	2476-77	2477-78	2478-79	2479-80	2480-81	2481-82	2482-83	2483-84	2484-85	2485-86	2486-87	2487-88	2488-89	2489-90	2490-91	2491-92	2492-93	2493-94	2494-95	2495-96	2496-97	2497-98	2498-99	2499-00	2500-01	2501-02	2502-03	2503-04	2504-05	2505-06	2506-07	2507-08	2508-09	2509-10	2510-11	2511-12	2512-13	2513-14	2514-15	2515-16	2516-17	2517-18	2518-19	2519-20	2520-21	2521-22	2522-23	2523-24	2524-25	2525-26	2526-27	2527-28	2528-29	2529-30	2530-31	2531-32	2532-33	2533-34	2534-35	2535-36	2536-37	2537-38	2538-39	2539-40	2540-41	2541-42	2542-43	2543-44	2544-45	2545-46	2546-47	2547-48	2548-49	2549-50	2550-51	2551-52	2552-53	2553-54	2554-55	2555-56	2556-57	2557-58	2558-59	2559-60	2560-61	2561-62	2562-63	2563-64	2564-65	2565-66	2566-67	2567-68	2568-69	2569-70	2570-71	2571-72	2572-73	2573-74	2574-75	2575-76	2576-77	2577-78	2578-79	2579-80	2580-81	2581-82	2582-83	2583-84	2584-85	2585-86	2586-87	2587-88	2588-89	2589-90	2590-91	2591-92	2592-93	2593-94	2594-95	2595-96	2596-97	2597-98	2598-99	2599-00	2600-01	2601-02	2602-03	2603-04	2604-05	2605-06	2606-07	2607-08	2608-09	2609-10	2610-11	2611-12	2612-13	2613-14	2614-15	2615-16	2616-17	2617-18	2618-19	2619-20	2620-21	2621-22	2622-23	2623-24	2624-25	2625-26	2626-27	2627-28	2628-29	2629-30	2630-31	2631-32	2632-33	2633-34	2634-35	2635-36	2636-37	2637-38	2638-39	2639-40	2640-41	2641-42	2642-43	2643-44	2644-45	2645-46	2646-47	2647-48	2648-49	2649-50	2650-51	2651-52	2652-53	2653-54	2654-55	2655-56	2656-57	2657-58	2658-59	2659-60	2660-61	2661-62	2662-63	2663-64	2664-65	2665-66	2666-67	2667-68	2668-69	2669-70	2670-71	2671-72	2672-73	2673-74	2674-75	2675-76	2676-77	2677-78	2678-79	2679-80	2680-81	2681-82	2682-83	2683-84	2684-85	2685-86	2686-87	2687-88	2688-89	2689-90	2690-91	2691-92	2692-93	2693-94	2694-95	2695-96	2696-97	2697-98	2698-99	2699-00	2700-01	2701-02	2702-03	2703-04	2704-05	2705-06	2706-07	2707-08	2708-09	2709-10	2710-11	2711-12	2712-13	2713-14	2714-15	2715-16	2716-17	2717-18	2718-19	2719-20	2720-21	2721-22	2722-23	2723-24	2724-25	2725-26	2726-27	2727-28	2728-29	2729-30	2730-31	2731-32	2732-33	2733-34	2734-35	2735-36	2736-37	2737-38	2738-39	2739-40	2740-41	2741-42	2742-43	2743-44	2744-45	2745-46	2746-47	2747-48	2748-49	2749-50	2750-51	2751-52	2752-53	2753-54	2754-55	2755-56	2756-57	2757-58	2758-59	2759-60	2760-61	2761-62	2762-63	2763-64	2764-65	2765-66	2766-67	2767-68	2768-69	2769-70	2770-71	2771-72	2772-73	2773-74	2774-75	2775-76	2776-77	2777-78	2778-79	2779-80	2780-81	2781-82	2782-83	2783-84	2784-85	2785-86	2786-87	2787-88	2788-89	2789-90	2790-91	2791-92	2792-93	2793-94	2794-95	2795-96	2796-97	2797-98	2798-99	2799-00	2800-01	2801-02	2802-03	2803-04	2804-05	2805-06	2806-07	2807-08	2808-09	2809-10	2810-11	2811-12	2812-13	2813-14	2814-15	2815-16	2816-17	2817-18	2818-19	2819-20	2820-21	2821-22	2822-23	2823-24	2824-25	2825-26	2826-27	2827-28	2828-29	2829-30	2830-31	2831-32	2832-33	2833-34	2834-35	2835-36	2836-37	2837-38	2838-39	2839-40	2840-41	2841-42	2842-43	2843-44	2844-45	2845-46	2846-47	2847-48	2848-49	2849-50	2850-51	2851-52	2852-53	2853-54	2854-55	2855-56	2856-57	2857-58	2858-59	2859-60	2860-61	2861-62	2862-63	2863-64	2864-65	2865-66	2866-67	2867-68	2868-69	2869-70	2870-71	2871-72	2872-73	2873-74	2874-75	2875-76	2876-77	2877-78	2878-79	2879-80	2880-81	2881-82	2882-83	2883-84	2884-85	2885-86	2886-87	2887-88	2888-89	2889-90	2890-91	2891-92	2892-93	2893-94	2894-95	2895-96	2896-97	2897-98	2898-99	2899-00	2900-01	2901-02	2902-03	2903-04	2904-05	2905-06	2906-07	2907-08	2908-09	2909-10	2910-11	2911-12	2912-13	2913-14	2914-15	2915-16	2916-17	2917-18	2918-19	2919-20	2920-21	2921-22	2922-23	2923-24	2924-25	2925-26	2926-27	2927-28	2928-29	2929-30	2930-31	2931-32	2932-33	2933-34	2934-35	2935-36	2936-37	2937-38	2938-39	2939-40	2940-41	2941-42	2942-43	2943-44	2944-45	2945-46	2946-47	2947-48	2948-49	2949-50	2950-51	2951-52	2952-53	2953-54	2954-55	2955-56	2956-57	2957-58	2958-59	2959-60	2960-61	2961-62	2962-63	2963-64	2964-65	2965-66	2966-67	
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ST	5-10	11-15	17-21	22-JN	SUMS
1	0.034	0.017	0.014	0.005	0.069
2	0.033	0.017	0.016	0.007	0.073
3	0.031	0.015	0.012	0.002	0.058
4	0.031	0.017	0.005	0.001	0.054
5	0.034	0.015	0.005	0.000	0.054
6	0.033	0.011	0.001	0.001	0.052
7	0.026	0.015	0.003	0.001	0.057
8	0.014	0.015	0.009	0.001	0.065
9	0.013	0.032	0.023	0.001	0.120
10	0.034	0.061	0.064	0.010	0.141
11	0.033	0.026	0.012	0.013	0.075
12	0.032	0.015	0.034	0.000	0.083
13	0.015	0.011	0.003	0.0	0.032
14	0.034	0.043	0.001	0.0	0.077
15	0.034	0.015	0.005	0.002	0.062
16	0.035	0.011	0.011	0.004	0.050
17	0.029	0.0	0.0	0.0	0.029
18	0.027	0.045	0.174	0.033	

[illegible]

DIR	00-06	07-10	11-16	17-21	22-01	SUMS
N	0.139	0.325	0.445	0.311	0.163	1.383
NE	0.091	0.192	0.222	0.094	0.023	0.522
E	0.157	0.229	0.159	0.045	0.034	0.542
SE	0.119	0.170	0.102	0.016	0.004	0.311
S	0.116	0.214	0.065	0.004	0.0	0.397
SW	0.102	0.242	0.058	0.008	0.0	0.451
WSW	0.091	0.206	0.119	0.045	0.0	0.451
W	0.184	0.312	0.261	0.119	0.038	0.745
WNW	0.115	0.286	0.447	0.153	0.029	1.035
NW	0.102	0.294	0.133	0.053	0.016	0.543
WSW	0.155	0.193	0.053	0.016	0.016	0.434
N	0.144	0.124	0.021	0.020	0.004	0.312
WNW	0.137	0.171	0.143	0.024	0.012	0.458
NW	0.137	0.221	0.143	0.127	0.0	0.536
NW	0.139	0.206	0.269	0.160	0.045	0.819
CALC	0.214	0.3	0.3	0.3	0.3	0.214
SUMS	2.154	4.353	3.700	1.731	0.353	

Bivariate Distribution

Russell

Years

1970 1973

1971

1972

Instrument Height

1970-1973 29 Feet

DIR	00-06	07-10	11-16	17-21	22-01	SUMS
N	0.130	0.244	0.497	0.424	0.112	1.457
NE	0.053	0.215	0.229	0.115	0.025	0.637
E	0.104	0.184	0.180	0.044	0.038	0.532
SE	0.074	0.111	0.129	0.062	0.034	0.385
S	0.114	0.177	0.136	0.021	0.0	0.457
SW	0.037	0.131	0.042	0.038	0.0	0.238
WSW	0.053	0.204	0.163	0.020	0.004	0.450
W	0.051	0.226	0.234	0.115	0.008	0.704
WNW	0.193	0.254	1.110	0.689	0.079	2.508
NW	0.077	0.256	0.491	0.346	0.070	1.248
WSW	0.287	0.239	0.265	0.085	0.013	0.665
N	0.232	0.203	0.123	0.034	0.012	0.442
NE	0.094	0.144	0.051	0.016	0.004	0.323
E	0.090	0.135	0.106	0.033	0.012	0.376
SE	0.057	0.141	0.194	0.107	0.062	0.561
S	0.137	0.214	0.202	0.174	0.058	0.756
SW	0.164	0.3	0.0	0.0	0.0	0.168
SUMS	1.581	3.530	4.158	2.269	0.491	

DIR	00-06	07-10	11-16	17-21	22-01	SUMS
N	0.143	0.343	0.449	0.249	0.076	1.207
NE	0.078	0.204	0.180	0.132	0.020	0.614
E	0.041	0.187	0.175	0.086	0.004	0.502
SE	0.057	0.167	0.119	0.037	0.031	0.435
S	0.034	0.228	0.139	0.053	0.0	0.494
SW	0.093	0.176	0.155	0.023	0.008	0.457
WSW	0.043	0.274	0.176	0.062	0.0	0.638
N	0.177	0.254	0.382	0.132	0.016	0.967
NE	0.116	0.312	0.428	0.672	0.083	2.498
E	0.107	0.255	0.191	0.085	0.008	1.208
SE	0.115	0.145	0.086	0.021	0.0	0.366
S	0.075	0.119	0.095	0.012	0.008	0.309
SW	0.282	0.237	0.099	0.034	0.008	0.569
WSW	0.083	0.132	0.123	0.100	0.042	0.480
N	0.258	0.214	0.190	0.141	0.034	0.645
NE	0.053	0.3	0.0	0.0	0.0	0.353
SUMS	1.587	3.606	4.021	2.121	0.395	

DIR	00-06	07-10	11-16	17-21	22-01	SUMS
N	0.182	0.268	0.493	0.295	0.086	1.283
NE	0.120	0.238	0.250	0.095	0.008	0.711
E	0.164	0.221	0.115	0.012	0.038	0.520
SE	0.114	0.198	0.062	0.021	0.0	0.395
S	0.132	0.163	0.083	0.012	0.0	0.425
SW	0.102	0.195	0.090	0.016	0.004	0.407
WSW	0.124	0.204	0.177	0.012	0.0	0.517
W	0.143	0.322	0.269	0.082	0.0	0.797
WNW	0.340	0.730	0.951	0.317	0.045	2.384
NW	0.149	0.361	0.456	0.230	0.020	1.276
WSW	0.127	0.275	0.219	0.037	0.004	0.661
N	0.121	0.160	0.067	0.004	0.0	0.358
NE	0.070	0.145	0.036	0.004	0.004	0.309
E	0.073	0.127	0.077	0.073	0.0	0.304
SE	0.103	0.193	0.190	0.074	0.0	0.547
S	0.135	0.163	0.229	0.108	0.012	0.647
SW	0.510	0.3	0.0	0.0	0.0	0.510
SUMS	2.717	3.494	3.774	1.323	0.193	

THE HOPELY SUMMARY TABLE FOR WINTER, 1951

HOPELY	LA	AVG. VEL.	UB	QTH.	DEFLECTION	STH.	WEST
2500	3	11.14566	24	0.27173	0.1722	0.4082	0.2544
2500	3	10.78667	34	0.21111	0.16111	0.27922	0.25555
2500	0	10.13565	26	0.31097	0.22773	0.25444	0.25112
2500	0	11.42132	30	0.33433	0.22773	0.25444	0.25112
1200	3	11.42111	28	0.35256	0.25444	0.25444	0.25112
1500	1	12.13667	23	0.35000	0.25444	0.25444	0.25112
1500	2	12.13667	23	0.35000	0.25444	0.25444	0.25112
2100	0	11.42111	34	0.27222	0.16666	0.25444	0.25112

THE HOPELY SUMMARY TABLE FOR SUMMER, 1951

HOPELY	LA	AVG. VEL.	UB	QTH.	DEFLECTION	STH.	WEST
2500	3	10.40217	30	0.35326	0.25444	0.25444	0.25112
1500	3	11.20667	26	0.35326	0.25444	0.25444	0.25112
1500	0	11.20667	26	0.35326	0.25444	0.25444	0.25112
1200	2	11.42111	41	0.35326	0.25444	0.25444	0.25112
1200	0	11.42111	33	0.35326	0.25444	0.25444	0.25112
1500	3	11.42111	26	0.35326	0.25444	0.25444	0.25112
1500	2	11.42111	33	0.35326	0.25444	0.25444	0.25112
2100	2	11.42111	33	0.35326	0.25444	0.25444	0.25112

THE HOPELY SUMMARY TABLE FOR FALL, 1951

HOPELY	LA	AVG. VEL.	UB	QTH.	DEFLECTION	STH.	WEST
2500	3	11.14566	24	0.16922	0.22637	0.35913	0.25444
2500	3	10.78667	23	0.16922	0.22637	0.35913	0.25444
2500	0	10.40217	23	0.21136	0.21773	0.35913	0.25444
2500	0	10.40217	19	0.25000	0.25444	0.35913	0.25444
1200	3	11.42111	28	0.22773	0.25444	0.35913	0.25444
1500	2	12.13667	22	0.25444	0.25444	0.35913	0.25444
1500	0	12.13667	18	0.25444	0.25444	0.35913	0.25444
2100	0	11.42111	17	0.25444	0.25444	0.35913	0.25444

THE HOPELY SUMMARY TABLE FOR FALL, 1951

HOPELY	LA	AVG. VEL.	UB	QTH.	DEFLECTION	STH.	WEST
2500	0	11.42111	26	0.25444	0.25444	0.35913	0.25444
2500	0	11.42111	16	0.25444	0.25444	0.35913	0.25444
2500	0	11.42111	15	0.25444	0.25444	0.35913	0.25444
2500	0	11.42111	25	0.25444	0.25444	0.35913	0.25444
1500	0	11.42111	26	0.25444	0.25444	0.35913	0.25444
1500	0	11.42111	24	0.25444	0.25444	0.35913	0.25444
1500	0	11.42111	17	0.25444	0.25444	0.35913	0.25444
2100	0	11.42111	25	0.25444	0.25444	0.35913	0.25444

Russell
Instrument Height
1950-1951 29 Feet

THE HOPELY SUMMARY TABLE FOR WINTER, 1950

HOPELY	LA	AVG. VEL.	UB	QTH.	DEFLECTION	STH.	WEST
2500	3	11.14566	30	0.31333	0.12712	0.46010	0.09322
2500	3	12.13667	27	0.32000	0.15000	0.36031	0.13559
2500	0	11.42111	26	0.33000	0.11017	0.42073	0.15264
2500	0	11.42111	21	0.35000	0.08075	0.40074	0.13559
1500	3	11.42111	35	0.33000	0.09322	0.35031	0.16049
1500	2	12.13667	35	0.35000	0.11017	0.35031	0.15264
1500	2	12.13667	25	0.32000	0.15000	0.41025	0.10165
2100	3	11.42111	31	0.26222	0.11336	0.33220	0.09322

THE HOPELY SUMMARY TABLE FOR SUMMER, 1950

HOPELY	LA	AVG. VEL.	UB	QTH.	DEFLECTION	STH.	WEST
2500	3	11.42111	30	0.27173	0.25444	0.35913	0.11173
2500	0	11.42111	30	0.27173	0.25444	0.35913	0.11173
2500	0	11.42111	31	0.25000	0.17431	0.40978	0.25563
2500	3	11.42111	43	0.25000	0.16889	0.37174	0.26087
1500	3	11.42111	44	0.25000	0.16889	0.35078	0.19022
1500	2	12.13667	42	0.25000	0.17091	0.35078	0.15217
1500	2	12.13667	42	0.25000	0.25000	0.35078	0.10773
2100	3	11.42111	43	0.25000	0.25000	0.35078	0.13045

THE HOPELY SUMMARY TABLE FOR FALL, 1950

HOPELY	LA	AVG. VEL.	UB	QTH.	DEFLECTION	STH.	WEST
2500	3	11.42111	27	0.14133	0.21773	0.31630	0.12800
2500	3	11.42111	27	0.14133	0.15000	0.30230	0.11527
2500	0	11.42111	23	0.17333	0.13478	0.32175	0.03696
2500	0	11.42111	30	0.21000	0.14719	0.35457	0.07809
1500	3	11.42111	23	0.25000	0.25000	0.35109	0.11413
1500	2	12.13667	23	0.25000	0.25000	0.35109	0.04348
1500	2	12.13667	22	0.25000	0.25000	0.35109	0.01630
2100	3	11.42111	26	0.17333	0.25000	0.35457	0.02174

THE HOPELY SUMMARY TABLE FOR FALL, 1950

HOPELY	LA	AVG. VEL.	UB	QTH.	DEFLECTION	STH.	WEST
2500	3	11.42111	25	0.25000	0.15000	0.35913	0.13726
2500	3	11.42111	25	0.25000	0.15000	0.35913	0.13726
2500	0	11.42111	25	0.25000	0.15000	0.35913	0.13726
2500	0	11.42111	25	0.25000	0.15000	0.35913	0.13726
1500	3	11.42111	25	0.25000	0.15000	0.35913	0.13726
1500	2	12.13667	25	0.25000	0.15000	0.35913	0.13726
1500	2	12.13667	25	0.25000	0.15000	0.35913	0.13726
2100	3	11.42111	25	0.25000	0.15000	0.35913	0.13726

THE DAILY SUMMARY TABLE FOR WIND, 1953

HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
2400	0	4.2333	24	0.2444	0.1777	0.2444	0.1777
0300	0	8.3667	27	0.2333	0.2222	0.2333	0.2222
0600	0	9.6667	29	0.2222	0.2333	0.2222	0.2333
0900	1	9.5333	29	0.2333	0.2333	0.2333	0.2333
1200	0	10.4111	26	0.2333	0.2333	0.2333	0.2333
1500	1	10.1111	25	0.2333	0.2333	0.2333	0.2333
1800	0	7.1111	25	0.2333	0.2333	0.2333	0.2333
2100	0	7.3333	22	0.2777	0.1111	0.2777	0.1111

THE DAILY SUMMARY TABLE FOR SUN, 1953

HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
2400	0	1.0000	24	0.2000	0.2000	0.2000	0.2000
0300	0	0.2000	24	0.2000	0.2000	0.2000	0.2000
0600	0	0.2000	24	0.2000	0.2000	0.2000	0.2000
0900	0	1.2000	26	0.2000	0.2000	0.2000	0.2000
1200	3	1.2000	26	0.2000	0.2000	0.2000	0.2000
1500	3	1.2000	26	0.2000	0.2000	0.2000	0.2000
1800	3	0.2000	26	0.2000	0.2000	0.2000	0.2000
2100	3	0.2000	26	0.2000	0.2000	0.2000	0.2000

THE DAILY SUMMARY TABLE FOR SUN, 1953

HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
2400	0	10.4000	26	0.1111	0.2111	0.1111	0.2111
0300	0	9.5000	19	0.1111	0.2111	0.1111	0.2111
0600	0	9.5000	23	0.1111	0.2111	0.1111	0.2111
0900	3	13.5000	23	0.1111	0.2111	0.1111	0.2111
1200	4	13.5000	23	0.1111	0.2111	0.1111	0.2111
1500	4	13.5000	23	0.1111	0.2111	0.1111	0.2111
1800	3	11.8000	22	0.1111	0.2111	0.1111	0.2111
2100	4	13.4000	22	0.1111	0.2111	0.1111	0.2111

THE DAILY SUMMARY TABLE FOR SUN, 1953

HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
2400	0	9.1000	23	0.1000	0.1000	0.1000	0.1000
0300	0	9.1000	17	0.2100	0.0900	0.2100	0.0900
0600	0	9.1000	21	0.2100	0.0900	0.2100	0.0900
0900	0	11.7000	23	0.2100	0.1800	0.2100	0.1800
1200	2	11.7000	23	0.2100	0.1800	0.2100	0.1800
1500	0	12.0000	26	0.2100	0.1800	0.2100	0.1800
1800	0	9.1000	19	0.2100	0.1800	0.2100	0.1800
2100	0	9.1000	21	0.2100	0.1800	0.2100	0.1800

Russell
Instrument Height
1952-1953 20 Feet

THE DAILY SUMMARY TABLE FOR WIND, 1952

HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
2400	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
0300	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
0600	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
0900	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
1200	0	11.4000	26	0.2500	0.1778	0.2500	0.1778
1500	0	11.4000	26	0.2500	0.1778	0.2500	0.1778
1800	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
2100	0	7.7000	24	0.2500	0.1778	0.2500	0.1778

THE DAILY SUMMARY TABLE FOR SUN, 1952

HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
2400	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
0300	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
0600	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
0900	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
1200	0	11.4000	26	0.2500	0.1778	0.2500	0.1778
1500	0	11.4000	26	0.2500	0.1778	0.2500	0.1778
1800	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
2100	0	7.7000	24	0.2500	0.1778	0.2500	0.1778

THE DAILY SUMMARY TABLE FOR SUN, 1952

HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
2400	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
0300	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
0600	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
0900	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
1200	0	11.4000	26	0.2500	0.1778	0.2500	0.1778
1500	0	11.4000	26	0.2500	0.1778	0.2500	0.1778
1800	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
2100	0	7.7000	24	0.2500	0.1778	0.2500	0.1778

THE DAILY SUMMARY TABLE FOR SUN, 1952

HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
HR	LA	AVG. WIND	DIR	WIND	DIR	WIND	DIR
2400	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
0300	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
0600	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
0900	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
1200	0	11.4000	26	0.2500	0.1778	0.2500	0.1778
1500	0	11.4000	26	0.2500	0.1778	0.2500	0.1778
1800	0	7.7000	24	0.2500	0.1778	0.2500	0.1778
2100	0	7.7000	24	0.2500	0.1778	0.2500	0.1778

THE HOURLY SUMMARY TABLE FOR APR. 1955

HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
2400	0	9.3665	23	0.2344	0.1300	0.2344	0.2344
0100	0	9.2771	22	0.2833	0.0611	0.2833	0.2833
0200	0	9.1000	23	0.3222	0.0722	0.3222	0.3222
0300	0	9.5100	22	0.1500	0.1500	0.1500	0.1500
0400	0	12.2552	22	0.1111	0.2011	0.2552	0.2552
0500	0	11.5357	21	0.6300	0.2722	0.1500	0.1500
0600	0	9.1500	23	0.2500	0.1222	0.2500	0.2500
0700	0	9.5000	23	0.2500	0.1222	0.2500	0.2500

Russell

Instrument Weight
1954-1955 29 Feet

THE HOURLY SUMMARY TABLE FOR APR. 1955

HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
2400	0	11.2213	23	0.1818	0.1818	0.1818	0.1818
0100	0	13.0519	25	0.2627	0.1317	0.2627	0.2627
0200	0	10.0213	25	0.2500	0.1250	0.2500	0.2500
0300	0	13.0513	22	0.2800	0.1500	0.2800	0.2800
0400	0	13.8214	23	0.2714	0.1751	0.2714	0.2714
0500	0	13.7133	22	0.2333	0.1733	0.2333	0.2333
0600	0	11.5532	23	0.2930	0.1733	0.2930	0.2930
0700	0	13.7114	23	0.2170	0.2500	0.2170	0.2170

THE HOURLY SUMMARY TABLE FOR MAY. 1955

HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
2400	0	10.1213	25	0.0612	0.2009	0.1213	0.1213
0100	0	10.4609	20	0.1333	0.1333	0.1333	0.1333
0200	0	10.2826	20	0.1043	0.1317	0.1043	0.1043
0300	0	13.1847	22	0.1304	0.1250	0.1304	0.1304
0400	0	13.2522	24	0.1303	0.2332	0.1303	0.1303
0500	0	13.2848	22	0.1141	0.2233	0.1141	0.1141
0600	0	13.2826	25	0.1521	0.2114	0.1521	0.1521
0700	0	10.3857	22	0.1923	0.2213	0.1923	0.1923

THE HOURLY SUMMARY TABLE FOR MAY. 1955

HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
2400	0	11.2919	30	0.2634	0.1633	0.2634	0.2634
0100	0	11.3544	24	0.2351	0.1134	0.2351	0.2351
0200	0	11.7030	24	0.2634	0.1134	0.2634	0.2634
0300	0	13.0911	24	0.2802	0.1137	0.2802	0.2802
0400	0	14.3267	30	0.2967	0.1533	0.2967	0.2967
0500	0	14.0327	29	0.3514	0.1637	0.3514	0.3514
0600	0	11.0733	24	0.2714	0.1132	0.2714	0.2714
0700	0	11.2107	25	0.2575	0.2117	0.2575	0.2575

THE HOURLY SUMMARY TABLE FOR APR. 1954

HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
2400	0	8.1300	30	0.3300	0.1300	0.3300	0.3300
0100	0	8.3100	30	0.3300	0.1300	0.3300	0.3300
0200	0	8.3200	30	0.3200	0.1300	0.3200	0.3200
0300	0	8.3200	30	0.3200	0.1300	0.3200	0.3200
0400	0	8.3200	30	0.3200	0.1300	0.3200	0.3200
0500	0	8.3200	30	0.3200	0.1300	0.3200	0.3200
0600	0	8.3200	30	0.3200	0.1300	0.3200	0.3200
0700	0	8.3200	30	0.3200	0.1300	0.3200	0.3200

THE HOURLY SUMMARY TABLE FOR APR. 1954

HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
2400	0	8.2213	30	0.2213	0.1300	0.2213	0.2213
0100	0	8.2213	30	0.2213	0.1300	0.2213	0.2213
0200	0	8.2213	30	0.2213	0.1300	0.2213	0.2213
0300	0	8.2213	30	0.2213	0.1300	0.2213	0.2213
0400	0	8.2213	30	0.2213	0.1300	0.2213	0.2213
0500	0	8.2213	30	0.2213	0.1300	0.2213	0.2213
0600	0	8.2213	30	0.2213	0.1300	0.2213	0.2213
0700	0	8.2213	30	0.2213	0.1300	0.2213	0.2213

THE HOURLY SUMMARY TABLE FOR APR. 1954

HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
2400	0	8.1413	30	0.1413	0.1413	0.1413	0.1413
0100	0	8.1413	30	0.1413	0.1413	0.1413	0.1413
0200	0	8.1413	30	0.1413	0.1413	0.1413	0.1413
0300	0	8.1413	30	0.1413	0.1413	0.1413	0.1413
0400	0	8.1413	30	0.1413	0.1413	0.1413	0.1413
0500	0	8.1413	30	0.1413	0.1413	0.1413	0.1413
0600	0	8.1413	30	0.1413	0.1413	0.1413	0.1413
0700	0	8.1413	30	0.1413	0.1413	0.1413	0.1413

THE HOURLY SUMMARY TABLE FOR APR. 1954

HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
HR	LA	AVG.	US	HTH.	DIRECTION	STH.	WEST
2400	0	8.1413	17	0.2727	0.1433	0.2727	0.2727
0100	0	8.1413	20	0.2627	0.1267	0.2627	0.2627
0200	0	8.1413	24	0.2627	0.1267	0.2627	0.2627
0300	0	8.1413	21	0.2627	0.1267	0.2627	0.2627
0400	0	8.1413	21	0.2627	0.1267	0.2627	0.2627
0500	0	8.1413	21	0.2627	0.1267	0.2627	0.2627
0600	0	8.1413	21	0.2627	0.1267	0.2627	0.2627
0700	0	8.1413	21	0.2627	0.1267	0.2627	0.2627

THE HOURLY SUMMARY TABLE FOR WIN. 1957

HR	LB	AVG. VEL.	DIR.	WTH.	STH.	WST.
2400	0	11.3645	22	0.2744	0.1111	0.2644
0300	0	9.3000	22	0.2900	0.1722	0.2611
0600	0	9.4574	13	0.2556	0.1900	0.2611
0900	0	11.4773	20	0.3667	0.1687	0.2644
1200	0	13.3000	50	0.4222	0.1687	0.2644
1500	0	12.6333	25	0.3644	0.1333	0.2611
1800	0	9.7778	20	0.3333	0.1556	0.2677
2100	0	9.1111	20	0.2300	0.2056	0.2644

THE HOURLY SUMMARY TABLE FOR SPR. 1957

HR	LB	AVG. VEL.	DIR.	WTH.	STH.	WST.
2400	0	11.4773	20	0.3000	0.2333	0.2644
0300	0	11.3152	20	0.3572	0.1733	0.2644
0600	0	11.3645	20	0.2900	0.2556	0.2611
0900	0	13.3000	30	0.4222	0.1687	0.2644
1200	0	16.2500	32	0.2500	0.2333	0.2644
1500	0	11.3645	31	0.2778	0.2556	0.2644
1800	0	12.6333	20	0.3333	0.2056	0.2644
2100	0	11.2473	20	0.2556	0.2778	0.2644

THE HOURLY SUMMARY TABLE FOR SUM. 1957

HR	LB	AVG. VEL.	DIR.	WTH.	STH.	WST.
2400	0	12.1389	22	0.1667	0.1667	0.2644
0300	0	11.3645	20	0.1433	0.1900	0.2644
0600	0	10.3645	20	0.1376	0.1733	0.2644
0900	0	13.3000	25	0.1978	0.1733	0.2644
1200	0	13.2500	25	0.2000	0.1667	0.2644
1500	0	13.1473	27	0.2133	0.1667	0.2644
1800	0	12.6333	21	0.1978	0.2056	0.2644
2100	0	10.7391	20	0.1957	0.2677	0.2644

THE HOURLY SUMMARY TABLE FOR FALL 1957

HR	LB	AVG. VEL.	DIR.	WTH.	STH.	WST.
2400	0	11.3645	30	0.1667	0.1667	0.2644
0300	0	12.2213	22	0.2575	0.2333	0.2644
0600	0	11.3645	20	0.2673	0.1900	0.2644
0900	0	13.3000	20	0.3166	0.1667	0.2644
1200	0	14.1950	24	0.3166	0.1533	0.2644
1500	0	14.2473	24	0.3250	0.0933	0.2644
1800	0	11.3645	20	0.2673	0.1667	0.2644
2100	0	11.3645	20	0.1667	0.1667	0.2644

Russell

Instrument Height,

1956-1957 29 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1956

HR	LB	AVG. VEL.	DIR.	WTH.	STH.	WST.
2400	0	11.3645	20	0.3667	0.2644	0.1611
0300	0	10.3645	20	0.3000	0.2556	0.2278
0600	0	9.4574	20	0.3778	0.2111	0.2111
0900	0	11.3645	20	0.3166	0.2778	0.2556
1200	0	13.3000	20	0.1611	0.2056	0.2611
1500	0	11.3645	20	0.3778	0.1611	0.1778
1800	0	9.4574	20	0.3000	0.2056	0.1333
2100	0	9.4574	20	0.3444	0.2778	0.1278

THE HOURLY SUMMARY TABLE FOR SPR. 1956

HR	LB	AVG. VEL.	DIR.	WTH.	STH.	WST.
2400	0	11.3645	20	0.2667	0.2800	0.1413
0300	0	10.3645	20	0.2926	0.2717	0.2283
0600	0	12.3645	20	0.2500	0.2333	0.2500
0900	0	13.3000	20	0.2333	0.2333	0.1956
1200	0	13.3000	20	0.2333	0.2333	0.1674
1500	0	13.3000	20	0.2333	0.2333	0.1674
1800	0	13.3000	20	0.2333	0.2333	0.1674
2100	0	13.3000	20	0.2333	0.2333	0.1674

THE HOURLY SUMMARY TABLE FOR SUM. 1956

HR	LB	AVG. VEL.	DIR.	WTH.	STH.	WST.
2400	0	11.3645	20	0.2667	0.2717	0.1674
0300	0	10.3645	20	0.2333	0.2333	0.2500
0600	0	13.3000	20	0.2333	0.2333	0.1674
0900	0	13.3000	20	0.2333	0.2333	0.1674
1200	0	13.3000	20	0.2333	0.2333	0.1674
1500	0	13.3000	20	0.2333	0.2333	0.1674
1800	0	13.3000	20	0.2333	0.2333	0.1674
2100	0	13.3000	20	0.2333	0.2333	0.1674

THE HOURLY SUMMARY TABLE FOR FALL 1956

HR	LB	AVG. VEL.	DIR.	WTH.	STH.	WST.
2400	0	11.3645	20	0.2667	0.2717	0.1674
0300	0	11.3645	20	0.2667	0.2717	0.1674
0600	0	11.3645	20	0.2667	0.2717	0.1674
0900	0	11.3645	20	0.2667	0.2717	0.1674
1200	0	11.3645	20	0.2667	0.2717	0.1674
1500	0	11.3645	20	0.2667	0.2717	0.1674
1800	0	11.3645	20	0.2667	0.2717	0.1674
2100	0	11.3645	20	0.2667	0.2717	0.1674

THE DAILY SUMMARY TABLE FOR APR. 1955

HAUL	LA	AVG. VEL.	DIR.	DEPTH	WIND	WAVE
2400	0	9.3446	22	0.2353	0.1111	0.2167
2500	0	14.3446	22	0.2353	0.1111	0.2167
2600	0	17.3446	22	0.2353	0.1111	0.2167
2700	0	14.3446	22	0.2353	0.1111	0.2167
2800	0	14.3446	22	0.2353	0.1111	0.2167
2900	0	21.3446	22	0.2353	0.1111	0.2167
3000	0	22.2777	22	0.2353	0.1111	0.2167
3100	0	25.3446	22	0.2353	0.1111	0.2167
3200	0	17.3446	22	0.2353	0.1111	0.2167

THE DAILY SUMMARY TABLE FOR SEP. 1955

HAUL	LA	AVG. VEL.	DIR.	DEPTH	WIND	WAVE
2400	0	10.3446	22	0.2353	0.1111	0.2167
2500	0	11.3446	22	0.2353	0.1111	0.2167
2600	0	11.3446	22	0.2353	0.1111	0.2167
2700	0	14.3446	22	0.2353	0.1111	0.2167
2800	0	14.3446	22	0.2353	0.1111	0.2167
2900	0	14.3446	22	0.2353	0.1111	0.2167
3000	0	14.3446	22	0.2353	0.1111	0.2167
3100	0	14.3446	22	0.2353	0.1111	0.2167
3200	0	10.3446	22	0.2353	0.1111	0.2167

THE DAILY SUMMARY TABLE FOR OCT. 1955

HAUL	LA	AVG. VEL.	DIR.	DEPTH	WIND	WAVE
2400	0	11.3446	22	0.2353	0.1111	0.2167
2500	0	10.3446	22	0.2353	0.1111	0.2167
2600	0	9.3446	22	0.2353	0.1111	0.2167
2700	0	11.3446	22	0.2353	0.1111	0.2167
2800	0	12.3446	22	0.2353	0.1111	0.2167
2900	0	12.3446	22	0.2353	0.1111	0.2167
3000	0	13.3446	22	0.2353	0.1111	0.2167
3100	0	13.3446	22	0.2353	0.1111	0.2167
3200	0	10.3446	22	0.2353	0.1111	0.2167

THE DAILY SUMMARY TABLE FOR NOV. 1955

HAUL	LA	AVG. VEL.	DIR.	DEPTH	WIND	WAVE
2400	0	11.3446	22	0.2353	0.1111	0.2167
2500	0	11.3446	22	0.2353	0.1111	0.2167
2600	0	11.3446	22	0.2353	0.1111	0.2167
2700	0	11.3446	22	0.2353	0.1111	0.2167
2800	0	11.3446	22	0.2353	0.1111	0.2167
2900	0	11.3446	22	0.2353	0.1111	0.2167
3000	0	11.3446	22	0.2353	0.1111	0.2167
3100	0	11.3446	22	0.2353	0.1111	0.2167
3200	0	11.3446	22	0.2353	0.1111	0.2167

Russell
Instrument Height
1958-1959 29 feet

THE DAILY SUMMARY TABLE FOR MAR. 1958

HAUL	LA	AVG. VEL.	DIR.	DEPTH	WIND	WAVE
2400	0	11.3446	22	0.2353	0.1111	0.2167
2500	0	11.3446	22	0.2353	0.1111	0.2167
2600	0	11.3446	22	0.2353	0.1111	0.2167
2700	0	11.3446	22	0.2353	0.1111	0.2167
2800	0	11.3446	22	0.2353	0.1111	0.2167
2900	0	11.3446	22	0.2353	0.1111	0.2167
3000	0	11.3446	22	0.2353	0.1111	0.2167
3100	0	11.3446	22	0.2353	0.1111	0.2167
3200	0	11.3446	22	0.2353	0.1111	0.2167

THE DAILY SUMMARY TABLE FOR APR. 1958

HAUL	LA	AVG. VEL.	DIR.	DEPTH	WIND	WAVE
2400	0	11.3446	22	0.2353	0.1111	0.2167
2500	0	11.3446	22	0.2353	0.1111	0.2167
2600	0	11.3446	22	0.2353	0.1111	0.2167
2700	0	11.3446	22	0.2353	0.1111	0.2167
2800	0	11.3446	22	0.2353	0.1111	0.2167
2900	0	11.3446	22	0.2353	0.1111	0.2167
3000	0	11.3446	22	0.2353	0.1111	0.2167
3100	0	11.3446	22	0.2353	0.1111	0.2167
3200	0	11.3446	22	0.2353	0.1111	0.2167

THE DAILY SUMMARY TABLE FOR MAY, 1958

HAUL	LA	AVG. VEL.	DIR.	DEPTH	WIND	WAVE
2400	0	11.3446	22	0.2353	0.1111	0.2167
2500	0	11.3446	22	0.2353	0.1111	0.2167
2600	0	11.3446	22	0.2353	0.1111	0.2167
2700	0	11.3446	22	0.2353	0.1111	0.2167
2800	0	11.3446	22	0.2353	0.1111	0.2167
2900	0	11.3446	22	0.2353	0.1111	0.2167
3000	0	11.3446	22	0.2353	0.1111	0.2167
3100	0	11.3446	22	0.2353	0.1111	0.2167
3200	0	11.3446	22	0.2353	0.1111	0.2167

THE DAILY SUMMARY TABLE FOR JUNE 1958

HAUL	LA	AVG. VEL.	DIR.	DEPTH	WIND	WAVE
2400	0	11.3446	22	0.2353	0.1111	0.2167
2500	0	11.3446	22	0.2353	0.1111	0.2167
2600	0	11.3446	22	0.2353	0.1111	0.2167
2700	0	11.3446	22	0.2353	0.1111	0.2167
2800	0	11.3446	22	0.2353	0.1111	0.2167
2900	0	11.3446	22	0.2353	0.1111	0.2167
3000	0	11.3446	22	0.2353	0.1111	0.2167
3100	0	11.3446	22	0.2353	0.1111	0.2167
3200	0	11.3446	22	0.2353	0.1111	0.2167

THE HOURLY SURVEY TABLE FOR WTH. 1961

TIME	LA	WGS.	WEL.	UT	HTH.	HTH.	WEST	WEST
2400	0	8.05354	26	0.27777	0.11111	0.23222	0.27777	0.27777
2500	0	8.71111	40	0.32222	0.05555	0.23333	0.32222	0.32222
2600	0	9.41111	24	0.29444	0.17222	0.22777	0.36666	0.36666
2700	0	10.26667	26	0.33333	0.33333	0.22222	0.41111	0.41111
2800	0	12.07778	10	0.37778	0.27778	0.19444	0.46667	0.46667
2900	0	12.84444	30	0.47778	0.15556	0.23333	0.51111	0.51111
3000	0	8.11111	28	0.27777	0.11111	0.23333	0.55556	0.55556
3100	0	9.11111	22	0.27777	0.11111	0.23333	0.60000	0.60000

Russell
Instrument Height
1960-1961 20 Feet

THE HOURLY SURVEY TABLE FOR WTH. 1961

TIME	LA	WGS.	WEL.	UT	HTH.	HTH.	WEST	WEST
2400	0	10.01111	27	0.26667	0.27777	0.26667	0.35556	0.35556
2500	0	10.66667	23	0.33333	0.26667	0.33333	0.41111	0.41111
2600	0	12.16667	20	0.32222	0.22222	0.28889	0.46667	0.46667
2700	0	12.83333	26	0.29444	0.16667	0.25556	0.51111	0.51111
2800	0	13.01111	26	0.27778	0.15556	0.24444	0.55556	0.55556
2900	0	13.85556	26	0.26667	0.21111	0.23333	0.60000	0.60000
3000	0	14.33333	26	0.26667	0.26667	0.26667	0.64444	0.64444
3100	0	14.66667	27	0.26667	0.26667	0.26667	0.68889	0.68889

THE HOURLY SURVEY TABLE FOR WTH. 1961

TIME	LA	WGS.	WEL.	UT	HTH.	HTH.	WEST	WEST
2400	0	6.10557	15	0.09219	0.15117	0.21095	0.28782	0.28782
2500	0	6.74413	20	0.09734	0.15674	0.21673	0.33781	0.33781
2600	0	6.15617	19	0.13587	0.09339	0.25109	0.38781	0.38781
2700	0	9.36337	20	0.15217	0.15074	0.21333	0.43781	0.43781
2800	0	9.20735	15	0.13043	0.20637	0.24133	0.48781	0.48781
2900	0	9.79343	15	0.13242	0.20552	0.24242	0.53781	0.53781
3000	0	8.15362	25	0.10370	0.25373	0.25174	0.58781	0.58781
3100	0	8.15362	16	0.08636	0.15370	0.25243	0.63781	0.63781

THE HOURLY SURVEY TABLE FOR FALL 1961

TIME	LA	WGS.	UT	HTH.	HTH.	WEST	WEST
2400	0	8.72527	20	0.22527	0.24741	0.28201	0.32181
2500	0	9.11111	21	0.24175	0.27162	0.27233	0.37181
2600	0	8.35594	20	0.23676	0.25945	0.25667	0.42181
2700	0	10.23277	23	0.21319	0.26722	0.21792	0.47181
2800	0	10.07003	26	0.21342	0.25945	0.24343	0.52181
2900	0	11.00549	26	0.10223	0.07332	0.21474	0.57181
3000	0	1.50049	26	0.27777	0.15111	0.27211	0.62181
3100	0	4.15343	25	0.25636	0.11117	0.25243	0.67181

THE HOURLY SURVEY TABLE FOR WTH. 1960

TIME	LA	WGS.	UT	HTH.	HTH.	WEST	WEST
2400	0	8.11111	26	0.33333	0.25000	0.21111	0.21111
2500	0	8.33333	25	0.33333	0.23333	0.23333	0.23333
2600	0	8.55556	24	0.33333	0.21778	0.23333	0.23333
2700	0	8.77778	23	0.33333	0.20000	0.23333	0.23333
2800	0	8.99999	22	0.33333	0.18333	0.23333	0.23333
2900	0	9.22222	21	0.33333	0.16667	0.23333	0.23333
3000	0	9.44444	20	0.33333	0.15000	0.23333	0.23333
3100	0	9.66667	19	0.33333	0.13333	0.23333	0.23333

THE HOURLY SURVEY TABLE FOR WTH. 1960

TIME	LA	WGS.	UT	HTH.	HTH.	WEST	WEST
2400	0	10.01111	27	0.26667	0.27777	0.26667	0.35556
2500	0	10.66667	23	0.33333	0.26667	0.33333	0.41111
2600	0	12.16667	20	0.32222	0.22222	0.28889	0.46667
2700	0	12.83333	26	0.29444	0.16667	0.25556	0.51111
2800	0	13.01111	26	0.27778	0.15556	0.24444	0.55556
2900	0	13.85556	26	0.26667	0.21111	0.23333	0.60000
3000	0	14.33333	26	0.26667	0.26667	0.26667	0.64444
3100	0	14.66667	27	0.26667	0.26667	0.26667	0.68889

THE HOURLY SURVEY TABLE FOR WTH. 1960

TIME	LA	WGS.	UT	HTH.	HTH.	WEST	WEST
2400	0	6.10557	15	0.09219	0.15117	0.21095	0.28782
2500	0	6.74413	20	0.09734	0.15674	0.21673	0.33781
2600	0	6.15617	19	0.13587	0.09339	0.25109	0.38781
2700	0	9.36337	20	0.15217	0.15074	0.21333	0.43781
2800	0	9.20735	15	0.13043	0.20637	0.24133	0.48781
2900	0	9.79343	15	0.13242	0.20552	0.24242	0.53781
3000	0	8.15362	25	0.10370	0.25373	0.25174	0.58781
3100	0	8.15362	16	0.08636	0.15370	0.25243	0.63781

THE HOURLY SURVEY TABLE FOR FALL 1960

TIME	LA	WGS.	UT	HTH.	HTH.	WEST	WEST
2400	0	8.72527	20	0.22527	0.24741	0.28201	0.32181
2500	0	9.11111	21	0.24175	0.27162	0.27233	0.37181
2600	0	8.35594	20	0.23676	0.25945	0.25667	0.42181
2700	0	10.23277	23	0.21319	0.26722	0.21792	0.47181
2800	0	10.07003	26	0.21342	0.25945	0.24343	0.52181
2900	0	11.00549	26	0.10223	0.07332	0.21474	0.57181
3000	0	1.50049	26	0.27777	0.15111	0.27211	0.62181
3100	0	4.15343	25	0.25636	0.11117	0.25243	0.67181

THE HOURLY SUMMARY TABLE FOR WIL. 1962

HOOR	LB	AVG.	WCL	WTH.	DIR.	EAST	WEST
2400	0	13.4644	20	0.2444	0.1111	0.2722	0.2444
0300	0	9.12333	20	0.3222	0.2611	0.2333	0.2444
0600	0	9.12333	20	0.3222	0.2611	0.2333	0.2444
0900	0	9.12333	20	0.3222	0.2611	0.2333	0.2444
1200	0	12.6111	20	0.4333	0.3333	0.2555	0.2444
1500	0	11.6555	24	0.4944	0.3333	0.2555	0.2444
1800	0	8.5000	20	0.4277	0.1555	0.2555	0.2444
2100	0	8.5000	10	0.3555	0.1333	0.2555	0.2444

Russell
Instrument Weight
1962-1963 20 Feet

THE HOURLY SUMMARY TABLE FOR SEP. 1962

HOOR	LB	AVG.	WCL	WTH.	DIR.	EAST	WEST
2400	0	12.3333	20	0.2111	0.2011	0.2444	0.2444
0300	0	10.3333	20	0.2444	0.1511	0.2444	0.2444
0600	0	12.3333	20	0.2444	0.1511	0.2444	0.2444
0900	0	12.3333	20	0.2444	0.1511	0.2444	0.2444
1200	0	13.3333	20	0.2777	0.1666	0.2444	0.2444
1500	0	13.3333	20	0.2444	0.1666	0.2444	0.2444
1800	0	13.3333	20	0.2444	0.1666	0.2444	0.2444
2100	0	13.3333	20	0.2444	0.1666	0.2444	0.2444

THE HOURLY SUMMARY TABLE FOR SEP. 1962

HOOR	LB	AVG.	WCL	WTH.	DIR.	EAST	WEST
2400	0	12.3333	20	0.2444	0.2222	0.2444	0.2444
0300	0	11.7777	20	0.1444	0.2222	0.2444	0.2444
0600	0	11.7777	20	0.1444	0.2222	0.2444	0.2444
0900	0	13.3333	20	0.2444	0.2444	0.2444	0.2444
1200	0	13.3333	20	0.2444	0.2444	0.2444	0.2444
1500	0	13.3333	20	0.2444	0.2444	0.2444	0.2444
1800	0	13.3333	20	0.2444	0.2444	0.2444	0.2444
2100	0	13.3333	20	0.2444	0.2444	0.2444	0.2444

THE HOURLY SUMMARY TABLE FOR FALL 1962

HOOR	LB	AVG.	WCL	WTH.	DIR.	EAST	WEST
2400	0	10.7777	20	0.1444	0.1333	0.2444	0.2444
0300	0	10.7777	20	0.1444	0.1333	0.2444	0.2444
0600	0	11.2222	20	0.2000	0.1333	0.2444	0.2444
0900	0	12.7777	20	0.2444	0.1333	0.2444	0.2444
1200	0	13.3333	20	0.2444	0.1333	0.2444	0.2444
1500	0	13.3333	20	0.2444	0.1333	0.2444	0.2444
1800	0	13.3333	20	0.2444	0.1333	0.2444	0.2444
2100	0	13.3333	20	0.2444	0.1333	0.2444	0.2444

THE HOURLY SUMMARY TABLE FOR WIL. 1962

HOOR	LB	AVG.	WCL	WTH.	DIR.	EAST	WEST
2400	0	10.1111	20	0.2277	0.1166	0.3000	0.2444
0300	0	10.1111	20	0.1666	0.1000	0.2777	0.2777
0600	0	10.1111	20	0.1666	0.1111	0.2777	0.2777
0900	0	11.1111	20	0.1777	0.1777	0.2555	0.2777
1200	0	12.5555	20	0.3333	0.1222	0.2444	0.2777
1500	0	12.5555	20	0.3333	0.1222	0.2444	0.2777
1800	0	12.5555	20	0.3333	0.1222	0.2444	0.2777
2100	0	12.5555	20	0.3333	0.1222	0.2444	0.2777

THE HOURLY SUMMARY TABLE FOR SEP. 1962

HOOR	LB	AVG.	WCL	WTH.	DIR.	EAST	WEST
2400	0	12.3333	20	0.1777	0.1777	0.2888	0.1987
0300	0	12.3333	20	0.1777	0.1777	0.2888	0.1987
0600	0	12.3333	20	0.1777	0.1777	0.2888	0.1987
0900	0	12.3333	20	0.1777	0.1777	0.2888	0.1987
1200	0	12.3333	20	0.1777	0.1777	0.2888	0.1987
1500	0	12.3333	20	0.1777	0.1777	0.2888	0.1987
1800	0	12.3333	20	0.1777	0.1777	0.2888	0.1987
2100	0	12.3333	20	0.1777	0.1777	0.2888	0.1987

THE HOURLY SUMMARY TABLE FOR SEP. 1962

HOOR	LB	AVG.	WCL	WTH.	DIR.	EAST	WEST
2400	0	12.3333	20	0.1777	0.1777	0.2888	0.1987
0300	0	12.3333	20	0.1777	0.1777	0.2888	0.1987
0600	0	12.3333	20	0.1777	0.1777	0.2888	0.1987
0900	0	12.3333	20	0.1777	0.1777	0.2888	0.1987
1200	0	12.3333	20	0.1777	0.1777	0.2888	0.1987
1500	0	12.3333	20	0.1777	0.1777	0.2888	0.1987
1800	0	12.3333	20	0.1777	0.1777	0.2888	0.1987
2100	0	12.3333	20	0.1777	0.1777	0.2888	0.1987

THE HOURLY SUMMARY TABLE FOR FALL 1962

HOOR	LB	AVG.	WCL	WTH.	DIR.	EAST	WEST
2400	0	10.1111	20	0.1000	0.1000	0.1888	0.0767
0300	0	10.1111	20	0.1000	0.1000	0.1888	0.0767
0600	0	10.1111	20	0.1000	0.1000	0.1888	0.0767
0900	0	10.1111	20	0.1000	0.1000	0.1888	0.0767
1200	0	10.1111	20	0.1000	0.1000	0.1888	0.0767
1500	0	10.1111	20	0.1000	0.1000	0.1888	0.0767
1800	0	10.1111	20	0.1000	0.1000	0.1888	0.0767
2100	0	10.1111	20	0.1000	0.1000	0.1888	0.0767

THE HOURLY SUMMARY TABLE FOR WIL. 1965

HR	LN	AVG. VEL.	DIR.	WTH.	EST.	STG.	WEST
2400	0	10.5000	26	0.3359	0.2067	0.3652	0.2111
0100	0	10.5010	27	0.3322	0.2066	0.3398	0.2122
0600	0	10.4333	25	0.3256	0.2111	0.2455	0.2084
0900	0	10.4843	25	0.3187	0.2067	0.2564	0.2077
1200	0	10.4997	30	0.3222	0.2055	0.2453	0.2084
1500	0	12.2555	22	0.3000	0.2555	0.2272	0.2084
1800	0	10.3525	18	0.3778	0.1277	0.2772	0.1922
2100	0	10.9111	24	0.2944	0.1167	0.2943	0.1932

Pussell
Instrument Height
1964-1965 29 Feet

THE HOURLY SUMMARY TABLE FOR SP4. 1965

HR	LN	AVG. VEL.	DIR.	WTH.	EST.	STG.	WEST
2400	0	12.2021	25	0.1566	0.2177	0.2612	0.1926
0100	0	12.3043	22	0.2073	0.1979	0.2235	0.1974
0600	0	12.3622	26	0.3366	0.1979	0.3473	0.1751
0900	0	12.4073	20	0.2476	0.1434	0.2423	0.1764
1200	0	12.1177	20	0.3312	0.1517	0.3015	0.1922
1500	0	12.4603	20	0.3048	0.1977	0.2573	0.1922
1800	0	12.4265	24	0.2972	0.1943	0.2582	0.1751
2100	0	12.3241	22	0.2276	0.2083	0.2445	0.1974

THE HOURLY SUMMARY TABLE FOR S.D. 1965

HR	LN	AVG. VEL.	DIR.	WTH.	EST.	STG.	WEST
2400	0	10.1521	23	0.2223	0.2204	0.2782	0.2022
0100	0	10.2021	23	0.2223	0.2052	0.2519	0.2073
0600	0	9.0533	20	0.1932	0.2222	0.2273	0.2073
0900	0	11.5217	23	0.1290	0.2312	0.2122	0.2073
1200	5	12.0645	22	0.2500	0.1639	0.2542	0.2073
1500	0	12.0370	24	0.2553	0.1517	0.2217	0.1848
1800	0	12.1378	24	0.2222	0.1751	0.2538	0.2073
2100	0	9.7316	23	0.2178	0.2083	0.2761	0.2073

THE HOURLY SUMMARY TABLE FOR FALL 1965

HR	LN	AVG. VEL.	DIR.	WTH.	EST.	STG.	WEST
2400	0	9.0791	20	0.4134	0.2061	0.4634	0.1926
0100	0	9.0356	19	0.3247	0.2072	0.4073	0.1926
0600	0	9.0315	20	0.2812	0.2072	0.4235	0.1926
0900	0	11.1519	20	0.3104	0.2072	0.4235	0.1926
1200	3	12.1011	22	0.2244	0.2072	0.4235	0.1926
1500	0	12.0319	20	0.3105	0.2072	0.4235	0.1926
1800	0	10.1177	20	0.4311	0.2072	0.4235	0.1926
2100	0	9.0315	13	0.3244	0.2072	0.4235	0.1926

THE HOURLY SUMMARY TABLE FOR WIN. 1964

HR	LN	AVG. VEL.	DIR.	WTH.	EST.	STG.	WEST
2400	0	11.0111	27	0.3058	0.1000	0.2833	0.3000
0100	0	11.1533	20	0.3222	0.0722	0.2556	0.3389
0600	0	11.7011	27	0.2873	0.1772	0.2167	0.4000
0900	0	11.7011	27	0.3333	0.1000	0.1833	0.3889
1200	0	11.7011	33	0.4272	0.0657	0.1657	0.3056
1500	0	11.7011	33	0.4333	0.1000	0.1722	0.2644
1800	0	11.7011	33	0.4333	0.1556	0.2389	0.2222
2100	0	11.7011	33	0.2956	0.1911	0.2167	0.2556

THE HOURLY SUMMARY TABLE FOR SPR. 1964

HR	LN	AVG. VEL.	DIR.	WTH.	EST.	STG.	WEST
2400	0	12.1000	27	0.2000	0.1773	0.2168	0.1467
0100	0	12.1000	31	0.2000	0.1900	0.2566	0.1668
0600	0	12.1000	29	0.2660	0.1400	0.3061	0.2119
0900	0	12.1000	30	0.2660	0.1400	0.3265	0.2561
1200	0	12.1000	30	0.2660	0.0923	0.3657	0.1576
1500	0	12.1000	30	0.2660	0.1400	0.3826	0.2173
1800	0	12.1000	30	0.2660	0.1400	0.3826	0.2173
2100	0	12.1000	30	0.2660	0.1400	0.3826	0.2173

THE HOURLY SUMMARY TABLE FOR SUM. 1964

HR	LN	AVG. VEL.	DIR.	WTH.	EST.	STG.	WEST
2400	0	12.1000	28	0.1500	0.3122	0.4870	0.1652
0100	0	12.1000	28	0.1500	0.2173	0.5130	0.2438
0600	0	12.1000	28	0.1500	0.2062	0.5043	0.2023
0900	0	12.1000	28	0.1500	0.1413	0.5306	0.1467
1200	0	12.1000	28	0.1500	0.1413	0.5306	0.1467
1500	0	12.1000	28	0.1500	0.2062	0.5217	0.0923
1800	0	12.1000	28	0.1500	0.2062	0.5217	0.0923
2100	0	12.1000	28	0.1500	0.2062	0.5217	0.0923

THE HOURLY SUMMARY TABLE FOR FALL 1964

HR	LN	AVG. VEL.	DIR.	WTH.	EST.	STG.	WEST
2400	0	11.2000	21	0.2073	0.1000	0.4702	0.0990
0100	0	11.2000	22	0.2073	0.1000	0.4702	0.0990
0600	0	11.2000	21	0.2073	0.1000	0.4702	0.0990
0900	0	11.2000	21	0.2073	0.1000	0.4702	0.0990
1200	0	11.2000	21	0.2073	0.1000	0.4702	0.0990
1500	0	11.2000	21	0.2073	0.1000	0.4702	0.0990
1800	0	11.2000	21	0.2073	0.1000	0.4702	0.0990
2100	0	11.2000	21	0.2073	0.1000	0.4702	0.0990

THE HOURLY SUMMARY TABLE FOR WIN. 1971

HR	LB	AVG.	VEL.	NTH.	EAST	WEST
2400	0	12.2555	35	0.28849	0.13556	0.41111
0300	3	12.1555	25	0.31667	0.08333	0.37778
0600	0	11.8449	33	0.33333	0.03890	0.31667
0900	5	12.7849	31	0.36111	0.27778	0.32222
1200	0	14.5778	36	0.38889	0.18182	0.32222
1500	4	14.4088	38	0.35556	0.08889	0.31111
1800	0	10.7222	35	0.31667	0.12778	0.42000
2100	4	11.9000	30	0.25556	0.13889	0.46111

THE HOURLY SUMMARY TABLE FOR SEP. 1971

HR	LB	AVG.	VEL.	NTH.	EAST	WEST
2400	0	11.7055	33	0.24457	0.23913	0.32609
0300	0	11.4573	28	0.23370	0.14674	0.35637
0600	0	11.5217	28	0.23370	0.20192	0.31522
0900	4	14.5217	24	0.26087	0.17555	0.31522
1200	3	15.5306	40	0.30578	0.14775	0.33322
1500	3	15.6195	40	0.31522	0.19022	0.33778
1800	0	13.7173	35	0.36783	0.21136	0.32609
2100	0	12.1630	36	0.25543	0.20478	0.28204

Russell
Instrument Height
1970-1971 29 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1970

HR	LB	AVG.	VEL.	NTH.	EAST	WEST
2400	0	11.7323	24	0.24476	0.11017	0.43220
0300	4	11.3783	20	0.33051	0.11017	0.29661
0600	5	10.9275	22	0.31356	0.12712	0.27966
0900	0	11.4139	27	0.33893	0.11017	0.29661
1200	5	14.2337	38	0.42073	0.08475	0.32051
1500	4	13.5541	22	0.40678	0.09322	0.27966
1800	0	11.2339	18	0.40678	0.12712	0.35593
2100	0	13.5476	20	0.27119	0.20339	0.42373

THE HOURLY SUMMARY TABLE FOR SEP. 1970

HR	LB	AVG.	VEL.	NTH.	EAST	WEST
2400	0	11.3910	30	0.27717	0.13587	0.47826
0300	0	11.5552	23	0.25543	0.11083	0.43217
0600	0	11.5353	23	0.25543	0.10873	0.36674
0900	0	13.5353	32	0.29391	0.09783	0.36870
1200	0	14.1087	35	0.24261	0.11957	0.32065
1500	0	13.9786	30	0.26630	0.09783	0.39130
1800	0	12.6956	33	0.32009	0.14130	0.36413
2100	0	10.7391	33	0.20000	0.18478	0.36674

THE HOURLY SUMMARY TABLE FOR SEP. 1970

HR	LB	AVG.	VEL.	NTH.	EAST	WEST
2400	0	11.7326	21	0.16304	0.16304	0.59783
0300	0	11.5557	22	0.17391	0.11413	0.57809
0600	0	13.5552	25	0.21730	0.11413	0.53604
0900	0	13.5373	25	0.22226	0.09239	0.55435
1200	4	14.3433	28	0.21196	0.15848	0.54348
1500	0	14.1739	24	0.21196	0.17391	0.53804
1800	0	13.7225	24	0.20709	0.25000	0.48913
2100	0	12.1495	20	0.16304	0.17391	0.48913

THE HOURLY SUMMARY TABLE FOR FALL 1970

HR	LB	AVG.	VEL.	NTH.	EAST	WEST
2400	0	11.3781	29	0.27473	0.09341	0.47802
0300	0	11.2377	28	0.28571	0.11537	0.40659
0600	0	11.7123	27	0.30223	0.09341	0.40119
0900	0	13.5553	28	0.31758	0.05495	0.37363
1200	0	14.7123	30	0.37912	0.06593	0.39011
1500	0	15.4351	33	0.37912	0.08781	0.42308
1800	0	12.3155	32	0.41209	0.12383	0.41758
2100	0	11.3736	31	0.28022	0.15385	0.43407

THE HOURLY SUMMARY TABLE FOR FALL 1971

HR	LB	AVG.	VEL.	NTH.	EAST	WEST
2400	5	11.7934	20	0.14130	0.14674	0.62043
0300	3	11.0326	20	0.15217	0.14674	0.59783
0600	3	10.3306	20	0.17435	0.21196	0.54348
0900	0	12.8192	26	0.16304	0.21739	0.53604
1200	5	13.3268	28	0.15217	0.28261	0.51387
1500	3	13.7052	25	0.11413	0.25000	0.54152
1800	0	13.5769	24	0.13370	0.31522	0.54348
2100	0	10.9347	20	0.16304	0.31522	0.55435

THE HOURLY SUMMARY TABLE FOR FALL 1971

HR	LB	AVG.	VEL.	NTH.	EAST	WEST
2400	0	9.8791	24	0.23377	0.06490	0.51699
0300	0	10.0109	28	0.24725	0.10440	0.51090
0600	0	9.8782	21	0.23377	0.04306	0.47253
0900	0	11.5164	28	0.30769	0.04945	0.42308
1200	0	12.3626	34	0.30769	0.07692	0.40110
1500	0	12.6237	26	0.33220	0.05495	0.46505
1800	0	10.2089	20	0.23626	0.14815	0.48452
2100	0	9.7252	20	0.22527	0.14835	0.50549

YEAR	SPEEDS	EXCESS=	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1972	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
JAN.	0	0	1	1	4	16	9	25	14	28	8	25	10	18	13	14	9	15	1	11	2	3	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	0	0	2	3	9	19	14	30	10	23	12	23	4	8	14	8	9	19	3	8	1	2	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	0	0	1	6	9	16	18	21	5	19	3	19	10	12	26	10	10	26	4	9	2	4	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	0	0	1	7	26	16	28	9	23	10	21	5	15	19	12	7	15	1	3	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	0	0	2	4	10	14	26	14	26	5	27	5	24	5	10	29	7	7	15	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE.	0	0	2	4	10	19	26	18	20	12	22	5	27	10	11	15	4	4	3	1	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY.	0	0	0	2	4	8	24	10	33	6	35	7	23	14	14	12	13	8	9	1	6	2	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	0	0	1	6	18	23	17	32	16	30	7	15	19	13	13	9	3	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	0	0	0	1	6	16	26	15	29	5	23	12	21	5	14	19	14	4	8	3	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	0	0	0	4	4	21	23	14	27	5	25	9	20	5	11	19	12	2	14	1	5	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	0	0	0	3	6	13	26	15	44	8	19	4	15	4	11	3	7	8	14	2	12	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	0	0	0	3	4	13	21	21	34	15	35	2	29	11	7	20	8	3	11	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wind Speed Density

By The Month

Russell

Years

1972

1973

Instrument Height

1972-1973 29 Feet

YEAR	SPEEDS	EXCESS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1973	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35 <td>36</td> <td>37</td> <td>38</td> <td>39</td> <td>40</td>	36	37	38	39	40			
JAN.	0	1	1	4	17	19	10	37	8	36	4	20	4	5	15	7	4	17	1	6	1	3	0	1	0	0	1	0	0	1	0	2	3	0	0	0	0	0	0	0	0	0	0
FEB.	0	0	1	6	7	24	16	29	15	31	6	22	10	14	6	9	6	22	3	4	1	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	0	0	0	3	7	14	5	13	11	13	6	14	14	19	17	16	8	28	3	13	3	10	0	2	3	2	0	0	1	2	1	2	0	0	0	0	0	0	0	0	0	0	0
APR.	0	0	0	1	4	13	5	13	9	33	6	19	6	15	15	19	11	16	2	22	2	11	1	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY	0	0	2	13	18	29	15	23	8	28	2	26	4	5	16	8	4	15	3	10	2	4	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	0	1	1	4	15	17	12	27	15	22	8	26	6	12	16	7	5	17	2	16	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	0	0	0	3	9	13	9	24	14	29	14	31	7	19	20	9	10	16	2	7	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	0	0	1	3	8	13	17	21	9	35	10	20	10	15	29	11	4	13	4	9	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	0	0	0	7	24	42	17	34	13	27	7	18	3	7	13	4	5	10	1	2	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	0	0	5	8	13	15	37	6	36	12	23	4	16	15	7	3	17	1	6	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	0	0	0	6	10	23	16	36	7	39	5	21	6	14	11	14	4	14	0	9	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	0	0	1	6	9	22	7	39	15	31	5	21	2	15	19	8	8	20	2	7	1	5	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

[illegible][illegible][illegible]

MONTH	AVG WTL	AVG WSEL	LEVEL	PROV WTL	PROV WSEL	WTL#1	WSEL#1	WTL#2	WSEL#2	WTL#3	WSEL#3	WTL#4	WSEL#4	WTL#5	WSEL#5	WTL#6	WSEL#6	WTL#7	WSEL#7	WTL#8	WSEL#8	WTL#9	WSEL#9	WTL#10	WSEL#10	WTL#11	WSEL#11	WTL#12	WSEL#12	WTL#13	WSEL#13	WTL#14	WSEL#14	WTL#15	WSEL#15	WTL#16	WSEL#16	WTL#17	WSEL#17	WTL#18	WSEL#18	WTL#19	WSEL#19	WTL#20	WSEL#20	WTL#21	WSEL#21	WTL#22	WSEL#22	WTL#23	WSEL#23	WTL#24	WSEL#24	WTL#25	WSEL#25	WTL#26	WSEL#26	WTL#27	WSEL#27	WTL#28	WSEL#28	WTL#29	WSEL#29	WTL#30	WSEL#30	WTL#31	WSEL#31	WTL#32	WSEL#32	WTL#33	WSEL#33	WTL#34	WSEL#34	WTL#35	WSEL#35	WTL#36	WSEL#36	WTL#37	WSEL#37	WTL#38	WSEL#38	WTL#39	WSEL#39	WTL#40	WSEL#40	WTL#41	WSEL#41	WTL#42	WSEL#42	WTL#43	WSEL#43	WTL#44	WSEL#44	WTL#45	WSEL#45	WTL#46	WSEL#46	WTL#47	WSEL#47	WTL#48	WSEL#48	WTL#49	WSEL#49	WTL#50	WSEL#50	WTL#51	WSEL#51	WTL#52	WSEL#52	WTL#53	WSEL#53	WTL#54	WSEL#54	WTL#55	WSEL#55	WTL#56	WSEL#56	WTL#57	WSEL#57	WTL#58	WSEL#58	WTL#59	WSEL#59	WTL#60	WSEL#60	WTL#61	WSEL#61	WTL#62	WSEL#62	WTL#63	WSEL#63	WTL#64	WSEL#64	WTL#65	WSEL#65	WTL#66	WSEL#66	WTL#67	WSEL#67	WTL#68	WSEL#68	WTL#69	WSEL#69	WTL#70	WSEL#70	WTL#71	WSEL#71	WTL#72	WSEL#72	WTL#73	WSEL#73	WTL#74	WSEL#74	WTL#75	WSEL#75	WTL#76	WSEL#76	WTL#77	WSEL#77	WTL#78	WSEL#78	WTL#79	WSEL#79	WTL#80	WSEL#80	WTL#81	WSEL#81	WTL#82	WSEL#82	WTL#83	WSEL#83	WTL#84	WSEL#84	WTL#85	WSEL#85	WTL#86	WSEL#86	WTL#87	WSEL#87	WTL#88	WSEL#88	WTL#89	WSEL#89	WTL#90	WSEL#90	WTL#91	WSEL#91	WTL#92	WSEL#92	WTL#93	WSEL#93	WTL#94	WSEL#94	WTL#95	WSEL#95	WTL#96	WSEL#96	WTL#97	WSEL#97	WTL#98	WSEL#98	WTL#99	WSEL#99	WTL#100	WSEL#100	WTL#101	WSEL#101	WTL#102	WSEL#102	WTL#103	WSEL#103	WTL#104	WSEL#104	WTL#105	WSEL#105	WTL#106	WSEL#106	WTL#107	WSEL#107	WTL#108	WSEL#108	WTL#109	WSEL#109	WTL#110	WSEL#110	WTL#111	WSEL#111	WTL#112	WSEL#112	WTL#113	WSEL#113	WTL#114	WSEL#114	WTL#115	WSEL#115	WTL#116	WSEL#116	WTL#117	WSEL#117	WTL#118	WSEL#118	WTL#119	WSEL#119	WTL#120	WSEL#120	WTL#121	WSEL#121	WTL#122	WSEL#122	WTL#123	WSEL#123	WTL#124	WSEL#124	WTL#125	WSEL#125	WTL#126	WSEL#126	WTL#127	WSEL#127	WTL#128	WSEL#128	WTL#129	WSEL#129	WTL#130	WSEL#130	WTL#131	WSEL#131	WTL#132	WSEL#132	WTL#133	WSEL#133	WTL#134	WSEL#134	WTL#135	WSEL#135	WTL#136	WSEL#136	WTL#137	WSEL#137	WTL#138	WSEL#138	WTL#139	WSEL#139	WTL#140	WSEL#140	WTL#141	WSEL#141	WTL#142	WSEL#142	WTL#143	WSEL#143	WTL#144	WSEL#144	WTL#145	WSEL#145	WTL#146	WSEL#146	WTL#147	WSEL#147	WTL#148	WSEL#148	WTL#149	WSEL#149	WTL#150	WSEL#150	WTL#151	WSEL#151	WTL#152	WSEL#152	WTL#153	WSEL#153	WTL#154	WSEL#154	WTL#155	WSEL#155	WTL#156	WSEL#156	WTL#157	WSEL#157	WTL#158	WSEL#158	WTL#159	WSEL#159	WTL#160	WSEL#160	WTL#161	WSEL#161	WTL#162	WSEL#162	WTL#163	WSEL#163	WTL#164	WSEL#164	WTL#165	WSEL#165	WTL#166	WSEL#166	WTL#167	WSEL#167	WTL#168	WSEL#168	WTL#169	WSEL#169	WTL#170	WSEL#170	WTL#171	WSEL#171	WTL#172	WSEL#172	WTL#173	WSEL#173	WTL#174	WSEL#174	WTL#175	WSEL#175	WTL#176	WSEL#176	WTL#177	WSEL#177	WTL#178	WSEL#178	WTL#179	WSEL#179	WTL#180	WSEL#180	WTL#181	WSEL#181	WTL#182	WSEL#182	WTL#183	WSEL#183	WTL#184	WSEL#184	WTL#185	WSEL#185	WTL#186	WSEL#186	WTL#187	WSEL#187	WTL#188	WSEL#188	WTL#189	WSEL#189	WTL#190	WSEL#190	WTL#191	WSEL#191	WTL#192	WSEL#192	WTL#193	WSEL#193	WTL#194	WSEL#194	WTL#195	WSEL#195	WTL#196	WSEL#196	WTL#197	WSEL#197	WTL#198	WSEL#198	WTL#199	WSEL#199	WTL#200	WSEL#200	WTL#201	WSEL#201	WTL#202	WSEL#202	WTL#203	WSEL#203	WTL#204	WSEL#204	WTL#205	WSEL#205	WTL#206	WSEL#206	WTL#207	WSEL#207	WTL#208	WSEL#208	WTL#209	WSEL#209	WTL#210	WSEL#210	WTL#211	WSEL#211	WTL#212	WSEL#212	WTL#213	WSEL#213	WTL#214	WSEL#214	WTL#215	WSEL#215	WTL#216	WSEL#216	WTL#217	WSEL#217	WTL#218	WSEL#218	WTL#219	WSEL#219	WTL#220	WSEL#220	WTL#221	WSEL#221	WTL#222	WSEL#222	WTL#223	WSEL#223	WTL#224	WSEL#224	WTL#225	WSEL#225	WTL#226	WSEL#226	WTL#227	WSEL#227	WTL#228	WSEL#228	WTL#229	WSEL#229	WTL#230	WSEL#230	WTL#231	WSEL#231	WTL#232	WSEL#232	WTL#233	WSEL#233	WTL#234	WSEL#234	WTL#235	WSEL#235	WTL#236	WSEL#236	WTL#237	WSEL#237	WTL#238	WSEL#238	WTL#239	WSEL#239	WTL#240	WSEL#240	WTL#241	WSEL#241	WTL#242	WSEL#242	WTL#243	WSEL#243	WTL#244	WSEL#244	WTL#245	WSEL#245	WTL#246	WSEL#246	WTL#247	WSEL#247	WTL#248	WSEL#248	WTL#249	WSEL#249	WTL#250	WSEL#250	WTL#251	WSEL#251	WTL#252	WSEL#252	WTL#253	WSEL#253	WTL#254	WSEL#254	WTL#255	WSEL#255	WTL#256	WSEL#256	WTL#257	WSEL#257	WTL#258	WSEL#258	WTL#259	WSEL#259	WTL#260	WSEL#260	WTL#261	WSEL#261	WTL#262	WSEL#262	WTL#263	WSEL#263	WTL#264	WSEL#264	WTL#265	WSEL#265	WTL#266	WSEL#266	WTL#267	WSEL#267	WTL#268	WSEL#268	WTL#269	WSEL#269	WTL#270	WSEL#270	WTL#271	WSEL#271	WTL#272	WSEL#272	WTL#273	WSEL#273	WTL#274	WSEL#274	WTL#275	WSEL#275	WTL#276	WSEL#276	WTL#277	WSEL#277	WTL#278	WSEL#278	WTL#279	WSEL#279	WTL#280	WSEL#280	WTL#281	WSEL#281	WTL#282	WSEL#282	WTL#283	WSEL#283	WTL#284	WSEL#284	WTL#285	WSEL#285	WTL#286	WSEL#286	WTL#287	WSEL#287	WTL#288	WSEL#288	WTL#289	WSEL#289	WTL#290	WSEL#290	WTL#291	WSEL#291	WTL#292	WSEL#292	WTL#293	WSEL#293	WTL#294	WSEL#294	WTL#295	WSEL#295	WTL#296	WSEL#296	WTL#297	WSEL#297	WTL#298	WSEL#298	WTL#299	WSEL#299	WTL#300	WSEL#300	WTL#301	WSEL#301	WTL#302	WSEL#302	WTL#303	WSEL#303	WTL#304	WSEL#304	WTL#305	WSEL#305	WTL#306	WSEL#306	WTL#307	WSEL#307	WTL#308	WSEL#308	WTL#309	WSEL#309	WTL#310	WSEL#310	WTL#311	WSEL#311	WTL#312	WSEL#312	WTL#313	WSEL#313	WTL#314	WSEL#314	WTL#315	WSEL#315	WTL#316	WSEL#316	WTL#317	WSEL#317	WTL#318	WSEL#318	WTL#319	WSEL#319	WTL#320	WSEL#320	WTL#321	WSEL#321	WTL#322	WSEL#322	WTL#323	WSEL#323	WTL#324	WSEL#324	WTL#325	WSEL#325	WTL#326	WSEL#326	WTL#327	WSEL#327	WTL#328	WSEL#328	WTL#329	WSEL#329	WTL#330	WSEL#330	WTL#331	WSEL#331	WTL#332	WSEL#332	WTL#333	WSEL#333	WTL#334	WSEL#334	WTL#335	WSEL#335	WTL#336	WSEL#336	WTL#337	WSEL#337	WTL#338	WSEL#338	WTL#339	WSEL#339	WTL#340	WSEL#340	WTL#341	WSEL#341	WTL#342	WSEL#342	WTL#343	WSEL#343	WTL#344	WSEL#344	WTL#345	WSEL#345	WTL#346	WSEL#346	WTL#347	WSEL#347	WTL#348	WSEL#348	WTL#349	WSEL#349	WTL#350	WSEL#350	WTL#351	WSEL#351	WTL#352	WSEL#352	WTL#353	WSEL#353	WTL#354	WSEL#354	WTL#355	WSEL#355	WTL#356	WSEL#356	WTL#357	WSEL#357	WTL#358	WSEL#358	WTL#359	WSEL#359	WTL#360	WSEL#360	WTL#361	WSEL#361	WTL#362	WSEL#362	WTL#363	WSEL#363	WTL#364	WSEL#364	WTL#365	WSEL#365	WTL#366	WSEL#366	WTL#367	WSEL#367	WTL#368	WSEL#368	WTL#369	WSEL#369	WTL#370	WSEL#370	WTL#371	WSEL#371	WTL#372	WSEL#372	WTL#373	WSEL#373	WTL#374	WSEL#374	WTL#375	WSEL#375	WTL#376	WSEL#376	WTL#377	WSEL#377	WTL#378	WSEL#378	WTL#379	WSEL#379	WTL#380	WSEL#380	WTL#381	WSEL#381	WTL#382	WSEL#382	WTL#383	WSEL#383	WTL#384	WSEL#384	WTL#385	WSEL#385	WTL#386	WSEL#386	WTL#387	WSEL#387	WTL#388	WSEL#388	WTL#389	WSEL#389	WTL#390	WSEL#390	WTL#391	WSEL#391	WTL#392	WSEL#392	WTL#393	WSEL#393	WTL#394	WSEL#394	WTL#395	WSEL#395	WTL#396	WSEL#396	WTL#397	WSEL#397	WTL#398	WSEL#398	WTL#399	WSEL#399	WTL#400	WSEL#400	WTL#401	WSEL#401	WTL#402	WSEL#402	WTL#403	WSEL#403	WTL#404	WSEL#404	WTL#405	WSEL#405	WTL#406	WSEL#406	WTL#407	WSEL#407	WTL#408	WSEL#408	WTL#409	WSEL#409	WTL#410	WSEL#410	WTL#411	WSEL#411	WTL#412	WSEL#412	WTL#413	WSEL#413	WTL#414	WSEL#414	WTL#415	WSEL#415	WTL#416	WSEL#416	WTL#417	WSEL#417	WTL#418	WSEL#418	WTL#419	WSEL#419	WTL#420	WSEL#420	WTL#421	WSEL#421	WTL#422	WSEL#422	WTL#423	WSEL#423	WTL#424	WSEL#424	WTL#425	WSEL#425	WTL#426	WSEL#426	WTL#427	WSEL#427	WTL#428	WSEL#428	WTL#429	WSEL#429	WTL#430	WSEL#430	WTL#431	WSEL#431	WTL#432	WSEL#432	WTL#433	WSEL#433	WTL#434	WSEL#434	WTL#435	WSEL#435	WTL#436	WSEL#436	WTL#437	WSEL#437	WTL#438	WSEL#438	WTL#439	WSEL#439	WTL#440	WSEL#440	WTL#441	WSEL#441	WTL#442	WSEL#442	WTL#443	WSEL#443	WTL#444	WSEL#444	WTL#445	WSEL#445	WTL#446	WSEL#446	WTL#447	WSEL#447	WTL#448	WSEL#448	WTL#449	WSEL#449	WTL#450	WSEL#450	WTL#451	WSEL#451	WTL#452	WSEL#452	WTL#453	WSEL#453	WTL#454	WSEL#454	WTL#455	WSEL#455	WTL#456	WSEL#456	WTL#457	WSEL#457	WTL#458	WSEL#458	WTL#459	WSEL#459	WTL#460	WSEL#460	WTL#461	WSEL#461	WTL#462	WSEL#462	WTL#463	WSEL#463	WTL#464	WSEL#464	WTL#465	WSEL#465	WTL#466	WSEL#466	WTL#467	WSEL#467	WTL#468	WSEL#468	WTL#469	WSEL#469	WTL#470	WSEL#470	WTL#471	WSEL#471	WTL#472	WSEL#472	WTL#473	WSEL#473	WTL#474	WSEL#474	WTL#475	WSEL#475	WTL#476	WSEL#476	WTL#477	WSEL#477	WTL#478	WSEL#478	WTL#479	WSEL#479	WTL#480	WSEL#480	WTL#481	WSEL#481	WTL#482	WSEL#482	WTL#483	WSEL#483	WTL#484	WSEL#484	WTL#485	WSEL#485	WTL#486	WSEL#486	WTL#487	WSEL#487	WTL#488	WSEL#488	WTL#489	WSEL#489	WTL#490	WSEL#490	WTL#491	WSEL#491	WTL#492	WSEL#492	WTL#493	WSEL#493	WTL#494	WSEL#494	WTL#495	WSEL#495	WTL#496	WSEL#496	WTL#497	WSEL#497	WTL#498	WSEL#498	WTL#499	WSEL#499	WTL#500	WSEL#500	WTL#501	WSEL#501	WTL#502	WSEL#502	WTL#503	WSEL#503	WTL#504	WSEL#504	WTL#505	WSEL#505	WTL#506	WSEL#506	WTL#507	WSEL#507	WTL#508	WSEL#508	WTL#509	WSEL#509	WTL#510	WSEL#510	WTL#511	WSEL#511	WTL#512	WSEL#512	WTL#513	WSEL#513	WTL#514	WSEL#514	WTL#515	WSEL#515	WTL#516	WSEL#516	WTL#517	WSEL#517	WTL#518	WSEL#518	WTL#519	WSEL#519	WTL#520	WSEL#520	WTL#521	WSEL#521	WTL#522	WSEL#522	WTL#523	WSEL#523	WTL#524	WSEL#524	WTL#525	WSEL#525	WTL#526	WSEL#526	WTL#527	WSEL#527	WTL#528	WSEL#528	WTL#529	WSEL#529	WTL#530	WSEL#530	WTL#531	WSEL#531	WTL#532	WSEL#532	WTL#533	WSEL#533	WTL#534	WSEL#534	WTL#535	WSEL#535	WTL#536	WSEL#536	WTL#537	WSEL#537	WTL#538	WSEL#538	WTL#539	WSEL#539	WTL#540	WSEL#540	WTL#541	WSEL#541	WTL#542	WSEL#542	WTL#543	WSEL#543	WTL#544	WSEL#544	WTL#545	WSEL#545	WTL#546	WSEL#546	WTL#547	WSEL#547	WTL#548	WSEL#548	WTL#549	WSEL#549	WTL#550	WSEL#550	WTL#551	WSEL#551	WTL#552	WSEL#552	WTL#553	WSEL#553	WTL#554	WSEL#554	WTL#555	WSEL#555	WTL#556	WSEL#556	WTL#557	WSEL#557	WTL#558	WSEL#558	WTL#559	WSEL#559	WTL#560	WSEL#560	WTL#561	WSEL#561	WTL#562	WSEL#562	WTL#563	WSEL#563	WTL#564	WSEL#564	WTL#565	WSEL#565	WTL#566	WSEL#566	WTL#567	WSEL#567	WTL#568	WSEL#568	WTL#569	WSEL#569	WTL#570	WSEL#570	WTL#571
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[illegible][illegible]

NAME	AVG40	AVG60	AVG80	AVG100	AVG120	AVG140	AVG160	AVG180	AVG200	AVG220	AVG240	AVG260	AVG280	AVG300	AVG320	AVG340	AVG360	AVG380	AVG400	AVG420	AVG440	AVG460	AVG480	AVG500	AVG520	AVG540	AVG560	AVG580	AVG600	AVG620	AVG640	AVG660	AVG680	AVG700	AVG720	AVG740	AVG760	AVG780	AVG800	AVG820	AVG840	AVG860	AVG880	AVG900	AVG920	AVG940	AVG960	AVG980	AVG1000	AVG1020	AVG1040	AVG1060	AVG1080	AVG1100	AVG1120	AVG1140	AVG1160	AVG1180	AVG1200	AVG1220	AVG1240	AVG1260	AVG1280	AVG1300	AVG1320	AVG1340	AVG1360	AVG1380	AVG1400	AVG1420	AVG1440	AVG1460	AVG1480	AVG1500	AVG1520	AVG1540	AVG1560	AVG1580	AVG1600	AVG1620	AVG1640	AVG1660	AVG1680	AVG1700	AVG1720	AVG1740	AVG1760	AVG1780	AVG1800	AVG1820	AVG1840	AVG1860	AVG1880	AVG1900	AVG1920	AVG1940	AVG1960	AVG1980	AVG2000	AVG2020	AVG2040	AVG2060	AVG2080	AVG2100	AVG2120	AVG2140	AVG2160	AVG2180	AVG2200	AVG2220	AVG2240	AVG2260	AVG2280	AVG2300	AVG2320	AVG2340	AVG2360	AVG2380	AVG2400	AVG2420	AVG2440	AVG2460	AVG2480	AVG2500	AVG2520	AVG2540	AVG2560	AVG2580	AVG2600	AVG2620	AVG2640	AVG2660	AVG2680	AVG2700	AVG2720	AVG2740	AVG2760	AVG2780	AVG2800	AVG2820	AVG2840	AVG2860	AVG2880	AVG2900	AVG2920	AVG2940	AVG2960	AVG2980	AVG3000	AVG3020	AVG3040	AVG3060	AVG3080	AVG3100	AVG3120	AVG3140	AVG3160	AVG3180	AVG3200	AVG3220	AVG3240	AVG3260	AVG3280	AVG3300	AVG3320	AVG3340	AVG3360	AVG3380	AVG3400	AVG3420	AVG3440	AVG3460	AVG3480	AVG3500	AVG3520	AVG3540	AVG3560	AVG3580	AVG3600	AVG3620	AVG3640	AVG3660	AVG3680	AVG3700	AVG3720	AVG3740	AVG3760	AVG3780	AVG3800	AVG3820	AVG3840	AVG3860	AVG3880	AVG3900	AVG3920	AVG3940	AVG3960	AVG3980	AVG4000	AVG4020	AVG4040	AVG4060	AVG4080	AVG4100	AVG4120	AVG4140	AVG4160	AVG4180	AVG4200	AVG4220	AVG4240	AVG4260	AVG4280	AVG4300	AVG4320	AVG4340	AVG4360	AVG4380	AVG4400	AVG4420	AVG4440	AVG4460	AVG4480	AVG4500	AVG4520	AVG4540	AVG4560	AVG4580	AVG4600	AVG4620	AVG4640	AVG4660	AVG4680	AVG4700	AVG4720	AVG4740	AVG4760	AVG4780	AVG4800	AVG4820	AVG4840	AVG4860	AVG4880	AVG4900	AVG4920	AVG4940	AVG4960	AVG4980	AVG5000	AVG5020	AVG5040	AVG5060	AVG5080	AVG5100	AVG5120	AVG5140	AVG5160	AVG5180	AVG5200	AVG5220	AVG5240	AVG5260	AVG5280	AVG5300	AVG5320	AVG5340	AVG5360	AVG5380	AVG5400	AVG5420	AVG5440	AVG5460	AVG5480	AVG5500	AVG5520	AVG5540	AVG5560	AVG5580	AVG5600	AVG5620	AVG5640	AVG5660	AVG5680	AVG5700	AVG5720	AVG5740	AVG5760	AVG5780	AVG5800	AVG5820	AVG5840	AVG5860	AVG5880	AVG5900	AVG5920	AVG5940	AVG5960	AVG5980	AVG6000	AVG6020	AVG6040	AVG6060	AVG6080	AVG6100	AVG6120	AVG6140	AVG6160	AVG6180	AVG6200	AVG6220	AVG6240	AVG6260	AVG6280	AVG6300	AVG6320	AVG6340	AVG6360	AVG6380	AVG6400	AVG6420	AVG6440	AVG6460	AVG6480	AVG6500	AVG6520	AVG6540	AVG6560	AVG6580	AVG6600	AVG6620	AVG6640	AVG6660	AVG6680	AVG6700	AVG6720	AVG6740	AVG6760	AVG6780	AVG6800	AVG6820	AVG6840	AVG6860	AVG6880	AVG6900	AVG6920	AVG6940	AVG6960	AVG6980	AVG7000	AVG7020	AVG7040	AVG7060	AVG7080	AVG7100	AVG7120	AVG7140	AVG7160	AVG7180	AVG7200	AVG7220	AVG7240	AVG7260	AVG7280	AVG7300	AVG7320	AVG7340	AVG7360	AVG7380	AVG7400	AVG7420	AVG7440	AVG7460	AVG7480	AVG7500	AVG7520	AVG7540	AVG7560	AVG7580	AVG7600	AVG7620	AVG7640	AVG7660	AVG7680	AVG7700	AVG7720	AVG7740	AVG7760	AVG7780	AVG7800	AVG7820	AVG7840	AVG7860	AVG7880	AVG7900	AVG7920	AVG7940	AVG7960	AVG7980	AVG8000	AVG8020	AVG8040	AVG8060	AVG8080	AVG8100	AVG8120	AVG8140	AVG8160	AVG8180	AVG8200	AVG8220	AVG8240	AVG8260	AVG8280	AVG8300	AVG8320	AVG8340	AVG8360	AVG8380	AVG8400	AVG8420	AVG8440	AVG8460	AVG8480	AVG8500	AVG8520	AVG8540	AVG8560	AVG8580	AVG8600	AVG8620	AVG8640	AVG8660	AVG8680	AVG8700	AVG8720	AVG8740	AVG8760	AVG8780	AVG8800	AVG8820	AVG8840	AVG8860	AVG8880	AVG8900	AVG8920	AVG8940	AVG8960	AVG8980	AVG9000	AVG9020	AVG9040	AVG9060	AVG9080	AVG9100	AVG9120	AVG9140	AVG9160	AVG9180	AVG9200	AVG9220	AVG9240	AVG9260	AVG9280	AVG9300	AVG9320	AVG9340	AVG9360	AVG9380	AVG9400	AVG9420	AVG9440	AVG9460	AVG9480	AVG9500	AVG9520	AVG9540	AVG9560	AVG9580	AVG9600	AVG9620	AVG9640	AVG9660	AVG9680	AVG9700	AVG9720	AVG9740	AVG9760	AVG9780	AVG9800	AVG9820	AVG9840	AVG9860	AVG9880	AVG9900	AVG9920	AVG9940	AVG9960	AVG9980	AVG10000
AVG40	AVG60	AVG80	AVG100	AVG120	AVG140	AVG160	AVG180	AVG200	AVG220	AVG240	AVG260	AVG280	AVG300	AVG320	AVG340	AVG360	AVG380	AVG400	AVG420	AVG440	AVG460	AVG480	AVG500	AVG520	AVG540	AVG560	AVG580	AVG600	AVG620	AVG640	AVG660	AVG680	AVG700	AVG720	AVG740	AVG760	AVG780	AVG800	AVG820	AVG840	AVG860	AVG880	AVG900	AVG920	AVG940	AVG960	AVG980	AVG1000	AVG1020	AVG1040	AVG1060	AVG1080	AVG1100	AVG1120	AVG1140	AVG1160	AVG1180	AVG1200	AVG1220	AVG1240	AVG1260	AVG1280	AVG1300	AVG1320	AVG1340	AVG1360	AVG1380	AVG1400	AVG1420	AVG1440	AVG1460	AVG1480	AVG1500	AVG1520	AVG1540	AVG1560	AVG1580	AVG1600	AVG1620	AVG1640	AVG1660	AVG1680	AVG1700	AVG1720	AVG1740	AVG1760	AVG1780	AVG1800	AVG1820	AVG1840	AVG1860	AVG1880	AVG1900	AVG1920	AVG1940	AVG1960	AVG1980	AVG2000	AVG2020	AVG2040	AVG2060	AVG2080	AVG2100	AVG2120	AVG2140	AVG2160	AVG2180	AVG2200	AVG2220	AVG2240	AVG2260	AVG2280	AVG2300	AVG2320	AVG2340	AVG2360	AVG2380	AVG2400	AVG2420	AVG2440	AVG2460	AVG2480	AVG2500	AVG2520	AVG2540	AVG2560	AVG2580	AVG2600	AVG2620	AVG2640	AVG2660	AVG2680	AVG2700	AVG2720	AVG2740	AVG2760	AVG2780	AVG2800	AVG2820	AVG2840	AVG2860	AVG2880	AVG2900	AVG2920	AVG2940	AVG2960	AVG2980	AVG3000	AVG3020	AVG3040	AVG3060	AVG3080	AVG3100	AVG3120	AVG3140	AVG3160	AVG3180	AVG3200	AVG3220	AVG3240	AVG3260	AVG3280	AVG3300	AVG3320	AVG3340	AVG3360	AVG3380	AVG3400	AVG3420	AVG3440	AVG3460	AVG3480	AVG3500	AVG3520	AVG3540	AVG3560	AVG3580	AVG3600	AVG3620	AVG3640	AVG3660	AVG3680	AVG3700	AVG3720	AVG3740	AVG3760	AVG3780	AVG3800	AVG3820	AVG3840	AVG3860	AVG3880	AVG3900	AVG3920	AVG3940	AVG3960	AVG3980	AVG4000	AVG4020	AVG4040	AVG4060	AVG4080	AVG4100	AVG4120	AVG4140	AVG4160	AVG4180	AVG4200	AVG4220	AVG4240	AVG4260	AVG4280	AVG4300	AVG4320	AVG4340	AVG4360	AVG4380	AVG4400	AVG4420	AVG4440	AVG4460	AVG4480	AVG4500	AVG4520	AVG4540	AVG4560	AVG4580	AVG4600	AVG4620	AVG4640	AVG4660	AVG4680	AVG4700	AVG4720	AVG4740	AVG4760	AVG4780	AVG4800	AVG4820	AVG4840	AVG4860	AVG4880	AVG4900	AVG4920	AVG4940	AVG4960	AVG4980	AVG5000	AVG5020	AVG5040	AVG5060	AVG5080	AVG5100	AVG5120	AVG5140	AVG5160	AVG5180	AVG5200	AVG5220	AVG5240	AVG5260	AVG5280	AVG5300	AVG5320	AVG5340	AVG5360	AVG5380	AVG5400	AVG5420	AVG5440	AVG5460	AVG5480	AVG5500	AVG5520	AVG5540	AVG5560	AVG5580	AVG5600	AVG5620	AVG5640	AVG5660	AVG5680	AVG5700	AVG5720	AVG5740	AVG5760	AVG5780	AVG5800	AVG5820	AVG5840	AVG5860	AVG5880	AVG5900	AVG5920	AVG5940	AVG5960	AVG5980	AVG6000	AVG6020	AVG6040	AVG6060	AVG6080	AVG6100	AVG6120	AVG6140	AVG6160	AVG6180	AVG6200	AVG6220	AVG6240	AVG6260	AVG6280	AVG6300	AVG6320	AVG6340	AVG6360	AVG6380	AVG6400	AVG6420	AVG6440	AVG6460	AVG6480	AVG6500	AVG6520	AVG6540	AVG6560	AVG6580	AVG6600	AVG6620	AVG6640	AVG6660	AVG6680	AVG6700	AVG6720	AVG6740	AVG6760	AVG6780	AVG6800	AVG6820	AVG6840	AVG6860	AVG6880	AVG6900	AVG6920	AVG6940	AVG6960	AVG6980	AVG7000	AVG7020	AVG7040	AVG7060	AVG7080	AVG7100	AVG7120	AVG7140	AVG7160	AVG7180	AVG7200	AVG7220	AVG7240	AVG7260	AVG7280	AVG7300	AVG7320	AVG7340	AVG7360	AVG7380	AVG7400	AVG7420	AVG7440	AVG7460	AVG7480	AVG7500	AVG7520	AVG7540	AVG7560	AVG7580	AVG7600	AVG7620	AVG7640	AVG7660	AVG7680	AVG7700	AVG7720	AVG7740	AVG7760	AVG7780	AVG7800	AVG7820	AVG7840	AVG7860	AVG7880	AVG7900	AVG7920	AVG7940	AVG7960	AVG7980	AVG8000	AVG8020	AVG8040	AVG8060	AVG8080	AVG8100	AVG8120	AVG8140	AVG8160	AVG8180	AVG8200	AVG8220	AVG8240	AVG8260	AVG8280	AVG8300	AVG8320	AVG8340	AVG8360	AVG8380	AVG8400	AVG8420	AVG8440	AVG8460	AVG8480	AVG8500	AVG8520	AVG8540	AVG8560	AVG8580	AVG8600	AVG8620	AVG8640	AVG8660	AVG8680	AVG8700	AVG8720	AVG8740	AVG8760	AVG8780	AVG8800	AVG8820	AVG8840	AVG8860	AVG8880	AVG8900	AVG8920	AVG8940	AVG8960	AVG8980	AVG9000	AVG9020	AVG9040	AVG9060	AVG9080	AVG9100	AVG9120	AVG9140	AVG9160	AVG9180	AVG9200	AVG9220	AVG9240	AVG9260	AVG9280	AVG9300	AVG9320	AVG9340	AVG9360	AVG9380	AVG9400	AVG9420	AVG9440	AVG9460	AVG9480	AVG9500	AVG9520	AVG9540	AVG9560	AVG9580	AVG9600	AVG9620	AVG9640	AVG9660	AVG9680	AVG9700	AVG9720	AVG9740	AVG9760	AVG9780	AVG9800	AVG9820	AVG9840	AVG9860	AVG9880	AVG9900	AVG9920	AVG9940	AVG9960	AVG9980	AVG10000	
10.78	12.70	13.12	13.24	13.51	13.57	13.67	13.74	13.80	13.84	13.87	13.90	13.93	13.95	13.97	13.99	14.00	14.01	14.02	14.03	14.04	14.05	14.06	14.07	14.08	14.09	14.10	14.11	14.12	14.13	14.14	14.15	14.16	14.17	14.18	14.19	14.20	14.21	14.22	14.23	14.24	14.25	14.26	14.27	14.28	14.29	14.30	14.31	14.32	14.33	14.34	14.35	14.36	14.37	14.38	14.39	14.40	14.41	14.42	14.43	14.44	14.45	14.46	14.47	14.48	14.49	14.50	14.51	14.52	14.53	14.54	14.55	14.56	14.57	14.58	14.59	14.60	14.61	14.62	14.63	14.64	14.65	14.66	14.67	14.68	14.69	14.70	14.71	14.72	14.73	14.74	14.75	14.76	14.77	14.78	14.79	14.80	14.81	14.82	14.83	14.84	14.85	14.86	14.87	14.88	14.89	14.90	14.91	14.92	14.93	14.94	14.95	14.96	14.97	14.98	14.99	15.00	15.01	15.02	15.03	15.04	15.05	15.06	15.07	15.08	15.09	15.10	15.11	15.12	15.13	15.14	15.15	15.16	15.17	15.18	15.19	15.20	15.21	15.22	15.23	15.24	15.25	15.26	15.27	15.28	15.29	15.30	15.31	15.32</																																																																																																																																																																																																																																																																																																																																																															

MONTH	ANVVEL	ANVVEL	ANVVEL	ANVVEL	WINDT	WINDT	WINDT	SPD	SPD	SPD	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	11.40	14.55	17.32	16.93	44.48	28.82	34.02	47.21	0.0	41.41	RUSSELL KANSAS
FEB.	13.10	16.40	13.62	12.26	42.63	31.19	43.54	42.67	0.0	46.11	RUSSELL COUNTY
MAR.	10.32	13.24	11.78	14.79	33.76	20.97	34.00	49.87	0.0	35.85	CORRECTED HT. 100 FT.
APR.	11.43	14.47	11.58	16.75	42.97	26.35	37.69	45.15	0.0	39.60	INSTRUMENT HT. 29 FT.
MAY.	10.10	13.01	11.40	14.40	34.20	20.13	31.55	40.81	0.0	35.81	PEAK LIMIT IS 14 KNOTS.
JUNE	11.44	14.74	13.44	16.67	45.73	21.61	39.76	47.55	0.0	41.71	PEAK. 11M. IS 78KTS.
JULY	14.53	13.49	12.01	16.14	31.10	22.12	34.51	41.33	0.0	36.56	CODE=1 COR. HT. 30K MPH.
AUG.	9.18	11.61	11.76	17.61	32.03	18.34	21.14	33.43	0.0	29.79	CODE=2 TPG. HT. PER
SEP.	11.59	14.79	11.78	16.72	65.74	20.99	40.12	44.04	0.0	42.16	UNIT AREA KWH/M**2
OCT.	9.21	11.92	11.43	13.67	22.74	17.37	28.73	34.67	0.0	30.12	CODE=3 COR.HT. PER.
NOV.	10.16	13.41	11.97	15.00	34.00	21.40	34.17	40.05	0.0	35.02	UNIT AREA KWH/M**2
DEC.	9.24	12.64	11.19	12.74	31.19	14.66	27.97	33.71	0.0	29.55	WIND SPEEDS ARE IN KNOTS.
TOTALS	10.48	13.43	12.84	15.60	40.21	20.75	42.20	507.00	0.0	44.15	

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WITH	AVGVEL	AVGVEL	AVGVEL	AVGVEL	VGUSED	VGUSED	VGUSED	ERDA	ERDA	ERDA	INFORMATION	1963
OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3			
JAN.	10.43	13.29	13.70	15.86	37.12	23.33	32.56	34.75	0.0	33.90	RUSSELL KANSAS	
FEB.	10.45	13.22	14.33	15.33	39.51	23.14	34.57	31.56	0.0	36.45	RUSSELL COUNTY	
MAR.	12.27	15.53	13.85	13.16	40.11	30.91	43.44	48.10	3.0	42.19	CORRECTED HT. 100 FT.	
APR.	11.83	15.02	13.30	17.26	46.37	23.69	43.07	48.43	3.0	42.43	1ST INSTRUMENT HT. 29 FT.	
MAY.	12.44	15.41	10.32	17.67	49.95	32.42	42.81	52.50	0.0	46.05	PEAK LIMIT IS 16 KNTS.	
JUNE	14.50	17.93	10.51	16.21	33.49	41.24	21.27	57.93	0.0	53.40	PEAK LIM. IS 7KNTS.	
JULY	13.09	16.46	16.31	17.76	33.61	55.67	47.53	50.22	0.0	49.31	CODE=1 COR. HT. BULK WND.	
AUG.	12.14	15.37	13.55	16.45	47.37	29.40	41.55	49.71	0.0	43.69	CODE=2 WND. HT. PER	
SEP.	11.53	14.60	13.13	16.34	54.14	27.81	39.13	46.93	0.0	41.17	UNIT AREA WNDWIND*2	
OCT.	11.73	14.26	11.73	16.46	57.66	27.32	41.30	50.63	0.0	44.41	CODE=3 CORHT. **2	
NOV.	11.45	14.40	13.42	16.60	44.16	27.50	39.63	45.67	0.0	43.33	UNIT AREA WNDWIND*2	
DEC.	13.44	15.59	13.00	17.39	44.86	26.63	42.68	51.49	0.0	45.03	WIND SPEEDS ARE IN KNOTS.	
AVER.	12.40	15.20	13.33	17.11	40.54	33.05	44.29	51.72	0.0	51.91		

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MONTH	AVERAGE		LOWEST		HIGHEST		VELOCITY			WINDY	TEMP.	HDD.	DESCRIPTION	1972
	NO.	HT.	NO.	HT.	NO.	HT.	COM-1	COM-2	COM-3					
JAN.	17.13	19.79	14.12	17.41	22.11	28.69	21.11	29.59	0.00	43.66	RUSSELL KANSAS			
FEB.	11.79	18.29	13.73	18.98	21.15	26.81	26.03	33.19	0.00	37.21	RUSSELL TENNESSEE			
MAR.	17.11	19.29	13.13	17.99	26.59	30.73	29.79	38.11	0.00	42.20	COM-2 100 FT. 100 FT.			
APR.	10.92	13.76	13.39	16.19	21.29	26.51	26.43	32.15	0.00	36.97	INSTANT HT. 29 FT.			
MAY.	9.77	13.59	11.99	16.51	26.99	29.21	31.83	37.33	0.00	32.53	PEAK LIMIT IS 16 KNOTS.			
JUNE	9.09	11.65	11.71	13.82	22.53	26.76	28.49	34.03	0.00	29.46	PEAK L. 15. 78 KNOTS.			
JULY	10.85	13.91	11.72	15.36	21.19	26.22	26.13	31.25	0.00	37.64	COM-1 COM-2. SURK 800.			
AUG.	9.39	12.13	11.07	13.98	22.27	26.40	31.03	35.95	0.00	31.93	COM-2 0RG. HT. PER			
SEP.	9.99	12.73	11.98	16.29	23.07	21.99	32.82	34.77	0.00	34.36	UNIT AREA 800/800.			
OCT.	10.06	12.83	12.43	15.35	26.96	22.19	32.60	39.70	0.00	33.76	COM-3 COM-1. PER.			
NOV.	10.00	13.75	12.61	16.61	24.65	11.12	30.39	35.82	0.00	31.42	UNIT AREA 800/800.			
DEC.	13.62	13.67	11.95	16.01	21.55	11.57	36.68	41.57	0.00	36.50	WIND SPEEDS ARE IN KNOTS.			
SUMS	10.90	13.39	12.61	15.63	207.08	276.41	239.68	334.69	0.00	428.56				

MNTHT	AVGVEL	AVGVEL	RMVVEL	RMVVEL	VCURVED	VCURVED	VCURVED	ERD1	ERD1	ERD1	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	10.45	13.35	12.76	15.79	38.76	21.37	21.34	14.64	0.00	13.89	RUSSELL KANSAS
FEB.	10.86	13.34	12.71	15.81	37.56	23.69	25.84	42.57	0.00	17.34	RUSSELL COUNTY
MAR.	13.38	17.26	16.19	19.70	62.50	38.33	44.13	44.54	0.00	47.84	CORRECTED HT. 130 FT.
APR.	13.80	17.21	15.60	18.12	53.24	35.83	46.70	55.83	0.00	46.95	INSTANTANEOUS HT. 29 FT.
MAY.	10.41	13.25	13.91	16.05	30.48	20.32	22.30	38.13	0.00	22.44	PEAK LIMIT IS 16 KNTS.
JUNE	11.44	14.40	13.51	16.71	42.34	25.29	37.31	44.70	0.00	35.21	FRICT. LIM. IS 7KNTS.
JULY	11.68	14.83	13.05	16.29	45.53	27.45	40.87	49.65	0.00	43.37	CODE=1 COR. HT. BULK MWH.
AUG.	11.52	14.63	13.00	16.21	45.19	27.15	39.64	47.52	0.00	41.68	CODE=2 DPG. HT. PER
SEP.	9.38	12.12	11.19	14.26	31.53	16.61	27.65	32.72	0.00	29.70	UNIT AREA KWH/MH=2
OCT.	10.65	13.60	12.31	15.39	43.39	22.92	36.16	42.37	0.00	37.17	CODE=3 COR. HT. PER.
NOV.	10.32	13.19	12.24	15.28	38.21	22.15	36.52	40.10	0.00	35.17	UNIT AREA KWH/MH=2
DEC.	11.96	15.16	13.61	16.35	49.15	27.56	39.72	46.33	0.00	40.61	WIND SPEEDS ARE IN KNOTS.
SUM15	11.36	14.41	13.40	16.54	507.94	311.73	445.52	512.33	0.00	467.36	

APPENDIX E

TABLES

Wichita

JAN 1948 - DEC 1952

JAN 1954 - DEC 1973

DIR	00--06	07--10	11--16	17--21	22--00	SUMS
N	0.017	0.023	0.028	0.015	0.034	0.035
NNE	0.010	0.023	0.028	0.009	0.033	0.032
NE	0.009	0.022	0.020	0.004	0.0	0.030
ENE	0.007	0.016	0.014	0.003	0.0	0.028
E	0.004	0.017	0.011	0.003	0.0	0.023
ESE	0.014	0.016	0.012	0.003	0.009	0.034
SE	0.016	0.030	0.022	0.006	0.031	0.034
SSE	0.013	0.037	0.047	0.023	0.032	0.123
S	0.016	0.037	0.063	0.029	0.035	0.151
SSW	0.015	0.015	0.026	0.013	0.004	0.035
SW	0.016	0.011	0.010	0.003	0.0	0.013
WSW	0.007	0.006	0.003	0.001	0.001	0.012
W	0.005	0.004	0.003	0.001	0.001	0.011
WNW	0.014	0.014	0.007	0.001	0.003	0.033
NW	0.014	0.015	0.008	0.002	0.004	0.031
NNW	0.013	0.026	0.017	0.013	0.007	0.037
CALM	0.023	0.0	0.0	0.0	0.0	0.023
SUMS	0.211	0.310	0.316	0.127	0.302	

DIR	00--06	07--10	11--16	17--21	22--00	SUMS
N	0.009	0.014	0.023	0.012	0.015	0.031
NNE	0.008	0.016	0.030	0.013	0.009	0.032
NE	0.013	0.015	0.010	0.002	0.001	0.037
ENE	0.010	0.015	0.013	0.001	0.000	0.039
E	0.011	0.008	0.006	0.001	0.0	0.037
ESE	0.010	0.014	0.016	0.003	0.0	0.044
SE	0.019	0.028	0.019	0.004	0.002	0.073
SSE	0.015	0.040	0.063	0.024	0.004	0.180
S	0.010	0.032	0.063	0.033	0.025	0.181
SSW	0.010	0.017	0.021	0.013	0.003	0.054
SW	0.009	0.017	0.004	0.001	0.0	0.033
WSW	0.009	0.007	0.006	0.002	0.0	0.033
W	0.005	0.004	0.003	0.001	0.0	0.014
WNW	0.006	0.012	0.007	0.003	0.002	0.033
NW	0.009	0.013	0.008	0.007	0.005	0.042
NNW	0.010	0.011	0.020	0.016	0.017	0.077
CALM	0.024	0.0	0.0	0.0	0.0	0.024
SUMS	0.184	0.250	0.315	0.164	0.041	

DIR	00--06	07--10	11--16	17--21	22--00	SUMS
N	0.012	0.025	0.027	0.014	0.003	0.051
NNE	0.009	0.017	0.020	0.010	0.002	0.043
NE	0.009	0.014	0.013	0.003	0.0	0.033
ENE	0.009	0.012	0.013	0.003	0.003	0.037
E	0.011	0.014	0.010	0.001	0.000	0.036
ESE	0.009	0.016	0.014	0.004	0.001	0.047
SE	0.012	0.028	0.019	0.006	0.001	0.062
SSE	0.015	0.042	0.042	0.015	0.002	0.117
S	0.018	0.045	0.065	0.047	0.012	0.172
SSW	0.008	0.021	0.029	0.016	0.003	0.077
SW	0.007	0.004	0.004	0.001	0.001	0.021
WSW	0.005	0.003	0.005	0.003	0.0	0.022
W	0.007	0.006	0.002	0.0	0.0	0.015
WNW	0.009	0.011	0.007	0.002	0.002	0.037
NW	0.011	0.017	0.012	0.005	0.014	0.047
NNW	0.009	0.019	0.029	0.017	0.015	0.055
CALM	0.019	0.0	0.0	0.0	0.0	0.019
SUMS	0.178	0.305	0.312	0.143	0.050	

Bivariate Distribution

Wichita

Years

1955 1958

1956 1959

1957 1960

Instrument Height

1955-1960 32 Feet

DIR	00--06	07--10	11--16	17--21	22--00	SUMS
N	0.009	0.016	0.028	0.015	0.011	0.078
NNE	0.008	0.013	0.017	0.005	0.002	0.045
NE	0.012	0.015	0.011	0.004	0.000	0.041
ENE	0.009	0.013	0.012	0.004	0.000	0.040
E	0.011	0.014	0.001	0.001	0.0	0.033
ESE	0.011	0.021	0.019	0.004	0.001	0.056
SE	0.015	0.024	0.030	0.005	0.001	0.075
SSE	0.015	0.035	0.041	0.019	0.010	0.118
S	0.012	0.035	0.070	0.055	0.019	0.193
SSW	0.011	0.018	0.026	0.016	0.004	0.081
SW	0.009	0.010	0.009	0.003	0.001	0.029
WSW	0.007	0.008	0.005	0.004	0.001	0.025
W	0.007	0.005	0.004	0.002	0.001	0.019
WNW	0.007	0.015	0.010	0.002	0.002	0.036
NW	0.009	0.013	0.013	0.003	0.002	0.049
NNW	0.011	0.019	0.023	0.013	0.011	0.083
CALM	0.003	0.0	0.0	0.0	0.0	0.003
SUMS	0.159	0.331	0.326	0.161	0.072	

DIR	00--06	07--10	11--16	17--21	22--00	SUMS
N	0.009	0.018	0.026	0.012	0.004	0.069
NNE	0.010	0.012	0.021	0.012	0.001	0.056
NE	0.008	0.012	0.018	0.005	0.000	0.044
ENE	0.007	0.022	0.015	0.002	0.000	0.046
E	0.008	0.014	0.007	0.000	0.000	0.029
ESE	0.011	0.017	0.015	0.009	0.001	0.059
SE	0.012	0.027	0.032	0.007	0.001	0.070
SSE	0.013	0.035	0.063	0.024	0.006	0.127
S	0.014	0.032	0.064	0.028	0.013	0.141
SSW	0.010	0.023	0.033	0.023	0.006	0.092
SW	0.007	0.010	0.006	0.005	0.0	0.035
WSW	0.006	0.010	0.006	0.003	0.000	0.027
W	0.006	0.010	0.003	0.0	0.001	0.020
WNW	0.010	0.015	0.015	0.007	0.001	0.048
NW	0.014	0.014	0.012	0.005	0.002	0.043
NNW	0.010	0.020	0.022	0.013	0.012	0.087
CALM	0.007	0.0	0.0	0.0	0.0	0.007
SUMS	0.163	0.307	0.325	0.163	0.060	

DIR	00--06	07--10	11--16	17--21	22--00	SUMS
N	0.009	0.021	0.027	0.017	0.004	0.077
NNE	0.012	0.007	0.022	0.007	0.002	0.071
NE	0.011	0.019	0.013	0.003	0.001	0.048
ENE	0.010	0.016	0.012	0.004	0.000	0.041
E	0.012	0.011	0.005	0.001	0.001	0.031
ESE	0.014	0.021	0.014	0.000	0.0	0.049
SE	0.017	0.032	0.024	0.005	0.000	0.080
SSE	0.016	0.052	0.060	0.023	0.002	0.153
S	0.020	0.037	0.048	0.024	0.008	0.137
SSW	0.013	0.025	0.022	0.011	0.003	0.074
SW	0.006	0.008	0.006	0.001	0.0	0.021
WSW	0.006	0.007	0.004	0.003	0.0	0.018
W	0.009	0.007	0.003	0.001	0.0	0.020
WNW	0.004	0.014	0.011	0.002	0.002	0.037
NW	0.010	0.011	0.005	0.003	0.003	0.035
NNW	0.012	0.020	0.022	0.016	0.010	0.080
CALM	0.000	0.0	0.0	0.0	0.0	0.000
SUMS	0.216	0.328	0.300	0.118	0.037	

DIR	00--06	07--10	11--16	17--21	22--24	SUMS
N.	0.018	0.024	0.039	0.126	0.010	0.115
NNE	0.006	0.013	0.015	0.036	0.0	0.034
NNE	0.006	0.013	0.012	0.033	0.000	0.032
E.	0.014	0.012	0.009	0.032	0.000	0.034
ESE	0.012	0.014	0.037	0.001	0.0	0.034
SE	0.018	0.020	0.011	0.001	0.0	0.034
SSE	0.019	0.031	0.034	0.034	0.000	0.034
S.	0.030	0.071	0.110	0.030	0.000	0.034
SSW	0.007	0.015	0.033	0.016	0.000	0.034
SW	0.008	0.015	0.015	0.034	0.001	0.034
WSW	0.008	0.011	0.009	0.031	0.0	0.034
W.	0.006	0.011	0.009	0.031	0.000	0.034
WNW	0.011	0.013	0.009	0.032	0.000	0.034
W.	0.010	0.012	0.013	0.036	0.004	0.034
CALM	0.019	0.0	0.0	0.0	0.0	0.019
SUMS	0.203	0.259	0.333	0.130	0.000	0.034

Bivariate Distribution

Wichita

Years

1961 1964

1962 1965

1963 1966

Instrument Height

1961-1966 32 Feet

DIR	00--06	07--10	11--16	17--21	22--24	SUMS
N.	0.022	0.023	0.036	0.217	0.015	0.115
NNE	0.011	0.012	0.016	0.004	0.000	0.034
NNE	0.006	0.012	0.017	0.001	0.0	0.034
E.	0.013	0.012	0.010	0.000	0.0	0.034
ESE	0.013	0.023	0.010	0.001	0.0	0.034
SE	0.014	0.024	0.014	0.001	0.0	0.034
SSE	0.017	0.032	0.036	0.217	0.000	0.034
S.	0.032	0.071	0.120	0.033	0.000	0.034
SSW	0.012	0.025	0.036	0.037	0.002	0.034
SW	0.010	0.013	0.014	0.001	0.0	0.034
WSW	0.009	0.009	0.006	0.001	0.0	0.034
W.	0.009	0.010	0.005	0.001	0.000	0.034
WNW	0.010	0.011	0.004	0.000	0.0	0.034
W.	0.012	0.014	0.009	0.003	0.002	0.034
WNW	0.010	0.013	0.015	0.009	0.003	0.034
CALM	0.013	0.0	0.0	0.0	0.0	0.013
SUMS	0.222	0.315	0.338	0.093	0.001	0.034

DIR	00--06	07--10	11--16	17--21	22--24	SUMS
N.	0.021	0.029	0.042	0.214	0.000	0.115
NNE	0.007	0.013	0.022	0.004	0.000	0.034
NNE	0.007	0.013	0.022	0.003	0.0	0.034
E.	0.010	0.017	0.010	0.002	0.0	0.034
ESE	0.015	0.017	0.008	0.002	0.0	0.034
SE	0.011	0.025	0.019	0.001	0.0	0.034
SSE	0.014	0.043	0.022	0.003	0.001	0.034
S.	0.033	0.065	0.068	0.037	0.000	0.034
SSW	0.011	0.025	0.028	0.010	0.000	0.034
SW	0.009	0.013	0.010	0.001	0.000	0.034
WSW	0.012	0.011	0.006	0.001	0.000	0.034
W.	0.008	0.009	0.003	0.001	0.000	0.034
WNW	0.006	0.006	0.003	0.000	0.000	0.034
W.	0.011	0.003	0.000	0.000	0.000	0.034
WNW	0.010	0.015	0.009	0.004	0.000	0.034
CALM	0.016	0.0	0.0	0.0	0.0	0.016
SUMS	0.222	0.331	0.314	0.097	0.000	0.034

DIR	00--06	07--10	11--16	17--21	22--24	SUMS
N.	0.015	0.025	0.043	0.017	0.007	0.109
NNE	0.012	0.023	0.027	0.007	0.001	0.066
NNE	0.009	0.012	0.014	0.003	0.000	0.037
E.	0.013	0.013	0.013	0.003	0.000	0.036
ESE	0.011	0.014	0.009	0.001	0.0	0.035
SE	0.008	0.015	0.010	0.002	0.0	0.036
SSE	0.014	0.025	0.010	0.001	0.001	0.041
S.	0.023	0.038	0.040	0.014	0.001	0.125
SSW	0.022	0.034	0.076	0.031	0.008	0.194
SW	0.012	0.024	0.029	0.011	0.002	0.077
WSW	0.005	0.010	0.018	0.002	0.0	0.076
W.	0.009	0.013	0.014	0.001	0.0	0.038
WNW	0.007	0.009	0.002	0.000	0.0	0.012
W.	0.003	0.012	0.009	0.005	0.000	0.037
WNW	0.010	0.010	0.021	0.014	0.004	0.073
CALM	0.053	0.0	0.0	0.0	0.0	0.053
SUMS	0.234	0.303	0.318	0.113	0.032	0.036

DIR	00--06	07--10	11--16	17--21	22--24	SUMS
N.	0.015	0.020	0.037	0.016	0.004	0.092
NNE	0.011	0.014	0.017	0.008	0.001	0.051
NNE	0.009	0.016	0.010	0.001	0.0	0.034
E.	0.013	0.015	0.010	0.001	0.0	0.039
ESE	0.015	0.022	0.013	0.001	0.000	0.050
SE	0.015	0.022	0.019	0.001	0.000	0.078
SSE	0.017	0.030	0.014	0.002	0.001	0.131
S.	0.024	0.045	0.074	0.025	0.008	0.177
SSW	0.012	0.022	0.031	0.012	0.002	0.076
SW	0.007	0.012	0.009	0.003	0.000	0.032
WSW	0.007	0.003	0.002	0.001	0.000	0.018
W.	0.006	0.009	0.001	0.0	0.0	0.013
WNW	0.009	0.010	0.003	0.002	0.000	0.024
W.	0.007	0.015	0.013	0.006	0.0	0.038
WNW	0.012	0.013	0.027	0.012	0.002	0.071
CALM	0.036	0.0	0.0	0.0	0.0	0.036
SUMS	0.226	0.323	0.321	0.103	0.022	0.036

DIR	00--06	07--10	11--16	17--21	22--24	SUMS
N.	0.013	0.017	0.027	0.011	0.003	0.072
NNE	0.014	0.024	0.015	0.009	0.004	0.061
NNE	0.012	0.015	0.010	0.001	0.0	0.038
E.	0.013	0.012	0.007	0.000	0.0	0.033
ESE	0.013	0.013	0.005	0.0	0.0	0.031
SE	0.014	0.023	0.009	0.000	0.000	0.046
SSE	0.023	0.023	0.010	0.003	0.000	0.062
S.	0.034	0.051	0.056	0.009	0.001	0.145
SSW	0.032	0.076	0.068	0.023	0.009	0.207
SW	0.020	0.033	0.036	0.007	0.002	0.100
WSW	0.010	0.012	0.009	0.002	0.0	0.032
W.	0.005	0.009	0.005	0.002	0.001	0.022
WNW	0.011	0.009	0.001	0.000	0.000	0.015
W.	0.009	0.007	0.003	0.000	0.000	0.029
WNW	0.009	0.012	0.011	0.004	0.001	0.033
W.	0.013	0.013	0.010	0.011	0.004	0.040
CALM	0.017	0.0	0.0	0.0	0.0	0.017
SUMS	0.255	0.351	0.246	0.066	0.024	0.036

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N	0.014	0.030	0.043	0.027	0.010	0.115
NE	0.011	0.016	0.027	0.009	0.002	0.055
SE	0.011	0.016	0.016	0.003	0.000	0.046
E	0.013	0.013	0.004	0.000	0.000	0.027
SE	0.010	0.010	0.004	0.001	0.000	0.025
SS	0.017	0.010	0.021	0.000	0.000	0.048
S	0.011	0.020	0.043	0.032	0.007	0.113
SW	0.013	0.013	0.016	0.003	0.001	0.046
WS	0.015	0.004	0.006	0.001	0.000	0.026
W	0.016	0.007	0.003	0.001	0.000	0.027
WN	0.012	0.003	0.004	0.000	0.000	0.027
NW	0.007	0.016	0.005	0.001	0.000	0.023
W	0.012	0.013	0.014	0.010	0.000	0.049
CALM	0.000	0.000	0.000	0.000	0.000	0.000
SUMS	0.240	0.263	0.322	0.114	0.016	0.955

Bivariate Distribution

Wichita

Years

1967 1970

1968 1971

1963 1972

Instrument Height

1967-1972 25 Feet

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N	0.015	0.035	0.036	0.009	0.007	0.106
NE	0.009	0.010	0.027	0.007	0.002	0.053
SE	0.011	0.014	0.015	0.006	0.001	0.047
E	0.005	0.011	0.007	0.002	0.001	0.027
SE	0.013	0.017	0.011	0.001	0.000	0.042
SS	0.016	0.017	0.008	0.000	0.000	0.041
S	0.019	0.024	0.030	0.009	0.001	0.083
SW	0.019	0.023	0.002	0.000	0.000	0.044
WS	0.012	0.011	0.014	0.000	0.000	0.037
W	0.017	0.007	0.003	0.001	0.000	0.028
WN	0.013	0.009	0.007	0.002	0.001	0.032
NW	0.007	0.009	0.009	0.004	0.003	0.033
W	0.013	0.014	0.008	0.006	0.000	0.041
CALM	0.000	0.000	0.000	0.000	0.000	0.000
SUMS	0.251	0.255	0.200	0.111	0.013	0.930

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N	0.016	0.036	0.040	0.009	0.010	0.111
NE	0.007	0.021	0.028	0.009	0.003	0.068
SE	0.011	0.017	0.018	0.004	0.001	0.051
E	0.015	0.020	0.004	0.001	0.000	0.040
SE	0.011	0.015	0.011	0.001	0.000	0.038
SS	0.019	0.023	0.019	0.001	0.000	0.062
S	0.018	0.029	0.019	0.002	0.000	0.066
SW	0.031	0.072	0.081	0.024	0.006	0.217
WS	0.013	0.029	0.042	0.011	0.007	0.102
W	0.009	0.011	0.015	0.004	0.001	0.030
WN	0.013	0.005	0.004	0.001	0.000	0.023
NW	0.014	0.009	0.005	0.000	0.000	0.028
W	0.017	0.009	0.006	0.002	0.000	0.034
WN	0.008	0.019	0.012	0.007	0.000	0.036
NW	0.012	0.010	0.015	0.004	0.000	0.041
CALM	0.000	0.000	0.000	0.000	0.000	0.000
SUMS	0.230	0.321	0.341	0.046	0.013	0.951

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N	0.021	0.025	0.043	0.020	0.007	0.115
NE	0.010	0.013	0.022	0.003	0.001	0.051
SE	0.009	0.014	0.014	0.005	0.000	0.041
E	0.011	0.013	0.014	0.003	0.000	0.040
SE	0.014	0.013	0.010	0.000	0.000	0.040
SS	0.012	0.013	0.011	0.002	0.000	0.038
S	0.017	0.022	0.013	0.002	0.000	0.054
SW	0.018	0.024	0.028	0.004	0.001	0.079
WS	0.021	0.023	0.021	0.041	0.018	0.134
W	0.014	0.023	0.029	0.013	0.006	0.090
WN	0.013	0.013	0.011	0.002	0.002	0.033
NW	0.005	0.006	0.005	0.003	0.001	0.018
W	0.002	0.007	0.005	0.000	0.001	0.023
WN	0.007	0.007	0.014	0.001	0.000	0.029
NW	0.012	0.013	0.009	0.002	0.000	0.035
W	0.013	0.013	0.015	0.006	0.004	0.055
CALM	0.000	0.000	0.000	0.000	0.000	0.000
SUMS	0.209	0.255	0.325	0.116	0.043	0.948

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N	0.017	0.047	0.047	0.016	0.008	0.126
NE	0.005	0.017	0.020	0.006	0.002	0.053
SE	0.003	0.007	0.012	0.003	0.000	0.025
E	0.001	0.003	0.004	0.000	0.000	0.010
SE	0.013	0.011	0.006	0.001	0.000	0.031
SS	0.013	0.024	0.013	0.002	0.001	0.053
S	0.023	0.023	0.036	0.006	0.001	0.096
SW	0.015	0.011	0.019	0.044	0.017	0.206
WS	0.013	0.015	0.025	0.013	0.004	0.064
W	0.004	0.003	0.007	0.003	0.000	0.027
WN	0.012	0.003	0.005	0.000	0.000	0.025
NW	0.011	0.009	0.007	0.006	0.002	0.035
W	0.011	0.011	0.010	0.005	0.004	0.041
WN	0.012	0.014	0.027	0.007	0.004	0.069
NW	0.013	0.000	0.000	0.000	0.000	0.013
SUMS	0.212	0.230	0.346	0.110	0.043	0.941

DIR	00-06	07-10	11-16	17-21	22-24	SUMS
N	0.020	0.034	0.042	0.015	0.006	0.122
NE	0.009	0.014	0.019	0.002	0.000	0.043
SE	0.011	0.015	0.010	0.001	0.000	0.037
E	0.011	0.016	0.010	0.001	0.000	0.039
SE	0.017	0.017	0.010	0.000	0.000	0.044
SS	0.014	0.023	0.013	0.001	0.000	0.051
S	0.016	0.034	0.015	0.002	0.000	0.071
SW	0.015	0.043	0.030	0.005	0.000	0.094
WS	0.011	0.047	0.075	0.024	0.006	0.163
W	0.014	0.013	0.010	0.003	0.003	0.066
WN	0.007	0.010	0.010	0.003	0.000	0.033
NW	0.009	0.007	0.003	0.000	0.000	0.019
W	0.013	0.004	0.001	0.000	0.000	0.023
WN	0.009	0.009	0.005	0.001	0.001	0.027
NW	0.007	0.013	0.016	0.002	0.001	0.038
W	0.007	0.007	0.023	0.012	0.005	0.050
WN	0.015	0.000	0.000	0.000	0.000	0.016
SUMS	0.342	0.455	0.504	0.077	0.022	0.998

012	03--05	07--10	11--16	17--21	22--UN	SUMS
012	0.015	0.023	0.045	0.019	0.011	0.125
013	0.019	0.020	0.028	0.005	0.001	0.062
014	0.007	0.014	0.011	0.001	0.001	0.034
015	0.010	0.009	0.005	0.001	0.0	0.024
016	0.013	0.017	0.009	0.000	0.0	0.039
017	0.010	0.012	0.004	0.001	0.0	0.026
018	0.017	0.018	0.010	0.001	0.0	0.046
019	0.021	0.030	0.024	0.008	0.001	0.082
020	0.010	0.020	0.026	0.033	0.010	0.218
021	0.011	0.023	0.027	0.015	0.006	0.090
022	0.009	0.013	0.014	0.003	0.001	0.039
023	0.013	0.025	0.026	0.003	0.000	0.023
024	0.019	0.026	0.032	0.001	0.0	0.029
025	0.013	0.011	0.007	0.002	0.001	0.033
026	0.011	0.011	0.012	0.002	0.001	0.037
027	0.012	0.015	0.012	0.004	0.006	0.064
028	0.027	0.0	0.0	0.0	0.0	0.027
029	0.027	0.023	0.011	0.102	0.039	

Bivariate Distribution

Wichita

Years

1973

Instrument Height

1973 25 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1954

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	11.42373	26	0.29661	0.10159	0.43220	0.43220	0.10159
0300	0	11.47746	26	0.32203	0.09392	0.43220	0.43220	0.10159
0600	3	11.93220	29	0.39831	0.27627	0.46441	0.46441	0.11102
0900	3	12.66437	31	0.45763	0.10159	0.46534	0.46534	0.12557
1200	0	14.29632	27	0.44068	0.06733	0.51055	0.51055	0.16132
1500	0	14.50847	29	0.45763	0.05035	0.55593	0.55593	0.11564
1800	0	10.60132	24	0.36583	0.05045	0.36583	0.36583	0.14507
2100	3	11.28414	25	0.33031	0.13559	0.36583	0.36583	0.14507

Wichita
Instrument Height
1952 61 Feet
1954 32 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1954

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	11.59565	27	0.27881	0.17953	0.40781	0.40781	0.37639
0300	3	10.98749	24	0.31522	0.17391	0.45552	0.45552	0.05435
0600	3	12.98879	28	0.33152	0.17945	0.44322	0.44322	0.04491
0900	3	13.27543	27	0.28894	0.21739	0.42361	0.42361	0.37639
1200	3	14.21397	29	0.31522	0.16864	0.43473	0.43473	0.08152
1500	3	14.27174	30	0.33152	0.16864	0.43473	0.43473	0.08152
1800	3	12.76037	29	0.31522	0.19322	0.43473	0.43473	0.08152
2100	3	11.36337	24	0.32679	0.17391	0.42635	0.42635	0.08152

THE HOURLY SUMMARY TABLE FOR SUM. 1954

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	13.95870	22	0.07239	0.15855	0.56234	0.56234	0.04351
0300	3	9.84913	18	0.12500	0.13500	0.71186	0.71186	0.07834
0600	3	9.22876	21	0.13587	0.13370	0.72424	0.72424	0.07117
0900	4	13.29552	23	0.13043	0.09230	0.65217	0.65217	0.15900
1200	3	13.37391	26	0.10326	0.15217	0.56304	0.56304	0.08152
1500	3	13.29343	26	0.10326	0.09234	0.73913	0.73913	0.08152
1800	3	13.87130	24	0.08152	0.10326	0.77174	0.77174	0.07117
2100	3	11.60870	26	0.08152	0.21195	0.67341	0.67341	0.08152

THE HOURLY SUMMARY TABLE FOR FALL 1954

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.92308	21	0.21978	0.15434	0.51350	0.51350	0.05241
0300	3	9.84615	20	0.22527	0.15634	0.54352	0.54352	0.13157
0600	0	9.69539	23	0.24725	0.15451	0.54551	0.54551	0.13485
0900	0	12.75824	23	0.25275	0.12033	0.53466	0.53466	0.07472
1200	0	14.15385	27	0.27473	0.09044	0.57113	0.57113	0.02642
1500	3	14.45355	30	0.27473	0.03791	0.55455	0.55455	0.08742
1800	0	11.23343	21	0.25275	0.14435	0.50330	0.50330	0.07472
2100	3	10.69439	20	0.21578	0.23626	0.42357	0.42357	0.11564

THE HOURLY SUMMARY TABLE FOR WIN. 1952

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	11.61323	26	0.27122	0.10000	0.46111	0.46111	0.09444
0300	3	11.93233	26	0.32555	0.15555	0.43049	0.43049	0.13489
0600	3	12.14444	26	0.37272	0.15443	0.34444	0.34444	0.15000
0900	3	12.66437	27	0.44068	0.12773	0.41111	0.41111	0.17777
1200	3	14.29632	27	0.44068	0.11111	0.52773	0.52773	0.20000
1500	3	14.50847	26	0.45763	0.07222	0.46557	0.46557	0.18333
1800	3	10.60132	24	0.36583	0.13223	0.37773	0.37773	0.13889
2100	3	11.28414	24	0.33031	0.18333	0.35000	0.35000	0.13333

THE HOURLY SUMMARY TABLE FOR SPR. 1952

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	11.59565	27	0.27881	0.17953	0.40781	0.40781	0.37639
0300	3	11.78174	24	0.33031	0.17953	0.40781	0.40781	0.37639
0600	3	12.24174	24	0.33031	0.17953	0.40781	0.40781	0.37639
0900	3	13.27543	27	0.28894	0.21739	0.42361	0.42361	0.37639
1200	3	14.21397	29	0.31522	0.16864	0.43473	0.43473	0.08152
1500	3	14.27174	30	0.33152	0.16864	0.43473	0.43473	0.08152
1800	3	12.76037	29	0.31522	0.19322	0.43473	0.43473	0.08152
2100	3	11.36337	24	0.32679	0.17391	0.42635	0.42635	0.08152

THE HOURLY SUMMARY TABLE FOR SUM. 1952

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	13.95870	22	0.07239	0.15855	0.71739	0.71739	0.11613
0300	3	9.84913	18	0.12500	0.13500	0.55555	0.55555	0.03261
0600	3	9.22876	21	0.13587	0.13370	0.75000	0.75000	0.16833
0900	4	13.29552	23	0.13043	0.09230	0.67291	0.67291	0.09230
1200	3	13.37391	26	0.10326	0.15217	0.55000	0.55000	0.05455
1500	3	13.29343	26	0.10326	0.09234	0.75000	0.75000	0.05455
1800	3	13.87130	24	0.08152	0.10326	0.71739	0.71739	0.05455
2100	3	11.60870	26	0.08152	0.21195	0.73370	0.73370	0.05455

THE HOURLY SUMMARY TABLE FOR FALL 1952

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	11.93233	27	0.21978	0.16434	0.53297	0.53297	0.08742
0300	3	11.93233	23	0.23077	0.14137	0.55465	0.55465	0.08742
0600	3	12.53745	22	0.24176	0.12730	0.52168	0.52168	0.09490
0900	3	12.53745	30	0.25275	0.08791	0.46793	0.46793	0.10770
1200	3	14.29632	36	0.27473	0.13445	0.45000	0.45000	0.10132
1500	3	14.50847	30	0.27473	0.15934	0.43407	0.43407	0.15485
1800	3	10.60132	23	0.31176	0.14736	0.52194	0.52194	0.08742
2100	3	11.28414	25	0.33031	0.18441	0.52194	0.52194	0.08742

THE HOURLY SUMMARY TABLE FOR WIN. 1955

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	3	12.0833	22	0.3944	0.2273	0.2644	0.1332
0300	0	10.1000	23	0.4389	0.2055	0.2622	0.1355
0600	2	9.8567	25	0.4611	0.1722	0.2722	0.1275
0900	2	11.3333	27	0.4000	0.2000	0.2722	0.1444
1200	3	12.1000	26	0.3611	0.1611	0.3333	0.1444
1500	0	12.3667	25	0.3500	0.1511	0.3556	0.1722
1800	2	10.8556	22	0.4111	0.2000	0.2722	0.1355
2100	2	10.6222	23	0.4222	0.2333	0.2500	0.1556

Wichita
Instrument Height
1955-1956 32 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1955

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	4	12.1000	23	0.2500	0.1702	0.2617	0.1571
0300	3	11.6333	28	0.2804	0.1843	0.2613	0.1571
0600	3	11.1556	27	0.2543	0.2000	0.2613	0.1571
0900	0	10.1000	28	0.2826	0.2000	0.2613	0.1571
1200	4	10.7933	29	0.2846	0.1755	0.2613	0.1571
1500	4	10.6556	32	0.2650	0.1643	0.2613	0.1571
1800	3	10.1000	28	0.2826	0.1802	0.2613	0.1571
2100	3	12.1733	25	0.2861	0.2002	0.2613	0.1571

THE HOURLY SUMMARY TABLE FOR SUM. 1955

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	4	10.1733	24	0.0769	0.3152	0.3304	0.0735
0300	0	9.0633	22	0.1387	0.2223	0.3438	0.0652
0600	0	8.8556	27	0.1250	0.1843	0.3438	0.0652
0900	0	12.2000	23	0.0769	0.3152	0.3304	0.0735
1200	0	12.6333	22	0.1250	0.1843	0.3438	0.0652
1500	3	13.7833	23	0.1521	0.1755	0.3438	0.0652
1800	3	14.0217	23	0.1648	0.2500	0.3438	0.0652
2100	3	11.5733	24	0.0769	0.3152	0.3304	0.0735

THE HOURLY SUMMARY TABLE FOR FALL 1955

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	3	10.0733	27	0.1878	0.2033	0.4333	0.1733
0300	0	9.9333	20	0.2544	0.1752	0.4175	0.1733
0600	0	9.7917	23	0.2307	0.1752	0.4175	0.1733
0900	3	13.3333	28	0.2326	0.1267	0.5247	0.1043
1200	0	14.2000	28	0.2307	0.1485	0.5049	0.1043
1500	3	16.6267	28	0.2307	0.1485	0.5049	0.1043
1800	0	11.3444	23	0.2337	0.1733	0.4333	0.1733
2100	0	11.1133	20	0.1263	0.2257	0.4156	0.1733

THE HOURLY SUMMARY TABLE FOR WIN. 1955

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	3	11.6000	27	0.3644	0.1167	0.3444	0.1833
0300	3	11.4733	32	0.3444	0.1222	0.3000	0.2222
0600	3	11.1733	32	0.3333	0.1167	0.3000	0.2000
0900	2	10.3333	25	0.3889	0.0889	0.3611	0.1611
1200	3	10.7133	24	0.3556	0.0667	0.3722	0.2056
1500	3	10.6556	27	0.3422	0.0722	0.4056	0.1500
1800	3	11.2333	24	0.3667	0.1277	0.3000	0.1556
2100	3	11.7733	25	0.3667	0.1333	0.3444	0.1444

THE HOURLY SUMMARY TABLE FOR SPR. 1955

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	1	11.0133	28	0.2447	0.2603	0.3750	0.1197
0300	3	11.4233	24	0.2717	0.2019	0.3913	0.1387
0600	3	11.8333	24	0.2543	0.2223	0.3807	0.1036
0900	3	10.8556	28	0.3607	0.2119	0.4143	0.1027
1200	3	10.2556	29	0.3717	0.1337	0.4826	0.1143
1500	3	10.7933	32	0.3811	0.1671	0.4870	0.1197
1800	2	10.3556	29	0.3641	0.2062	0.4071	0.1303
2100	3	10.2500	30	0.3106	0.3306	0.3326	0.0973

THE HOURLY SUMMARY TABLE FOR SUM. 1955

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	3	9.3200	22	0.1025	0.2938	0.4681	0.0438
0300	0	8.5000	20	0.1567	0.2500	0.5304	0.0652
0600	0	8.4333	21	0.1567	0.2343	0.4870	0.1197
0900	3	11.0667	24	0.1745	0.1745	0.5691	0.1143
1200	3	12.6333	23	0.1143	0.2062	0.5896	0.0812
1500	3	12.2333	23	0.1373	0.2447	0.5304	0.0865
1800	3	10.3433	22	0.0839	0.2593	0.6143	0.0380
2100	3	8.8556	20	0.0896	0.2938	0.5843	0.0593

THE HOURLY SUMMARY TABLE FOR FALL 1955

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
2400	3	10.0733	30	0.2174	0.1861	0.4450	0.1485
0300	3	10.2633	25	0.2022	0.1648	0.4010	0.1317
0600	3	10.3000	25	0.2022	0.1703	0.4010	0.1485
0900	4	10.4233	30	0.3066	0.1426	0.4395	0.0769
1200	3	10.0000	30	0.3066	0.1158	0.4504	0.1158
1500	3	10.4233	23	0.3571	0.1426	0.4504	0.1158
1800	3	11.0133	23	0.3571	0.1426	0.5197	0.0634
2100	3	10.8333	23	0.1752	0.1993	0.5164	0.1485

THE HOURLY SUMMARY TABLE FOR WIN. 1958

HR	LA	AVG. VEL.	UA	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.17778	27	0.32222	0.13333	0.37778	0.37778	0.13333
0300	0	9.40000	28	0.36667	0.16667	0.26667	0.26667	0.16667
0600	0	9.77778	29	0.30000	0.19444	0.28333	0.28333	0.12778
0900	0	10.91333	34	0.33333	0.14444	0.31667	0.31667	0.12222
1200	0	12.67778	30	0.39556	0.11667	0.38333	0.38333	0.11111
1500	0	12.84444	34	0.31111	0.15556	0.35556	0.35556	0.12222
1800	0	10.93333	25	0.34444	0.14444	0.33333	0.33333	0.12778
2100	0	9.90000	26	0.31667	0.19889	0.31111	0.31111	0.13333

Wichita
Instrument Height
1957-1958 32 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1958

HR	LA	AVG. VEL.	UA	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.50000	23	0.32065	0.25000	0.25000	0.25000	0.12500
0300	0	9.50000	27	0.32065	0.25000	0.25000	0.25000	0.12500
0600	0	8.25133	25	0.36326	0.24457	0.23225	0.23225	0.15783
0900	0	11.85375	33	0.33152	0.23373	0.28824	0.28824	0.11512
1200	0	12.26667	29	0.32609	0.18473	0.32609	0.32609	0.14130
1500	0	12.60370	24	0.32783	0.18473	0.32783	0.32783	0.14130
1800	0	12.14133	26	0.37900	0.21739	0.26047	0.26047	0.14130
2100	0	9.73333	24	0.27717	0.32269	0.21739	0.21739	0.15761

THE HOURLY SUMMARY TABLE FOR SUM. 1958

HR	LA	AVG. VEL.	UA	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.55135	22	0.16848	0.26457	0.50000	0.50000	0.16457
0300	0	9.16333	25	0.19222	0.24457	0.48373	0.48373	0.16457
0600	0	8.71739	25	0.24457	0.24457	0.5109	0.5109	0.2717
0900	0	11.90717	24	0.17351	0.19552	0.5535	0.5535	0.17351
1200	0	11.92391	23	0.19473	0.22825	0.50000	0.50000	0.19473
1500	0	12.41304	26	0.15761	0.29343	0.47326	0.47326	0.15761
1800	0	12.70261	24	0.17035	0.28333	0.45739	0.45739	0.17035
2100	0	9.79343	27	0.11413	0.38333	0.49109	0.49109	0.2717

THE HOURLY SUMMARY TABLE FOR FALL 1958

HR	LA	AVG. VEL.	UA	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.24175	25	0.21978	0.12098	0.51548	0.51548	0.10983
0300	0	9.63736	26	0.28571	0.11533	0.46501	0.46501	0.09892
0600	0	9.70330	24	0.32674	0.09791	0.4352	0.4352	0.17542
0900	0	12.03297	31	0.26374	0.12537	0.52747	0.52747	0.17143
1200	0	13.15385	27	0.22527	0.11534	0.55665	0.55665	0.13127
1500	0	14.20571	33	0.24176	0.08791	0.52747	0.52747	0.13127
1800	0	11.53395	27	0.24176	0.10989	0.57143	0.57143	0.13127
2100	0	10.14236	29	0.21978	0.13157	0.56593	0.56593	0.11413

THE HOURLY SUMMARY TABLE FOR WIN. 1957

HR	LA	AVG. VEL.	UA	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	11.33333	23	0.33333	0.11111	0.31111	0.31111	0.16667
0300	0	10.32222	25	0.41111	0.27778	0.27778	0.27778	0.16667
0600	0	12.11111	24	0.37222	0.15556	0.27778	0.27778	0.13889
0900	0	12.11111	28	0.39444	0.17778	0.30000	0.30000	0.11667
1200	0	13.14444	25	0.34444	0.16111	0.32222	0.32222	0.16111
1500	0	13.14444	28	0.38444	0.15000	0.31111	0.31111	0.13333
1800	0	9.75557	26	0.37222	0.12222	0.33333	0.33333	0.14644
2100	0	10.37778	21	0.35556	0.15556	0.32222	0.32222	0.14644

THE HOURLY SUMMARY TABLE FOR SPR. 1957

HR	LA	AVG. VEL.	UA	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.10000	24	0.31522	0.20632	0.37365	0.37365	0.12500
0300	0	11.31174	27	0.32509	0.26630	0.29391	0.29391	0.17609
0600	0	12.76343	23	0.36783	0.25000	0.27174	0.27174	0.11987
0900	0	13.80133	23	0.27177	0.25543	0.35870	0.35870	0.10470
1200	0	14.67043	25	0.23370	0.24457	0.41348	0.41348	0.10326
1500	0	12.26667	31	0.25543	0.17391	0.43478	0.43478	0.11413
1800	0	12.33435	25	0.28640	0.19565	0.41304	0.41304	0.11413
2100	0	9.73413	26	0.23315	0.21913	0.33152	0.33152	0.10326

THE HOURLY SUMMARY TABLE FOR SUM. 1957

HR	LA	AVG. VEL.	UA	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.90217	30	0.18217	0.22826	0.53261	0.53261	0.03261
0300	0	8.13043	13	0.18304	0.21196	0.55378	0.55378	0.04348
0600	0	7.44913	23	0.19304	0.16843	0.54348	0.54348	0.09239
0900	0	10.13043	21	0.14074	0.20109	0.55355	0.55355	0.07609
1200	0	11.36857	27	0.14130	0.17391	0.54783	0.54783	0.05435
1500	0	11.59565	27	0.17391	0.19022	0.55978	0.55978	0.07609
1800	0	11.35435	30	0.16304	0.26630	0.53261	0.53261	0.02717
2100	0	8.68324	19	0.13087	0.28261	0.56322	0.56322	0.00543

THE HOURLY SUMMARY TABLE FOR FALL 1957

HR	LA	AVG. VEL.	UA	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.72527	18	0.24725	0.12098	0.45604	0.45604	0.12098
0300	0	8.52303	20	0.26374	0.14286	0.36560	0.36560	0.13187
0600	0	7.38714	23	0.25324	0.20579	0.37912	0.37912	0.06791
0900	0	10.92417	23	0.29571	0.14835	0.43047	0.43047	0.13187
1200	0	12.73390	30	0.34864	0.12637	0.41204	0.41204	0.13187
1500	0	12.31365	24	0.31868	0.12098	0.42857	0.42857	0.12098
1800	0	10.37363	24	0.32418	0.16484	0.40559	0.40559	0.12098
2100	0	9.19713	20	0.24822	0.20330	0.34815	0.34815	0.08242

THE HOURLY SUMMARY TABLE FOR WTH. 1960

HR	LN	AVG.	UB	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	10.5555	27	0.36567	0.17222	0.22230	0.12774
0300	0	11.0111	26	0.42778	0.17222	0.22333	0.12222
0600	0	11.4667	29	0.49555	0.21657	0.22333	0.12222
0900	0	12.7777	29	0.53333	0.16444	0.22444	0.11557
1200	2	14.0555	32	0.35000	0.15000	0.21667	0.14222
1500	3	13.8444	34	0.49556	0.11667	0.15000	0.17777
1800	0	11.9777	25	0.41667	0.15000	0.26444	0.11557
2100	0	10.9666	31	0.38889	0.13333	0.22222	0.12774

Wichita
Instrument Height
1959-1960 32 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1960

HR	LN	AVG.	UB	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	11.0333	29	0.22076	0.23100	0.43217	0.12583
0300	0	10.9555	27	0.25000	0.14333	0.41333	0.15667
0600	0	10.9555	22	0.25000	0.26333	0.26667	0.30667
0900	3	14.7667	32	0.30978	0.16333	0.33333	0.39556
1200	2	15.3666	33	0.30935	0.11333	0.41667	0.11333
1500	0	15.5777	35	0.37152	0.11667	0.41667	0.11557
1800	2	14.9667	33	0.35879	0.16667	0.36667	0.36667
2100	0	11.0333	25	0.25000	0.22222	0.40217	0.10222

THE HOURLY SUMMARY TABLE FOR SUM. 1960

HR	LN	AVG.	UB	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	9.6333	26	0.14674	0.22222	0.55478	0.33333
0300	0	8.7777	40	0.17935	0.16674	0.52174	0.38889
0600	0	8.4333	20	0.21759	0.17331	0.47222	0.32777
0900	2	11.3555	25	0.17261	0.15555	0.50333	0.32777
1200	3	12.7777	23	0.12500	0.25552	0.55478	0.10777
1500	5	13.3667	24	0.16304	0.20100	0.52222	0.37777
1800	3	12.3555	27	0.13023	0.25543	0.55556	0.32777
2100	2	9.4667	20	0.14674	0.23222	0.53333	0.33333

THE HOURLY SUMMARY TABLE FOR FALL 1960

HR	LN	AVG.	UB	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	9.3000	27	0.24725	0.15000	0.48332	0.38791
0300	0	9.4555	25	0.29121	0.13444	0.43956	0.12444
0600	0	9.5055	24	0.29121	0.11333	0.45556	0.16444
0900	3	12.3400	25	0.30223	0.39490	0.55444	0.34444
1200	3	13.4777	27	0.23377	0.15333	0.53333	0.13333
1500	0	13.4444	26	0.25275	0.12333	0.43333	0.17222
1800	0	10.4333	26	0.30775	0.64444	0.41667	0.10777
2100	0	9.1555	20	0.25524	0.14777	0.43333	0.33333

THE HOURLY SUMMARY TABLE FOR WIN. 1959

HR	LN	AVG.	UB	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	10.7000	30	0.32333	0.08333	0.37778	0.11667
0300	0	10.3777	24	0.41667	0.07778	0.37778	0.10556
0600	0	10.7333	23	0.41667	0.10556	0.32111	0.09444
0900	3	11.4444	26	0.38444	0.11111	0.39444	0.10000
1200	3	14.2333	29	0.36887	0.12222	0.38889	0.11111
1500	3	14.1777	27	0.42222	0.09556	0.40000	0.11111
1800	1	11.3555	25	0.41111	0.11111	0.40000	0.06667
2100	0	11.3777	27	0.39444	0.11111	0.41111	0.07222

THE HOURLY SUMMARY TABLE FOR SPR. 1959

HR	LN	AVG.	UB	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	12.5333	27	0.23100	0.21100	0.46730	0.10870
0300	0	11.5667	27	0.23100	0.15761	0.46196	0.11333
0600	0	11.2333	23	0.24757	0.13473	0.41338	0.11957
0900	3	15.3435	33	0.23761	0.11130	0.43478	0.11957
1200	0	15.4130	23	0.27717	0.09783	0.42935	0.11381
1500	3	15.8222	23	0.25918	0.10470	0.42935	0.22283
1800	1	15.1667	26	0.25241	0.13537	0.43478	0.12500
2100	0	11.0333	32	0.26037	0.17391	0.46196	0.08152

THE HOURLY SUMMARY TABLE FOR SUM. 1959

HR	LN	AVG.	UB	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	9.3435	21	0.02686	0.24457	0.61413	0.32174
0300	0	9.4343	22	0.19761	0.17435	0.53804	0.05678
0600	0	7.7173	20	0.14130	0.20682	0.47826	0.32174
0900	0	11.0333	24	0.11657	0.17935	0.46334	0.33036
1200	0	11.4244	30	0.12500	0.19559	0.61957	0.37177
1500	3	12.7333	20	0.09249	0.23370	0.63023	0.04346
1800	3	12.3667	20	0.09249	0.31522	0.57055	0.02174
2100	0	10.3777	20	0.09435	0.35226	0.55435	0.05435

THE HOURLY SUMMARY TABLE FOR FALL 1959

HR	LN	AVG.	UB	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	11.7667	31	0.30769	0.17582	0.38462	0.12048
0300	0	11.0750	31	0.23571	0.11538	0.43407	0.13187
0600	0	9.4307	27	0.30769	0.13187	0.42308	0.10440
0900	3	12.6073	33	0.29121	0.14835	0.45604	0.14440
1200	3	14.1523	33	0.29225	0.17333	0.43407	0.13187
1500	0	14.0934	30	0.26176	0.19944	0.43407	0.13265
1800	0	11.4777	24	0.33777	0.16934	0.41209	0.39444
2100	0	11.4667	24	0.26334	0.21479	0.53712	0.10940

THE HOURLY SUMMARY TABLE FOR WIN. 1961

HR	LA	AVG.	UB	NTH.	DIRECTION	STH.	WEST
VEL.					EAST		
2400	0	9.15553	21	0.40555	0.11111	0.30000	0.15000
0300	0	8.43113	25	0.41667	0.10000	0.25000	0.16667
0600	0	8.75555	25	0.43113	0.11667	0.27222	0.09444
0900	0	10.52222	24	0.44444	0.08889	0.23333	0.10000
1200	0	12.33333	35	0.40555	0.07722	0.40000	0.10000
1500	0	12.33333	24	0.41111	0.07778	0.36111	0.15000
1800	0	17.35555	30	0.42333	0.03489	0.35899	0.12778
2100	2	9.67778	25	0.40555	0.13000	0.35556	0.13889

Wichita
Instrument Height
1961-1962 32 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1961

HR	LA	AVG.	UB	NTH.	DIRECTION	STH.	WEST
VEL.					EAST		
2400	0	11.79333	27	0.28261	0.23913	0.36783	0.09783
0300	0	11.83117	31	0.28344	0.28326	0.36783	0.10370
0600	0	11.73113	26	0.33065	0.21195	0.34239	0.11413
0900	0	15.35555	28	0.33078	0.15865	0.46565	0.04891
1200	0	15.85333	20	0.33078	0.19022	0.36325	0.14674
1500	0	14.53113	20	0.30530	0.23013	0.35126	0.14130
1800	0	12.52443	20	0.22000	0.22283	0.33696	0.09783
2100	0	10.72333	20	0.22000	0.23373	0.31522	0.08666

THE HOURLY SUMMARY TABLE FOR SUM. 1961

HR	LA	AVG.	UB	NTH.	DIRECTION	STH.	WEST
VEL.					EAST		
2400	0	7.75555	16	0.09783	0.17415	0.53904	0.07609
0300	0	5.43113	15	0.28152	0.15761	0.56348	0.03261
0600	0	5.27174	15	0.15217	0.16949	0.47826	0.01630
0900	0	8.75333	22	0.11413	0.13478	0.59239	0.07609
1200	0	13.42333	25	0.13587	0.19265	0.56522	0.05978
1500	0	11.21739	21	0.15761	0.19222	0.57065	0.04491
1800	0	12.64133	25	0.05783	0.28261	0.56783	0.02174
2100	0	5.25337	22	0.28695	0.23373	0.62587	0.01087

THE HOURLY SUMMARY TABLE FOR FALL 1961

HR	LA	AVG.	UB	NTH.	DIRECTION	STH.	WEST
VEL.					EAST		
2400	0	6.54333	21	0.24176	0.10440	0.51099	0.03297
0300	0	5.19333	30	0.27471	0.03791	0.46154	0.03297
0600	0	9.19230	27	0.11568	0.05044	0.45055	0.03846
0900	0	11.54333	28	0.29923	0.12088	0.48352	0.03846
1200	0	11.22333	25	0.24725	0.09341	0.54396	0.08242
1500	0	13.33731	25	0.23022	0.09493	0.53297	0.05495
1800	0	12.55555	24	0.26375	0.12637	0.48901	0.06593
2100	0	8.33771	21	0.28322	0.12837	0.46703	0.02747

THE HOURLY SUMMARY TABLE FOR WIN. 1962

HR	LA	AVG.	UB	NTH.	DIRECTION	STH.	WEST
VEL.					EAST		
2400	0	9.52222	22	0.36667	0.08333	0.32778	0.16111
0300	0	9.72333	25	0.42222	0.12222	0.24111	0.16111
0600	0	9.67778	24	0.42333	0.10556	0.37778	0.16111
0900	0	10.13333	25	0.42333	0.10556	0.31567	0.16111
1200	0	11.41111	25	0.41667	0.17778	0.31567	0.13333
1500	0	11.56667	28	0.43444	0.05000	0.37778	0.13333
1800	0	9.94444	26	0.42222	0.10556	0.36444	0.13333
2100	0	9.32222	20	0.33333	0.13889	0.35556	0.12778

THE HOURLY SUMMARY TABLE FOR SPR. 1962

HR	LA	AVG.	UB	NTH.	DIRECTION	STH.	WEST
VEL.					EAST		
2400	0	10.25333	24	0.16304	0.23373	0.47253	0.10370
0300	0	10.42221	23	0.23652	0.16464	0.50543	0.09783
0600	0	10.61337	24	0.22826	0.19565	0.46196	0.08152
0900	0	13.13042	25	0.26087	0.13447	0.43273	0.08152
1200	0	14.04590	28	0.23373	0.15761	0.37270	0.11413
1500	0	14.29343	26	0.23133	0.13453	0.35630	0.11413
1800	0	13.71333	25	0.23139	0.14674	0.35717	0.11413
2100	0	10.93173	24	0.24457	0.19322	0.53543	0.04491

THE HOURLY SUMMARY TABLE FOR SUM. 1962

HR	LA	AVG.	UB	NTH.	DIRECTION	STH.	WEST
VEL.					EAST		
2400	0	8.03331	22	0.14674	0.32506	0.47253	0.07717
0300	0	9.40232	20	0.12500	0.28404	0.51067	0.05456
0600	0	7.53361	19	0.17391	0.26261	0.42335	0.07354
0900	0	10.55435	28	0.11957	0.16478	0.57063	0.07609
1200	0	11.06322	21	0.19322	0.23373	0.45109	0.08152
1500	0	11.23922	24	0.15217	0.25333	0.40739	0.11887
1800	0	10.86357	22	0.16304	0.24434	0.43372	0.04456
2100	0	8.90217	20	0.30152	0.35326	0.51533	0.01330

THE HOURLY SUMMARY TABLE FOR FALL 1962

HR	LA	AVG.	UB	NTH.	DIRECTION	STH.	WEST
VEL.					EAST		
2400	0	8.43856	20	0.23626	0.15345	0.45055	0.06084
0300	0	8.75924	22	0.24176	0.15234	0.45055	0.06084
0600	0	4.39550	18	0.27473	0.15385	0.35860	0.07354
0900	0	10.48352	20	0.26022	0.18182	0.41209	0.08242
1200	0	11.17383	22	0.28022	0.13759	0.44505	0.10440
1500	0	11.14235	22	0.26374	0.13745	0.42956	0.13736
1800	0	9.38261	25	0.26923	0.20879	0.39560	0.05456
2100	0	8.51206	20	0.25275	0.19231	0.41209	0.05456

THE HOURLY SUMMARY TABLE FOR WIN. 1963

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.95307	24	0.35667	0.13333	0.37222	0.10556	0.12222
0300	0	10.33333	25	0.35556	0.11667	0.37333	0.12222	0.15556
0600	0	10.52222	22	0.35556	0.13333	0.34444	0.15556	0.08889
0900	0	11.33333	27	0.35556	0.09444	0.41111	0.08889	0.15000
1200	0	11.55556	27	0.35556	0.09444	0.39889	0.15000	0.10556
1500	0	11.55556	24	0.35556	0.09444	0.37778	0.10556	0.08333
1800	0	11.55556	20	0.35556	0.16667	0.36111	0.13889	0.08333

THE HOURLY SUMMARY TABLE FOR SPR. 1963

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.55307	26	0.19556	0.27174	0.42935	0.08152	0.11413
0300	0	10.33333	23	0.21195	0.24257	0.42935	0.11413	0.13043
0600	0	10.52222	21	0.23370	0.23370	0.35870	0.13043	0.07694
0900	0	11.33333	27	0.27174	0.17535	0.46196	0.14130	0.15217
1200	0	11.55556	28	0.22283	0.15217	0.46196	0.14130	0.11413
1500	0	11.55556	29	0.24470	0.14130	0.46196	0.11413	0.08152
1800	0	11.55556	23	0.23370	0.17535	0.42935	0.08152	0.11413

THE HOURLY SUMMARY TABLE FOR SUM. 1963

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.89130	20	0.06522	0.16363	0.69565	0.02174	0.04748
0300	0	7.89130	20	0.14574	0.14130	0.65761	0.02174	0.04748
0600	0	7.89130	17	0.11413	0.19022	0.63040	0.02174	0.16104
0900	0	7.89130	18	0.07694	0.15761	0.63026	0.08152	0.08152
1200	0	10.51237	18	0.08239	0.16304	0.64130	0.08152	0.08152
1500	0	11.55556	21	0.08696	0.22283	0.61413	0.08152	0.08152
1800	0	11.55556	18	0.08152	0.22283	0.64130	0.08152	0.08152
2100	0	9.20552	21	0.07694	0.23013	0.65217	0.08152	0.08152

THE HOURLY SUMMARY TABLE FOR FALL 1963

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.70310	17	0.19773	0.12637	0.52198	0.10989	0.10989
0300	0	8.55307	13	0.15973	0.12637	0.50044	0.10989	0.10989
0600	0	7.89130	18	0.19773	0.10440	0.56945	0.10440	0.10440
0900	0	11.01259	20	0.19773	0.09361	0.59341	0.07183	0.07183
1200	0	11.47432	23	0.20370	0.10440	0.54966	0.14286	0.14286
1500	0	11.55556	26	0.17033	0.09890	0.62088	0.09890	0.09890
1800	0	8.13257	23	0.23370	0.13043	0.61538	0.04945	0.04945
2100	0	7.89130	20	0.19231	0.13716	0.66945	0.05495	0.05495

THE HOURLY SUMMARY TABLE FOR WIN. 1964

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.33333	24	0.31667	0.11667	0.37222	0.13333	0.13333
0300	0	9.36667	24	0.32222	0.11111	0.34444	0.12222	0.12222
0600	0	9.55556	23	0.33333	0.11111	0.35000	0.12222	0.12222
0900	0	10.45556	25	0.33444	0.09333	0.35000	0.13333	0.13333
1200	0	11.13333	26	0.37778	0.09333	0.35000	0.13333	0.13333
1500	0	11.33333	30	0.35556	0.09333	0.34444	0.13333	0.13333
1800	0	10.32222	24	0.36111	0.11956	0.35333	0.16111	0.16111
2100	0	9.47778	29	0.36000	0.11111	0.35556	0.21111	0.21111

THE HOURLY SUMMARY TABLE FOR SPR. 1964

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	10.79544	25	0.17935	0.15556	0.50000	0.12500	0.12500
0300	3	10.45556	27	0.22283	0.15761	0.47283	0.14774	0.14774
0600	0	10.51237	23	0.19565	0.15334	0.47283	0.14774	0.14774
0900	3	13.41304	23	0.22283	0.11957	0.50543	0.14774	0.14774
1200	4	14.71739	27	0.27226	0.12987	0.46713	0.11413	0.11413
1500	0	15.00000	26	0.28434	0.09733	0.46713	0.11413	0.11413
1800	4	15.44344	43	0.26367	0.12987	0.46713	0.11413	0.11413
2100	0	11.41304	29	0.23370	0.15761	0.45193	0.09452	0.09452

THE HOURLY SUMMARY TABLE FOR SUM. 1964

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.15473	20	0.11957	0.22283	0.50226	0.04748	0.04748
0300	0	11.70652	21	0.13547	0.21195	0.52261	0.07694	0.07694
0600	0	8.43217	18	0.13547	0.22283	0.51530	0.07694	0.07694
0900	0	11.19565	23	0.19376	0.17535	0.50970	0.13276	0.13276
1200	3	11.55556	25	0.13043	0.15217	0.55789	0.14130	0.14130
1500	0	11.93473	27	0.13043	0.13537	0.55789	0.13276	0.13276
1800	4	11.45565	22	0.13547	0.20552	0.54586	0.07694	0.07694
2100	0	9.41322	30	0.12500	0.25000	0.57055	0.03261	0.03261

THE HOURLY SUMMARY TABLE FOR FALL 1964

HR	LA	AVG. VEL.	UB	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.39390	32	0.23077	0.20330	0.44931	0.03261	0.03261
0300	0	9.41758	22	0.24176	0.18031	0.46713	0.04748	0.04748
0600	0	8.55714	14	0.27473	0.15234	0.46194	0.03143	0.03143
0900	0	11.43456	23	0.24176	0.13127	0.52747	0.05495	0.05495
1200	0	12.59549	24	0.25273	0.13735	0.55549	0.07143	0.07143
1500	0	12.72527	27	0.21429	0.15034	0.52747	0.07143	0.07143
1800	0	10.32178	23	0.24176	0.15234	0.46194	0.03143	0.03143
2100	0	9.13516	20	0.21478	0.18231	0.47722	0.07694	0.07694

Wichita

Instrument Height

1963-1964 32 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1965

HR	LA	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.61111	23	0.35500	0.12772	0.40556	0.11027	0.11027
0300	0	9.65556	25	0.35556	0.13444	0.38889	0.11111	0.11111
0600	0	9.66444	21	0.38889	0.14444	0.36111	0.11111	0.11111
0900	1	10.52222	22	0.38444	0.16111	0.34111	0.11111	0.11111
1200	0	12.18333	23	0.37222	0.15556	0.35000	0.11111	0.11111
1500	0	11.92222	26	0.33000	0.14444	0.33000	0.11111	0.11111
1800	0	9.27778	21	0.39000	0.11000	0.42222	0.11222	0.11222
2100	0	9.31111	24	0.30000	0.12778	0.47778	0.12222	0.12222

Wichita
Instrument Height
1965-1966 32 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1965

HR	LA	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	11.20612	31	0.28804	0.20622	0.38770	0.13221	0.13221
0300	0	10.51333	29	0.30435	0.15761	0.40217	0.12900	0.12900
0600	0	10.97823	35	0.30435	0.17935	0.37500	0.13870	0.13870
0900	0	12.92331	31	0.29248	0.17331	0.36234	0.12725	0.12725
1200	3	13.54733	24	0.27174	0.21739	0.35736	0.12473	0.12473
1500	4	13.60435	23	0.26430	0.19322	0.35957	0.12521	0.12521
1800	4	13.59233	20	0.22065	0.15217	0.43476	0.12823	0.12823
2100	0	13.73231	24	0.27717	0.22233	0.37500	0.12529	0.12529

THE HOURLY SUMMARY TABLE FOR SUM. 1965

HR	LA	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.29331	24	0.19226	0.22243	0.41557	0.12261	0.12261
0300	0	7.38333	30	0.12500	0.25543	0.52717	0.12491	0.12491
0600	0	7.97826	17	0.13587	0.25000	0.54543	0.12304	0.12304
0900	0	10.94913	29	0.05578	0.19022	0.61957	0.11957	0.11957
1200	0	11.52174	22	0.11957	0.16846	0.65161	0.13434	0.13434
1500	0	12.17391	24	0.15217	0.18476	0.58234	0.15217	0.15217
1800	4	12.46731	26	0.15473	0.24457	0.51957	0.15217	0.15217
2100	0	13.00000	29	0.10326	0.24951	0.55522	0.1217	0.1217

THE HOURLY SUMMARY TABLE FOR FALL 1965

HR	LA	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.17532	24	0.20121	0.11549	0.4857	0.12023	0.12023
0300	0	8.39560	22	0.34566	0.10944	0.48505	0.12044	0.12044
0600	0	8.63733	23	0.33516	0.13733	0.41209	0.12044	0.12044
0900	0	10.96733	24	0.28571	0.12043	0.45604	0.12537	0.12537
1200	2	11.81319	31	0.25274	0.10383	0.48110	0.12527	0.12527
1500	0	12.34366	27	0.30220	0.13137	0.39560	0.15934	0.15934
1800	0	9.74931	30	0.38418	0.12637	0.43155	0.17462	0.17462
2100	3	9.43953	32	0.27473	0.14335	0.48391	0.17461	0.17461

THE HOURLY SUMMARY TABLE FOR WIN. 1965

HR	LA	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.73331	32	0.31667	0.10000	0.45000	0.12222	0.12222
0300	0	13.14333	30	0.37778	0.10000	0.37222	0.13889	0.13889
0600	0	13.25556	27	0.43556	0.05657	0.38444	0.11111	0.11111
0900	0	13.11111	28	0.37778	0.08889	0.40000	0.11111	0.11111
1200	0	12.20000	22	0.38889	0.07222	0.41667	0.12778	0.12778
1500	0	12.81111	28	0.35556	0.05000	0.42000	0.18333	0.18333
1800	0	8.13333	25	0.33333	0.05567	0.44444	0.10556	0.10556
2100	0	10.12222	14	0.57778	0.12222	0.37778	0.11111	0.11111

THE HOURLY SUMMARY TABLE FOR SPR. 1965

HR	LA	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.97333	32	0.23613	0.15751	0.46739	0.12500	0.12500
0300	3	10.13444	33	0.23444	0.11413	0.46370	0.10870	0.10870
0600	2	11.16137	28	0.31322	0.13063	0.44565	0.10870	0.10870
0900	3	14.13333	29	0.32000	0.11957	0.45109	0.10326	0.10326
1200	3	14.23235	31	0.31522	0.10670	0.42935	0.14674	0.14674
1500	0	14.16667	20	0.27174	0.19478	0.37500	0.15761	0.15761
1800	0	12.12222	24	0.28444	0.12500	0.46739	0.10326	0.10326
2100	0	12.12000	30	0.29435	0.15217	0.46146	0.07065	0.07065

THE HOURLY SUMMARY TABLE FOR SUM. 1965

HR	LA	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.19333	17	0.10370	0.29348	0.52174	0.06522	0.06522
0300	2	8.17333	16	0.08596	0.30435	0.51630	0.09239	0.09239
0600	0	7.23911	13	0.15751	0.28391	0.47826	0.03261	0.03261
0900	0	9.06733	20	0.13043	0.22326	0.45435	0.06696	0.06696
1200	0	10.77174	20	0.09783	0.25543	0.55435	0.08152	0.08152
1500	0	10.41333	**	0.14674	0.22026	0.51630	0.08696	0.08696
1800	3	10.21733	**	0.10370	0.33152	0.50000	0.04891	0.04891
2100	3	13.93575	**	0.08836	0.39130	0.48370	0.02717	0.02717

THE HOURLY SUMMARY TABLE FOR FALL 1965

HR	LA	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	3	9.17532	19	0.25725	0.14286	0.50549	0.10440	0.10440
0300	0	8.33431	17	0.26373	0.20333	0.40559	0.07143	0.07143
0600	3	8.97611	19	0.10230	0.15195	0.41750	0.08242	0.08242
0900	0	10.54765	20	0.26923	0.10989	0.47253	0.11538	0.11538
1200	0	12.00490	21	0.25275	0.08242	0.46154	0.19231	0.19231
1500	0	11.30223	18	0.14231	0.10939	0.47802	0.18681	0.18681
1800	0	8.62531	16	0.27173	0.12088	0.51099	0.09741	0.09741
2100	0	8.97133	24	0.20379	0.14286	0.45604	0.17033	0.17033

THE HOURLY SUMMARY TABLE FOR WIN. 1967

HOURLY LB	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.34839	24	0.32778	0.10556	0.40556	0.13889
2300	1	10.42072	23	0.32222	0.13333	0.40000	0.13889
2200	0	10.43333	30	0.37222	0.13889	0.34444	0.13333
2100	0	11.32222	38	0.41667	0.10556	0.36111	0.10556
2000	4	13.37778	30	0.33667	0.10000	0.37222	0.10889
1900	0	13.73333	30	0.36667	0.08333	0.40000	0.13333
1800	3	10.37778	25	0.37778	0.08889	0.43333	0.10000
2100	3	10.53333	25	0.25000	0.12778	0.41111	0.20000

Wichita

Instrument Height

1967

32 Feet

1968

THE HOURLY SUMMARY TABLE FOR SPR. 1967

HOURLY LB	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	12.30000	30	0.21176	0.24457	0.43478	0.09793
2300	0	11.63333	30	0.27777	0.21739	0.39674	0.08696
2200	0	11.57778	20	0.30978	0.29000	0.37500	0.06435
2100	3	13.32222	24	0.23222	0.20652	0.38587	0.12500
2000	1	12.30000	27	0.20652	0.17935	0.41848	0.17391
1900	3	14.46667	28	0.47667	0.20109	0.41304	0.16304
1800	3	14.37778	27	0.25000	0.21739	0.38587	0.14074
2100	3	12.20000	27	0.25000	0.27174	0.40761	0.07365

THE HOURLY SUMMARY TABLE FOR SUM. 1967

HOURLY LB	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	8.32870	27	0.15217	0.19478	0.59783	0.03761
2300	0	7.29713	18	0.19565	0.25033	0.46739	0.04348
2200	0	7.14355	15	0.14130	0.25543	0.50543	0.03261
2100	0	10.30419	23	0.16304	0.17391	0.50876	0.06348
2000	0	11.29913	23	0.19565	0.15761	0.53804	0.08696
1900	2	12.36357	21	0.14674	0.22826	0.53804	0.08696
1800	0	11.33333	23	0.15217	0.21196	0.57609	0.02717
2100	0	8.32351	29	0.15761	0.29348	0.50543	0.02174

THE HOURLY SUMMARY TABLE FOR FALL 1967

HOURLY LB	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	7.59331	21	0.27473	0.12008	0.50659	0.12088
2300	0	7.58242	21	0.30769	0.10440	0.43956	0.11538
2200	0	7.59011	20	0.32684	0.12285	0.40659	0.06459
2100	0	12.69211	24	0.39011	0.12088	0.42857	0.04945
2000	3	12.34308	26	0.35165	0.14815	0.41209	0.08791
1900	0	12.74229	24	0.37363	0.09300	0.42857	0.08791
1800	0	9.87078	25	0.32418	0.13736	0.32418	0.05695
2100	0	7.59011	23	0.21429	0.16113	0.42108	0.13736

THE HOURLY SUMMARY TABLE FOR WIN. 1968

HOURLY LB	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.56667	23	0.33333	0.09444	0.41111	0.16111
2300	0	9.23333	24	0.33333	0.09444	0.37222	0.13333
2200	0	10.03333	24	0.42222	0.08333	0.35556	0.08333
2100	0	10.67778	30	0.42778	0.05556	0.34444	0.10000
2000	0	12.74444	32	0.42222	0.07778	0.33333	0.13333
1900	0	12.46667	26	0.40000	0.08333	0.36667	0.16667
1800	0	9.31111	26	0.38333	0.06667	0.42778	0.10000
2100	0	9.37778	25	0.35556	0.13444	0.32222	0.11111

THE HOURLY SUMMARY TABLE FOR SPR. 1968

HOURLY LB	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	10.73326	27	0.26630	0.13473	0.36547	0.16217
2300	0	10.26733	25	0.34239	0.12300	0.40217	0.11547
2200	0	10.46474	26	0.32696	0.13047	0.35587	0.13542
2100	4	12.46739	26	0.38943	0.09783	0.35374	0.12300
2000	3	14.33261	24	0.40217	0.11413	0.32696	0.15761
1900	4	14.18473	30	0.31522	0.09743	0.35279	0.22326
1800	4	12.60473	24	0.26630	0.08696	0.36130	0.14130
2100	0	10.88334	31	0.27717	0.13217	0.46739	0.09239

THE HOURLY SUMMARY TABLE FOR SUM. 1968

HOURLY LB	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.93179	24	0.12500	0.17935	0.65761	0.02717
2300	0	8.19365	23	0.10326	0.15761	0.55761	0.05761
2200	0	8.64130	26	0.14674	0.12665	0.50326	0.03261
2100	0	11.47639	30	0.06696	0.15217	0.55761	0.05761
2000	3	13.26937	30	0.14674	0.16130	0.55217	0.05761
1900	5	13.16304	28	0.11413	0.17935	0.56504	0.03473
1800	5	13.18473	25	0.13587	0.16304	0.68478	0.03473
2100	0	10.33656	19	0.09783	0.21739	0.61957	0.03261

THE HOURLY SUMMARY TABLE FOR FALL 1968

HOURLY LB	AVG. VEL.	UR	NTH.	DIRECTION	EAST	STH.	WEST
2400	0	9.28571	25	0.21429	0.08242	0.50543	0.16482
2300	0	9.14286	26	0.30223	0.07143	0.44231	0.10440
2200	0	9.00000	20	0.28022	0.06593	0.50543	0.11538
2100	0	11.52747	21	0.27473	0.05495	0.51648	0.12429
2000	4	13.37361	25	0.37363	0.03346	0.47293	0.11538
1900	3	13.49494	27	0.21663	0.07143	0.47293	0.11538
1800	4	10.61538	26	0.24615	0.07143	0.47293	0.11538
2100	0	9.30769	28	0.24374	0.12380	0.44505	0.13736

THE HOURLY SUMMARY TABLE FOR WIN. 1969

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2-00	0	10.2667	29	0.3323	0.2778	0.2778	0.1000
3-00	0	10.2222	28	0.3300	0.2111	0.3167	0.1000
4-00	0	11.3778	33	0.3778	0.2111	0.3167	0.0833
5-00	0	11.4333	33	0.3556	0.2111	0.3056	0.1278
6-00	0	12.3556	33	0.3444	0.1667	0.3611	0.1500
7-00	0	13.3333	30	0.3444	0.1778	0.4000	0.1778
8-00	0	13.3333	30	0.3722	0.2278	0.3167	0.0722
9-00	0	13.3111	31	0.3333	0.2667	0.2633	0.1056

THE HOURLY SUMMARY TABLE FOR SPR. 1969

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2-00	0	8.5217	25	0.2821	0.2119	0.3536	0.1430
3-00	0	8.5217	25	0.2821	0.2119	0.3536	0.1430
4-00	0	9.5217	27	0.3429	0.2821	0.3122	0.1026
5-00	0	11.5217	27	0.2717	0.2717	0.3096	0.0978
6-00	0	13.5556	33	0.3267	0.1430	0.2674	0.1387
7-00	0	13.5217	33	0.2717	0.1974	0.4251	0.1521
8-00	0	11.5217	28	0.3378	0.1253	0.3587	0.1467
9-00	0	9.2717	22	0.2717	0.2533	0.3570	0.1195

THE HOURLY SUMMARY TABLE FOR SUM. 1969

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2-00	0	8.5217	17	0.1195	0.3097	0.5304	0.0326
3-00	0	7.5217	19	0.1429	0.2500	0.2054	0.0760
4-00	0	8.1195	23	0.2019	0.1847	0.5361	0.0597
5-00	0	10.5454	25	0.1521	0.1683	0.5217	0.1576
6-00	0	10.5152	23	0.1848	0.2019	0.5107	0.0578
7-00	0	11.5217	25	0.1848	0.2019	0.5625	0.0760
8-00	0	11.5217	28	0.1195	0.3152	0.4813	0.0597
9-00	0	8.2500	18	0.1195	0.3695	0.4813	0.0271

THE HOURLY SUMMARY TABLE FOR FALL 1969

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2-00	0	8.1195	23	0.2500	0.1429	0.4624	0.1861
3-00	0	8.5217	13	0.2637	0.1535	0.4129	0.0824
4-00	0	8.1195	20	0.2367	0.1594	0.3950	0.0824
5-00	0	10.5217	27	0.2022	0.1644	0.4307	0.0870
6-00	0	12.5217	34	0.2512	0.1703	0.4505	0.1318
7-00	0	12.1644	34	0.2524	0.1267	0.3931	0.2257
8-00	0	9.1195	22	0.2267	0.1040	0.4011	0.1585
9-00	0	8.0454	19	0.2317	0.1752	0.3714	0.1594

THE HOURLY SUMMARY TABLE FOR WIN. 1970

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2-00	0	9.3444	22	0.3667	0.1722	0.3244	0.1222
3-00	0	9.2111	20	0.3944	0.2044	0.2833	0.1778
4-00	0	9.4000	27	0.4356	0.1278	0.2556	0.1500
5-00	0	10.3333	30	0.4000	0.1000	0.2944	0.2556
6-00	0	11.7444	30	0.4389	0.1222	0.2111	0.1200
7-00	0	12.4556	27	0.4556	0.1778	0.1878	0.1333
8-00	0	9.1000	25	0.3989	0.1500	0.2556	0.1222
9-00	0	8.0778	14	0.3667	0.1333	0.2833	0.1778

THE HOURLY SUMMARY TABLE FOR SPR. 1970

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2-00	0	10.2019	24	0.2313	0.1643	0.4513	0.1110
3-00	0	9.4133	27	0.2119	0.1871	0.4552	0.1333
4-00	0	9.1613	23	0.2717	0.1521	0.4133	0.1222
5-00	0	12.1348	29	0.2543	0.1521	0.4574	0.1200
6-00	0	13.5978	32	0.2451	0.1195	0.4735	0.2111
7-00	0	14.5217	32	0.2451	0.1333	0.4274	0.2111
8-00	0	12.7023	30	0.2717	0.1253	0.4545	0.1576
9-00	0	10.2946	21	0.2717	0.1571	0.4616	0.0556

THE HOURLY SUMMARY TABLE FOR SUM. 1970

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2-00	0	9.3444	30	0.1143	0.2391	0.5769	0.0574
3-00	0	8.3000	19	0.1795	0.1922	0.5537	0.0765
4-00	0	7.6478	16	0.1622	0.1731	0.5543	0.0574
5-00	0	12.5438	22	0.1622	0.1922	0.5522	0.1413
6-00	0	12.5913	23	0.1795	0.1413	0.5133	0.1517
7-00	0	12.5474	24	0.2067	0.1739	0.5022	0.1195
8-00	0	12.5000	24	0.1795	0.2019	0.5217	0.0765
9-00	0	9.3017	24	0.1043	0.2637	0.5636	0.1413

THE HOURLY SUMMARY TABLE FOR FALL 1970

HR	LB	AVG. VEL.	UB	NTH.	DIRECTION	STH.	WEST
					EAST		
2-00	0	9.5613	23	0.3070	0.0791	0.4360	0.1222
3-00	0	9.8571	26	0.3218	0.0931	0.4129	0.1222
4-00	0	9.1643	30	0.2912	0.1098	0.4256	0.1467
5-00	0	11.5217	24	0.3681	0.0931	0.3931	0.1576
6-00	0	12.3791	25	0.3574	0.0870	0.4129	0.1200
7-00	0	13.1093	30	0.3516	0.1604	0.3931	0.1576
8-00	0	10.7333	21	0.3516	0.0931	0.4556	0.1576
9-00	0	10.2454	31	0.2975	0.1040	0.4611	0.1778

Wichita
Instrument Height
1969-1970 25 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1971

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	9.0300	27	0.3722	0.11657	0.3339	0.15000
2300	0	8.9300	25	0.0722	0.3589	0.1444	0.1444
2200	0	9.4111	25	0.3717	0.0913	0.3611	0.1444
2100	0	10.5555	25	0.3944	0.0944	0.3333	0.1333
2000	0	12.0000	24	0.4277	0.0589	0.3111	0.1611
1900	0	13.1433	21	0.4444	0.0722	0.3339	0.1333
1800	0	9.0300	27	0.4000	0.1222	0.3778	0.1000
1700	0	9.0111	25	0.3167	0.1556	0.3222	0.1611

Wichita

Instrument Height
1971-1972 25 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1971

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	10.5000	32	0.2352	0.2457	0.3643	0.1739
2300	0	10.3133	24	0.2139	0.1878	0.4021	0.1739
2200	0	10.3600	28	0.2931	0.1965	0.3209	0.1576
2100	0	13.5433	31	0.2304	0.1955	0.3567	0.1467
2000	0	14.2633	30	0.2500	0.1197	0.4130	0.2179
1900	0	15.7833	42	0.2663	0.1343	0.4134	0.1795
1800	0	11.5833	41	0.2948	0.1521	0.4291	0.1303
1700	0	11.7174	34	0.2226	0.2116	0.4456	0.1143

THE HOURLY SUMMARY TABLE FOR SUM. 1971

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	9.2717	25	0.0806	0.2500	0.6370	0.0434
2300	0	7.7833	23	0.1413	0.1955	0.5923	0.0304
2200	0	7.9300	20	0.1250	0.2717	0.5130	0.0543
2100	0	10.2733	22	0.1303	0.1644	0.5438	0.1467
2000	0	11.5217	27	0.0366	0.2116	0.5622	0.1143
1900	0	11.9500	23	0.1143	0.2179	0.5769	0.0239
1800	0	11.7833	22	0.0923	0.2226	0.6197	0.0578
1700	0	9.9174	27	0.0912	0.3783	0.5217	0.0434

THE HOURLY SUMMARY TABLE FOR FALL 1971

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	9.0275	20	0.2227	0.1263	0.5054	0.1308
2300	0	8.7326	27	0.2307	0.0990	0.4941	0.1208
2200	0	8.7333	22	0.2402	0.0762	0.4614	0.1486
2100	0	11.2559	22	0.2623	0.0989	0.4780	0.1428
2000	0	12.9341	24	0.2418	0.0891	0.4238	0.1385
1900	0	12.6439	26	0.2023	0.1040	0.4450	0.1267
1800	0	10.1147	21	0.2332	0.1593	0.4210	0.1153
1700	0	9.1752	22	0.2306	0.1703	0.4837	0.0649

THE HOURLY SUMMARY TABLE FOR WIN. 1972

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	8.6349	24	0.2778	0.1774	0.3623	0.0333
2300	0	8.3222	22	0.3333	0.1611	0.3500	0.1444
2200	0	9.4111	25	0.3444	0.1667	0.3433	0.1777
2100	0	10.0555	24	0.2722	0.1722	0.3444	0.1777
2000	0	12.0000	27	0.3500	0.11657	0.3777	0.1272
1900	0	12.6667	32	0.4111	0.3444	0.3556	0.0744
1800	0	9.9000	25	0.3722	0.1033	0.4722	0.0555
1700	0	9.2667	25	0.2889	0.2355	0.3722	0.1000

THE HOURLY SUMMARY TABLE FOR SPR. 1972

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	9.4152	25	0.2226	0.2553	0.3513	0.1143
2300	0	10.0000	22	0.2608	0.1571	0.3473	0.2057
2200	0	10.3473	30	0.2934	0.1634	0.3532	0.1644
2100	0	13.1955	30	0.2771	0.1735	0.4130	0.1303
2000	0	14.1000	30	0.3312	0.0623	0.3750	0.2100
1900	0	14.2179	28	0.3326	0.1200	0.3637	0.1517
1800	0	11.6521	23	0.3468	0.1195	0.3674	0.0722
1700	0	9.1413	20	0.2313	0.2697	0.3667	0.1143

THE HOURLY SUMMARY TABLE FOR SUM. 1972

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	8.4782	17	0.1143	0.1955	0.6197	0.0578
2300	0	7.6304	20	0.1143	0.1955	0.5580	0.0152
2200	0	7.3943	18	0.1571	0.2179	0.5284	0.0434
2100	0	10.5143	18	0.1634	0.1571	0.5546	0.0219
2000	0	11.3097	21	0.2010	0.1387	0.5634	0.1570
1900	0	12.2179	25	0.1571	0.2352	0.5321	0.1326
1800	0	11.6521	22	0.1521	0.2062	0.5735	0.0578
1700	0	8.7426	16	0.1304	0.2062	0.5326	0.0578

THE HOURLY SUMMARY TABLE FOR FALL 1972

HR	LB	AVG.	UB	NTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	9.1317	20	0.3139	0.1534	0.3537	0.0545
2300	0	8.6703	20	0.2623	0.1644	0.4173	0.1543
2200	0	8.4614	22	0.2582	0.1782	0.2862	0.1040
2100	0	10.8631	21	0.2637	0.1733	0.4347	0.1358
2000	0	12.5970	25	0.2623	0.1376	0.4455	0.1372
1900	0	12.1317	27	0.2957	0.2637	0.4615	0.1153
1800	0	9.7252	23	0.2402	0.1534	0.4153	0.0341
1700	0	9.1404	25	0.2402	0.1713	0.4247	0.0595

THE DAILY SUMMARY TABLE FOR WIM. 1973

DATE	LA	AVG.	UR	NTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
1-23	3	5.5777	20	0.7773	0.1611	0.3544	0.1484
1-24	3	11.3627	23	0.3667	0.1277	0.3500	0.1222
1-25	3	9.9133	24	0.2833	0.1111	0.3611	0.1222
1-26	3	10.5723	26	0.3333	0.1111	0.3556	0.1000
1-27	3	17.1556	23	0.4556	0.0967	0.3277	0.1500
1-28	3	12.4200	19	0.3889	0.0777	0.3500	0.1722
1-29	3	19.2111	26	0.2889	0.1167	0.3777	0.0833
1-30	3	6.3222	20	0.2222	0.1167	0.3944	0.1111

Wichita
Instrument Height
1973 25 Feet

THE DAILY SUMMARY TABLE FOR SWR. 1973

DATE	LA	AVG.	UR	NTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
1-23	3	13.2222	27	0.2222	0.1250	0.3536	0.2116
1-24	3	9.2222	28	0.2222	0.1250	0.2697	0.1878
1-25	3	9.7500	26	0.2643	0.0923	0.2065	0.1735
1-26	3	12.4543	26	0.4076	0.1043	0.3312	0.1413
1-27	3	12.5217	29	0.4168	0.0769	0.3078	0.1739
1-28	3	12.4517	30	0.4749	0.0765	0.3205	0.1676
1-29	3	12.7178	36	0.4702	0.0889	0.2532	0.1079
1-30	3	16.1279	36	0.3332	0.1197	0.2643	0.1413

THE DAILY SUMMARY TABLE FOR SUM. 1973

DATE	LA	AVG.	UR	NTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
1-23	3	3.5753	27	0.0973	0.1413	0.6878	0.0434
1-24	3	7.5753	32	0.1234	0.1326	0.5929	0.0597
1-25	3	7.3333	34	0.1404	0.1250	0.6026	0.0769
1-26	3	10.2607	19	0.1387	0.0973	0.5217	0.2065
1-27	3	10.3433	23	0.1467	0.1304	0.5326	0.1576
1-28	3	11.5723	22	0.2179	0.1250	0.5326	0.1250
1-29	3	11.8073	25	0.2282	0.1793	0.5434	0.0304
1-30	3	5.1157	20	0.1187	0.1634	0.6634	0.0054

THE DAILY SUMMARY TABLE FOR FALL 1973

DATE	LA	AVG.	UR	NTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
1-23	3	4.5143	26	0.2634	0.1428	0.4455	0.1040
1-24	3	7.3493	22	0.2307	0.1703	0.4505	0.1040
1-25	3	4.6433	22	0.2575	0.2074	0.4178	0.0891
1-26	3	10.1119	25	0.2634	0.1317	0.4584	0.1267
1-27	3	12.3759	29	0.2634	0.1535	0.4505	0.1318
1-28	3	12.4255	25	0.2326	0.1648	0.4782	0.1098
1-29	3	9.3004	22	0.2169	0.2030	0.4505	0.1098
1-30	3	8.1127	24	0.2417	0.2425	0.3901	0.1098

YEAR	SPEEDS	EXCESS=	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1947	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				
JAN.	7	0	2	3	10	13	13	18	15	27	14	19	12	10	15	8	6	14	5	9	8	10	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	5	2	13	8	13	15	18	22	17	20	11	12	15	12	10	4	14	2	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MAR.	3	1	5	8	6	16	15	11	4	19	11	19	15	15	9	6	5	14	5	14	8	9	4	5	4	1	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	10	0	2	7	6	14	13	19	9	25	14	11	10	14	17	14	7	11	8	12	5	6	2	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	13	4	4	9	15	13	10	11	14	32	12	20	15	15	13	11	8	15	3	6	2	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	14	2	9	8	15	20	17	20	17	19	12	9	8	11	6	9	3	11	2	8	2	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	10	0	4	14	15	12	29	31	29	26	7	15	17	12	6	2	3	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	13	5	8	12	9	19	21	15	13	23	12	27	11	21	8	3	4	7	2	5	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	12	5	10	17	13	17	20	23	16	26	14	20	6	8	11	5	1	5	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	11	1	6	9	10	22	18	13	22	11	21	16	17	14	12	6	10	4	5	1	3	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
NOV.	13	1	8	2	12	14	19	17	23	27	9	15	14	6	9	12	10	12	1	5	1	3	4	1	1	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0
DEC.	12	5	3	5	14	15	25	12	32	20	15	7	9	9	10	10	4	9	5	7	2	5	1	2	3	2	1	2	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	

Wind Speed Density

By The Month

Wienita

Years

1957

1958

1959

1960

Instrument Height

1957-1960 52 Feet

YEAR	SPEEDS	EXCESS=	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1957	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35 <td>36<td>37</td><td>38</td><td>39</td><td>40</td></td>	36 <td>37</td> <td>38</td> <td>39</td> <td>40</td>	37	38	39	40				
JAN.	8	4	10	9	17	25	20	27	13	22	9	8	6	11	12	6	4	2	8	2	2	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	4	0	0	7	4	8	15	17	26	26	15	16	13	12	7	5	12	3	8	3	5	4	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	2	4	10	7	18	13	17	22	11	18	16	15	20	17	12	3	6	8	5	7	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	10	1	5	7	13	13	17	23	13	11	21	7	20	12	8	5	16	3	7	1	3	2	0	1	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	20	4	8	9	11	13	11	16	15	39	16	11	15	13	8	12	4	1	6	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	5	2	6	8	12	10	13	7	23	9	23	12	15	11	10	7	20	4	14	6	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
JULY	13	1	9	7	10	13	15	17	17	28	9	24	12	12	20	6	5	10	2	12	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	17	3	11	6	20	19	22	31	21	20	10	15	13	14	4	3	5	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	6	1	9	8	14	10	13	13	24	11	11	23	8	17	14	5	16	8	13	1	4	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	2	1	5	6	11	25	26	24	16	22	14	18	11	8	10	9	6	1	6	2	3	2	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	11	4	9	8	16	5	17	21	13	15	8	16	16	12	14	9	5	16	3	7	0	5	0	1	4	0	2	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	4	1	13	8	13	17	10	24	13	20	10	27	23	10	8	10	10	7	1	7	5	2	2	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

YEAR	SPEEDS					EXCESS= 0																																				
YEAR	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
JAN.	2	3	9	6	10	11	7	13	12	16	13	8	20	10	11	7	12	19	10	9	1	8	6	4	4	1	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	4	3	7	8	14	18	20	12	12	16	12	16	12	22	16	11	4	8	5	12	1	4	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	6	3	3	1	4	6	6	11	11	17	16	14	16	11	7	7	14	6	12	7	11	5	0	5	3	1	3	0	2	1	3	3	0	0	0	0	0	0	0	0	0	0
APR.	3	2	5	4	8	9	17	13	14	16	13	11	13	12	6	9	9	15	6	9	5	6	5	2	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MAY.	13	4	4	6	10	5	8	12	14	13	4	13	11	14	13	12	20	14	6	12	7	5	3	5	4	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
JUNE	16	2	4	6	21	13	17	16	12	21	11	16	17	9	10	12	4	9	7	6	1	5	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
JULY	16	9	13	11	14	12	20	21	24	18	17	21	11	6	7	5	6	6	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
AUG.	13	0	5	4	3	9	14	13	10	22	11	29	14	11	14	15	10	15	7	7	3	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SEP.	6	3	3	11	12	14	7	10	11	15	7	15	16	11	13	13	9	10	7	17	8	6	5	1	2	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
OCT.	7	3	8	3	7	13	13	29	18	15	22	14	14	10	8	9	6	11	3	5	0	5	5	1	2	0	1	1	0	2	0	1	0	2	0	0	0	0	0	0	0	
NOV.	9	6	6	10	13	12	9	11	16	19	10	19	13	8	9	13	8	11	3	4	4	0	2	0	4	1	2	2	0	4	0	1	0	0	0	0	0	0	0	0	0	
DEC.	13	3	5	7	17	23	18	6	10	10	10	10	12	9	5	9	11	4	11	6	2	6	3	1	6	1	1	2	1	1	2	0	1	2	0	1	0	0	0	0	0	

YEAR	SPEEDS	EXCESS=	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
JAN.	4	0	2	11	11	23	27	33	20	13	12	17	19	9	12	7	6	3	1	6	2	2	2	2	2	2	4	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	7	0	2	5	19	17	19	25	17	27	23	12	10	9	16	6	5	7	2	7	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	7	0	1	6	8	9	10	18	12	30	13	12	13	7	13	14	10	21	5	13	3	1	3	2	5	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	6	0	1	11	10	14	7	13	11	10	14	20	12	15	21	9	17	9	6	7	3	3	2	0	4	3	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	13	1	1	6	12	12	14	17	14	20	19	11	16	14	22	10	15	10	3	7	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	20	1	3	13	15	16	11	26	14	24	9	17	21	8	6	4	2	3	4	0	2	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	21	2	7	8	11	15	19	23	17	34	10	16	14	17	13	7	3	6	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	22	7	5	27	19	20	24	24	13	19	11	14	8	10	7	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	10	0	7	4	12	14	16	10	12	10	10	21	13	7	14	9	0	14	6	6	2	3	2	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OCT.	11	0	7	5	14	6	9	11	19	13	13	12	9	3	7	14	11	5	6	1	2	6	3	1	2	6	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	15	0	7	12	14	17	14	24	10	21	15	17	13	9	3	7	14	11	5	6	1	2	6	3	1	2	6	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	12	0	6	10	17	14	29	21	13	15	13	12	21	12	13	7	6	8	2	8	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

YEAR	SPEEDS	EXCESS=	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1952	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				
JAN.	13	0	0	3	17	27	19	14	17	22	5	13	13	15	14	7	9	4	4	6	1	1	1	1	3	5	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	1	0	3	12	14	16	30	26	14	19	7	18	12	11	10	7	13	11	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	3	0	6	5	11	15	14	25	12	20	17	17	16	12	21	14	10	12	2	4	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	4	0	4	11	7	23	12	17	15	20	15	16	17	17	10	2	11	10	6	4	2	6	4	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	11	0	7	2	3	5	8	13	14	17	12	13	10	13	31	9	15	22	6	12	4	2	2	1	2	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	4	0	6	17	17	19	17	30	15	27	14	15	17	9	14	4	5	3	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	12	0	6	11	14	16	29	20	15	25	6	16	15	9	20	3	5	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	21	0	5	11	14	17	26	22	17	16	12	19	3	5	6	2	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	30	7	6	3	16	25	16	20	15	18	17	13	10	11	10	4	10	4	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	15	1	4	8	12	17	14	14	19	20	11	14	11	11	17	16	13	7	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	19	0	3	8	12	12	33	26	16	14	15	20	14	16	17	9	3	5	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	7	0	4	10	25	20	21	19	27	16	18	8	12	11	15	3	3	0	4	2	1	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

YEAR	SPEEDS	EXCESS=	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
1953	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40					
JAN.	4	0	1	9	20	12	22	22	17	21	8	9	13	11	10	10	8	10	3	12	4	7	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	4	0	3	7	12	13	15	20	26	25	11	16	9	20	16	9	13	4	2	6	4	3	3	1	1	0	2	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	1	0	1	13	10	8	12	18	16	17	7	13	14	17	23	4	12	10	11	6	1	5	2	2	2	3	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	1	0	7	11	18	19	23	12	27	12	12	3	12	15	11	3	6	2	6	2	7	4	3	1	1	1	1	1	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY.	12	0	7	22	30	16	17	19	9	13	7	15	14	17	11	2	9	7	3	9	1	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	12	0	3	13	9	24	9	28	27	29	17	15	13	12	15	12	7	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	8	0	4	22	19	24	21	21	17	13	10	17	15	19	14	2	7	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	14	0	2	24	21	34	33	32	15	22	10	11	8	5	3	4	1	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	9	0	12	17	26	24	26	30	16	25	6	18	5	5	4	5	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	1	0	3	13	19	23	23	26	15	24	14	17	14	13	7	2	4	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	13	0	9	23	14	22	10	35	3	19	8	18	8	11	14	2	7	6	5	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	7	1	2	14	17	24	21	33	22	26	11	19	19	11	11	3	5	3	3	4	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

YEAR	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
1973	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
JAN.	8	0	9	13	25	19	13	21	13	17	14	20	21	12	9	6	1	1	7	2	4	1	1	0	2	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	6	0	5	11	17	14	20	16	15	17	19	16	17	16	9	7	10	5	2	5	4	2	0	1	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	7	0	1	8	16	25	18	16	9	17	10	17	11	13	17	15	6	10	2	6	4	2	3	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	3	1	1	9	5	14	15	17	12	19	8	12	12	17	13	9	16	16	3	13	4	5	5	2	3	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	
MAY.	16	0	6	19	14	15	21	17	14	16	14	10	11	13	16	8	9	6	2	5	4	2	2	3	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
JUNE	13	1	10	24	21	13	21	10	16	31	9	17	10	10	3	7	4	5	2	2	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
JULY	14	0	3	11	35	23	24	14	13	22	11	15	12	11	4	7	3	2	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AUG.	17	0	5	13	19	13	29	20	19	18	13	20	13	9	12	13	9	9	4	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SEP.	5	0	3	9	15	15	17	37	13	27	13	11	15	9	12	5	2	14	4	3	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OCT.	5	3	3	15	25	15	19	24	7	13	12	13	12	17	14	5	7	8	5	5	2	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NOV.	15	0	0	6	15	17	11	16	18	22	20	20	13	9	19	11	6	6	0	7	3	5	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
DEC.	3	0	1	9	15	13	19	25	13	26	9	23	12	9	12	13	4	7	3	10	1	3	6	1	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Wind Speed Density

By The Month

Nichita

Years

(1973

Instrument Height

1973 25 Feet

Wind Speed In Knots

MONTH	AVGVEL	AVGVEL	RMCVEL	RMCVEL	VOUBED	VOUBED	VOUBED	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	1954
JAN.	11.90	14.45	15.60	17.83	42.81	24.33	37.17	40.38	0.0	38.93	WICHITA KANSAS
FEB.	13.16	15.20	15.61	18.81	42.82	12.28	40.81	40.55	0.0	42.68	SEDGWICK COUNTY
MAR.	12.77	15.75	15.56	18.63	42.29	24.75	38.15	48.41	0.0	40.71	CORRECTED HT. 100 FT.
APR.	13.43	15.86	15.67	18.80	52.81	35.53	46.15	50.38	0.0	48.58	INSTRUMENT HT. 32 FT.
MAY.	10.38	13.06	12.20	15.70	35.93	21.66	31.15	37.35	0.0	32.51	PEAK LIMIT IS 16 KNTS.
JUNE.	13.12	15.91	15.07	18.17	51.23	35.05	44.43	53.37	0.0	46.82	FRIC. LIM. IS 7KNTS.
JULY.	10.53	13.13	11.55	14.67	34.17	11.54	34.38	41.55	0.0	36.57	CODE=1 COR. HT. BULK MWH.
AUG.	12.18	15.16	13.69	15.75	47.16	40.87	41.17	49.79	0.0	43.67	CODE=2 DRG. HT. PER
SEP.	11.17	13.98	12.48	15.81	40.17	26.17	36.49	44.65	0.0	39.16	UNIT AREA KWH/M**2
OCT.	12.82	15.85	14.63	17.79	48.83	33.74	42.66	51.30	0.0	44.73	CODE=3 COR.HT. PER.
NOV.	10.33	12.95	12.85	15.67	35.31	21.93	31.41	37.34	0.0	33.19	UNIT AREA KWH/M**2
DEC.	12.54	15.52	15.92	18.02	44.25	30.62	38.81	45.15	0.0	40.48	WIND SPEEDS ARE IN KNOTS.
SUMS	12.06	14.98	15.26	17.33	529.78	347.44	464.64	538.34	0.0	437.98	

MONTH	AVGVEL	AVGVEL	RMCVEL	RMCVEL	VOUBED	VOUBED	VOUBED	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	1955
JAN.	12.45	15.42	15.55	17.85	45.73	33.33	40.99	49.10	0.0	43.07	WICHITA KANSAS
FEB.	12.50	15.40	13.22	18.31	44.17	28.30	38.74	45.47	0.0	40.32	SEDGWICK COUNTY
MAR.	14.58	17.84	15.42	20.15	53.51	37.22	45.94	50.49	0.0	48.02	CORRECTED HT. 100 FT.
APR.	14.06	17.20	15.77	20.05	44.90	34.95	42.80	50.74	0.0	49.51	INSTRUMENT HT. 32 FT.
MAY.	12.51	15.50	14.91	17.49	45.22	29.85	39.68	47.43	0.0	41.61	PEAK LIMIT IS 16 KNTS.
JUNE.	12.02	14.63	14.25	17.29	44.12	28.51	38.70	46.17	0.0	40.49	FRIC. LIM. IS 7KNTS.
JULY.	11.60	14.47	13.71	16.89	41.60	26.32	35.49	43.46	0.0	38.10	CODE=1 COR. HT. BULK MWH.
AUG.	9.50	12.05	10.96	13.34	33.55	17.69	29.43	35.45	0.0	31.10	CODE=2 DRG. HT. PER
SEP.	12.27	15.21	14.55	17.83	45.55	30.51	39.08	46.51	0.0	40.79	UNIT AREA KWH/M**2
OCT.	12.55	15.56	14.50	17.53	47.65	30.13	41.81	50.10	0.0	43.94	CODE=3 COR.HT. PER.
NOV.	11.49	14.31	13.70	16.53	42.75	27.43	37.51	44.45	0.0	39.34	UNIT AREA KWH/M**2
DEC.	11.72	14.63	13.44	16.43	43.49	27.69	38.12	45.58	0.0	39.98	WIND SPEEDS ARE IN KNOTS.
SUMS	12.27	15.22	14.58	17.64	536.25	350.71	470.35	561.22	0.0	492.26	

MONTH	AVGVEL	AVGVEL	RMCVEL	RMCVEL	VOUBED	VOUBED	VOUBED	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	1956
JAN.	10.58	13.31	12.23	15.16	38.42	21.90	34.05	41.43	0.0	36.34	WICHITA KANSAS
FEB.	10.72	13.44	12.87	15.72	38.02	22.82	33.35	40.13	0.0	35.20	SEDGWICK COUNTY
MAR.	13.37	16.45	15.63	18.73	44.55	33.43	42.67	50.75	0.0	44.51	CORRECTED HT. 100 FT.
APR.	13.37	16.45	15.63	18.84	43.53	33.91	42.61	50.38	0.0	44.19	INSTRUMENT HT. 32 FT.
MAY.	14.23	17.53	15.13	19.44	54.75	35.31	48.02	57.22	0.0	50.19	PEAK LIMIT IS 16 KNTS.
JUNE.	11.88	14.77	13.84	16.47	44.12	23.45	38.70	46.50	0.0	40.87	FRIC. LIM. IS 7KNTS.
JULY.	10.33	13.03	11.97	14.77	37.35	21.29	32.77	39.71	0.0	34.83	CODE=1 COR. HT. BULK MWH.
AUG.	12.22	15.21	13.77	16.14	47.28	30.46	41.47	49.55	0.0	43.47	CODE=2 DRG. HT. PER
SEP.	11.91	14.81	13.94	16.15	44.30	28.69	38.35	45.63	0.0	40.90	UNIT AREA KWH/M**2
OCT.	11.59	14.33	13.47	16.47	40.37	27.91	35.41	42.94	0.0	38.83	CODE=3 COR.HT. PER.
NOV.	11.84	14.70	14.19	17.22	43.31	28.31	38.43	45.78	0.0	40.16	UNIT AREA KWH/M**2
DEC.	11.23	14.12	13.13	16.05	41.15	24.91	36.10	43.57	0.0	38.22	WIND SPEEDS ARE IN KNOTS.
SUMS	11.95	14.86	14.10	17.12	527.22	310.85	462.44	553.93	0.0	495.75	

MONTH	AVGVEL	AVGVEL	RMCVEL	RMCVEL	VOUBED	VOUBED	VOUBED	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	1957
JAN.	12.19	15.12	14.31	17.33	44.91	29.01	39.40	47.27	0.0	41.45	WICHITA KANSAS
FEB.	10.42	13.09	12.71	15.53	36.49	22.37	32.36	38.57	0.0	33.83	SEDGWICK COUNTY
MAR.	13.12	16.15	15.73	18.50	47.24	31.71	41.44	49.25	0.0	43.20	CORRECTED HT. 100 FT.
APR.	12.46	15.41	14.54	17.50	46.23	31.32	41.59	48.39	0.0	42.45	INSTRUMENT HT. 32 FT.
MAY.	11.13	13.92	12.97	15.90	41.77	25.93	36.21	44.60	0.0	32.94	PEAK LIMIT IS 16 KNTS.
JUNE.	10.10	12.69	12.85	15.43	34.00	21.10	29.82	35.44	0.0	31.09	FRIC. LIM. IS 7KNTS.
JULY.	9.33	11.89	10.53	13.31	31.50	15.28	27.63	33.44	0.0	29.34	CODE=1 COR. HT. BULK MWH.
AUG.	9.70	12.53	11.52	14.27	35.04	19.42	31.61	37.90	0.0	33.24	CODE=2 DRG. HT. PER
SEP.	8.73	11.13	10.66	13.24	27.91	15.22	25.45	30.86	0.0	27.05	UNIT AREA KWH/M**2
OCT.	10.91	13.65	12.94	15.34	41.32	25.12	36.25	43.30	0.0	37.98	CODE=3 COR.HT. PER.
NOV.	10.72	13.41	13.11	15.93	34.24	27.62	34.54	40.22	0.0	35.28	UNIT AREA KWH/M**2
DEC.	11.39	14.19	16.28	17.21	33.25	24.13	33.55	40.07	0.0	35.14	WIND SPEEDS ARE IN KNOTS.
SUMS	10.77	13.60	13.21	16.09	461.68	284.27	403.45	480.10	0.0	429.00	

MONTH	AVGVEL	AVGVEL	RMCVEL	RMCVEL	VOUBED	VOUBED	VOUBED	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	1958
JAN.	9.71	12.25	12.00	14.65	21.43	15.92	27.51	33.05	0.0	28.99	WICHITA KANSAS
FEB.	12.10	15.25	14.74	17.27	45.45	27.81	39.35	47.33	0.0	41.52	SEDGWICK COUNTY
MAR.	10.59	13.30	12.52	15.28	37.22	25.26	34.40	41.11	0.0	36.06	CORRECTED HT. 100 FT.
APR.	11.50	14.20	14.23	17.10	41.27	26.24	36.21	41.25	0.0	37.94	INSTRUMENT HT. 32 FT.
MAY.	10.23	12.99	14.11	16.72	37.97	22.84	32.86	39.84	0.0	34.94	PEAK LIMIT IS 16 KNTS.
JUNE.	12.65	15.40	14.67	17.45	45.33	31.97	41.63	49.59	0.0	42.62	FRIC. LIM. IS 7KNTS.
JULY.	11.06	13.95	12.96	15.87	41.11	24.42	36.06	43.41	0.0	38.07	CODE=1 COR. HT. BULK MWH.
AUG.	9.41	11.48	10.98	12.50	29.67	15.54	26.70	31.31	0.0	27.64	CODE=2 DRG. HT. PER
SEP.	11.95	14.72	14.20	17.03	45.63	29.17	39.15	46.64	0.0	40.95	UNIT AREA KWH/M**2
OCT.	10.57	13.23	12.55	15.17	36.46	21.41	32.31	37.53	0.0	31.76	CODE=3 COR.HT. PER.
NOV.	11.25	14.00	14.13	17.07	40.27	25.95	35.12	42.09	0.0	36.91	UNIT AREA KWH/M**2
DEC.	11.60	14.25	15.48	16.97	41.71	25.34	36.09	43.46	0.0	38.97	WIND SPEEDS ARE IN KNOTS.
SUMS	11.29	14.74	14.31	16.71	576.65	274.65	417.33	494.01	0.0	437.79	

MONTH	AVGVEL	AVGVEL	AVGVEL	AVGVEL	WINDSPEED	WINDSPEED	WINDSPEED	ERDA	ERDA	ERDA	INFORMATION	1959
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	12.05	15.56	15.57	15.57	35.53	22.55	31.17	38.83	0.0	42.87	WICHITA KANSAS	
FEB.	11.48	14.31	13.50	15.56	33.12	27.13	37.82	45.11	0.0	39.57	SEDGWICK COUNTY	
MAR.	15.95	15.19	17.93	21.29	31.09	37.60	45.50	55.59	0.0	48.76	CORRECTED HT. 100 FT.	
APR.	13.36	15.43	15.02	19.21	37.39	27.42	41.57	49.92	0.0	43.34	INSTRUMENT HT. 32 FT.	
MAY.	13.82	15.72	16.06	19.30	39.62	35.89	41.93	51.61	0.0	45.29	PEAK LIMIT IS 16 KNOTS.	
JUN.	13.55	13.22	13.36	15.23	33.09	25.61	33.35	39.89	0.0	34.93	FRICT. LIM. IS 7KNTS.	
JULY	9.14	12.42	12.06	14.89	33.47	19.35	29.71	35.95	0.0	31.52	CODE=1 COR. HT. BULK MWH.	
AUG.	12.47	15.48	15.17	17.17	38.30	32.02	43.25	51.85	0.0	45.49	CODE=2 DRG. HT. PER	
SEP.	12.50	15.43	15.10	18.22	35.52	31.63	39.93	47.30	0.0	41.54	UNIT AREA KWH/M**2	
OCT.	11.42	14.22	15.00	16.96	41.09	25.23	36.09	43.21	0.0	37.90	CODE=3 COR.HT. PER.	
NOV.	12.13	15.94	15.43	18.47	32.77	24.12	37.52	44.89	0.0	39.37	UNIT AREA KWH/M**2	
DEC.	12.19	15.05	15.79	18.71	41.15	27.19	35.22	41.33	0.0	36.25	WIND SPEEDS ARE IN KNOTS.	
SUMS	12.30	15.21	15.05	18.11	528.86	352.78	439.63	555.05	0.0	486.85		

MONTH	AVGVEL	AVGVEL	AVGVEL	AVGVEL	WINDSPEED	WINDSPEED	WINDSPEED	ERDA	ERDA	ERDA	INFORMATION	1960
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	10.73	12.43	13.25	15.23	35.73	22.23	32.26	38.40	0.0	33.58	WICHITA KANSAS	
FEB.	13.00	15.03	15.37	18.53	33.31	32.83	43.33	59.34	0.0	44.15	SEDGWICK COUNTY	
MAR.	11.83	14.43	15.29	17.22	35.51	24.35	30.00	47.62	0.0	41.77	CORRECTED HT. 100 FT.	
APR.	14.75	17.95	17.44	20.82	31.67	35.60	45.16	53.65	0.0	46.93	INSTRUMENT HT. 32 FT.	
MAY.	12.50	15.69	15.93	18.02	35.82	30.39	40.19	47.95	0.0	42.06	PEAK LIMIT IS 16 KNTS.	
JUNE	11.95	14.85	15.19	17.17	34.45	25.41	33.49	46.94	0.0	41.13	FRICT. LIM. IS 7KNTS.	
JULY	8.80	11.23	10.67	13.26	24.16	15.02	25.58	30.51	0.0	26.76	CODE=1 COR. HT. BULK MWH.	
AUG.	12.17	15.14	13.93	16.99	45.15	30.19	40.44	49.41	0.0	42.46	CODE=2 DRG. HT. PER	
SEP.	9.86	12.46	11.77	14.51	31.53	19.58	30.37	36.50	0.0	32.02	UNIT AREA KWH/M**2	
OCT.	10.50	13.20	12.31	15.22	37.29	21.59	32.71	38.94	0.0	34.16	CODE=3 COR.HT. PER.	
NOV.	12.75	15.74	15.05	18.10	47.53	32.12	41.89	49.73	0.0	43.62	UNIT AREA KWH/M**2	
DEC.	11.40	14.22	14.06	16.98	39.91	24.16	34.21	40.84	0.0	35.82	WIND SPEEDS ARE IN KNOTS.	
SUMS	11.70	14.55	14.16	17.15	505.22	324.50	444.02	529.55	0.0	454.57		

MONTH	AVGVEL	AVGVEL	AVGVEL	AVGVEL	WINDSPEED	WINDSPEED	WINDSPEED	ERDA	ERDA	ERDA	INFORMATION	1961
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	10.41	13.09	12.92	15.61	35.15	20.33	30.33	36.53	0.0	32.04	WICHITA KANSAS	
FEB.	10.24	12.90	12.35	14.85	35.13	20.75	31.73	38.29	0.0	33.53	SEDGWICK COUNTY	
MAR.	13.15	16.22	15.24	18.41	43.59	33.24	42.63	51.02	0.0	44.75	CORRECTED HT. 100 FT.	
APR.	12.84	15.34	15.29	18.42	43.46	37.23	42.50	50.56	0.0	44.35	INSTRUMENT HT. 32 FT.	
MAY.	11.70	14.54	13.34	16.35	34.99	28.51	39.47	47.15	0.0	41.36	PEAK LIMIT IS 16 KNTS.	
JUNE	9.42	11.92	11.47	14.17	33.04	13.61	29.70	35.94	0.0	31.52	FRICT. LIM. IS 7KNTS.	
JULY	9.69	12.27	11.43	14.16	35.17	19.20	30.85	37.19	0.0	32.62	CODE=1 COR. HT. BULK MWH.	
AUG.	7.72	9.45	9.55	11.94	23.72	11.47	25.40	24.85	0.0	21.81	CODE=2 DRG. HT. PER	
SEP.	11.35	14.13	13.94	16.89	41.35	25.23	35.33	42.75	0.0	37.50	UNIT AREA KWH/M**2	
OCT.	10.58	13.15	13.76	16.57	37.23	25.59	34.49	41.23	0.0	36.16	CODE=3 COR.HT. PER.	
NOV.	9.84	12.37	12.58	15.33	33.84	19.85	29.67	35.63	0.0	31.25	UNIT AREA KWH/M**2	
DEC.	10.38	13.06	12.32	15.14	37.01	21.53	32.46	38.39	0.0	33.67	WIND SPEEDS ARE IN KNOTS.	
SUMS	10.51	13.25	12.91	15.25	457.39	277.55	401.19	479.55	0.0	420.63		

MONTH	AVGVEL	AVGVEL	AVGVEL	AVGVEL	WINDSPEED	WINDSPEED	WINDSPEED	ERDA	ERDA	ERDA	INFORMATION	1962
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	10.37	12.99	13.14	15.95	35.53	21.61	31.16	36.84	0.0	32.31	WICHITA KANSAS	
FEB.	10.25	12.92	12.13	14.95	35.91	21.44	31.50	37.35	0.0	32.76	SEDGWICK COUNTY	
MAR.	11.36	14.29	15.00	15.96	43.38	26.39	33.05	45.50	0.0	39.90	CORRECTED HT. 100 FT.	
APR.	11.33	14.12	13.45	16.61	42.22	26.02	27.94	44.15	0.0	38.73	INSTRUMENT HT. 32 FT.	
MAY.	14.10	17.32	15.98	19.25	54.20	33.01	47.54	56.63	0.0	49.67	PEAK LIMIT IS 16 KNTS.	
JUNE	9.54	12.10	11.23	13.92	31.24	17.35	29.19	35.39	0.0	30.77	FRICT. LIM. IS 7KNTS.	
JULY	9.96	12.61	11.55	14.39	35.55	19.76	31.19	37.35	0.0	32.76	CODE=1 COR. HT. BULK MWH.	
AUG.	9.76	12.34	11.72	14.45	34.94	19.37	30.54	36.51	0.0	32.03	CODE=2 DRG. HT. PER	
SEP.	8.75	11.10	11.16	13.78	30.09	17.01	26.37	31.47	0.0	27.60	UNIT AREA KWH/M**2	
OCT.	10.20	12.83	12.23	15.04	37.46	22.12	32.46	39.41	0.0	34.57	CODE=3 COR.HT. PER.	
NOV.	10.00	12.63	11.55	14.37	37.09	20.55	32.45	38.71	0.0	33.95	UNIT AREA KWH/M**2	
DEC.	10.27	12.46	12.12	14.91	35.23	20.66	30.90	36.86	0.0	32.33	WIND SPEEDS ARE IN KNOTS.	
SUMS	10.50	13.18	12.60	15.43	454.79	271.28	398.91	475.37	0.0	417.40		

MONTH	AVGVEL	AVGVEL	AVGVEL	AVGVEL	WINDSPEED	WINDSPEED	WINDSPEED	ERDA	ERDA	ERDA	INFORMATION	1963
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	11.31	14.11	13.53	16.73	35.54	25.38	35.51	40.95	0.0	35.02	WICHITA KANSAS	
FEB.	11.55	14.61	13.43	16.40	42.87	26.51	37.60	45.15	0.0	39.61	SEDGWICK COUNTY	
MAR.	12.91	15.75	13.23	16.37	47.47	22.00	41.83	49.49	0.0	43.37	CORRECTED HT. 100 FT.	
APR.	11.37	14.55	13.91	16.33	34.55	24.19	31.91	41.45	0.0	35.48	INSTRUMENT HT. 32 FT.	
MAY.	11.35	14.55	12.59	15.25	24.15	23.72	29.85	35.41	0.0	31.06	PEAK LIMIT IS 16 KNTS.	
JUNE	10.12	12.99	11.51	14.00	34.09	22.55	32.50	39.58	0.0	34.72	FRICT. LIM. IS 7KNTS.	
JULY	9.54	12.61	11.95	14.33	35.09	17.59	28.15	34.23	0.0	30.92	CODE=1 COR. HT. BULK MWH.	
AUG.	8.17	10.54	9.81	12.06	25.92	11.39	25.92	24.65	0.0	21.56	CODE=2 DRG. HT. PER	
SEP.	9.30	10.55	9.54	12.41	24.78	12.29	21.74	25.99	0.0	22.79	UNIT AREA KWH/M**2	
OCT.	9.45	12.02	11.73	14.35	24.87	12.51	20.84	36.39	0.0	30.16	CODE=3 COR.HT. PER.	
NOV.	9.87	11.93	11.62	14.05	33.34	17.34	25.64	31.65	0.0	27.79	UNIT AREA KWH/M**2	
DEC.	9.42	12.33	11.55	14.11	35.51	17.15	25.50	35.14	0.0	29.11	WIND SPEEDS ARE IN KNOTS.	
SUMS	10.11	12.75	11.76	14.39	416.32	261.17	366.05	436.24	0.0	392.67		

MONTH	AVGVEL	AVGVEL	RMCVEL	RMCVEL	VOUGED	VOUGED	VOUGED	ERDA	ERDA	ERDA	INFORMATION	1964
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	11.50	14.25	13.25	16.21	51.35	35.02	35.27	40.25	0.0	37.93	WICHITA KANSAS	
FEB.	11.41	14.23	13.53	15.87	51.70	35.51	35.58	43.51	0.0	38.25	SENGWICK COUNTY	
MAR.	13.49	16.05	15.50	17.31	51.23	35.56	44.91	53.32	0.0	46.77	CORRECTED HT. 100 FT.	
APR.	13.78	16.50	15.70	17.91	51.91	35.00	44.72	52.63	0.0	46.21	INSTRUMENT HT. 32 FT.	
MAY.	11.13	13.92	13.59	16.21	33.53	25.51	35.71	41.45	0.0	35.37	PEAK LIMIT IS 16 KNTS.	
JUNE.	10.75	13.42	13.00	15.75	35.75	25.43	33.58	40.45	0.0	35.49	FRIC. LIM. IS 7KNTS.	
JULY.	9.76	12.77	11.33	14.05	31.97	18.63	29.30	35.66	0.0	31.26	CODE=1 COR. HT. BULK WH.	
AUG.	10.55	13.16	12.19	15.03	31.08	12.49	33.40	39.91	0.0	34.92	CODE=2 ORG. HT. PER	
SEP.	11.05	13.91	13.23	16.15	41.37	25.77	35.29	42.99	0.0	37.71	UNIT AREA KWH/M**2	
OCT.	9.19	11.85	11.58	14.15	31.00	18.04	27.27	37.50	0.0	28.51	CODE=3 COR.HT. PER.	
NOV.	11.22	14.00	13.31	16.27	42.94	27.46	37.70	44.93	0.0	39.41	UNIT AREA KWH/M**2	
DEC.	10.75	13.47	13.11	15.94	37.35	24.16	32.75	38.40	0.0	33.64	WIND SPEEDS ARE IN KNOTS.	
SUMS	11.17	13.65	13.38	16.30	487.81	307.18	477.89	509.05	0.0	446.50		

MONTH	AVGVEL	AVGVEL	RMCVEL	RMCVEL	VOUGED	VOUGED	VOUGED	ERDA	ERDA	ERDA	INFORMATION	1965
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	10.58	13.26	12.76	15.51	37.82	12.54	35.17	34.55	0.0	34.73	WICHITA KANSAS	
FEB.	12.19	15.20	14.65	18.71	42.35	24.13	38.47	43.35	0.0	38.04	SENGWICK COUNTY	
MAR.	13.05	16.05	15.37	17.02	40.33	12.03	40.63	48.22	0.0	42.29	CORRECTED HT. 100 FT.	
APR.	11.45	14.31	13.36	16.03	45.89	25.03	39.27	47.22	0.0	41.42	INSTRUMENT HT. 32 FT.	
MAY.	12.08	15.01	14.38	17.42	46.34	24.24	38.59	46.15	0.0	40.49	PEAK LIMIT IS 16 KNTS.	
JUNE.	10.52	13.25	12.02	14.85	39.03	22.62	34.23	40.77	0.0	35.76	FRIC. LIM. IS 7KNTS.	
JULY.	9.19	11.72	10.43	13.07	31.91	15.74	24.05	33.91	0.0	29.75	CODE=1 COR. HT. BULK WH.	
AUG.	9.43	12.01	10.75	13.42	33.62	17.01	25.49	35.51	0.0	31.15	CODE=2 ORG. HT. PER	
SEP.	11.10	13.92	12.51	15.43	42.33	25.40	37.12	44.23	0.0	38.79	UNIT AREA KWH/M**2	
OCT.	9.47	12.01	11.40	13.99	33.11	14.11	28.45	34.23	0.0	30.03	CODE=3 COR.HT. PER.	
NOV.	8.47	10.83	10.32	12.37	25.02	14.47	24.50	27.53	0.0	25.94	UNIT AREA KWH/M**2	
DEC.	11.04	13.85	12.46	15.75	40.55	23.53	35.30	42.09	0.0	36.92	WIND SPEEDS ARE IN KNOTS.	
SUMS	10.72	13.46	12.92	15.78	463.94	275.35	405.93	449.94	0.0	425.35		

MONTH	AVGVEL	AVGVEL	RMCVEL	RMCVEL	VOUGED	VOUGED	VOUGED	ERDA	ERDA	ERDA	INFORMATION	1966
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	10.28	12.55	12.00	14.87	35.43	20.97	31.92	33.00	0.0	33.33	WICHITA KANSAS	
FEB.	9.94	12.61	12.08	14.91	34.64	19.16	30.38	36.43	0.0	31.95	SENGWICK COUNTY	
MAR.	13.42	16.47	15.45	19.63	40.91	32.50	41.15	48.54	0.0	42.58	CORRECTED HT. 100 FT.	
APR.	11.35	14.73	13.99	17.02	45.09	28.54	38.67	45.00	0.0	40.26	INSTRUMENT HT. 32 FT.	
MAY.	11.08	13.87	13.35	16.25	38.92	24.22	34.13	40.63	0.0	35.69	PEAK LIMIT IS 16 KNTS.	
JUNE.	11.70	14.56	13.71	16.71	44.46	18.23	39.00	46.19	0.0	40.52	FRIC. LIM. IS 7KNTS.	
JULY.	10.09	12.77	11.63	14.33	30.02	19.51	31.59	38.05	0.0	33.39	CODE=1 COR. HT. BULK WH.	
AUG.	9.33	11.87	10.31	13.48	33.02	17.10	23.97	34.22	0.0	30.54	CODE=2 ORG. HT. PER	
SEP.	8.64	11.05	10.52	13.04	27.18	13.35	23.34	29.50	0.0	25.00	UNIT AREA KWH/M**2	
OCT.	11.10	13.83	12.34	16.54	37.63	24.52	33.06	39.15	0.0	34.34	CODE=3 COR.HT. PER.	
NOV.	10.04	12.63	12.28	15.03	30.24	21.42	31.79	37.91	0.0	33.25	UNIT AREA KWH/M**2	
DEC.	10.63	13.40	12.22	15.05	37.55	21.53	32.93	39.46	0.0	34.61	WIND SPEEDS ARE IN KNOTS.	
SUMS	10.63	13.40	12.96	15.80	453.10	271.91	397.43	473.65	0.0	415.46		

MONTH	AVGVEL	AVGVEL	RMCVEL	RMCVEL	VOUGED	VOUGED	VOUGED	ERDA	ERDA	ERDA	INFORMATION	1967
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	11.49	14.32	13.78	16.73	41.59	25.78	36.44	43.33	0.0	38.05	WICHITA KANSAS	
FEB.	12.35	15.29	15.12	18.16	43.52	23.37	38.17	45.11	0.0	39.57	SENGWICK COUNTY	
MAR.	13.16	16.23	15.24	18.42	50.66	34.26	44.44	52.78	0.0	46.25	CORRECTED HT. 100 FT.	
APR.	15.17	18.52	16.31	20.23	59.29	42.61	52.31	61.91	0.0	54.21	INSTRUMENT HT. 32 FT.	
MAY.	11.37	14.23	13.00	15.54	43.73	25.76	38.36	45.95	0.0	40.30	PEAK LIMIT IS 16 KNTS.	
JUNE.	11.53	14.34	14.30	16.94	41.85	27.22	36.71	43.53	0.0	39.32	FRIC. LIM. IS 7KNTS.	
JULY.	8.69	11.14	10.07	12.61	27.73	13.40	24.32	29.27	0.0	25.67	CODE=1 COR. HT. BULK WH.	
AUG.	8.49	10.89	10.16	12.73	28.53	13.85	23.36	27.74	0.0	24.33	CODE=2 ORG. HT. PER	
SEP.	8.74	10.55	10.10	12.60	26.67	13.31	23.39	28.05	0.0	24.60	UNIT AREA KWH/M**2	
OCT.	11.69	14.51	14.35	17.35	42.02	27.31	35.85	43.55	0.0	38.46	CODE=3 COR.HT. PER.	
NOV.	9.47	12.34	10.35	12.83	26.43	14.12	23.53	27.95	0.0	24.52	UNIT AREA KWH/M**2	
DEC.	11.65	14.53	13.75	16.72	42.65	27.42	37.61	44.43	0.0	38.97	WIND SPEEDS ARE IN KNOTS.	
SUMS	11.07	13.79	13.43	16.33	473.17	293.39	415.03	494.02	0.0	433.31		

MONTH	AVGVEL	AVGVEL	RMCVEL	RMCVEL	VOUGED	VOUGED	VOUGED	ERDA	ERDA	ERDA	INFORMATION	1968
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3		
JAN.	10.35	13.54	12.72	16.27	37.71	21.93	33.09	40.33	0.0	35.38	WICHITA KANSAS	
FEB.	9.93	13.05	12.50	15.46	35.23	18.34	30.95	36.32	0.0	32.29	SENGWICK COUNTY	
MAR.	13.16	16.81	15.29	19.33	49.71	33.07	43.90	51.73	0.0	45.34	CORRECTED HT. 100 FT.	
APR.	12.79	16.47	15.51	18.12	47.15	31.47	41.26	44.63	0.0	42.66	INSTRUMENT HT. 32 FT.	
MAY.	10.56	13.85	12.18	15.55	31.32	12.15	26.88	43.76	0.0	34.56	PEAK LIMIT IS 16 KNTS.	
JUNE.	11.57	14.55	13.65	17.47	43.25	27.00	38.95	44.14	0.0	40.47	FRIC. LIM. IS 7KNTS.	
JULY.	10.52	13.50	12.22	15.59	31.28	21.33	30.21	43.29	0.0	38.06	CODE=1 COR. HT. BULK WH.	
AUG.	11.23	14.41	13.81	17.41	45.77	24.35	42.15	47.54	0.0	42.09	CODE=2 ORG. HT. PER	
SEP.	10.49	13.63	12.19	15.55	30.23	13.16	22.79	43.14	0.0	37.05	UNIT AREA KWH/M**2	
OCT.	11.49	14.50	13.58	17.11	46.99	27.69	39.11	46.19	0.0	40.51	CODE=3 COR.HT. PER.	
NOV.	9.41	12.59	12.27	15.55	34.99	21.32	38.73	49.45	0.0	34.95	UNIT AREA KWH/M**2	
DEC.	10.05	13.54	12.75	16.32	34.39	21.43	37.95	45.13	0.0	35.59	WIND SPEEDS ARE IN KNOTS.	
SUMS	11.16	14.51	13.65	16.92	511.39	298.55	438.66	533.20	0.0	457.43		

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VCORR1	VCORR2	VCORR3	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	11.75	14.38	13.33	16.83	68.50	75.82	82.91	47.74	0.0	41.91	WICHITA KANSAS
FEB.	13.70	13.60	12.77	18.85	35.34	19.95	33.84	43.24	0.0	35.45	SEDGWICK COUNTY
MAR.	10.75	16.23	13.79	17.19	33.77	12.41	36.88	41.21	0.0	36.18	CORRECTED HT. 100 FT.
APR.	11.40	18.76	13.74	17.51	67.49	27.72	33.51	48.81	0.0	41.06	INSTRUMENT HT. 25 FT.
MAY.	9.65	12.75	11.77	16.85	35.13	13.33	30.78	36.77	0.0	31.81	PEAK LIMIT IS 16 KNTS.
JUNE	13.67	13.95	12.85	16.02	61.94	22.13	36.31	43.63	0.0	38.27	FRIC. LIM. IS 7KNTS.
JULY	9.26	12.33	13.62	17.75	33.84	18.37	29.91	35.49	0.0	31.08	CODE=1 COR. HT. BULK WH.
AUG.	9.13	12.21	13.49	18.03	32.24	16.36	28.24	33.57	0.0	29.44	CODE=2 ORG. HT. PER
SEP.	8.25	11.07	8.90	12.99	23.71	12.58	25.25	30.16	0.0	26.95	UNIT AREA KWH/M**2
OCT.	10.75	14.31	12.94	16.35	61.50	23.39	36.40	43.30	0.0	37.94	CODE=3 COR.HT. PER.
NOV.	9.76	12.31	12.75	15.57	31.23	19.47	30.07	35.30	0.0	30.96	UNIT AREA KWH/M**2
DEC.	9.34	13.07	11.38	16.84	38.31	18.48	31.87	38.07	0.0	33.39	WIND SPEEDS ARE IN KNOTS.
SUMS	10.15	13.33	12.30	16.53	451.04	243.13	395.36	471.33	0.0	413.85	

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VCORR1	VCORR2	VCORR3	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	10.61	13.75	13.35	16.75	63.26	22.94	33.31	41.85	0.0	36.93	WICHITA KANSAS
FEB.	13.70	13.45	12.95	16.25	37.63	21.34	31.37	39.63	0.0	34.76	SEDGWICK COUNTY
MAR.	10.68	13.85	12.86	16.21	39.72	11.63	35.84	41.64	0.0	36.52	CORRECTED HT. 100 FT.
APR.	11.40	15.84	13.14	13.74	68.49	23.76	31.14	44.59	0.0	42.81	INSTRUMENT HT. 25 FT.
MAY.	11.59	15.01	14.70	17.28	65.36	22.38	39.79	47.53	0.0	41.69	PEAK LIMIT IS 16 KNTS.
JUNE	12.01	15.49	14.15	17.77	43.93	23.37	41.14	49.15	0.0	43.12	FRIC. LIM. IS 7KNTS.
JULY	10.62	13.93	12.10	15.50	41.96	22.55	35.30	43.31	0.0	38.36	CODE=1 COR. HT. BULK WH.
AUG.	9.22	12.27	10.52	12.77	33.65	15.54	24.52	35.42	0.0	31.06	CODE=2 ORG. HT. PER
SEP.	11.25	14.59	13.57	17.07	42.45	26.18	37.59	44.45	0.0	39.00	UNIT AREA KWH/M**2
OCT.	10.11	13.17	11.18	14.52	35.63	22.67	32.12	37.93	0.0	33.18	CODE=3 COR.HT. PER.
NOV.	10.55	14.21	13.54	17.02	49.61	25.24	35.02	41.77	0.0	36.64	UNIT AREA KWH/M**2
DEC.	10.44	13.65	13.20	16.53	36.73	20.43	32.34	38.23	0.0	33.54	WIND SPEEDS ARE IN KNOTS.
SUMS	10.44	14.11	13.20	16.62	439.75	234.63	424.58	510.24	0.0	447.54	

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VCORR1	VCORR2	VCORR3	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	9.00	12.93	12.51	15.73	35.43	19.44	31.12	36.93	0.0	32.39	WICHITA KANSAS
FEB.	11.14	14.40	14.22	17.73	37.63	24.41	34.81	40.92	0.0	35.89	SEDGWICK COUNTY
MAR.	13.42	17.35	16.39	20.15	49.47	34.50	43.57	51.19	0.0	44.90	CORRECTED HT. 100 FT.
APR.	12.59	16.15	15.02	18.70	47.53	30.39	41.73	49.79	0.0	43.67	INSTRUMENT HT. 25 FT.
MAY.	11.62	15.41	14.03	17.63	35.33	24.33	39.41	47.17	0.0	41.37	PEAK LIMIT IS 16 KNTS.
JUNE	12.05	15.53	14.18	17.29	43.92	28.87	41.16	49.13	0.0	42.74	FRIC. LIM. IS 7KNTS.
JULY	9.38	12.65	11.41	14.37	37.35	10.75	37.77	39.32	0.0	34.50	CODE=1 COR. HT. BULK WH.
AUG.	8.13	10.87	9.43	12.33	27.21	10.89	23.87	28.25	0.0	24.79	CODE=2 ORG. HT. PER
SEP.	11.39	14.75	13.54	17.07	33.92	26.11	38.53	45.77	0.0	40.11	UNIT AREA KWH/M**2
OCT.	10.07	13.21	12.35	15.47	35.45	20.53	32.15	37.89	0.0	33.24	CODE=3 COR.HT. PER.
NOV.	8.64	12.63	11.75	15.00	36.13	19.35	31.64	37.34	0.0	32.75	UNIT AREA KWH/M**2
DEC.	8.89	11.45	10.56	13.91	28.37	15.02	25.73	30.21	0.0	26.50	WIND SPEEDS ARE IN KNOTS.
SUMS	10.72	13.97	13.25	16.65	475.39	277.04	416.57	493.49	0.0	432.85	

1972

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VCORR1	VCORR2	VCORR3	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	11.42	14.05	13.51	16.95	39.09	23.72	34.25	40.64	0.0	35.65	WICHITA KANSAS
FEB.	11.54	14.92	14.30	17.75	42.31	21.51	37.11	44.38	0.0	38.93	SEDGWICK COUNTY
MAR.	13.04	16.57	15.25	19.67	51.17	32.53	44.01	52.02	0.0	45.62	CORRECTED HT. 100 FT.
APR.	11.69	15.12	14.03	17.57	44.93	26.52	39.45	46.94	0.0	41.18	INSTRUMENT HT. 25 FT.
MAY.	9.82	12.44	11.54	14.73	37.57	19.02	33.04	39.13	0.0	34.32	PEAK LIMIT IS 16 KNTS.
JUNE	9.74	12.87	11.29	14.54	37.27	18.51	32.69	39.20	0.0	34.33	FRIC. LIM. IS 7KNTS.
JULY	10.60	13.92	12.09	15.40	42.82	22.69	37.55	45.34	0.0	39.76	CODE=1 COR. HT. BULK WH.
AUG.	9.11	12.14	10.59	13.73	33.92	18.04	29.76	35.47	0.0	31.11	CODE=2 ORG. HT. PER
SEP.	10.40	13.62	12.22	15.59	41.06	27.45	36.80	43.39	0.0	38.50	UNIT AREA KWH/M**2
OCT.	10.08	13.22	12.32	15.64	31.13	21.16	33.44	39.90	0.0	35.00	CODE=3 COR.HT. PER.
NOV.	9.39	12.37	12.03	15.21	33.39	17.25	29.29	34.75	0.0	30.48	UNIT AREA KWH/M**2
DEC.	10.90	14.24	12.48	16.20	40.43	27.93	34.46	42.23	0.0	37.04	WIND SPEEDS ARE IN KNOTS.
SUMS	10.59	13.54	12.81	16.15	432.13	259.49	422.84	503.89	0.0	441.97	

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VCORR1	VCORR2	VCORR3	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	10.25	14.13	13.15	16.45	37.16	23.75	33.55	39.61	0.0	33.47	WICHITA KANSAS
FEB.	10.95	14.10	13.19	16.41	41.63	23.34	36.58	43.54	0.0	38.19	SEDGWICK COUNTY
MAR.	11.46	16.10	14.73	18.20	44.03	25.13	37.76	44.48	0.0	49.02	CORRECTED HT. 100 FT.
APR.	11.05	15.71	13.84	16.31	40.27	32.62	43.22	51.30	0.0	45.00	INSTRUMENT HT. 25 FT.
MAY.	10.75	14.41	13.49	16.81	34.32	24.34	34.33	40.93	0.0	45.90	PEAK LIMIT IS 16 KNTS.
JUNE	9.48	11.49	11.39	14.35	33.01	17.04	28.65	34.75	0.0	30.44	FRIC. LIM. IS 7KNTS.
JULY	9.11	11.59	10.97	14.15	42.91	19.91	24.07	32.92	0.0	28.88	CODE=1 COR. HT. BULK WH.
AUG.	10.15	13.55	12.63	15.73	29.82	22.25	34.54	41.41	0.0	32.47	CODE=2 ORG. HT. PER
SEP.	10.17	13.29	12.10	15.52	37.16	24.37	33.12	39.61	0.0	34.75	UNIT AREA KWH/M**2
OCT.	10.07	14.20	12.55	16.69	31.51	21.55	32.11	38.53	0.0	34.76	CODE=3 COR.HT. PER.
NOV.	10.75	14.01	12.94	16.37	42.43	24.01	34.76	40.75	0.0	38.25	UNIT AREA KWH/M**2
DEC.	11.07	15.33	14.19	17.75	35.53	25.46	33.45	40.45	0.0	43.16	WIND SPEEDS ARE IN KNOTS.
SUMS	11.44	13.87	12.98	16.45	412.77	212.08	412.82	497.65	0.0	416.51	

1973

APPENDIX F

TABLES

Grandview

JAN 1955 - DEC 1970

DIR	00--06	07--10	11--16	17--21	22--00	SUMS
N	0.007	0.014	0.017	0.005	0.002	0.046
NNE	0.005	0.013	0.009	0.003	0.002	0.029
NE	0.016	0.013	0.009	0.003	0.000	0.043
NNE	0.011	0.010	0.007	0.001	0.0	0.036
E	0.022	0.013	0.015	0.003	0.001	0.072
ESE	0.012	0.014	0.010	0.003	0.000	0.042
SE	0.013	0.017	0.015	0.006	0.001	0.066
SSE	0.013	0.011	0.005	0.011	0.002	0.060
S	0.047	0.037	0.024	0.024	0.006	0.131
SSW	0.014	0.013	0.024	0.019	0.004	0.066
SW	0.024	0.020	0.015	0.005	0.002	0.050
WSW	0.018	0.013	0.007	0.004	0.002	0.033
W	0.023	0.013	0.013	0.004	0.000	0.039
WNW	0.018	0.014	0.015	0.007	0.003	0.051
W	0.015	0.024	0.014	0.011	0.006	0.035
WNW	0.013	0.013	0.012	0.005	0.004	0.038
W	0.043	0.0	0.0	0.0	0.0	0.040
WSW	0.005	0.005	0.013	0.017	0.042	

Bivariate Distribution

Grandview

Years

1955 1958

1956 1959

1957 1960

Instrument Height

1955-1957 85 Feet

DIR	00--06	07--10	11--16	17--21	22--00	SUMS
N	0.012	0.023	0.021	0.004	0.001	0.074
NNE	0.016	0.013	0.014	0.002	0.0	0.042
NE	0.012	0.017	0.014	0.002	0.000	0.048
NNE	0.012	0.012	0.007	0.003	0.0	0.026
E	0.012	0.017	0.004	0.001	0.0	0.036
ESE	0.015	0.022	0.004	0.002	0.0	0.038
SE	0.010	0.021	0.030	0.003	0.0	0.076
SSE	0.010	0.029	0.041	0.013	0.004	0.097
S	0.010	0.015	0.052	0.014	0.012	0.127
SSW	0.017	0.015	0.024	0.013	0.010	0.075
SW	0.017	0.023	0.014	0.007	0.003	0.064
WSW	0.013	0.015	0.011	0.003	0.002	0.032
W	0.009	0.020	0.011	0.005	0.001	0.047
WNW	0.014	0.014	0.010	0.005	0.004	0.033
W	0.010	0.028	0.025	0.009	0.005	0.075
WNW	0.015	0.018	0.019	0.009	0.003	0.052
W	0.000	0.0	0.0	0.0	0.0	0.056
WSW	0.015	0.003	0.015	0.013	0.045	

DIR	00--06	07--10	11--16	17--21	22--00	SUMS
N	0.014	0.020	0.011	0.005	0.001	0.051
NNE	0.012	0.014	0.007	0.003	0.001	0.036
NE	0.013	0.016	0.010	0.003	0.001	0.044
NNE	0.016	0.014	0.014	0.005	0.003	0.053
E	0.015	0.015	0.007	0.002	0.0	0.046
ESE	0.014	0.015	0.007	0.001	0.0	0.034
SE	0.013	0.013	0.007	0.002	0.000	0.040
SSE	0.021	0.021	0.015	0.003	0.001	0.051
S	0.021	0.047	0.034	0.009	0.005	0.126
SSW	0.014	0.017	0.018	0.004	0.002	0.066
SW	0.012	0.016	0.011	0.002	0.0	0.041
WSW	0.011	0.014	0.011	0.002	0.0	0.037
W	0.017	0.014	0.005	0.002	0.001	0.030
WNW	0.012	0.014	0.009	0.004	0.004	0.041
W	0.011	0.014	0.010	0.005	0.001	0.046
WNW	0.010	0.017	0.015	0.005	0.002	0.045
W	0.015	0.0	0.0	0.0	0.0	0.046
WSW	0.010	0.005	0.014	0.011	0.024	

DIR	00--06	07--10	11--16	17--21	22--00	SUMS
N	0.026	0.021	0.011	0.001	0.0	0.059
NNE	0.014	0.016	0.004	0.0	0.0	0.034
NE	0.020	0.007	0.004	0.001	0.0	0.034
NNE	0.022	0.017	0.007	0.001	0.0	0.047
E	0.024	0.013	0.005	0.0	0.0	0.043
ESE	0.012	0.004	0.003	0.001	0.0	0.023
SE	0.013	0.014	0.004	0.0	0.0	0.032
SSE	0.043	0.035	0.015	0.003	0.003	0.124
S	0.047	0.043	0.026	0.002	0.003	0.171
SSW	0.031	0.029	0.017	0.001	0.000	0.077
SW	0.017	0.015	0.011	0.001	0.000	0.045
WSW	0.018	0.005	0.003	0.0	0.0	0.027
W	0.034	0.012	0.005	0.003	0.0	0.052
WNW	0.025	0.012	0.003	0.000	0.0	0.042
W	0.024	0.014	0.014	0.001	0.0	0.054
WNW	0.020	0.015	0.012	0.001	0.0	0.047
W	0.152	0.0	0.0	0.0	0.0	0.152
WSW	0.043	0.023	0.012	0.010	0.001	

DIR	00--06	07--10	11--16	17--21	22--00	SUMS
N	0.019	0.024	0.014	0.002	0.000	0.055
NNE	0.019	0.014	0.004	0.001	0.0	0.032
NE	0.014	0.017	0.004	0.0	0.0	0.042
NNE	0.012	0.012	0.005	0.0	0.0	0.032
E	0.022	0.015	0.004	0.0	0.0	0.042
ESE	0.017	0.015	0.004	0.000	0.0	0.036
SE	0.023	0.024	0.011	0.000	0.0	0.062
SSE	0.026	0.049	0.029	0.002	0.0	0.107
S	0.041	0.055	0.032	0.003	0.003	0.157
SSW	0.017	0.027	0.032	0.007	0.001	0.094
SW	0.011	0.017	0.013	0.002	0.0	0.034
WSW	0.014	0.010	0.006	0.001	0.0	0.032
W	0.021	0.013	0.013	0.001	0.0	0.042
WNW	0.015	0.017	0.010	0.004	0.000	0.053
W	0.014	0.015	0.012	0.002	0.000	0.043
WNW	0.011	0.012	0.015	0.002	0.001	0.047
W	0.075	0.0	0.0	0.0	0.0	0.075
WSW	0.016	0.033	0.024	0.032	0.003	

DIR	00--06	07--10	11--16	17--21	22--00	SUMS
N	0.017	0.016	0.010	0.001	0.0	0.044
NNE	0.022	0.016	0.005	0.001	0.0	0.043
NE	0.025	0.014	0.004	0.0	0.0	0.043
NNE	0.015	0.010	0.004	0.0	0.0	0.034
E	0.029	0.012	0.002	0.0	0.0	0.045
ESE	0.034	0.029	0.004	0.001	0.0	0.071
SE	0.029	0.039	0.023	0.002	0.0	0.083
SSE	0.025	0.027	0.024	0.004	0.003	0.089
S	0.031	0.034	0.036	0.007	0.003	0.137
SSW	0.022	0.022	0.013	0.002	0.000	0.069
SW	0.024	0.011	0.014	0.002	0.0	0.043
WSW	0.014	0.006	0.004	0.000	0.000	0.024
W	0.021	0.015	0.010	0.003	0.0	0.055
WNW	0.017	0.014	0.003	0.000	0.000	0.033
W	0.012	0.013	0.015	0.001	0.0	0.042
WNW	0.012	0.010	0.009	0.000	0.000	0.031
W	0.064	0.0	0.0	0.0	0.0	0.064
WSW	0.015	0.016	0.023	0.024	0.003	

THE HOURLY SUMMARY TABLE FOR WIN. 1955

HR	LA	AVG. VEL.	DIR.	WTH.	DIRECTION	EAST	STM.	WEST
2400	3	12.3-473	25	0.15102	0.25624	0.26271	0.26271	0.3203
3000	3	12.3-473	25	0.15644	0.26271	0.27119	0.26271	0.2671
3600	3	12.3-473	27	0.11121	0.19122	0.20000	0.20000	0.30004
4200	3	12.3-473	26	0.13040	0.17747	0.24576	0.24576	0.27883
4800	3	12.3-473	24	0.13553	0.14307	0.27966	0.27966	0.38983
5400	3	12.3-473	24	0.13666	0.16102	0.22681	0.22681	0.4078
6000	3	12.3-473	25	0.13034	0.16949	0.27119	0.27119	0.30703
6600	3	11.8-482	25	0.17707	0.23729	0.27119	0.26371	

Grandview

Instrument Height

1955-1956 85 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1955

HR	LA	AVG. VEL.	DIR.	WTH.	DIRECTION	EAST	STM.	WEST
2400	3	11.8-482	24	0.23502	0.24357	0.39674	0.39674	0.15217
3000	3	11.8-482	24	0.21713	0.25943	0.37606	0.37606	0.15761
3600	3	11.8-482	27	0.11565	0.26047	0.33152	0.33152	0.19027
4200	3	11.8-482	24	0.20689	0.22325	0.37500	0.37500	0.15761
4800	3	11.8-482	30	0.21738	0.19355	0.33152	0.33152	0.22383
5400	3	11.8-482	24	0.21243	0.16304	0.45326	0.45326	0.23413
6000	3	11.8-482	30	0.16980	0.25000	0.38043	0.38043	0.15217
6600	3	11.8-482	26	0.21739	0.27174	0.36413	0.36413	0.13947

THE HOURLY SUMMARY TABLE FOR SPR. 1955

HR	LA	AVG. VEL.	DIR.	WTH.	DIRECTION	EAST	STM.	WEST
2400	3	7.8-531	19	0.26009	0.28034	0.45652	0.45652	0.19326
3000	3	7.8-531	17	0.20635	0.24857	0.47326	0.47326	0.17500
3600	3	7.8-531	16	0.19042	0.20139	0.56692	0.56692	0.12500
4200	3	7.8-531	24	0.11413	0.23913	0.46100	0.46100	0.14130
4800	3	7.8-531	20	0.15761	0.20352	0.40761	0.40761	0.14130
5400	3	7.8-531	23	0.15717	0.23394	0.42935	0.42935	0.09783
6000	3	8.2-543	20	0.15674	0.39074	0.36239	0.36239	0.08152
6600	3	7.7-534	21	0.20974	0.37509	0.36413	0.36413	0.09152

THE HOURLY SUMMARY TABLE FOR FALL 1955

HR	LA	AVG. VEL.	DIR.	WTH.	DIRECTION	EAST	STM.	WEST
2400	3	10.1-517	21	0.16404	0.20330	0.40110	0.40110	0.16681
3000	3	10.1-517	22	0.16404	0.19132	0.36662	0.36662	0.24725
3600	3	10.1-517	27	0.15934	0.19783	0.40110	0.40110	0.23077
4200	3	11.8-512	24	0.24725	0.15934	0.30111	0.30111	0.15934
4800	3	11.8-512	24	0.21429	0.11538	0.41209	0.41209	0.21429
5400	3	11.8-512	24	0.23077	0.14315	0.34615	0.34615	0.18132
6000	3	11.8-512	20	0.16081	0.19710	0.35011	0.35011	0.19334
6600	3	11.8-512	23	0.15335	0.20310	0.41758	0.41758	0.11132

THE HOURLY SUMMARY TABLE FOR APR. 1955

HR	LA	AVG. VEL.	DIR.	WTH.	DIRECTION	EAST	STM.	WEST
2400	4	10.2-500	23	0.33389	0.24444	0.22322	0.22322	0.15144
3000	4	9.8-555	20	0.30566	0.23333	0.23333	0.23333	0.2167
3600	3	9.7-567	17	0.30300	0.23333	0.23333	0.23333	0.23773
4200	3	10.4-511	21	0.28587	0.24444	0.22773	0.22773	0.21111
4800	3	10.4-511	24	0.28587	0.25000	0.22773	0.22773	0.21111
5400	3	10.4-511	27	0.26667	0.23333	0.21111	0.21111	0.24667
6000	3	9.7-511	23	0.35723	0.25000	0.23333	0.23333	0.15144
6600	3	10.2-522	23	0.32773	0.23889	0.24444	0.24444	0.17773

THE HOURLY SUMMARY TABLE FOR MAY. 1955

HR	LA	AVG. VEL.	DIR.	WTH.	DIRECTION	EAST	STM.	WEST
2400	3	11.2-505	24	0.25553	0.14130	0.33333	0.33333	0.13333
3000	3	11.2-505	35	0.21739	0.15741	0.37500	0.37500	0.13333
3600	3	12.1-507	24	0.23000	0.22000	0.34283	0.34283	0.13333
4200	3	14.3-544	44	0.27913	0.22100	0.34774	0.34774	0.21000
4800	3	14.3-544	23	0.26087	0.23333	0.36774	0.36774	0.21000
5400	3	12.1-500	29	0.26000	0.12500	0.26667	0.26667	0.21000
6000	3	12.1-500	30	0.27174	0.15234	0.33333	0.33333	0.21000
6600	3	11.1-513	30	0.33333	0.16664	0.31667	0.31667	0.17333

THE HOURLY SUMMARY TABLE FOR MAY. 1955

HR	LA	AVG. VEL.	DIR.	WTH.	DIRECTION	EAST	STM.	WEST
2400	3	9.3-500	20	0.11413	0.22100	0.44112	0.44112	0.20000
3000	3	9.3-500	29	0.11557	0.21734	0.51333	0.51333	0.33333
3600	3	9.0-507	16	0.10226	0.26667	0.44022	0.44022	0.13333
4200	3	9.6-521	25	0.04152	0.15217	0.50043	0.50043	0.13333
4800	3	10.4-525	30	0.07483	0.13333	0.55773	0.55773	0.13333
5400	3	10.4-521	25	0.15761	0.13333	0.57333	0.57333	0.20000
6000	3	9.3-513	25	0.17191	0.22223	0.47333	0.47333	0.35773
6600	3	8.5-517	14	0.09192	0.27717	0.44022	0.44022	0.33333

THE HOURLY SUMMARY TABLE FOR FALL 1955

HR	LA	AVG. VEL.	DIR.	WTH.	DIRECTION	EAST	STM.	WEST
2400	3	11.3-554	25	0.15584	0.09330	0.41333	0.41333	0.23333
3000	3	11.3-554	25	0.22579	0.22579	0.33333	0.33333	0.23333
3600	3	11.3-554	25	0.19740	0.06660	0.35714	0.35714	0.21429
4200	3	12.2-574	35	0.15740	0.09331	0.35667	0.35667	0.23333
4800	3	13.1-573	44	0.19740	0.12627	0.35667	0.35667	0.24111
5400	3	13.1-573	30	0.19231	0.11538	0.32613	0.32613	0.21000
6000	3	13.1-573	25	0.23676	0.12647	0.35667	0.35667	0.13333
6600	3	19.2-594	30	0.19231	0.13333	0.35667	0.35667	0.13333

THE HOURLY SUMMARY TABLE FOR WIN. 1957

HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
2400	0	6.76667	12	0.25000	0.13444	0.25000	0.24444
0300	0	6.35555	13	0.21111	0.15555	0.23889	0.26111
0600	0	6.84444	14	0.24444	0.11111	0.23333	0.21667
0900	0	7.76667	20	0.25555	0.14444	0.27222	0.19444
1200	0	8.51111	22	0.30556	0.13444	0.27778	0.25556
1500	0	8.64444	24	0.26667	0.12778	0.27778	0.27778
1800	0	6.72222	14	0.29444	0.12778	0.27222	0.27222
2100	0	6.72222	20	0.25111	0.13333	0.26667	0.22778

Grandview
Instrument Height
1957-1958 96 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1954

HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
2400	0	6.76667	12	0.25000	0.13444	0.25000	0.24444
0300	0	6.35555	13	0.21111	0.15555	0.23889	0.26111
0600	0	6.84444	14	0.24444	0.11111	0.23333	0.21667
0900	0	7.76667	20	0.25555	0.14444	0.27222	0.19444
1200	0	8.51111	22	0.30556	0.13444	0.27778	0.25556
1500	0	8.64444	24	0.26667	0.12778	0.27778	0.27778
1800	0	6.72222	14	0.29444	0.12778	0.27222	0.27222
2100	0	6.72222	20	0.25111	0.13333	0.26667	0.22778

THE HOURLY SUMMARY TABLE FOR SPR. 1954

HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
2400	0	5.65555	20	0.19222	0.21111	0.21111	0.14222
0300	0	5.42222	17	0.16333	0.22222	0.16333	0.21778
0600	0	5.42222	19	0.16478	0.23379	0.15556	0.20195
0900	0	7.55555	18	0.20100	0.32255	0.23552	0.17551
1200	0	4.03435	24	0.25543	0.26337	0.21755	0.14774
1500	0	4.24222	21	0.25543	0.24437	0.25000	0.14774
1800	0	7.31778	14	0.26667	0.24222	0.24222	0.14774
2100	0	5.36222	15	0.19022	0.24457	0.21111	0.14222

THE HOURLY SUMMARY TABLE FOR SPR. 1954

HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
2400	0	3.31222	14	0.33404	0.14133	0.37500	0.37255
0300	0	3.32667	13	0.31695	0.37355	0.35778	0.13377
0600	0	4.76667	25	0.10370	0.11557	0.40761	0.16444
0900	0	6.36957	15	0.16343	0.14274	0.36674	0.15711
1200	0	6.17391	16	0.17391	0.25217	0.35326	0.17255
1500	0	6.72222	15	0.14133	0.12500	0.44022	0.15117
1800	0	5.64133	15	0.12500	0.16265	0.55552	0.10222
2100	0	3.67391	14	0.09723	0.15217	0.41304	0.32114

THE HOURLY SUMMARY TABLE FOR FALL 1954

HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
2400	0	5.96703	17	0.37143	0.39551	0.46703	0.16703
0300	0	5.92747	15	0.12083	0.37692	0.44505	0.15354
0600	0	5.97143	15	0.33791	0.06791	0.46703	0.19311
0900	0	7.63735	17	0.13734	0.24791	0.52752	0.24224
1200	0	8.74725	26	0.15534	0.10554	0.45407	0.25077
1500	0	4.96703	20	0.21678	0.37143	0.45505	0.23224
1800	0	5.61751	13	0.17582	0.37692	0.44505	0.15354
2100	0	5.96703	16	0.12083	0.37692	0.44505	0.15354

THE HOURLY SUMMARY TABLE FOR SPR. 1957

HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
2400	0	3.03333	20	0.17943	0.27174	0.27370	0.09743
0300	0	4.21174	33	0.20667	0.22225	0.26087	0.10370
0600	0	4.33333	23	0.21739	0.20552	0.20109	0.11413
0900	0	11.17391	23	0.21193	0.27174	0.23370	0.14130
1200	0	11.76000	40	0.17331	0.27174	0.26087	0.14130
1500	0	1.24413	35	0.16234	0.27174	0.27174	0.10369
1800	0	15.76000	30	0.25943	0.23913	0.26610	0.11957
2100	0	0.14133	24	0.18478	0.25000	0.25000	0.09743

THE HOURLY SUMMARY TABLE FOR SUM. 1957

HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
2400	0	5.35557	27	0.04348	0.14674	0.47826	0.04391
0300	0	5.10370	16	0.05435	0.13076	0.44565	0.06522
0600	0	5.14133	14	0.07609	0.12000	0.38587	0.11957
0900	0	7.74225	23	0.05783	0.13043	0.41304	0.16348
1200	0	7.93043	17	0.12500	0.15217	0.40217	0.16348
1500	0	7.83725	14	0.13043	0.12500	0.45109	0.17591
1800	0	8.76087	16	0.08066	0.22225	0.37625	0.33261
2100	0	4.20622	14	0.05435	0.18478	0.36057	0.02174

THE HOURLY SUMMARY TABLE FOR FALL 1957

HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
HR	LA	AVG. VEL.	DIR.	NTN.	DIRECTION	EAST	WEST
2400	0	4.95034	18	0.17043	0.13187	0.14780	0.13736
0300	0	4.75424	15	0.17043	0.09893	0.26374	0.18132
0600	0	4.47251	13	0.14286	0.12088	0.23077	0.16780
0900	0	6.21973	20	0.19780	0.15295	0.26923	0.26623
1200	0	7.19730	17	0.27521	0.16343	0.26374	0.26374
1500	0	7.03043	23	0.24626	0.14132	0.25077	0.20474
1800	0	7.15133	14	0.07473	0.16780	0.19231	0.18440
2100	0	4.94744	14	0.15109	0.14286	0.21429	0.14286

THE HOURLY SUMMARY TABLE FOR WIN. 1959

HR	LA	AVG. VEL.	U3	NTM.	DIRECTION	EAST	STH.	WEST
2400	0	7.3333	18	0.2444	0.0944	0.1111	0.1944	0.1944
2300	0	6.3333	18	0.2333	0.0833	0.0833	0.2111	0.2111
2200	0	6.3333	18	0.2333	0.1167	0.3333	0.2333	0.2333
2100	0	6.3333	22	0.2611	0.1055	0.2222	0.2555	0.2555
2000	0	6.3333	20	0.2667	0.0833	0.1778	0.3333	0.3333
1900	0	6.3333	24	0.2722	0.0866	0.2966	0.2966	0.2966
1800	0	7.3333	19	0.3000	0.0833	0.3167	0.2000	0.2000
2100	0	7.3333	22	0.2778	0.0667	0.3667	0.2000	0.2000

Grandview
Instrument Height
1959-1960 10 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1959

HR	LA	AVG. VEL.	U3	NTM.	DIRECTION	EAST	STH.	WEST
2400	0	6.3333	17	0.1944	0.1733	0.4076	0.1521	0.1521
2300	0	6.3333	20	0.1944	0.2173	0.4076	0.1521	0.1521
2200	0	6.3333	16	0.1521	0.2119	0.4076	0.1521	0.1521
2100	0	6.3333	20	0.2052	0.2052	0.4076	0.1521	0.1521
2000	0	6.3333	24	0.1873	0.1521	0.4673	0.1739	0.1739
1900	0	6.3333	24	0.2173	0.1521	0.4673	0.2010	0.2010
1800	0	6.3333	24	0.2052	0.1521	0.4673	0.1739	0.1739
2100	0	6.3333	20	0.2052	0.1521	0.4673	0.1739	0.1739

THE HOURLY SUMMARY TABLE FOR SUM. 1959

HR	LA	AVG. VEL.	U3	NTM.	DIRECTION	EAST	STH.	WEST
2400	0	6.3333	17	0.1944	0.1733	0.4076	0.1521	0.1521
2300	0	6.3333	20	0.1944	0.2173	0.4076	0.1521	0.1521
2200	0	6.3333	16	0.1521	0.2119	0.4076	0.1521	0.1521
2100	0	6.3333	20	0.2052	0.2052	0.4076	0.1521	0.1521
2000	0	6.3333	24	0.1873	0.1521	0.4673	0.1739	0.1739
1900	0	6.3333	24	0.2173	0.1521	0.4673	0.2010	0.2010
1800	0	6.3333	24	0.2052	0.1521	0.4673	0.1739	0.1739
2100	0	6.3333	20	0.2052	0.1521	0.4673	0.1739	0.1739

THE HOURLY SUMMARY TABLE FOR FALL 1959

HR	LA	AVG. VEL.	U3	NTM.	DIRECTION	EAST	STH.	WEST
2400	0	6.3333	16	0.1521	0.2119	0.4076	0.1521	0.1521
2300	0	6.3333	16	0.1521	0.2119	0.4076	0.1521	0.1521
2200	0	6.3333	16	0.1521	0.2119	0.4076	0.1521	0.1521
2100	0	6.3333	20	0.2052	0.2052	0.4076	0.1521	0.1521
2000	0	6.3333	24	0.1873	0.1521	0.4673	0.1739	0.1739
1900	0	6.3333	24	0.2173	0.1521	0.4673	0.2010	0.2010
1800	0	6.3333	24	0.2052	0.1521	0.4673	0.1739	0.1739
2100	0	6.3333	20	0.2052	0.1521	0.4673	0.1739	0.1739

THE HOURLY SUMMARY TABLE FOR WIN. 1960

HR	LA	AVG. VEL.	U3	NTM.	DIRECTION	EAST	STH.	WEST
2400	0	7.1778	20	0.2000	0.1611	0.2111	0.2111	0.2111
2300	0	7.1778	18	0.1444	0.1667	0.2111	0.2111	0.2111
2200	0	7.1778	18	0.1555	0.1555	0.2111	0.2111	0.2111
2100	0	7.1778	16	0.1722	0.2055	0.2111	0.2111	0.2111
2000	0	8.1111	16	0.1833	0.2055	0.2111	0.2111	0.2111
1900	0	8.1111	13	0.1611	0.2167	0.2111	0.2111	0.2111
1800	0	6.9555	20	0.1778	0.2111	0.2111	0.2111	0.2111
2100	0	7.3333	20	0.1611	0.2222	0.2111	0.2111	0.2111

THE HOURLY SUMMARY TABLE FOR SPR. 1960

HR	LA	AVG. VEL.	U3	NTM.	DIRECTION	EAST	STH.	WEST
2400	0	6.3333	22	0.1521	0.2052	0.2111	0.2111	0.2111
2300	0	6.3333	18	0.0833	0.2111	0.2111	0.2111	0.2111
2200	0	6.3333	16	0.0973	0.2052	0.2111	0.2111	0.2111
2100	0	6.3333	20	0.1157	0.2111	0.2111	0.2111	0.2111
2000	0	10.8478	24	0.1357	0.1955	0.2111	0.2111	0.2111
1900	0	11.2717	24	0.1413	0.1739	0.2111	0.2111	0.2111
1800	0	9.2500	22	0.1217	0.1922	0.2111	0.2111	0.2111
2100	0	8.4697	18	0.1157	0.2377	0.2111	0.2111	0.2111

THE HOURLY SUMMARY TABLE FOR SUM. 1960

HR	LA	AVG. VEL.	U3	NTM.	DIRECTION	EAST	STH.	WEST
2400	0	4.8478	18	0.0833	0.2052	0.2111	0.2111	0.2111
2300	0	5.3333	20	0.0973	0.2052	0.2111	0.2111	0.2111
2200	0	5.3333	18	0.0923	0.2111	0.2111	0.2111	0.2111
2100	0	7.1413	16	0.1457	0.2111	0.2111	0.2111	0.2111
2000	0	7.4782	20	0.1521	0.2111	0.2111	0.2111	0.2111
1900	2	8.0652	18	0.2253	0.2377	0.2111	0.2111	0.2111
1800	0	6.7717	16	0.2253	0.2451	0.2111	0.2111	0.2111
2100	0	6.6678	11	0.1521	0.2367	0.2111	0.2111	0.2111

THE HOURLY SUMMARY TABLE FOR FALL 1960

HR	LA	AVG. VEL.	U3	NTM.	DIRECTION	EAST	STH.	WEST
2400	0	6.1539	16	0.2033	0.2377	0.2111	0.2111	0.2111
2300	0	6.1539	18	0.1822	0.2222	0.2111	0.2111	0.2111
2200	0	6.3022	20	0.1533	0.2077	0.2111	0.2111	0.2111
2100	0	6.3022	20	0.1783	0.2417	0.2111	0.2111	0.2111
2000	0	9.2857	16	0.2033	0.1429	0.2111	0.2111	0.2111
1900	0	9.2857	22	0.1461	0.1461	0.2111	0.2111	0.2111
1800	0	6.3733	16	0.2377	0.2377	0.2111	0.2111	0.2111
2100	0	5.5911	14	0.2257	0.2142	0.2111	0.2111	0.2111

THE HOURLY SUMMARY TABLE FOR WIN. 1961

HR	LB	AVG. VEL.	UA	DIR.	ETH.	STH.	WEST
				EAST			
2400	0	7.1777	18	0.2000	0.1889	0.3333	0.1778
0300	0	7.1777	21	0.1778	0.1778	0.3111	0.3030
0600	0	7.1777	22	0.2278	0.1611	0.3056	0.2889
0900	0	7.1777	17	0.2278	0.1556	0.2833	0.2667
1200	0	7.1777	20	0.2444	0.1667	0.2944	0.2611
1500	0	7.1777	20	0.2278	0.1556	0.3000	0.2444
1800	0	7.1777	13	0.3333	0.1444	0.3111	0.1667
2100	0	7.1777	19	0.2333	0.1611	0.3000	0.1778

Grandview
Instrument Height
1961-1962 23 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1962

HR	LB	AVG. VEL.	UA	DIR.	ETH.	STH.	WEST
				EAST			
2400	0	7.1777	21	0.2333	0.1222	0.3000	0.2778
0300	0	7.1333	25	0.2333	0.1333	0.2556	0.2644
0600	0	7.0111	17	0.2333	0.1667	0.2556	0.2711
0900	0	7.5777	20	0.2444	0.1667	0.2667	0.2778
1200	0	8.6777	21	0.3111	0.1444	0.2556	0.2778
1500	0	8.2111	20	0.2778	0.1556	0.2556	0.2778
1800	0	8.5333	21	0.2722	0.1667	0.2556	0.2778
2100	0	7.1333	21	0.2556	0.1511	0.2556	0.2778

THE HOURLY SUMMARY TABLE FOR SPR. 1962

HR	LB	AVG. VEL.	UA	DIR.	ETH.	STH.	WEST
				EAST			
2400	0	7.5217	16	0.1521	0.1739	0.4422	0.1474
0300	0	7.5108	20	0.1636	0.2062	0.3837	0.1522
0600	0	7.5856	20	0.1576	0.2106	0.3537	0.1544
0900	0	10.5952	22	0.2309	0.2370	0.3537	0.1534
1200	0	10.0473	22	0.2243	0.2052	0.3147	0.1543
1500	0	13.0133	20	0.1432	0.2173	0.3147	0.1543
1800	0	9.5945	19	0.2109	0.2463	0.3074	0.1522
2100	0	7.8263	20	0.1513	0.2139	0.3679	0.1574

THE HOURLY SUMMARY TABLE FOR SUM. 1962

HR	LB	AVG. VEL.	UA	DIR.	ETH.	STH.	WEST
				EAST			
2400	0	4.5522	14	0.1370	0.1634	0.5655	0.1324
0300	0	4.7226	14	0.1343	0.2173	0.4751	0.1370
0600	0	5.1633	12	0.1326	0.1739	0.4957	0.1157
0900	0	6.7173	13	0.1576	0.1735	0.4373	0.1517
1200	0	7.7052	13	0.2273	0.1413	0.4231	0.1422
1500	0	7.2052	13	0.2313	0.1343	0.4059	0.1567
1800	0	6.2391	14	0.2226	0.1922	0.3863	0.1113
2100	0	4.2826	14	0.1571	0.1634	0.4921	0.1444

THE HOURLY SUMMARY TABLE FOR FALL 1962

HR	LB	AVG. VEL.	UA	DIR.	ETH.	STH.	WEST
				EAST			
2400	0	5.5733	12	0.1312	0.2197	0.4154	0.1541
0300	0	5.7142	14	0.1739	0.1461	0.3862	0.1424
0600	0	5.2712	14	0.1621	0.2023	0.3712	0.1432
0900	0	7.2191	15	0.1831	0.2527	0.3950	0.1433
1200	0	7.9573	17	0.2875	0.2142	0.3712	0.1535
1500	0	7.5733	14	0.2326	0.2142	0.3712	0.1535
1800	0	5.0624	13	0.2307	0.2416	0.3514	0.1535
2100	0	5.7142	20	0.1742	0.2326	0.3862	0.1444

THE HOURLY SUMMARY TABLE FOR SPR. 1961

HR	LB	AVG. VEL.	UA	DIR.	ETH.	STH.	WEST
				EAST			
2400	0	7.3042	10	0.2019	0.2591	0.2330	0.2179
0300	0	7.1413	13	0.1932	0.2537	0.2391	0.2286
0600	0	8.1522	21	0.1474	0.2393	0.2630	0.2062
0900	0	13.0117	23	0.1749	0.2541	0.2938	0.2119
1200	0	11.0117	26	0.1332	0.2637	0.2826	0.2230
1500	0	11.0117	26	0.2302	0.2593	0.2804	0.2391
1800	0	8.1413	21	0.2302	0.2603	0.2330	0.1878
2100	0	8.0123	17	0.2302	0.2457	0.2139	0.1290

THE HOURLY SUMMARY TABLE FOR SUM. 1961

HR	LB	AVG. VEL.	UA	DIR.	ETH.	STH.	WEST
				EAST			
2400	0	5.1662	13	0.0481	0.1634	0.5491	0.0812
0300	0	5.1217	14	0.0503	0.1474	0.4947	0.1250
0600	0	5.4323	14	0.0593	0.1878	0.4673	0.1502
0900	0	7.0533	14	0.1070	0.1965	0.4076	0.1922
1200	0	7.0633	14	0.1217	0.1413	0.5107	0.1391
1500	0	8.1504	16	0.1571	0.1413	0.5107	0.1376
1800	0	6.5413	15	0.1413	0.2630	0.4510	0.0769
2100	0	6.3113	10	0.0676	0.2457	0.4691	0.0217

THE HOURLY SUMMARY TABLE FOR FALL 1961

HR	LB	AVG. VEL.	UA	DIR.	ETH.	STH.	WEST
				EAST			
2400	0	7.3015	13	0.1703	0.1009	0.5286	0.1153
0300	0	7.1330	13	0.1449	0.1237	0.5218	0.1153
0600	0	7.3461	13	0.1267	0.1267	0.5218	0.1435
0900	0	9.0037	19	0.1643	0.1298	0.5218	0.1703
1200	0	13.1467	27	0.2149	0.1043	0.5053	0.1426
1500	0	10.1733	21	0.2149	0.1413	0.4832	0.1376
1800	0	7.0733	13	0.1521	0.1861	0.4509	0.0909
2100	0	7.0733	22	0.1509	0.1921	0.4780	0.0940

THE HOURLY SUMMARY TABLE FOR WIN, 1963

HR	LA	AVG. VEL.	UB	ATH.	DIRECTION	STH.	WEST
					EAST		
2400	0	6.7773	14	0.2667	0.1500	0.3111	0.2056
0300	0	7.7773	14	0.2773	0.1111	0.2844	0.2277
0600	0	6.7111	14	0.2444	0.1222	0.2833	0.2500
0900	0	7.1234	20	0.3056	0.1333	0.3056	0.2000
1200	0	8.2773	20	0.4111	0.0722	0.2944	0.2773
1500	0	7.7773	22	0.3222	0.0667	0.2833	0.2222
1800	0	8.7773	16	0.3222	0.1722	0.2889	0.1556
2100	0	8.1111	14	0.2444	0.1000	0.3000	0.1667

Grandview
Instrument Height
1963-1964 23 Feet

THE HOURLY SUMMARY TABLE FOR SPR, 1963

HR	LA	AVG. VEL.	UB	ATH.	DIRECTION	STH.	WEST
					EAST		
2400	0	6.5000	20	0.1300	0.2200	0.4200	0.1200
0300	0	7.0000	14	0.1000	0.2200	0.3600	0.1500
0600	0	8.1333	18	0.1333	0.2233	0.3700	0.1700
0900	0	9.0000	20	0.1333	0.1700	0.4000	0.1900
1200	0	9.0000	18	0.1667	0.2100	0.3800	0.2000
1500	0	8.1333	16	0.1333	0.1667	0.3600	0.1900
1800	0	7.0000	14	0.1000	0.2200	0.3100	0.1600
2100	0	6.7500	14	0.1000	0.2200	0.3700	0.1100

THE HOURLY SUMMARY TABLE FOR SUM, 1963

HR	LA	AVG. VEL.	UB	ATH.	DIRECTION	STH.	WEST
					EAST		
2400	0	5.1500	16	0.0500	0.1700	0.3000	0.3200
0300	0	5.0000	12	0.1000	0.1400	0.3500	0.3500
0600	0	5.2179	16	0.1111	0.1500	0.3200	0.3500
0900	0	6.0000	14	0.0500	0.2000	0.3300	0.1400
1200	0	6.7500	12	0.1000	0.2200	0.4000	0.1400
1500	0	6.1250	12	0.1000	0.2000	0.4000	0.3500
1800	0	5.1500	12	0.1000	0.1500	0.4100	0.3500
2100	0	5.0000	10	0.0500	0.2000	0.4200	0.3000

THE HOURLY SUMMARY TABLE FOR FALL 1963

HR	LA	AVG. VEL.	UB	ATH.	DIRECTION	STH.	WEST
					EAST		
2400	0	5.7500	13	0.1429	0.1500	0.3100	0.1200
0300	0	6.1000	13	0.1158	0.1500	0.3000	0.2000
0600	0	6.1500	12	0.1200	0.1400	0.3000	0.1400
0900	0	6.0000	16	0.1000	0.1400	0.3100	0.2400
1200	0	6.1500	21	0.1000	0.1000	0.4100	0.3000
1500	0	6.2500	22	0.1000	0.1000	0.3700	0.2400
1800	0	5.3125	18	0.1000	0.2000	0.4100	0.2400
2100	0	5.1750	16	0.1000	0.2100	0.4100	0.3100

THE HOURLY SUMMARY TABLE FOR WTL, 1964

HR	LA	AVG. VEL.	UB	ATH.	DIRECTION	STH.	WEST
					EAST		
2400	0	6.6250	16	0.2500	0.1200	0.2400	0.2300
0300	0	7.0000	14	0.2333	0.1333	0.2333	0.2500
0600	0	7.1433	20	0.1944	0.1200	0.2222	0.2700
0900	0	8.1556	22	0.2167	0.1000	0.2100	0.3100
1200	0	9.0000	25	0.2500	0.0700	0.2000	0.3000
1500	0	9.5111	26	0.2369	0.1111	0.2500	0.2800
1800	0	6.3333	22	0.2778	0.1333	0.2222	0.2200
2100	0	7.2111	22	0.2778	0.1333	0.2222	0.2200

THE HOURLY SUMMARY TABLE FOR SP4, 1964

HR	LA	AVG. VEL.	UB	ATH.	DIRECTION	STH.	WEST
					EAST		
2400	0	9.0000	20	0.1634	0.2500	0.4134	0.1500
0300	0	8.5000	20	0.1413	0.1900	0.4134	0.2100
0600	0	8.2000	20	0.1500	0.1700	0.4134	0.1500
0900	0	10.0000	24	0.2222	0.1500	0.4134	0.1500
1200	0	11.5000	23	0.1347	0.1500	0.4200	0.2200
1500	0	11.2500	23	0.2000	0.1500	0.4200	0.1500
1800	0	9.7500	24	0.2111	0.1700	0.4200	0.1500
2100	0	9.0000	24	0.1900	0.2200	0.4200	0.1500

THE HOURLY SUMMARY TABLE FOR SP4, 1964

HR	LA	AVG. VEL.	UB	ATH.	DIRECTION	STH.	WEST
					EAST		
2400	0	5.5000	17	0.0765	0.2100	0.4400	0.3400
0300	0	5.6500	15	0.0600	0.2100	0.4400	0.3400
0600	0	6.0000	16	0.1200	0.2100	0.4400	0.3400
0900	0	7.3000	16	0.1500	0.2100	0.4400	0.3400
1200	0	7.5000	20	0.1143	0.1500	0.4400	0.3400
1500	0	7.5000	18	0.0800	0.2200	0.4400	0.3400
1800	0	7.0000	17	0.1100	0.2100	0.4400	0.3400
2100	0	6.2100	19	0.0700	0.2100	0.4400	0.3400

THE HOURLY SUMMARY TABLE FOR FALL 1964

HR	LA	AVG. VEL.	UB	ATH.	DIRECTION	STH.	WEST
					EAST		
2400	0	6.2700	13	0.1700	0.2000	0.4100	0.1800
0300	0	6.1500	17	0.1400	0.1900	0.4100	0.1800
0600	0	6.3100	17	0.1300	0.1900	0.4100	0.1800
0900	0	8.7800	22	0.2300	0.1800	0.4100	0.1800
1200	0	9.0100	20	0.2000	0.1400	0.4100	0.1800
1500	0	9.1700	20	0.2300	0.1500	0.4100	0.1800
1800	0	5.4100	19	0.2200	0.1700	0.4100	0.1800
2100	0	6.1000	18	0.1800	0.2200	0.4100	0.1800

THE HOURLY SUMMARY TABLE FOR WIN. 1967

HOURLY	LA	AVG.	U ₃	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	6.2227	19	0.19667	0.12718	0.17222	0.25556
0300	0	4.81277	21	0.19444	0.16111	0.34444	0.23333
0600	0	6.41111	20	0.17778	0.15000	0.35000	0.24444
0900	0	6.74444	20	0.20000	0.12778	0.33333	0.28333
1200	0	13.07778	22	0.23333	0.12222	0.30556	0.31667
1500	0	6.57778	22	0.23333	0.15000	0.28333	0.27778
1800	0	7.72222	21	0.23333	0.17222	0.32222	0.20556
2100	0	7.95556	17	0.21111	0.13149	0.38389	0.19889

Grandview

Instrument Height
1967-1968 25 Feet

THE HOURLY SUMMARY TABLE FOR SUM. 1967

HOURLY	LA	AVG.	U ₃	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	7.26333	20	0.18476	0.24370	0.20761	0.08896
0300	0	5.11333	21	0.20667	0.19022	0.26987	0.14874
0600	0	8.77778	22	0.22826	0.19772	0.34783	0.13587
0900	0	13.53333	21	0.26087	0.23370	0.31152	0.15217
1200	0	11.55333	20	0.22283	0.24757	0.27500	0.13587
1500	0	11.54333	24	0.24457	0.22283	0.36413	0.14674
1800	0	6.72222	20	0.26087	0.23370	0.31152	0.14330
2100	0	4.12333	24	0.25379	0.23370	0.36574	0.18152

THE HOURLY SUMMARY TABLE FOR SUM. 1967

HOURLY	LA	AVG.	U ₃	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	6.04333	16	0.11357	0.15761	0.25682	0.10326
0300	0	6.11333	11	0.08152	0.14130	0.26106	0.11957
0600	0	5.82333	11	0.05986	0.14576	0.21843	0.13043
0900	0	7.41322	16	0.12537	0.14130	0.25552	0.12503
1200	0	7.06222	16	0.14478	0.19222	0.30413	0.23513
1500	0	6.83278	15	0.16304	0.12500	0.26106	0.17391
1800	0	5.82333	13	0.23109	0.20109	0.24479	0.09406
2100	0	4.21333	16	0.11413	0.23370	0.23217	0.09343

THE HOURLY SUMMARY TABLE FOR FALL 1967

HOURLY	LA	AVG.	U ₃	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	4.55333	20	0.19780	0.16511	0.36313	0.15340
0300	0	5.71222	16	0.16494	0.13132	0.36813	0.17582
0600	0	5.70423	20	0.17033	0.19231	0.35714	0.20330
0900	0	7.75333	20	0.24725	0.15934	0.35168	0.19780
1200	0	9.10333	22	0.21978	0.14132	0.29670	0.24725
1500	0	9.24333	25	0.24725	0.23310	0.30769	0.23077
1800	0	6.01333	19	0.23121	0.23910	0.29121	0.10560
2100	0	4.71423	24	0.26174	0.15339	0.38063	0.08791

THE HOURLY SUMMARY TABLE FOR WIN. 1968

HOURLY	LA	AVG.	U ₃	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	6.41111	24	0.33556	0.15000	0.32222	0.15556
0300	0	6.32222	22	0.30556	0.14444	0.30556	0.21667
0600	0	7.44444	20	0.28149	0.15057	0.33000	0.17222
0900	0	8.46667	26	0.28333	0.15111	0.25000	0.21111
1200	0	6.41111	22	0.35000	0.11457	0.31556	0.20556
1500	1	6.17778	20	0.30000	0.13333	0.33333	0.22222
1800	0	7.23333	14	0.32222	0.17222	0.33000	0.14111
2100	0	7.02333	15	0.24109	0.16227	0.30556	0.15778

THE HOURLY SUMMARY TABLE FOR SUM. 1968

HOURLY	LA	AVG.	U ₃	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	7.57917	22	0.19556	0.14674	0.23333	0.15574
0300	0	7.53333	21	0.19022	0.14674	0.25000	0.25113
0600	0	7.77174	19	0.17391	0.17391	0.30556	0.27113
0900	1	10.27037	21	0.26620	0.16435	0.30556	0.27220
1200	0	10.32675	26	0.27174	0.16335	0.25000	0.25556
1500	0	10.34333	23	0.27913	0.16335	0.30556	0.25556
1800	0	9.95052	26	0.26639	0.14111	0.27000	0.25000
2100	0	6.57639	19	0.21156	0.13474	0.26957	0.11413

THE HOURLY SUMMARY TABLE FOR FALL 1968

HOURLY	LA	AVG.	U ₃	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	5.16333	13	0.07229	0.24674	0.34391	0.15782
0300	0	8.04272	15	0.04239	0.09239	0.50493	0.12524
0600	0	6.63556	20	0.26491	0.12217	0.37222	0.12524
0900	0	6.34733	17	0.11413	0.13337	0.31397	0.17391
1200	0	7.32637	29	0.07239	0.13537	0.30333	0.15222
1500	0	7.52052	25	0.11957	0.11957	0.32439	0.11413
1800	0	6.47925	23	0.11413	0.21113	0.34631	0.08152
2100	0	4.59556	16	0.09435	0.17221	0.31333	0.22222

THE HOURLY SUMMARY TABLE FOR FALL 1968

HOURLY	LA	AVG.	U ₃	WTH.	DIRECTION	STH.	WEST
		VEL.			EAST		
2400	0	6.02198	16	0.18681	0.09322	0.45504	0.10556
0300	0	5.47556	20	0.15385	0.08332	0.44500	0.12584
0600	0	5.70333	17	0.23242	0.33242	0.37612	0.18222
0900	0	7.52747	19	0.23077	0.25344	0.45504	0.15778
1200	0	8.53544	17	0.26923	0.36213	0.45504	0.15778
1500	0	8.52574	20	0.24092	0.37452	0.45504	0.15778
1800	0	5.33774	15	0.21673	0.33741	0.32439	0.12524
2100	0	5.67333	14	0.20330	0.30791	0.27322	0.13556

THE HOURLY SUMMARY TABLE FOR WIN. 1969

HR	LB	AVG. VEL.	UP	DIR.	ETH.	STH.	WEST
2400	0	7.1507	20	0.2354	0.7333	0.1773	0.1778
0300	0	6.4111	22	0.2333	0.2667	0.2000	0.2000
0600	0	5.2333	26	0.2111	0.7778	0.2000	0.2222
0900	0	7.5000	20	0.2500	0.7778	0.2056	0.2000
1200	0	8.7778	20	0.2107	0.2556	0.2333	0.2167
1500	0	5.2778	24	0.2722	0.2667	0.2333	0.2056
1800	0	6.2778	18	0.2500	0.2778	0.1778	0.1444
2100	0	7.1507	20	0.2444	0.2333	0.1722	0.1611

Grandview
Instrument Height
1969-1970 23 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1969

HR	LB	AVG. VEL.	UP	DIR.	ETH.	STH.	WEST
2400	0	6.2222	20	0.2554	0.1818	0.3097	0.1613
0300	0	5.2222	20	0.2889	0.1818	0.2717	0.1922
0600	0	6.2222	22	0.2557	0.1795	0.3045	0.1956
0900	0	8.1818	20	0.2500	0.1818	0.3006	0.1961
1200	0	7.1111	20	0.2801	0.1818	0.3000	0.1921
1500	0	6.1111	20	0.2500	0.1639	0.3043	0.1739
1800	0	7.0000	18	0.2630	0.2062	0.3073	0.1636
2100	0	5.1250	20	0.2813	0.2116	0.3057	0.1198

THE HOURLY SUMMARY TABLE FOR SUM. 1969

HR	LB	AVG. VEL.	UP	DIR.	ETH.	STH.	WEST
2400	0	6.0552	19	0.1500	0.2030	0.3000	0.0815
0300	0	5.3333	16	0.1393	0.1521	0.3191	0.1197
0600	0	5.2222	14	0.1413	0.2013	0.3750	0.1032
0900	0	6.0000	20	0.1521	0.1578	0.4021	0.1956
1200	0	7.0000	20	0.1347	0.1791	0.4293	0.1735
1500	0	7.2117	20	0.1730	0.2019	0.4184	0.1630
1800	0	5.1111	20	0.1250	0.3152	0.3657	0.1197
2100	0	7.1478	12	0.0815	0.3657	0.3315	0.0652

THE HOURLY SUMMARY TABLE FOR FALL 1969

HR	LB	AVG. VEL.	UP	DIR.	ETH.	STH.	WEST
2400	0	5.7812	16	0.1593	0.2129	0.2912	0.2030
0300	0	5.3511	16	0.1648	0.2030	0.3020	0.1980
0600	0	6.3333	16	0.2137	0.2137	0.2461	0.1158
0900	0	7.2117	13	0.2252	0.1970	0.3011	0.1620
1200	0	6.2712	20	0.2366	0.1923	0.3574	0.1823
1500	0	4.3407	16	0.2737	0.1312	0.3613	0.1758
1800	0	5.1111	17	0.2107	0.2527	0.3190	0.1153
2100	0	5.2117	18	0.1793	0.2527	0.3316	0.1153

THE HOURLY SUMMARY TABLE FOR WIL. 1970

HR	LB	AVG. VEL.	UP	DIR.	ETH.	STH.	WEST
2400	0	6.5000	18	0.3500	0.1000	0.2111	0.1500
0300	0	6.4667	18	0.2667	0.1333	0.2500	0.1556
0600	0	7.1222	20	0.2556	0.1611	0.2444	0.2278
0900	0	7.6222	18	0.2333	0.1500	0.2167	0.2111
1200	0	8.5222	20	0.3667	0.1333	0.2167	0.2544
1500	0	6.1000	16	0.3056	0.1500	0.2000	0.2222
1800	0	5.6111	17	0.3222	0.1333	0.2333	0.2167
2100	0	5.7667	15	0.2611	0.1278	0.2444	0.1722

THE HOURLY SUMMARY TABLE FOR SPR. 1970

HR	LB	AVG. VEL.	UP	DIR.	ETH.	STH.	WEST
2400	0	7.1000	19	0.1795	0.1522	0.4378	0.3166
0300	0	6.4111	18	0.1561	0.1743	0.3575	0.2167
0600	0	6.6217	18	0.1791	0.1521	0.3587	0.1833
0900	0	8.5766	16	0.2159	0.1639	0.2643	0.3059
1200	2	9.6719	22	0.2134	0.1521	0.4168	0.2552
1500	0	13.2246	22	0.2373	0.1761	0.3750	0.2122
1800	0	9.1714	20	0.2173	0.1956	0.2717	0.1761
2100	0	4.8045	18	0.2109	0.2062	0.4345	0.0815

THE HOURLY SUMMARY TABLE FOR SUM. 1970

HR	LB	AVG. VEL.	UP	DIR.	ETH.	STH.	WEST
2400	0	6.1236	18	0.0923	0.1522	0.3578	0.3815
0300	0	5.6661	14	0.0621	0.1731	0.3457	0.2622
0600	0	5.9136	16	0.1250	0.1467	0.4735	0.3122
0900	0	7.6521	19	0.1358	0.1467	0.4735	0.1521
1200	0	7.9913	17	0.1978	0.1922	0.4291	0.1322
1500	0	9.3214	18	0.1673	0.2062	0.4378	0.1722
1800	0	7.5134	18	0.2062	0.2663	0.4166	0.2734
2100	0	6.9448	15	0.1143	0.2717	0.5137	0.2217

THE HOURLY SUMMARY TABLE FOR FALL 1970

HR	LB	AVG. VEL.	UP	DIR.	ETH.	STH.	WEST
2400	0	5.9405	18	0.1923	0.0934	0.3559	0.1758
0300	0	6.5025	16	0.2157	0.0934	0.3559	0.2030
0600	0	6.1208	18	0.2252	0.0934	0.4011	0.2167
0900	0	7.1623	20	0.2674	0.0934	0.3542	0.2142
1200	0	7.5073	20	0.2366	0.1153	0.3165	0.2174
1500	0	7.5316	25	0.2367	0.0934	0.3542	0.2734
1800	0	5.2198	14	0.3417	0.0934	0.3117	0.3671
2100	0	6.1643	20	0.2252	0.1534	0.3511	0.2217

YEAR	SPEEDS																																EXCESS=			0																																
1963	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																												
JAN.	16	6	12	22	25	27	30	18	17	20	6	10	7	9	5	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																											
FEB.	20	17	19	23	25	18	27	16	25	7	12	4	7	4	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																											
MAR.	13	5	4	13	29	18	29	12	25	8	29	8	10	5	7	1	5	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																											
APR.	16	9	4	30	7	19	20	21	17	31	11	23	5	16	8	6	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																											
MAY.	28	14	15	24	23	15	17	30	17	32	1	7	2	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																											
JUNE.	13	13	10	23	28	29	21	30	26	32	2	7	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																											
JULY.	36	13	7	35	27	12	24	28	19	15	4	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																											
AUG.	23	13	19	17	36	43	27	31	7	5	1	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																											
SEP.	29	15	11	32	21	45	29	26	14	17	3	19	2	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																											
OCT.	6	8	5	22	20	30	28	36	21	25	7	10	1	6	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																											
NOV.	24	6	19	16	20	36	10	11	26	6	17	3	2	4	2	3	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																											
DEC.	15	13	12	13	19	33	17	32	14	22	11	14	3	3	2	4	0	1	0	2	0	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																											

Wind Speed Density

By The Month

Grandview

Years

1963

1964

1965

1966

Instrument Height

1953-1956 23 Feet

YEAR	SPEEDS																															EXCESS= 0																														
1965	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																						
JAN.	14	4	3	14	19	18	11	33	13	10	11	17	3	12	8	5	1	4	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
FEB.	11	8	9	12	11	16	11	16	12	24	15	26	14	10	9	13	5	7	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
MAR.	10	7	15	11	14	15	74	17	30	11	30	9	19	8	1	3	3	1	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
APR.	6	7	13	19	12	17	10	19	6	46	5	34	12	13	3	2	1	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
MAY.	12	9	16	12	19	16	13	24	14	23	6	13	7	5	5	1	5	1	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
JUNE.	21	4	8	11	17	26	22	28	15	22	10	18	2	8	4	6	2	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
JULY.	32	3	19	16	29	20	26	16	29	9	16	5	9	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
AUG.	32	5	14	13	14	23	20	37	14	26	4	14	3	4	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
SEP.	24	9	13	21	16	25	19	28	21	8	15	6	9	3	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
OCT.	14	3	14	37	24	29	15	34	18	22	2	19	4	7	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
NOV.	27	7	15	3	6	11	32	16	21	9	14	6	15	10	12	1	4	1	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
DEC.	19	6	7	14	15	18	18	29	15	19	14	24	10	16	2	5	4	3	0	6	1	4	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				

YEAR	SPEEDS																															EXCESS= 0																														
1966	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																						
JAN.	10	8	9	16	11	20	17	26	17	26	16	25	10	12	9	5	2	4	7	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
FEB.	20	8	16	30	14	30	12	18	4	24	11	14	11	13	3	6	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
MAR.	23	7	8	14	18	14	12	10	16	11	21	5	20	10	14	12	14	4	4	7	6	2	0	3	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
APR.	21	13	11	22	14	13	10	26	6	34	11	22	3	15	7	7	1	4	1	2	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
MAY.	20	10	20	10	35	18	38	16	0	9	14	8	13	3	4	3	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
JUNE.	17	13	8	23	17	26	19	35	11	33	10	13	2	4	3	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
JULY.	22	11	25	29	41	11	47	10	24	6	19	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
AUG.	31	21	1	28	27	33	20	24	10	14	6	11	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
SEP.	30	14	21	26	25	43	15	22	10	16	6	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
OCT.	13	12	16	21	15	22	11	20	13	4	13	7	9	3	9	1	4	1	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
NOV.	27	10	0	31	20	15	19	21	10	17	16	19	4	17	3	4	2	6	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
DEC.	19	10	4	20	9	26	12	23	10	30	13	20	12	13	6	12	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					

Wind Speed In Knots

MONTH	AVGWEL	AVGWEL	AVGWEL	AVGWEL	VOICED	VOICED	VOICED	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	12.17	12.57	12.35	12.72	15.77	20.33	31.17	37.53	0.0	37.53	GRANDVIEW MISSOURI
FEB.	12.44	12.93	12.75	13.11	15.73	21.00	31.73	37.73	0.0	37.73	JACKSON COUNTY
MAR.	12.40	12.77	12.85	13.28	15.69	21.80	32.07	37.85	0.0	37.85	CORRECTED HT. 100 FT.
APR.	12.44	12.80	12.80	13.19	15.61	21.84	32.07	37.50	0.0	37.50	INSTRUMENT HT. 85 FT.
MAY.	10.77	11.10	12.75	13.09	22.13	25.00	28.70	33.39	0.0	28.70	PEAK LIMIT IS 16 KNOTS.
JUNE	9.00	9.31	11.26	11.53	20.33	16.33	17.33	21.07	0.0	18.34	FRIC. LIM. IS 7KNOTS.
JULY	8.45	8.95	10.52	10.83	18.16	14.52	15.84	18.18	0.0	15.84	CODE=1 COR. HT. BULK MATH.
AUG.	8.38	8.67	9.98	10.27	18.77	13.13	14.55	17.23	0.0	15.11	CODE=2 COR. HT. PER
SEP.	9.80	10.27	11.75	12.09	25.16	13.30	21.00	25.19	0.0	22.08	UNIT AREA KWH/M**2
OCT.	10.13	10.85	12.31	12.89	25.53	21.53	23.35	27.93	0.0	24.50	CODE=3 COR. HT. PER.
NOV.	11.33	12.13	13.15	14.63	33.34	28.31	30.33	36.21	0.0	31.76	UNIT AREA KWH/M**2
DEC.	11.57	12.33	12.99	13.35	32.73	28.27	28.82	34.11	0.0	30.13	WIND SPEEDS ARE IN KNOTS.
SUMS	12.90	11.25	13.20	13.56	199.32	243.54	195.92	364.24	0.0	319.49	

MONTH	AVGWEL	AVGWEL	AVGWEL	AVGWEL	VOICED	VOICED	VOICED	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	12.97	12.91	11.76	12.11	26.34	21.34	23.63	28.21	0.0	24.75	GRANDVIEW MISSOURI
FEB.	8.87	9.13	10.36	10.33	16.16	12.13	14.17	15.88	0.0	13.15	JACKSON COUNTY
MAR.	11.40	11.75	12.50	12.15	31.43	23.45	27.72	32.86	0.0	28.67	CORRECTED HT. 100 FT.
APR.	12.81	13.08	16.24	17.34	41.34	33.34	33.84	40.34	0.0	35.33	INSTRUMENT HT. 85 FT.
MAY.	13.94	14.32	16.16	16.54	42.23	35.42	37.08	44.47	0.0	39.00	PEAK LIMIT IS 16 KNOTS.
JUNE	10.23	10.55	12.11	12.44	25.15	20.38	22.35	26.12	0.0	22.91	FRIC. LIM. IS 7KNOTS.
JULY	8.13	8.41	10.50	10.91	13.15	14.56	15.92	18.50	0.0	16.31	CODE=1 COR. HT. BULK MATH.
AUG.	10.38	10.70	12.28	12.62	23.52	23.30	25.02	30.34	0.0	26.61	CODE=2 COR. HT. PER
SEP.	11.17	11.50	13.67	14.01	31.76	26.16	27.35	33.57	0.0	29.44	UNIT AREA KWH/M**2
OCT.	11.03	11.35	13.45	13.80	32.02	26.47	26.35	33.74	0.0	29.59	CODE=3 COR. HT. PER.
NOV.	13.10	13.45	15.55	16.02	41.47	34.59	35.37	43.93	0.0	38.53	UNIT AREA KWH/M**2
DEC.	12.25	12.53	14.05	14.41	39.34	29.15	31.73	36.82	0.0	32.30	WIND SPEEDS ARE IN KNOTS.
SUMS	11.22	11.56	13.69	14.04	367.67	301.60	322.49	384.38	0.0	337.15	

MONTH	AVGWEL	AVGWEL	AVGWEL	AVGWEL	VOICED	VOICED	VOICED	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	10.50	10.62	13.99	13.93	27.43	24.14	24.38	29.31	0.0	25.45	GRANDVIEW MISSOURI
FEB.	9.51	9.94	12.27	12.23	22.74	19.43	19.94	23.24	0.0	20.38	JACKSON COUNTY
MAR.	14.13	14.13	17.20	17.19	41.29	35.67	36.22	42.80	0.0	37.54	CORRECTED HT. 100 FT.
APR.	13.02	13.04	13.03	13.01	25.33	22.78	23.14	25.97	0.0	23.66	INSTRUMENT HT. 96 FT.
MAY.	7.39	7.11	10.19	10.10	15.53	13.59	13.97	16.31	0.0	14.31	PEAK LIMIT IS 16 KNOTS.
JUNE	6.19	6.22	9.25	9.25	11.53	9.33	10.11	11.50	0.0	10.03	FRIC. LIM. IS 7KNOTS.
JULY	5.76	6.73	8.38	8.40	9.33	7.73	8.16	8.99	0.0	7.81	CODE=1 COR. HT. BULK MATH.
AUG.	6.70	6.73	8.48	8.50	9.73	8.11	8.54	9.42	0.0	8.26	CODE=2 COR. HT. PER
SEP.	3.35	3.38	4.71	4.76	1.73	0.61	1.90	0.55	0.0	0.49	UNIT AREA KWH/M**2
OCT.	6.09	6.12	7.80	7.82	7.53	5.34	6.51	6.79	0.0	5.96	CODE=3 COR. HT. PER.
NOV.	7.57	7.50	9.52	9.54	13.70	11.59	12.02	13.50	0.0	11.84	UNIT AREA KWH/M**2
DEC.	8.34	8.47	10.71	10.72	17.12	14.60	15.01	17.34	0.0	15.21	WIND SPEEDS ARE IN KNOTS.
SUMS	8.13	7.15	11.36	11.36	204.09	174.23	179.01	206.34	0.0	180.99	

MONTH	AVGWEL	AVGWEL	AVGWEL	AVGWEL	VOICED	VOICED	VOICED	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	6.72	10.83	8.73	12.87	27.45	8.13	24.09	24.49	0.0	24.49	GRANDVIEW MISSOURI
FEB.	5.96	10.35	9.02	13.24	29.31	9.75	25.45	30.34	0.0	26.61	JACKSON COUNTY
MAR.	7.28	11.25	9.34	13.67	32.13	10.39	28.18	32.71	0.0	29.74	CORRECTED HT. 100 FT.
APR.	7.45	11.51	9.67	13.95	30.57	11.61	26.45	31.53	0.0	27.69	INSTRUMENT HT. 10 FT.
MAY.	5.12	5.49	7.05	10.73	13.17	4.10	15.43	18.50	0.0	16.30	PEAK LIMIT IS 16 KNOTS.
JUNE	5.57	10.37	9.33	12.31	25.72	7.55	23.46	27.75	0.0	24.43	FRIC. LIM. IS 7KNOTS.
JULY	5.13	8.23	8.13	11.52	17.52	4.59	15.37	17.77	0.0	15.59	CODE=1 COR. HT. BULK MATH.
AUG.	4.37	7.40	6.16	9.52	12.43	2.64	11.25	12.59	0.0	11.03	CODE=2 COR. HT. PER
SEP.	6.36	9.64	8.06	12.33	23.35	6.71	23.72	24.50	0.0	21.75	UNIT AREA KWH/M**2
OCT.	5.34	9.36	7.13	11.71	22.57	6.33	17.50	23.37	0.0	20.46	CODE=3 COR. HT. PER.
NOV.	4.47	12.47	11.27	14.45	34.47	13.49	33.74	40.65	0.0	35.86	UNIT AREA KWH/M**2
DEC.	7.74	12.53	9.09	13.49	32.53	19.77	23.54	36.01	0.0	29.33	WIND SPEEDS ARE IN KNOTS.
SUMS	6.41	10.22	8.61	12.67	311.01	94.74	273.44	323.84	0.0	244.04	

MONTH	AVGWEL	AVGWEL	AVGWEL	AVGWEL	VOICED	VOICED	VOICED	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	9.13	15.57	11.61	15.73	35.31	21.54	30.39	40.33	0.0	42.43	GRANDVIEW MISSOURI
FEB.	9.01	11.52	15.32	15.63	30.31	17.31	25.93	32.32	0.0	27.34	JACKSON COUNTY
MAR.	10.55	15.67	12.51	17.05	43.17	21.77	30.25	39.60	0.0	44.38	CORRECTED HT. 100 FT.
APR.	12.40	16.04	11.13	15.05	43.59	17.31	30.42	45.16	0.0	40.49	INSTRUMENT HT. 10 FT.
MAY.	10.10	15.03	11.73	16.72	47.34	20.75	41.32	50.06	0.0	42.81	PEAK LIMIT IS 16 KNOTS.
JUNE	6.38	10.39	8.43	10.51	24.71	6.77	21.67	23.47	0.0	22.36	FRIC. LIM. IS 7KNOTS.
JULY	5.66	7.13	7.45	11.32	20.72	5.25	18.16	21.48	0.0	18.34	CODE=1 COR. HT. BULK MATH.
AUG.	1.17	12.40	9.32	13.47	25.54	11.07	31.55	37.75	0.0	32.49	CODE=2 COR. HT. PER
SEP.	4.46	12.70	10.13	16.05	33.33	11.43	36.19	42.37	0.0	36.35	UNIT AREA KWH/M**2
OCT.	7.93	11.45	9.73	13.96	41.47	9.40	27.95	33.73	0.0	29.51	CODE=3 COR. HT. PER.
NOV.	9.47	12.45	12.51	15.15	39.35	16.75	31.26	39.43	0.0	35.87	UNIT AREA KWH/M**2
DEC.	9.31	12.33	9.62	14.05	35.13	11.05	30.41	37.45	0.0	32.14	WIND SPEEDS ARE IN KNOTS.
SUMS	9.56	12.33	12.50	15.25	492.75	125.05	365.50	474.99	0.0	416.10	

STATE	AVG 1	AVG 2	AVG 3	AVG 4	AVG 5	AVG 6	AVG 7	AVG 8	AVG 9	AVG 10	AVG 11	AVG 12	AVG 13	AVG 14	AVG 15	AVG 16	AVG 17	AVG 18	AVG 19	AVG 20	AVG 21	AVG 22	AVG 23	AVG 24	AVG 25	AVG 26	AVG 27	AVG 28	AVG 29	AVG 30	AVG 31	AVG 32	AVG 33	AVG 34	AVG 35	AVG 36	AVG 37	AVG 38	AVG 39	AVG 40	AVG 41	AVG 42	AVG 43	AVG 44	AVG 45	AVG 46	AVG 47	AVG 48	AVG 49	AVG 50	AVG 51	AVG 52	AVG 53	AVG 54	AVG 55	AVG 56	AVG 57	AVG 58	AVG 59	AVG 60	AVG 61	AVG 62	AVG 63	AVG 64	AVG 65	AVG 66	AVG 67	AVG 68	AVG 69	AVG 70	AVG 71	AVG 72	AVG 73	AVG 74	AVG 75	AVG 76	AVG 77	AVG 78	AVG 79	AVG 80	AVG 81	AVG 82	AVG 83	AVG 84	AVG 85	AVG 86	AVG 87	AVG 88	AVG 89	AVG 90	AVG 91	AVG 92	AVG 93	AVG 94	AVG 95	AVG 96	AVG 97	AVG 98	AVG 99	AVG 100	AVG 101	AVG 102	AVG 103	AVG 104	AVG 105	AVG 106	AVG 107	AVG 108	AVG 109	AVG 110	AVG 111	AVG 112	AVG 113	AVG 114	AVG 115	AVG 116	AVG 117	AVG 118	AVG 119	AVG 120	AVG 121	AVG 122	AVG 123	AVG 124	AVG 125	AVG 126	AVG 127	AVG 128	AVG 129	AVG 130	AVG 131	AVG 132	AVG 133	AVG 134	AVG 135	AVG 136	AVG 137	AVG 138	AVG 139	AVG 140	AVG 141	AVG 142	AVG 143	AVG 144	AVG 145	AVG 146	AVG 147	AVG 148	AVG 149	AVG 150	AVG 151	AVG 152	AVG 153	AVG 154	AVG 155	AVG 156	AVG 157	AVG 158	AVG 159	AVG 160	AVG 161	AVG 162	AVG 163	AVG 164	AVG 165	AVG 166	AVG 167	AVG 168	AVG 169	AVG 170	AVG 171	AVG 172	AVG 173	AVG 174	AVG 175	AVG 176	AVG 177	AVG 178	AVG 179	AVG 180	AVG 181	AVG 182	AVG 183	AVG 184	AVG 185	AVG 186	AVG 187	AVG 188	AVG 189	AVG 190	AVG 191	AVG 192	AVG 193	AVG 194	AVG 195	AVG 196	AVG 197	AVG 198	AVG 199	AVG 200	AVG 201	AVG 202	AVG 203	AVG 204	AVG 205	AVG 206	AVG 207	AVG 208	AVG 209	AVG 210	AVG 211	AVG 212	AVG 213	AVG 214	AVG 215	AVG 216	AVG 217	AVG 218	AVG 219	AVG 220	AVG 221	AVG 222	AVG 223	AVG 224	AVG 225	AVG 226	AVG 227	AVG 228	AVG 229	AVG 230	AVG 231	AVG 232	AVG 233	AVG 234	AVG 235	AVG 236	AVG 237	AVG 238	AVG 239	AVG 240	AVG 241	AVG 242	AVG 243	AVG 244	AVG 245	AVG 246	AVG 247	AVG 248	AVG 249	AVG 250	AVG 251	AVG 252	AVG 253	AVG 254	AVG 255	AVG 256	AVG 257	AVG 258	AVG 259	AVG 260	AVG 261	AVG 262	AVG 263	AVG 264	AVG 265	AVG 266	AVG 267	AVG 268	AVG 269	AVG 270	AVG 271	AVG 272	AVG 273	AVG 274	AVG 275	AVG 276	AVG 277	AVG 278	AVG 279	AVG 280	AVG 281	AVG 282	AVG 283	AVG 284	AVG 285	AVG 286	AVG 287	AVG 288	AVG 289	AVG 290	AVG 291	AVG 292	AVG 293	AVG 294	AVG 295	AVG 296	AVG 297	AVG 298	AVG 299	AVG 300	AVG 301	AVG 302	AVG 303	AVG 304	AVG 305	AVG 306	AVG 307	AVG 308	AVG 309	AVG 310	AVG 311	AVG 312	AVG 313	AVG 314	AVG 315	AVG 316	AVG 317	AVG 318	AVG 319	AVG 320	AVG 321	AVG 322	AVG 323	AVG 324	AVG 325	AVG 326	AVG 327	AVG 328	AVG 329	AVG 330	AVG 331	AVG 332	AVG 333	AVG 334	AVG 335	AVG 336	AVG 337	AVG 338	AVG 339	AVG 340	AVG 341	AVG 342	AVG 343	AVG 344	AVG 345	AVG 346	AVG 347	AVG 348	AVG 349	AVG 350	AVG 351	AVG 352	AVG 353	AVG 354	AVG 355	AVG 356	AVG 357	AVG 358	AVG 359	AVG 360	AVG 361	AVG 362	AVG 363	AVG 364	AVG 365	AVG 366	AVG 367	AVG 368	AVG 369	AVG 370	AVG 371	AVG 372	AVG 373	AVG 374	AVG 375	AVG 376	AVG 377	AVG 378	AVG 379	AVG 380	AVG 381	AVG 382	AVG 383	AVG 384	AVG 385	AVG 386	AVG 387	AVG 388	AVG 389	AVG 390	AVG 391	AVG 392	AVG 393	AVG 394	AVG 395	AVG 396	AVG 397	AVG 398	AVG 399	AVG 400	AVG 401	AVG 402	AVG 403	AVG 404	AVG 405	AVG 406	AVG 407	AVG 408	AVG 409	AVG 410	AVG 411	AVG 412	AVG 413	AVG 414	AVG 415	AVG 416	AVG 417	AVG 418	AVG 419	AVG 420	AVG 421	AVG 422	AVG 423	AVG 424	AVG 425	AVG 426	AVG 427	AVG 428	AVG 429	AVG 430	AVG 431	AVG 432	AVG 433	AVG 434	AVG 435	AVG 436	AVG 437	AVG 438	AVG 439	AVG 440	AVG 441	AVG 442	AVG 443	AVG 444	AVG 445	AVG 446	AVG 447	AVG 448	AVG 449	AVG 450	AVG 451	AVG 452	AVG 453	AVG 454	AVG 455	AVG 456	AVG 457	AVG 458	AVG 459	AVG 460	AVG 461	AVG 462	AVG 463	AVG 464	AVG 465	AVG 466	AVG 467	AVG 468	AVG 469	AVG 470	AVG 471	AVG 472	AVG 473	AVG 474	AVG 475	AVG 476	AVG 477	AVG 478	AVG 479	AVG 480	AVG 481	AVG 482	AVG 483	AVG 484	AVG 485	AVG 486	AVG 487	AVG 488	AVG 489	AVG 490	AVG 491	AVG 492	AVG 493	AVG 494	AVG 495	AVG 496	AVG 497	AVG 498	AVG 499	AVG 500	AVG 501	AVG 502	AVG 503	AVG 504	AVG 505	AVG 506	AVG 507	AVG 508	AVG 509	AVG 510	AVG 511	AVG 512	AVG 513	AVG 514	AVG 515	AVG 516	AVG 517	AVG 518	AVG 519	AVG 520	AVG 521	AVG 522	AVG 523	AVG 524	AVG 525	AVG 526	AVG 527	AVG 528	AVG 529	AVG 530	AVG 531	AVG 532	AVG 533	AVG 534	AVG 535	AVG 536	AVG 537	AVG 538	AVG 539	AVG 540	AVG 541	AVG 542	AVG 543	AVG 544	AVG 545	AVG 546	AVG 547	AVG 548	AVG 549	AVG 550	AVG 551	AVG 552	AVG 553	AVG 554	AVG 555	AVG 556	AVG 557	AVG 558	AVG 559	AVG 560	AVG 561	AVG 562	AVG 563	AVG 564	AVG 565	AVG 566	AVG 567	AVG 568	AVG 569	AVG 570	AVG 571	AVG 572	AVG 573	AVG 574	AVG 575	AVG 576	AVG 577	AVG 578	AVG 579	AVG 580	AVG 581	AVG 582	AVG 583	AVG 584	AVG 585	AVG 586	AVG 587	AVG 588	AVG 589	AVG 590	AVG 591	AVG 592	AVG 593	AVG 594	AVG 595	AVG 596	AVG 597	AVG 598	AVG 599	AVG 600	AVG 601	AVG 602	AVG 603	AVG 604	AVG 605	AVG 606	AVG 607	AVG 608	AVG 609	AVG 610	AVG 611	AVG 612	AVG 613	AVG 614	AVG 615	AVG 616	AVG 617	AVG 618	AVG 619	AVG 620	AVG 621	AVG 622	AVG 623	AVG 624	AVG 625	AVG 626	AVG 627	AVG 628	AVG 629	AVG 630	AVG 631	AVG 632	AVG 633	AVG 634	AVG 635	AVG 636	AVG 637	AVG 638	AVG 639	AVG 640	AVG 641	AVG 642	AVG 643	AVG 644	AVG 645	AVG 646	AVG 647	AVG 648	AVG 649	AVG 650	AVG 651	AVG 652	AVG 653	AVG 654	AVG 655	AVG 656	AVG 657	AVG 658	AVG 659	AVG 660	AVG 661	AVG 662	AVG 663	AVG 664	AVG 665	AVG 666	AVG 667	AVG 668	AVG 669	AVG 670	AVG 671	AVG 672	AVG 673	AVG 674	AVG 675	AVG 676	AVG 677	AVG 678	AVG 679	AVG 680	AVG 681	AVG 682	AVG 683	AVG 684	AVG 685	AVG 686	AVG 687	AVG 688	AVG 689	AVG 690	AVG 691	AVG 692	AVG 693	AVG 694	AVG 695	AVG 696	AVG 697	AVG 698	AVG 699	AVG 700	AVG 701	AVG 702	AVG 703	AVG 704	AVG 705	AVG 706	AVG 707	AVG 708	AVG 709	AVG 710	AVG 711	AVG 712	AVG 713	AVG 714	AVG 715	AVG 716	AVG 717	AVG 718	AVG 719	AVG 720	AVG 721	AVG 722	AVG 723	AVG 724	AVG 725	AVG 726	AVG 727	AVG 728	AVG 729	AVG 730	AVG 731	AVG 732	AVG 733	AVG 734	AVG 735	AVG 736	AVG 737	AVG 738	AVG 739	AVG 740	AVG 741	AVG 742	AVG 743	AVG 744	AVG 745	AVG 746	AVG 747	AVG 748	AVG 749	AVG 750	AVG 751	AVG 752	AVG 753	AVG 754	AVG 755	AVG 756	AVG 757	AVG 758	AVG 759	AVG 760	AVG 761	AVG 762	AVG 763	AVG 764	AVG 765	AVG 766	AVG 767	AVG 768	AVG 769	AVG 770	AVG 771	AVG 772	AVG 773	AVG 774	AVG 775	AVG 776	AVG 777	AVG 778	AVG 779	AVG 780	AVG 781	AVG 782	AVG 783	AVG 784	AVG 785	AVG 786	AVG 787	AVG 788	AVG 789	AVG 790	AVG 791	AVG 792	AVG 793	AVG 794	AVG 795	AVG 796	AVG 797	AVG 798	AVG 799	AVG 800	AVG 801	AVG 802	AVG 803	AVG 804	AVG 805	AVG 806	AVG 807	AVG 808	AVG 809	AVG 810	AVG 811	AVG 812	AVG 813	AVG 814	AVG 815	AVG 816	AVG 817	AVG 818	AVG 819	AVG 820	AVG 821	AVG 822	AVG 823	AVG 824	AVG 825	AVG 826	AVG 827	AVG 828	AVG 829	AVG 830	AVG 831	AVG 832	AVG 833	AVG 834	AVG 835	AVG 836	AVG 837	AVG 838	AVG 839	AVG 840	AVG 841	AVG 842	AVG 843	AVG 844	AVG 845	AVG 846	AVG 847	AVG 848	AVG 849	AVG 850	AVG 851	AVG 852	AVG 853	AVG 854	AVG 855	AVG 856	AVG 857	AVG 858	AVG 859	AVG 860	AVG 861	AVG 862	AVG 863	AVG 864	AVG 865	AVG 866	AVG 867	AVG 868	AVG 869	AVG 870	AVG 871	AVG 872	AVG 873	AVG 874	AVG 875	AVG 876	AVG 877	AVG 878	AVG 879	AVG 880	AVG 881	AVG 882	AVG 883	AVG 884	AVG 885	AVG 886	AVG 887	AVG 888	AVG 889	AVG 890	AVG 891	AVG 892	AVG 893	AVG 894	AVG 895	AVG 896	AVG 897	AVG 898	AVG 899	AVG 900	AVG 901	AVG 902	AVG 903	AVG 904	AVG 905	AVG 906	AVG 907	AVG 908	AVG 909	AVG 910	AVG 911	AVG 912	AVG 913	AVG 914	AVG 915	AVG 916	AVG 917	AVG 918	AVG 919	AVG 920	AVG 921	AVG 922	AVG 923	AVG 924	AVG 925	AVG 926	AVG 927	AVG 928	AVG 929	AVG 930	AVG 931	AVG 932	AVG 933	AVG 934	AVG 935	AVG 936	AVG 937	AVG 938	AVG 939	AVG 940	AVG 941	AVG 942	AVG 943	AVG 944	AVG 945	AVG 946	AVG 947	AVG 948	AVG 949	AVG 950	AVG 951	AVG 952	AVG 953	AVG 954	AVG 955	AVG 956	AVG 957	AVG 958	AVG 959	AVG 960	AVG 961	AVG 962	AVG 963	AVG 964	AVG 965	AVG 966	AVG 967	AVG 968	AVG 969	AVG 970	AVG 971	AVG 972	AVG 973	AVG 974	AVG 975	AVG 976	AVG 977	AVG 978	AVG 979	AVG 980	AVG 981	AVG 982	AVG 983	AVG 984	AVG 985	AVG 986	AVG 987	AVG 988	AVG 989	AVG 990	AVG 991	AVG 992	AVG 993	AVG 994	AVG 995	AVG 996	AVG 997	AVG 998	AVG 999	AVG 1000
AL.	7.52	11.59	9.34	13.10	11.85	13.63	27.93	13.23	0.0	29.19	SANDWICH MISSISS.																			1969																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
AL.	7.99	12.26	9.80	14.11	39.37	12.19	31.90	33.52	0.0	31.79	JACKSON COUNTY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
AL.	7.50	11.61	9.50	13.93	31.99	11.51	21.92	33.12	0.0	29.27	COLUMBIA RIVER, 100 FT.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
AL.	10.53	19.99	12.18	17.63	50.67	23.70	67.80	50.87	0.0	49.62	INSTRUMENT NO. 10 FT.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
AL.	7.78	11.89	9.80	19.02	31.99	12.17	29.46	34.83	0.0	30.95	PEAK LIMIT IS 16 KNOTS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
AL.	6.90	10.89	9.37	12.93	27.38	7.29	24.01	23.92	0.0	24.89	FRESH, LTD. IS 78KTS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
AL.	9.10	9.63	6.16	10.42	19.98	3.51	16.00	10.65	0.0	13.73	COLUMBIA RIVER, RIVER MOUTH.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
AL.	6.99	11.02	9.11	12.57	21.35	7.71	25.31	30.39	0.0	26.53	COLUMBIA RIVER, 100 FT.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
AL.	6.25	10.00	7.35	11.63	24.62	5.53	21.59	25.39	0.0	22.35	UNIT AREA KAYAKING																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
AL.	6.95	10.93	9.42	12.82	29.98	7.71	25.40	30.15	0.0	26.42	COLUMBIA RIVER, 100 FT.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
AL.	9.12	13.99	10.89	15.19	39.99	18.11	39.15	31.33	0.0	36.89	UNIT AREA KAYAKING																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
AL.	8.79	13.19	13.85	15.19	37.10	14.95																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

MONTH	AVGVEL		PMCVEL		PMCVEL		VOLUME			VOLUME			INFO	INFO	INFO	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3						
JAN.	7.31	11.37	3.99	13.79	31.00	8.13	27.19	32.02	0.0	28.79	GRANDVIEW MISSOURI					
FEB.	7.71	11.74	3.97	13.41	33.83	8.75	30.58	36.99	0.0	32.45	JACKSON COUNTY					
MAR.	9.25	13.79	11.88	18.72	41.52	17.87	38.72	43.54	0.0	38.19	CONNECTED HT. 100 FT.					
APR.	9.37	13.83	11.38	18.58	41.22	18.49	36.15	42.87	0.0	37.56	INSTRUMENT HT. 10 FT.					
MAY.	7.63	11.79	4.83	13.01	37.79	11.56	23.76	34.63	0.0	30.34	PEAK LIMIT IS 16 KNOTS.					
JUNE	6.14	9.44	7.05	11.67	23.40	5.52	20.52	24.18	0.0	21.21	FAULT. LIM. 15 KNOTS.					
JULY	7.29	11.42	8.52	12.52	31.22	8.69	27.38	33.35	0.0	29.00	CODE=1 COR. HT. BULK WH.					
AUG.	5.76	9.33	7.19	11.35	21.24	4.31	18.63	22.13	0.0	19.41	CODE=2 ORG. HT. PER					
SEP.	8.56	12.55	10.68	15.29	39.29	14.82	31.33	37.32	0.0	33.17	UNIT AREA KWH/M ² PER					
OCT.	8.28	12.54	10.46	15.33	38.99	14.73	32.35	38.51	0.0	33.78	CODE=3 COR.HT. PER					
NOV.	9.42	12.73	10.56	15.35	37.11	14.79	32.35	38.54	0.0	33.89	UNIT AREA KWH/M ² PER					
DEC.	8.41	12.85	10.71	14.73	35.64	12.99	32.13	38.79	0.0	34.03	AIR SPEEDS ARE IN KNOTS.					
SUMS	7.34	12.04	9.94	14.26	404.29	142.86	354.61	423.91	0.0	371.92						

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	RMVEL OLD HT	RMVEL NEW HT	VOURE1 CODE=1	VOURE2 CODE=2	VOURE3 CODE=3	ERDA CODE=1	ERDA CODE=2	ERDA CODE=3	INFORMATION	1962
JAN.	7.03	9.73	3.50	11.40	21.94	7.37	14.25	22.40	0.0	19.65	GRANDVIEW MISSOURI	
FEB.	7.57	10.22	9.71	12.76	27.54	11.74	24.29	28.16	0.0	24.73	JACKSON COUNTY	
MAR.	9.30	12.47	10.91	14.30	33.01	18.17	33.74	38.75	0.0	33.99	CORRECTED HT. 100 FT.	
APR.	8.50	11.50	10.48	13.69	39.55	14.32	26.48	31.24	0.0	27.41	1. INSTRUMENT HT. 23 FT.	
MAY.	9.57	12.84	11.04	14.44	37.74	17.19	33.10	38.51	0.0	34.12	PEAK LIMIT IS 16 KNOTS.	
JUNE	5.56	7.83	7.47	10.13	15.43	5.24	13.53	15.50	0.0	13.69	FRIGT. LIM. IS 7KNOTS.	
JULY	5.15	7.63	6.62	9.12	12.25	3.10	10.75	11.97	0.0	10.46	CODE=1 COG. HT. 500K MMH.	
AUG.	6.92	9.62	8.31	11.17	21.12	7.23	13.53	21.75	0.0	19.07	CODE=2 COG. HT. PER	
SEP.	6.48	9.04	7.92	10.79	13.97	6.01	15.64	19.13	0.0	18.82	UNIT AREA KMH/MH=2	
OCT.	5.98	8.32	7.70	10.39	17.37	5.79	15.24	17.42	0.0	16.34	CODE=3 COG. HT. PER.	
NOV.	6.99	9.55	8.34	11.22	21.92	7.47	14.23	22.55	0.0	19.79	UNIT AREA KMH/MH=2	
DEC.	6.49	9.04	8.21	11.50	19.43	7.05	17.06	19.07	0.0	16.73	WIND SPEEDS APE IN KNOTS.	
SUMS	7.14	9.83	8.39	11.93	232.62	111.30	247.90	237.75	0.0	251.79		

MONTH	AVGVEL OLD HT	AVGVEL NEW HT	AVGVEL OLD HT	AVGVEL NEW HT	VG0001 CODE=1	VG0002 CODE=2	VG0003 CODE=3	EP001 CODE=1	EP002 CODE=2	EP003 CODE=3	INFORMATION	1963
JAN.	7.50	10.28	9.41	12.42	24.57	10.33	21.64	24.64	0.0	21.33	GRANDVIEW MISSOURI	
FEB.	7.13	9.82	9.00	11.44	23.29	9.17	20.43	23.93	0.0	21.04	JACKSON COUNTY	
MAR.	8.74	11.80	10.49	13.73	33.43	15.05	24.33	33.72	0.0	28.58	CORRECTED HT. 130 FT.	
APR.	8.44	11.43	10.23	13.45	32.23	14.42	23.31	33.31	0.0	29.22	INSTRUMENT HT. 23 FT.	
MAY.	6.43	8.99	7.32	10.50	13.57	6.05	15.29	18.91	0.0	15.58	PERM LIMIT IS 16 KNOTS.	
JUNE	6.46	9.04	7.63	10.40	13.40	5.51	16.14	19.91	0.0	16.67	PERM. LIM. IS 7KN15.	
JULY	5.82	8.24	6.98	9.60	11.39	3.79	13.62	14.63	0.0	12.75	CODE=1 COR. HT. BULK WND.	
AUG.	5.42	7.74	6.44	8.53	11.20	2.90	9.82	10.10	0.0	8.91	CODE=2 GPG. HT. PER	
SEP.	6.16	8.64	7.53	10.39	17.05	5.41	14.95	17.07	0.0	14.97	UNIT AREA KWH/M**2	
OCT.	7.21	9.49	8.34	11.25	22.11	7.24	19.40	22.53	0.0	19.41	CODE=3 COR.HT. PER.	
NOV.	7.05	9.70	9.05	11.57	23.03	5.07	20.25	23.24	0.0	20.30	UNIT AREA KWH/M**2	
DEC.	7.92	10.62	9.99	13.92	25.97	13.54	22.40	26.72	0.0	23.44	KIND SPEEDS ARE IN KNOTS.	
SUMS	7.92	9.71	8.77	11.65	24.44	18.97	231.97	268.17	0.0	235.22		

[illegible]

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VMU=1	VMU=2	VMU=3	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	8.52	11.52	11.11	13.15	11.60	14.20	27.71	32.00	0.0	28.69	GRANDVIEW MISSOURI
FEB.	9.65	12.39	11.44	14.34	11.57	16.00	31.22	35.45	0.0	35.65	JACKSON COUNTY
MAR.	9.11	12.25	11.40	14.16	16.59	17.61	37.01	37.41	0.0	37.90	CORRECTED HT. 100 FT.
APR.	9.61	12.05	11.12	13.65	19.88	18.94	37.79	39.53	0.0	39.65	INSTRUMENT HT. 23 FT.
MAY.	9.57	12.69	11.59	14.57	19.41	19.05	31.96	37.37	0.0	37.33	PEAK LIMIT IS 16 KNTS.
JUNE.	9.19	11.12	10.39	13.13	23.38	19.75	29.77	30.19	0.0	26.93	FRIC. LIM. IS 7KNTS.
JULY.	7.76	10.01	8.86	11.85	24.75	8.36	11.70	25.37	0.0	22.14	CODE=1 COR. HT. BULK WH.
AUG.	7.01	9.69	8.59	11.51	23.13	8.55	10.26	23.75	0.0	20.93	CODE=2 COR. HT. PER.
SEP.	7.15	9.34	8.43	11.84	26.37	9.70	21.11	24.67	0.0	21.81	UNIT AREA KWH/MH*2
OCT.	6.78	9.41	8.31	11.17	29.35	7.60	19.28	21.11	0.0	18.52	CODE=3 COR.HT. PER.
NOV.	7.08	9.73	8.26	12.21	23.75	10.39	20.83	22.87	0.0	20.90	UNIT AREA KWH/MH*2
DEC.	9.32	12.49	11.55	15.00	35.53	17.51	31.03	36.09	0.0	31.66	WIND SPEEDS ARE IN KNOTS.
SUMS	8.26	11.20	10.20	13.37	166.95	152.97	239.10	373.60	0.0	327.69	

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VMU=1	VMU=2	VMU=3	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	8.46	11.82	11.59	13.91	33.95	15.77	29.77	35.01	0.0	30.71	GRANDVIEW MISSOURI
FEB.	7.45	10.10	9.43	12.35	26.23	11.22	11.93	26.75	0.0	25.46	JACKSON COUNTY
MAR.	10.15	13.41	12.35	15.41	31.13	12.99	24.53	34.89	0.0	34.11	CORRECTED HT. 100 FT.
APR.	8.27	11.17	11.75	14.75	31.29	13.27	27.65	31.99	0.0	28.05	INSTRUMENT HT. 23 FT.
MAY.	9.33	10.55	9.70	13.01	27.43	12.63	24.41	28.15	0.0	24.73	PEAK LIMIT IS 16 KNTS.
JUNE.	7.30	10.12	8.49	11.49	25.13	9.61	22.34	25.91	0.0	22.74	FRIC. LIM. IS 7KNTS.
JULY.	6.53	9.25	7.79	10.53	19.10	8.00	15.75	19.15	0.0	16.80	CODE=1 COR. HT. BULK WH.
AUG.	5.65	7.63	7.20	9.30	15.00	6.48	11.23	17.79	0.0	12.97	CODE=2 COR. HT. PER.
SEP.	5.50	7.79	6.99	9.53	13.55	7.37	11.82	14.35	0.0	11.71	UNIT AREA KWH/MH*2
OCT.	8.22	11.10	10.36	14.33	28.96	14.55	25.49	29.75	0.0	26.10	CODE=3 COR.HT. PER.
NOV.	8.42	11.35	10.73	14.22	11.91	15.55	27.25	32.47	0.0	28.48	UNIT AREA KWH/MH*2
DEC.	8.82	11.62	10.50	13.58	34.17	15.33	29.47	35.26	0.0	31.91	WIND SPEEDS ARE IN KNOTS.
SUMS	7.78	10.60	9.26	12.24	325.43	147.15	235.44	331.80	0.0	290.86	

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VMU=1	VMU=2	VMU=3	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	9.37	12.54	11.46	14.93	35.72	17.65	31.33	36.67	0.0	32.16	GRANDVIEW MISSOURI
FEB.	8.68	11.85	11.17	14.46	32.15	16.36	28.21	33.12	0.0	29.04	JACKSON COUNTY
MAR.	9.54	12.72	11.32	15.23	37.47	15.20	32.27	38.99	0.0	34.20	CORRECTED HT. 100 FT.
APR.	10.92	14.41	12.31	16.45	44.23	24.28	38.79	45.61	0.0	40.01	INSTRUMENT HT. 23 FT.
MAY.	7.91	10.79	9.76	12.53	28.52	12.33	25.10	29.75	0.0	26.10	PEAK LIMIT IS 16 KNTS.
JUNE.	6.27	8.75	7.93	10.75	19.07	6.53	16.73	19.89	0.0	17.45	FRIC. LIM. IS 7KNTS.
JULY.	4.33	6.65	6.55	8.95	13.79	3.70	9.47	10.55	0.0	9.25	CODE=1 COR. HT. BULK WH.
AUG.	5.23	7.45	6.55	9.34	12.43	3.78	10.90	12.77	0.0	11.20	CODE=2 COR. HT. PER.
SEP.	5.10	7.53	7.02	9.53	12.93	3.95	11.34	12.57	0.0	11.03	UNIT AREA KWH/MH*2
OCT.	3.36	11.92	10.98	14.26	33.74	15.81	29.50	35.30	0.0	30.46	CODE=3 COR.HT. PER.
NOV.	6.30	8.75	7.95	10.72	19.35	6.55	16.97	19.61	0.0	17.20	UNIT AREA KWH/MH*2
DEC.	3.17	11.11	10.12	13.35	29.20	12.43	25.61	30.09	0.0	26.40	WIND SPEEDS ARE IN KNOTS.
SUMS	7.62	10.39	9.27	13.02	315.71	142.50	276.92	324.92	0.0	295.00	

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VMU=1	VMU=2	VMU=3	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	3.10	11.64	9.59	12.75	31.15	12.24	26.45	31.35	0.0	27.50	GRANDVIEW MISSOURI
FEB.	7.19	9.84	9.35	12.55	24.75	11.27	21.71	25.12	0.0	22.03	JACKSON COUNTY
MAR.	10.50	14.03	12.55	16.14	43.43	23.21	38.13	44.44	0.0	38.97	CORRECTED HT. 100 FT.
APR.	8.72	11.70	11.30	14.59	32.57	17.13	23.57	33.83	0.0	29.70	INSTRUMENT HT. 23 FT.
MAY.	7.10	9.79	8.77	11.90	23.37	9.93	20.50	24.02	0.0	21.07	PEAK LIMIT IS 16 KNTS.
JUNE.	6.29	9.50	9.38	12.25	21.66	9.33	19.50	21.82	0.0	19.14	FRIC. LIM. IS 7KNTS.
JULY.	5.86	8.24	7.71	13.75	15.71	5.67	13.70	15.42	0.0	13.53	CODE=1 COR. HT. BULK WH.
AUG.	5.70	8.01	7.34	10.27	16.07	5.70	14.10	16.35	0.0	14.34	CODE=2 COR. HT. PER.
SEP.	5.70	8.95	7.20	9.81	14.44	4.31	13.02	14.31	0.0	12.55	UNIT AREA KWH/MH*2
OCT.	7.62	10.49	9.54	12.70	25.55	11.63	23.30	27.17	0.0	23.85	CODE=3 COR.HT. PER.
NOV.	6.38	8.85	8.22	11.04	23.68	7.53	16.31	21.84	0.0	19.25	UNIT AREA KWH/MH*2
DEC.	3.77	11.18	11.12	14.32	23.35	13.44	24.37	28.97	0.0	25.33	WIND SPEEDS ARE IN KNOTS.
SUMS	7.35	10.35	9.67	12.66	294.40	130.82	261.73	304.65	0.0	267.24	

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VMU=1	VMU=2	VMU=3	ERDA	ERDA	ERDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	7.55	10.43	9.31	12.35	27.20	11.19	23.06	27.44	0.0	24.07	GRANDVIEW MISSOURI
FEB.	6.72	9.27	8.59	11.32	22.04	9.64	19.77	23.15	0.0	20.31	JACKSON COUNTY
MAR.	7.76	10.45	10.43	13.71	25.30	13.87	25.51	27.21	0.0	23.37	CORRECTED HT. 100 FT.
APR.	7.59	11.34	9.55	12.37	23.39	10.32	23.68	27.46	0.0	22.72	INSTRUMENT HT. 23 FT.
MAY.	7.10	9.75	8.56	11.35	21.43	7.45	19.84	22.49	0.0	20.69	PEAK LIMIT IS 16 KNTS.
JUNE.	7.32	10.11	8.34	12.35	25.90	10.45	22.37	26.50	0.0	23.26	FRIC. LIM. IS 7KNTS.
JULY.	4.09	7.45	6.23	9.27	13.54	4.26	9.35	11.16	0.0	8.41	CODE=1 COR. HT. BULK WH.
AUG.	4.50	7.92	7.16	9.31	14.17	4.50	12.64	13.80	0.0	12.11	CODE=2 COR. HT. PER.
SEP.	6.11	9.91	7.31	10.57	14.57	5.57	16.59	19.77	0.0	16.57	UNIT AREA KWH/MH*2
OCT.	4.17	11.12	11.02	14.37	14.22	12.77	24.47	29.09	0.0	26.07	CODE=3 COR.HT. PER.
NOV.	6.26	8.69	8.15	11.07	14.19	7.45	16.96	18.37	0.0	16.15	UNIT AREA KWH/MH*2
DEC.	6.25	9.34	7.72	11.71	12.84	9.75	14.35	18.95	0.0	16.62	WIND SPEEDS ARE IN KNOTS.
SUMS	6.79	9.41	8.38	11.35	261.01	101.58	224.12	265.48	0.0	232.16	

MONTH	AVG WIND OLD HT	AVG WIND NEW HT	REL V OLD HT	REL V NEW HT	VELOCITY CODE #1	VELOCITY CODE #2	VELOCITY CODE #3	TEMP CODE #1	TEMP CODE #2	TEMP CODE #3	INFORMATION
											1970
JAN.	7.51	10.77	9.35	12.24	27.03	14.99	23.72	26.07	0.0	26.69	GRANDVIEW MISSOURI
FEB.	7.71	10.69	10.01	13.11	28.14	15.23	25.88	29.79	0.0	25.22	JACKSON COUNTY
MAR.	7.75	10.60	7.25	12.35	24.66	11.07	26.14	29.83	0.0	26.71	CORRECTION HT. 130 FT.
APR.	9.11	11.15	11.36	16.77	35.89	18.47	31.46	36.75	0.0	32.23	INSTANT HT. 21 FT.
MAY.	8.08	10.98	9.76	12.89	24.72	12.52	25.25	29.27	0.0	25.67	PEAK LIMIT IS 16 KNOTS.
JUNE	7.78	10.65	9.77	12.83	24.31	13.73	25.26	29.71	0.0	26.08	PEAK LIMIT IS 16 KNOTS.
JULY	7.30	10.60	8.50	11.98	23.50	9.23	20.77	26.51	0.0	21.50	CODE #1 COR. HT. BULK WIND
AUG.	6.52	9.21	8.12	10.95	20.62	7.09	17.91	20.98	0.0	18.37	CODE #2 COR. HT. PG3
SEP.	6.78	9.35	9.17	11.95	22.22	9.62	19.49	22.87	0.0	19.40	UNIT AREA KWH/MAY2
OCT.	6.23	8.68	8.25	11.21	19.25	7.23	16.87	19.42	0.0	17.03	CODE #3 COR. HT. PG2
NOV.	6.55	9.08	8.59	11.40	19.99	7.33	17.53	19.88	0.0	17.48	UNIT AREA KWH/MAY2
DEC.	7.68	10.56	9.82	12.86	25.61	11.23	22.23	25.70	0.0	22.59	WIND SPEEDS ARE IN KNOTS.
SUMS	7.42	10.16	9.40	12.41	308.23	130.47	270.40	315.45	0.0	276.69	

APPENDIX G

TABLES

Chanute

JAN 1948 - DEC 1964

[illegible]

DATE	00--06	07--10	11--16	17--21	22--30	31--35
ME	0.034	0.029	0.013	0.004	0.002	0.072
ME	0.034	0.029	0.015	0.004	0.002	0.072
ME	0.016	0.014	0.005	0.0	0.0	0.004
ME	0.032	0.014	0.004	0.000	0.0	0.004
ME	0.036	0.016	0.004	0.004	0.0	0.004
ME	0.024	0.013	0.004	0.0	0.0	0.004
ME	0.024	0.016	0.004	0.0	0.0	0.004
ME	0.015	0.004	0.010	0.0	0.0	0.004
ME	0.034	0.004	0.004	0.004	0.004	0.004
ME	0.024	0.004	0.004	0.004	0.004	0.004
ME	0.008	0.004	0.004	0.004	0.004	0.004
ME	0.004	0.004	0.004	0.004	0.004	0.004
ME	0.016	0.011	0.005	0.004	0.004	0.004
ME	0.010	0.010	0.005	0.004	0.004	0.004
ME	0.004	0.004	0.004	0.004	0.004	0.004
ME	0.015	0.0	0.0	0.0	0.0	0.004
SUMS	0.302	0.327	0.164	0.074	0.033	0.015

	00-06	07-10	11-14	17-21	22-24	25-29
ME	0.012	0.014	0.028	0.035	0.030	0.048
ME	0.012	0.027	0.023	0.030	0.021	0.048
ME	0.009	0.013	0.023	0.027	0.021	0.027
ME	0.010	0.022	0.013	0.031	0.03	0.043
ME	0.010	0.014	0.002	0.021	0.039	0.032
SE	0.010	0.024	0.011	0.031	0.03	0.048
SE	0.017	0.025	0.002	0.031	0.03	0.045
SE	0.014	0.032	0.032	0.014	0.033	0.044
SE	0.020	0.047	0.054	0.027	0.013	0.048
SE	0.011	0.036	0.044	0.042	0.013	0.047
SE	0.037	0.025	0.037	0.030	0.022	0.031
SE	0.030	0.010	0.002	0.021	0.033	0.033
SE	0.007	0.003	0.037	0.031	0.03	0.014
SE	0.013	0.013	0.035	0.033	0.030	0.032
SE	0.010	0.013	0.032	0.035	0.033	0.027
SE	0.016	0.010	0.025	0.014	0.025	0.013
SE	0.005	0.03	0.03	0.03	0.03	0.035
SE	0.010	0.030	0.045	0.034	0.021	0.041

Bivariate Distribution

Charuto

Years

1948 1951

1949 1952

1950 1953

Instrument Height

1948-1953 42 Feet

	9-7-6	10-10	11-16	12-17	NOV-6	SMS
A	0.014	0.083	0.213	0.006	0.002	0.083
B	1.204	0.326	0.217	0.004	0.002	0.072
C	0.026	0.019	0.339	0.001	0.001	0.004
D	0.013	0.010	0.305	0.001	0.001	0.029
E	0.043	0.012	0.001	0.0	0.0	0.067
F	0.018	0.017	0.006	0.001	0.0	0.060
G	1.041	0.032	1.003	0.001	0.001	0.006
H	0.022	0.032	0.004	0.004	0.009	0.003
I	1.033	0.061	0.033	0.015	0.021	0.184
J	0.016	0.024	0.006	0.013	0.017	0.116
K	0.016	0.010	0.004	0.001	0.0	0.031
L	0.019	0.019	0.006	0.001	0.001	0.027
M	0.016	0.005	0.004	0.003	0.001	0.024
N	0.006	0.006	0.003	0.001	0.000	0.019
O	1.023	0.015	0.005	0.003	0.003	0.002
P	0.017	0.016	0.010	0.004	0.004	0.051
Q	0.018	0.013	0.0	0.0	0.0	0.019
R	0.023	0.030	0.100	0.053	0.033	

	10-16	17-21	22-24	25-29
1900	0.000	0.000	0.000	0.000
1901	0.000	0.000	0.000	0.000
1902	0.000	0.000	0.000	0.000
1903	0.000	0.000	0.000	0.000
1904	0.000	0.000	0.000	0.000
1905	0.000	0.000	0.000	0.000
1906	0.000	0.000	0.000	0.000
1907	0.000	0.000	0.000	0.000
1908	0.000	0.000	0.000	0.000
1909	0.000	0.000	0.000	0.000
1910	0.000	0.000	0.000	0.000
1911	0.000	0.000	0.000	0.000
1912	0.000	0.000	0.000	0.000
1913	0.000	0.000	0.000	0.000
1914	0.000	0.000	0.000	0.000
1915	0.000	0.000	0.000	0.000
1916	0.000	0.000	0.000	0.000
1917	0.000	0.000	0.000	0.000
1918	0.000	0.000	0.000	0.000
1919	0.000	0.000	0.000	0.000
1920	0.000	0.000	0.000	0.000
1921	0.000	0.000	0.000	0.000
1922	0.000	0.000	0.000	0.000
1923	0.000	0.000	0.000	0.000
1924	0.000	0.000	0.000	0.000
1925	0.000	0.000	0.000	0.000
1926	0.000	0.000	0.000	0.000
1927	0.000	0.000	0.000	0.000
1928	0.000	0.000	0.000	0.000
1929	0.000	0.000	0.000	0.000
1930	0.000	0.000	0.000	0.000
1931	0.000	0.000	0.000	0.000
1932	0.000	0.000	0.000	0.000
1933	0.000	0.000	0.000	0.000
1934	0.000	0.000	0.000	0.000
1935	0.000	0.000	0.000	0.000
1936	0.000	0.000	0.000	0.000
1937	0.000	0.000	0.000	0.000
1938	0.000	0.000	0.000	0.000
1939	0.000	0.000	0.000	0.000
1940	0.000	0.000	0.000	0.000
1941	0.000	0.000	0.000	0.000
1942	0.000	0.000	0.000	0.000
1943	0.000	0.000	0.000	0.000
1944	0.000	0.000	0.000	0.000
1945	0.000	0.000	0.000	0.000
1946	0.000	0.000	0.000	0.000
1947	0.000	0.000	0.000	0.000
1948	0.000	0.000	0.000	0.000
1949	0.000	0.000	0.000	0.000
1950	0.000	0.000	0.000	0.000
1951	0.000	0.000	0.000	0.000
1952	0.000	0.000	0.000	0.000
1953	0.000	0.000	0.000	0.000
1954	0.000	0.000	0.000	0.000
1955	0.000	0.000	0.000	0.000
1956	0.000	0.000	0.000	0.000
1957	0.000	0.000	0.000	0.000
1958	0.000	0.000	0.000	0.000
1959	0.000	0.000	0.000	0.000
1960	0.000	0.000	0.000	0.000
1961	0.000	0.000	0.000	0.000
1962	0.000	0.000	0.000	0.000
1963	0.000	0.000	0.000	0.000
1964	0.000	0.000	0.000	0.000
1965	0.000	0.000	0.000	0.000
1966	0.000	0.000	0.000	0.000
1967	0.000	0.000	0.000	0.000
1968	0.000	0.000	0.000	0.000
1969	0.000	0.000	0.000	0.000
1970	0.000	0.000	0.000	0.000
1971	0.000	0.000	0.000	0.000
1972	0.000	0.000	0.000	0.000
1973	0.000	0.000	0.000	0.000
1974	0.000	0.000	0.000	0.000
1975	0.000	0.000	0.000	0.000
1976	0.000	0.000	0.000	0.000
1977	0.000	0.000	0.000	0.000
1978	0.000	0.000	0.000	0.000
1979	0.000	0.000	0.000	0.000
1980	0.000	0.000	0.000	0.000
1981	0.000	0.000	0.000	0.000
1982	0.000	0.000	0.000	0.000
1983	0.000	0.000	0.000	0.000
1984	0.000	0.000	0.000	0.000
1985	0.000	0.000	0.000	0.000
1986	0.000	0.000	0.000	0.000
1987	0.000	0.000	0.000	0.000
1988	0.000	0.000	0.000	0.000
1989	0.000	0.000	0.000	0.000
1990	0.000	0.000	0.000	0.000
1991	0.000	0.000	0.000	0.000
1992	0.000	0.000	0.000	0.000
1993	0.000	0.000	0.000	0.000
1994	0.000	0.000	0.000	0.000
1995	0.000	0.000	0.000	0.000
1996	0.000	0.000	0.000	0.000
1997	0.000	0.000	0.000	0.000
1998	0.000	0.000	0.000	0.000
1999	0.000	0.000	0.000	0.000

[illegible]

THE ANNUAL SUMMARY TABLE FOR 1948

STATION	DATE	TIME	DIRECTION		STH.	WEST
			EAST	WEST		
1	1903	10	0.47674	0.11317	0.35593	0.09432
2	1903	12	0.49135	0.10164	0.32061	0.15294
3	1903	13	0.43351	0.12712	0.33703	0.16069
4	1903	14	0.48135	0.11017	0.38831	0.09432
5	1903	15	0.46441	0.03475	0.37293	0.17787
6	1903	16	0.38131	0.07477	0.37243	0.12712
7	1903	17	0.49673	0.10749	0.30908	0.10109
8	1903	18	0.35143	0.16949	0.31356	0.12712

THE POLY-CLINIC, INC. 1913

TIME OF DAY	WIND	DIRECTION			S.W.	W.E.S.T	
		WIND	FAST	S.W.			
5.00	3	3.00	20	0.3830	0.2105	0.3620	0.00230
5.30	3	3.00	21	0.3661	0.2010	0.3092	0.13063
6.00	3	3.00	22	0.3434	0.2039	0.2733	0.11434
6.30	3	3.00	23	0.3213	0.2303	0.2087	0.14130
7.00	3	3.00	23	0.3096	0.1827	0.2104	0.09783
7.30	3	3.00	23	0.3034	0.1424	0.4665	0.08192
8.00	3	3.00	23	0.3092	0.1791	0.6027	0.06762
8.30	3	3.00	23	0.3220	0.2176	0.73152	0.04368

UNITED STATES SUPPLY TABLE FOR SUP. 1969

No.	L.	B.	V.L.	W.	COLLECTION		WEST
					EAST	WEST	
1	2	2	2	2	0.1533	0.2326	0.5137
2	2	2	2	2	0.1743	0.2013	0.4679
3	2	2	2	2	0.1822	0.2543	0.4422
4	2	2	2	2	0.1874	0.3133	0.5678
5	2	2	2	2	0.1894	0.1587	0.5649
6	2	2	2	2	0.1357	0.1335	0.1336
7	2	2	2	2	0.1357	0.1335	0.1336
8	2	2	2	2	0.1357	0.1335	0.1336
9	2	2	2	2	0.1357	0.1335	0.1336
10	2	2	2	2	0.1357	0.1335	0.1336
11	2	2	2	2	0.1357	0.1335	0.1336
12	2	2	2	2	0.1357	0.1335	0.1336
13	2	2	2	2	0.1357	0.1335	0.1336
14	2	2	2	2	0.1357	0.1335	0.1336
15	2	2	2	2	0.1357	0.1335	0.1336
16	2	2	2	2	0.1357	0.1335	0.1336
17	2	2	2	2	0.1357	0.1335	0.1336
18	2	2	2	2	0.1357	0.1335	0.1336
19	2	2	2	2	0.1357	0.1335	0.1336
20	2	2	2	2	0.1357	0.1335	0.1336

ANNUAL SURVEY TABLE FOR FISCAL YEAR 1993

[illegible]

THE HOURLY SUMMARY TABLE FOR APRIL, 1949

HOUR	LA	AVG.	J3	MPH	WIND	SECT	WAVE
2400	0	9.26697	25	9.35536	0.17773	0.15111	0.15484
0300	0	9.49930	29	9.59000	0.17444	0.34444	0.35222
0600	0	9.77773	31	9.86667	0.17773	0.36667	0.36444
0900	2	10.33333	29	9.51111	0.17556	0.42222	0.41111
1200	1	11.41111	36	9.34444	0.27444	0.49222	0.41667
1500	0	11.77773	32	9.64444	0.97777	0.35444	0.41111
1800	1	13.20000	26	9.51111	1.15556	0.36667	0.41667
2100	0	8.63333	25	9.33222	0.11111	0.26222	0.14444

THE UNIVERSITY OF CHICAGO

HOUSE	LA	AVG.	Q1	Q3	DIFFERENCE	STDEV.	STDEV.
		AVG.					
2000	0	0.05217	30	0.32063	0.29592	0.32577	0.31825
1990	0	0.34333	17	0.35000	0.21133	0.11523	0.34072
0500	0	0.27191	24	0.26630	0.16292	0.12475	0.27336
0900	3	1.12955	10	0.75067	0.15217	0.19577	0.27336
1200	3	13.41535	36	0.25643	0.17957	0.16913	0.11557
1500	0	17.06317	25	0.26367	0.16353	0.05222	0.11557
1800	0	3.09217	25	0.30567	0.16271	0.11554	0.11557
2100	0	7.05050	26	0.21176	0.15826	0.15913	0.05972

THE HARLEY SUMMARY TABLE FIG. 504, 1965

YEAR	LAB	AGG.	DE	NTG.	LIABILITY	STK.	DEF.
2600	0	5,326,074	17	0,222,623	0,119,969	0,516,032	0,011,632
3300	0	5,525,522	23	0,222,113	0,211,109	0,649,557	0,023,646
3600	0	6,255,535	16	0,195,655	0,135,761	0,530,338	0,025,335
0900	0	3,756,525	26	0,163,314	0,135,497	0,270,555	0,018,656
1200	0	9,313,263	43	0,224,226	0,167,676	0,555,225	0,025,274
1500	2	7,771,174	23	0,271,176	0,135,437	0,592,032	0,025,339
1800	0	8,232,011	14	0,236,552	0,211,171	0,150,552	0,043,333
2100	0	6,206,435	17	0,195,625	0,255,591	0,642,553	0,011,557

THE HOURLY SUMMARY TABLE FOR FALL 1979

TIME	LOC	AVG VEL.	DB	WTH.	DIRECTION EAST	WTH.	WEST
2:00	0	7.66154	30	0.26725	0.15285	0.47553	0.34372
2:30	0	6.45150	26	0.24121	0.13735	0.35952	0.31757
3:00	0	7.05651	23	0.27473	0.12533	0.62587	0.31339
3:30	0	10.07612	24	0.29610	0.12943	0.56654	0.11128
4:00	3	12.47233	30	0.37121	0.15384	0.45755	0.11278
4:30	2	11.70913	24	0.31519	0.13342	0.47953	0.31324
5:00	2	6.75894	30	0.26623	0.15542	0.35328	0.36241
5:30	0	7.32996	22	0.26725	0.12541	0.51055	0.11532

Chanute
Instrument Height
1948-1949 42 Feet

THE HOURLY SUMMARY TABLE FOR WIL 1951

HR	LA	AVG. VEL.	DIR.	WTH.	STH.	WEST
2400	0	7.2232	26	0.35000	0.15556	0.13333
0300	0	7.3544	31	0.37773	0.17444	0.13227
0600	0	7.5444	24	0.34444	0.11111	0.13333
0900	2	10.3333	24	0.25444	0.17773	0.11111
1200	0	12.1111	26	0.33333	0.17773	0.13333
1500	2	12.1222	33	0.34444	0.11111	0.13333
1800	0	7.4555	24	0.37773	0.15556	0.13333
2100	0	7.3222	33	0.22222	0.15556	0.13333

Chanute
Instrument Height
1950-1951 42 Feet

THE HOURLY SUMMARY TABLE FOR SPR 1951

HR	LA	AVG. VEL.	DIR.	WTH.	STH.	WEST
2400	0	3.2221	23	0.27174	0.20433	0.13333
0300	2	7.7921	20	0.22043	0.21223	0.13333
0600	0	3.5444	24	0.27341	0.21733	0.13333
0900	2	12.7173	24	0.29674	0.19444	0.13333
1200	2	13.1374	33	0.36957	0.19266	0.13333
1500	2	13.2333	33	0.34674	0.16133	0.13333
1800	0	9.5333	28	0.42474	0.16444	0.13333
2100	1	7.5523	25	0.35673	0.23413	0.13333

THE HOURLY SUMMARY TABLE FOR FAL 1951

HR	LA	AVG. VEL.	DIR.	WTH.	STH.	WEST
2400	0	5.5444	17	0.22322	0.33333	0.13333
0300	0	5.9333	20	0.25913	0.27177	0.13333
0600	0	5.9333	17	0.24344	0.29447	0.13333
0900	0	9.1333	20	0.20552	0.25517	0.13333
1200	0	9.4333	24	0.25347	0.23552	0.13333
1500	2	4.2333	23	0.25543	0.24241	0.13333
1800	0	5.4555	17	0.27174	0.32555	0.13333
2100	0	5.5333	17	0.22913	0.29443	0.13333

THE HOURLY SUMMARY TABLE FOR FAL 1951

HR	LA	AVG. VEL.	DIR.	WTH.	STH.	WEST
2400	0	7.0222	28	0.23571	0.13333	0.13333
0300	0	7.2967	22	0.25171	0.14333	0.13333
0600	2	7.7227	22	0.27121	0.14333	0.13333
0900	3	11.1732	26	0.27473	0.19393	0.13333
1200	2	10.9433	26	0.26923	0.12337	0.13333
1500	0	10.1333	27	0.31316	0.11333	0.13333
1800	0	9.1333	20	0.32927	0.13333	0.13333
2100	0	7.5333	21	0.30767	0.17333	0.13333

THE HOURLY SUMMARY TABLE FOR WIN 1950

HR	LA	AVG. VEL.	DIR.	WTH.	STH.	WEST
2400	0	9.1111	20	0.33333	0.40556	0.06667
0300	0	10.0000	20	0.33333	0.33333	0.07778
0600	0	10.2222	22	0.31111	0.14444	0.05556
0900	2	12.2222	22	0.28889	0.15556	0.04444
1200	3	14.2222	22	0.12222	0.05556	0.10000
1500	3	13.4444	16	0.33333	0.12222	0.07778
1800	2	9.1111	23	0.24444	0.12222	0.07778
2100	0	12.2222	23	0.33333	0.12222	0.04444

THE HOURLY SUMMARY TABLE FOR SPR 1950

HR	LA	AVG. VEL.	DIR.	WTH.	STH.	WEST
2400	0	12.2222	22	0.28889	0.17033	0.14130
0300	0	10.1111	24	0.27778	0.15217	0.14130
0600	0	12.2222	24	0.27778	0.19444	0.12500
0900	2	14.2222	20	0.27177	0.18473	0.11413
1200	2	12.2222	20	0.28889	0.18473	0.12500
1500	2	13.2222	20	0.27778	0.11957	0.20652
1800	1	13.2222	20	0.36957	0.11413	0.18473
2100	1	7.5111	21	0.28889	0.19555	0.12500

THE HOURLY SUMMARY TABLE FOR SUM 1950

HR	LA	AVG. VEL.	DIR.	WTH.	STH.	WEST
2400	0	6.2117	24	0.17933	0.18473	0.16522
0300	0	8.2117	13	0.22322	0.17333	0.16330
0600	0	7.4555	23	0.25543	0.22263	0.10877
0900	0	6.3555	20	0.19473	0.17333	0.16522
1200	2	10.2117	20	0.19444	0.18473	0.16522
1500	2	10.2117	20	0.21176	0.15217	0.13333
1800	0	6.2117	21	0.22322	0.20107	0.16522
2100	0	6.2117	21	0.19444	0.18473	0.16522

THE HOURLY SUMMARY TABLE FOR FALL 1950

HR	LA	AVG. VEL.	DIR.	WTH.	STH.	WEST
2400	0	7.1227	20	0.34556	0.14333	0.05556
0300	0	6.3107	22	0.33333	0.16333	0.10444
0600	0	7.1107	22	0.33333	0.13333	0.05556
0900	3	10.5222	20	0.32444	0.18691	0.06344
1200	3	11.5222	20	0.32444	0.17582	0.06344
1500	0	11.1333	20	0.24444	0.19444	0.06344
1800	0	7.7222	22	0.37778	0.11333	0.05556
2100	0	7.1111	24	0.32222	0.13333	0.05556

THE HOURLY SURVEY TABLE FOR JULY, 1953

NUMBER	LB	AVG.	UP	WTH.	CLIP-CLIP	STH.	AGE
		VEL.			INCH		
2400	3	4.75535	23	0.25667	0.13457	0.4111	0.75395
0300	2	8.12520	24	0.31823	0.13100	0.45388	0.75393
0600	0	3.71773	24	0.35667	0.13656	0.41111	0.75395
0900	0	10.0773	23	0.37174	0.09103	0.45388	0.75395
1200	0	12.53000	21	0.35556	0.3222	0.40556	0.75396
1500	2	12.3111	30	0.24111	0.33333	0.41111	0.75444
1800	2	9.07773	25	0.37776	0.22557	0.45388	0.75411
2100	0	9.06644	21	0.32222	0.33333	0.37296	0.75444

Table 4. Summary of the results of the regression analysis.

DATE	13	AVG.	94	TH.	DISCII 94	510.	511.
		W/L					
2603	3	9.45873	35	0.25544	0.27177	0.56512	0.51723
2649	3	9.46343	38	0.27717	0.28233	0.56517	0.51717
2660	3	9.46497	31	0.26694	0.27953	0.56502	0.51713
2690	3	9.46137	39	0.32929	0.15217	0.56291	0.51325
1703	3	9.45321	46	0.23154	0.15436	0.57933	0.51251
1500	3	9.45913	45	0.23181	0.15293	0.57933	0.51258
1300	3	9.46733	37	0.31522	0.16934	0.56737	0.51217
2100	0	9.23261	26	0.25900	0.21195	0.39413	0.15217

THE THEORY AND PRACTICE OF THE ARTS AND SCIENCES

HMP	LM	ΔV ₂ V _{2L}	ΔJ	RTM	ΔE _{ST}	ST ₄	s=ST
2400	0	0.42505	26	0.16244	0.22333	0.5652	0.37261
0330	0	1.13914	21	0.11957	0.24344	0.5603	0.35435
0600	3	0.39140	29	0.13217	0.27174	0.5932	0.34448
0900	3	1.14130	26	0.13043	0.17535	0.42530	0.16523
1200	4	1.15217	27	0.17335	0.17391	0.58152	0.26597
1500	2	1.12261	29	0.15922	0.16365	0.57395	0.34343
1800	3	1.16337	29	0.17291	0.24952	0.5956	0.33761
2100	3	0.31733	26	0.15133	0.24000	0.52174	0.36491

THE JOURNAL OF THE ROYAL ANTHROPOLOGICAL INSTITUTE, VOL. 61, PART 1, 1931

HOUSE	LA	AVE.	US	WEST	ST.	WEST
2400	0	9,125.27	24	0,215.74	0,170.32	0,251.55
3300	0	9,335.27	33	0,235.71	1,111.53	0,251.55
0600	3	9,714.23	35	0,233.74	0,151.32	0,251.55
0900	3	16,065.53	35	0,252.57	0,173.32	0,251.55
1200	3	15,337.53	33	0,237.25	0,143.35	0,251.55
1500	4	14,139.33	33	0,230.77	0,152.36	0,251.55
1800	4	13,455.27	33	0,234.37	0,173.32	0,251.55
2100	2	9,312.34	17	0,235.25	0,211.71	0,251.55

Chanute
Instrument Height
1952-1953 42 Feet

THE BULLY SUMMARY TABLE FOR WIN. 1952

DATE	TIME	WIND	SEA	WTH.	WIND	SEA	WTH.	WIND	SEA	WTH.
1901	2	7.7773	30	0.32778	0.20000	0.24664	0.12778			
1902	2	7.78229	22	0.33990	0.15866	0.34111	0.09444			
1903	2	7.78722	26	0.33300	0.16444	0.34664	0.17888			
1904	2	7.79215	32	0.33833	0.16111	0.35222	0.16333			
1905	2	7.79708	40	0.34377	0.16111	0.35778	0.17778			
1906	2	7.80201	30	0.33233	0.15000	0.35333	0.18333			
1907	2	7.80694	28	0.31667	0.23888	0.34056	0.17222			
1908	2	7.81187	24	0.35000	0.17222	0.33778	0.15333			

THE JULY SURVEY TABLE FOR SEP. 1993

[illegible]

TABLE 1. Survey Table for Sun, 1952.

DATE	LA	AGE	JD	NRH.	DIRECTION	STN.	WEST
		VEL.			EAST		
1930	0	8.05624	23	0.12500	0.12232	0.63537	0.00543
1930	0	8.17431	25	0.14674	0.17365	0.60126	0.02174
1930	0	8.28270	22	0.10326	0.20220	0.63043	0.02717
1930	0	12.13774	20	0.03152	0.17935	0.66678	0.03440
1930	5	12.23313	25	0.11957	0.16674	0.56348	0.06522
1930	0	12.86957	20	0.02500	0.13761	0.60322	0.02717
1930	3	11.76337	30	0.03152	0.24457	0.54130	0.02174
1930	0	8.56565	23	0.11413	0.20687	0.60326	0.01047

THE DAILY SUMMARY TABLE FOR FALL 1992

PES	L	AGE	Wt.	DIRECTION			WST
				WTH.	EAST	SWH.	
1000	1	7-129-7	30	0-2-7-25	0-1-5-35	0-5-16-8	0-360-84
1000	1	5-10-1	27	0-3-1-17	0-1-6-36	0-5-3-52	0-087-04
1000	2	6-16-26-4	25	0-2-7-5-27	0-2-1-2-9	0-4-2-0-8	0-120-8
1000	2	9-13-1-3	24	0-2-1-7-5	0-1-0-5-9	0-5-5-6-9	0-142-06
1000	1	10-1-1-16-5	24	0-3-3-2-6	0-1-9-3-4	0-4-5-0-4	0-137-36
1000	7	10-7-9-12-1	26	0-1-1-8-65	0-1-0-4-36	0-2-7-9-12	0-137-36
1000	3	5-10-11	17	0-4-2-6-69	0-1-16-31	0-5-0-5-9	0-137-01
1000	3	6-2-2-1-1	22	0-2-2-2-23	0-1-14-51	0-4-7-4-02	0-095-95

THE HOURLY SUMMARY TABLE FOR WIN. 1955

HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
2400	2	9.60000	22	0.35556	0.15556	0.15556
2500	2	9.73333	24	0.35556	0.15556	0.15556
2600	2	9.56667	20	0.35556	0.15556	0.15556
2700	3	10.11111	23	0.35556	0.15556	0.15556
2800	3	12.55556	34	0.27778	0.17222	0.17222
2900	3	12.44444	35	0.31667	0.17222	0.17222
3000	3	9.77778	24	0.22222	0.15556	0.15556
3100	3	9.66667	22	0.15556	0.11111	0.11111

Chanute
Instrument Height
1954-1955 42 Feet

THE HOURLY SUMMARY TABLE FOR SEP. 1955

HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
2400	0	6.50000	20	0.25000	0.25000	0.25000
2500	0	6.66667	25	0.25000	0.25000	0.25000
2600	0	7.57143	24	0.25000	0.25000	0.25000
2700	0	11.71429	27	0.25000	0.25000	0.25000
2800	2	13.02611	25	0.25000	0.25000	0.25000
2900	3	13.57143	25	0.25000	0.25000	0.25000
3000	3	9.66667	26	0.25000	0.25000	0.25000
3100	2	9.21429	33	0.25000	0.25000	0.25000

THE HOURLY SUMMARY TABLE FOR SEP. 1955

HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
2400	0	7.07143	20	0.25000	0.25000	0.25000
2500	0	6.90476	16	0.25000	0.25000	0.25000
2600	0	6.71429	16	0.25000	0.25000	0.25000
2700	2	9.42857	25	0.25000	0.25000	0.25000
2800	2	10.00000	22	0.25000	0.25000	0.25000
2900	3	10.14286	21	0.25000	0.25000	0.25000
3000	3	9.42857	16	0.25000	0.25000	0.25000
3100	3	7.23810	16	0.25000	0.25000	0.25000

THE HOURLY SUMMARY TABLE FOR FALL 1955

HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
2400	0	8.57143	16	0.14286	0.14286	0.14286
2500	0	9.52381	21	0.23077	0.14286	0.14286
2600	0	8.75000	22	0.23077	0.14286	0.14286
2700	3	12.00000	26	0.33333	0.33333	0.33333
2800	2	12.25000	27	0.32500	0.15385	0.15385
2900	2	12.25000	27	0.31250	0.15385	0.15385
3000	2	8.90476	20	0.22923	0.14286	0.14286
3100	3	8.46154	14	0.23077	0.14286	0.14286

THE HOURLY SUMMARY TABLE FOR WIN. 1954

HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
2400	3	12.71111	30	0.31667	0.16667	0.16667
2500	3	12.63333	24	0.30556	0.12222	0.12222
2600	3	12.63333	24	0.30556	0.12222	0.12222
2700	3	12.63333	24	0.30556	0.12222	0.12222
2800	3	12.63333	24	0.30556	0.12222	0.12222
2900	3	12.63333	24	0.30556	0.12222	0.12222
3000	3	12.63333	24	0.30556	0.12222	0.12222
3100	3	12.63333	24	0.30556	0.12222	0.12222

THE HOURLY SUMMARY TABLE FOR SEP. 1954

HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
2400	1	10.14286	31	0.36286	0.19222	0.19222
2500	3	10.30435	32	0.36286	0.20000	0.20000
2600	3	11.42857	24	0.25000	0.20000	0.20000
2700	3	11.42857	24	0.25000	0.20000	0.20000
2800	3	11.42857	24	0.25000	0.20000	0.20000
2900	3	11.42857	24	0.25000	0.20000	0.20000
3000	3	11.42857	24	0.25000	0.20000	0.20000
3100	3	11.42857	24	0.25000	0.20000	0.20000

THE HOURLY SUMMARY TABLE FOR SEP. 1954

HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
2400	2	3.57143	22	0.11927	0.20000	0.20000
2500	2	7.57143	17	0.11413	0.14286	0.14286
2600	2	7.57143	17	0.11413	0.14286	0.14286
2700	3	11.42857	22	0.11413	0.14286	0.14286
2800	3	11.42857	22	0.11413	0.14286	0.14286
2900	3	11.42857	22	0.11413	0.14286	0.14286
3000	3	11.42857	22	0.11413	0.14286	0.14286
3100	3	11.42857	22	0.11413	0.14286	0.14286

THE HOURLY SUMMARY TABLE FOR FALL 1954

HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
HR	LA	AVG. VEL.	DIR.	WIND	WIND	WIND
2400	3	8.46154	23	0.27416	0.17000	0.17000
2500	3	8.46154	23	0.27416	0.17000	0.17000
2600	3	8.46154	23	0.27416	0.17000	0.17000
2700	3	8.46154	23	0.27416	0.17000	0.17000
2800	3	8.46154	23	0.27416	0.17000	0.17000
2900	3	8.46154	23	0.27416	0.17000	0.17000
3000	3	8.46154	23	0.27416	0.17000	0.17000
3100	3	8.46154	23	0.27416	0.17000	0.17000

THE HOURLY SUMMARY TABLE FOR WIN. 1956

GROUP	LA	AVG. VEL.	DIR.	DIRECTION	WTH.	EAST	STW.	WEST
2400	0	9.1174	24	0.45000	0.15000	0.31111	0.05889	
3000	0	7.2913	21	0.42772	0.27000	0.27222	0.37778	
3600	0	5.4535	31	0.42222	0.24667	0.21667	0.10556	
4200	0	1.01329	24	0.41667	0.21111	0.26111	0.38889	
4800	0	11.33323	27	0.36111	0.16667	0.28556	0.14444	
5400	0	11.26337	24	0.36111	0.13889	0.31111	0.14111	
6000	0	5.23113	22	0.34667	0.14333	0.27778	0.11111	
6600	0	4.16644	25	0.45000	0.17222	0.24444	0.37222	

Chanute
Instrument Height
1956-1957 43 Feet

THE HOURLY SUMMARY TABLE FOR SPR. 1956

GROUP	LA	AVG. VEL.	DIR.	DIRECTION	WTH.	EAST	STW.	WEST
2400	0	12.19104	24	0.21281	0.10322	0.38043	0.14674	
3000	0	11.76181	26	0.21739	0.21739	0.36097	0.15217	
3600	0	12.06367	35	0.23026	0.25926	0.39130	0.10470	
4200	0	12.26783	20	0.23370	0.23109	0.45652	0.10870	
4800	0	12.13177	21	0.22777	0.16344	0.46022	0.11414	
5400	0	12.13183	22	0.22433	0.18774	0.39887	0.12004	
6000	0	13.26367	27	0.23434	0.16505	0.36674	0.12000	
6600	0	12.05222	25	0.23005	0.17191	0.36674	0.36696	

THE HOURLY SUMMARY TABLE FOR SUM. 1956

GROUP	LA	AVG. VEL.	DIR.	DIRECTION	WTH.	EAST	STW.	WEST
2400	0	9.52784	18	0.16384	0.26937	0.50543	0.03261	
3000	0	7.49113	18	0.15217	0.28343	0.51087	0.02174	
3600	0	9.73622	18	0.15333	0.27717	0.52174	0.00543	
4200	0	12.01873	22	0.13043	0.13217	0.58783	0.09783	
4800	0	13.21626	24	0.09784	0.13267	0.66140	0.11613	
5400	0	11.71774	23	0.16843	0.13761	0.58152	0.09239	
6000	0	12.73013	23	0.17381	0.23000	0.55935	0.01367	
6600	0	12.61113	35	0.12500	0.37500	0.46679	0.01087	

THE HOURLY SUMMARY TABLE FOR FALL 1956

GROUP	LA	AVG. VEL.	DIR.	DIRECTION	WTH.	EAST	STW.	WEST
2400	0	10.38341	27	0.11429	0.19231	0.46703	0.11538	
3000	0	9.10330	27	0.21578	0.17632	0.34011	0.17043	
3600	0	10.09193	27	0.20673	0.16484	0.39011	0.11538	
4200	0	12.45004	29	0.24176	0.15936	0.48352	0.11538	
4800	0	14.25715	33	0.21429	0.11334	0.51096	0.10640	
5400	0	11.29613	23	0.17562	0.10980	0.54396	0.10640	
6000	0	11.09613	23	0.21429	0.17582	0.50000	0.09791	
6600	0	13.88313	27	0.27142	0.22627	0.45236	0.10341	

THE HOURLY SUMMARY TABLE FOR WIG. 1957

GROUP	LA	AVG. VEL.	DIR.	DIRECTION	WTH.	EAST	STW.	WEST
2400	0	10.16651	24	0.41667	0.17772	0.27222	0.05889	
3000	0	10.21222	28	0.41111	0.16444	0.25444	0.05889	
3600	0	10.31111	22	0.41667	0.12333	0.24333	0.11111	
4200	0	11.50619	25	0.49333	0.16667	0.32667	0.11111	
4800	0	13.22222	30	0.40000	0.22222	0.31111	0.24444	
5400	0	12.37774	35	0.31111	0.16444	0.26667	0.15556	
6000	0	9.45444	24	0.32778	0.16333	0.22222	0.16667	
6600	0	10.24444	25	0.36333	0.17222	0.26667	0.12222	

THE HOURLY SUMMARY TABLE FOR SEP. 1957

GROUP	LA	AVG. VEL.	DIR.	DIRECTION	WTH.	EAST	STW.	WEST
2400	0	10.21612	26	0.31222	0.22222	0.35556	0.05889	
3000	0	9.25666	26	0.31222	0.21111	0.27222	0.05889	
3600	0	9.25373	26	0.31222	0.20333	0.27111	0.11111	
4200	0	12.20221	35	0.31555	0.25429	0.28666	0.05889	
4800	0	14.39444	25	0.25000	0.20277	0.23778	0.05889	
5400	0	13.47379	20	0.22777	0.17666	0.21111	0.12222	
6000	0	11.21111	39	0.26667	0.21111	0.25556	0.11111	
6600	0	10.34333	39	0.24667	0.24667	0.26222	0.05889	

THE HOURLY SUMMARY TABLE FOR OCT. 1957

GROUP	LA	AVG. VEL.	DIR.	DIRECTION	WTH.	EAST	STW.	WEST
2400	0	7.25973	18	0.11774	0.24444	0.50543	0.05889	
3000	0	7.01541	18	0.15761	0.25522	0.47412	0.05889	
3600	0	7.15444	20	0.16643	0.22222	0.45412	0.05889	
4200	0	9.25113	20	0.13597	0.12333	0.35456	0.05889	
4800	0	13.21361	20	0.17679	0.16573	0.57778	0.05889	
5400	0	19.55222	21	0.13676	0.12778	0.54561	0.05889	
6000	0	9.52221	22	0.13644	0.20109	0.53109	0.05889	
6600	0	7.25666	18	0.13967	0.20000	0.47222	0.05889	

THE HOURLY SUMMARY TABLE FOR NOV. 1957

GROUP	LA	AVG. VEL.	DIR.	DIRECTION	WTH.	EAST	STW.	WEST
2400	0	6.26119	18	0.23373	0.24176	0.29222	0.05889	
3000	0	6.44933	13	0.26223	0.22939	0.27778	0.05889	
3600	0	6.10000	15	0.22527	0.23373	0.25222	0.05889	
4200	0	8.10541	20	0.24671	0.16444	0.32667	0.05889	
4800	0	8.09444	20	0.24121	0.15333	0.30222	0.05889	
5400	0	9.17333	29	0.30222	0.18132	0.39222	0.05889	
6000	0	7.12333	18	0.22222	0.22222	0.33333	0.05889	
6600	0	6.43000	20	0.20000	0.25556	0.25556	0.05889	

THE HOURLY SUMMARY TABLE FOR WIN. 1962

HOURLY	LA	AVG.	UB	WTH.	DIRECTION	STW.	WEST
10	VEL.						
2400	0	10.76649	26	0.33334	0.12222	0.17778	
0300	0	10.76649	26	0.33334	0.12222	0.17778	
0600	0	10.76649	26	0.33334	0.12222	0.17778	
0900	0	10.76649	26	0.33334	0.12222	0.17778	
1200	0	10.76649	26	0.33334	0.12222	0.17778	
1500	0	10.76649	26	0.33334	0.12222	0.17778	
1800	0	10.76649	26	0.33334	0.12222	0.17778	
2100	0	10.76649	26	0.33334	0.12222	0.17778	

Chanute
Instrument Height
[1962-1963 5] Feet

THE HOURLY SUMMARY TABLE FOR SUM. 1962

HOURLY	LA	AVG.	UB	WTH.	DIRECTION	STW.	WEST
10	VEL.						
2400	0	11.45659	30	0.43652	0.23341	0.11657	
0300	0	11.45659	30	0.43652	0.23341	0.11657	
0600	0	11.45659	30	0.43652	0.23341	0.11657	
0900	0	11.45659	30	0.43652	0.23341	0.11657	
1200	0	11.45659	30	0.43652	0.23341	0.11657	
1500	0	11.45659	30	0.43652	0.23341	0.11657	
1800	0	11.45659	30	0.43652	0.23341	0.11657	
2100	0	11.45659	30	0.43652	0.23341	0.11657	

THE HOURLY SUMMARY TABLE FOR SUM. 1962

HOURLY	LA	AVG.	UB	WTH.	DIRECTION	STW.	WEST
10	VEL.						
2400	0	9.23646	16	0.12500	0.43761	0.21774	
0300	0	9.23646	16	0.12500	0.43761	0.21774	
0600	0	9.23646	16	0.12500	0.43761	0.21774	
0900	0	9.23646	16	0.12500	0.43761	0.21774	
1200	0	9.23646	16	0.12500	0.43761	0.21774	
1500	0	9.23646	16	0.12500	0.43761	0.21774	
1800	0	9.23646	16	0.12500	0.43761	0.21774	
2100	0	9.23646	16	0.12500	0.43761	0.21774	

THE HOURLY SUMMARY TABLE FOR FALL 1962

HOURLY	LA	AVG.	UB	WTH.	DIRECTION	STW.	WEST
10	VEL.						
2400	0	9.13137	20	0.21132	0.21132	0.35855	
0300	0	9.13137	20	0.21132	0.21132	0.35855	
0600	0	9.13137	20	0.21132	0.21132	0.35855	
0900	0	9.13137	20	0.21132	0.21132	0.35855	
1200	0	9.13137	20	0.21132	0.21132	0.35855	
1500	0	9.13137	20	0.21132	0.21132	0.35855	
1800	0	9.13137	20	0.21132	0.21132	0.35855	
2100	0	9.13137	20	0.21132	0.21132	0.35855	

THE HOURLY SUMMARY TABLE FOR WIN. 1963

HOURLY	LA	AVG.	UB	WTH.	DIRECTION	STW.	WEST
10	VEL.						
2400	0	10.76649	26	0.33334	0.12222	0.17778	
0300	0	10.76649	26	0.33334	0.12222	0.17778	
0600	0	10.76649	26	0.33334	0.12222	0.17778	
0900	0	10.76649	26	0.33334	0.12222	0.17778	
1200	0	10.76649	26	0.33334	0.12222	0.17778	
1500	0	10.76649	26	0.33334	0.12222	0.17778	
1800	0	10.76649	26	0.33334	0.12222	0.17778	
2100	0	10.76649	26	0.33334	0.12222	0.17778	

THE HOURLY SUMMARY TABLE FOR SUM. 1963

HOURLY	LA	AVG.	UB	WTH.	DIRECTION	STW.	WEST
10	VEL.						
2400	0	11.45659	30	0.43652	0.23341	0.11657	
0300	0	11.45659	30	0.43652	0.23341	0.11657	
0600	0	11.45659	30	0.43652	0.23341	0.11657	
0900	0	11.45659	30	0.43652	0.23341	0.11657	
1200	0	11.45659	30	0.43652	0.23341	0.11657	
1500	0	11.45659	30	0.43652	0.23341	0.11657	
1800	0	11.45659	30	0.43652	0.23341	0.11657	
2100	0	11.45659	30	0.43652	0.23341	0.11657	

THE HOURLY SUMMARY TABLE FOR SUM. 1963

HOURLY	LA	AVG.	UB	WTH.	DIRECTION	STW.	WEST
10	VEL.						
2400	0	9.23646	16	0.12500	0.43761	0.21774	
0300	0	9.23646	16	0.12500	0.43761	0.21774	
0600	0	9.23646	16	0.12500	0.43761	0.21774	
0900	0	9.23646	16	0.12500	0.43761	0.21774	
1200	0	9.23646	16	0.12500	0.43761	0.21774	
1500	0	9.23646	16	0.12500	0.43761	0.21774	
1800	0	9.23646	16	0.12500	0.43761	0.21774	
2100	0	9.23646	16	0.12500	0.43761	0.21774	

THE HOURLY SUMMARY TABLE FOR FALL 1963

HOURLY	LA	AVG.	UB	WTH.	DIRECTION	STW.	WEST
10	VEL.						
2400	0	9.13137	20	0.21132	0.21132	0.35855	
0300	0	9.13137	20	0.21132	0.21132	0.35855	
0600	0	9.13137	20	0.21132	0.21132	0.35855	
0900	0	9.13137	20	0.21132	0.21132	0.35855	
1200	0	9.13137	20	0.21132	0.21132	0.35855	
1500	0	9.13137	20	0.21132	0.21132	0.35855	
1800	0	9.13137	20	0.21132	0.21132	0.35855	
2100	0	9.13137	20	0.21132	0.21132	0.35855	

SPRINTS		EXCESS= 2																																										
YEAR		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
1943	JAN.	5	9	15	8	23	16	17	13	21	27	1	13	10	4	9	15	8	1	0	2	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	FEB.	3	0	4	9	10	14	8	12	26	31	4	16	10	8	6	19	13	6	3	5	4	2	7	3	1	2	3	7	3	2	3	1	0	1	0	0	0	0	0	0	0	0	
	MAR.	2	5	1	7	15	11	13	13	20	20	7	16	9	10	5	14	6	4	0	0	2	2	4	6	2	3	7	3	6	4	9	3	4	0	0	0	0	0	0	0	0	0	0
	APR.	17	18	31	23	22	11	20	15	20	21	4	6	5	6	3	7	2	0	0	2	0	1	2	1	0	1	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0
	MAY.	5	10	25	14	17	20	19	13	33	25	6	9	5	5	3	7	6	1	1	3	0	2	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	JUNE	18	18	21	23	15	17	16	20	16	22	5	6	6	4	4	12	6	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	JULY	17	18	21	23	15	17	16	20	16	22	5	6	6	4	4	12	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	AUG.	17	18	21	23	15	17	16	20	16	22	5	6	6	4	4	12	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	SEP.	12	14	27	21	33	11	19	12	17	25	9	8	4	4	3	7	2	2	0	1	1	2	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	OCT.	4	12	27	21	33	11	19	12	17	25	9	8	4	4	3	7	2	2	0	1	1	2	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NOV.	12	6	29	13	18	6	15	9	21	26	11	12	4	9	6	14	10	1	3	3	2	2	1	1	3	2	1	0	1	1	2	1	0	1	0	0	0	0	0	0	0	0	
	DEC.	2	5	19	12	25	14	13	17	33	31	7	4	13	7	4	13	7	2	3	3	2	5	1	5	0	2	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	

Wind Speed Density

By the Month

Chanute

Years

1942

1943

1944

1945

1946

1947

1948

1949

1950

1951

1952

1953

1954

1955

1956

1957

1958

1959

1960

1961

1962

1963

1964

1965

1966

1967

1968

1969

YEAR	SPRINTS																															EXCESS= 2											
1943	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
JAN.	2	5	15	21	13	15	20	11	20	21	5	14	11	4	9	15	12	6	2	5	1	1	2	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FEB.	3	12	25	16	17	13	14	11	23	24	6	9	3	7	1	5	12	1	4	1	1	0	2	4	2	1	4	3	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
MAR.	6	5	27	16	16	11	16	3	25	24	7	9	3	7	4	13	21	0	4	2	2	2	3	4	1	1	0	0	0	2	1	0	0	2	1	0	0	2	1	0	0	2	1
APR.	4	3	29	15	17	12	21	11	22	24	6	14	6	9	5	7	10	1	4	2	3	4	1	1	1	0	0	0	0	2	1	0	0	1	0	0	1	0	0	1	0	0	
MAY.	11	1	23	15	16	16	13	28	26	4	14	3	5	1	7	8	3	2	3	4	3	3	1	1	3	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	
JUNE	3	4	30	17	23	18	13	14	21	24	2	13	15	4	5	4	3	0	0	1	0	2	1	1	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
JULY	15	2	3	21	26	15	15	26	22	2	2	6	9	7	5	9	13	1	1	2	3	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AUG.	21	12	6	31	24	13	28	12	21	11	6	8	4	3	5	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SEP.	10	7	24	27	19	16	15	11	27	19	3	8	7	5	3	5	14	3	1	0	1	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
OCT.	7	10	3	17	21	15	13	26	13	3	4	9	7	5	7	5	12	1	2	0	2	2	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
NOV.	15	3	13	13	13	13	16	15	23	17	9	8	13	6	9	5	12	5	6	5	1	0	2	5	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
DEC.	7	1	25	8	15	16	15	11	22	23	3	7	10	9	4	10	21	4	3	2	7	7	7	2	1	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0		

YEAR	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1943	5	9	15	8	23	16	17	13	21	27	1	13	10	4	9	15	8	1	0	2	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JAN.	5	9	15	8	23	16	17	13	21	27	1	13	10	4	9	15	8	1	0	2	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	3	0	4	9	10	14	8	12	26	31	4	16	10	8	6	19	13	6	3	5	4	2	7	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	2	5	1	7	15	11	13	13	20	20	7	16	9	10	5	14	6	4	0	0	2	2	4	6	2	3	7	3	6	4	9	3	4	0	0	0	0	0	0	0	0
APR.	17	18	31	23	22	11	20	15	20	21	4	6	5	6	3	7	2	0	0	2	0	1	2	1	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0
MAY.	5	10	25	14	17	20	19	13	33	25	6	9	5	5	3	7	6	1	1	3	0	2	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	18	18	21	23	15	17	16	20	16	22	5	6	6	4	4	12	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	17	18	21	23	15	17	16	20	16	22	5	6	6	4	4	12	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	17	18	21	23	15	17	16	20	16	22	5	6	6	4	4	12	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	12	6	29	13	18	6	15	9	21	26	11	12	6	4	3	7	2	2	0	1	1	2	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	4	12	27	21	33	11	19	12	17	25	9	8	4	4	3	7	2	2	0	1	1	2	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOV.	12	6	29	13	18	6	15	9	21	26	11	12	6	4	3	7	2	2	0	1	1	2	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	10	13	40	16	23	21	23	11	10	16	2	3	3	4	2	7	4	0	0	0	0	3	1	1	3	4	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0

LEVEL	SPT105	EXCESS=	R
1	01	06	07
2	03	09	08
3	05	10	09
4	07	11	10
5	09	12	11
6	11	13	12
7	13	14	13
8	15	16	14
9	17	17	15
10	18	19	16
11	20	21	18
12	21	22	19
13	22	23	20
14	23	24	21
15	24	25	22
16	25	26	23
17	26	27	24
18	27	28	25
19	28	29	26
20	29	30	27
21	30	31	28
22	31	32	29
23	32	33	30
24	33	34	31
25	34	35	32
26	35	36	33
27	36	37	34
28	37	38	35
29	38	39	36
30	39	40	37
31	40		

[illegible][illegible][illegible]

At the end of the day, the

For the month

0471746

5450

2254

1961.

1962

1001

Testament 1914

100-100351-204

Initial Speed Is Knots

YEAR	SPEDS	EXCES=	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1964	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				
JAN.	2	0	0	1	0	0	13	27	2	23	11	30	13	16	27	3	8	29	0	15	1	4	2	2	4	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEB.	13	0	2	4	11	3	19	24	6	36	19	39	12	15	18	8	10	9	0	10	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAR.	7	0	1	1	1	1	13	4	24	8	29	11	10	26	12	15	36	1	14	1	2	3	4	1	1	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APR.	4	0	0	3	2	2	3	9	3	26	7	17	6	18	28	8	6	27	1	26	0	8	2	7	11	0	2	2	0	4	0	1	1	0	1	0	1	0	1	0	1	0	1	0
MAY.	9	0	0	4	3	4	13	14	6	32	9	23	13	9	19	11	9	18	0	18	2	4	2	4	8	2	0	9	7	5	0	1	1	0	0	0	0	0	0	0	0	0	0	
JUN.	5	0	2	5	11	12	13	19	9	43	7	27	6	11	18	5	4	14	1	11	0	6	2	2	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	20	0	0	7	13	14	17	36	15	30	10	22	5	11	19	3	7	9	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	19	0	1	8	21	16	16	30	6	34	6	17	9	11	21	4	6	7	1	11	0	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
SEP.	7	0	0	3	19	15	12	29	12	40	12	31	0	0	16	3	6	13	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	27	0	1	6	24	14	10	30	10	29	6	17	3	6	15	2	3	13	0	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NOV.	11	0	0	3	8	7	5	29	11	23	16	15	7	31	5	3	23	0	23	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	4	0	2	0	6	6	13	21	13	32	8	23	14	12	21	6	10	14	0	16	0	10	1	0	2	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	

Wind Speed Density

by the North

minute

years

1964

Instrument Height

1964 51 Feet

Wind Speed in Knots

MONTH	AVGWIND OLD HT	AVGWIND NEW HT	SMOVEL OLD HT	SMOVEL NEW HT	WINDSPEED CODE=1	WINDSPEED CODE=2	WINDSPEED CODE=3	AREA CODE=1	AREA CODE=2	AREA CODE=3	AREA INFORMATION
JAN.	9.28	11.11	11.25	13.21	21.27	17.05	22.29	21.37	0.0	22.21	CHARLOTTE KANSAS
FEB.	9.22	11.20	11.20	13.27	21.23	17.01	22.03	21.31	0.0	22.00	JEFFERSON COUNTY
MAR.	12.28	12.22	12.25	13.24	21.22	17.03	22.03	21.37	0.0	22.22	CORRECTED HT. 100 FT.
APR.	12.28	12.22	12.21	13.21	21.27	17.03	22.03	21.39	0.0	22.06	INSTRUMENT HT. 42 FT.
MAY.	9.22	9.22	12.23	12.23	21.21	17.02	21.21	21.31	0.0	12.23	PEAK LIMIT IS 16 KNOTS.
JUNE	9.24	10.20	11.27	12.29	21.29	17.11	21.27	21.33	0.0	22.00	FRIC. LIM. IS 7KNOTS.
JULY	7.29	9.26	10.23	12.23	20.21	16.11	17.25	21.21	0.0	16.20	CODE=1 COR. HT. BULK WH.
AUG.	6.24	7.28	8.23	9.27	11.21	7.22	11.24	13.27	0.0	11.22	CODE=2 COR. HT. PER.
SEP.	7.27	9.21	10.21	12.25	12.20	11.21	10.24	21.24	0.0	17.27	UNIT AREA KWH/M**2
OCT.	8.21	9.24	11.22	13.27	21.25	17.13	17.23	21.37	0.0	17.13	CODE=3 COR.HT. PER.
NOV.	9.24	11.20	13.21	15.23	22.22	22.22	22.22	21.23	0.0	27.24	UNIT AREA KWH/M**2
DEC.	10.24	12.29	13.29	15.25	22.25	22.25	22.25	21.25	0.0	22.24	WIND SPEEDS ARE IN KNOTS.
SUMS	9.23	11.19	11.25	14.26	21.23	16.25	22.23	21.13	0.0	22.22	

MONTH	AVGWIND OLD HT	AVGWIND NEW HT	SMOVEL OLD HT	SMOVEL NEW HT	WINDSPEED CODE=1	WINDSPEED CODE=2	WINDSPEED CODE=3	AREA CODE=1	AREA CODE=2	AREA CODE=3	AREA INFORMATION
JAN.	9.28	11.23	11.25	13.25	21.27	17.05	22.29	21.37	0.0	22.21	CHARLOTTE KANSAS
FEB.	9.21	11.22	11.20	13.27	21.23	17.01	22.03	21.31	0.0	22.00	JEFFERSON COUNTY
MAR.	12.28	12.22	12.25	13.24	21.22	17.03	22.03	21.37	0.0	22.22	CORRECTED HT. 100 FT.
APR.	9.24	11.23	12.25	13.21	21.27	17.03	22.03	21.39	0.0	22.06	INSTRUMENT HT. 42 FT.
MAY.	9.25	11.25	12.25	13.21	21.21	17.02	21.21	21.31	0.0	22.00	PEAK LIMIT IS 16 KNOTS.
JUNE	9.25	10.21	11.23	12.29	21.29	17.11	21.27	21.33	0.0	22.00	FRIC. LIM. IS 7KNOTS.
JULY	8.21	11.27	11.25	13.23	20.21	16.11	17.25	21.21	0.0	21.24	CODE=1 COR. HT. BULK WH.
AUG.	6.24	7.28	8.23	9.27	11.21	7.22	11.24	13.27	0.0	11.22	CODE=2 COR. HT. PER.
SEP.	7.27	9.24	10.21	12.25	12.20	11.21	10.24	21.24	0.0	17.27	UNIT AREA KWH/M**2
OCT.	8.21	10.24	11.22	13.27	21.25	17.13	17.23	21.37	0.0	17.13	CODE=3 COR.HT. PER.
NOV.	9.27	11.21	13.29	15.23	22.22	22.22	22.22	21.23	0.0	27.24	UNIT AREA KWH/M**2
DEC.	11.20	12.29	13.29	15.25	22.25	22.25	22.25	21.25	0.0	22.24	WIND SPEEDS ARE IN KNOTS.
SUMS	9.16	10.97	12.25	14.27	21.23	16.25	22.23	21.13	0.0	22.22	

MONTH	AVGWIND OLD HT	AVGWIND NEW HT	SMOVEL OLD HT	SMOVEL NEW HT	WINDSPEED CODE=1	WINDSPEED CODE=2	WINDSPEED CODE=3	AREA CODE=1	AREA CODE=2	AREA CODE=3	AREA INFORMATION
JAN.	12.28	12.21	12.25	13.24	21.22	17.03	22.03	21.37	0.0	22.22	CHARLOTTE KANSAS
FEB.	10.27	12.20	12.25	13.24	21.22	17.03	22.03	21.37	0.0	22.22	JEFFERSON COUNTY
MAR.	12.28	12.22	12.25	13.24	21.22	17.03	22.03	21.37	0.0	22.22	CORRECTED HT. 100 FT.
APR.	12.28	12.22	12.25	13.24	21.22	17.03	22.03	21.37	0.0	22.22	INSTRUMENT HT. 42 FT.
MAY.	10.20	12.23	12.25	13.21	21.21	17.02	21.21	21.31	0.0	22.00	PEAK LIMIT IS 16 KNOTS.
JUNE	10.28	12.21	12.27	13.20	21.29	17.11	21.27	21.33	0.0	22.00	FRIC. LIM. IS 7KNOTS.
JULY	7.27	9.23	10.22	12.26	17.22	7.22	15.24	17.25	0.0	15.24	CODE=1 COR. HT. BULK WH.
AUG.	7.21	8.21	9.20	11.23	15.27	7.22	13.23	15.25	0.0	13.23	CODE=2 COR. HT. PER.
SEP.	6.29	7.29	8.25	10.21	13.21	7.22	11.24	13.27	0.0	12.25	UNIT AREA KWH/M**2
OCT.	8.28	10.21	12.27	14.27	21.23	15.27	21.23	21.35	0.0	22.23	CODE=3 COR.HT. PER.
NOV.	9.26	11.22	13.23	15.21	22.22	22.22	22.22	21.23	0.0	27.24	UNIT AREA KWH/M**2
DEC.	7.27	9.29	11.23	13.27	17.23	10.22	15.11	17.25	0.0	15.11	WIND SPEEDS ARE IN KNOTS.
SUMS	9.24	11.23	13.21	15.20	21.23	16.25	22.23	21.13	0.0	22.22	

MONTH	AVGWIND OLD HT	AVGWIND NEW HT	SMOVEL OLD HT	SMOVEL NEW HT	WINDSPEED CODE=1	WINDSPEED CODE=2	WINDSPEED CODE=3	AREA CODE=1	AREA CODE=2	AREA CODE=3	AREA INFORMATION
JAN.	9.27	11.20	12.25	13.24	21.22	17.03	22.03	21.37	0.0	22.22	CHARLOTTE KANSAS
FEB.	9.20	11.23	12.22	13.24	21.22	17.03	22.03	21.37	0.0	22.22	JEFFERSON COUNTY
MAR.	11.29	12.23	12.25	13.24	21.22	17.03	22.03	21.37	0.0	22.22	CORRECTED HT. 100 FT.
APR.	11.25	12.22	12.25	13.24	21.22	17.03	22.03	21.37	0.0	22.22	INSTRUMENT HT. 42 FT.
MAY.	7.22	9.20	10.24	12.27	21.21	17.02	21.21	21.31	0.0	22.00	PEAK LIMIT IS 16 KNOTS.
JUNE	6.20	8.21	9.27	11.21	15.24	15.24	15.24	15.25	0.0	15.24	FRIC. LIM. IS 7KNOTS.
JULY	6.22	8.24	9.23	11.27	15.22	15.22	15.22	15.25	0.0	15.22	CODE=1 COR. HT. BULK WH.
AUG.	7.24	8.22	9.23	11.23	15.23	15.23	15.23	15.25	0.0	15.23	CODE=2 COR. HT. PER.
SEP.	8.23	9.22	11.29	13.21	22.22	22.22	22.22	21.23	0.0	27.24	UNIT AREA KWH/M**2
OCT.	9.25	11.20	12.21	14.25	22.22	22.22	22.22	21.23	0.0	27.24	CODE=3 COR.HT. PER.
NOV.	9.25	12.22	13.23	15.22	22.22	22.22	22.22	21.23	0.0	27.24	UNIT AREA KWH/M**2
DEC.	9.25	11.20	12.21	14.25	22.22	22.22	22.22	21.23	0.0	27.24	WIND SPEEDS ARE IN KNOTS.
SUMS	8.26	10.24	12.21	14.22	21.23	16.25	22.23	21.13	0.0	22.22	

MONTH	AVGWIND OLD HT	AVGWIND NEW HT	SMOVEL OLD HT	SMOVEL NEW HT	WINDSPEED CODE=1	WINDSPEED CODE=2	WINDSPEED CODE=3	AREA CODE=1	AREA CODE=2	AREA CODE=3	AREA INFORMATION
JAN.	9.28	11.25	11.27	13.23	21.27	17.04	22.30	21.38	0.0	22.23	CHARLOTTE KANSAS
FEB.	9.22	11.20	11.20	13.27	21.23	17.01	22.03	21.31	0.0	22.00	JEFFERSON COUNTY
MAR.	9.25	11.25	12.25	13.21	21.21	17.02	21.21	21.31	0.0	22.00	CORRECTED HT. 100 FT.
APR.	9.25	11.25	12.25	13.21	21.21	17.02	21.21	21.31	0.0	22.00	INSTRUMENT HT. 42 FT.
MAY.	9.25	11.25	12.25	13.21	21.21	17.02	21.21	21.31	0.0	22.00	PEAK LIMIT IS 16 KNOTS.
JUNE	11.27	12.25	13.21	15.23	22.22	22.22	22.22	21.23	0.0	27.24	FRIC. LIM. IS 7KNOTS.
JULY	11.27	12.25	13.21	15.23	22.22	22.22	22.22	21.23	0.0	27.24	CODE=1 COR. HT. BULK WH.
AUG.	9.25	11.25	12.25	13.21	21.21	17.02	21.21	21.31	0.0	22.00	CODE=2 COR. HT. PER.
SEP.	9.25	11.25	12.25	13.21	21.21	17.02	21.21	21.31	0.0	22.00	UNIT AREA KWH/M**2
OCT.	9.25	11.25	12.25	13.21	21.21	17.02	21.21	21.31	0.0	22.00	CODE=3 COR.HT. PER.
NOV.	11.27	12.25	13.21	15.23	22.22	22.22	22.22	21.23	0.0	27.24	UNIT AREA KWH/M**2
DEC.	11.27	12.25	13.21	15.23	22.22	22.22	22.22	21.23	0.0	27.24	WIND SPEEDS ARE IN KNOTS.
SUMS	9.26	11.27	12.25	14.26	21.23	16.25	22.23	21.13	0.0	22.22	

DATE	AVGVEL	AVGVEL	PSGVEL	PSGVEL	VCORP1	VCORP2	VCORP3	CRPA	CRPA	CRPA	INFORMATION	1963
	100 FT	NEW HT	100 FT	NEW HT	CONC=1	CONC=2	CONC=3	CONC=1	CONC=2	CONC=3		
JAN.	12.17	13.55	13.66	18.97	27.85	29.87	37.80	36.25	0.0	31.49	CHAMBER KANSAS	
FEB.	11.33	13.31	13.20	16.97	17.75	26.11	33.12	39.33	0.0	34.49	NE SHO COUNTY	
MAR.	13.57	16.56	16.43	17.75	27.60	36.95	41.75	48.93	0.0	47.96	CONNECTED HT. 100 FT.	
APR.	13.28	13.13	13.95	17.95	26.33	33.36	39.55	46.92	0.0	50.71	INSTRUMENT HT. 51 FT.	
MAY.	11.53	13.74	13.50	15.60	24.08	27.31	35.23	40.32	0.0	36.37	PEAK LIMIT IS 16 KNTS.	
JUNE	11.30	12.67	13.78	16.33	27.02	34.53	37.75	38.55	0.0	43.73	FRIC. LIM. IS 7KNTS.	
JULY	10.77	11.99	11.51	13.37	31.91	20.18	27.35	33.16	0.0	29.09	CONC=1 COR. HT. BULK HEAD	
AUG.	9.92	11.34	11.35	12.85	27.79	17.63	26.28	33.79	1.0	28.21	CONC=2 COR. HT. PER	
SEP.	9.23	10.70	10.79	12.37	26.69	16.27	23.61	27.67	1.0	24.27	UNIT AREA KWH/MH=2	
OCT.	10.75	12.09	11.93	11.89	33.93	21.66	29.73	35.49	0.0	31.07	CONC=3 COR.HT. PER.	
NOV.	10.90	12.92	13.21	15.94	35.05	24.02	30.75	36.40	0.0	31.93	UNIT AREA KWH/MH=2	
DEC.	11.81	13.76	13.27	15.33	37.95	25.57	33.30	39.05	0.0	36.26	WIND SPEEDS ARE IN KNTS.	
SUNS	11.27	12.56	13.17	16.92	442.00	211.79	303.22	658.33	0.0	431.90		

DATE	AVGVEL	AVGVEL	PSGVEL	PSGVEL	VCORP1	VCORP2	VCORP3	CRPA	CRPA	CRPA	INFORMATION	1964
	100 FT	NEW HT	100 FT	NEW HT	CONC=1	CONC=2	CONC=3	CONC=1	CONC=2	CONC=3		
JAN.	13.36	15.23	15.10	17.33	27.97	34.24	41.80	48.89	0.0	42.99	CHAMBER KANSAS	
FEB.	11.00	12.65	12.53	14.43	17.59	25.69	33.06	39.35	0.0	34.29	NE SHO COUNTY	
MAR.	14.83	16.91	16.67	19.35	31.75	41.03	47.15	55.00	0.0	46.12	CONNECTED HT. 100 FT.	
APR.	15.77	17.40	18.25	20.33	34.53	42.02	47.38	55.43	0.0	48.87	INSTRUMENT HT. 51 FT.	
MAY.	14.72	17.69	17.34	19.25	41.96	35.78	42.94	50.77	0.0	44.53	PEAK LIMIT IS 16 KNTS.	
JUNE	11.76	12.63	13.24	15.64	34.59	26.74	33.55	39.36	0.0	35.95	FRIC. LIM. IS 7KNTS.	
JULY	9.85	11.41	11.46	13.12	30.32	19.69	26.66	30.81	0.0	27.11	CONC=1 COR. HT. BULK HEAD	
AUG.	10.40	11.95	12.52	14.20	32.49	21.91	23.50	33.05	0.0	29.00	CONC=2 COR. HT. PER	
SEP.	10.49	12.11	12.17	13.55	32.46	21.50	24.91	34.34	0.0	30.15	UNIT AREA KWH/MH=2	
OCT.	9.00	10.42	11.30	12.83	25.75	16.90	22.58	26.07	0.0	22.87	CONC=3 COR.HT. PER.	
NOV.	12.55	14.24	14.44	16.31	44.38	32.23	34.62	46.25	0.0	40.55	UNIT AREA KWH/MH=2	
DEC.	12.92	14.77	14.66	16.54	44.14	31.32	35.71	45.75	0.0	40.13	WIND SPEEDS ARE IN KNTS.	
SUNS	12.22	13.97	14.53	16.36	491.14	349.30	430.75	506.94	0.0	444.65		

APPENDIX H

TABLES

Concordia

JAN 1963 - DEC 1970

THE HOURLY SUMMARY TABLE FOR WIN. 1964

HR	AVG.	DIRECTION	
VEL. (KNOTS)	WTH.	EAST	WEST
2400	10.755	0.322	0.315
0300	10.911	0.324	0.319
0600	10.464	0.328	0.315
0900	11.322	0.337	0.322
1200	11.864	0.346	0.337
1500	11.922	0.342	0.311
1800	10.522	0.336	0.313
2100	10.400	0.326	0.319

THE HOURLY SUMMARY TABLE FOR SPR. 1964

HR	AVG.	DIRECTION	
VEL. (KNOTS)	WTH.	EAST	WEST
2400	12.164	0.321	0.331
0300	11.197	0.323	0.341
0600	11.109	0.324	0.339
0900	12.672	0.324	0.324
1200	14.409	0.335	0.320
1500	14.717	0.333	0.324
1800	13.239	0.324	0.345
2100	11.367	0.324	0.325

THE HOURLY SUMMARY TABLE FOR SUM. 1964

HR	AVG.	DIRECTION	
VEL. (KNOTS)	WTH.	EAST	WEST
2400	9.272	0.316	0.336
0300	7.557	0.314	0.336
0600	8.343	0.312	0.341
0900	11.145	0.315	0.335
1200	11.741	0.314	0.334
1500	12.333	0.315	0.335
1800	11.317	0.314	0.343
2100	9.793	0.317	0.347

THE HOURLY SUMMARY TABLE FOR FALL 1964

HR	AVG.	DIRECTION	
VEL. (KNOTS)	WTH.	EAST	WEST
2400	9.315	0.325	0.324
0300	9.422	0.322	0.326
0600	8.561	0.329	0.321
0900	10.313	0.335	0.320
1200	12.344	0.332	0.325
1500	11.267	0.336	0.317
1800	9.011	0.332	0.344
2100	7.595	0.334	0.326

Concordia
Instrument Height
1963-1964 21 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1963

HR	AVG.	DIRECTION	
VEL. (KNOTS)	WTH.	EAST	WEST
2400	9.215	0.319	0.338
0300	10.228	0.316	0.336
0600	10.134	0.313	0.335
0900	11.359	0.337	0.326
1200	11.720	0.335	0.331
1500	10.352	0.337	0.340
1800	9.159	0.349	0.321
2100	9.424	0.336	0.333

THE HOURLY SUMMARY TABLE FOR SPR. 1963

HR	AVG.	DIRECTION	
VEL. (KNOTS)	WTH.	EAST	WEST
2400	11.539	0.315	0.337
0300	10.217	0.321	0.342
0600	10.316	0.324	0.337
0900	12.333	0.335	0.329
1200	14.333	0.333	0.338
1500	13.559	0.337	0.343
1800	12.144	0.336	0.343
2100	10.275	0.331	0.349

THE HOURLY SUMMARY TABLE FOR SUM. 1963

HR	AVG.	DIRECTION	
VEL. (KNOTS)	WTH.	EAST	WEST
2400	10.133	0.317	0.349
0300	9.211	0.316	0.345
0600	9.810	0.317	0.362
0900	10.267	0.321	0.360
1200	11.261	0.320	0.366
1500	11.874	0.322	0.368
1800	11.134	0.323	0.364
2100	9.422	0.316	0.349

THE HOURLY SUMMARY TABLE FOR FALL 1963

HR	AVG.	DIRECTION	
VEL. (KNOTS)	WTH.	EAST	WEST
2400	9.026	0.312	0.358
0300	9.211	0.317	0.350
0600	9.022	0.323	0.345
0900	11.035	0.325	0.350
1200	11.440	0.321	0.356
1500	11.235	0.316	0.354
1800	8.874	0.325	0.357
2100	8.956	0.320	0.358

THE HOURLY SUMMARY TABLE FOR WIN. 1965

HR	AVG.	DIRECTION		STH.	WST	
VEL. (KNOTS)	WTH.	EAST	WEST	WTH.	EAST	WEST
2400	10.200	0.037	0.024	0.039	0.026	0.026
0300	10.057	0.036	0.024	0.033	0.030	0.030
0600	9.023	0.034	0.023	0.031	0.028	0.028
0900	10.000	0.040	0.023	0.035	0.028	0.028
1200	11.037	0.039	0.010	0.045	0.031	0.031
1500	11.000	0.037	0.014	0.047	0.026	0.026
1800	10.074	0.041	0.021	0.040	0.022	0.022
2100	10.039	0.039	0.019	0.043	0.025	0.025

THE HOURLY SUMMARY TABLE FOR SPR. 1965

HR	AVG.	DIRECTION		STH.	WST	
VEL. (KNOTS)	WTH.	EAST	WEST	WTH.	EAST	WEST
2400	11.000	0.031	0.017	0.059	0.019	0.019
0300	11.000	0.031	0.023	0.044	0.025	0.025
0600	11.000	0.030	0.022	0.042	0.026	0.026
0900	11.000	0.033	0.024	0.036	0.029	0.029
1200	11.000	0.033	0.027	0.036	0.029	0.029
1500	11.000	0.033	0.022	0.036	0.029	0.029
1800	11.000	0.033	0.022	0.037	0.029	0.029
2100	11.000	0.033	0.025	0.054	0.011	0.011

THE HOURLY SUMMARY TABLE FOR SUM. 1965

HR	AVG.	DIRECTION		STH.	WST	
VEL. (KNOTS)	WTH.	EAST	WEST	WTH.	EAST	WEST
2400	9.000	0.014	0.009	0.046	0.010	0.010
0300	9.000	0.017	0.031	0.056	0.013	0.013
0600	9.000	0.016	0.037	0.046	0.024	0.024
0900	10.000	0.013	0.041	0.046	0.020	0.020
1200	11.000	0.011	0.032	0.047	0.014	0.014
1500	11.000	0.010	0.046	0.049	0.007	0.007
1800	11.000	0.024	0.046	0.047	0.010	0.010
2100	9.000	0.010	0.061	0.051	0.010	0.010

THE HOURLY SUMMARY TABLE FOR FALL 1965

HR	AVG.	DIRECTION		STH.	WST	
VEL. (KNOTS)	WTH.	EAST	WEST	WTH.	EAST	WEST
2400	9.000	0.023	0.025	0.050	0.026	0.026
0300	9.000	0.021	0.025	0.043	0.030	0.030
0600	9.000	0.024	0.028	0.034	0.034	0.034
0900	10.000	0.021	0.029	0.037	0.031	0.031
1200	11.000	0.028	0.023	0.043	0.031	0.031
1500	11.000	0.027	0.013	0.045	0.034	0.034
1800	9.000	0.036	0.022	0.043	0.022	0.022
2100	9.000	0.023	0.027	0.056	0.019	0.019

THE HOURLY SUMMARY TABLE FOR WIN. 1966

HR	AVG.	DIRECTION		STH.	WST	
VEL. (KNOTS)	WTH.	EAST	WEST	WTH.	EAST	WEST
2400	9.422	0.036	0.023	0.032	0.021	0.021
0300	8.733	0.035	0.023	0.031	0.022	0.022
0600	9.011	0.032	0.023	0.033	0.023	0.023
0900	9.133	0.034	0.025	0.026	0.021	0.021
1200	10.422	0.037	0.025	0.031	0.021	0.021
1500	11.011	0.035	0.019	0.024	0.021	0.021
1800	9.022	0.032	0.022	0.047	0.019	0.019
2100	9.378	0.032	0.019	0.042	0.024	0.024

THE HOURLY SUMMARY TABLE FOR SPR. 1966

HR	AVG.	DIRECTION		STH.	WST	
VEL. (KNOTS)	WTH.	EAST	WEST	WTH.	EAST	WEST
2400	12.304	0.025	0.032	0.052	0.012	0.012
0300	12.174	0.029	0.031	0.044	0.027	0.027
0600	11.917	0.020	0.033	0.035	0.027	0.027
0900	13.023	0.020	0.024	0.032	0.021	0.021
1200	14.326	0.037	0.024	0.033	0.025	0.025
1500	15.109	0.037	0.022	0.039	0.026	0.026
1800	13.674	0.039	0.026	0.035	0.023	0.023
2100	11.359	0.035	0.033	0.041	0.012	0.012

THE HOURLY SUMMARY TABLE FOR SUM. 1966

HR	AVG.	DIRECTION		STH.	WST	
VEL. (KNOTS)	WTH.	EAST	WEST	WTH.	EAST	WEST
2400	10.239	0.007	0.049	0.067	0.027	0.027
0300	9.417	0.016	0.031	0.068	0.027	0.027
0600	9.446	0.020	0.024	0.065	0.027	0.027
0900	11.115	0.018	0.029	0.071	0.027	0.027
1200	12.250	0.024	0.024	0.067	0.012	0.012
1500	13.037	0.019	0.024	0.064	0.012	0.012
1800	12.652	0.022	0.027	0.058	0.027	0.027
2100	9.593	0.014	0.046	0.053	0.024	0.024

THE HOURLY SUMMARY TABLE FOR FALL 1966

HR	AVG.	DIRECTION		STH.	WST	
VEL. (KNOTS)	WTH.	EAST	WEST	WTH.	EAST	WEST
2400	9.462	0.024	0.020	0.052	0.022	0.022
0300	9.253	0.023	0.012	0.051	0.022	0.022
0600	8.429	0.019	0.014	0.045	0.022	0.022
0900	10.422	0.032	0.013	0.042	0.021	0.021
1200	11.308	0.036	0.012	0.052	0.021	0.021
1500	11.802	0.031	0.014	0.049	0.021	0.021
1800	8.864	0.034	0.013	0.042	0.023	0.023
2100	9.385	0.030	0.023	0.052	0.015	0.015

Concordia
Instrument Height
1965-1966 21 Feet

THE HOURLY SUMMARY TABLE FOR WIN. 1967

• HOUR	AVG.	DIRECTION		STH.	WEST
• VFL.(KNOTS)		NTH.	EAST		
• 2400	10.011	0.026	0.019	0.039	0.037
• 0300	9.767	0.031	0.016	0.035	0.037
• 0600	9.159	0.029	0.021	0.026	0.043
• 0900	10.029	0.031	0.022	0.031	0.041
• 1200	11.133	0.034	0.015	0.034	0.034
• 1500	12.067	0.034	0.016	0.037	0.032
• 1800	9.257	0.035	0.013	0.040	0.025
• 2100	9.767	0.031	0.013	0.041	0.031

THE HOURLY SUMMARY TABLE FOR SUM. 1967

• HOUR	AVG.	DIRECTION		STH.	WEST
• VFL.(KNOTS)		NTH.	EAST		
• 2400	11.141	0.009	0.013	0.048	0.012
• 0300	10.767	0.033	0.013	0.039	0.019
• 0600	11.273	0.034	0.024	0.032	0.023
• 0900	12.113	0.033	0.033	0.033	0.017
• 1200	11.315	0.034	0.033	0.037	0.022
• 1500	13.123	0.033	0.033	0.035	0.023
• 1800	11.231	0.031	0.041	0.030	0.013
• 2100	9.433	0.024	0.037	0.043	0.015

THE HOURLY SUMMARY TABLE FOR SUM. 1967

• HOUR	AVG.	DIRECTION		STH.	WEST
• VFL.(KNOTS)		NTH.	EAST		
• 2400	11.168	0.014	0.023	0.069	0.009
• 0300	7.253	0.015	0.021	0.065	0.017
• 0600	9.013	0.016	0.024	0.057	0.016
• 0900	9.272	0.019	0.025	0.055	0.020
• 1200	10.115	0.022	0.023	0.069	0.014
• 1500	13.273	0.024	0.027	0.061	0.009
• 1800	13.163	0.020	0.029	0.057	0.009
• 2100	7.989	0.017	0.033	0.063	0.007

THE HOURLY SUMMARY TABLE FOR FALL 1967

• HOUR	AVG.	DIRECTION		STH.	WEST
• VFL.(KNOTS)		NTH.	EAST		
• 2400	7.159	0.023	0.023	0.031	0.025
• 0300	7.846	0.021	0.017	0.043	0.038
• 0600	7.174	0.021	0.019	0.043	0.032
• 0900	7.956	0.032	0.016	0.044	0.027
• 1200	11.090	0.034	0.013	0.046	0.021
• 1500	13.063	0.031	0.029	0.043	0.026
• 1800	7.443	0.029	0.027	0.042	0.025
• 2100	7.034	0.023	0.026	0.039	0.012

THE HOURLY SUMMARY TABLE FOR WIN. 1968

• HOUR	AVG.	DIRECTION		STH.	WEST
• VFL.(KNOTS)		NTH.	EAST		
• 2400	9.623	0.037	0.015	0.042	0.025
• 0300	9.667	0.043	0.012	0.037	0.020
• 0600	9.973	0.032	0.015	0.032	0.029
• 0900	10.411	0.036	0.015	0.033	0.025
• 1200	12.347	0.047	0.013	0.037	0.023
• 1500	11.231	0.047	0.012	0.038	0.023
• 1800	8.933	0.043	0.019	0.034	0.025
• 2100	9.656	0.040	0.017	0.041	0.023

THE HOURLY SUMMARY TABLE FOR SUM. 1968

• HOUR	AVG.	DIRECTION		STH.	WEST
• VFL.(KNOTS)		NTH.	EAST		
• 2400	11.199	0.025	0.012	0.035	0.023
• 0300	11.224	0.026	0.012	0.043	0.022
• 0600	11.439	0.024	0.021	0.037	0.037
• 0900	13.172	0.030	0.013	0.032	0.032
• 1200	15.549	0.039	0.015	0.037	0.033
• 1500	14.467	0.037	0.016	0.039	0.035
• 1800	13.717	0.045	0.013	0.035	0.023
• 2100	13.576	0.025	0.022	0.046	0.022

THE HOURLY SUMMARY TABLE FOR SUM. 1968

• HOUR	AVG.	DIRECTION		STH.	WEST
• VFL.(KNOTS)		NTH.	EAST		
• 2400	10.727	0.014	0.033	0.066	0.012
• 0300	9.945	0.012	0.022	0.059	0.012
• 0600	9.804	0.011	0.024	0.059	0.019
• 0900	11.493	0.014	0.022	0.072	0.013
• 1200	13.723	0.022	0.019	0.073	0.012
• 1500	15.323	0.018	0.029	0.071	0.027
• 1800	17.100	0.020	0.034	0.064	0.027
• 2100	9.927	0.015	0.035	0.069	0.023

THE HOURLY SUMMARY TABLE FOR FALL 1968

• HOUR	AVG.	DIRECTION		STH.	WEST
• VFL.(KNOTS)		NTH.	EAST		
• 2400	10.297	0.025	0.017	0.065	0.025
• 0300	9.569	0.023	0.014	0.050	0.036
• 0600	9.176	0.025	0.015	0.041	0.041
• 0900	10.624	0.029	0.011	0.047	0.032
• 1200	12.176	0.041	0.011	0.048	0.022
• 1500	12.437	0.037	0.032	0.052	0.027
• 1800	9.137	0.039	0.012	0.054	0.019
• 2100	9.769	0.030	0.011	0.067	0.016

Concordia
Instrument Height
1967-1968 21 Feet

THE DAILY SURVEY TABLE FOR WIN. 1971

DATE	AVG.	DIRECTION	EAST	STM.	WEST
VEL (KNOTS)	WIND				
7-20	11.322	0.037	0.016	0.045	0.025
7-21	11.313	0.040	0.014	0.025	0.032
7-22	11.323	0.037	0.012	0.031	0.037
7-23	11.317	0.036	0.016	0.029	0.047
7-24	11.326	0.040	0.014	0.033	0.035
7-25	11.314	0.032	0.018	0.032	0.032
7-26	11.317	0.034	0.014	0.043	0.030
7-27	11.323	0.034	0.021	0.052	0.017

THE DAILY SURVEY TABLE FOR SPR. 1971

DATE	AVG.	DIRECTION	EAST	STM.	WEST
VEL (KNOTS)	WIND				
7-28	12.024	0.028	0.034	0.041	0.022
7-29	11.325	0.029	0.034	0.038	0.031
7-30	11.323	0.028	0.037	0.030	0.023
7-31	11.322	0.028	0.032	0.039	0.025
7-32	11.322	0.036	0.026	0.036	0.024
7-33	11.324	0.038	0.024	0.038	0.023
7-34	11.323	0.031	0.021	0.032	0.012
7-35	11.321	0.029	0.020	0.041	0.022

THE DAILY SURVEY TABLE FOR SUM. 1971

DATE	AVG.	DIRECTION	EAST	STM.	WEST
VEL (KNOTS)	WIND				
7-36	11.321	0.019	0.028	0.076	0.008
7-37	11.322	0.011	0.031	0.087	0.013
7-38	11.323	0.014	0.031	0.057	0.014
7-39	11.326	0.020	0.031	0.058	0.016
7-40	11.341	0.020	0.030	0.063	0.025
7-41	11.324	0.016	0.025	0.065	0.007
7-42	11.324	0.016	0.037	0.067	0.033
7-43	11.326	0.020	0.032	0.071	0.023

THE DAILY SURVEY TABLE FOR FALL 1971

DATE	AVG.	DIRECTION	EAST	STM.	WEST
VEL (KNOTS)	WIND				
7-44	11.325	0.027	0.019	0.055	0.027
7-45	11.331	0.019	0.020	0.054	0.031
7-46	11.326	0.027	0.016	0.047	0.034
7-47	11.324	0.032	0.014	0.045	0.035
7-48	11.321	0.032	0.013	0.045	0.036
7-49	11.321	0.041	0.038	0.049	0.027
7-50	11.321	0.028	0.013	0.050	0.023
7-51	11.323	0.031	0.016	0.052	0.014

Concordia
Instrument Height
1971- 21 Test

YEAR	SPENDS												EXPENSES																												
YEAR	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
JAN.	0	0	6	13	12	11	20	25	10	31	8	14	16	8	6	7	11	9	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
FEB.	0	0	8	9	10	12	16	23	15	27	6	21	18	15	16	13	10	5	6	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MAR.	0	0	9	4	9	13	16	19	9	17	11	6	17	20	14	11	15	3	11	1	5	5	1	2	3	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
APR.	0	0	6	12	9	11	9	19	13	27	15	15	7	23	12	7	10	3	9	10	5	2	1	0	0	0	2	0	0	3	1	2	0	0	2	0	2	0	2	0	2
MAY	0	0	7	11	11	14	28	20	13	26	16	4	14	3	11	9	10	6	5	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	0	1	5	5	9	11	15	17	18	19	10	27	27	17	15	10	15	12	1	2	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	0	1	7	19	12	16	20	26	15	23	19	20	23	17	13	5	2	7	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUG.	0	0	5	17	13	18	31	32	13	26	10	17	20	12	11	3	3	2	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEP.	0	0	12	9	22	17	22	14	17	24	17	20	26	5	11	5	6	4	1	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCT.	0	0	10	13	6	17	14	21	16	23	16	18	11	21	9	8	8	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NOV.	0	1	5	18	11	18	19	28	17	11	13	15	14	9	9	7	12	5	1	3	2	1	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEC.	0	0	10	11	9	14	20	25	26	16	12	17	11	13	12	12	12	0	3	1	2	1	0	1	0	1	1	0	1	1	2	1	0	0	1	0	1	0	1	0	

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Unit Steel Density

By the Length

Concordia

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1703

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505

1027

Instrument Weight

1953-1-25 21 3000

What does it mean?

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VMJRED	VMJRED	VMJRED	EPDA	EPDA	EPDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	10.50	13.97	12.33	16.33	50.50	22.54	35.36	47.50	0.00	37.22	CONCORDIA KANSAS
FEB.	9.67	12.95	11.59	15.07	36.90	16.02	22.16	31.73	0.00	33.97	CLARK COUNTY
MAR.	13.33	17.39	14.53	19.15	51.29	34.17	54.93	53.80	0.00	46.94	CORRECTED HT. 100 FT.
APR.	12.90	16.33	13.64	19.74	49.74	31.73	42.75	50.60	0.00	44.34	INSTRUMENT HT. 21 FT.
MAY.	11.50	14.93	13.22	17.39	44.33	26.43	36.32	46.88	0.00	41.12	PEAK LIMIT IS 16 KNTS.
JUNE	12.78	16.26	13.75	17.39	51.59	29.35	48.23	53.85	0.00	47.24	FRIC. LIM. IS 7KNTS.
JULY	10.68	14.12	11.92	15.69	43.52	22.18	34.09	40.57	0.00	39.97	CODE=1 COR. HT. FULK WAB.
AUG.	11.10	15.23	12.69	16.83	47.35	26.94	41.27	49.33	0.00	42.01	CODE=2 COR. HT. PER
SEP.	10.57	14.20	12.09	15.87	44.42	23.75	39.60	48.58	0.00	40.35	UNIT AREA KWH/M**2
OCT.	10.99	14.85	13.55	16.83	44.12	26.63	38.70	46.07	0.00	40.41	CODE=3 COR.HT. PER.
NOV.	9.97	12.21	11.10	14.69	35.00	18.33	23.90	35.59	0.00	31.21	UNIT AREA KWH/M**2
DEC.	12.01	15.92	13.88	17.85	54.23	28.29	42.16	50.23	0.00	44.06	WIND SPEEDS ARE IN KNOTS.
SUMS	11.12	14.92	13.15	17.01	46.13	23.62	47.25	53.98	0.00	490.29	

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VMJRED	VMJRED	VMJRED	EPDA	EPDA	EPDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	10.57	12.57	12.02	15.21	50.51	21.09	35.53	47.50	0.00	37.27	CONCORDIA KANSAS
FEB.	9.80	13.21	11.36	15.50	34.31	20.08	33.60	38.73	0.00	34.85	CLARK COUNTY
MAR.	10.51	14.07	12.89	16.64	50.39	22.59	35.15	42.83	0.00	37.57	CORRECTED HT. 100 FT.
APR.	11.21	15.88	13.40	17.33	54.53	25.55	39.10	46.24	0.00	40.59	INSTRUMENT HT. 21 FT.
MAY.	9.75	13.16	11.87	15.33	41.08	20.87	35.14	41.61	0.00	36.87	PEAK LIMIT IS 16 KNTS.
JUNE	11.16	14.85	13.25	17.33	45.13	23.44	40.44	43.20	0.00	42.23	FRIC. LIM. IS 7KNTS.
JULY	9.67	13.13	11.18	14.73	39.10	13.15	34.29	40.86	0.00	35.84	CODE=1 COR. HT. FULK WAB.
AUG.	9.62	12.55	11.05	14.61	35.93	17.18	32.44	38.32	0.00	34.05	CODE=2 COR. HT. PER
SEP.	9.44	12.86	10.90	14.45	34.31	17.00	32.28	38.55	0.00	33.82	UNIT AREA KWH/M**2
OCT.	10.77	14.41	12.51	16.32	44.40	24.32	31.95	45.82	0.00	40.99	CODE=3 COR.HT. PER.
NOV.	9.35	12.72	11.25	14.83	37.55	19.54	30.93	34.00	0.00	34.21	UNIT AREA KWH/M**2
DEC.	10.00	13.55	11.24	14.91	41.56	19.57	36.54	43.63	0.00	38.27	WIND SPEEDS ARE IN KNOTS.
SUMS	10.11	13.62	12.00	15.63	436.94	251.55	427.11	503.83	0.00	446.31	

MONTH	AVGVEL	AVGVEL	RMVEL	RMVEL	VMJRED	VMJRED	VMJRED	EPDA	EPDA	EPDA	INFORMATION
	OLD HT	NEW HT	OLD HT	NEW HT	CODE=1	CODE=2	CODE=3	CODE=1	CODE=2	CODE=3	
JAN.	10.95	14.67	12.29	16.15	47.06	23.33	41.28	49.34	0.00	43.28	CONCORDIA KANSAS
FEB.	11.58	15.40	13.31	17.22	49.49	25.80	43.33	51.84	0.00	45.47	CLARK COUNTY
MAR.	10.54	14.62	12.75	16.60	45.83	25.25	40.20	47.54	0.00	41.70	CORRECTED HT. 100 FT.
APR.	13.13	17.16	15.30	19.43	52.36	35.07	45.63	53.97	0.00	47.34	INSTRUMENT HT. 21 FT.
MAY.	11.39	15.14	13.18	17.09	43.25	27.49	42.32	50.57	0.00	44.36	PEAK LIMIT IS 16 KNTS.
JUNE	11.83	15.58	13.72	17.70	47.46	23.44	41.53	49.54	0.00	43.54	FRIC. LIM. IS 7KNTS.
JULY	11.02	14.76	12.34	16.21	47.39	25.19	42.00	50.03	0.00	43.89	CODE=1 COR. HT. FULK WAB.
AUG.	10.18	13.73	11.40	15.10	42.25	19.92	37.42	45.20	0.00	39.65	CODE=2 COR. HT. PER
SEP.	11.38	15.13	13.40	17.23	45.43	25.40	39.35	47.43	0.00	41.60	UNIT AREA KWH/M**2
OCT.	10.81	14.49	12.56	16.45	42.35	23.56	37.59	44.55	0.00	39.16	CODE=3 COR.HT. PER.
NOV.	11.34	15.06	13.26	17.13	45.13	28.15	40.13	43.10	0.00	42.19	UNIT AREA KWH/M**2
DEC.	11.80	15.72	13.45	17.39	43.65	27.40	42.67	50.47	0.00	44.27	WIND SPEEDS ARE IN KNOTS.
SUMS	11.35	15.13	13.15	17.05	534.04	319.03	494.73	519.77	0.00	516.43	

VITA

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A SURVEY OF THE WIND ENERGY POTENTIAL OF KANSAS

by

DAVID R. ODETT

B.S. Kansas State University, 1975

A MASTER'S THESIS

submitted in partial fulfillment of the
requirements for the degree

MASTER OF SCIENCE

Department of Electrical Engineering

Kansas State University

Manhattan, Kansas

1977

ABSTRACT

The energy content of the wind at several locations in Kansas is listed as well as the parameters related to the energy content of the wind. Also listed is information concerning the seasonal and the daily variation of wind speeds and wind directions. A discussion is made of the effect of wind turbine design parameters on the collection of energy from the wind. Suggestions are made concerning the future role of wind energy in Kansas.