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METEOROLOGICAL OBSERVATIONS

MADE AT THE

BLUE HILL METEOROLOGICAL OBSERVATORY,

MASSACHUSETTS, U. S. A.,

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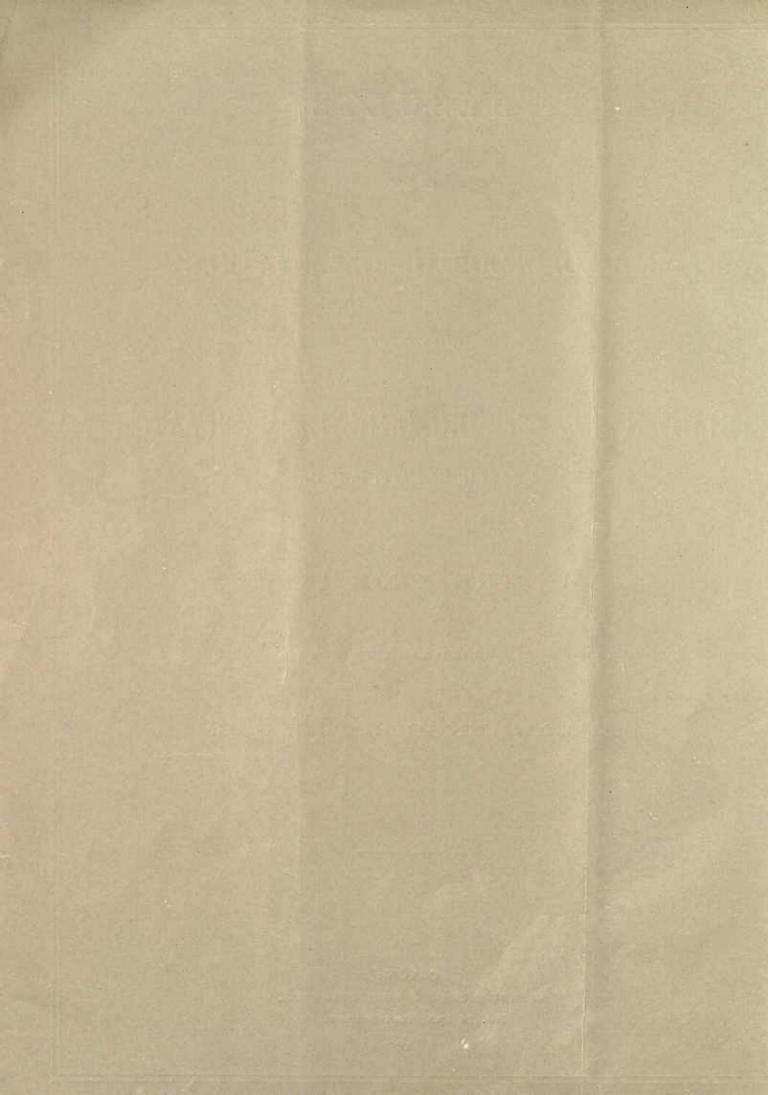
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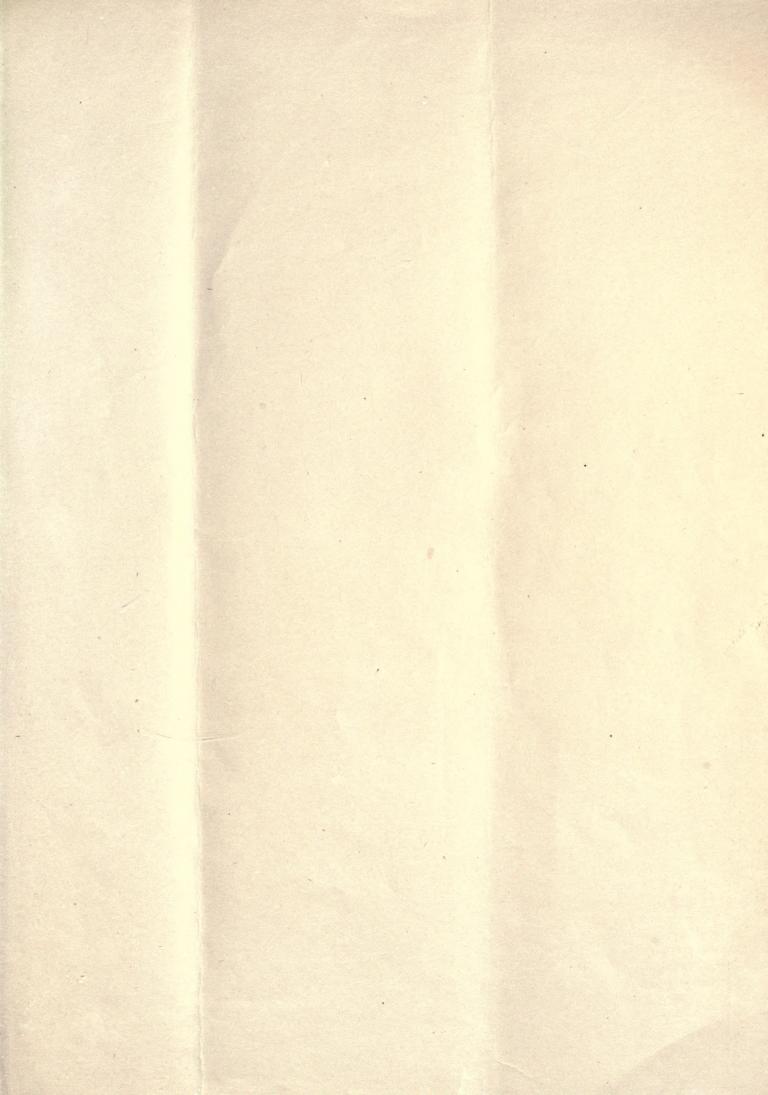
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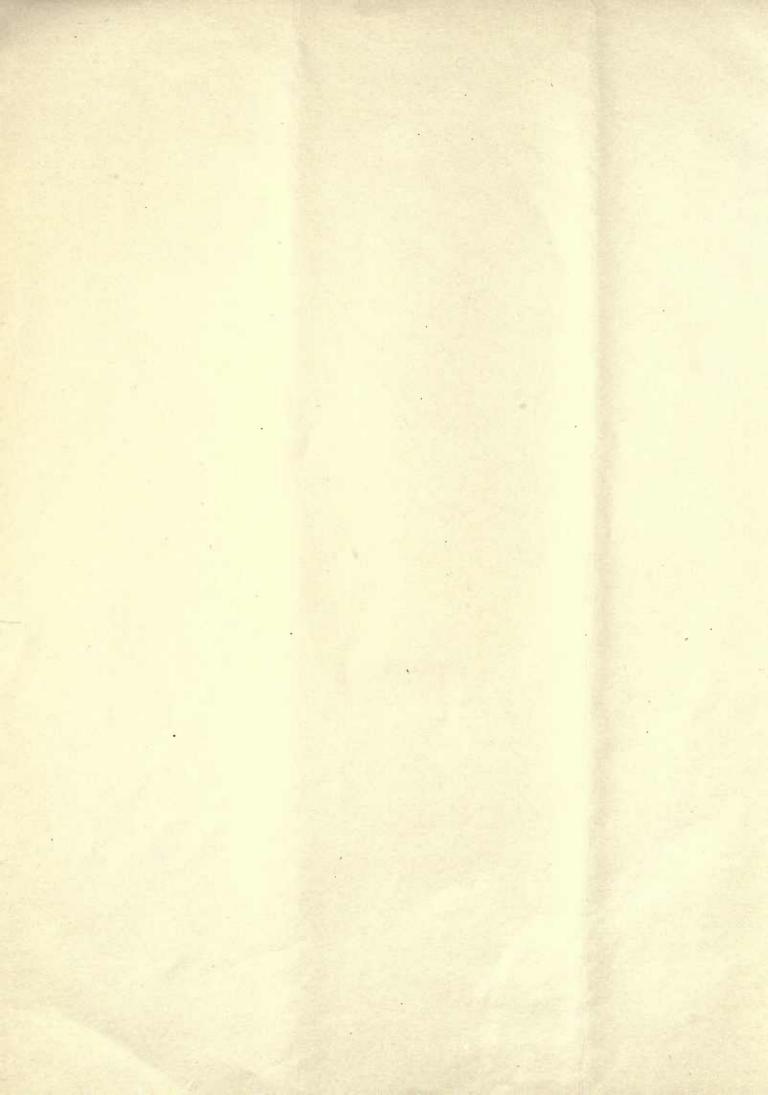
A. LAWRENCE ROTCH, S. B.

BOSTON : ALFRED MUDGE & SON, PRINTERS, No. 24 Franklin Street.

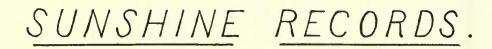
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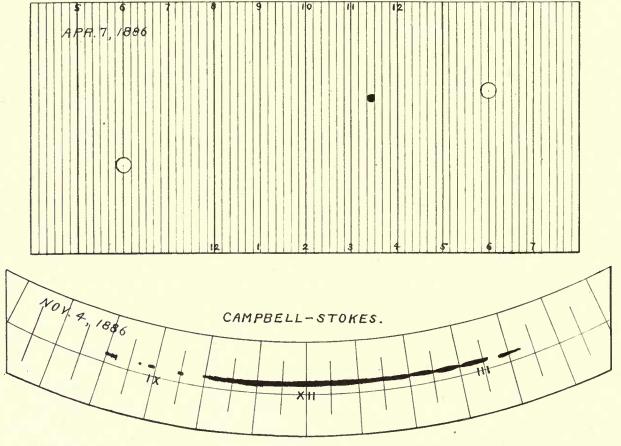




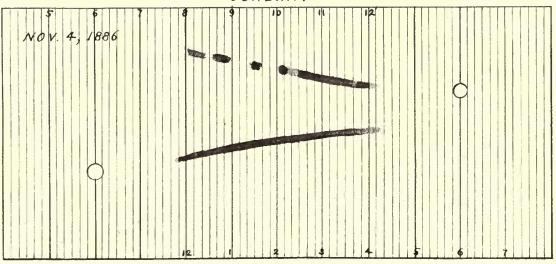
FOR DESCRIPTION OF INSTRUMENTS SEE PAGE VIII.

CAMPBELL-STOKES.





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RESULTS

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OF THE

METEOROLOGICAL OBSERVATIONS

MADE AT THE

BLUE HILL METEOROLOGICAL OBSERVATORY,

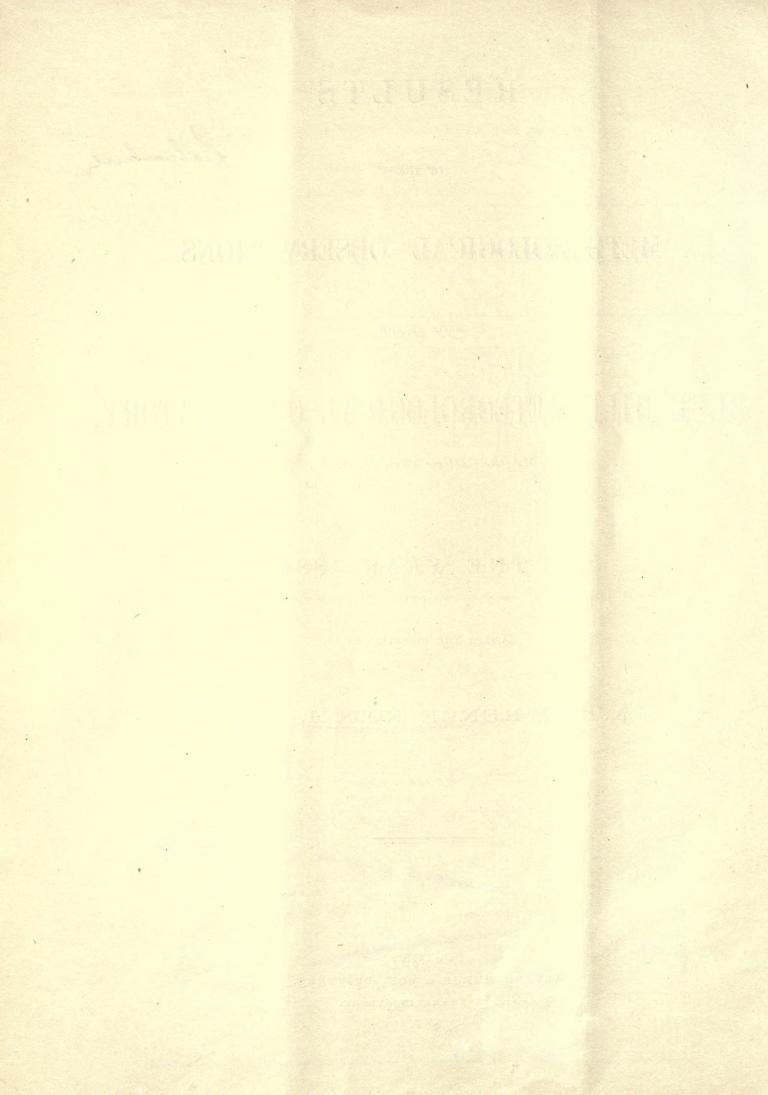
MASSACHUSETTS, U. S. A.,

IN THE YEAR 1886:

UNDER THE DIRECTION OF

A. LAWRENCE ROTCH, S. B.

BOSTON: ALFRED MUDGE & SON, PRINTERS, No. 24 FRANKLIN STREET. 1887.



BLUE HILL DISSERVATIONS FOR S

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ERRATA AND ADDENDA

TO THE

BLUE HILL OBSERVATIONS FOR 1886.

Page viii. — To the description of the Sunshine Recorders, add : "Records of both the instruments are given in the Frontispiece."

Pages 3 to 7. — Supply the following omitted dates on which western mountains were visible : —

Nobscot: March 22, June 22, August 4, November 22. Wachusett: December 28. Monadnock: July 12.

Page 3; April 7. - Amount of sunshine, read 0 h. 6 m., instead 0 h. 0 m.

Page 3; April 7. - Per cent of sunshine, read 01, instead 00.

Pages 3 and 8. — Duration of bright sunshine for April, read 177 h. 25 m., instead 177 h. 19 m.

Page 8. — Duration of bright sunshine for year, read 2,098 h. 19 m., instead 2,098 h. 13 m.

Pages 16 to 27. — The total wind movements for each day are not always the exact sums of the hourly movements, as they were otherwise obtained.

Page 18. — Mean wind movement for March, 3-4 P. M., read 25.4, instead 2.54.

Page 31. — Sum for last eight days of February, at 2 P. M., read 232.400, instead 332.400.

Page 32. — Monthly sum for March, at 10 P. M., read 904.303, instead 304.303. Page 39. — In the sums for the last eleven days of October, from 5 A. M. to 11

P. M., inclusive, the three left-hand figures of each column read 323, instead 393 or 293.

Page 44. — In the description of the phenomena of April 7, insert: "For the automatic sunshine record, see the Frontispiece to this volume."

Page 45. — To the mention of the humidity record of November 4, add: "The record of this day's sunshine is shown in the Frontispiece."

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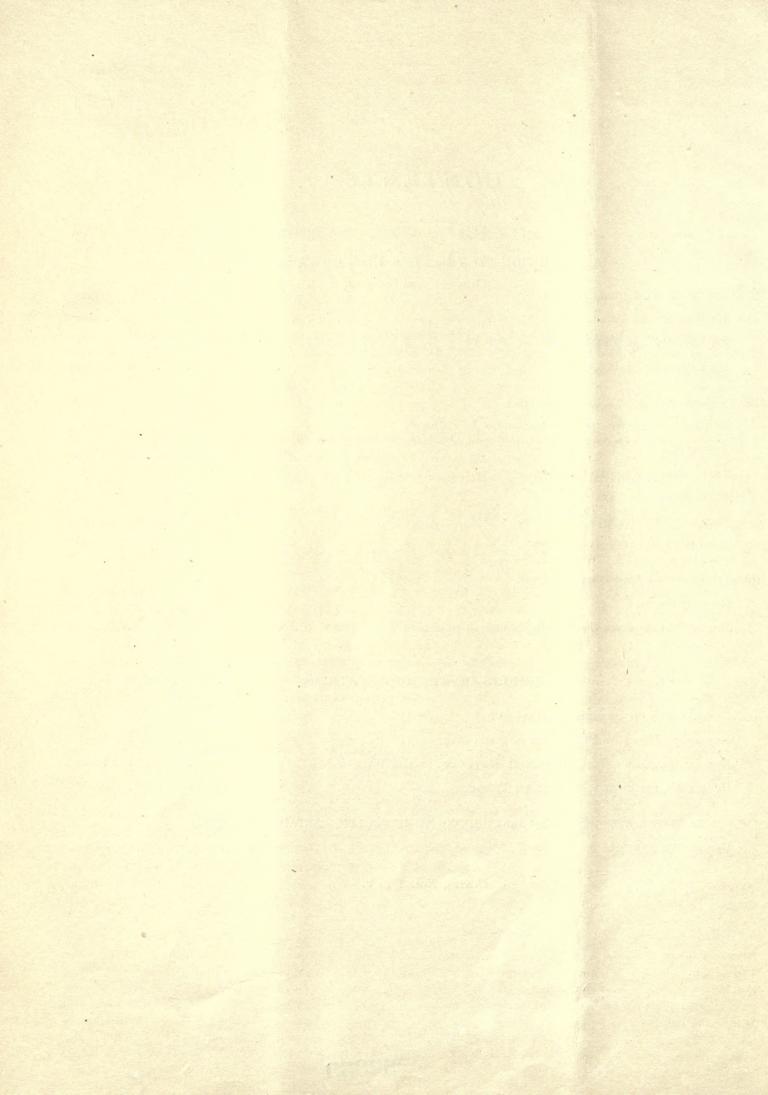
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INTRODUCTION TO THE BLUE HILL OBSERVATIONS.

AN ACCOUNT OF THE OBSERVATORY.

Its History and Personnel. — The Blue Hill Meteorological Observatory was established as a private observatory by the undersigned in 1885, and is now one of the best equipped meteorological stations in the United States. Tri-daily observations were commenced Feb., 1, 1885, and have since been regularly made at the hours of 7 A. M., 3 and 11 P. M., seventy-fifth meridian time, adopted by the United States Signal Service. Monthly summaries of these observations have been sent to the New England Meteorological Society for publication in its Bulletin, to the Signal Service for its Weather Review, and to persons interested. A summary of the observations for the year ending Jan. 31, 1886, together with a summary of the corresponding observations made at the Boston Signal Service station, ten and one half miles north of and five hundred and fifteen feet below the observatory, was printed and distributed. Besides the regular meteorological observations, considerable experimental work has been done, notably in weather predictions. Details of this work may be found in a pamphlet by the undersigned, printed not published, entitled An Account of the Foundation and Work of the Blue Hill Meteorological Observatory.

The current expenses of the observatory, amounting to about \$2,500 a year, are paid by the undersigned, who directs the work. Mr. Willard P. Gerrish was the observer during the first year, and since that time the position has been filled by Mr. H. Helm Clayton. Frank Brown has acted as steward from the opening of the observatory.

Its Location and Description. — Great Blue Hill, upon whose summit the observatory stands, is situated in Norfolk County, Massachusetts, partly in the town of Milton and partly in that of Canton. The elevation above sea level is about six hundred and thirty-five feet, and it is thus not only the highest land in eastern Massachusetts, but is also the highest point within ten miles of the Atlantic coast from Maine to Florida. Great Blue Hill exceeds the other summits of the Blue Hill range by more than one hundred feet, and the surrounding country being low, its exposure is free in all directions, which renders it admirable as a site for a meteorological station, uninfluenced by the causes which affect the records of most of the Government Signal Stations. A road nearly a mile long, and practicable for carriages, has been built up the hill, and a telephone line connects the observatory with Boston. The position of the observatory is fixed by a brass plate on the lower floor of the tower. This marks the supposed site, 2.2 feet below the plate, of the copper bolt set by Simeon Borden, about 1834, for the Massachusetts Trigonometrical Survey, in latitude 42° 12′ 44″ N., longitude 71° 6′ 53″ W., and 635.05 feet above mean tide. The bolt set by the United States Coast and Geodetic Survey, in 1844, is 27.35 feet N. 11° 16′ E. of the supposed site of the Borden bolt.

The observatory itself is a two-story circular tower, twelve feet in diameter inside and twenty-five feet high, built of the broken stone found on the hill. This contains some of the instruments, others being exposed above its flat roof which is surrounded by a parapet. Extending southward from the tower is a one-story hiproof house with two bedrooms, a dining-room and kitchen. This is also built of stone, but has a wooden shed attached. In the construction of the building every precaution was taken to insure solidity, the walls being twenty inches thick and the roof securely anchored to them. It has, however, been found impossible to make the walls impervious to rain which is driven by the high wind through the minute cracks which the stone must contain, and several coats of marine varnish have not rendered it water-proof. A large stove in the lower room of the tower heats the upper room through a regis^ter, and by its flue and that of the kitchen range also warms the other rooms. In the cellar is a wooden tank which collects the rain falling upon the roof. A safe built into the chimney protects the records and charts from fire. The cost of the building, designed by Messrs. Rotch and Tilden, was about \$3,500.

Its Auxiliary Stations. — A station was established July 1, 1886, at the foot of the hill, four hundred and forty feet below the observatory and three quarters of a mile northwest of it, which is visited daily. It is provided with maximum and minimum thermometers and a Draper thermograph exposed in a Hazen shelter, and with a rain gauge similar to that on the hill. Some curious variations of temperature and precipitation between the two stations have been noted, but enough data has not yet been accumulated for publication. Another station in Milton and one in the neighboring town of Randolph send monthly records of temperature and precipitation to the observatory, which receives reports of the synchronous observations made at the Boston Signal Service station.

THE INSTRUMENTS AT THE OBSERVATORY.

Remarks concerning the Self-Recording Instruments. — A feature of the instruments is their automatic record, the "eye" observations of the standard instruments serving only as a control upon the registration. With the exception of the force of the wind, the species of clouds and their direction of motion, all the elements observed are recorded continuously. So far as possible, the principle of having duplicate instruments for use in case of accident is applied. The register sheets of all the instruments are changed daily at 11 P. M., at which hour the meteorological day ends.

Barometers. — The barometers are kept in a glass case in the lower room of the tower, where the temperature is most uniform, though a considerable range of temperature necessarily occurs in winter between the day and the night. The barometer cisterus are six hundred and forty feet above mean tide.

The standard since November, 1885, is Hicks, No. 818. This barometer is constructed on the Fortin system, has a tube about 0.5 inch in diameter, and is read by a vernier directly to 0.002 inch. The instrumental correction, as determined at Kew Observatory, in October, 1885, is ± 0.009 inch, including capillary action. As compared indirectly with the Signal Service standards at Washington, in February, 1886, its corrected readings are 0.015 inch too low. A Green barometer, No. 2,677, of the Signal Service pattern, reading also to 0.002 inch, is kept as a reserve instrument. It was formerly used as the standard, its readings being 0.017 inch lower than the assumed Kew standard now adopted by the observatory.

A Draper self-recording mercurial barometer, in a glass case near the other barometers, has given an almost continuous record since May, 1885. The principle of this instrument, which was constructed by Black and Pfister, of New York, is as follows: A glass tube thirty-six inches long, with the upper portion of larger diameter than the lower, is held firmly in a vertical position, and filled in the usual manner with quicksilver; its lower or open end dips into a tube or reservoir containing the same metal. This reservoir is suspended on two spiral steel springs, and has freedom of motion up and down. When the pressure of the atmosphere diminishes, a portion of the mercury flows out of the tube into the reservoir; this, becoming heavier, stretches the steel springs, causing the ink pencil fastened to them to mark downwards. If the pressure increases, the reverse movement takes place. The ink pencil makes its mark on a ruled paper register, carried at the rate of half an inch per hour from right to left by a clock. The movement of the pencil on the register can be magnified to any extent by increasing the length of the spiral springs; in this instrument it multiplies three times. The ink pencils used in the Draper instruments are tubes of glass filled with red ink, which touch lightly against the paper register; the advantage of these over lead pencils is that little or no pressure is required. This barograph gives the correction for temperature, or reduction to 32°, from the fact that it weighs the column of mercury instead of measuring its length, which is affected by heat. There is a slight temperature error caused by the unequal bore of the tube and by the expansion of the steel springs, but this is very small. Since July, 1885, the record has been checked by daily comparisons with the standard barometer, and the barograph is now so well regulated that the average correction is only 0.01 inch. Tracings of the barograph, somewhat reduced in size, are shown in Plates Nos. 1 and 1 A, at the end of this volume.

An aneroid barograph, made by Richard Brothers, of Paris, is kept as a reserve instrument. It consists of eight small aneroid boxes placed one above the other, which, by means of a pen on the end of a lever, register the variations of atmospheric pressure upon a paper-covered drum, which is revolved by clockwork inside. Unlike the Richard instruments in general, the drums of those constructed for this observatory revolve once a day instead of once a week, thereby making the time scale much larger. For an aneroid barometer this is remarkably accurate.

Thermometers and Hygrometers. — These are exposed in a wooden louvre shelter built from a north window of the tower, fifteen feet above the ground. In its construction special pains were taken to secure ventilation by making the roof double and setting the shelter six inches out from the wall, and to cut off radiation from inside the tower by having double windows. Comparisons have been made between this shelter and an isolated one built according to Prof. H. A. Hazen's specifications, now adopted by the Signal Service as the standard. Except during rapid changes of temperature, when the wall shelter was somewhat sluggish, the error of the latter was less than $+0.5^{\circ}$. For convenience the window shelter is employed.

The observatory standard thermometers are Hicks, No. 252,161, verified at Kew, and Baudin, No. 10,682. The working standards are H. J. Green wet and dry bulb and maximum and minimum thermometers. These have been frequently compared with the standard instruments, and the resulting corrections applied.

A Richard thermograph has been in use since April, 1886. This instrument has a curved brass tube filled with alcohol, which straightens by the expansion of the alcohol when the temperature rises, and recurves again when the temperature falls and the alcohol contracts. The motion of the tube is registered on a drum by means of a pen on a lever. The error of the thermograph, ascertained several times daily by comparison with the standard thermometer, is not more than 0.5°, except for the maximum and minimum temperatures which are obtained from the maximum and minimum thermometers, and their hours of occurrence only from the thermograph.

In cold weather a Koppe hair hygrometer, made by Hottinger, of Zürich, has been used to determine the relative humidity and the dew point. In winter the mean relative humidity given by the hair hygrometer is about six per cent lower than that calculated from the readings of the wet and dry bulb thermometers, which are known to give erroneous results at low temperatures. In summer the mean relative humidity obtained by the two methods agrees within one per cent. An Alluard condensation dew point apparatus is occasionally used as a check upon the other instruments.

A Richard registering hygrometer has been in use since April, 1886, and has given satisfactory results for such an instrument, its error relative to the hair hygrometer or psychrometer being noted several times daily. The hygrometric material employed is a thin strip of horn, whose alteration in length with variations of moisture is registered, as in the thermograph, upon a drum, which revolves once a day, giving a time scale of three tenths of an inch per hour. Sheets from these instruments are shown in Plates Nos. 2 to 5, slightly reduced in size.

Anemoscope and Anemometers. — The instruments for measuring the direction, velocity, and force of the wind are exposed about ten feet above the roof of the tower and thirty-five feet above the ground.

A Draper recording anemoscope and anemometer, made by Black and Pfister, have given almost continuous records since March, 1885, with the exception of short periods when repairs were necessary. The anemoscope is constructed as follows: From the wind vane a vertical shaft descends into the tower. The lower end of the shaft carries a brass cylinder covered with paper to receive the record of the oscillations of the wind. An ink pencil, bearing lightly against the paper, descends from the top to the bottom of the cylinder in the course of twenty-four hours, its movement being regulated by a clock. When the wind shifts, the paper register, therefore, correspondingly turns and the pencil makes a trace of the movement; if there is a calm, the pencil makes a straight line downward, a gentle breeze being sufficient to cause the cylinder to oscillate on each side of its mean direction. On the sheet of paper are printed the eight points of the compass and the hours, the trace thus showing the direction and all the variations of the wind, with the times of their occurrence. A reduced copy of the anemoscope sheet, after removal from the cylinder, is given in Plate No. 7.

The principle of the Draper anemometer is this: On the ends of a cross supported by a vertical shaft are four hemispherical cups, which, by the action of the wind, are caused to revolve with a speed, as determined by Dr. Robinson, of about one third the velocity of the wind. On the lower end of the shaft, thus made to revolve by the cups, is an endless screw connecting with a train of wheels which move a cam. This is so arranged that one turn of the cam corresponds to twenty miles movement of the wind. An ink pencil, which rests on the edge of the cam and slides in vertical guides, is carried by each revolution of the cam from the bottom to the top of a sheet of paper, which is drawn aside by a clock at the rate of half an inch per hour. The number of times that the pencil moves from the bottom to the top of the paper, multiplied by twenty, gives the number of miles that the wind has travelled in an hour or day. A reduced copy of the anemometer sheet is shown in Plate No. 6.

A smaller Robinson anemometer records electrically by the Gibbon self-register each mile travelled by the wind. This apparatus, which is that made for the Signal Service by the Hahl Manufacturing Company, of Baltimore, has been used during 1886. On account of the open time scale of the register (two inches per hour), it serves to show the velocity of brief gusts of wind better than does the Draper anemometer, and is also available to supply breaks in the latter record.

The average movements recorded by the Draper and Signal Service anemometers differ by less than one per cent. The latter instrument, in a series of tests, gave about five per cent lower velocities than did a Hicks portable anemometer, whose dial was graduated at Kew Observatory by comparison with the standard anemometer.

A wind pressure gauge, constructed from the writer's designs by the Crosby Steam Gauge Company, of Boston, has been in use during 1886. A vane keeps a disk with a square foot of surface normal to the wind, whose pressure stretches a spring in the tail of the vane and leaves an index at the maximum pressure in pounds, to which it has been subjected. After the pressure has been converted into velocity by the formula $v = \sqrt{\frac{p}{0.005}}$, where v is the velocity in miles per hour, and p is the pressure in pounds per square foot, the velocity thus obtained agrees closely with the maximum velocity for a period of five minutes, as registered by the Signal Service anemometer. The extreme velocity of the gusts would naturally be expected to exceed the mean velocity for five minutes, and this is generally found to be the case. The agreement is closest at moderate velocities, but whether this is owing to the inertia of the pressure plate causing it to be sluggish with light winds, or whether the velocity of the gusts exceeds in a greater ratio the mean velocity during high winds than during low winds, has not been determined.

Rain and Snow Gauges. — Three of these have been used during 1886. They are placed near one another in a freely exposed position, one hundred and fifty feet northeast of the observatory, with their rims within two feet of the ground.

The standard rain gauge is a copper cylinder, fourteen inches deep, with a turned brass rim eight inches in diameter. The rain is measured with a stick in a tube having one tenth the area of the receiver. This is the gauge recommended by the New England Meteorological Society. To ascertain the rainfall during a storm without emptying the gauge, it is weighed upon a spring balance compensated for the weight of the empty gauge and graduated to indicate 0.02 inch.

The standard snow gauge has an aperture similar to the rain gauge. The receiver is sixteen inches deep, and is enlarged below to keep the snow from blowing out, this plan having been tried in Europe. The gauge, with the unmelted snow, is weighed upon the spring balance, which is compensated as before for the weight of this empty gauge. This method obviates loss by evaporation in melting the snow for measurement, and enables the snowfall to be quickly ascertained.

The self-recording rain and snow gauge constructed after the writer's design, by Richard Brothers of Paris, has been in use since March, 1886. The receiver in this gauge rests upon a platform balance, and when rain falls its weight causes the balance to record the amount and time of occurrence of the rain upon a revolving drum, as in the other Richard instruments. Tracings of this gauge, slightly reduced in size, are shown in Plates Nos. 8 and 9. To adapt it to snow another receiver is used, which is deeper, with an inner shield to prevent clogging by sleet. The author believes this to be the first successful attempt to record snow automatically without first melting it. The records of the registering gauge agree fairly well with those of the standard with which they are compared. The former gauge has been surrounded by a flaring wire screen on the Nipher system to protect it from the wind, and more snow has thereby been caught in windy weather than before.

Sunshine and Cloud Instruments.— The sunshine recorders are placed on the south parapet of the tower, with no obstructions to affect their records. A level stand in the centre of the tower roof with a meridian reference line serves as a base for the cloud mirror.

A Campbell-Stokes sunshine recorder, which has been in operation during 1886, is the standard instrument in Europe for registering sunshine, but it is believed that there are none used in the United States. It consists of a glass ball held in a concentric frame at the distance of the focal radius from the centre of the ball. This frame holds a strip of cardboard which is charred whenever the sun shines brightly, and by the apparent motion of the sun the hours into which the cardboard is divided are successively traversed by its image. The strip is adjusted in the frame to give approximately the standard time of the seventy-fifth meridian.

A Jordan synshine recorder, made by Negretti and Zambra of London, has also been in use the past year. A brass cylinder, with its axis parallel to the earth's axis, has in its opposite sides two holes through which the sun shines upon sensitized paper, and the traces thus made are rendered permanent by immersing the paper in water. This generally records more sunshine than does the burning instrument, whose action is stopped when the sun is partly obscured by cirrus clouds or light haze.

A cloud mirror for the measurement of the azimuth and altitude of clouds has been used by Mr. Clayton. Frequent measurements, in degrees of azimuth, of the direction of motion of the clouds, particularly those of the cirrus type, have been made but are not ready for publication. The altitude of the clouds is obtained by first calculating their velocity of motion by noting the time which their shadows require to traverse known distances on the plain below. Only clouds of the stratus and cumulus types give shadows which can thus be used. The velocity of a cloud being known, two angular measurements of its altitude, at a definite interval of time apart, enable its height to be calculated.

THE REDUCTION OF THE OBSERVATIONS.

General Results. — The daily results refer to the twenty-four hours ending at 11 P. M. The figures in the first four columns following the date, pages 2 to 7, are the daily means obtained from observations at 7 A. M., 3 and 11 P. M., seventy-fifth meridian time, according to the practice of the Signal Service. Until April, eye observations were taken at these hours; after that, the data for 7 A. M. and 3 P. M. were generally obtained from the sheets of the self-recording instruments, controlled by eye observations of the standard instruments made at least twice a day.

All temperatures are expressed in Fahrenheit degrees.

The table used for the reduction of the barometer to 32° is that computed from Schumacher's formula, and contained in the *Instructions for Voluntary Observers of the Signal Service*. The reduction to sea level from a height of six hundred and forty feet is effected by a table calculated from Laplace's formula, in which the arguments are the temperature of the external air and the height of the barometer corrected to 32°. The correction to reduce to the standard gravity of latitude 45°, is -0.007 inch, which is the constant employed by the Boston Signal Office. The barometer reduced to sea level and standard gravity is only used in the monthly and annual means and extremes. The actual barometer is also given in the means.

The dew point and relative humidity are calculated from the readings of the wet and dry bulb thermometers, by means of the table, computed for a barometric pressure of thirty inches, contained in the above *Instructions*; or inversely, the dew point is calculated from the relative humidity, when such is obtained from the hygrometer.

The hours of actual sunshine are got from the Campbell-Stokes instrument, and the daily percentage of possible sunshine is determined from the average possible duration of sunshine in latitude 42°, which is given for each month in Jelinek's *Anleitung zur Ausführung Meteorologischer Beobachtungen*, revised by Dr. Hann. From the number of hours thus found, thirty minutes are subtracted daily to allow for the time when the sun, on account of its proximity to the horizon, does not affect the register.

The mean cloudiness for the first three months was obtained from tri-daily eye observations. After March it is assumed to be the complement of the percentage of bright sunshine, the cloudiness thus got having been found here and elsewhere to be about four per cent less than that obtained from eye observations. In the Annual Summary, page 8, the mean cloudiness has been obtained from the sunshine for all the months. The transparency of the air from March to December, inclusive, is indicated by the record of visibility of distant mountains, which subtend about the same visual angle as seen from Blue Hill, the highest mountains being the most distant. The height above the sea of Nobscot is 602 feet; Wachusett, 2,018 feet; and Monad-nock, 3,170 feet; their distances from Blue Hill being as stated in the records.

The prevailing direction of the wind and its daily movement are omitted from these tables, because they appear in the Hourly Values, pages 10 to 28. In the Annual Summary, page 8, the table of monthly means and totals is compiled from the preceding monthly sums and means. The figures for sunshine and precipitation, and the number of days with precipitation which are given as yearly means, are, strictly speaking, the monthly averages of these elements for the year. In the table of monthly extremes, the first three columns should be headed "Barometer Reduced to 32°, Sea Level and Standard Gravity," instead of "Pressure," etc., as printed.

Hourly Values from the Self-Recording Instruments. — The tabulation of all the sheets from these instruments has been done by Mr. Clayton, so that the personal equation introduced is nearly constant. The figures in the tables have been added by the arithmometer of Thomas de Colmar. The maximum values are indicated in the sums and means of the pressure and wind velocity, and in the annual summary of the wind direction, by heavy-faced type, and the minimum values by light-faced type. The ten-day means of pressure and wind velocity can be easily obtained from the ten-day sums by moving the decimal point.

The hours of prevalence of each wind, pages 10 to 13, need no special explanation. The anemoscope from which the data are derived gave a continuous record during the year except on Jan. 30, when the action of the vane was impeded by ice, and on thirty-two hours distributed through the year, when the direction of the wind was otherwise obtained. Only two hours of calm are given, but the record of the sensitive electrical anemometer shows that in reality there were no absolute calms of an hour's duration during the year.

The hourly wind movements, pages 16 to 28, are also continuous with the exception of the last four days of January, when both anemometers were stopped by ice. A few other breaks in the Draper record, besides the values for very low velocities, have been supplied by the records of the electrical anemometer. The two hours of eahn, before mentioned, however, remain.

The hourly data for the atmospheric pressure, pages 30 to 42, are complete for each honr, the values for four scattered hours, missing from the Draper barograph sheets, having been interpolated. The figures given are the readings, corrected for temperature and instrumental error, the latter being ascertained several times daily, and the correction for each hour interpolated. For economy in printing the hourly values, twenty-nine inches is omitted, unless the pressure for the same hour of the preceding day is twenty-eight or thirty inches; and twentynine is to be supplied elsewhere when no whole inches are given. The double diurnal maxima and minima are indicated in the sums and means by heavy and light faced type.

These are among the most complete hourly values of wind velocity and atmospheric pressure which have been published for a few stations in the United States.

> A. LAWRENCE ROTCH, Blue Hill Meteorological Observatory.

MAY, 1887.

 (\mathbf{IX})



GENERAL RESULTS

OF THE

METEOROLOGICAL OBSERVATIONS

MADE AT THE

BLUE HILL METEOROLOGICAL OBSERVATORY,

IN THE

YEAR 1886.

	Meltcd Snow.* Inches.	.02 .08 .08 .08 .08 .08 .50	0.62	6
	Rainfall.*		7.67	8.29
3.8	Cloud- iness.† 0-10	00000410000000000000000000000000000000	5.9	
	IINE.	00000000000000000000000000000000000000	25	•
Х.	SUNSHINE H'rs. Min. Per	10 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	127 15 4 47	Total Precipitation
EBRUARY	Range.	$\begin{array}{c} 13.5\\ 15.5\\ 15.5\\ 15.5\\ 15.5\\ 15.5\\ 15.7\\$	17.7	Total Pr
D'	Min. Temp.	$\begin{array}{c} 10\\ 10\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0$	15.0	∞.
BF	Max. Temp. °	2282 2282 2282 2292	32.7	23.8
FE	Relative Hum. Per cent	$\begin{array}{c} & & & & & & & & & & & & & & & & & & &$	72.8	Min.) .
	Dew Point, °	$\begin{array}{c} 15.0\\$	17.6	Mean (Max and Min.)
	Air Temp. °	11.20 1.	23.2	Mean (2
	Barom. Red. to 32°. Iuches.	$\begin{array}{c} \begin{array}{c} 29.169\\ 360\\ 360\\ 372\\ 372\\ 372\\ 372\\ 372\\ 372\\ 372\\ 372$	29,257	29.990
4 (B	Day of Month.	<u>઼ૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡ</u>	Sums. Means.	Red. to Sea Level and Stan. Gravity.
	Melted Snow. Inches.		1.34	5.17
	Rainfall. Inches.	.05 .02 .76 .76 .52 .14 .14 .05* .03*	3.83	5.
	Cloud- iness.† 0-10	040004000000000000000000000000000000000	6.0	•
	NE.	3988888888888851388628888888888888888888888888888888888	42	
k.	SUNSHINE. Brs. Min. Per cent.	40000000000000000000000000000000000000	118 15 3 48	Total Precipitation
JANUARY	Range, H	$\begin{array}{c} 114.1\\ 114.1\\ 13.6\\ 13.6\\ 13.6\\ 13.6\\ 13.6\\ 13.6\\ 13.6\\ 13.6\\ 14.3\\ 16.6\\ 117.7\\ 14.3\\ 16.6\\ 117.7\\ 116.1\\ 16.6\\ 117.7\\ 116.1\\ 16.6\\ 117.7\\ 116.1\\ 16.6\\ 117.7\\ 116.1\\ 16.6\\ 117.7\\ 116.1\\ 16.6\\ 117.7\\ 116.1\\ 16.6\\ 117.7\\ 116.1\\$	15.0	Total Pr
UА	Min. J	221:0 221:0	15.5	0.
Z	Max. Temp.	$\begin{array}{c} 446.0\\ 85$	30.5	23.0
$\mathbf{J} \not\in$	Relative Hum. Per cent	52882828282888888888888888888888888888	76.3	MIn.)
	Dew I Point.	$\begin{array}{c} 331.9\\ 331.8\\ 331.8\\ 331.8\\ 331.8\\ 331.8\\ 331.6\\ 33$	18.9	Mean (Max. and Mln.)
	Air Temp.	23.5.5.1 23.5.5.0 23.5.5.0 23.5.5.0 23.5.5.0 23.5.5.0 23.5.5.0 23.5.5.0 23.5.5.0 23.5.5.0 23.5.5.0 23.5.5.0 25.5.0 25.5.5.0 25.5.5.0 25.5.5.0 25.5.5.0 25.5.5.0 25.5.5.0	23.1	Mean (A
	Barom. Red. to 32°. Inches.	$\begin{array}{c} 29.314\\ 29.314\\$	29.286	30.018
	Day of F Month.	1999479960119994999666666666666666666666666666	Sums. Means.	Red. to Sea Level and Stan. Gravity.

* The daily amounts are proportioned by means of the Boston record. † Obtained from tri-daily eye observations.

> * Proportioned hy means of Boston Signal Service record. † Obtained from tri-daily eye observations.

Day of	Barom. Red. to 32°.	Air Temp.	Dew I Point.	Relative IIum.	Max. 7	Min. I	Range.	SUNSHINE.	INE.	Cloud- Iness.†	Rainfall.	Melted Snow.	Day of	f Red. to 32°.	1. Air 32°. Temp.	r Dew p. Point.	v Relative t. Hum.	ive Max.	x. Mln. pp. Temp.	n. Range.	ige.	SUNSHINE.		Clond- R	Rainfall.	Melted Snow.
Month.	Inches.	0	•	Per cent	0	0	•	H'rs. Min.	Per cent.	0-10	Inches.	Inches.	Month.							0		Il'rs, Min. Per	Per eent.		Inches.	Inches.
नंदां लं मं म्द्र	28.960 28.716 28.716 28.976 29.118 29.118 .091		-7.2 4.7 11.3 20.1 18.6			21.5 21.5 21.5	$ \begin{array}{c} 12.0\\ 22.0\\ 16.9\\ 15.5\\ 15.5 \end{array} $		860009 861188	40000		10.	-i ci ci 4i vi	29	1	1					0.000110	}	88888	01-010	1	.14 Inap.
ن. به به ب	090 1355 1355 1356 1356 1356 1356 1356 1356		13.1 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1				9.9 15.3 16.0 13.1 13.1 13.1		2429988888	C 00000000	8 <u>.</u> 8	.02 .01	organia		56 35.3 05 35.3 37 45.4 50 35.7 45.4 46.7 46.7 46.7 46.7 46.7						12.1 9.5 9.5 9.5 9.5 9.5 11 11 15 11 11 15 11 11 15 15 15 15 15		8888488	00004400	The sector of th	Inap.
11212000118110001181 1121000011810001181 112100001181	25,025 29,149 29,149 28,1317 2	332 325 325 325 325 325 325 325 325 325	22222222222222222222222222222222222222	8800338833988	889.9 399.9 36.7 36.1 37.5 37.5 244.6 27.5 244.6 27.5 27.5 27.5 27.5 27.5 27.5 27.5 27.5	222.5 222.5 225.5 225.5 225.1 225.5 225.5 225.5 225.5 25.5	112.2 113.5 113.5 112.1 112.0 113.0 110.0 110.0 110.0 110.0 110.0 110.0 110.0 110.00	$\begin{array}{c} 112226840\\ 112226840\\ 112226840\\ 11222686\\ 11222686\\ 11222686\\ 1122268\\ 112268\\ 112$	110004888025110 110004888055110	00-401220000	.28 .08 .32 1.18 Inap.	.20	55555556565656 249955856665666	1859 1859 1859 1859 1955 1955 1955 1955				88 60 60 60 60 60 60 72 72 72 72 72 72 72 72 72 72			115.0 10	000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8881673325460 8886733253660 888673325	54664400000-	e.	
	29.169 26.169 26.268 2650 .2650 .650 .710 .710 .272		114.4 114.4 119.5 32.0 33.0 54.1 54.1			119.0 119.0	13.2 13.2 13.2 13.4 14.1 14.6 17.0 17.8 17.8		000338000	100000000000000000000000000000000000000	.02 .12 .12 .12 .38 .38 .11 .11		14885888		•				410.8 41		221.0 221.0 221.0 222.0 22.0 2.0 2.0 2.0 2.0 2.0 2.0 2.	,	6623555555 25255555 2525555 252555 25255 255555 2555555	- G C C 4 G 4 G 4 G	.06 .03 .05	
Sums. Means.	29.161	30.6	23.0	71.5	38.3	23.1	15.2	144 05 4 40	41	6.8	2.53	.52	Sums. Meaus.	. 29.426	26 45.8	8 35.5	5 70.0	0 56.0	.0 37.7	.7 18.3	.3 5	19 55	46	5.4	2.02	.14
Red. to Sea Level and Stan. Gravity.	29.879	Mean (Max, and Min.)	ix, and M	. (.ul	30.7		Total Pr	Total Precipitation	•		j	3.05	Red. to Sea Level and Stan. Gravity.	o el n. 30.126 y.		Mean (Max. and Min.)	nd Min.)		46.8	Tot	Total Precipitation	itation .		:	2.16	9

APRIL.

MARCH.

NOBSCOT (distant 20 miles). -1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 14, 16, 17, 18, 21, 23, 25, 26. WACHUEETT (distant 44 miles). -1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 16, 17, 18, 22, 23, 25, 26. MONADNOCK (distant 68 miles). -1, 2, 3, 4, 5, 6, 7, 10, 16, 18, 22, 23, 25, 26.

DAYS ON WHICH WESTERN MOUNTAINS WERE VISIBLE. Nobscor (distant 20 miles). ---1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 17, 18, 19, 22, 23, 24, 25, 26, 27, 28, 30. WACHUSETT (distant 44 miles). ---1, 2, 3, 4, 8, 9, 10, 11, 12, 23, 24, 25, 26, 27, 28, 30. MONADNOCK (distant 68 miles). ---9, 10, 11, 26.

DAYS ON WHICH WESTERN MOUNTAINS WERE VISIBLE.

K.
K
T.
1

JUNE.

Melted Snow. Inches.		00	5
Rainfall. Inches.	19. 10. 18. 17. 10. 19. 19. 19. 19. 19. 19. 19. 19. 19. 19	1.52	1.52
Cloud- iness. 0-I0	9250w1200w4w4000200000000000000000000000000	5.4	•
INE. Per cent.	48802728888000020888800004288400 100242888000008888000020888400	46	:
SUNSHINE. Il'rs. Min. Per cent.	81 040 080 080 070 074 070 07	202 30 6 45	Total Precipitation
Range.	10.5 10.5	16.8	Total Pre
Min. Temp.	8282844428865666666666666666666666666666	53.3	
Max. Temp.	$\begin{array}{c} 1.12\\$	70.1	61.7
Relative Hum. Per cent	845959555555888558885589555555555555555	73.2	Min.) .
Dew Point.	4750644066666666666666666666666666666666	51.4	Mean (Max. and Min.)
Air Temp.	625.25 625.25	61.1	
Barom. Red. to 32°. Inches.	20,423 13857 13857 13857 13857 1442 1442 1442 1442 1442 1445 1445 1445	29.293	29.966
Day of Month.	1989459665966119545951866618888888888888888888888888888888	Sums. Means.	Red. to Sea Level and Stan. Gravity.
Melted Srow. Inches.		00.) 4(
Rainfall. Inches.	Inap. .45 .45 .45 .45 .28 Inap. .01 .01 .01 .01 .01 .01 .01 .01	3.94	3.94
Cloud- Iness. 0-I0	101045700504505705545400150900000	4.9	•
IINE. Per cent.	88528845253888888885855288858555	52	
SUNSHINE H'rs. Min. Per	8112 812 812 812 812 823 823 823 823 823 823 823 82	219 45 7 5	Total Precipitation .
Range.	20.5 20.5	18.3	Total P1
Ran			
Min. Rai Temp.	85 2 8 4 4 4 4 4 4 4 4 8 8 4 4 8 8 4 4 4 4	45.7	8.
Max. Min. Temp. Temp. °		64.0 45.7	54.8
Min. Temp.	88 28 84 44 44 44 46 87 44 48 44 49 45 49 44 48 56 49 44 48 49 49 49 49 49 49 49 40 40 40 40 40 40 40 40 40 40 40 40 40	69.4 64.0]
Max, Min. Temp, Temp, °	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	43.3 69.4 64.0]
Relative Max. Min. Hum. Temp. Temp. Per cent °		54.0 43.3 69.4 64.0	Mean (Max. and Min.) .
Dew Relative Max. Min. Point. Hum. Temp. Temp. • Per cent •	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	43.3 69.4 64.0]

28, 20, 30.
WACHUSETT (distant 44 miles). - 3, 5, 9, 10, 16, 18, 19, 20, 21, 22, 26, 27, 28, 29, 30.
MONADNOCK (distant 68 miles). - 18, 19, 20, 27, 28, 29, 30.

DAYS ON WHICH WESTERN MOUNTAINS WERE VISIBLE. Nobscot (distant 20 miles). --1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, 20, 21, 23, 26, 27,

> NOBSCOT (distant 20 miles). --1, 2, 3, 4, 5, 6, 7, 9, 10, 14, 15, 16, 17, 18, 20, 21, 22, 26, 27, 28, 29, 30. WACHUEETT (distant 44 miles). --6, 7, 9, 10, 14, 15, 16, 17, 18, 21, 26. MONADNOCK (distant 68 miles). --6, 7, 9, 15, 16, 17, 18, 21, 26.

DAYS ON WHICH WESTERN MOUNTAINS WERE VISIBLE.

AUGUST.

JULY.

Melted Snow.		8	2
Ralafali. Inches.	86. 59. 59. 59. 59. 59. 59. 59. 59. 59. 59	3.95	3.95
Cloud- iness. 0-10	444011004010011001001401000000004400	3.9	•
INE. Per cent.	1055255512885555522008568852250556	61	
SUNSHINE. H'rs. Min. Per	00000000000000000000000000000000000000	253 31 8 11	Total Precipitation
Range.	119.88 111.55	18.5	Total P
Mia. Temp.	19 19 19 19 19 19 19 19 19 19 19 19 19 1	57.1	66.3
Max. Temp.	8.62 8.62	75.6	099
Relative Hum. Per cent	£6833333585538835238835238888888888888888	75.0	Min.) .
Dew Polnt.	48.484 48.484 49.544 49.55 49.55 40.54 40.54 40.55	56.7	Mean (Max. and Mhr.)
Alr T'emp.	688.888 699.792 699	65.4	Mean (A
Barom. Red. to 32°.	202152 20	29.290	29.956
Day of Month.	Hore 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Sums. Means.	Red. to Sea Level and Stan. Gravity.
Melted Bnow.		00	
Ralafall, Melted Inches.	Inap. 1.11 1.11 1.11 1.11 1.11 1.13 .02 .11 .03 .08	2.26 00	2.26
bes.	0 8 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	30	
Cloud. iness. Rainfail. cent. 0-10 Inches.	H H H	2.26	
Cloud- Incess. Ralafall. 0-10 Inches.	ожованароводиние савелено с Савелено савелено саве	4.6	
SUNSHINE. Cloud. Ralofall. H'rs. Mio. Per cent. 0-10 Inches.	935 900 9	55 2.26 39 54 4.6	
ge. SUNSHINE. Cloud. Ralofall. H'rs. Min. Per cent. 0-10 Inches.	4 24 24 24 24 24 26	236 55 2.26 7 39 54 4.6	Total Precipitation 2.26
Range. SUNSHINE. Cloud. Ralofall. • H'rs. Min. Per cent. 0-10 Inches.	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	236 55 2.96 18.5 7 39 54 4.6	
Min. Temp. Range. SUNSHINE. Cloud. http://remov. Range. Ralofall.	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	· 236 55 2.96 60.5 18.5 7 39 54 4.6	. 69.7 Total Precipitation
Max. Min. SUNSHINE. Cloud. Temp. Temp. Range. BUNSHINE. • • HTs. Mio. Per cent.	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	79.0 60.5 18.5 7 39 54 4.6	. 69.7 Total Precipitation 2.26
Relative Hum. Max. Min. SUNSHINE. Cloud. Range. • • • • • Ralofall. Per cent • • • H'rs. Min. Per cent. 0-10 Inches.	52 78.0 56.4 21.6 14 20 100 0 611 77.0 56.4 21.6 14 20 210 50.4 77 87.0 51.2 25.8 110 000 021 88 77 87.0 61.2 25.8 110 000 000 210 88 65 91.0 65.8 21.1 1110 87 21.1 1110 87 883.1 66.8 25.2 110.6 20.2 1110 811 90.5 810 900 901 77 92	73.1 79.0 60.5 18.5 7 39 54 4.6	Total Precipitation 2.26
Dew Point: Relative Hum. Max. Min. SUNSHINE. Cloud. * Per cent * * #'rs. Min. Per cent. 0-10 Inches.		58.0 73.1 79.0 60.5 18.5 7 39 54 4.6	. 69.7 Total Precipitation 2.26

NoBSCOT (distant 20 miles). --1, 2, 7, 8, 9, 11, 12, 13, 14, 15, 17, 18, 19, 20, 23, 24, 25, 26, 27, NOBSCOT (distant 20 miles). --1, 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, DAYS ON WHICH WESTERN MOUNTAINS WERE VISIBLE. DAYS ON WHICH WESTERN MOUNTAINS WERE VISIBLE.

NOBSCOT (distant 20 mues). --1, 2, 3, 0, t, 5, 9, 10, 11, 12, 15, 14, 10, 14, 15, 19, 20, 21, 23, 24, 25, 26, 31. 23, 24, 25, 26, 31. WACHUSETT (distant 44 miles). --2, 3, 4, 8, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25. MONADNOCK (distant 68 miles). --3, 4, 15.

29, 30, 31.
WACHUSETT (distant 44 miles). -1, 7, 11, 12, 13, 23, 24, 29.
MONADNOCK (distant 68 miles). -1, 7, 11, 23, 24.

SEPTEMBER.

OCTOBER.

Day of	Barom. Red. to 32°.	Air Temp.	Dew R Point.	Relative Hum.	Max. Temp.	Min. Temp. 1	Range.	SUNSHINE.	INE.	Clond.	Rainfall.	Melted	Day of	Barom. Red. to 32°.	Air Temp.	Dew Point.	Relative Hum.	Max. Temn.	Min.	Range.	SUNBHINE	INE.	Cloud-	Rainfall.	Melted
Mouth.	Inches.	o	°	Per cent	0			H'rs. Min.	Per cent.	0-10	Inches.	Snow.	Month.	Inches.			Per cent		0		H'rs. Min. Per cent.	Per cent.	0-10	Inches.	Snow.
ic	29.340	59.2	45.7		67.8	54.0	13.8		75	e3 -			1.	29.138	47.8	37.0	72	64.9	40.5	24.4		48	20		
ni aci	.135	1.20	46.3	20 20 20	74.1		24.6 92.0	9 45 19 0	001	- ¢			സ്റ	.553	40.8	28.2	1 03	51.9	8.78 25.80 25.80	19.1	S 35	1001	21 0		
4.	747	57.8	55.2		64.5		13.5		8	10			ਂ ਜਾਂ	375	54.1	41.2	615	90.1 1.00	30.9 41.0	25.0		388	2		
	769.	61.6	57.6		67.1	This	10.3		63	4			 	478	50.4	43.3	E	56.1	46.0	10.1		87	П		
515	201.	6.19	63.6 67.8		76.1 21 A	61.6	14.5		100 11 11	900			φt	.422	55.0	42.0	19	64.2	44.7	19.5		68			
ŝ	.499	70.2	63.2		80.9		17.3	9 20	0.85	00			- a	140.	7.0F		2F	60.6 80.6	45.0	9.6		95 96	00		
.6	.354	0.17	05.2				17.2		65	14	10.		6	.447	65.4	50.5	62	76.0	51.4	24.6		96	00		
11.	502.	62.0	62.4 55.0	_			0.0		01	10	.46		10.	.551	59.4		69	65.3	55.6	1.0		06			
12.	.129	64.1	0. 1 0				18.8	8 0 IS	Te	<u>م</u> من	.08		11.	253	63.9		67	76.6	54.5	1.02		65	51 4	04	
13.	020	57.2	42.9	_			14.0		96		27		13.	.452	47.5		8	61.0	45.7	15.3		00	10		
15.	.589	01.9 59.8	0.16				10.8	9 20 10 40	2. CO	01 -			14.	369	0.33.0 7.7		73	60.2	43.9	16.3	00	86	110	Inap.	
16.	574	6.09	59.1			57.8	6.5		00	10	.10		16.	494	34.2		0.00	46.4	28.1	18.3		06		#0.	
15.	.396 649	69.0	67.4				10.2	11 90	17	00 0	.34		12.	.656	37.7		56	46.3	24.6	21.7		73	en ç	Ţ	
19.	.376	61.6	42.0 58.3		07.9		14.6		3.5	01-	01		201 201	.666 859	46.0		401-	48.9	42.9	6.0	0 0	004	10	II.	
20.	.264	51.3	38.3 20.3 20.3	09		43.3	24.7	10 02	2000	· 61 ;	1		20.	279.	52.0	47.1	848	61.1	40.7	20.4		67	ရေး၊	,	
22.	092	47.2	33.8				19.4	10 15	R 22	- 6			21.	326	52.4	37.S	20 C	62.0 60.8	43.0	19.0	10 90	100		Inap.	
23.	.443	49.0	49.0				4.3		00	10	1.51		181	.514	44.5	27.9	59	54.5	40.0	14.5		100	0		
1.61		00.0 49.6	42.5		56.25	47.7	N. 12	6 50	19	4 4			24.	.728	00.00 00.00 00.00	30.7	20	45.0	53.7	11.3	9 30 1 2	16		Tnon	
26.	.249	65.8	62.0				24.9	2 50	242	4 00 H			26.	101.	45.7	44.6	638	50.2	43.1	1.1		80	90	.01.	
	202	63.8 69.8	69.4 69.4				20.3	6 20	54	10 0	10.		27.	.500	44.2	44.2	100	45.5	42.6	6.7		88	10	1.79	
29.	.260	56.4	50.0		66.5	52.3	14.2	00000	35		.20 Inap.		29.5	.286	44.0	47.6	100	49.0	45.9			38	10	19.	
30.	£27.	53.6	47.9				11.1	1 0	60	6	Inap.		30. 31.	.150	45.7	45.5 48.2	100	51.1	40.8 46.0	7.3	0 0 0 25	0040	10	1.64	
· · · · · · · · · · · · · · · · · · ·																									
Sums.							H	101 0			3.08	00	Snms.								176 38			4.87	00
Meuns.	29.440	60.2	52.7	78.0	69.1	53.7	15.4	6 22	53	4.7			Means.	29,459	49.5	40.6	74.4	57.7	42.2	15.5	5 42	54	4.6		
Red to				1			-	+								-	-								
Sea Level and Stan. Gravity.	30.118	Mean (M	Mean (Max. and Min.)	in.) .	61.4		Total Precipitatiou	cipitatiou	•	•	3.08	8(Red. to Sea Level and Stan. Gravity.	30.152	Mean (Mean (Max, and Min.)	Min.) .	50.0	0.	Total P1	Total Precipitation		•	4.	4.87
	DAYS	NO	WHICH WESTERN	WES	TERN		MOIINTAINS		WERE VI	VISIBLE				ΛV	NOS	WHIG	LAN EL	and the second	N NO	A TVTT	A VS ON WHITE WESTERN MOUTHING IN THE AND AND	TRF V	TATAT	F	
		1TO		NAL I	TATELTO		TTTTT			TTATA				DA1	AD CF	NTTT AA	W TIC	UTT TOT	OW V	TTYN	W ONTIN	UNE V	TOTOT	·171	

NOBSCOT (distant 20 miles). --1, 2, 3, 4, 6, 13, 14, 15, 16, 17, 18, 21, 22, 23, 24, 25, 26. WACHUEETT (distant 44 miles). --1, 2, 3, 14, 15, 16, 17, 21, 22, 23, 24. MONADNOCK (distant 68 miles). --1, 2, 3, 16, 17, 22, 23, 24.

NoBSCOT (distance 20 miles). --2, 3, 7, 8, 9, 11, 12, 13, 14, 15, 18, 19, 20, 21, 22, 24, 25, 26, 27, 29, 30. WACHUSETT (distant 44 miles). --2, 7, 9, 11, 12, 13, 14, 18, 19, 20, 21, 22, 27, 29. MONADNOCK (distant 68 miles). --11, 13, 18, 20, 22, 27, 29.

Meited Snow. Inches.	60.	1.00 .02 .38	4. 4.	Inap. .03 .35 .20	2.51	7
Rainfall. Inches.	Ħ.		Inap. .15 .15 .10 .10	.09 1.15 28	3.03	5.54
Cloud. intess. 0-10	9410	0000000		000000000000000000000000000000000000000	5.9	•
IINE.	85 85 85 85 85	2888888	4888668668668	00010008888888888888888888888888888888	41	
SUNSHINE H'rs. Min. Per	-17 55 33 12 45 5 25 5	0021000 32000	0004000004000 000000000000000000000000	000140000 000140000 0000000000000000000	110 55 3 33	Total Precipitation
Range.	18.8 17.6 9.8 13.2	10.9 17.9 18.8 16.1 14.9	$\begin{array}{c} 14.2\\ 4.4\\ 2.0\\ 110.2\\ 120.5\\ 111.3\\ 120.3\\ $	$ \begin{array}{c} 13.3\\ 16.4\\ 16.3\\ 10.3\\ 110.3\\ 24.9\\ 24.$	15.1	Total Pr
Min. Temp.	28.2 13.9 9.0 8.0	$\begin{array}{c} 3.3\\ 15.2\\ 15.2\\ 25.4\\ $	223.25 233.25 235.25 235.25 25 25 25 25 25 25 25 25 25 25 25 25 2	26.2 34.4 112.8 110.2 120.2	17.9	ض ۲
Max. Temp.	47.0 31.5 21.2	14.2 28.0 31.5 40.3 31.5	840.0 840.0	$\begin{array}{c} 32.6\\$	33.0	25.5
Relative Hum. Per cent	55 55 54	865 2 2 2 3 2 3 3 9 9 9 9 9 9 9 9 9 9 9 9 9	1001 1000 1000 1000 1000 1000 1000 100	222 861 861 862 862 862 862 862 862 862 862 862 862	73.3	Min.) .
Dew Point,	29.2 0.6 0.8 0.8	3.0 14.5 15.1 24.7 24.7	220.2 221.5 221.	26.4 46.1 30.4 11.9 30.4 11.9 3.8 3.8 3.8 3.8 17.8 17.8 17.8	17.5	Mean (Max. and Min.)
Air Temp.	34.9 19.6 12.7 12.4	$\begin{array}{c} 10.0\\ 21.4\\ 25.1\\ 31.7\\ 34.6\\ 34.6\\ \end{array}$	80.5 80.5 80.5 80.5 80.5 80.5 80.5 80.5	33.7 46.1 25.1 17.0 17.0 14.0 14.0 11.0 11.0	25.1	Mean (2
Barom. Red. to 32°. Inches.	28.916 28.816 29.223 29.223	.672 .439 .459 .645 .645	. 453 . 483 . 407 . 28. 851 . 28. 936 . 28. 975 . 28. 975 . 29. 564 . 443 . 443 . 448 . 457 . 4577 . 4577 . 4577 . 4577 . 4577 . 4577 . 4577 . 4577 . 45777 . 4577	203 203 204 204 204 204 204 204 204 204 204 204	29.351	30.082
Day of Month.	ಗೆಂದೇ ಹೇ	nério de la compañía de la compañía La compañía de la comp	19544647899998	18749888888888 1874988888888888888888888888888888888888	Sums. Means.	Red. to Sea Level and Stan. Gravity.
Melted Snow. Inches.			.18		.18	9
Rainfall. Inches.		.28 .44 .10	.18 .88 .20	.38 .32 .02 .1nap,	2.98	3.16
Clond- iness. 0-10	96794	001040	000110000 000110000	010000000	5.1	•
HNE. Per cent.	$ \begin{array}{c} 8.8\\ 8.0\\ 8.0\\ 8.0\\ 8.0\\ 8.0\\ 8.0\\ 8.0\\$	100 051 051 051 051 051 051 051 051 051	822426888888888888888888888888888888888	000 000 000 000 000 000 000 000	49	•
SUNSHINE. H'rs. Min. Per (00000000000000000000000000000000000000	0 3 4 4 4 4 4 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0	140 5 4 40	Total Precipitation
Range.	12.5 16.7 19.7 17.3	18.6 11.5 27.9 14.6 13.9 13.9	$\begin{array}{c} 15.0 \\ 15.0 \\ 17.0 \\ 23.0 \\ 25.0 \\ 115.0 \\ 125.$	222.1 282.0 18.2 18.5 18.5 18.5 18.5 18.5 18.5 18.5 18.5	15.9	Total Pr
Min. Temp.	$\begin{array}{c} 45.1\\ 45.3\\ 43.3\\ 39.2\end{array}$	36.4 27.2 25.5 25.4 34.3	98.5.2 99.5.2 99.5.2 99.5.2 99.5.2 99.5.2 99.5.2 99.5.2 99.5.2 99.5.2 99.5.2 99.5.2 99.5.2 99.5.2 99.5.2 99.5.2 99.5.2 99.5.2	22.11 22.00 22.14 22.11 22.14 22.11 22.14 22.111	32.7	9
Max. Temp.	57.6 62.0 63.0 56.5	55.0 57.0 37.1 48.9 48.9	44.6 44.6 34.6 34.6 51.0 551.0 551.0 450.0	60.2 60.2 86.2 87.2 87.2 87.2 87.2 87.2 87.2 87.2 87	48.6	40.6
Relative Ifum. Per cent	851 0 85 6 8 1 8 8	100 100 100 100 100 100 100 100 100 100	5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5	8 8 8 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4	72.3	Min.) .
Dew 1 Point, °	47.1 42.0 50.5 34.2	35.4 16.7 23.7 23.7 23.7 23.7	36.3 34.2	22.5 22.5 22.5 22.5 22.5 22.5 22.5 22.5	31.3	Mean (Max. and Min.)
Air Temp.	50.3 52.1 53.7 49.0	47.3 36.5 37.1 39.9	88.0 88.1 88.2 87.2	427.3 29.1 29.1 43.2 43.2 43.2 43.2	40.1	Mean (M
Barom. Red. to 32°. Inches.	29.266 .415 .323 .308	$\begin{array}{c} 532\\ 28.862\\ 29.215\\ 422\\ 388\\ 388\end{array}$.379 28.736 29.036 .357 .357 .357 .357 .357 .357 .357 .357		29.253	29.957
¥					And a state of the	Red. to Sea Level and Stan. Gravity.

DAYS ON WHICH WESTERN MOUNTAINS WERE VISIBLE.

Nonscor (distant 20 miles). -1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 24, 25, 26, 27, 28, 29.

WACHUSETT (distant 44 miles). --1, 2, 4, 5, 7, 8, 9, 11, 13, 14, 15, 16, 17, 18, 20, 21, 22, 24, 25, 26, 27, 28. MONADNOCK (distant 68 miles). --1, 2, 4, 5, 7, 8, 9, 13, 14, 15, 16, 18, 21, 22.

DAYS ON WHICH WESTERN MOUNTAINS WERE VISIBLE.

NOBSCOT (distant 20 miles). ---1, 2, 3, 4, 6, 8, 9, 14, 15, 16, 17, 19, 20, 25, 26, 27, 28, 29. WACHUSETT (distant 44 miles). ---3, 4, 6, 8, 14, 16, 25, 26, 27, 29. MONADNOCK (distant 68 miles). ---3, 4, 6, 8, 14, 25, 27, 29.

DECEMBER.

NOVEMBER.

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MONTHLY MEANS AND TOTALS.

Na. of Days	with .01 in. ar more Pre- cipitation.	4°5°51125°54	132 11
и.	Total. Inches.	5.17 5.17 5.17 5.19 5.29 5.29 5.4 5.4 5.4 5.4 5.4	46.99 3.92
PRECIPITATION	Meltcd Snow. Inches.	$\begin{array}{c} 1.34\\ 1.32\\\\\\\\\\\\\\\\ $	5.31
H	Rainfall. Inches.	8.7.9.9.8.1.9.9.8.4.9.9 8.7.8.9.9.6.6.9 8.7.8.9.9.8.6.9.8.8.9 8.6.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8	41.68
Cloud.	iness. 0-10	50 70 70 40 40 40 60 40 40 70 80 70 00 40 80 40 00 10 00 10 00	č,1
SUNSHINE.	Per cent. af Possible.	4444554554644 8444554644 844654644	49
	Duration. ours. Min.	5003803550419555 50038503550 5003850 5003850 5003850 5003850 5003 5003	13 51
BRIGHT	Dura Haurs.	$\begin{array}{c} 118\\177\\176\\177\\176\\1191\\176\\110\\110\\110\\110\\110\\110\\110\\110\\110\\11$	2,098 174
Range	of 'Femp, °	17.7 17.7 18.3 18.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17	16.7
Min.	Temp.	$\begin{array}{c} 15.5\\ 15.5\\ 15.0\\ 23.1\\ 53.3\\ 53.3\\ 53.3\\ 53.3\\ 53.3\\ 17.9\\ 53.7\\ 17.9\\$	37.9
Max.	Temp.	$\begin{array}{c} 30.5\\ 32.7\\ 32.7\\ 556.0\\ 650.1\\ 759.6\\ 69.1\\ 69.1\\ 33.0\\ 33$	54.6
Relative	Hum. Per cent	$\begin{array}{c} 76.3\\ 76.3\\ 71.5\\ 73.2\\ 73.2\\ 73.2\\ 73.2\\ 73.3\\$	73.3
	Paint.	18.9 17.6 17.6 17.5 17.5 17.5 17.5 17.5 17.5	37.3
Air	Temp.	233.2 233.2 233.2 233.2 66.1 66.1 66.1 66.1 66.1 7 66.1 1 66.1 1 66.1 1 65.3 1 65.3 1 65.3 1 65.3 1 65.3 1 65.3 1 65.3 1 65.3 1 65.3 1 65.3 1 7 65.3 1 7 7 65.4 7 8 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8	45.6
Barom. Red. to Sea	Level and Stan. Grav. Inches.	$\begin{array}{c} 30.018\\ 29.970\\ 29.970\\ 29.976\\ 29.956\\ 30.118\\ 30.118\\ 30.118\\ 30.152\\ 30.082\\ 30.082\\ 30.082\\ \end{array}$	30.005
Barom.	Red. ta 32.° Inches.	$\begin{array}{c} 29,286\\ 257\\ 257\\ 257\\ 257\\ 229\\ 229\\ 253\\ 253\\ 251\\ 251\\ 251\\ 251\\ 251\\ 251\\ 251\\ 251$	29.308
	Мохтн.	January February March April June June June September October November	Yearly neans

MONTHLY EXTREMES.

Greatest Daily	Precipitation.	Inches.	1.36	4.85	1.18	1.72	1.48	0.61	1.11	0.98	1.51	1.79	1.06	1.15	4.85
	Max. Pres.	Square Ft. Pounds.	32.5	43.7	20.5	26.0	10.0	0.7	11.0	12.0	13.0	14.0	31.0	17.0	43.7
WIND.	lighest Hourly	Velocity and Direction.	65 N.E.	N.	N.	z	N.	N.	ń	W.	ż	z			73 N. W.
		Least.			-	ci		-	-			-			1.7
	DAILY RANGE.	Greatest.	30.0	38.0	25.1	35.4	31.9	29.5	28.8	33.5	24.9	25.0	28.0	38.2	38.2
URE.	MEAN DAILY.	Lawest.	-6.5	-5.2	1.3	28.0	40.7	52.1	59.6	55.3	47.2	34.2	28.3	7.1	-6.5
AIR TEMPERATURE.	MEAN	Highest.	45.2	47.3	55.7	63.5	68.6	67.8	80.2	75.8	70.8	65.4	53.7	46.1	80.2
AIR	Range.	0	65.7	65.2	62.0	54.5	47.2	33.7	41.0	37.6	43.9	52.0	40.9	48.3	106.0
	T,owest.	o	-15.0	-9.8	-3.0	24.4	34.5	47.5	50.0	50.5	37.7	24.6	22.1	2.7	-15.0
	Hichest	0	50.7	55.4	59.0	78.9	81.7	81.2	91.0	88.1	81.6	76.6	63.0	51.0	91.0
Stan. Gravity.	Rance.	Inches.	2.182	1.774	1.318	1.075	0.844	0.830	0.559	0.909	0.848	0.940	1.274	1.336	2.182
PRESSURE. Red. to 32°, Sea Level, and !	T.owest.	Inches.	28.687	28.941	29.267	29.545	29.486	29.428	29.668	29.466	29.635	29.678	29.180	29.320	28.687
Red. to 32°, S	Hichest.	Inches.	30.869	.715	.585	.620	.330	.268	.227	.375	.483	.618	.454	.656	30.869
	Monta.		January	February	March	April	May	June	July	August	September	October	November	December	Year

NUMBER OF HOURS OF PREVALENCE OF EACH WIND

REFERRED TO

DIFFERENT POINTS OF AZIMUTH,

FOR

EACH DAY, MONTH, AND THE YEAR 1886,

AS DERIVED FROM THE RECORDS OF THE DRAPER ANEMOSCOPE.

JANUARY.

FEBRUARY.

Date.	S.E.	s.	s. w.	w.	N. W.	N.	N. E.	E.	Calm.	Date.	S. E.	S.	s. w.	w.	N. W.	N.	N. E.	E.	Calm.
$\begin{array}{c} 1,\\ 2,\\ 3,\\ 4,\\ 5,\\ 6,\\ 7,\\ 8,\\ 9,\\ 10,\\ 11,\\ 12,\\ 13,\\ 14,\\ 15,\\ 16,\\ 17,\\ 18,\\ 19,\\ 20,\\ 21,\\ 22,\\ 23,\\ 24,\\ 25,\\ 26,\\ 27,\\ 28,\\ 29,\\ 30,\\ 31,\\ \end{array}$	$\begin{array}{c} 0 \\ 0 \\ 0 \\ 15 \\ 24 \\ 11 \\ 0 \\ 0 \\ 2 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$	1 0 0 0 13 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$\begin{array}{c} 1\\ 0\\ 0\\ 0\\ 0\\ 0\\ 3\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 2\\ 0\\ 0\\ 0\\ 0\\ 21\\ 23\\ 10\\ 3\\ 21\\ 23\\ 10\\ 11\\ 23\\ 10\\ 11\\ 23\\ 10\\ 11\\ 14\\ 2\\ 13\\ 0\\ 0\\ 6\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 12 \end{array}$	$\begin{array}{c} 20\\ 5\\ 0\\ 0\\ 0\\ 0\\ 0\\ 1\\ 1\\ 8\\ 0\\ 0\\ 1\\ 1\\ 5\\ 0\\ 8\\ 10\\ 2\\ 6\\ 0\\ 2\\ 14\\ 2\\ 0\\ 10\\ 0\\ 0\\ 0\\ 2\end{array}$	$\begin{array}{c} 0\\ 8\\ 0\\ 0\\ 0\\ 0\\ 0\\ 2\\ 3\\ 0\\ 0\\ 0\\ 2\\ 3\\ 0\\ 0\\ 0\\ 5\\ 2\\ 3\\ 1\\ 1\\ 1\\ 1\\ 8\\ 0\\ 2\\ 2\\ 1\\ 1\\ 1\\ 8\\ 0\\ 2\\ 2\\ 1\\ 1\\ 1\\ 1\\ 8\\ 0\\ 3\\ 15\\ 0\\ 0 \end{array}$	$\begin{array}{c} 0\\ 0\\ 8\\ 0\\ 0\\ 0\\ 0\\ 0\\ 4\\ 7\\ 0\\ 0\\ 0\\ 2\\ 0\\ 0\\ 0\\ 4\\ 2\\ 3\\ 4\\ 0\\ 0\\ 9\\ 0\\ 21\\ 21\\ 9\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 0\\ 3\\ 9\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$		$\begin{array}{c} 1.\\ 2.\\ 3.\\ 4.\\ 5.\\ 6.\\ 7.\\ 8.\\ 9.\\ 10.\\ 11.\\ 12.\\ 13.\\ 14.\\ 15.\\ 16.\\ 17.\\ 18.\\ 19.\\ 20.\\ 21.\\ 22.\\ 23.\\ 24.\\ 25.\\ 26.\\ 27.\\ 28. \end{array}$	$\begin{array}{c} 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ $	$\begin{array}{c} 0\\ 0\\ 0\\ 0\\ 0\\ 4\\ 2\\ 3\\ 3\\ 0\\ 0\\ 6\\ 18\\ 7\\ 9\\ 0\\ 5\\ 1\\ 18\\ 0\\ 0\\ 4\\ 3\\ 0\\ 2\\ 4\\ 0\\ 0\end{array}$	$\begin{array}{c} 3\\ 6\\ 0\\ 0\\ 0\\ 5\\ 16\\ 21\\ 9\\ 0\\ 0\\ 0\\ 0\\ 5\\ 16\\ 10\\ 1\\ 7\\ 13\\ 0\\ 4\\ 7\\ 1\\ 9\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 15\\ 6\\ 7\\ 0\\ 9\\ 5\\ 0\\ 7\\ 0\\ 0\\ 0\\ 0\\ 1\\ 2\\ 1\\ 6\\ 8\\ 0\\ 1\\ 3\\ 7\\ 1\\ 4\\ 0\\ 0\\ 8\\ 0\\ 0\\ \end{array}$	$\begin{array}{c} 6\\ 12\\ 10\\ 5\\ 24\\ 6\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 0\\ 0\\ 7\\ 19\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ $	$\begin{array}{c} 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ $	
Sums.	. 71 •	23	18	182	126	146	112	42	0	Sume.	49	89	133	120	176	40	55	9	1

MARCH.

APRIL.

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Date.	S. E.	s.	s. w.	W.	N. W.	N.	N. E	Е.	Calm.	Date.	S. E.	s.	s. w.	w.	N. W.	N.	N. E.	E.	Calm.
$\begin{array}{c} 1.2,3.4,5.6,7.8,9.0,11.2,3.4,15.6,7.8,9.0,11.2,3.4,15.6,7.8,9.0,11.2,2,3.4,25.6,7.8,9.0,21.2,2,3.4,25.6,7.8,9.0,21.2,2,3.4,25.6,7.8,9.0,31.2,2,2,3.4,2,5.6,7.8,9.0,31.2,2,2,3.4,2,5.6,7.8,9.0,31.2,2,2,3.4,2,5.6,7.8,9.0,21.2,2,3.4,2,5.6,7.8,9.0,21.2,2,3.4,2,5.6,7.8,9.0,21.2,2,3.4,2,5.6,7.8,9.0,21.2,2,3.4,2,5.6,7.8,9.0,21.2,2,3.4,2,5.6,7.8,9.0,21.2,2,3.4,2,5.6,7.8,9.0,21.2,2,3.4,2,5.6,7.8,9.0,21.2,2,3.4,2,5.6,7.8,9.0,21.2,2,3.4,2,5.6,7.8,9.0,21.2,2,3.4,2,5.6,7.8,9.0,21.2,2,3.4,2,5.6,7.8,9.0,21.2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,$	$\begin{array}{c} 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ $	$\begin{array}{c} 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ $	$\begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 $	$\begin{array}{c} & 3 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 1 \\ 1$	$\begin{array}{c} 21\\ 24\\ 24\\ 24\\ 24\\ 24\\ 23\\ 0\\ 1\\ 11\\ 8\\ 0\\ 9\\ 13\\ 1\\ 9\\ 5\\ 10\\ 0\\ 0\\ 2\\ 6\\ 24\\ 4\\ 3\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ $	$\begin{array}{c} 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ $	$\begin{array}{c} 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ $		$\begin{array}{c} 1.\\ 2.\\ 3.\\ 4.\\ 5.\\ 6.\\ 7.\\ 8.\\ 9.\\ 10.\\ 11.\\ 12.\\ 13.\\ 14.\\ 15.\\ 16.\\ 17.\\ 18.\\ 19.\\ 20.\\ 21.\\ 22.\\ 23.\\ 24.\\ 25.\\ 26.\\ 27.\\ 28.\\ 29.\\ 30. \end{array}$	$\begin{array}{c} 0 \\ 0 \\ 0 \\ 1 \\ 2 \\ 9 \\ 0 \\ 2 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$	$\begin{array}{c} 17\\ 5\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 7\\ 7\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 0\\ 4\\ 4\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 1\\ 8\\ 0\\ 0\\ 1\\ 1\\ 7\\ 0\\ 2\\ 8\\ 3\\ 0\\ 5\\ 2\\ 0\\ 6\\ 0\\ 3\\ 1\\ 7\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 0\\ 8\\ 8\\ 1\\ 0\\ 0\\ 1\\ 11\\ 18\\ 1\\ 0\\ 0\\ 0\\ 2\\ 0\\ 0\\ 0\\ 2\\ 5\\ 0\\ 0\\ 2\\ 0\\ 2\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 0\\ 0\\ 0\\ 9\\ 8\\ 3\\ 2\\ 1\\ 3\\ 0\\ 5\\ 8\\ 0\\ 0\\ 1\\ 0\\ 4\\ 0\\ 0\\ 3\\ 0\\ 4\\ 0\\ 8\\ 0\\ 1\\ 0\\ 1\end{array}$	$\begin{array}{c} 0\\ 0\\ 0\\ 8\\ 5\\ 19\\ 14\\ 0\\ 0\\ 0\\ 7\\ 0\\ 0\\ 0\\ 11\\ 0\\ 15\\ 0\\ 2\\ 6\\ 14\\ 0\\ 8\\ 0\\ 1\\ 5\\ 1\\ 8\\ 9\\ 7\\ 16 \end{array}$	$\begin{array}{c} 0\\ 0\\ 0\\ 2\\ 5\\ 6\\ 3\\ 1\\ 0\\ 0\\ 0\\ 3\\ 0\\ 0\\ 3\\ 5\\ 5\\ 2\\ 2\\ 6\\ 6\\ 0\\ 4\\ 0\\ 1\\ 7\\ 2\\ 9\\ 4\\ 1\\ 7\end{array}$	1
Sums.	65	78	53	100	270	62	58	58	0	Sums.	56	95	93	78	72	72	153	100	1

MAY.

JUNE.

Date.	S. E.	8.	8. W.	w.	N. W.	N.	N.E.	E.	Calm.	Date,	S. E.	s.	8. W.	w.	N. W.	N.	N E.	E.	Calm.
$\begin{array}{c} 1.\\ 2.\\ 3.\\ 4.\\ 5.\\ 6.\\ 7.\\ 8.\\ 9.\\ 10.\\ 11.\\ 12.\\ 13.\\ 14.\\ 15.\\ 16.\\ 17.\\ 18.\\ 19.\\ 20.\\ 21.\\ 22.\\ 24.\\ 25.\\ 26.\\ 27.\\ 28. \end{array}$	$\begin{array}{c} 5\\ 0\\ 2\\ 0\\ 0\\ 2\\ 0\\ 3\\ 0\\ 5\\ 8\\ 2\\ 1\\ 3\\ 1\\ 3\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 0\\ 0\\ 0\\ 11\\ 7\\ 11\\ 3\\ 12\\ 0\\ 0\\ 9\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 11\\ 9\\ 0\\ 0\\ 12\\ 1\\ 2\\ 0\\ 4\\ 0\\ 5\\ 4\\ 0\\ 9\\ 0\\ 0\\ \end{array}$	$\begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 16 \\ 10 \\ 3 \\ 5 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$	$\begin{array}{c} 0 \\ 0 \\ 0 \\ 1 \\ 2 \\ 9 \\ 5 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$	$\begin{array}{c} 0\\ 0\\ 0\\ 0\\ 0\\ 1\\ 6\\ 2\\ 0\\ 0\\ 8\\ 2\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 1\\ 22\\ 0\\ 12\\ 2\\ 0\\ 12\\ 2\\ 10\\ 0\\ 6\\ 6\end{array}$	$\begin{array}{c} 4\\ 2\\ 7\\ 0\\ 0\\ 1\\ 0\\ 9\\ 16\\ 3\\ 3\\ 1\\ 2\\ 0\\ 0\\ 4\\ 5\\ 1\\ 0\\ 0\\ 0\\ 4\\ 6\\ 0\\ 0\\ 11 \end{array}$	$\begin{array}{c} & 7 \\ 21 \\ 2 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$	$\begin{array}{c} 8\\ 1\\ 2\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$		$\begin{array}{c} 1.\\ 2.\\ 3.\\ 4.\\ 5.\\ 6.\\ 7.\\ 8.\\ 9.\\ 10.\\ 11.\\ 12.\\ 13.\\ 14.\\ 15.\\ 16.\\ 17.\\ 18.\\ 19.\\ 20.\\ 21.\\ 22.\\ 23.\\ 24.\\ 25.\\ 26.\\ 27.\\ 28. \end{array}$	$\begin{array}{c} 3\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 1\\ 1\\ 3\\ 3\\ 11\\ 13\\ .\\ 17\\ 5\\ 0\\ 0\\ 3\\ 4\\ 0\\ 0\\ 7\\ 0\\ 1\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 4\\ 15\\ 8\\ 9\\ 11\\ 9\\ 10\\ 0\\ 3\\ 5\\ 2\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 0\\ 9\\ 5\\ 1\\ 13\\ 14\\ 14\\ 5\\ 7\\ 4\\ 0\\ 2\\ 0\\ 0\\ 0\\ 7\\ 17\\ 0\\ 0\\ 3\\ 13\\ 9\\ 2\\ 0\\ 3\\ 8\\ 0\\ 5\end{array}$	$\begin{array}{c} 0\\ 0\\ 0\\ 8\\ 0\\ 0\\ 1\\ 0\\ 6\\ 5\\ 5\\ 0\\ 0\\ 1\\ 0\\ 0\\ 0\\ 1\\ 0\\ 9\\ 0\\ 3\\ 6\\ 14\\ 2\\ 0\\ 2\\ 15\\ 9\\ 0\\ \end{array}$	$\begin{array}{c} 2\\ 0\\ 3\\ 10\\ 0\\ 0\\ 0\\ 0\\ 13\\ 9\\ 7\\ 0\\ 2\\ 2\\ 0\\ 0\\ 0\\ 0\\ 0\\ 11\\ 9\\ 3\\ 2\\ 0\\ 0\\ 10\\ 1\end{array}$	$ \begin{array}{c} 1\\0\\0\\0\\0\\0\\0\\0\\2\\5\\6\\0\\0\\2\\0\\4\\2\\4\\0\\0\\0\\3\\0\\2\\9\end{array} $	$\begin{array}{c} 9\\ 9\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 5 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\$	
29. 30. 31.	0 0 8	3 3 0	$4 \\ 20 \\ 4$	5 1 3	7 0 0	5 0 3	$\begin{array}{c} 0\\ 0\\ 3\end{array}$	0 0 3		29. 30.	0 0	0 0	6 0	$ \begin{array}{c} 16\\ 0 \end{array} $	1 15	1 4	5	0	
Sums.	54	116	169	70	106	87	88	54	0	Sums.	74	103	147	103	105	45	64	79	0

JULY.

AUGUST.

Date.	S. E.	s.	S. W.	W,	N. W.	N.	N. E.	E.	Calm.	Date.	S. E.	s.	s w.	w.	N. W.	N.	N. E.	E.	Calm.
1.	0	3	5	6	4	6	0	0		1.	2	12	4	3	3	0	0	0	
2.	0	3	19	2	0	0	0	0		2.	0	5	1	7	11	0		0	
3.	4	$\frac{2}{9}$	3 6	$\frac{2}{0}$	3 0	33	$\frac{5}{5}$	$\frac{2}{0}$		3. 4.	$\begin{array}{c} 0\\ 0\end{array}$	0	0	$\frac{22}{14}$	2 10	0		0	
4. 5.	2	1	10	5	0	0	2	4		4. 5.	0	1	3	9	11	- 0	0	0	-
6.	ō	Ō	7	17	0	ŏ	õ	0 T		6.	- ŏ	10	10	3	1	Ő	0	Ő	
7.	Ŏ	Ö	Ġ	17	1	Ő	ŏ	ŏ		7.	ĭ	1	0	3	1	2	13	3	
8.	5	0	0	0	6	6	2	5		8.	0	1	5	2	2	11	3	0	
9.	2	0	0	- 0	0	4	8	10		9.	0	0	19	5	0	0	0	0	
10.	3	2	0	0	0	3	6	10		10.	0	0	24	0	0	0	0	0	
11.	0	3	8	9	2	2	0	0		11.	0	1	23	0	0	0	0	0	
$12. \\ 13.$	$\begin{bmatrix} 0\\ 0 \end{bmatrix}$	58	0	$\frac{1}{10}$	12	6	0	0	1993	12.	$\begin{array}{c} 0\\ 3\end{array}$	0	3	11	8	· 2 5	03		
10.	12	2	6	10	$\begin{array}{c} 0\\ 0\end{array}$	$\begin{array}{c} 0\\ 0\end{array}$	0	0 10		13. 14.	0 0	11 8	6	. 4	4	2	0 0	$\frac{2}{0}$	
15.	3	14	0	ŏ	0	0	1	6		15.	ŏ	Ő	0	1	19	4	0	0	
16.	Ő	22	2	ŏ	Ő	ŏ	Õ	Ő		16.	2	16	Ö	3	1	2	0	0	
17.	0	15	9	0	0	0	Ő	0		17.	4	2	3	3	1	3	4	4	
18.	1	11	11	1	0	0	0	0		18.	4	8	0	0	0	2	6	4	
19.	0	2	4	16	2	0	0	0		19.	1	5	11	1	1	2	0	3	1
20.	0	0	0	3	17	4	0	0		20.	13	7	1	2	1	0	0	0	- -
21. 22.	$\begin{vmatrix} 2\\ 0 \end{vmatrix}$	9	2	0 16	5	43	1	1		21. 22.	12	4	3		01	0 4	$\begin{array}{c} 0\\ 15\end{array}$	$\begin{array}{c} 0\\ 1\end{array}$	- 2.
$\frac{22}{23}$.	1	$\begin{bmatrix} 0\\ 0 \end{bmatrix}$	4	10	$\begin{array}{c} 0 \\ 2 \end{array}$	8	10	1		22.	$\frac{3}{0}$	$\begin{vmatrix} 0\\7 \end{vmatrix}$	5	3	9	4 0	10	0	
24.	0	0	0	19	3	2	10	0		24.	1	7	11	5	0	0	0	0	
25.	Ö	5	13	6	0	õ	ŏ	ö		25.	Ô	i	0	0	0	7	16	0	
26.	0	11	13	- 0	0	0	0	Ŏ		26.	0	Õ	0	12	5	5	2	0	1.36
27.	.0	9	13	2	0	0	0	- 0	1.5	27.	0	0	6	9	8	1	0	0	23
28.	5	3	2	3	4	3	2	2		28.	1	4	6	7	4	1	0	1	0.0
29. 30.	0	$\frac{1}{2}$	20 19	3	0	0	0	0		29.	1 3	0	0	4	1	$\frac{1}{3}$	$12 \\ 3$	5 9	-
30. 31.	0	6	8	2	() 4	() 4	0 0	00		30. 31.	0	15	0	2	1	6 6	0	0	
Sums.	40	148	191	144	66	61	43	51	0	Sums.	51	131	144	140	106	63	77	32	0

SEPTEMBER.

OCTOBER.

Date.	S. E.	8.	s. w.	w.	N. W.	N.	N. E.	E.	Calm.	Date.	S. E.	8.	s. w.	w.	N. W.	N.	N. E.	E.	Calm.
$\begin{array}{c} 1.\\ 2.\\ 3.\\ 4.\\ 5.\\ 6.\\ 7.\\ 8.\\ 9.\\ 10.\\ 11.\\ 12.\\ 13.\\ 14.\\ 15.\\ 16.\\ 17.\\ 18.\\ 19.\\ 20.\\ 21.\\ 22.\\ 23.\\ 24.\\ 25.\\ 26.\\ 27.\\ 28.\\ 29.\\ 30. \end{array}$	$\begin{array}{c} 0\\ 2\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 0\\ 2\\ 0\\ 0\\ 0\\ 0\\ 4\\ 5\\ 0\\ 9\\ 0\\ 0\\ 14\\ 0\\ 0\\ 19\\ 2\\ 0\\ 0\\ 10\\ 0\\ 0\\ 0\\ 3\\ 4\\ 0\\ 2\\ 7\\ 0\\ 5\\ 3\\ 0\\ \end{array}$	$\begin{array}{c} 0\\ 2\\ 0\\ 0\\ 0\\ 0\\ 0\\ 16\\ 22\\ 15\\ 0\\ 7\\ 2\\ 0\\ 5\\ 3\\ 0\\ 0\\ 13\\ 2\\ 4\\ 2\\ 0\\ 3\\ 3\\ 0\\ 0\\ 17\\ 2\\ 1\\ 3\\ 0\\ \end{array}$	$\begin{array}{c} 0\\ 2\\ 3\\ 0\\ 0\\ 0\\ 2\\ 0\\ 2\\ 0\\ 1\\ 2\\ 0\\ 1\\ 2\\ 0\\ 1\\ 1\\ 22\\ 4\\ 0\\ 11\\ 0\\ 0\\ 11\\ 0\\ 0\\ 1\\ 0\\ 0\\ 1\\ 0\\ 0\\ 1\\ 0\\ 0\\ 0\\ 1\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 15\\ 2\\ 2\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 12\\ 5\\ 11\\ 0\\ 2\\ 0\\ 0\\ 13\\ 0\\ 11\\ 1\\ 8\\ 0\\ 8\\ 2\\ 0\\ 4\\ 2\\ 15\\ 2\end{array}$	$\begin{array}{c} 7\\ 4\\ 3\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 2\\ 8\\ 13\\ 13\\ 11\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 0\\ 2\\ 3\\ 11\\ 7\\ 1\\ 0\\ 0\\ 0\\ 3\\ 0\\ 0\\ 0\\ 0\\ 8\\ 15\\ 0\\ 0\\ 0\\ 8\\ 15\\ 0\\ 0\\ 0\\ 0\\ 4\\ 0\\ 5\\ 0\\ 6\\ 6\\ 0\\ 9\end{array}$		$\begin{array}{c} 1.\\ 2.\\ 3.\\ 4.\\ 5.\\ 6.\\ 7.\\ 8.\\ 9.\\ 10.\\ 11.\\ 12.\\ 13.\\ 14.\\ 15.\\ 16.\\ 17.\\ 18.\\ 19.\\ 20.\\ 21.\\ 22.\\ 23.\\ 24.\\ 25.\\ 26.\\ 27.\\ 28.\\ 29.\\ 30.\\ 31.\\ \end{array}$	$\begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 4 \\ 0 \\ 0 \\ 2 \\ 0 \\ 4 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$	$\begin{array}{c} 0\\ 0\\ 0\\ 1\\ 0\\ 0\\ 0\\ 1\\ 0\\ 0\\ 0\\ 2\\ 4\\ 0\\ 0\\ 8\\ 8\\ 0\\ 5\\ 3\\ 2\\ 5\\ 0\\ 0\\ 0\\ 1\\ 11\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 3 \\ 0 \\ 8 \\ 23 \\ 0 \\ 0 \\ 0 \\ 7 \\ 0 \\ 1 \\ 20 \\ 6 \\ 0 \\ 0 \\ 2 \\ 0 \\ 9 \\ 5 \\ 0 \\ 19 \\ 12 \\ 13 \\ 0 \\ 0 \\ 12 \\ 1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$	$\begin{array}{c} 15\\ 23\\ 9\\ 1\\ 2\\ 0\\ 0\\ 0\\ 0\\ 12\\ 0\\ 0\\ 0\\ 12\\ 0\\ 0\\ 0\\ 12\\ 0\\ 0\\ 0\\ 12\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 6\\ 1\\ 0\\ 0\\ 2\\ 1\\ 0\\ 0\\ 12\\ 1\\ 0\\ 3\\ 3\\ 0\\ 0\\ 24\\ 9\\ 2\\ 0\\ 0\\ 0\\ 9\\ 4\\ 5\\ 0\\ 0\\ 0\\ 1\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	$\begin{array}{c} 0 \\ 0 \\ 4 \\ 0 \\ 1 \\ 9 \\ 3 \\ 3 \\ 0 \\ 5 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$	$\begin{array}{c} 0\\ 0\\ 2\\ 0\\ 11\\ 6\\ 21\\ 6\\ 0\\ 9\\ 9\\ 0\\ 0\\ 14\\ 0\\ 0\\ 0\\ 0\\ 0\\ 14\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 4\\ 8\\ 0\\ 11\\ 13\\ 14\\ 24\\ 15\\ 10\\ \end{array}$	$\begin{array}{c} 0\\ 0\\ 0\\ 0\\ 0\\ 4\\ 7\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	
Sums.	67	99	122	95	115	49	90	83	0	Sums.	28	57	141	113	83	69	177	76	0

NOVEMBER.

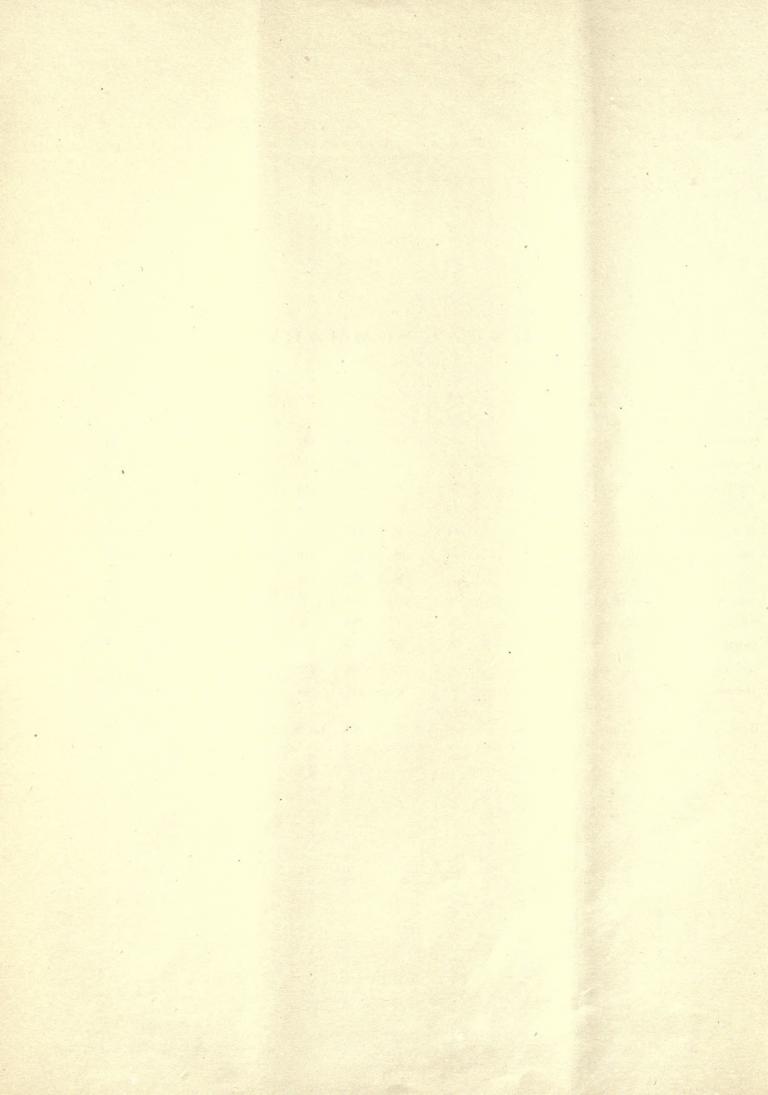
DECEMBER.

Date.	S. E.	s	s. w.	w.	N. W.	N.	N. E.	E.	Calm.	Date.	8. E	8.	s. w.	w.	N. W.	N.	NE.	E.	Calm.
1.	2	0	0	1	7	14	0	0		1.	2	1	6	15	0	0	0	0	
2.	4	- 3	0	0	0	11	4	2		2.	0	3	5	16	0	0	0	0	
3.	0	24	0	0	0	0	0	0		3.	0	0	0	20	4	0	0	0	
4.	0	8	1	3	12	0	0	0		4.	0	0	$\begin{bmatrix} 0 \\ -0 \end{bmatrix}$	$\begin{vmatrix} 2\\ 0 \end{vmatrix}$	22 0	0 24		0	
5. 6.	$\frac{2}{6}$	13	35	$\begin{vmatrix} 3\\0 \end{vmatrix}$	$\begin{vmatrix} 3 \\ 0 \end{vmatrix}$	0	0	$\begin{array}{c} 0\\ 0\end{array}$		5. 6.	0	0	0		0	16	8	0	
0. 7.	2	10	2	15	0	0	0 0	0		7.	0	0	0	0	Ő	17	7	0	
8.	õ	ő	ő	24	0	0	Ő	0		8.	Ő	0	0	16	7	1	ò	ŏ	
9.	ŏ	ŏ	9	15	0	Ő	Ő	Ő		9.	Ő	0	ŏ	12	9	i	2	Ŏ	
10.	Ĭ	1	15	4	ĭ	Ő	Ő	2		10.	1	3	15	0	0	0	4	1	
11.	0	0	2	19	3	0	0	0		11.	0	0	6	12	5	1	0	0	
12.	0	0	0	2	9	3	2	8		12.	0	0	0	0	1	3	7	13	
13.	0	0	0	4	3	6	6	5		13.	0	0	1	0	1	7	14	1	
14.	0	0	0	23	1	0	0	0		14.	0	0	4	20	0	0	0	0	
15.	0	0	0	20	4	0	0	0		15.	0	6	10	1	3	3	1	0	
16.	0	0	0	4	19	1	0	0		16.	0	0	0	$\begin{array}{c} 2\\ 10 \end{array}$	10	$\begin{array}{c} 12\\ 0 \end{array}$	0	$\begin{array}{c} 0\\ 0\end{array}$	
$17. \\ 18.$		16 14	3	$\begin{array}{c} 0\\7\end{array}$	0	$\begin{array}{c} 0\\ 0\end{array}$	$\begin{array}{c} 0\\ 0\end{array}$	$= \begin{array}{c} 0 \\ 0 \end{array}$		17. 18.	$\begin{array}{c} 0\\ 3\end{array}$	$\begin{array}{c} 0\\ 4\end{array}$	14	10	0	0	0	0	
19.	0	0	5	19	0	0	0	0		10.	0	0	10	9	3	0	0	0	
20.	Ő	0	5	18	1	0	0	0		20.	ŏ	Ő	10	Ő	22	$\frac{1}{2}$	ŏ	Ő	
21.	ŏ	Ŏ	ő	21	3	ŏ	Ő	<u>0</u> ·		21.	ŏ	Ő	14	4	6	ō	Ŏ	Ő	
22.	0	0	0	3	15	1	3	2		22.	0	3	8	10	3	0	0	0	
22. 23.	13	3	7	0	0	0	0	1		23.	8	2	0	0	1	8	4	1	
24.	0	0	6	9	9	0	0	0		24.	8	16	0	0	0	0	0	0	
25.	3	0	1	6	7	0	1	6		25.	0	2	1	1	20	0	0	0	
26.	0	0	1	23	0	0	0	0	1	26.	0	0	0	0	0	18	6	0	
$27. \\ 28.$	$\begin{array}{c} 0\\ 0\end{array}$	$\begin{vmatrix} 0\\ 2 \end{vmatrix}$	3 16	19	2	0	0	0		27.	0	3	$\begin{vmatrix} 4\\0 \end{vmatrix}$	$\frac{8}{20}$	54	4	0	0	12217
$\frac{28}{29}$.	4	17	3	$\begin{pmatrix} 6\\ 0 \end{pmatrix}$	0	0	0	$\begin{array}{c} 0\\ 0\end{array}$		28. 29.	0	0	0	20	8	7	0	ŏ	
$\frac{29}{30}$.	1	1	5	2	0	2	7	6	105	30.	0	0	0	ő	0	24	Ő	Ő	
	-		0	-	U	4		0		31.	Ő	Ŏ	Ő	Ő	Ő	12	12	ŏ	24.
Sums.	43	120	95	270	99	38	23	32	0	Sums.	22	43	116	188	134	160	65	16	0

T.

Month.	S. E.	s.	s. w.	w.	N. W.	N.	N. E.	Е.	Calm.
January (30 days)	71	23	18	182	126	146	112	42	0
February	49	89	133	120	176	40	55	, 9	1
March	65	78	53	100	270	62	58	58	0
April	56	95	93	78	72	72	153	100	1
May	54	116	169	70	106	87	88	54	0
June	74	103	147	103	105	45	64	79	0
July	40	148	191	144	66	61	43	51	0
August	51	131	144	140	106	63	77	32	0
September	67	99	122	95	115	49	90	83	0
October	28	57	141	113	83	69	- 177	76	0
November	43	120	95	270	99	38	23	32	0
December	22	43	116	188	134	160	65	16	0
Year	620	1,102	1,422	1,603	1,458	892	1,005	632	2

ANNUAL SUMMARY.



HOURLY MEASURES IN MILES

OF THE

HORIZONTAL MOVEMENT OF THE WIND

FOR

EACH DAY, MONTH, AND THE YEAR 1886,

AS DERIVED FROM THE RECORDS OF THE DRAPER ANEMOMETER.

Date.	10.9.9.7.9.7.9.0.	Sums.
Total.	$\begin{array}{c} 727\\ 391\\ 317\\ 597\\ 537\\ 813\\ 813\\ 813\\ 813\\ 813\\ 813\\ 813\\ 813$	6,101 8
10-11	2250	224
9-10	25 23 23 23 23 23 23 23 23 23 23 23 23 23	225
8-9	25,222,223,223,258 25,222,223,223,223,223,223,223,223,223,2	237
00 2**	23 35 65 55 55 55 55 55 55 55 55 55 55 55 55	235
6-7	26 27 28 28 28 28 28 28 28 28 28 28 28 28 28	239
5-6	25 33 22 22 23 3 25 33 33 22 1 23 23 2 26 33 23 23 23 23 23 23 23 23 23 23 23 23	226
4-5	244	231
3-4	22 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2;
8-3	31 15 12 15 12 15 13 15 13 15 13 15 13 15 13 15 13 15 13 15 13 15 13 15 13 15 13 15 13 15 15 15 15 15 15 15 15 15 15 15 15 15	240
1-2	35 35 16 10 18 28 20 28 33 33 33 16 14 14 14	231
12-1	$ \begin{array}{c} $	239
11-12	$\begin{array}{c} 33\\ 32\\ 4\\ 11\\ 32\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2$	262
10-11	88 84 87 87 87 87 87 87 87 87 87 87 87 87 87	288
9-10	852252525252 851258525255 8512585555555555	271
8-9	8512225252558 362125258	268
80-2+	$\begin{array}{c} 238\\ 238\\ 34\\ 35\\ 34\\ 35\\ 34\\ 35\\ 35\\ 35\\ 38\\ 34\\ 38\\ 35\\ 38\\ 38\\ 38\\ 38\\ 38\\ 38\\ 38\\ 38\\ 38\\ 38$	284
9-1	36 36 36 36 36 36 36 36 36 36 36 36 36 3	286
5-6	45211255 2614 26218 2628 2628 2628 2628 2628 2628 262	301
4-5	$\begin{array}{c} 223\\ 233\\ 65\\ 238\\ 128\\ 128\\ 128\\ 238\\ 128\\ 238\\ 238\\ 238\\ 238\\ 238\\ 238\\ 238\\ 2$	308
3-4	$\begin{array}{c} 222 \\ 232 \\ 231 \\$	294
2-3	$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \begin{array}c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \begin{array}c} \end{array} \\ \begin{array}{c} \begin{array}c} \end{array} \\ \end{array} \\$	268
1-2	116 119 116 118 20 20 20 20 20 20 20 20 20 20 20 20 20	260
12-1	2642 2642 2642 2882 2882 2882 2842 2862 286	243
21-11	26 28 28 28 28 28 28 28 28 28 28 28 28 28	221
Date.	1.9.9.4.70.0.7.0.0.0. 1.0.0.1.0.0.1.0.0.0.0.1	Sums.

20.52 20.13	Sums.
$\begin{array}{c} 452\\ 503\\ 503\\ 500\\ 500\\ 649\\ 556\\ 656\\ 656\\ 652\\ 652\\ 652\\ 652\\ 652$	4,066
22015512025 5.2024252	160
4 20 20 20 20 20 20 20 20 20 20 20 20 20	157
224 244 214 214 214 214 214 214 214 214	162
893336566550 893365666550	170
9212920816 20149920816 201499208	156
9512525556 9513355552 951355555 95135 9515 951	158
-15123500 15123500 15123500 15123500 1512 1512 1512 1512 1512 1512 1512 1	147
1646678645	156
222 222 222 222 222 222 222 222 222 22	173
2282306 34 3520 2282306 34 3550	173
2364655 236465 236465 236465 2364 2364 255 255 255 255 255 255 255 255 255 25	174
22288244233 222882442	168
21222138266 21222138266 21222138266	175
$\begin{array}{c} 11\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\$	169
2318255881181 231825588118	163
22 20 20 20 20 20 20 20 20 20 20 20 20 2	159
812122224 812122224	163
204221221228 204221221228 20422122128	175
220 244 275 244 233 20 20 20 20 20 20 20 20 20 20 20 20 20	177
26-29 26-29 26-29 26-29 26-29 26-29	182
32-121212128 20121212128	185
23 26 26 26 26 26 26 26 26 26 26 26 26 26	194
2122255 2112225 2282225 228225 228225 22825 22825 22825 22825 22825 22825 22825 228555 228555 228555 2285555 2285555 2285555 2285555 2285555 2285555 22855555 2285555 2285555555 22855555555	199
3°°833557100	170
20.925155155555555555555555555555555555555	Sums.
14.00	

122222222222222222	Sums.
423 648 5391 5393 5399 5399	3,393
2222 2220 2220 222 222 222 222 222 222	149
613880613 6168886613	146
266558 26558 2658	142
212 218 28 218 28 218 28 28 28 28 28 28 28 28 28 28 28 28 28	145
551205555555555555555555555555555555555	142
$2329 \\ 222$	140
51212886	131
528881158 288888 288888 28888 28888 28888 28888 28888 28888 28888 28888 28888 2888 2888 2888 288	141
20-10 20-10 20-10 20-10 20-10	145
5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	148
23525 23525 23525 2352 2352 2352 2352 2	154
55 50 50 50 50 50 50 50 50 50 50 50 50 5	131
50°°1003353	133
23323	141
4 558557-42	146
5°°11038133	140
222 193419 193419 1937 1937 1937 1937 1937 1937 1937 19	143
2001 2001 2001 2000 2000 2000 2000 2000	135
122232323	135
200 120 120 120 120 120 120 120 120 120	143
12 19 19 21 21 21 25 24 15 17 22 17 elogged with ice.	148
	141
27 11 27 27 25 25 25 25 25 22 22 22 22	142
21 31 10 26 26 21 21 21 21 21	. 134
22.22.22.22.22.22.22.22.22.22.22.22.22.	Sums.

13,560 Monthly Sums. 20.9 Means.

533 19.7

500 20.4

509 18.9

533 19.7

558 20.7

002 20.4

596 22.1

20.6001

20.8561

21.5 581

21.4 577

21.6583

21.9 592

22.6 611

22.3 601

22.0 595

21.6 584

19.4

Monthly 525 Sums. Means.

620 23.0

619 22.9

19.6 528

20.0 541

19.9 537

19.4 524

P. M.

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A. M.

P. M.

(16)

Date.	-ici e 4 1 1 0 1 0 0 0 0	Sums.	
Total.	$\begin{array}{c} 341\\ 520\\ 5300\\ 544\\ 552\\ 552\\ 552\\ 552\\ 552\\ 552\\ 552$	4,969	
10-11	8°°81133315555	212	
9-10	8, 2, 2, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,	206	
6-8	82888841844	201	
3-8	26,5,9,1,2,2,6,2,3,3,2,3,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5	200	
-2-9	823,24,4 163330 219 23,5,24,4 163330 219 26,5,24,4 163330 219	196	
5-6	25 ° 12 0 12 0 28 88 12 19	178	
4-5	800 80 1 8 8 8 2 2 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	171	
3-4	- 16 814 82,256,835 84,256,855 84,256,955 84,255,955 84,256,955 84,255,955 84,255,955 84,255,955 84,255,955 84,255,955 84,255,955 84,255,955 84,255,955 84,255,955 84,255,955 84,255,955 84,255,955 84,255,9555 84,255,9555 84,25555 84,255555 84,2555555555555555555555555555555555555	179	
8-3	3222660332455 3222660332455	189	
1-2	23663466	181	
12-1	3125556 3129 312	188	
11-12	$ \begin{array}{c} 233 \\ 235 \\ 335 $	202	
10-11	$23 \times 23 \times$	206	
9-10	12^{-32}	214 .	
8-9	20240000000000000000000000000000000000	213	
2-8	5163154533653 ³	226	
2-3	22 22 22 22 22 22 22 22 22 22 22 22 22	222	
2-6	865555555358 865555558 8655555 86555 86555 86555 8655 8655 8655 8655 8655 8655 8655 8655 8655 8655 86	222	
4-5	5511553833394 56115538833934	228	
3-4	8280 828 88 88 88 88 88 88 88 88 88 88 88 88	230	
3-3	18 8 8 3 3 3 3 3 3 3 0 0 0 0 0 0 0 0 0 0	230	
1-2	18 18 18 18 18 18 18 18 18 18 18 18 18 1	228	
12-1	41123%%%21188%8 8621182%%	228	
11-12	112855555999334 17811122355999334	214	
Date.		Sums.	

11. 15. 16. 18. 19. 20.	Sums.
782 525 525 620 628 628 412 412 412 494 801	6,181
49 0 1 2 2 2 2 2 2 2 2 0 1 0 6 4 0 6 7 2 2 2 2 2 2 2 2 0 1 0 6 4 0 1 0 6 4 0 1 0 6 4 0 1 0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 0 1 0	261
422264%48888	207
82555555555555555555555555555555555555	307
33 20 20 20 20 20 20 20 20 20 20 20 20 20	297
800 112 10 10 10 10 10 10 10 10 10 10 10 10 10	299
815388832288	289
38 25 25 25 25 25 25 25 25 25 25 25 25 25	269
8	274
33 38 11 53 33 54 10 88 33 58 11 53 33 55 10 88 33 58 11 53 33 55 10 98	264
37 16 19 26 33 33 33 33 34 33 34 34 37 37 37 37 37 37 37 37 37 37 37 37 37	255
233 233	271
8383° 808383838	254
$\begin{array}{c} 30\\ 22\\ 22\\ 22\\ 22\\ 22\\ 22\\ 22\\ 22\\ 22\\ 2$	217
22222222222222222222222222222222222222	214
8100° 23 - 23 31130	193
222188242833 22218824283 22218824283	212
2321291291292129212929292929292929292929	231
522281284 812898128 81289128 81289 81280 81289 8100 8100 81000 810000000000000000000	243
28 28 28 28 28 28 28 28 28 28 28 28 28 2	258
55.525.526.538	259
194 119 119 119 119 119 119 119 119 119	244
22222222222222222222222222222222222222	949
$\begin{array}{c} 23\\ 23\\ 26\\ 23\\ 26\\ 23\\ 26\\ 23\\ 26\\ 23\\ 26\\ 23\\ 26\\ 23\\ 26\\ 27\\ 27\\ 27\\ 27\\ 27\\ 27\\ 27\\ 27\\ 27\\ 27$	267
16 4 23 23 23 23 23 23 23 23 23 23 23 23 23	234
11. 13. 16. 19. 20.	Sums.

(17)

•

1998499968	Sums.
$\begin{array}{c} 607\\ 285\\ 595\\ 595\\ 787\\ 1,935\\ 1,233\\ 1,233\\ 1,233\\ \end{array}$	6,576
00 00 00 00 00 00 00 00 00 00 00 00 00	280
15 53 53 53 53 55 55 55 55 55 55 55 55 55	291
49 51 53 51 53 51 53 54 53 54 55 54 55 55 55 55 55 55 55 55 55 55	281
51 51 51 51 51 51 51 51 51 51 51 51 51 5	304
117 17 59 59 59 59 59 59 59 59 59 50 50 50 50 50 50 50 50 50 50 50 50 50	312
5614 572 522 522 522 522 522 522 522 522 522	312
116 25 25 25 25 25 25 25 25 25 25 25 25 25	302
58158 24 29 29 28 29 29 29 29 29 29 29 29 29 29 29 29 29	283
11 4 23 8 28 14 14 16 16 16 16 16 16 16 16 16 16 16 16 16	293
$ \begin{array}{c} 12 \\ 20 \\ $	276
19 58 58 58 58 58 58 58 58 58 58 58 58 58	278
50 50 50 50 50 50 50 50 50 50 50 50 50 5	277
$ \begin{array}{c} 22 \\ 23 \\ $	271
$\begin{array}{c} 32\\ 22\\ 25\\ 25\\ 25\\ 25\\ 25\\ 29\\ 29\\ 29\\ 29\\ 29\\ 29\\ 29\\ 29\\ 29\\ 29$	274
2301128 21128 2128 2128 2128 2128 2128 212	277
$\begin{array}{c} 25\\ 60\\ 60\\ 60\\ 60\\ 60\\ 60\\ 60\\ 60\\ 60\\ 60$	274
62,22,22,22 61,22,22 61,	278
45.33222222 45.33222222	259
4735 290 26 25 473 29 19 19 29 47 39 29 19 29	267
30 37 37 37 37 37	241
4412821284 86-70282	229
41 28°37 6311 918 863 11 918 11 10 10 10 10 10 10 10 10 10 10 10 10	229
44 24 25 24 25 24 25 24 25 24 25 24 25 25 25 25 25 25 25 25 25 25 25 25 25	245
41-223-14 2523-14 14	243
2999298	Sums.

Monthly Sums.	k Means.
17,726	26.4
753	26.9
794	28.4
789	28.2
801	28.6
807	198.8 198.8
779	27.8
742	26.5
736	26.3
746	26.6
712	25.4
737	26.3
733	26.2
694	24.8
702	25.1
683	24,4
712	25.4
731	26.1
724	25.9
753	26.9
730	26.1
703	25.1
706	25.3
740	26.4
169	24.7
Monthly Snms.	Means.

P. M.

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A. M.

P. M.

	Date.		Sums.	
	Total.	1,055 1,123 791 735 639 645 639 645 532 532 284 481 327 327	6,603	
	10-11	848488128812881288128 8128881288128 81288128	254	
	9-10	54 89 88 88 88 18 88 18 88 18 88 18 88 18 88 18 88 18 88 18 88 18 88 18 88 18 88 18 1	271	
	6-8	48 82 16 11 16 11 16 11 16	285	
	7-8	18 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	292	
P. M.	6-7	40 49 18 18 18 18 18 18 18 18 18 18	289	
	5-6	864 865 865 865 865 865 865 865 865 865 865	277	
	4-5	$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\$	282	
	3-4	47288844211 1688844211 16	290	
	2-3	912888888281	285	
	1-2	4448888861661 10 10 10 10 10 10 10 10 10 10 10 10 10	280	
	12-1	x 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	305	
	11-12	4458888°°	289	
	10-11	44688880080	271	
	9 10	42888829183 162448222183	303	
	8-9	44%%%%%%%2% ²	291	
	%-8	88488888888888888888888888888888888888	266	
M.	2-9	64 8 8 8 8 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1	259	
A.	5-6	4488888882 ⁻⁴	245	
	4-5	88188000 12°000000000000000000000000000000000	244	
	3-4	$\begin{array}{c} 44\\ 52\\ 22\\ 6\\ 15\\ 0\\ 6\\ 1\\ 1\\ 1\\ 2\\ 0\\ 0\\ 1\\ 1\\ 0\\ 0\\ 1\\ 0\\ 0\\ 1\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$	252	
	2-3	512 × 13 8 8 3 3 1 4	255	
	1-2	55 96 12 12 12 12 12 12 12 12 12 12 12 12 12	276.	
	12-1	21-15884384 21-1588434 21-1588434 21-158844 21-158844 21-158844 21-158844 21-158844	275	
P. M.	11-12	256825 256855 256855 256855 256855 25675 257575 257575 257575 257575 257575 257575 257575 25757575 25757575 25757575 25757575 257575757	267	
	Date.	10.90.40.00.00 10.90.00	Sums.	

11. 15. 16. 17. 18. 19. 20.	Sums.
449 665 802 302 395 395 395 395 395 395 395 395 509	4,431
85556458°°2458	197
80 81 81 81 81 81 81 81 81 81 81 81 81 81	205
8258 8211258 8211228 82258 825578 82558 82558 82558 82558 82558 82558 82558 82	202
3211 ₈ 3169128	204
30 20 20 20 20 20 20 20 20 20 20 20 20 20	205
841933543356	190
201201201222	201
28812253003355 2625300355 2625300355	210
2316113128 2316113128 2316113128	198
8582828282828	189
386 385 141 141 181 181 181 141 141 141 141 141	172
212155523 223252 2	150
58483×3181	138
	165
22°°85552424	164
850 851 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m	178
016 × 2 3 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	170
20 29 29 29 29 29 29 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	181
1122 ° 1132 26 23	180
23 23 10 11 11 11 11 11 11 11 11 11 11 11 11	182
15160115320351 151160115320	190
41 82 82 82 82 82 82 82 82 82 82 82 82 82	192
1282252525251	181
525232322222 625333322222	183
909 919 919 919 919 919 919 919 919 919	Sums.

	in the second second				
	สสสสสสสสสสส สสสสสสสสสส	Sums.		Moothly Sums.	Means.
	783 5540 551 551 551 551 551 551 551 551 551 55	5,787		16,821	22.6
	128881195528814 14	227		678	21.8
	$^{22}_{39}$ $^{26}_{6}$ $^{21}_{14}$ $^{21}_{11}$ $^{22}_{11}$ $^{22}_{12}$ $^{22}_{11}$ 22	221		697	22.5
	33 4 52 10 12 28 33 33 33 33 33 33 33 33 33 33 33 33 33	250	-	742	23.9
	32 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	237		733	23.6
	88.519.511.951-58 8819.011.9512.88	234		728	23.5
-	36 -1 2 ° 5 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	270		737	23.8
	39119° 1807 3333 380	182		764	24.6
-	8 8 8 1 8 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9	289		189	2.54
-	400 40 40 40 40 40 40 40 40 40 40 40 40	286		769	24.8
-	89 89 86 8 17 28 23 38 38 38 38 38 38 38 38 38 38 38 38 38	283		752	24.3
	88888881188888888888888888888888888888	278		755	24.3
17	23,95,75,45,15,35,98 23,96,15,25,25,35,98 20,75,25,25,25,35,35,35,35,35,35,35,35,35,35,35,35,35	263		702	22.6
-	80528333408 8054083335408	255		664	21.4
-	28 83119 28 84119 28 84110000000000000000000000000000000000	265		723	23.3
-	24 13 24 13 26 13 26 13 26 13 28 27 28 27 28 27 28 28 28 28 28 28 28 28 28 28 28 28 28	228		683	22.0
-	2222151991133291 4 3	226		670	21.6
	410884611111888 88884611111888	225		654	21.1
-	$\begin{array}{c} 112\\ 23\\ 23\\ 23\\ 23\\ 23\\ 23\\ 23\\ 23\\ 23\\ 2$	229		655	21.1
	899555555° 85568	219		643	20.8
-	222 222 222 222 222 222 222 222 222 22	218		652	21.0
		210		655	21.1
	640-1232-8-2-0-4-0-4-0-4-0-4-0-4-0-4-0-4-0-4-0-4-0	202		670	21.6
	1910 1910 1910 1910 1910 1910 1910 1910	202		658	21.9
	30 222 222 222 20 20 20 20 175 175 175 175 175 175 175 175 175 175	199		649	91.0
	2982289288855	Sums.		Monthly	Means.

MARCH.

(18)

	Date.	-: 01 06 4 16 05 16 06 05 05 05 05 05 05 05 05 05 05 05 05 05	Sums.	195
	Total.	$\begin{array}{c} 879\\ 566\\ 566\\ 149\\ 181\\ 181\\ 304\\ 304\\ 304\\ 200\\ 600\\ 600\\ 600\\ \end{array}$	4,621	438 445 417
	10-11	852×00533554	147	13
	9-10	02 02 02 02 02 02 02 02 02 02 02 02 02 0	167	881
	6-8	352555557555	154	-
	20	889753418668	180	19 24 19
F. M.	6-7	814668182182 81166682	188	13 13 13
4	5-6	250 250 250 250 250 250 250 250 250 250	217	13
	4-5	55244555555564555	241	212 12
	3-4	36 2 1 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2	252	13 22 21
	3-3	88 89 89 89 80 80 80 80 80 80 80 80 80 80 80 80 80	240	16 94 91
	1-3	82188118 82188118 82188118	217	16 23 91
	12-1	$\begin{array}{c} 342\\ 342\\ 356\\ 99\\ 111\\ 125\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12$	929	18 24 19
	11-12	85 85 85 85 85 85 85 85 85 85 85 85 85 8	203	19 18 18
	10-11	20 20 20 20 20 20 20 20 20 20 20 20 20 2	205	20 14 18
	9-10	222 222 222 222 222 222 222 222 222 22	188	21 16
	6-8	$\begin{array}{c} 32\\ 19\\ 20\\ 20\\ 13\\ 11\\ 13\\ 13\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12$	183	123
	S*	15 15 5 8 8 9 13 1 13 15 15 5 8 8 9 13 1 13 15 15 5 8 8 9 13 1 13 15 15 5 8 9 13 1 13 15 15 5 8 9 13 1 13 15 15 15 15 15 15 15 15 15 15 15 15 15 1	150	19 13
. M.	6-7	$ \begin{array}{c} & 37 \\ & 37 \\ & 4 \\ & 19 \\ & 11 \\ & 12 \\ & 11 \\ & 11 \\ & 11 \\ & 12 \\$	176	10
A.	5-6	25 13 26 13 26 13 26 27 26 26 26 26 26 26 26 26 26 26 26 26 26	188	15 15 90
	4-15	141 19 19 19 19 19 19 19 19 19 19 19 19 19	178	17
	3-4	$232 \times 232 $	187	117 16
	2-3	26511.320 24 26 21 26 21 26 21 26 21 26 21 26 27 26 27 26 27 26 27 26 27 26 27 26 27 26 27 26 27 26 27 26 27 27 26 27 26 27 26 27 27 27 27 27 27 27 27 27 27 27 27 27	185	6125
	1-3	82 0 8 - 8 0 2 9 9 8 8 8 8 8 9 8 9 8 9 8 9 8 9 8 9 8	179	21 15
	13-1	1985559 <mark>8685586</mark>	182	27 16
P. M.	11-13	53 113 112 113 113 113 113 113 113 113 11	185	36 35 16 25
н	Date.	-ieisi4:20.000	Sums.	19.11

20.54.55.55.55.55.55.55.55.55.55.55.55.55.	Sums.	
445 417 374 374 328 328 328 328 328 328 328 328 328 328	3,507	
8033885254	146	
21212121 2122222	145	
8151544°8	136	
42 141 155 141 155 141 155 141 155 141 155 155	149	
2212244821 2212244821	138	
21 15 10 11 12 13 8 8 13 15 11 12 13 8 8 13 13 13 13 13 13 13 13 13 13 13 13 13	134	
21 12 12 12 12 12 12 12 12 12 12 12 13 12 13 13 13 13 13 13 13 13 13 13 13 13 13	140	
22 21 2 12 12 12 12 12 12 12 12 12 12 12	141	
24 12 15 10 15 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10	147	
16,10° 13.7 16123	143	
22 18 10 10 10 10 10 10 10 10 10 10 10 10 10	138	
18 16 20 11 6 11 15 7 6 11 15 7 11	137	
$\begin{array}{c} 11\\18\\29\\11\\13\\12\\11\\17\\12\\12\\12\\12\\12\\12\\12\\12\\12\\12\\12\\12\\12\\$	133	
22 22 22 23 13 25 25 13 25 25 25 25 25 25 25 25 25 25 25 25 25	150	
1001 - 21 - 20 - 20 - 20 - 20 - 20 - 20	146	
19 13 12 12 13 13 13 13 13 13 13 13	145	
162463-729166 1624612-259469	151	
1625°°°°°°°°°°°	153	
19021 + 18021 + 1902	153	
23270 17.0 17.0 128 233720 17.0 128 23327 23	159	
2112840818 12128	151	
2891305100184	154	
8.55517 ⁸ 3396	163	
825-1620 <mark>88</mark>	154	
20. 20. 20.	Sums.	
(10)		

(19)

2222232922828	Sums.
368 416 420 356 370 386 386 3384 370 330 370 370 370 471	3,845
8255-2582-01 16-1892-1552	147
814824906688674 1980688674	146
11 11 11 12 12 12 12 12 12 12 12 12 12 1	133
451 250 26 20 26 26 26 26 26 26 26 26 26 26 26 26 26	127
411 20 20 20 20 20 20 20 20 20 20 20 20 20	136
11 11 11 11 11 11 11 11 11 11 11 11 11	148
18 18 18 18 18 18 18 18 18 19 10 10 10 10 10 10 10 10 10 10 10 10 10	154
8111771 111172 1111172 1111172 1111172 1111172 1111172 11111111	161
2118119-7338115 2118119-7338115	159
22000117771212 2200011777	166
292119525555555555555555555555555555555	168
11 10 10 10 10 10 10 10 10 10 10 10 10 1	155
318 336 666120	168
211 212 213 213 213 213 213 213 213 213	173
28 21 28 21 28 21 28 28 28 28 28 28 28 28 28 28 28 28 28	173
78482°54088	169
616558 <mark>7,5</mark> 614	171
1132 1132	186
8858883446	17:3
115 119 119 119 119 119 119 119 119 119	174
8116871886116 81188718861168 8118861168	182
2011 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	165
5858885 88 588555	153
182381560	157
ត់ដត់តំនាត់នាំនាំន	Sums.

11,973 Monthly Sums.	16.6 Means.
440	14.7
458	15.3
423	14.1
456	15.2
462	15.4
499	16.6
535	17.8
554	18.5
566	18.9
526	17.5
535	17.8
495	16.5
506	16.9
509	17.0
502	16.7
464	15.5
498	16.6
527	17.6
504	16.8
520	3 17.3
518	6 17.3
0 498	.7 16.6
6 500	.5 16.7
Monthly 496 Sums.	Means. 16.5

P. M.

APRIL.

N. M

F

	S.	bly s.
33.88.27.8.8.8.8.8.8	Sums	Monthly Sums. Means.
452 441 334 441 628 667 331 302 332 427 302 302 302 302 302 302 302 302 302 302	4,487	13,382
0.669392333.0860 0.6693923333	177	510
25111983331167 15911983331167 2511198333119	163	519 16.8
$118\\138\\166\\166\\182\\166\\182\\182\\182\\182\\182\\182\\182\\182\\182\\182$	178	556 17.9
18 18 19 16 16 16 16 16 16 16 16 16 16 16 16 16	196	566 18.2
117 117 117 117 117 117 117 117 117 117	192	565 18.2
0 33130 352 352 352 352 352 352 352 352 352 352	195	591 19.1
48498281981	196	625 20.2
10 10 10 10 10 10 10 10 10 10 10 10 10 1	194	633 20.4
1822-823-821 1910-823-824 1910-824 1911-924 1911	190	592 19.1
$\begin{array}{c} 19\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12$	182	588 19.0
$\begin{array}{c} 112\\ 256\\ 256\\ 117\\ 117\\ 117\\ 117\\ 117\\ 117\\ 117\\ 11$	174	560
222 224 0 4 5 5 4 8 1 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	170	554 17.8
2821.01 821.01 101 101 101 101 101 101 101 101 101	180	552 17.8
130-10-23 ⁶ 6 8 124 22	173	530 17.1
$\begin{array}{c} 21\\ 23\\ 23\\ 23\\ 23\\ 23\\ 23\\ 23\\ 23\\ 23\\ 23$	175	536 17.3
1946 11946 11933 11946 11946	178	529 17.1
219 219 219 219 219 219 219 219 219 219	197	543 17.5
120 132 132 132 132 142 142 142 142 142 142 142 142 142 14	194	549 17.7
195585233522	201	552 17.8
20 4 1 0 4 0 2 8 1 9 0 0 1 1 0 0 1 0 0 1 0 0 0 1 0 0 0 0	214	579 18.7
121112229999399 121112229999399	198	569 18.3
2473255257428 124122255255555	195	544 17.5
222353222555	205	553 17.8
11 29 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	178	525
2888288688888	Sums.	Monthly Sums. Means.

	20. 20. 20. 20.	Sums.
11 22	585 214 218 218 218 218 218 219 517 517 539 539 539	4,267
	$\begin{array}{c} 110\\ 120\\ 202\\ 203\\ 203\\ 203\\ 203\\ 203\\ 203\\ 2$	155
	$\begin{array}{c} 17\\13\\21\\22\\21\\21\\21\\21\\21\\21\\21\\21\\21\\21\\21\\$	169
	22002135.21116.818 2202135.51116.818 2135.51116.818	179
	$\begin{array}{c} 19\\ 19\\ 29\\ 29\\ 29\\ 29\\ 29\\ 29\\ 29\\ 29\\ 29\\ 2$	187
	292511488115 292511488115 2925114	179
	$\begin{array}{c} 22\\ 22\\ 22\\ 22\\ 22\\ 22\\ 22\\ 22\\ 22\\ 22$	179
	202221322138 202221322338 20222132238 20222338 2022233 202223 202223 202223 202223 202223 202223 202223 202223 202223 202223 202223 202223 202223 202223 202223 20223 20223 20223 20223 20232 202 20	189
	228832102212332 238832102212332	198
	$\frac{26}{28}$	180
	25.33199999999233 25.33199999999	192
	22852331330°28	179
	25 25 28 11 28 28 12 29 28 12 29 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	189
	$\begin{array}{c} 27\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2\\$	188
	2825.991211.630 2825.9120111.630	180
	28 8 8 4 2 1 2 1 0 0 2 1 0 0 2 0 2 0 2 0 2 0 2 0	176
	$\begin{array}{c} 26\\22\\28\\24\\24\\24\\24\\24\\24\\24\\24\\24\\24\\24\\24\\24\\$	175
	5171003310371125 2571003310371125	.173
	26	177
	21 21 21 22 29 29 29 29 29 29 29 29 29 29 29 29	170
	222 833 1 25 6 11 27 22 83 1 25 6 11 27 28 8 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	171
	25,110,22,30,32,30,10 26,110,23,30,32,30,10 26,110,23,30,32,30,10 26,110,23,30,32,30,10 26,110,23,30,32,30,10 26,110,23,30,32,30,10 26,110,23,30,32,30,10 26,110,23,30,32,30,10 26,110,23,30,32,30,10 26,110,23,30,32,30,10 26,110,23,30,32,30,10 26,110,23,30,32,30,10 26,110,23,30,30,10,10 26,110,23,30,30,10,10 26,110,23,30,30,10,10,10,10,10,10,10,10,10,10,10,10,10	180
	218 87 23 2 2 2 2 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	167
	220.5242.57 210.2242.57 210.2242.57	170
	210 ⁻⁴ 203133 ⁻⁴ 120	3. 175
	12121212121212121212121212121212121212	Sums.

Sums. Date. 10,0,4,0,0,0,0,0,0 Total. 4,628 32957757757741748948930430430230230231732910-11 178 9-10 187 179 8-9 1352200 - 193218183 7-8 2202221207216 6-7 194 23035617330250118217 5-6 4-5 1330212262219240 203281128628618 241 3-4 $^{22333}_{22330}^{228}_{2233$ 2-3 222 2141-2 $10\, \substack{+0.000 \\ -0.0$ 12-1 119 119 119 119 110207 11-12 523528332443 29352833244 29352833244 19510-11 2332131223333184 9-10 $^{23}_{23}$ $^{22}_{23}$ 2 11 8-9 1857-8 1768021101202 80211120 80211110 80211110 80211110 80211110 80211110 8021110 8021110 8021110 8021110 8021110 802110 802110 802110 802110 802110 802110 802110 802110 802110 802110 802110 802110 802100 80210 802000 80200 80200 80200 80200 80200 80200 80200 80200 80200 80200 80200 80200 80200 80200 80200 80200 800 173 6-7 5-6 178 4-5 42128222244 181 3-4 194 2-3 $\begin{array}{c} 128 \\ 133 \\ 133 \\ 133 \\ 128 \\$ 191 1-2 200 110 123 234 18212-1 178 23331136124721 11-12 182199233234 18219923323 172 Date. Sums. idia diviori a a a

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	Date.	-19.24.20.20.00 -19.20.20.00 -19.20.20.20 -19.20.20 -10.20.20.20.20 -10.20.20.20.20.20.20.20.20.20.20.20.20.20	Sums.	113.13.13.14.
	Total.	362 573 578 387 387 387 387 394 505 394 205	3,995	$\begin{array}{c} 328\\ 328\\ 375\\ 245\\ 2295\end{array}$
	10-11	17815121712838 8 8	211	941 16576
	9-10	86666888888888888888888888888888888888	202	e & 95 1- 5
	6-8	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	191	16688 16688 17618
-	8-2	$\begin{array}{c} 12\\ 22\\ 22\\ 23\\ 23\\ 22\\ 23\\ 22\\ 23\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12$	174	10 110 141 14 17 19
P. M.	6-7	935551125533 93555125533	175	0%E1%
	5-6	6623653555 66236555555555555555555555555	179	051001001
	4-5	222225644 1412282255 14122844 14228255 141228 141228 1412 1412 1412 1412 1412	172	117271991
	3-4	18588888.	173	1112002
	2-3	42222 10 11 12 12 12 12 12 12 12 12 12	156	12125-4
	1-3	222222222	146	88130 <u>8</u>
	12.1	5455555 545555 5555 555 555 555 555 555	133	39°815
	11-12	244 124 124 12 12 23 13 23 14 23 14 23 23 23 24 24 24 24 24 24 24 24 24 24 24 24 24	140	20 20 20 20 20 20
	10-11	10227915200	134	10 10 10 10 10 10 10 10 10 10 10 10 10 1
	9-10	055600546°	130	110 10 10 10 10 10 10 10 10 10 10 10 10
	8-9	8518 0 0 C 7 1 8 4 C	127	2112 212 241 240 200
1	2-8	612311230 512311230 5131113	128	1589 1589 1589 1589 1589 1589 1589 1589
. M.	6-7	25555555555555555555555555555555555555	152	1374 53 1374 53 1375 5375 5375 5375 5375 5375 5375 5375
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	4-5	22 24 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	170	8182-252 882-252
	3-4	-1051111128128	172	20-120-123
	2-3	122 123 123 123 123 123 123 123 123 123	182	138952
	1-2	$\begin{array}{c} 11\\ 12\\ 12\\ 13\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12$	195	21 30 20 30 20 30 30 30 30 30 30 30 30 30 30 30 30 30
P. M.	12-1	20082121228000 0000000000000000000000000	197	13 13 13 13 13 13
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222 245 245 260 606 222 233 245 53 245 55 50 50 50 50 50 50 50 50 50 50 50 50	3,383	100
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1112336-16	145	
1623215613	143	a T
110 110 110 110 110 110	140	Ç T
169162138 169162138 169162138	128	0
16 209119 16 209119 19 10 10 10 10 10 10 10 10 10 10 10 10 10	126	00
13.5.8216 611- 13.5.8216	133	
10 8 3 2 4 2 1 2 - 10 8 3 2 4 5 1 2 -	143	Ţ
10-2222-13	134	
-1.9883110 2883110	143	7
811922°°	143	(
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331-10 112-110 8-8-4	130	c
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4408645	134	<
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1128623811 128623811	149	Ŧ
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22 27 25 24 44 44 44 44 44 44 44 44 44 44 44 44	158	1
11552155 1152155 1152155	160	C F
1218813°3123°	160	C F
11 19 19 19 19 19 13 19 13 19 13 13 13 14 13 13 14 13 13 14 14 14 14 14 14 14 14 14 14 14 14 14	139	C F
1286~15	131	1
114. 117. 118. 119. 20.	Sums.	10

(21)

19899999898	Sums.		Monthly Sums.
331 260 260 251 233 251 204 264 264 264 264 264 264 266 266 266 26	3,591		10,969
12123455245 662123455 662123455 662123455 662123455 66212345 6621235 6621235 6621235 6621235 6621235 6621235 6621235 6621235 6721235 6721235 6721235 772125 772175 772175 772175 7775 77	152		500
13812029e 186	167		514
15 11 15 12 13 13 15 15 15 15 15 15 15 15 15 15 15 15 15	156	đ	490
152-780 3176 152-780 3776 152-780 3776	152		466
81449 2000 2040 2050 2040 2050 2040 2050 2040 2050 205	149		452
139 2 2 2 3 5 4 1 1 0 0 0 1 1 1 0 0 0 1 1 1 0 0 0 1 1 1 0	157		462
1328 0 25 4 5 1 1 2 0 8 8 1 1 2 0 1 8 1 1 2 0 1 8 1 1 2 0 1 1 2 1 1 1 2 1 1 2 1 1 2 1 1 2 1	154		459
1885,899,915,91	172		488
120 22 22 23 24 22 29 6 21 29 20 20 20 20 20 20 20 20 20 20 20 20 20	153		443
15.32025555 15.33 15.33 15.53 15.555	150		439
12010803350350 12010803350350 120108053 120108053 12010805 100100000000000000000000000000000	146		422
7-0.0 0 0 0 0 0 0 0 0 0 0 0 0 0	144		411
236 + 4 + 130 =	153		417
4010080012800	135		403
100 100 100 100 100 100 100 100	143		404
1110 111 111 111 111 111 111 111	125		385
41 11 11 11 11 11 11 11 11 11 11 11 11 1	120		421
81992618°555	132		444
6 2 6 2 6 8 0 1 2 1 2 1 2 1 2 2 1 2 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1	136		464
10^{-10}	140		470
20028128004 20188004 20188004 201880 2018000 20180000000000	148		490
22 23 23 23 23 23 23 23 23 23 23 23 23 2	165		520
221111122 221111122 22122 2212 2212 221 2212 22	175		511
2001110 1110 11111111111111111111111111	166		492
288338882888	Sums.		Monthly Sums.

15.2 Means.

16.7

17.1

16.3

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11-13 13-1 1-3 3-3 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-3 3-3 4-5 5-6 6-7 7-8 8-9 9-10 10-11 15 15 15 15 15 15 15 15 15 15 16 17 18 19 10 11 11-13 12-3 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 15 15 15 15 15 15 15 15 15 16 17 18 19 19 11 17 15 14 15 14 15 14 15 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 16		Date.	Haisi 4 rais Fasisi	Sums.	
		Total.	$\begin{array}{c} 272\\ 394\\ 262\\ 314\\ 2592\\ 2592\\ 2892\\ 2892\\ 2892\\ 201\\ 2892\\ 201\\ 201\\ 201\\ 201\\ 201\\ 201\\ 201\\ 20$	3,484	
		10-11	19 19 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13	155	
11-13 12-1 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-1 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-1 12-8 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-1 12-8 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-1 12-8 2-3 3-4 4-5 5-6 6-7 7 8-9 9-10 10-11 11-12 12-1 12-9 12		9-10	56712855713 56712855713 56712855713	161	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		8-9	8115 2119 2119 2119 2119 2119 2119 2119 2	148	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		¥-8	921195119 9231991191919	142	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		6-7	116 2001 10 2001 10 200 10 200 200 200 200	134	
11-13 12-1 1-3 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-1 12-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-3 3-3 3-4 1-9 10-11 11-12 12-3 3-3 3-4 1-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-3 3-4 1-5 5-7 9-10 10-11 11-12 12-3 13-4 14 13-5 15-7 15-7 16-7 <t< td=""><td></td><td>5-6</td><td>550940050950 560120050 500120050 500120 5001000 50010000000000</td><td>130</td><td></td></t<>		5-6	550940050950 560120050 500120050 500120 5001000 50010000000000	130	
11-13 12-1 1-3 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-1 1-2 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-1 1-2 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-1 12-2 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-1 12-2 12-3 <t< td=""><td></td><td>4-5</td><td>21000000000000000000000000000000000000</td><td>134</td><td></td></t<>		4-5	21000000000000000000000000000000000000	134	
11-13 12-1 1-3 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-13 12-1 1-3 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-13 12-1 1-3 12-1 1-3 13-1 <th< td=""><td></td><td>3-4</td><td>52³33152⁵210</td><td>150</td><td></td></th<>		3-4	52 ³ 33152 ⁵ 210	150	
II-13 12-1 1-2 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-13 13-1 9 14 14 14 14 12 12 12 12 13 16 5 5 6 7 7-8 8-9 9-10 10-11 11-13 13-1 9 14 14 12 13 13 13 15 15 15 15 15 15 15 15 15 15 15 16 5 4 4 6 15 15 15 15 15 15		2-3	1333333550×128	144	
11-13 12-1 1-2 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-13 9 14 14 14 12 12 12 12 12 15 15 15 15 15 15 15 15 15 15 15 16 6 6 6 6 6 5 6 5 5 6 5 7 9 10 11-13 10 15 15 12 12 13 15 15 12 16 15 17 15 15 16 5 7 9 10 11-13 11 12 12 14 15 15 12 15 12 16 13 16 15 15 15 15 15 15 15 15 15 15 15 15 15 15 15 15 15		1-2	$116 \circ 2911 \times 66116$	124	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		12-1	55555555555 281 281 281 281 281 281 281 281 281 281	120	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		11-12	12-4 12-4 13-4 13-4 15-5 10-5 10-5 10-5 10-5 10-5 10-5 10-5	4	
11-13 12-1 1-2 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9 14 14 14 14 14 12 12 12 13 14 15 15 15 12 19 10 6 7 15 12 12 13 13 13 13 13 13 13 13 13 15 15 12 13 13 15 15 15 13 15 15 15 15 13 15 15 15 13 15 <td></td> <td>10-11</td> <td>$\begin{array}{c} 122 242 242 25 25 25 25 25 25 25 25 25 25 25 25 25$</td> <td>116</td> <td></td>		10-11	$ \begin{array}{c} 122 242 242 25 25 25 25 25 25 25 25 25 25 25 25 25$	116	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		9-10	8012044120 80120442	118	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		6-8	02000-95885 200-95885	117	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		7-8	5232413224132525	131	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		6-7	$\begin{array}{c} 11\\ 15\\ 15\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12$	148	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	{	2-6	198881194119 198882119419 198882119419	168	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		4-5	$\begin{array}{c} 111\\ 222\\ 112\\ 222\\ 112\\ 222\\ 112\\ 222\\ 112\\ 222\\ 112\\ 222\\ 122\\$	171	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		3-4	422122282224 19222822222	175	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		2-3	19222002212 1922002212 1920022	171	
11-12 157 157 157 157 157 157		1-2	91222222222222222222222222222222222222	184	
		12-1	$^{12}_{-8}$	175	
Date. Date. 10.99.8.7.6.6.5.4.8.3.9.9.1. 10.99.8.7.6.6.5.4.8.3.9.9.1.		11-13	19213343302573 19213233 1921323 192132 19213 19211 19213 19213 19215 19215 19215 19215 19215 19215 192	157	
		Date.	10,0,4,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	Sums.	

205 × 14 19 19 19 19 19 19 19 19 19 19 19 19 19	Sums
$\begin{array}{c} 440\\ 298\\ 360\\ 272\\ 313\\ 360\\ 272\\ 360\\ 280\\ 280\\ 280\\ 280\\ 280\\ 280\\ 280\\ 28$	3,765
8611288821288 1991128888258	175
26 27 28 28 28 28 28 28 28 28 28 28 28 28 28	177
16 18 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	179
191212333912 19121233912 19121233912 19121 191212 19121 1912 19121 1	171
110025555555 8955555555555555555555555555555	173
$\begin{array}{c} 118\\222\\18\\18\\16\\222\\22\\18\\18\\16\\22\\22\\22\\18\\18\\28\\18\\28\\18\\28\\18\\28\\28\\28\\28\\28\\28\\28\\28\\28\\28\\28\\28\\28$	190
121112222223	190
82222222222222222222222222222222222222	181
$^{+160}_{-18}$	174
9 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13	167
51113323255111 541133255555	161
or 16 0 0 0 1 1 3 5	155
211212 2012442235 252	142
22 34 15 15 15 15 15 15 15 15 15 15 15 15 15	129
8 v v 4 8 2 1 9 2 4	124
128 a 23 13 a 6	135
$\begin{array}{c} 11\\10\\11\\11\\11\\11\\11\\11\\11\\11\\11\\11\\11\\1$	122
$\begin{array}{c} 144\\ 166\\ 167\\ 177\\ 177\\ 177\\ 177\\ 177\\ 177$	118
110 110 110 110 110 110 110 110 110 110	142
11 12 13 13 14 10 15 13 14 10 14 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 110 11 11	131
1382110411 1382110411 1382110411	142
12 14 11 15 15 15 15 15 15 15 15 15 15 15 15	159
102222222220 02222222222222222222222222	162
284158255158	170
20.02 20.020	Sums.

299449949995	Sums.	Monthly Sums. Means.
271 270 296 298 296 296 296 296 296 296 296 296 296 296	3,544	10,793 14.5
12 × 22111722211160	158	488 15.8
1755122802748	168	506 16.3
5×34460×13885	168	495 16.0
849952448°°B	165	478 15.5
28555521558°°5	158	465 15.0
44°355244621	175	495 16.0
5555565556555 555556555 555555555 555555	174	498 16.1
2622259 4 241	181	511 16.5
8191838888889 8119188888888	161	479 15.4
0102220102	134	426 13.7
0100274258 8285858 82858 829 829 829 829 829 829 829 829 829 82	126	407 13.1
0221122040	123	392 12.7
0 0 2 4 0 0 2 4 0 0 0 1 1 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0	120	378 12.2
222222204621 104662 10272	117	364 11.7
1244812 2608223 26194 261 262 262 262 262 262 262 262 262 262	119	360
26-16-28 8 6 1 9 9 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	123	389 12.5
12 12 12 12 12 12 12 12 12 12 12 12 12 1	150	420 13.5
202520220r99	144	420 13.5
 137-70 125-155 137-70 10 10 10 10 10 10 10 10 10 10 10 10 10	145	458 14.8
8118 × × 44889 e	145	451 14.6
 4002 000 000 000 000 000 000 000 000 000	151	464 15.0
81 2 2 0 0 8 4 6 1 4 8 8 7 2 8 0 0 8 4 6 1 4 8	133	476
58841831381	152	489 15.8
10 12 12 10 12 12 12 12 12 12 12 12 14 12 14 12 14 12 12 12 12 12 12 12 12 12 12 12 12 12	. 152	y 479 . 15.5
 3.3.8.8.8.8.8.8.8.8.8.8.8.	Sums	Monthly Sums. Means.

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	Date.	-ici	Sums.	12121212121212121212121212121212121212
	Total.	989 398 398 399 391 392 392 392 392 392 392 392 392 392 392	3,881	497 353 353 353 353 353 353 353 353 353 35
	10-11	5868188888	169	111 - 28 38 38 38 38 38 38 38 38 38 38 38 38 38
	9-10	22222222228	178	18 18 18 18 18 18 18 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19
	6-8	82221662218	193	20 21 20 20 20 20 20 20 20 20 20 20 20 20 20
	8-2	888834982598	184	71127.985-8011 8108-2012
P. M.	6-7	8122852288	171	4556685586516
H	5-6	865%25115%568	174	021171120 021771120 0201172
	4-5	262 50 51 50 50 50 50 50 50 50 50 50 50 50 50 50	173	9259558% 9159558% 915
	3-4	01200110000000000000000000000000000000	169	81111112 81111112 81111112 81111112 811111112 811111111
	50	910 20 21 21 21 21 22 20 20 20 20 20 20 20 20 20 20 20 20	174	275 110 10 10 10 10 10 10 10 10 10 10 10 10
•	1-2	01488519914938 98541661388	159	11221220212212 812222222 81222222 812222 81222 81222 81222 81222 81222 81222 81222 81222 81222 81222 81222 81222 81222 81222 81222 81222 8122 8122 8122 8122 8122 8122 8122 8122 812 81
	1-21	955 c 11 9 35 5 0	155	1112222111 112222222222222222222222222
5	11-12	9 18 16 16 15 15 15 15 15 15 15 15 15 15 15 15 15	148	4111222224 461112222224 1011222222
A (10-11	8 2 4 0 8 2 2 1 2 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2	146	5752885154ea
	9-10	222221222 222222222 222222222	140	2140029 240029 20020 20000 200000 200000 20000 20000 20000 20000 20000 20000 20000 20000 20
	8-9	452222222 222222222 2222222222222222222	141	6 0 1 1 0 2 2 2 2 2 1 1 0 0 0 0 0 0 0 0 0
	00 2*	8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	124	$\begin{array}{c} 111\\ 262\\ 262\\ 10\\ 10\\ 10\\ 12\\ 23\\ 20\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 1$
M.	2-9	846151101516 181015115 181015 1810000000000	134	$ \frac{117}{5} $
Α.	5-6	21256782940 212756782940	153	1112.09 1112.09 1112.09 1112.09 110 10 10 10 10 10 10 10 10 10 10 10 10
	4-5	11 16 17 23 33 36 11 16 17 23 36 11 16 17 17 16 17 17 16 17 17 16 17 17 16 17 17 16 17 17 16 17 17 17 17 16 17 17 17 17 17 17 17 17 17 17 17 17 17	135	581 9 5 5 5 5 4 . 281 9 5 5 5 5 5 4 .
	3-4	124^{-12}	149	481 883 876 76 76 76 76 76 76 76 76 76 76 76 76 7
	5-52	21 29 21 29 29 20 21 20 20 20 21 20 20 20 20 20 20 20 20 20 20 20 20 20	169	1000880084044
	1-2	555581455833 8145833	187	22212224241 ⁸
P. M.	13-1	1988999891	179	-255.7222219
	11-12	1888°°°619883336	182	2242 118 116 116 116 116 116 116
	Date.		Sums.	11111111111111111111111111111111111111

199849999999	Sums.
2512 2522 2519 2519 2519 2522	3,648
8114 £ 481 0 6 F	141
115 22 22 22 22 22 22 22 22 22 22 22 22 22	160
12100001111111111111111111111111111111	176
212 212 212 212 212 212 212 212 212 212	185
261 ₈ 41226	171
156-128355575	168
7112 22 22 22 22 21 22 22 22 22 22 22 22	167
10000000000000000000000000000000000000	162
112 316 316 316 316 316 316 316 316 316 316	167
231186-72924406 231186-72924406	162
26 8 18 4 4 13 4 2 3 3 18 4 4 13 4 2 3 18 4 4 13 4 2 3 18 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	167
8605854 8 5599	163
222122222	160
2001 10 10 10 10 10 10 10 10 10 10 10 10	150
8011001491 8011001491	133
481 20211112 20211111111	126
47122160246124	151
92122122222 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	140
9975559899749	143
7921986194 981986194	131
8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	127
70111011111 01110111111 011111111111111	136
5012005551051 5012005551051	137
4000040000000	137
588588666	Sums.

Sums.

3,508

156

161

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Sums.

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Monthly Sums.

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Means.

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14.4 448

13.7 424

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13.6423

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Means. 15.5 Monthly 481 Snms.

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393 12.7

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AUGUST.

			201
	Date.		Sums.
	Total.	416 354 354 354 354 212 294 203 303 303 236	3,185
	10-11	811 848 46166 90 - 0	4
	9-10	$\begin{array}{c}11\\15\\1\\1\\0\\1\\1\\0\\1\\0\\1\\0\\1\\0\\0\\1\\0\\0\\1\\0$	119
	8-9	1122175.652115 122175.622 122175.622	132
	1-8	116 116 116 116 116 116 116 116 116 116	142
P. M.	6-7	11 11 11 11 11 11 11 11 11 11 11 11 11	137
	5-6	11 8 119 119 119 119 119 10 10 10 10 10 10 10 10 10 10 10 10 10	135
	4-5	16 15 15 15 15 15 15 15 15 15 15 15 15 15	138
-	3-4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	132
	2-3	20^{20}	140
	1-2	681244 1156 1257 1257 1257 1256 1257 1256 1256 1256 1256 1256 1256 1256 1256	138
	12-1	$\begin{array}{c} 23\\ 23\\ 11\\ 6\\ 6\\ 6\\ 6\\ 6\\ 6\\ 6\\ 6\\ 6\\ 6\\ 6\\ 6\\ 6\\$	140
	11-12	22 22 22 22 22 22 22 22 22 22 22 22 22	142
	10-11	22 11 10 10 10 10 10 10 10 10 10 10 10 10	127
2	9-10	25 25 11 12 15 17 8 6 9 6 9 6 9 6 11 8 6 7 12 8 6 12 8 6 12 8 6 12 13 8 6 13 8 14 8 14 14 14 14 14 14 14 14 14 14 14 14 14	134
	8-9	16 10 10 13 13 13 14 13 10 10 10 10 10 10 10 10 10 10 10 10 10	123
	8-2	10000000000000000000000000000000000000	125
. М.	2-9	111 111 112 112 113 113 113 113 113 113	131
Α.	8-6	$112 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\$	142
	4-5	11 11 11 11 12 14 12 14 12 14 12 14 12 14 12 14 12 14 14 14 14 14 14 14 14 14 14 14 14 14	138
	3-4	212138 of 1112188	139
	2-3	13 17 10 10 15 11 16 16	140
	1-2	61120202566 61150202566	122
	13-1	515241045123 52255241045123 5225555	127
P. M.	11-12	$\begin{array}{c} 14 \\ 15 \\ 16 \\ 13 \\ 12 \\ 12 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10$	128
	Date.	1999,499,997,999,05	Sums.

	s.
1284595868 128	Sums
393 547 547 536 536 538 538 538 538 561 561 561	4,786
15.35 120120 8 30 8 30 8 30 8 30 8 30 8 30 8 30 8	187
21 23 24 19 16 28 29 19 29 10 20 20 20 20 20 20 20 20 20 20 20 20 20	205
128-186883138	112
$\begin{array}{c} 11\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\$	212
20230021222 20231002122 20232022022	213
255 257 268 268 268 268 268 268 268 268 268 268	240
12224 22222 222222 22222 22222 22222 22222 2222	239
339437188883339 339487188883339	237
88818811888 8881881888 8881881888	250
25512800282225	246
455555448 <u>5</u> 555	231
3228212222 3228212222 32282222	227
25 25 25 25 11 25 25 12 25 25 25 25 25 25 25 25 25 25 25 25 25	223
88521871088 88521871088 88521871088 8852187108 8852187108 8852187108 885218 885555555555	201
212 212 222 222 222 222 222 222 222 222	206
2223451472110 2823452422110 28234222	202
23 21 20 23 23 23 23 23 23 23 23 23 23 23 23 23	192
22333284229222 22333284229222	190
216 28 19 29 29 29 29 29 29 29 29 29 29 29 29 29	166
231214 231214 231214 2321214 23212 2 2 2	141
246 23716 112 123 25 23716 112 123 25 23716 112 123 25	134
41 0 1 0 1 0 1 0 1 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	136
8:15,7,16 a22 d @	152
241228851498	150
11. 14. 19. 19. 19. 19. 19. 19. 19. 19. 19. 19	Sums.

288242862888	Sums.		Monthly Sums,
471 310 299 638 638 638 638 638 113 254 254 241	3,902		11,873
2112 212 212 212 212 212 212 212 212 21	17		478
22 22 23 29 29 29 29 29 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	177		501
20 21 21 21 23 23 20 20 20 20 20 20 20 20 20 20 20 20 20	170		513
50 20 20 20 0 20°s	160	•	514
16 19 19 19 19 19 19 19 19 19 19 19 19 19	152		502
11 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	137		512
25 14 12 12 12 12 13 13 12 12 12 12 12 12 12 12 12 12 12 12 12	151		528
25 20 10 27 20 20 25 20 25 13 20 25 12 20 25 12 20 25 12 20 25 12 20 25 12 20 25 12 20 25 12 20 20 20 20 20 20 20 20 20 20 20 20 20	141		510
23 16 12 26 13 26 13 26 13 26 13 26 13 26 13 26 13 26 13 26 13 26 13 26 13 26 13 26 26 14 26 26 26 26 26 26 26 26 26 26 26 26 26	140		530
²⁰⁰ ²⁰⁰ ²⁰⁰ ²⁰⁰ ²⁰⁰ ²⁰⁰ ²⁰⁰ ²⁰⁰ ²⁰⁰	141		525
0 0 0 0 0 0 0 0 0 0 0 0 0 0	165		536
$\begin{array}{c} 25\\ 25\\ 32\\ 32\\ 32\\ 32\\ 32\\ 32\\ 32\\ 32\\ 32\\ 32$	168	1	537
913215 1128 1128 128 128 128 128 128 128 128 1	161		511
02222881286	171		506
22222222222222222222222222222222222222	157		486
22 22 22 22 22 22 22 22 22 22 22 22 22	154		481
1022324852401	166		489
	171		503
13 16 13 13 13 14 13 15 16 13 18 18 18 18 18 18 18 18 18 18 18 18 18	173		477
1212122888888	172		452
10 11 12 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13	175		449
88112482138°	178		436
8222222222228	183		462
20112 112 114 114 114 114 114 114 114 114	172		450
មន្តនុងនុងទុងទំន	Sums.		Monthly Sums.

16.5 Means.

15.9

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SEPTEMBER.

(24)

17. 19. 19.	Sums.		Sums.
342 367 275 418	4,467	612 409 433 383 383 383 383 544 444 444 444 561 556 556 561	5,964
59 13 13 13 13 13 13 13 13 13 13 13 13 13	205	8332222222628	268
1418	196	88338361254	246
19 23 23 23	188	12 ^{2,2} 2888888	235
10 11 13 13 13 13 13 13 13 13 13 13 13 13	201	122224888 48 8	234
18 8 13 8 13 8 13 8 13 13 13 13 13 13 13 13	181	002-0140888888	240
81188	191	88-1858888888	235
18 9 9 13	191	82222222222222222222222222222222222222	244
19-12	186	19 33 33 33 33 33 33 33 33 33 33 33 33 33	258
15 × 15	176	1128323333322444444444444444444444444444	268
110 110 110	180	88888888888888888888888888888888888888	264
10 11 1	182	19 29 29 29 29 29 29 29 29 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	257
12 0 15 0	170	128 128 128 128 128 128 128 128 128 128	255
11 0 8 8 8	162	17333229999779928 13333229999779928	264
10 13 13	155	1381956255555	253
4 11 11	159	88831229345888	243
4 6 6 1 8	169	833883200110 8338832000110 83388320000000000000000000000000000000	234
2121°	176	533003301280 5330033012180 53300330	229
1992	199	26 25 25 26 26 26 26 26 26 26 26 26 26 26 26 26	229
1210012	198	89.489.988.488	224
981-39 6	189	635880311475 6358803111475 625888	297
19. ° 6. 19	204	81-984488866	247
	208	\$188112882884	268
16.25	202	43 8 8 8 8 8 9 1 1 1 1 1 1 1 3 8 8 8 1 1 3 1 3 1 3 1 3	122
11357	s. 199	888881268835	s. 271
128.99 1999 1997	Sums.	29922992999999	Sums.

636 13,917 Monthly Sums.

597

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18.7 Means.

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Monthly 613 Sums. Means. 19.8

$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	678 61
Level 10 10 10 10 10 10 10 10 10 10 10 10 10	19
61 61 61 61 8 8 8 8 8 8 8 8 8 8 8 8 8 8	
-	11
142 1335.130 1335.135 1355.1355.	
	15
55 55 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	19
146 15 18 18 18 18 18 18	18
140 36 23 23 118 20 23 23 20 118	33
22 119 119 119 119 129 129 129	23
14 12 12 12 13 12 13 14 14 14 14 14 14 14 14 14 14 14 14 14	53
. 23 23 31 31 31	16
	15
241 115 115 115 115 115 115 115 115 115 1	15
140 55 21 21 21 22 23 24 24 24 24 24 24 24 24 24 24 24 24 24	10
140 119 119 119 119 119 119 119	s
- 11 11 12 12 14 15 14 15 14 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	10
141 116 116 116 116 116 116 116 116 116	4
225120119 302120119	4
23 22 23 23 23 23 23 23 23 23 23 23 23 2	00
8.2.12226 2.02212 8.22122 8.222 8.22 8.22 8.2 8 8.22 8 8.22 8.22 8 8 8 8	1-
61 33.2512121 30.051 30	12
26 8 8 2 3 3 5 7 1 4 9	10
91 91 92 88 92 92 92 92 92 92 92 92 92 92 92 92 92	12
⁴⁴ 33.3 ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °	18
53 ^{32 °} ⁵ ¹⁰	19
11 11 12 13 13 13 13 14 12 14 13 14 13 14 13 14 13 14 14 15 16 17 16 17 19 10 10 10 10 10 10 10 10 10 10	23
Sums. 11. 13. 14. 15. 16.	17.
	$ \begin{bmatrix} 143 & 160 & 144 & 145 & 145 & 135 & 143 & 139 & 141 & 143 & 140 & 142 & 144 & 144 & 127 & 146 & 146 & 146 & 15 \\ 11 & 12 & 12 & 16 & 15 & 17 & 19 & 16 & 14 & 15 & 17 & 16 & 20 & 18 & 17 & 12 & 144 & 17 & 16 & 17 & 22 & 28 & 28 & 28 & 28 & 28 & 28 & 2$

P. M.

Date.

Total.

10-11

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Date.

A. M.

OCTOBER.

P. M.

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		-	
199949999999999	Sums		Monthly Sums. Means.
483 386 631 687 687 867 314 313 313	4,748		15,456 21.5
66855555566	179		586 19.5
8 19 2 2 2 2 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2	176		676 19.2
8 118 118 118 118 118 118 118 118 118 1	181		555
2000110002 2000110002	206		585 19.5
828988819982	211		601 20.0
404558-998	202		617 20.6
884%8888888888888888888888888888888888	201		612 20.4
28 28 28 28 28 28 28 28 28 28 28 28 28 2	223		654 21.8
1321280 132128 13218 132128 132110 10000000000000000000000000000000	236		619 20.6
13358558228 13358558 1335855 13358 13358 1335 1335	228		713 23.8
e 886.9189.998	553	e	727 24.2
0 8 1 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	215		713 23.8
91085449556 4685744956	198		684 22.8
777 83 29 29 29 27 75 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	189	×	691 23.0
	179	-	656 21.9
881-180,0888 881-180,0888 881-180,0888 881-180,0888 881-180,088 891-180,088 891-180,088 891-180,088 801-180,080,088 801-180,080 800,080 800,080 800,080 800,080 800,080 800,080 800,080 800,080 800,080 800,080 800,000,0	181	Ĥ	630 21.0
**************************************	179		635 21.2
8282125392	176		643 21 4
° 165311385519	192		644 21.5
117.9525256211	198		669 22.3
557°545458838	209		673 22.4
197518836471719 197518836471719	204		652 21.7
21219332339 212193323 213223 21219 21219 21212 21212 2122 212	196		639
$217_{-8}^{-20} \times 16^{-11}_{-11} \times 10^{-11}_{-11} \times 10^{$	165		583 19.4
198248892898	Sums.		Monthly Sums. Means.

11. 15. 16. 16. 17. 18. 19. 19. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10	Sums.
312 337 741 741 818 818 613 613 402 1.013 853 493	5.968
128832 <u>888</u> 216	232
10.3540 10 10 10 10 10 10 10 10 10 10 10 10 10	215
8525555555 8615555555 861555555 8655555 865555 865555 865555 86555 86555 86555 86555 86555 86555 86555 86555 86555 865555 865555 865555 865555 86555 865555 865555 865555 865555 865555 8655555 86555555 86555555 8655555 865555555 865555	193
1288855555 6688555555 66855555 668555 768555 768555 76855 769555 76955 76955 769557 769557 769557 769557 769557 769557 769557 769557 769557 769557 769557 769577 769577 769577 769577 769577 769577 769577 769577 7695777 7695777 7695777 76957777 76957777777777	196
446964818668 446964818688 8688888888888888888888888888888	210
1238833212883	219
8010401088 <u>8</u> 1	224
1124235888	232
4-24220234	283
44034812348 244034812348	280
2366511672333 2366511672333 23665116	271
9 8 1 1 1 5 1 1 5 1 1 5 5 1 1 5 5 1 5 5 1 5 5 6 9 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6	268
8,60,00,00,00,00,00,00,00,00,00,00,00,00,	274
8,128,128,128,128,128,128,128,128,128,12	277
1113828994386426	269
	252
833201168338910 833201168338	262
118148220114882	172
2014889110489 8914889110489	260
56045888 56045888 56045888	273
1242882288	268
3333622833331T	259
20 32 6 20 31 86 20 32 30 11 16 20 32 30 11 16	244
3323553568991 3323555589992	. 235
1121 16.14 16.14 17.15 19.05 19.05 10.05 1	Sums.

	Date.	Hoim 41001-0000	Sums.
	Total.	290 290 290 290 297 297 297 297	4.740
	10-11	1993516955124 1993516955124	175
1	9-10	1302222661130 131902222661130	184
	8-9	11 11 11 11 11 11 11 11 11 11 12 12 12 1	181
	7-8	11122210 11122210 11122210 11122210	183
	2-9		180
	5-6	a & & & & & & & & & & & & & & & & & & &	196
	4-5	8888882554r	187
	3-4	1234288288 33288288128	199
	2-3	81264253881898 81264258	200
	1-2		205
	12-1	187546351338°°°°	233
	11-12	12241221381 1841 1841 1841 1841 1841 1841 1841	230
	10-11	12881240249813	212
	9-10	132200244	225
	6-8	1282355244255	208
	8-1	1682325°525°5	197
	6-7	$\begin{array}{c} 21\\ 20\\ 23\\ 23\\ 20\\ 23\\ 23\\ 23\\ 23\\ 23\\ 23\\ 23\\ 23\\ 23\\ 23$	194
	5-6	19552887*8627	196
	4-5	1222929291228 22232929291238 222329292929123	192
	3-4	10212°543030	198
	3-3	26588222881	196
	1-2	01182555554	189
	12-1	13 56 1 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	199
	11-13	$\begin{array}{c} 120\\ 120\\ 123\\ 123\\ 123\\ 123\\ 123\\ 123\\ 125\\ 125\\ 125\\ 125\\ 125\\ 125\\ 125\\ 125$	183
	Date.	-: 0; 0; 4; 0; 0; 0; 0; 0; 0; 0; 0; 0; 0; 0; 0; 0;	Sums.

P. M.

NOVEMBER.

A. M.

P. M.

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	Date.	-i ci ci 4 10 ci 10 ci 01	Sums.		20.53 20.53	Sums.	ក់នាំនាំដង់នាំងងនាំនាំដ	Sums.	
-	Total.	627 713 803 522 603 603 809 1,005 349 404	6,345		$\begin{array}{c} 537\\ 5337\\ 5415\\ 5445\\ 522\\ 522\\ 522\\ 358\\ 358\\ 358\\ 358\\ 358\\ 358\\ 358\\ 358$	5,024	4471 2225 2225 2325 2325 2325 2325 2325 232	5,385	
	10-11	11 5 6 3 1 8 9 4 4 5 1 5 8 9 15 8 9 4 4 5 1 5 8 9 15 15 8 9 15 15 11 10 15 11 10 10 10 10 10 10 10 10 10 10 10 10	278		1.85324.011 16.85324.011 16.85324.011	188	112160333337558	214.	
	9-10	214 88 88 88 88 88 88 88 88 88 88 88 88 88	285		188885811	176	2-4484293382	236	
	8-9	84 <mark>888</mark> 4442-9	288		288491289898 288491889898	195	202121534035°22	234	
	7-8	018861618547462 × 63	263	-	9558335°°838	208	19 80 18 13 33 19 30 19 80 19 19 19 33 19 30 19 80 19 19 19 19 19 19 19 19 19 19 19 19 19	233	
P. M.	6-7	8124212882899999999999999999999999999999	250		212 212 212 212 212 212 212 212 212 212	198	2020282282282282 20202828282828282828282	224	
	5-6	$^{28}_{-28}$	267		815160451518 815560515518	202	8-7588469682	217	
	4-5	512525555555 21252555555555555555555555	251		288288 28828 28878 28778 28778 28778 28778 28778 28778 28778 28778 28778 287777 287777 28777777 2877777777	196	213552525552	236	
	3-4	56466 <mark>2</mark> 564808	277		255 258 288 288 288 297 252 252 252 252 252 252 252 252 252 25	187	2869968333113	666	
	2-3	944038848898	279		133384173333917	196	2042885886668	230	
ER.	1-2	22 22 22 22 22 22 22 22 22 22 22 22 22	165		121128282111 1211288282	194	8°°°7°8°81°8°88888	100	
MB	12-1	$\begin{array}{c} 29\\ 29\\ 22\\ 20\\ 20\\ 20\\ 20\\ 20\\ 20\\ 20\\ 20\\ 20$	289		22 119 128 128 128 128 10 10 10 10 10 10 10 10 10 10 10 10 10	208	2412312324 241232288888 24128288888 241288 26126	247	
CEN	11-12	82888888888888888888888888888888888888	269		10 e 15 3 2 3 3 3 2 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	209	288342833344 28834883 2894 2894 2894 2894 2894 2894 2894 2894	239	• 4
OE(10-11	52223332 11273322 1273322 127332 1273	254		13 c 21 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	216	2448851552828	232	
Н	9-10	551158 332 331 331 332 332 332 332 332 332 332	273		1°°53%83919	216	8888888888888888 888888888888888	226	
	8-9	885 229 229 229 229 239 239 239 239 239 239	269		22 22 23 23 23 23 23 23 23 23 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	223	 336120113386. 3363120113386	233	
	8-1	12191459999999 1219145999999999	250		11935535139665	236	2591190923888 2921190933888 29211909338	236	
A. M.	6-7	8108098890399 8108099899999999999999999999999999999	255		1328833811388888113	236	22,213,00,22,320,01 22,23,20,00,20,20,00,00 22,23,20,00,00,00,00,00,00,00,00,00,00,00,00,	215	
A.	5-6	82122231231 821231231 821231231 821231 8215 8215 8215 8215 8215 8215 8215 821	249		13 13 13 13 13 13 13 13 13 13 13 13 13 1	231	9 2 2 2 2 2 2 3 2 3 2 3 2 3 2 3 2 3 2 3	217	
	4-5	0.1285329138 0.1285329138 0.1285329138	2:58		51261688894514 642688894514	223	$530 \pm 1332 = 16$	207	
	3-4	66253949949856 825394994996 8253999999	264		22888888888	225	$ \begin{array}{c} 10 \\ 21 \\ 22 \\ 23 \\ 23 \\ 23 \\ 23 \\ 23 \\ 23 \\ 23$	661.	
	3-3	55555555555555555555555555555555555555	247		:2:1222222888 :2:1222222 :2:12222 :2:12222 :2:1222 :2:1222 :2:1222 :2:12 :2:12:12 :2:12	211	9 12 13 14 12 13 13 13 13 13 13 13 13 13 13	209	-
	1-2	80220000000000000000000000000000000000	246		22121228522212 194212582522212 1942125825222	207	15 19 19 19 19 19 19 19 19 19 19 19 19 19	206	
	12-1	208858988939	253		18122934142 18122934142 18122934142	23.5	22 22 22 22 22 23 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25	205	
P. M.	11-12	22 22 23 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25	243		21 21 21 21 21 21 21 21 21 21 21 21 21 2	208	10222222222222222222222222222222222222	220	
	Date.	10.99.4.6.9.4.9.9.1.	Sums.		20.50 20.50	Sums.	<u></u>	Sums.	-
		Sector Sector Sector			(27)				

16,754 Monthly Suma. 22.5 Means.

680 21.9

687 22.1

717 23.1

704 22.7

672 21.6

689 22.2

68222.0

686 22.1

705 22.8

737 23.9

744 24.0

717 23.1

702 22.7

715 23.1

725 23.4

722 23.3

706 22.8

697 22.5

688 22.2

688 22.2

666 21.5

659 21.3

693 22.3

671 21.6

Monthly Sums. Means.

(27)

ANNUAL SUMMARY

228.2 19.0 22.5 14.8 21.5 20.9 26.4 22.6 16.6 18.015.2 16.5 18.7 Means. 14.5 456.6 224.9 5,478.9 502.2 356.0 395.8 448.9 515.2 540.5 Totals. 633.1 542.6 431.7 365.6 348,2 399.1 18.7 26.9 20.5 10-11 19.7 21.814.7 16.5 16.7 15.8 15.0 15.9 19.5 21.9 229.4 19.6 22.5 19.3 19.2 19.1 9-10 28.4 15.316.8 16.7 17.1 16.3 16.1 22.1 230.3 19.2 20.028.2 23.9 17.9 16.3 16.0 17.0 18.2 18.5 4, 1 17.1 23.1 8-8 231.5 19.3 28.6 23.6 18.2 15.5 15.5 16.6 19.5 20.4 15.217.1 18.8 22.7 -00 228.1 19.0 19.9 28.8 23.5 15.4 18.2 15.015.6 18.3 20.0 21.6P. M. 16.7 15.12-9 231.9 19.3 15.518.4 20.627.8 23.8 16.6 16.022.2 19.4 15.4 17.1 19.1 5-6 233.0 19.4 26.5 24.6 17.8 17.6 20.422.0 6.81 20.2 15.3 16.1 15.5 18.1 4-5 234.5 236.1 238.4 19.9 26.3 18.5 16.3 16.5 17.0 19.0 21.8 25.4 20.4 15.4 22.1 19.7 3-4 19.7 26.6 24.8 18.9 15.6 20.619.1 14.8 19.1 22.8 20.7 15.4 17.7 2-3 19.6 17.5 17.5 25.424.3 19.0 14.613.7 15.3 19.1 23.8 23.9 20.4 1-2 234.0 19.5 17.9 18.8 24.2 24.0 20.626.324.3 17.8 14.8 18.1 14.1 13.1 12-1 227.9 19.0 11-12 26.2 22.616.514.6 17.9 18.223.8 20.817.8 13.7 12.7 23.1224.4 10-11 18.7 16.913.9 12.2 14.4 17.0 18.4 22.8 24.8 17.8 21.4 22.7 22.1 223.6 18.6 16.9 23.09-10 21.5 23.3 17.0 17.1 13.4 11.7 13.7 17.8 23.125.1 219.2 18.3 13.3 16.217.5 21.9 22.017.3 13.5 11.6 21.4 16.723.4 24.4 6-8 217.0 18.1 21.625.4 21.615.5 12.5 16.017.5 21.0 23.3 17.1 12.8 12.7 222.4 18.5 16.3 17.8 21.9 26.1 21.1 16.6 17.514.013.5 13.621.2 22.82-9 K. 226.1 18.8 ¥. 25.9 17.6 13.9 16.818.3 21.4 22.522.6 21.117.7 14.8 13.5 5-6 227.2 18.9 17.8 14.8 15.9 18.3 21.5 26.9 16.8 15.5 13.7 22.223.0 20.8 4-5 227.8 19.0 22.9 21.0 17.3 18.7 (15.7 14.6 13.7 15.1 18.1 22.3 22.2 26.1 3-4 227.9 19.0 16.3 15.0 19.3 17.3 18.3 14.3 15.0 22.4 21.5 21.1 22.3 25.1 2-3 228.6 19.1 16.617.5 20.0 25.3 21.6 17.3 14.5 21.7 22.0 15.4 15.4 21.3 1-2 231.0 19.2 21.2 17.8 17.0 15.8 15.4 20.4 21.3 22.326.4 15.1 21.6 16.712-1 221.8 18.5 11-12 21.016.5 17.0 16.4 15.5 15.5 15.0 19.8 19.4 21.6 P. M 19.4 24.7 November * * * * July ••••• December.... Annual Sums.. * * * January * February September. Month. May June.... October. August. Means March April.

(28)

* Twenty-seven days.

HOURLY VALUES IN INCHES OF MERCURY

[REDUCED TO 32° FAHRENHEIT]

OF THE

A'TMOSPHERIC PRESSURE,

FOR

EACH DAY, MONTH, AND THE YEAR 1886,

AS DERIVED FROM THE RECORDS OF THE DRAPER BAROGRAPH.

	Date.	10,0,4,0,0,6,0,0,0	Sums.		Sums.	5885588665	Sums.	Monthly Sums. Means.
	11	$\begin{array}{c} \textbf{29.489}\\ \textbf{2731}\\ \textbf{.731}\\ .$	290.939	$\begin{array}{c} 29.354 \\ .713 \\ .713 \\ .933 \\ .933 \\ .017 \\ 29.740 \\ .292 \\ .108 \\ .158 \\ .743 \\ .743 \\ .743 \end{array}$	295.611	$\begin{array}{c} \textbf{29.271}\\ \textbf{29.271}\\ \textbf{700}\\ \textbf$	321.517	908.067 ³
	10	$\begin{array}{c} \textbf{29.475}\\ \textbf{29.475}\\ \textbf{.738}\\ \textbf{.738}\\ \textbf{.739}\\ \textbf{28.800}\\ \textbf{28.7900}\\ \textbf{29.159}\\ \textbf{29.159}\\ \textbf{28.820}\\ \textbf{28.820}$		29.351 .705 .920 .920 .3157 .105 .105 .545 .130 .751 .751	295.606	$\begin{array}{c} 29.267\\ .114\\ .701\\ .701\\ .703\\ .703\\ .703\\ .703\\ .703\\ .361\\ .361\\ .362\\ .36$	321.565	08.205 9 .297
	6	$\begin{array}{c} 29.460\\ -742\\ -742\\ -742\\ -28.795\\ -29.040\\ -29.191\\ -28.795\\ -28.218\\ -28.218\\ -28.218\\ -28.795\\ -28.79$	291.037 291.034	$\begin{array}{c} 29.336 \\ .696 \\ .692 \\ .902 \\ .902 \\ .340 \\ .034 \\ .535 \\ .094 \\ .752 \end{array}$	295.560 295.606	$\begin{array}{c} 29.282\\ 1145\\ .145\\ .681\\ .766\\ .474\\ .558\\ .558\\ .393\\ .558\\ .28,965\\ .28,965\\ .28,100\\ .28,610\\ .28,610\\ .28,002\\ .28,00$	321,666 (08.263 9
	90	$\begin{array}{c} \textbf{29.440} \\ \textbf{29.440} \\ \textbf{.729} \\ \textbf{.729} \\ \textbf{.729} \\ \textbf{.721} \\ \textbf{28.794} \\ \textbf{29.014} \\ \textbf{29.014} \\ \textbf{29.015} \\ \textbf{28.238} \\ \textbf{28.777} \\ \textbf{28.7777} \\ \textbf{28.777} \\ \textbf{28.777} \\ 28.7$	291.032	29.312 .690 .898 .898 .898 .898 .898 .0385 .038 .527 .033 .737	295.499	$\begin{array}{c} 29.301 \\ 29.301 \\ 665 \\ 665 \\ 763 \\$	321.732 :	008.263 5 .299
M.	20	$\begin{array}{c} 29.427\\ .722\\ .723\\ .694\\ .333\\ .333\\ .333\\ .333\\ .333\\ .333\\ .228.792\\ .228.792\\ .228.743\\ .28.7423\\ .28.742\\ .28.743\\ .28.742\\ .28.743\\ .2$	291.020	$\begin{array}{c} 29.290\\ .674\\ .674\\ .877\\ .877\\ .877\\ .877\\ .671\\ .073\\ .511\\ .730\\ .730\\ .730\end{array}$	295.402	$\begin{array}{c} 29.310\\140\\550\\550\\518\\518\\518\\518\\518\\518\\518\\518\\550\\550\\518\\550\\518\\550\\$	321.788	08.210 9
Å.	9	$\begin{array}{c} 29.397\\ 29.397\\ .727\\ .711\\ .711\\ .325\\ .325\\ .28.805\\ 28.972\\ 28.972\\ 28.235\\ 28.235\\ 28.235\\ 28.235\\ 28.723\\ 28.722\\ $	290.934	29.262 .648 .648 .648 .853 .853 .853 .022 .6480 .012 .012 .012 .012	295.257	$\begin{array}{c} 29.318\\ 29.318\\ 610\\ 7570\\ 7570\\ 702\\ 28.695\\ 228.695\\ 228.695\\ 229.075\\ 29.075\\ 29.075\\ 29.075\\ 29.075\\ 29.075\\ 29.075\\ 29.075\\ 29.075\\ 29.075\\ 29.075\\ 29.075\\ 29.075\\ 20.075$	321.768	07.959 9
	žQ	$\begin{array}{c} \textbf{29.380} \\ \textbf{29.380} \\ \textbf{.720} \\ \textbf{.720} \\ \textbf{.8812} \\ \textbf{.353} \\ \textbf{.8123} \\ \textbf{.8513} \\ \textbf{.8533} \\ .85$	290.815	29.232 617 .617 .836 .836 .836 .836 .836 .836 .936 .036 .445 .036 .445 .036 .063 .720	295.207	$\begin{array}{c} 29.319\\ 29.319\\ .734\\ .734\\ .734\\ .425\\ .627\\ .425\\ .28.698\\ 228.683\\ 229.061\\ 229.061\\ \end{array}$.690 321.700	07.722 5
	4	$\begin{array}{c} \textbf{29.345}\\ \textbf{29.345}\\ \textbf{.702}\\ \textbf{.702}\\ \textbf{.703}\\ \textbf$	290.757	$\begin{array}{c} 29.195\\ .594\\ .594\\ .594\\ .594\\ .594\\ .29813\\ .470\\ .470\\ .120\\ .120\\ .704\\ .704 \end{array}$	295.223 2	29.332 29.332 .524 .524 .524 .538 .636 .436 .436 .436 .436 .28.704 .28.704	321.690 3	07.670 9
	e	$\begin{array}{c} 29, 322\\ .690\\ .719\\ .719\\ .719\\ .28, 774\\ .28, 774\\ .28, 774\\ .28, 015\\ .28, 015\\ .28, 612\\ \end{array}$		29.179 .578. .833 .833 .833 .833 .833 .833 .833	295.211 2	29.332 29.332 .139 .139 .139 .139 .139 .139 .139 .139	321.6493	907.442 907.284 907.358 907.670 907.722 907.959 908.210 908.263 908.263 908.205 908.067 Monthly Buns
	50	$\begin{array}{c} \textbf{29} & \textbf{283} \\ \textbf{684} & \textbf{684} \\ \textbf{684} & \textbf{684} \\ \textbf{686} & \textbf{683} \\ \textbf{686} & \textbf{683} \\ \textbf{686} & \textbf{683} \\ \textbf{686} & \textbf{682} \\ \textbf{686} & \textbf{686} \\ \textbf{686}$	290,461 290,498	29.154 .561 .561 .830 .830 .830 .495 .495 .302 .302 .303 .333 .645	95.146	$\begin{array}{c} 29.342\\ 158.342\\ .158\\ .158\\ .713\\ .639\\ .463\\ .463\\ .463\\ .463\\ .463\\ .28.099\\ 228.039\\ 228.720\\ 228.72$		07.284 9
Y.	Ħ	$\begin{array}{c} 29.268\\ -671\\ -716\\ -716\\ -716\\ -716\\ -716\\ -767\\ -28.759\\ -28.778\\ -28.778\\ -28.778\\ -28.759\\ -28.559\\ $	290.459	29.135 .552 .552 .831 .831 .831 .551 .521 .015 .3640 .640	295.238 295.146	$\begin{array}{c} 29.345\\ 29.345\\ .180\\ .180\\ .718\\ .718\\ .662\\ .662\\ .662\\ .662\\ .662\\ .662\\ .662\\ .662\\ .662\\ .662\\ .662\\ .662\\ .670\\ .2806\\ .070\\ .2806\\ .070\\ .2806\\ .070\\ .2806\\ .070\\ .2806\\ .070\\ .0$	321.745 321.677	07.442 9
AR	12	$\begin{array}{c} 29,258\\ .658\\ .731\\ .731\\ .472\\ .28,770\\ .28,770\\ .28,770\\ .28,770\\ .28,770\\ .28,770\\ .28,534\\ $	290.546	29, 135 550 .556 .556 .558 .558 .558 .558 .558 .308 .308 .378 .378 .630	295.407 2	$\begin{array}{c} 29.420\\ -2.02\\ -410\\ -738\\ -505\\ -5$	322.042 3	
ÞZ	11	$\begin{array}{c} 29.256\\$	290.679 2	29.135 29.135 30.050 595 595 595 595 .595 .624	295.594 2	$\begin{array}{c} 29.483\\ -2299\\ -3279\\ -697\\ -762\\ -762\\ -762\\ -762\\ -762\\ -773\\ -773\\ -773\\ -773\\ -773\\ -773\\ -773\\ -773\\ -773\\ -772\\ -$	322.309 3	040 908.582 907.995 324 .309 .290
JAI	10	$\begin{array}{c} \textbf{29.251}\\ \textbf{29.251}\\ \textbf{.752}\\ \textbf$	290.842 2	29.127 577 577 577 577 577 29.906 29.906 515 .056 .493 .623 .623	295.744 29	29.523 29.523 29.523 28.766 28.766 28.765 28.765 29.8765 29.8765 29.8765 29.8765 29.8765 29.8765 29.8765 29.952 29.552 29.552 29.552 29.552 29.552 29.552 29.552 29.552 29.552 29.552 20.5555 20.5555 20.5555 20.5555 20.5555 20.5555 20.5555 20.5555 20.5555	322.454 39	
1.0	6	29.216 .671 .778 .778 .778 .555 .28.899 28.899 28.899 28.899 28.510 28.510	290.861 2	29.092 560 30.084 533 619 519 510 .510		29.530 29.530 29.530 28.732 28.732 28.732 28.732 28.732 28.732 28.732 28.732 28.732 28.732 28.732 28.732 28.732 28.732 28.732 28.732 28.732 28.732 29.026 29.026 29.0273 29.732 20.732 2	322.375 3	38.017 90
	œ	$\begin{array}{c} 29.160\\$		29,055 39,055 30,048 30,048 29,916 29,916 29,916 29,916 240 240 240) 5.505 20	$\begin{array}{c} 29.546\\ 29.546\\ -700\\ -760\\ -768\\ -750\\ -758\\ -550\\ -550\\ -550\\ -550\\ -550\\ -774\\ -28.999\\ -28.$	322.258 39)8.387 90 .303
М.	•1	$\begin{array}{c} \textbf{29.131}\\ \textbf{.775}\\ \textbf{.775}\\ \textbf{.775}\\ \textbf{.775}\\ \textbf{.775}\\ \textbf{.832}\\ \textbf{28.832}\\ 28.$	290.642 290.624	29.028 501 30.035 632 632 503 632 .501 .504 .502)5.334 20	$\begin{array}{c} 29.552\\ 29.552\\ 747\\ 747\\ 747\\ 747\\ 564\\ 2330\\ 564\\ 28.766\\ 28.766\\ 28.766\\ 28.956\\ 28.$	322.172 3:)8.148 90
A. 1	8	$\begin{array}{c} 29,092\\$	290.644 20	28.994 2 29.470 2 29.497 2 29.895 2 29.447)5.145 29	$\begin{array}{c} 29.570\\ 29.574\\744\\744\\746\\746\\554\\554\\554\\554\\554\\554\\554\\554\\554\\554\\747\\554\\554\\554\\554\\554\\554\\554\\554\\554\\556\\$	22.038 32)7.827 9(
	ß	29.061 .579 .577 .575 .575 .575 .575 .575 .575		28.956 2 29.430 2 293 3 293 4 293 4 294 4	294.978 295.145 295.334 295.505 295.681	29.590 29.590 29.590 29.590 29.590 29.590 29.547737737737737296 29.828296 29.828298392 298.838 298392 298.838 298392 298.838 2983923923	321.926 321.984 322.038	907.514 907.566 907.554 907.532 907.827 908.148 908.387 908.017 909 274 .276 .275 .275 .275 .275 .303 .303 .320
	4	29,018 .549 .738 .738 .600 .600 .050 .050 .050 .050 .050 .050	290.590 290.570	28.941 29.393 771 971 945 945 945 945 127 127 127 127 127 363 363	294.911 29	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	21.926 3.	07.427 90
	ŝ	28,993 29,539 29,539 29,539 28,817 29,147 29,147 29,147 29,147 29,147 29,147 29,147 29,147 29,147 29,147 29,147 29,147 29,147 29,147 29,147 29,147 20	290.785 20	28.927 29.366 763 963 963 963 963 963 963 963 157 176 176 3260	294.875 29	29.645 29.645 29.645 28.789 28.789 28.719 28.719 28.789 28.7719 29.7719 29.7719 29.7719 29.7719 29.7719 20.771	321.894 32	07,554 90
	82	$\begin{array}{c} 28.974\\ 29.532\\ .743\\ .743\\ .743\\ .128\\ .128\\ .128\\ .28.329\\ .28.329\\ .28.329\\ .28.752\\ .28.304$		28.910 29.360 29.360 29.360 2973 2748 2748 2748 2748 2744 2744 2744 2744	and the second se	29.665 .278 .278 .779 .7749 .7749 .312 .552 .552 .552 .552 .28.716 .28.716	321.931 33	07.566 90
	T	28.951 29.517 29.517 29.517 28.801 28.801 29.801 29.901 29.901 29.901 29.901 29.901 29.901 29.901 29.901	290.850 290.824	28.891 29.359 29.359 2943 2943 2943 2943 2943 207 207 207 207 207	294.703 294.811	29.678 .078 .078 .078 .078 .078 .078 .078 .288 .288 .288 .288 .288 .288 .288 .2	321.961 35	07.514 90
P. M.	12	28.950 29.950 29.507 29.507 28.791 28.812 29.085 29.085 29.085 29.007 28.900 28.900 28.9007 29.9007 29.90007 29.900070	290.958 20	28.870 29.862 29.362 20.362 20	294.6%5	29.713 29.713 20.713 27.55 27.55 28.710 28.653 28.653 28.653 28.653	322.080 35	907.723 90 29.281
ц	Date.	10,00,4,00,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	Súms. 29	19984469478998 9998749699	Sums. 29	20000000000000000000000000000000000000	Sums. 32	Monthly 90 Sums. 2 Means. 2
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Date.	10104701-00000	Sums.	11.12.12.12.12.12.12.12.12.12.12.12.12.1	Sums.	188299928	Sums.	Monthly Sums. Means.
11	29.212 410 417 565 565 565 351 271 265 271 265 2565 2565 2565 2565 2565 2565 2565	294.113 294.003 294.015 294.079 294.151 294.273 294.344 294.397 291.434 294.396	$\begin{array}{c} 29.748\\ 29.165\\ 29.165\\ .048\\$	291 981	$\begin{array}{c} 29.194\\ -29.194\\349\\415\\415\\660\\28.552\\ 28.554\\ -28.561\\ -29.061\end{array}$	232.678	34 820.178 819.611 819.123 818.741 818.554 818.745 818.932 819.092 819.086 819.16 819.655 Monthly 98 .292 .271 .237 .225 .241 .247 .233 .253 .254 .354 .353 Means.
10	29.213 417 .445 .565 .565 .473 .373 .373 .539 .940	294.411	$\begin{array}{c} 29.764 \\ -2.109 \\ -2.109 \\ -2.109 \\ -2.101 \\ -0.31 \\ -0$	291.983	29.191 .368 .368 .394 .374 .394 .28.596 .28.538 .28.688 .29.043	232.692	319.116 .254
6	29.212 412 412 579 579 515 515 515 537 537 537 537 537 537 537 537 537 53	94.134	$\begin{array}{c} 29.787\\ 29.787\\ 29.797\\ 29.797\\ 29.797\\ 29.771\\ 233\\ 28.771\\ 28.771\\ 28.771\\ 28.771\\ \end{array}$	292.000	29.190 . 375 . 375 . 374 . 374 . 374 . 374 . 374 . 374 . 374 . 374 . 375 . 375 . 374 . 375 . 376 . 375 . 376 . 326 . 326 . 326 . 326 . 326 . 326 . 326 . 326 . 326 . 326 . 329 . 040	332.687	319.121
00	29,206 412 412 579 579 579 579 513 513 513	394.397	$\begin{array}{c} 29.820\\ 29.820\\ 2582\\ 29.153\\ 29.153\\ 29.153\\ 28.729\\ 28.811\\ 28.729\\ 28.811\\ 28.729\\ \end{array}$	292.020 292.000 291.983	29.186 .379 .379 .384 .384 .683 .28.480 .28.480 .28.866 .29.024	32.669	319.086 8
ž.	29.200 .416 .474 .215 .567 .380 .190 .190 .190	294.344	$\begin{array}{c} 29.854\\ 29.854\\ 292.794\\ 29131\\ 0.37\\ 0.37\\ 0.37\\ 0.433\\ 0.35\\ 883\\ 28.683\\ 28.$	292.102	29.182 .381 .381 .381 .296 .584 .258.791 .258.791 .258.854 .299.012	332.646	319.092 8
9	29.181 501 501 549 549 549 187 549 187 549 549 549 549 549 549 549 573 549 573 549 573 573 573 573 573 573 502 502 502 502 502 502 502 502 502 502	294.273	$\begin{array}{c} 29.853\\ 29.853\\ 28.794\\ 29.142\\ 28.794\\ 28.794\\ 28.940\\ 28.628\\ 28.628\\ 28.628\\ \end{array}$		29.176 .388 .388 .574 .674 .276 .574 .28.497 .28.497 .28.302 .28.980 .28.980	232.489 332.400 232.413 232.323 232.461 232.552 232.646 232.660 232.687 232.692 232.678	318.932 8
20	29.173 .502 .502 .533 .533 .534 .533 .534 .533 .534 .533 .534 .533 .534 .533 .534 .532 .534 .532 .532 .532 .532 .532 .532 .532 .532	294.151	$\begin{array}{c} 29.870\\ 29.870\\ 2318\\ 29.784\\ 291343\\ 379\\ 379\\ 379\\ 379\\ 379\\ 379\\ 379\\ 37$	292.192 292.133 292.107	29.170 .383 .230 .230 .25.381 .28.381 .28.381 .28.381 .28.381 .28.381 .28.381 .28.3760	32.461	318.745 8
4	29.172 29.172 .509 .512 .512 .512 .512 .512 .513 .509 .515 .509 .515 .509	294.079	29.870 340 340 340 340 29.783 29.783 29.783 356 356 356 381 381 381 381 381 381 381 381 381 381	92.192	29.171 .384 .192 .672 .672 .08.331 .28.330 .28.708 .28.035	232.323	318.594 8
~	29.163 .364 .512 .515 .515 .515 .350 .350 .350 .350 .350 .350 .350 .35	204.015	29.880 .365 .365 .365 .365 .365 .365 .171 .365 .364 .364 .364 .364 .364 .364 .364 .364	02.999	29.171 .380 .675 .032 .032 .032 .032 .032 .032 .032 .032	32.413	318.650 8
62	29.159 .531 .531 .531 .533 .533 .533 .533 .533	294.003	29.884 379 3	<u>909.338 209.000</u>	29.171 .387 .387 .169 .116 .116 .116 .28.316 .28.302	332.400	18.741 8 .241
-	20.161 20.161 20.161 2552 2551 2551 2551 2551 2551 2551 2	94.113	$\begin{array}{c} 29.900\\ 29.900\\ 28.818\\ 29.133\\ 29.517\\ 340\\ 342\\ 342\\ 28.518\\ 28.518\\ \end{array}$	202.521	29.181 	32.489 8	19.123 8
12	9.170 9.170 .382 .562 .582 .582 .582 .582 .582 .582 .582 .58	94.321	29,932 29,932 28,836 29,137 29,137 29,137 29,286 246 29,286 29,236		29.200 .400 .198 .097 .275 .275 .28.206 .28.904		119.011 8 112.
н	29.177 29.177 2383 231 231 238 231 236 238 238 238 238	94.357 2	$\begin{array}{c} 29.955\\ -29.147\\ -28.858\\ -317\\ -317\\ -368\\ -36$	293.057 292.766	29,226 .29,226 .214 .700 .348 .348 .348 .348 .28,579 .28,923 .28,923	32.764 2	20.178 8 .292
10	29.163 572 572 501 501 501 501 501 501 501 501 501 501	94.335 2	$\begin{array}{c} 29.967\\ 29.967\\ 29.131\\ 29.131\\ 25.576\\ 357\\ .357\\ .672\\ .385\\ .3$	51	29.283 391 391 391 393 301 2837 2837 28360 283900	32.8482	20.334 8
9	29.160 360 360 255 470 608 417 275 364 784	94.260	$\begin{array}{c} 29.969\\ 29.969\\ -513\\ -513\\ -513\\ -513\\ -513\\ -513\\ -513\\ -359\\ -359\\ -359\\ -379\\ -379\\ -379\\ -379\\ -379\\ -379\\ -379\\ -379\\ -379\\ -379\\ -379\\ -379\\ -379\\ -379\\ -379\\ -379\\ -379\\ -379\\ -370\\ -$	93.252 2	782.62 107. 107. 108.82 108.82 107. 107. 208.82 208.82 208.82	32.808 2	20.320 8
80	29.146 .329 .329 .367 .441 .441 .255 .350 .350 .759 .759	94.149	29.966 .533 28.954 29.091 .357 .357 .357 .371 .371 .371 .371 .371 .371	93.281 2	29.241 .346 .346 .690 .489 .489 .28.636 28.8636 28.876	32.774 2	20.204 8 .293
7	29.134 .307 .558 .573 .596 .596 .2280 .2280 .2280 .2329 .733	94.044 2	29.961 29.965 28.965 29.064 331 3331 .3331 .3356 .3356 .356 .356 .356 .356 .356 .3	93.195 2	29.224 .309 .309 .500 .500 .28.244 .28.615 .28.615	32.653 2	19.892 8
9.	29.106 29.106 536 536 536 536 537 530 537 537 537 537 537 537 537 537 537 537	93.852 2	29,953 29,953 28,980 29,029 29,029 29,029 28,596 28,596 28,596	93.1112	29.177 20177 2017 2017 2017 2017 2017 2017	32.528 2	19.491 8
20	29.099 504 504 5357 580 580 580 580 580 580 580 580 580 580	93.745 2	$\begin{array}{c} 29.949\\ -574\\ -574\\ -574\\ -574\\ -571\\ -271\\ -271\\ -353\\ -373\\ -353\\ -353\\ -353\\ -353\\ -353\\ -353\\ -353\\ -353\\ -353\\ -353\\ -353\\ -353\\ -353\\ -353\\ -353\\ -352\\ -35$	93,069 2	29.115 29.115 596 596 28.578 28.578 28.578 28.578 28.578	32.439 2	19.253 8
4	29.095 29.095 294 294 294 294 294 295 295 252 252 252 252	93.613 2	$\begin{array}{c} 29,958\\ 29,958\\ 610\\ 28,950\\ 29,253\\ 29,253\\ 29,253\\ 23,616\\ 8,19\\ 28,616\\ 28,616\\ 28,616\\ \end{array}$	93.037 2	29,083 29,083 244 28,553 28,553 28,553 28,553 28,553 28,553 28,553 28,553 28,553	32.388 2	19.038 8
n	29.095 29.095 2901 2901 2901 2830 2830 2830 2830 2830 2830 2830 2830	93.548 2	29,950 .648 .648 .648 .040 .28,914 .355 .200 .355 .355 .355 .28,629	92.994 3	29.037 212 212 253 213 253 26.570 28.343 28.570 28.889	32.381 2	18.923 8
62	29.093 29.093 2922 2929 2929 2926 2926 2926 2916 2916	03.541	$\begin{array}{c} 29.952\\ 29.952\\ .680\\ .085\\ .$	93.068 2	29.004 29.004 29.10 29.595 29.570 28.882 28.882	32.439 2	19.048 8
	29.092 29.092 219 219 2315 295 215 215 215 215 215 215 215 215 215 21	293.514 202.541 203.548 293.613 293.745 293.852 294.044 294.149 294.360 294.335 294.357 294.357 294.221	$\begin{array}{c} 29.947\\ 29.947\\ .112\\ .112\\ .112\\ .28.862\\ .139\\ .573\\ .573\\ .573\\ .573\\ .573\\ .573\\ .573\\ .573\\ .573\\ .5650\\ .28.650\\ \end{array}$	293.041 293.068 292.994 293.037 293.069 293.111 293.195 293.281 203.252 293.1	28,968 29,205 29,205 457 609 28,452 28,452 28,503 28,503	32.479	819.034 819.048 819.038 819.253 819.491 819.892 820.204 820.320 820.3 .251 .252 .247 .251 .259 .267 .280 .293 .297 .2
13	29.093 217 217 217 217 214 214 214 214 214 214 214 214 214 214	293.557	$\begin{array}{c} 29.938\\ 29.938\\ .735\\ .167\\ .167\\ .28.831\\ .29.189\\ .085\\373\\373\\479\\490\\ $	293.056 2	28.928 29.201 29.201 .431 .433 .613 .613 .525 .525 .525 .525 .525 .525 .525 .52	232.488 232.479 232.439 232.381 232.388 232.439 232.528 232.653 232.774 232.808 232.848 232.764 252.624	19.101 8 29.254
Date.		Sums. 20		Sums. 20	2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.	Sums.	Monthly 819.101 Sums. 29.254 Means.
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	1	$\begin{array}{c} 28.808\\ -28.753\\ -29.074\\ -153\\ -153\\ -090\\ -170\\ -170\\ -170\\ -233\\ -233\\ -233\\ -233\\ -233\\ -21$	290.7	$\begin{array}{c} 29.158\\ 29.158\\ 1 & 28.743\\ 28.558\\ 387\\ -391\\ -391\\ -391\\ -391\\ -249\\ $	2 291.6		0 321.	
	10	$\begin{array}{c} 28.819\\ 28.756\\ 29.067\\ 157\\ 0.03\\ 0.030\\ 0.080\\ 0.080\\ 0.080\\ 0.215\\ 0.216\\ 0.216\end{array}$	290.801	29.181 28.747 28.454 29.356 29.356 29.370 371 548 .377 .377 .167	202.015	28.667 28.667 28.667 28.860 378 378 378 378 378 378 378 378 378	321.472 321.490 321.469 301.942 301.303 504.221	171.
	6	$\begin{array}{c} 28.844\\ 28.744\\ 28.744\\ 290.057\\ 0.154\\ 0.154\\ 0.154\\ 0.154\\ 0.095\\ 0.095\\ 0.095\\ 0.095\\ 0.095\\ 0.095\\ 0.095\\ 0.095\\ 0.095\\ 0.095\\ 0.095\\ 0.095\\ 0.095\\ 0.095\\ 0.095\\ 0.095\\ 0.095\\ 0.095\\ 0.00$	290.798	$\begin{array}{c} 29.192\\ 28.737\\ 28.552\\ 29.317\\ .313\\ .348\\ .348\\ .372\\ .372\\ .179\end{array}$	291.972	$\begin{array}{c} 28.716\\ 28.834\\ 29.834\\ 29.330\\ 167\\ 167\\ 167\\ 167\\ 168\\ 167\\ 168\\ 168\\ 168\\ 168\\ 168\\ 168\\ 168\\ 168$	321.475 904 945	.169
	20	$\begin{array}{c} 28.877\\ 28.737\\ 28.737\\ 29.045\\ 0.139\\ 0.139\\ 0.109\\ 0.103\\ 0.103\\ 0.205$	90.721	$\begin{array}{c} 29.201\\ 28.738\\ 28.551\\ 29.293\\ 29.293\\ 29.293\\ 23.60\\ 245\\ 245\\ 245\\ 245\\ 245\\ 245\\ 245\\ 245$	291.948	28.734 28.636 29.300 333 335 473 367 .734 .536 .536 .536 .331	321.437 004.106	.165
4	5.	$\begin{array}{c} 28.878\\ 28.733\\ 29.029\\ 0.73\\$	90.685	$\begin{array}{c} 29.206\\ 28.738\\ 28.554\\ 29.280\\ 29.280\\ 29.280\\ 29.280\\ 29.280\\ 29.280\\ 29.280\\ 29.280\\ 29.280\\ 20.280\\$	201.872	$\begin{array}{c} 28.740\\ 28.740\\ 28.620\\ 28.620\\ 29.256\\ 29.256\\ 29.256\\ 29.683\\ 29.683\\ 29.683\\ 29.683\\ 29.683\\ 29.683\\ 29.250\\$	321.360 003 017	.159
P. M.	9	$\begin{array}{c} 28.869\\ 28.710\\ 29.016\\ 0.080\\ 0.080\\ 0.170\\ 0.170\\ 0.170\\ 0.170\\ 0.102\\ 0.080\\$	90.564 2	29,202 28,736 28,736 29,254 29,254 29,254 29,254 29,254 29,254 230 391 376 .391 .161	291.749 291.872 291.948 291.972 292.012 291.969 Sums.	28.735 28.614 28.614 29.236 29.236 293 2167 293 293 293 293 293 293 293 293 293 293	91.249 663	.147
in Advisor (* 1990) 1990 - Advisor (* 1990) 1990 - Advisor (* 1990)	20	28.878 28.713 28.713 29.116 29.116 29.116 29.116 29.116 2036 2036 2036 2036 2036 2036 2036 203	00.489 2	29.202 28.737 28.737 29.202 29.201 29.201 29.201 29.201 200 200 200 200 200 200 200 200 200	291.677 2	28.740 28.607 28.607 29.182 29.182 29.182 29.182 29.182 2015 6851 2015 208 208 208 208 208	21.182 5	.140
	4	28.903 28.704 29.101 29.101 29.101 29.101 29.101 29.101 2040 2040 2040 2040 203 203 203 203 203 203 203 203 203 20	0.445 2	29.202 29.758 29.758 29.190 .305 .305 .305 .378 .378 .378 .378 .376	91.617 2	28.727 28.602 28.602 29.151 201 512 203 503 503 503 503 514 573 573 573 573 573 573 573 573 573 573	21.128	. 135
	e9	28.913 28.690 28.690 28.690 28.690 28.690 28.690 28.690 29.090 29.090 29.090 20.051 2000 21118 2000 21118 2000 2000 2000 2	290.452 290.410 290.445 200.489 290.564 290.685 290.721 290.798 290.801 290.783 Sums.	29.200 28.780 28.780 29.160 .326 .326 .326 .326 .326 .326 .326 .326	291.049 291,588 291.617	28.725 28.725 29.125 29.125 29.125 29.125 29.125 29.125 29.125 29.125 29.125 29.125 29.125 29.125 29.125 29.125 200 201	509 321.491 321.408 321.271 321.147 321.107 321.128 321.182 321.249 321.360 321.437 321.472 321.490 321.469 Sums.	.132
	53	$\begin{array}{c} 28.956\\ 28.685\\ 29.686\\ 29.6968\\ 29.094\\ 29.094\\ 29.094\\ 29.094\\ 29.09\\ 29.09\\ 29.09\\ 29.09\\ 29.09\\ 29.09\\ 29.00\\ $	0.452 29	29, 223, 597 29, 139 29, 139 20, 139 2	1.649 2	28.715 28.590 29.715 29.112 29.112 29.112 252 29.112 252 252 182 256 256 256 256 256 256 256 256 256 25	21.147 3	.137
	1	29,008 29,085 28,959 295,959 295,959 295,959 292,085 292,085 2947 152 152 200 200 2015 200 2015	290.561 20	29.236 28.866 29.236 29.25630 29.128 302 29.128 5102 128 530 530 530 530 530 530 530 530 530 530	201.891 29	28.714 28.594 29.594 29.696 29.096 29.096 29.283 29.096 29.283 29.096 29.283 29.096 29.283 29.096 29.283 29.096 29.283 29.096 29.714 20.717 20.718 20.918 20.918 20.918 20.918 20.918 20.918 20.918 20.918 20.918 20.918 20.918 20.918 20.718 20	321.271 321.147	.152
H.	13	29.037 29.107 29.107 29.123 29.123 29.123 29.123 29.123 29.123 29.123 29.123 29.123 29.123 29.123 29.123 20.1777 20.1777 20.1777 20.1777 20.1777 20.17777 20.177777 20.1777777777777777777777777777777777777		29.275 29.2911 228.675 29.101 228.675 29.104 20.298.675 29.104 20.299.100000000000000000000000000000000		29.8510 29.85710 29.088 29.088 29.088 29.088 29.088 29.088 29.088 2055 2055 2055 2055 2055 2055 2055 2	321.408 3	4.239
ARCH	11	29.064 29.117 29 29.135 29 29.135 29 29.135 29 29.135 29.1555 29.1555 29.1555 29.1555 29.1555 29.1555 29.1555 29.1555 29.1555 29	874 290.834 290.726	29.289 29.289 29.090 29.090 29.090 29.289 29.299 20.299 200 20.299 200 200 200 200 200 200 200 200 200	330 202.232 292.009	28.706 28.612 298.612 298.756 208.7567 208.7567 208.75767 208.75767 208.75767 208.75767 200	1.491 32	4.557 90
MA			14 290	218 200 218 218 218 218 218 218 218 218 218 218	330 29	2000 1220 1220 1220 1220 1220 1220 1220	509 321.491	.113 90
	10	$\begin{array}{c} 29.104\\ 28.723\\ 28.929\\ 1114\\ 0.87\\ 0.87\\ 0.87\\ 0.87\\ 0.054\\ 0.05$	290.8	$\begin{array}{c} 1 \\ 29.207 \\ 28.974 \\ 28.974 \\ 28.715 \\ 28.715 \\ 20.088 \\ 2.386 \\ 536 \\ 38.536 \\ 2.386 \\ 2.386 \\ 2.386 \\ 2.116 \\ 2.18 \\ 2.128 \\ 38.536 \\ 2.128 $		22.22.28 29.28.29		
	6	29.115 28.729 28.729 28.918 29.124 233 2339 239 2339	290.860	$\begin{array}{c} 29.307\\ -0.14\\ -0.14\\ 28.723\\ -3.723\\ -4.37\\ -1.57\\ -5.10\\$	292.43	28.740 28.610 28.610 29.054 29.054 29.054 29.054 29.054 28.8 363 363 363 363	321.31	904.818
	80	29.140 29.140 29.115 29.116 29.116 29.116 29.116 29.135 29.116 29.135 29.116 29.135 29.116 29.116 29.115 2	290.846	29.312 .043 .043 .043 .0436 .148 .148 .515 .515 .515 .257	292.432	28.753 28.600 28.747 29.028 29.028 219 219 2840 219 2840 2840 2840 2840 2840 2840 2840 2840	321.439	904.717 .185
M.	r	29.160 29.160 29.112 29.112 29.112 29.112 29.122 29.122 29.122 29.122 29.112 29.122 29.112 29.112 29.112 29.122 29.112 29.122 29.112 29.122 29.1	290.836	$\begin{array}{c} 29.300\\ 28.735\\ 0.51\\ 28.937\\ 28.937\\ 28.937\\ 28.937\\ 28.937\\ 28.438\\ 29.438\\ 29.438\\ 28.64\\ .516\\ .516\\516\end{array}$	292.340 292.432 292.435 292	28.810 28.593 28.593 29.011 212 212 212 212 212 212 212 212 212	321.418	904.594 .180
A. J	9	29.144 29.144 29.104 29.104 29.104 29.104 2920 2920 2920 2920 2920 2920 2920 29	290.570 290.654 290.736 290.836 290.846 290.866 290 .	$\begin{array}{c} 29.282\\ 29.282\\ .073\\ .073\\ .073\\ 28.875\\ 28.875\\ 28.875\\ 29.417\\ .166\\ .471\\ .507\\$	292.259	28.840 28.591 28.591 28.723 29.723 20.723 20	321.224 321.306 321.418 321.430 321.511 321	90 4 .301
	20	$\begin{array}{c} 29.145\\ 28.706\\ 28.812\\ 28.812\\ 29.093\\ 155\\ 0.85\\ 0.85\\ 0.85\\ 0.85\\ 0.85\\ 0.85\\ 0.93\\ 0.$	20.654	$\begin{array}{c} 29.264 \\ 29.264 \\ 0.87 \\ 28.721 \\ 28.800 \\ 29.400 \\ 29.400 \\ 29.400 \\ 2174 \\ .502 \\ .502 \\ .502 \\ .502 \\ .264 \end{array}$	292.106 292.259	$\begin{array}{c} 28.900\\ 28.584\\ 28.5710\\ 28.5710\\ 28.5713\\ 29.431\\ 29.431\\ 29.431\\ 29.431\\ 28.5\\ 365\\ 365\\ 345\\ 345\end{array}$	321.224	903.984 .161
	4	$\begin{array}{c} 29.122\\ 28.696\\ 28.790\\ 28.790\\ 28.790\\ 28.790\\ 28.790\\ 2922\\ 0.033\\ 0.02\\ 2939\\ 0.02\\ 239\end{array}$	90.570 2	$\begin{array}{c} 29.249\\ 29.249\\ 0.83\\ 28.709\\ 28.709\\ 28.709\\ 28.709\\ 28.709\\ 28.709\\ 28.709\\ 28.709\\ 28.709\\ 29.389\\ 29.389\\ 245\\ 245\\ 263\\ 263\\ 263\\ 263\\ 263\\ 263\\ 263\\ 263$	292.001	28.967 28.574 28.574 28.574 28.574 29.435 29.435 29.435 29.435 29.435 29.435 29.435 29.435 29.435 29.435 29.435 29.435 29.435 29.357 373 29.357 373 29.357 29.357 29.357 20.5777 20.57777 20.5777 20.5777 20.5777 20.57777 20.57777 20.57777 20.57777 20.57777 20.57777 20.577777 20.5777777777777777777777777777777777777	321.217	903.788 .155
	e2	29.106 28.776 28.776 29.082 145 .084 .084 .084 .084 .225 .241	290.558	$\begin{array}{c} 29.236\\ 29.236\\ 0866\\ 28.722\\ 28.690\\ 29.383\\ 29.383\\ 29.383\\ 208\\ 208\\ 208\\ 208\\ 208\\ 208\\ 208\\ 208$	291.952	$\begin{array}{c} 29.024\\ 28.588\\ 28.5702\\ 28.702\\ 28.712\\ 29.416\\ 29.416\\ 29.416\\ 29.416\\ 29.416\\ 29.416\\ 29.416\\ 29.416\\ 29.154\\ 29.12\\ 2$	321.222	903.732 .153
	65	$\begin{array}{c} 29.096\\ 28.730\\ 28.730\\ 28.768\\ 29.078\\ 29.078\\ 143\\ 0.85\\ 0.85\\ 0.13\\ 231\\ 0.13\\ 231\\ 0.13\\ 238\\ 0.13\\ 0.13\\ 0.85\\ 0.78\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.95\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.85\\ 0.13\\ 0.1$	90.570 2	29.232 29.232 28.637 28.637 29.382 29.382 29.382 29.382 29.382 29.382 29.382 29.382 29.382 2339 2339 2339 2320		$\begin{array}{c} 29,038\\ 28,603\\ 28,603\\ 28,702\\ 29,410\\ 145\\ 2443\\ 145\\ 2443\\ 145\\ 2443\\ 145\\ 232\\ 145\\ 232\\ 232\\ 232\\ 232\\ 232\\ 232\\ 232\\ 23$	321.279 321.222	903.855 9 .157
	F.	29.075 28.732 28.767 29.081 29.081 29.081 .087 .087 .087 .033 .234 .033 .231	290.572 290.570	29.232 29.232 29.3747 28.608 29.379 29.379 29.379 29.379 29.379 29.379 28.608 29.379 28.79 28.79 28.79 28.79 28.79 28.79 28.79 28.741 28.73 28.747 29.7477 29.7477 29.7477 29.7477 29.7477 29.74777 29.747777 29.747	292 015 292.007	29,061 28,650 28,650 28,705 20,705 28,705 20,705 28,705 20	321.407	904.024 903.855 903.732 903.788 903.384 904.301 904.504 904.717 904.818 904. .162 .157 .155 .155 .161 .171 .180 .185 .188
. M.	12	229.065 28.765 29.080 29.080 29.080 29.080 29.080 29.080 29.080 29.080 29.080 29.080 29.080 29.080 29.080 20.090 20.090 20.080 2	290.612	29.212 29.212 28.573 28.573 28.573 29.364 29.364 544 544 544 544 544 544 544 544 544 5	292.022	29.130 29.130 28.606 28.606 28.899 28.899 1466 7436 7436 7133 7133 7133 7133 7133 7133 7133 71	and a second second	and the second se
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	11	ରି ଶିର୍ଗ	293.5		29.886 .652 .652 .652 .652 .677 .778 .840 .778 .840 .778 .610 .560 .560 .560 .560 .560 .560	2.96.7		20.335 20.335 20.332 20.332 257 2532 257 2532 2541 2541 2541 2541 2534 2535 2541 2535 2541 2535 2535 2535 2535 2535 2535 2535 253	292.7		\$\$2.9
	10	$\begin{array}{c} 29.118\\ -376\\ -376\\ -376\\ -423\\ -423\\ -527\\ -527\\ -527\\ -527\\ -527\\ -527\\ -527\\ -527\\ -580\\ -58$	293.479		29.880 .665 .477 .595 .595 .757 .757 .757 .757 .757 .7	296.766 296.740 296.712		29.346 .061 .334 .282 .354 .282 .235 .235 .235 .307	292.406 292.424 202.533 292.661 292.690 292.693 292.709		881.890 882.037 882.385 882.708 882.946 882.912 8 52.948 Monthly Supervisional States and States a
	6	$\begin{array}{c} 29.185\\ -357\\$	3.490		29.887 .674 .475 .595 .595 .749 .749 .749 .749 .795 .795 .795 .795 .795 .795 .795 .750	6.766		29.350 345 0722 29.350 2555 2555 2555 2555 2555 2555 2555 2	05.690		32.946
-	00	29.175 .343 .403 .519 .519 .519 .519 .519 .519 .519 .510 .510 .510 .510 .510 .510 .510 .510	3.389 20		29.890 675 715 715 715 715 7395 7395 7395 7333 7533	3.727 29		29.353 348 .078 .078 .348 .252 .3555 .182 .3555 .182 .325	2.661 20	•	.708 86
-	4	29.153 29 .308 .308 .308 .513 .513 .513 .513 .513 .513 .513 .513	193 202		29.891 .681 .681 .681 .684 .684 .684 .684 .684 .688 .638 .638 .539 .539 .548	296.611 296.658 296.727		29.348 345 29.348 2010 2010 2010 2010 2010 2010 2010 201	533 292		.385 885
			02 293.			11 296.		340 29. 341 29. 192 1192 138 138 138 138 138 138 138 210 278 324	24 292.		.037 882.
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	23	$\begin{array}{c} \textbf{29.102}\\ \textbf{29.102}\\ \textbf{.375}\\ \textbf{.375}\\ \textbf{.500}\\ \textbf{.560}\\ \textbf{.560}\\ \textbf{.560}\\ \textbf{.560}\\ \textbf{.560}\\ \textbf{.560}\\ \textbf{.560}\\ \textbf{.560}\\ \textbf{.560}\\ \textbf{.115}\\ \textbf{.20115}\\ \textbf{.400}\\ \textbf{.400}\\ \textbf{.400} \end{array}$	292.90		$\begin{array}{c} 29.880\\ .690\\ .690\\ .589\\ .589\\ .529\\ .794\\ .704\\ .563\\ .56$	296.58		$\begin{array}{c} 29.343\\$	292.400	-	381.890 .396
	4	29.088 223 379 500 566 566 566 566 28.914 29.118 29.118 29.118 29.118 29.118 29.118 29.118	92 853		29.871 707 .707 .594 .594 .594 .794 .794 .570	96.596		29.347 .352 .352 .088 .134 .134 .135 .231 .275 .275	92.374		881.823 .394
	eo	$\begin{array}{c} 29,088\\ 29,088\\388\\568\\568\\568\\568\\568\\290\\105\\348\\ $	293.071 202.973 292.877 292 853 292.902 293.002 203.193 203.889 293.490 293.479 293.527		9.862 .720 .460 .695 .630 .630 .531	206 637 296.596 296.582		29.353 .008 .008 .126 .125 .245 .245 .245 .245 .316	<u>992.677</u> <u>992.549</u> <u>992.422</u> <u>292.374</u>		1.936 8 .398
-	\$2	29.081 29.081 2.190 2.502 2.502 2.502 2.502 2.805 2.80	2.973 20		29.864 740 59.864 594 682 682 682 536 536 536 536 536 536	3.747 29		29.373 376 116 116 128 144 167 260 283 283 283 283 283	2.549 20	Ľ.	882.627 882.269 881.936 .421 .409 .398
-	1	29.086 197 506 506 508 508 508 508 508 508 509 509 508 508 508 508 508 508 508 508 508 508	071 29:		867 777 497 610 610 610 611 611 611	296.879 296.747		29.393 .389 .389 .135 .135 .386 .386 .386 .172 .274 .172 .284 .330	677 295		.627 885
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	12	$\begin{array}{c} \textbf{29.096}\\ \textbf{29.096}\\ \textbf{-198}\\ \textbf{-198}\\ \textbf{-521}\\ \textbf{-600}\\ \textbf$	293.18		29.872 579 579 579 579 545 699 615	296.97		$\begin{array}{c} 29.410\\ 29.410\\ .390\\ .160\\ .230\\ .284\\ .193\\ .335\\ .335\end{array}$	292.762		.431
	11	29.098 215 215 215 515 535 595 595 2068 2086 2088	339 293 266 293.188		29.874 .821 .545 .545 .586 .633 .880 .880 .718 .718 .557 .626	297.100 296.973		29.418 .391 .189 .115 .115 .115 .245 .245 .290 .194 .289 .330	292.871	÷	465 883.237 449 .441
	10	29.110 29.110 29.533 585 585 585 585 585 585 585 585 585			29.869 .850 .562 .587 .587 .587 .583 .639 .569 .569 .569	297.198		29.436 .390 .390 .223 .223 .223 .223 .223 .223 .223 .22	.928		
	0	29.100 .5512 .5512 .5512 .552 .552 .552 .552	3 358 2		29.860 .585 .585 .585 .585 .585 .585 .585 .58	7.215 2		29.459 .385 .061 .240 .240 .240 .2320 .2320 .322 .322	2.958 2		3.531 80
	80	29.067 2 .241 .513 .513 .563 .563 .563 .563 .563 .563 .563 .56	274 29		29.828 29.828 29.828 29.828 29.828 29.828 29.828 29.828 29.8369 20.548 20.558 20.548 20.558 20.548 20.558 20.548 20.558 20.558 20.548 20.558 20.558 20.548 20.558 200000000000000000000000000000000000	.146 29		29.473 29.473 2378 2460 2460 247 263 2330 263 263 263 263 263 263	.974 29		.394 S8
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_	P	50	8 293.			0 297.1		53	8 292.6		6 883.2
	9	29.043 29.043 2.477 2.477 2.477 2.477 2.557 2.557 2.523 2.820 2.28.080 2.28.080 2.28.080 2.28.080 2.28.080 2.28.080 2.28.080 2.28.080 2.28.080 2.28.080 2.047 2.00	293.17		29.774 29.774 591 591 531 536 846 850 850 850 573 573 573	296.96		29.480 .353 .353 .358 .358 .358 .358 .358 .358	292.85		883.026 .434
	20	$\begin{array}{c} \textbf{29.010} \\ \textbf{29.010} \\ \textbf{-411} \\ \textbf{-411} \\ \textbf{-461} \\ \textbf{-460} \\ \textbf{-545} \\ \textbf{-545} \\ \textbf{-545} \\ \textbf{-545} \\ \textbf{-545} \\ \textbf{-250} \\ -25$	293.048		29.730 	296.858		29.486 .337 .337 .019 .341 .341 .330 .3290 .290 .290	292.768		882.674 .422
-	4	$\begin{array}{c} 29.012\\ -217\\ -404\\ -453\\ -538\\ -538\\ -538\\ -538\\ -538\\ -538\\ -538\\ -546\\ -538\\ -5416\\ -420\\ -4$	92.972		29.700 .861 .585 .595 .595 .814 .559 .559 .559	296.853 296.858 296.990 297.102 297.146 297.215		29.493 .328 .275 .275 .294 .294 .295 .295 .295 .295 .295 .295 .295 .295	92.706		82.531 8 .418
-	e0	29.000 29.000 5.220 29.000 5.220 20.000 5.220 20.000 5.220 20.000 5.220 20.000 5.220 20.000 5.220 20.000 5.2200 5.220 5.220 5.2200 5.220 5.220 5.220 5.2200 5.220 5.2200 5.2200 5.220 5.2200 5.220 5.2	293.050 292.975 292.913 292.072 293.048 293.178 293.274 203 274 293 358 293	•	29.680 	296 730 24		29.504 .320 .320 .220 .200 .220 .220 .220 .220	292.789 292.749 292.700 292.706 292.768 292.858 292.035 292.074 292.058 292		Mouthly 882.870 882.623 882.343 882.343 882.531 882.674 883.026 883.311 883.394 883.531 883. ^{Suma.} 29.429 .421 .415 .411 .418 .422 .434 .444 .446 .451 .
	53	$\begin{array}{c} 29.032\\ 29.032\\ .388\\ .388\\ .388\\ .522\\ .522\\ .522\\ .20210\\ 29.210\\ 29.210\\ 29.210\\ 2020\\ .429\\$.975 29		29.658 869 614 .614 .614 .634 .534 .534 .559 .559 .559 .559 .559 .559 .559 .55	296.734 29		29.517 .310 .310 .305 .305 .320 .320 .320 .320 .320 .320 .320 .320	.749 29		.458 88
-			050 292	-		784 296		29.521 329.521 329.4 020 294 201 201 201 201 201	789 292		.623 882.
		29.065 29.065 9 -23.5 1 -4.03 1 -4.03 1 -4.03 1 -4.03 1 -4.03 2 -5.06 3 -5.08 5 -4.53 6 -28.907 7 -28.907 13 -5.08 13 -5.09 13 -5.01 13 -5.02 13 -5.01 13 -5.02 13 -5.03 14 -4.03 13 -4.04 13 -4.05 13 -4.05 13 -4.05 13 -4.05 13 -4.05 13 -4.05 14 -4.05 15 -4.05 16 -4.05 17 -4.05			1 29.640 29.640 29.640 29.640 29.640 23.8 29.640 23.825 29.640 29.640 23.825 20.640 25.87 0 5.587 0 5.587	8 296.784			0 292.		0 882.(9 .4
	13	$\begin{array}{c} 29.105\\ 29.105\\ .389\\ .389\\ .431\\ .513\\ .513\\ .495\\ .495\\ .29.210\\ .29.210\\ .29.210\\ .442\end{array}$	293.122		29.621 .650 .658 .650 .598 .598 .596 .596 .607	296.838	1	29.529 334 323 29.529 203 203 203 203 203 203 203 203 203 212 213 212	292.910		882.870 29.429
	Date.	1999499959995	Sums.		111 14 14 14 14 14 14 14 14 14 14 14 14	Sums.		<u> ដុន្តនុង្គនុងន</u> ុន្តន	Sums.		Monthly Sume. Means.
				3	. (33)		1		-		1

P. M.

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	Date.	-:4:4:4:4:4:4:4:4:4:4:4:4:4:4:4:4:4:4:4	Sums.		1919-1919-1919-1919-1919-1919-1919-191	Sums.	56.55.55.55.55.55.55.55.55.55.55.55.55.5	Sums.	Monthly Sums. Means.
	11	$\begin{array}{c} 29.230\\ 29.230\\$	292.415		29.350 276 276 276 255 270 255 270 2592 2642 2642 2642 2642 2642 2642 2642 26		$\begin{array}{c} 29.278\\ 29.278\\ 110\\ 1134\\ 28.995\\ 295.866\\ 295.928\\ 295.928\\ 295.928\\ 295.928\\ 295.928\\ 295.928\\ 295.938\\ 295.95$		905.026 905.407 905.598 905.917 906.170 906.109 906.053 Monthly Sums. .194 .207 .213 .223 .223 .231 .229 .227 Means.
	10	$\begin{array}{c} 29.235\\ 29.235\\ 361\\ -220\\ -125\\ -220\\ -258\\ -305\\ -220\\ -220\\ -225\\ -220\\ -225\\ -220\\ -225\\ -220\\ -225\\ -220\\ -200\\ -200\\ -200\\ -2$	292.376		29.350 .302 .302 .370 .370 .285 .370 .594 .594 .157	293.532	$\begin{array}{c} 29.284\\ -1118\\ -1133\\ -133\\ -133\\ -133\\ -28.036\\ -28.036\\ -28.036\\ -28.036\\ -28.036\\ -28.036\\ -28.036\\ -28.036\\ -306\\ -$	320.201	06.109
	6	$\begin{array}{c} 29.248\\367\\367\\367\\367\\367\\367\\367\\367\\372\\ .$	292.392		29.342 .310 .388 .388 .388 .388 .388 .388 .388 .572 .572 .572 .572 .148	93.578	$\begin{array}{c} 29.283\\ -123\\ -118\\ -118\\ -118\\ -118\\ -29.037\\ 229.037\\ 229.037\\ 229.179\\ -29.179\\ -204\\ -156\\ -204\\ -206\\ $	20.202 3	06.170 9
	30	$\begin{array}{c} 29.242\\ 29.242\\ 255\\ 255\\ 255\\ 255\\ 255\\ 255\\ 255\\ $	292.341		29.340 .275 .300 .381 .381 .381 .381 .381 .381 .381 .381	93.446	$\begin{array}{c} 29.266\\ -120\\ -120\\ -102\\ -102\\ 28.857\\ -28.857\\ 29.034\\ -29.032\\ 29.030\\ -296\\ -145\\ -296\\ -29$	320.130 320.202 320.201 320.191	05.917 9
	7	$\begin{array}{c} 29.243\\ .257\\ .256\\ .256\\ .132\\ .236\\ .236\\ .292\\ .292\\ .292\\ .292\\ .292\\ .292\\ .292\\ .348\\ .292\\ .348\\ .292\\ .348\\ .292\\ .348\\ .292\\ .348\\ .292\\ .29$	292 235 2		$\begin{array}{c} 29.345\\ 29.345\\ 287\\ 287\\ 288\\ 288\\ 288\\ 283\\ 283\\ 283\\ 269\\ 590\\ 144\\ 144\\ 144\\ 144\\ 144\\ 144\\ 144\\ 14$	203.349 203.446 203.578 293.532 293.447	29.245 093 093 28.831 29.020 29.135 29.135 29.135 29.135 29.135 29.135 29.135 29.135 29.135 29.135 29.285	320.013 3	05.598 9
P. M.	9	$\begin{array}{c} 29.247\\ 29.247\\260\\340\\130\\212\\232\\232\\232\\232\\233\\ $	292.167		$\begin{array}{c} 29.348 \\ 29.348 \\ 2935 \\ 2935 \\ 2335 \\ 2335 \\ 2492 \\ 2492 \\ 2580 \\ 2492 \\ 2580 \\ 2446 \\ 2580 \\ 235 \\ 2680 \\ 235 \\ 2680 \\ $	293.319	29.230 .118 .076 .076 .025 .025 .28.811 28.998 28.998 28.998 28.998 29.124 .115 .274	319.921 3	05.407 9
	er	$\begin{array}{c} 29.236\\ .245\\ .245\\ .340\\ .222\\ .085\\ .085\\ .280\\ .275\\ .280\\ .21$	292.031		$\begin{array}{c} 29.340\\ 29.340\\ 20.898\\ 208\\ 208\\ 208\\ 208\\ 208\\ 208\\ 208\\ 20$	293.221	$\begin{array}{c} \textbf{29.201}\\ \textbf{29.25.001}\\ \textbf{28.001}\\ \textbf$	319.774	05.0269
	4	$\begin{array}{c} 29.236\\ 2.236\\2345\\345\\063\\063\\195\\195\\345\\345\end{array}$	291.996		$\begin{array}{c} 29.329\\ 29.329\\301\\257\\257\\257\\257\\473\\466\\128\\128\end{array}$	293.233 2	$\begin{array}{c} 29.200\\ -1.22\\ 0.70\\ 0.70\\ -0.70\\ 28.092\\ 28.092\\ 28.092\\ 28.092\\ 28.092\\ 28.092\\ 28.092\\ -0.33\\ 28.092\\ -0.89\\ -0$	319.778 3	05.007 9
	n	$\begin{array}{c} 29.237\\ 29.237\\ 2340\\ 233\\ 233\\ 0.070\\ 107\\ 0.107\\ 28.988\\ 29.057\\ 29.0$	291.965		$\begin{array}{c} 29.330\\ 253.00\\ 258\\ 258\\ 258\\ 258\\ 259\\ 259\\ 259\\ 259\\ 259\\ 259\\ 259\\ 259$	293.284 2	$\begin{array}{c} 29.205\\ -29.205\\ 0.70\\ 0.70\\ -0.70\\ -0.70\\ -0.30\\ -0.30\\ -0.30\\ -0.92\\ -$	319.791	05.040 9
	R	$\begin{array}{c} 29.250\\ 29.250\\ 244\\ 0.73\\ 0.73\\ 0.109\\ 0.109\\ 0.109\\ 0.1348\\ 0$	291.997		29.351 29.351 2552 2555 171 2555 171 2555 171 2555 177 177		$\begin{array}{c} 29.207\\ -143\\ 0.71\\ 0.71\\ 0.71\\ -0.71\\ -0.71\\ -0.31$	319.848 3	05.2299
	1	$\begin{array}{c} 29.262\\ 23351\\ 2351\\ 2555\\ 2555\\ 2555\\ 2555\\ 2555\\ 2555\\ 2555\\ 2555\\ 2555\\ 2556\\ 25$	202.051		29.350 	293.460 293.384	$\begin{array}{c} 29.204\\ -160\\ 0.75\\ 0.075\\ 0.044\\ 28.055\\ 29.055\\ 29.055\\ 29.055\\ 0.020\\$	319.939 3	905.450 905.229 905.040 905.007 .208 .201 .195 .194
•	12	$\begin{array}{c} 29.274 \\ 2355 \\ 2355 \\ 2355 \\ 2355 \\ 2355 \\ 2355 \\ 2100 \\ 2210 \\ 2280 \\ $	292.157		29.360 .330 .330 .290 .290 .330 .110 .110 .532 .532 .532 .532 .532		$\begin{array}{c} 29.215\\ -174\\ 0.085\\ 0.085\\ 0.085\\ 28.796\\ 28.924\\ 28.924\\ 28.924\\ 0.089$		05.832
	11	29.290 248 381 381 381 381 285 062 0162 385	292.310		29.361 .336 .336 .337 .347 .347 .338 .338 .338 .338 .338 .338 .338 .33	293.645 293.567	$\begin{array}{c} 29.212\\ 29.212\\ 094\\ 004\\ 28.913\\ 28.913\\ 28.913\\ 28.913\\ 28.913\\ 28.970\\ 0037\\ 28.037\\ 0037\\ 28.037\\ 0037\\$	320.103 320.108	6.281 906.058 905.832 .235 .228 .220
	10	$\begin{array}{c} 29.300\\ 29.308\\ .2588\\ .2588\\ .398\\ .3308\\ .134\\ .216\\ .288\\ .082\\ .082\\ .018\\ .018\\ .018\\ .018\end{array}$	292.430		29.353 29.353 290 2333 246 2333 246 2420 2420 2420 2420 2420 2420 2420	293.684	$\begin{array}{c} 29.214\\ 29.214\\ .102\\ .102\\ .077\\ 28.839\\ 28.839\\ 28.839\\ 29.010\\ 29.010\\ 29.010\\ 29.10\\ 28.83\\ 28.839\\ 29.10\\ 29.10\\ 29.11\\ 29.11\\ 29.12\\ 29.$	0.167	06.281
	9	$\begin{array}{c} 29.303\\ -247\\ -392\\ -392\\ -329\\ -329\\ -329\\ -329\\ -329\\ -329\\ -216\\ -296\\ -296\\ -296\\ -20$	292.440		29.374 29.374 2344 2344 2354 2354 2556 296 296	203.717	$\begin{array}{c} 29.215\\ -206\\ 102\\ -102\\ -102\\ -28.846\\ 28.846\\ 28.846\\ 28.902\\ 28.902\\ 29.005\\ -075\\ -075\\ -075\\ -224\\ -22$	320.134 320.187 320.151 32	905.608 905.682 905.949 906.161 906.281 906.337 906.308 90 .213 .215 .224 .231 .235 .237 906.308
	80	$\begin{array}{c} 29.300\\ 2328\\ .2381\\ .381\\ .381\\ .329\\ .160\\ .297\\ .133\\ .297\\ .133\\ 28.992\\ 29.400\\ 229.400\end{array}$	202.448		29.362 2857 2855 2855 2855 2855 2856 2856 28560 28560 2815 28560 2815	293 702	$\begin{array}{c} 29.217\\ 29.217\\ .104\\ .104\\ .230\\ .28.090\\ 28.908\\ 29.054\\ 29.054\\ .270\\ .170\\ .212\\ .212\\ \end{array}$	320.187	06.337 (
M.	r	$\begin{array}{c} 29.296\\ 23.230\\$	292.438 292.448 292.440		29.355 29.355 2845 2845 2845 287 287 287 286 644 644 644 644 644 644 644 644 644 6	203.709	$\begin{array}{c} 29.209\\ -223\\ .223\\ .106\\ .106\\ 28.091\\ 28.091\\ 28.091\\ 28.091\\ 22.091\\ 2955\\ .172\\ .194\\ .194\end{array}$	320.134	06.281
Α.	9	$\begin{array}{c} 29.293\\ 213\\ 213\\ 250\\ 234\\ 203\\ 229.388\\ 29.38$	202.302		$\begin{array}{c} 29.368\\ 2345\\ 2345\\ 2360\\ 2360\\ 2390\\ 640\\ 640\\ 640\\ 2560\\ 351\\ 351\\ \end{array}$	303.678	$\begin{array}{c} 29.199\\ 22.232\\ .106\\ .106\\ .106\\ .232\\ .2003\\ .232\\ .235\\ .165\\ .165\\ .189\end{array}$	320.091	06.161
	ß	$\begin{array}{c} \textbf{29.270}\\ \textbf{29.270}\\ \textbf{.335}\\ \textbf{.335}\\ \textbf{.335}\\ \textbf{.335}\\ \textbf{.178}\\ \textbf{.178}\\ \textbf{.178}\\ \textbf{.2178}\\ \textbf{.2135}\\ \textbf{29.358}\\ \textbf{29.358}\\ \textbf{29.358}\\ \textbf{.29.358}\\ .29$	292.285		29.337 29.337 23357 23357 23357 2357 2357 2357 235	293.615	$\begin{array}{c} 29.181\\ 250\\ .103\\ .103\\ .091\\ 28.875\\ 28.878\\ 28.878\\ 28.878\\ 29.037\\ 28.878\\ 29.037\\ 28.878\\ 29.037\\ .194\\ .194\end{array}$	319.959 320.049 320.091	05.949
	4	$\begin{array}{c} 29.280\\ .190\\ .1317\\ .338\\ .172\\ .172\\ .172\\ .262\\ .222\\ 28.918\\ 29.333\\ 29.333\\ \end{array}$	292.187		$\begin{array}{c} 29.326\\ 23231\\ 232\\ 232\\ 232\\ 232\\ 258\\ 260\\ 100\\ 260\\ 2549$ 2549\\ 2549\\ 2549\\ 2549 2550\\ 2550\\ 2549\\ 2549 2550\\ 2550	293.538	$\begin{array}{c} 29.176\\ -254\\ 006\\ 005\\ -254\\ 005\\ 28.095\\ 28.877\\ 28.928\\ 28.987\\ 29.212\\ 29.212\\ 29.212\\ 29.212\\ 29.212\\ 29.212\\ 28.987\\ -159\\ -150\\ -159\\ -150\\ -1$	319.959	05.682
	ŝ	$\begin{array}{c} \textbf{29.286} \\ \textbf{.189} \\ \textbf{.189} \\ \textbf{.169} \\ \textbf{.158} \\ \textbf{.158} \\ \textbf{.158} \\ \textbf{.158} \\ \textbf{.158} \\ \textbf{.158} \\ \textbf{.2948} \\ \textbf{28.903} \\ \textbf{29.313} \\ \textbf{29.313} \end{array}$	292.169		$\begin{array}{c} 29.325\\ 29.325\\ 281\\ 281\\ 281\\ 285\\ 285\\ 285\\ 285\\ 285\\ 285\\ 285\\ 285$	293.505	$\begin{array}{c} 29.175\\ 2258\\ .084\\ .084\\ .084\\ 28.872\\ 28.872\\ 29.024\\ 29.206\\ 29.206\\ 29.206\\ .146\\ .146\end{array}$	319.934	905.608 (.213
	62	$\begin{array}{c} 29.293\\ 2.200\\192\\192\\150\\150\\272\\ 28.928\\ 29.300\\ 29.300 \end{array}$	292.253		29.335 29.335 287 287 287 287 287 287 287 287 287 295	293.576 293.546 293.505 293.538 293.615 293.678 293.709 293.702 293.717	$\begin{array}{c} 29.178\\ 29.178\\ .271\\ .092\\ .092\\ 28.871\\ 29.871\\ 29.023\\ 29.198\\ 29.198\\ 29.198\\ 29.198\\ 29.198\\ .170\\ .170\\ .130\end{array}$	319.948	905.747 905.74
	1	$\begin{array}{c} 29.304 \\ 29.304 \\$	292.297		29.338 2325 2325 250 2505 2505 2505 2568 2568 2575 2575 2575	293.576	$\begin{array}{c} 29.176\\ 29.176\\104\\104\\113\\ 28.964\\ 28.946\\ 28.940\\ 29.197\\ 29.197\\136\\136\end{array}$	319.977	905.850 905.747 .221 .218
P. M.	12	$\begin{array}{c} 29.314\\ 2.220\\$	292.363		29.362 2.338 2.338 2.338 2.338 2.342 2.70 2.564 2.564 2.564 2.564	293 636	29.170 .278 .110 .128 .28.865 28.980 28.985 29.028 28.935 29.193 .185 .185	320.004	Monthly 906.003 8 8 8 8 8 9 2 9 2 2 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
	Date.	-: లె లు లు ఈ లు లు లు లు లు -: లు లు ఈ లు	Sums.	-	13181415151816169 1318141515151816169	Sums.	2288288828888	m s.	Monthly Sums. Means.
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	Date.	10,0,4,0,0,7,0,0,0,0,0,0,0,0,0,0,0,0,0,0,	Sums.		20.02 20.020	Sums.	28.8.9.9.8.9.9.9.8.6.9.8. 8.6.9.8.6.9.8.6.9.8.6.9.8.	Suns.		Monthly Sums. Means.
	11	$\begin{array}{c} 29.438\\ 253\\ 253\\ 253\\ 281\\ 281\\ 286\\ 286\\ 286\\ 286\\ 286\\ 286\\ 286\\ 286$	293.068		$\begin{array}{c} 29.296\\ 29.296\\ .463\\ .464\\ .345\\ .276\\ .276\\ .276\\ .276\\ .276\\ .258\\ .258\\ .558\\ .558\end{array}$		29.534 252 252 252 252 252 252 252 252 253 240 253 240 253 252 2	292.869	-	578.871 596
	10	29.430 245 245 245 3394 3394 3394 3394 3394 3394 3394 33	293.089		$\begin{array}{c} 29.202\\ -2458\\ -404\\ -342\\ -342\\ -292\\ -292\\ -254\\ -554\\ -554\\ \end{array}$	92.924	29.543 .370 .260 .259 .259 .259 .259 .258 .258 .258 .342 .342 .342 .342 .342 .342 .342 .342	292.871		378.834 .294
	6	29.440 245 245 245 245 245 334 338 339 339 339 339 350 350 360 360 360 360 360 360	293.092 293.039		29.285 .395 .395 .395 .305 .300 .301 .28.792 29.262 29.262 .443 .546	202.928	29.553 .370 .370 .263 .171 .171 .171 .171 .183 .341 .188	292.839		378.859 .295
	80	29.430 2.285 2.2555 2.2555 2.2555 2.2555 2.2555 2.2555 2.2555 2.2555 2.2555 2.2555 2	293.031		$\begin{array}{c} 29.255\\ 2455\\374\\386\\386\\320\\320\\320\\320\\320\\321\\321\\321\\531\\531\end{array}$	292.832 292.928 292.924 292.934	$\begin{array}{c} 29.546\\ 253.546\\ 2559\\ 2559\\ 2559\\ 2559\\ 2559\\ 2559\\ 2559\\ 2559\\ 2514\\ 252\\ 2514\\ 252\\ 252\\ 252\\ 252\\ 252\\ 252\\ 252\\ 25$	292.744	-	878.607 8
•TAT	4	29,428 1289	292.957		$\begin{array}{c} 29.237\\ .453\\ .453\\ .393\\ .376\\ .376\\ .300\\ .300\\ .326\\ .292\\ .785\\ .292\\ .525\\ .525\end{array}$	292.791	29.543 2.555 2.555 2.655 1.61 1.60 1.60 1.80 1.80 1.80 1.80 1.80 1.80 1.80 1.8	292 677		878.626 878.404 878.181 878.152 878.146 878.310 878.425 878.607 878.859 878.834 878.871 Monthly Sums. .287 .280 .273 .271 .274 .281 .281 .287 .295 .294 .296 Means.
•	9	$\begin{array}{c} 29.427\\ 2.966\\166\\381\\373\\350\\355\\ .$	292.927		$\begin{array}{c} 29.222\\ -450\\ .375\\ .37$	292.709 292.706 292.741 292.791	$\begin{array}{c} 29.541\\ 2376\\ .258\\ .258\\ .157\\ .258\\ .258\\ .258\\ .258\\ .258\\ .258\\ .121\\ .12$	292.642		878.310 .274
	ß	$\begin{array}{c} 29.414\\ 2312\\147\\378\\$	292.895		$\begin{array}{c} \textbf{29.205}\\ \textbf{29.205}\\ \textbf{.442}\\ \textbf{.372}\\ \textbf{.373}\\ \textbf$	292.706	$\begin{array}{c} 29.542 \\ 2.375 \\256 \\146 \\146 \\140 \\ 28.980 \\ 29.136 \\112 \\112 \\112 \\129 \end{array}$	292.545		878.146
	4	$\begin{array}{c} 29.409\\ 2.325\\325\\372\\372\\374\\ .$	292.892		$\begin{array}{c} 29.198\\ -441\\ -441\\ -380\\ -381\\ -316\\ -31$	292.709	$\begin{array}{c} 29.547\\ 29.547\\ .250\\ .264\\ .264\\ .264\\ .250\\ .251\\ .513\\ .264\\ .261\\ .261\\ .213\\ .116\\ .429\end{array}$	292.551		878.152
	e	29.415 .330 .330 .332 .332 .373 .373 .373 .373 .373 .373	293.022 292.929		$\begin{array}{c} \textbf{29.195}\\ \textbf{29.195}\\ \textbf{.388}\\ \textbf{.388}\\ \textbf{.388}\\ \textbf{.318}\\ \textbf{.318}\\ \textbf{.318}\\ \textbf{.318}\\ \textbf{.318}\\ \textbf{.318}\\ \textbf{.318}\\ \textbf{.318}\\ \textbf{.328}\\ \textbf{.29.088}\\ \textbf{29.088}\\ \textbf{.204}\\ \textbf{.504} \end{array}$	292.698	$\begin{array}{c} 29.551\\ 2.385\\ .256\\ .262\\ .262\\ .163\\ 28.974\\ .113\\ 29.105\\ .314\\ .113\\ .431\\ .431\\ \end{array}$	292.554		878.181 .273
	62	$\begin{array}{c} 29.419\\ 29.45\\ .345\\ .345\\ .377\\ .377\\ .421\\ .421\\ .421\\ .312\\ .3$	293.022		$\begin{array}{c} 29.195\\ 29.195\\ .443\\ .443\\ .325\\ .327\\ .327\\ .327\\ .228\\ .602\\ .502\\ .502\end{array}$	292.765 292.698	$\begin{array}{c} 29.564 \\ 29.564 \\ 267 \\ 267 \\ 267 \\ 267 \\ 267 \\ 260 \\ 320 \\ 320 \\ 320 \\ 125 \\ .125 \\ .125 \\ .133 \end{array}$	292 617		878.404 .280
	1	$\begin{array}{c} 29.428\\ 2.0582\\120\\334\\334\\334\\326\\ $	293.104		$\begin{array}{c} 29.195\\ -445\\ -445\\ -418\\ -418\\ -418\\ -428\\ -340\\ -340\\ -348\\ -288\\ -288\\ -290\\ -505\\ -50$	292.815	$\begin{array}{c} 29.582\\ -2411\\ -241\\ -267\\ -267\\ -267\\ -267\\ -267\\ -268\\ -262\\ -2$	292.707		878.626 .287
-	12	$\begin{array}{c} 29.438\\ 2375\\128\\128\\330\\415\\415\\415\\330\\330\\330\\284\\$	293,227		$\begin{array}{c} 29.190\\ -242\\ -433\\ -433\\ -433\\ -433\\ -352\\ -352\\ -352\\ -352\\ -352\\ -323\\ -520\\ -50$	292.930	29.596 28.596 28.5 28.5 28.5 28.5 28.5 28.5 20.5 010 010 0178 20.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5	292.789		
	H	$\begin{array}{c} 29.449\\ -400\\ -400\\ -128\\ -415\\ -395\\ -395\\ -333\\ -306\\ -306\\ -000\\ -000\\ \end{array}$	293.323 293.227		$\begin{array}{c} \textbf{29.191}\\ \textbf{29.191}\\ \textbf{.448}\\ \textbf{.448}\\ \textbf{.442}\\ \textbf{.353}\\ \textbf{.292}\\ \textbf{.524}\\ \textbf{.524}\end{array}$	969 292.955 292.930	29.602 .442 .283 .283 .283 .283 .283 .283 .283 .28	292 885		.265 879.163 878 946 .308 .305 .298
	10	$\begin{array}{c} 29.452 \\ .412 \\ .412 \\ .198 \\ .421 \\ .421 \\ .421 \\ .421 \\ .422 \\ .326 \\ $	293.384		$\begin{array}{c} 29.188\\ -440\\ -444\\ -454\\ -353\\ -353\\ -353\\ -222\\ -222\\ -222\\ -222\\ -227\\ -227\\ -227\\ -272\\ -27$	292.969	29.604 2456 2456 2456 287 287 287 265 265 265 265 265 265 265 265 265 265	202.912		
	6	$\begin{array}{c} 29.448\\ -421\\ -127\\ -421\\ -421\\ -423\\ -419\\ -494\\ -522\\ -326\\ -336\\ -004\\ \end{array}$	293.396		$\begin{array}{c} 29.185\\ -4.31\\ -4.531\\ -4.53\\ -4.53\\ -3.54\\ -3.54\\ -3.54\\ -3.54\\ -3.54\\ -2.8,976\\ -2.8,97$	292.936	$\begin{array}{c} 29.602\\ -2472\\ -290\\ -268\\ -268\\ -268\\ -061\\ -048\\ -048\\ -048\\ -256\\ -256\\ -17\\ -17\\ -17\\ -17\\ -256\\ $	292.953		379.285 8
	30	$\begin{array}{c} \textbf{29.434}\\ \textbf{425}\\ \textbf{.425}\\ \textbf{.425}\\ \textbf{.419}\\ \textbf{.419}\\ \textbf{.417}\\ .4$	293.416		$\begin{array}{c} 29.172\\ 29.172\\$	292.935	$\begin{array}{c} 29.601\\ -2480\\ -2480\\ -253\\ -253\\ -070\\ -292\\ -$	292.985	-	379 336 8
	2	29.417 .423 .147 .423 .423 .423 .423 .423 .423 .423 .423	293.385		$\begin{array}{c} 29.148\\ -418\\ -418\\ -384\\ -384\\ -359\\ -355\\ -355\\ -355\\ -355\\ -355\\ -2541\\ -2516\\ -516\\ -516\end{array}$	292.905	29.594 	292.991		379.281
	9	20.382 .421 .523 .392 .392 .394 .310 .376 .014	293.306		$\begin{array}{c} 29.132\\ 2.390\\$	292.806	29.580 .493 .300 .233 .073 .326 .073 .326 .326 .326 .326 .326	292.825 202.905 292.933 292.991 292.985 292.953 292.912		379.045 8
	23	29.358 .416 .165 .377 .377 .377 .377 .377 .374 .300 .374 .022	293.266		$\begin{array}{c} 29.130\\ -29.130\\ -447\\ -447\\ -369\\ -369\\ -344\\ -369\\ -344\\ -349\\ -29.376\\ -29.376\\ -498\\ -498\end{array}$	292.659	29.570 .496 .304 .248 .248 .225 .021 .224 .021 .303 .376	202.905		378.830 (
	4	29.346 .407 .174 .352 .350 .355 .355 .355 .355 .355 .355 .371 .291 .291 .291 .291	293.217		$\begin{array}{c} 29.098\\ 29.098\\$	292.528	29.568 .493 .305 .305 .241 .231 .064 .064 .365 .353	292.825		878.570 .286
	e	$\begin{array}{c} 29.343 \\ -411 \\ -180 \\ -180 \\ -180 \\ -371 \\ -371 \\ -283 \\ $	293 204 293.217 293.266 293.306 293.385 293.416 293.396 293.384		$\begin{array}{c} 29.074\\ 2.312\\312\\358\\358\\358\\358\\358\\358\\358\\358\\358\\255\\258\\ .$	292.436	29.567 	292.819		.282
	65	29.338 .415 .1915 .1915 .325 .325 .325 .325 .325 .325 .366 .366 .366 .071	293.227		29.064 2.312 2.312 2.354 2.354 2.352 2.332 2.454 2.9.332 2.9.332 2.9.332 2.464	$292.474 \left[292.449 \right] 292.436 \left[292.528 \right] 292.659 \left[292.806 \right] 292.905 \left[292.935 \right] 292.936 \left[292.936 \right$	29.566 5315 5315 5315 5315 246 2948 2948 2948 2948 2948 2948 2948 2948	292.850 292.819		.284
	1	29.336 425 2925 2925 2925 306 306 375 2308 2369 280 280 280 280 280 280 280 280 280 280	293.263 293.227	3	$\begin{array}{c} 29.057\\ 2.312\\$	292.474	$\begin{array}{c} 29.568 \\ 2.5268 \\3360 \\3360 \\3320 \\303 \\$	292.901		.288
	13	29.334 -241 -241 -241 -241 -241 -282 -382 -382 -382 -382 -382 -382 -382	293.318		29.056 303 455 455 455 455 303 375 275 275 29303 287797 29303 28797 29303	292.461	29.567 530 531 532 531 2348 2348 2351 242 2328 281 281 281	292.910		Monthly 878.689 878.526 878.526 878.570 878.830 879.045 879.281 879 336 879.285 871 84 87 85 879 336 879.285 871 85 87 85 879 336 879.285 871 85 87 85
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	Date.	-ioie:4:2:0:20000	Sums.	20. 20. 20. 20. 20. 20. 20. 20. 20. 20.	Sums.	-	3.3.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8	Sums.	370 Monthly Sums. 270 Means.
	п	29.487 349 376 376 376 376 2555 3377 3377 3377 3377 3377 3377	293.425	$\begin{array}{c} 29.175\\ 29.175\\ 378\\ 378\\ 378\\ 2845\\ 2845\\ 2845\\ 2845\\ 286\\ 286\\ 286\\ 286\\ 286\\ 286\\ 286\\ 286$	292.361		$\begin{array}{c} 29.119\\ -271\\ -271\\ -271\\ -387\\ -387\\ -387\\ -387\\ -387\\ -387\\ -387\\ -231\\ -285\\ -28$	321.584	907.370
	10	29.488 354 373 373 461 118 260 260 260 260 260 260 260 260 260 260	293.413	$\begin{array}{c} 29.158\\ 271\\ 378\\ 351\\ 278\\ 255\\ 284\\ 190\\ 080\\ 080\\ 080\end{array}$	292.325		29.124 260.124 3980.33886 3980.3388 3980.3388 3980.3388 3980.338	321 574	907.312 .268
	0	29.492 .358 .358 .358 .466 .470 .356 .356 .356 .356 .356 .356 .179	93.414	29.138 29.138 .364 .364 .275 .275 .276 .082 .082	92.311		29.126 .251 .251 .251 .251 .251 .126 .126 .126 .126 .126 .226 .221	21.573	07.295
	8	29.491 359 359 454 .454 .454 .454 .455 .345 .347 .347 .347 .347	293.325 293.365 293.414 293.413	$\begin{array}{c} 29.118\\ 29.118\\$	292.112 292.200 292.311 292.325		29.129 29.129 29.226 387 387 387 387 387 387 387 387 387 387	321.347 321.402 321.505 321.573 321 574	.825 907.648 907.394 907.394 907.143 906.018 906.708 906.543 906.543 906.693 906.839 907 070 907 295 907.312 907.370 Monthly Suma.
	r	$\begin{array}{c} 29.488\\$	93.325	29 094 29 094 348 355 250 2550 2550 2550 2550 2550 2948 2948 2948 2063 071	92.112		$\begin{array}{c} 29.125\\ 29.125\\ 376\\ 382\\ 382\\ 382\\ 382\\ 382\\ 382\\ 144\\ 044\\ 144\\ 144\\ 274\\ 274\\ 274\\ 274\\ 274\\ 274\\ 274\\ 2$	321.402	06.839
P. M.	9	$\begin{array}{c} 29.490\\ 362\\ 340\\ 344\\ 344\\ 344\\ 344\\ 344\\ 344\\ 360\\ 360\\ 360\\ 361\\ 361\\ 361\\ 361\\ 361\\ 361\\ 361\\ 361$	293.304	29,091 29,091 3355 2943 2355 2355 2355 2355 2355 2355 2356 2356	292.042		29.132 3.74 3.75 3.77 3.77 3.77 3.77 3.77 1.77 1.77 1.77	321.347	06.693 5
	ю.	29.487 .368 .331 .452 .452 .316 .3316 .3316 .3370 .370 .370 .370 .370 .370	293.289	29.089 .198 .317 .317 .317 .317 .329 .236 .236 .236 .236 .238 .221 .047	291.956		29.133 3.153 3.153 3.153 3.153 3.153 3.153 3.152 1.172 1.172 1.172 1.172 1.172 1.172 1.172 1.172 1.172 1.172 1.172 1.172 1.172 1.172 1.172 1.172 1.172 1.173	321.285	906.530 .243
	4	29.494 371 371 321 461 323 323 323 323 374 180	293.304 2	29.089 198 29.089 296 296 296 294 2924 2924 2924 2929 2929	291.938		29.131 3.151 3.151 3.14 3.14 3.14 1.123 1.123 1.123 1.123 1.123 1.123 1.123 1.123)06.543 .244
	ŝ	29,507 	293.571 293.473 293.405 293.304	29.093 202 304 241 222 222 222 222 222 222 222 222 22	292.095 292.035 291.969 291.938		29.132 3.40 3.40 3.350 3.350 3.350 3.350 3.350 3.350 3.14 1.99 1.99 1.99 1.99 1.90 3.71 2.03 2.71 2.03 2.71	321.477 321.410 321.334 321.301	006.708
	62	29.518 344 344 451 451 451 451 451 346 346 346 346 346 374 396 397	293.473	29 100 311 311 3235 235 235 235 225 225 225 225 225 22	292.035		$\begin{array}{c} \textbf{29.140}\\ \textbf{3.146}\\ \textbf{3.146}$	321.410	906.918
	1	$\begin{array}{c} 29.528\\ -347\\ -347\\ -347\\ -349\\ -363\\ -36$	293.571	29.107 29.107 314 314 314 2240 224 228 228 088 088 040	292.095		29.147 3146 3146 3388 3388 3388 3388 3388 3388 3388 33	321.477	907.143 .263
Y.	12	29.538 351 .466 .504 .504 .504 .504 .504 .504 .504 .504		29.114 29.114 3296 3296 2250 3296 2242 2246 104 104 052	292.219		29.156 .146 .366 .366 .366 .339 .216 .136 .136 .136		007.394
JUL	п	$\begin{array}{c} 29.544 \\ 29.544 \\$	293.765 293.657	29.117 29.117 337 337 337 337 337 337 337 337 337	292.317		29.161 143 .368 .3217 .2055 .2026 .20	.646 321.566 321.518	007.648 (
ا	10	$\begin{array}{c} 29.546\\ -29.546\\ -469\\ -504\\ -504\\ -512\\ -504\\ -228\\ -228\\ -224\\ $.813	29.116 29.116 345 345 385 385 385 245 245 249 249 249 249 249 249 249 249 249 249	364		$\begin{array}{c} 29.175\\ 29.175\\$		
	6	29. 553 465 465 .466 .466 .421 .138 .234 .234	293.829	29.118 25.118 2558 2576 2576 2249 2246 2246 2246 2246 2246 2246 224	292.376 292.		$\begin{array}{c} 29.154 \\ 1.27 \\230 \\230 \\230 \\292 $	321.636 32	007.841 .285
	œ	$\begin{array}{c} 29.555\\ -29.555\\ -475\\ -466\\ -466\\ -503\\ -503\\ -523\\ -523\\ -153\\ -270\\ -210\\ -270\end{array}$	293.880	29.125 248 248 248 248 248 248 248 248 253 253 253 253 253 253 253 253 253 253	292.394		$\begin{array}{c} 29.158\\ .127\\ .382\\ .323\\ .230\\ .136\\ .136\\ .136\\ .136\\ .136\\ .292\\ .29$	321.658	907.932 .288
M.	J.	29.553 481 .334 .464 .464 .435 .464 .435 .464 .435 .464 .435 .435 .435 .435 .435 .435 .435 .435 .435 .435 .435 .553 .435 .435 .435 .435 .435 .435 .435 .435 .435 .171 .264 .264 .265 .265 .265 .265 .265 .265 .265 .265 .265 .266 .266 .266 .266 .266 .276 .266 .276 .266 .276 .266 .276 .276 .266 .276 .266 .266 .266 .276 .266 .266 .266 .266 .266 .266 .266 .266 .266 .276 .266 .276 .266 .276 .266 .276 .276 .266 .276 .276 .276 .276 .276 .266 .276	293.884	29.130 242 242 333 242 333 245 245 265 265 265 265 265 265 265 265 265 26	292.404		$\begin{array}{c} 29.155\\ -3.118\\ -3.446\\ -3.79\\ -3.79\\ -3.79\\ -3.79\\ -3.79\\ -3.79\\ -3.79\\ -3.79\\ -3.75\\$	321.596	907.884 .287
Α.	9	$\begin{array}{c} 29.544\\ 29.544\\ .451\\ .451\\ .437\\ .172\\ .172\\ .172\\ .264\\ .264\\ .264\end{array}$	293.806	29.134 2228 313 371 253 254 253 254 253 254 253 254 253 254 253 254	292.326 292.404		$\begin{array}{c} \textbf{29.142}\\ \textbf{29.142}\\ \textbf{.107}\\ \textbf{.107}\\ \textbf{.123}\\ \textbf{.138}\\ \textbf{.1188}\\ \textbf$	321.505	907.637 .279
	LO LO	$\begin{array}{c} 29.530\\ -477\\ -477\\ -440\\ -437\\ -437\\ -437\\ -437\\ -272\\ -27$	293.746	$\begin{array}{c} 29.149\\ 214\\ 214\\ 208\\ 263\\ 263\\ 259\\ 259\\ 259\\ 259\\ 259\\ 259\\ 259\\ 259$	292.294		29.135 .104 .331 .331 .331 .331 .331 .331 .335 .335	321.319 321.358 321.411 321.505 321.506 321.658	907.451
	4	$\begin{array}{c} 29.510\\ -2475\\220\\220\\477\\438\\385\\280\\280\end{array}$	293 688	29.141 205 205 205 205 261 261 260 263 263 263 263 263 263 263 263 263 263	292.279 292.283 292.294		29,128 095 095 035 035 036 0	321.358	907.331
	e	$\begin{array}{c} \textbf{29.498}\\ \textbf{29.498}\\ \textbf{.317}\\ \textbf{.317}\\ \textbf{.317}\\ \textbf{.476}\\ \textbf{.476}\\ \textbf{.476}\\ \textbf{.375}\\ \textbf{.381}\\ \textbf{.381}\\ \textbf{.281}\\ \textbf{.281} \end{array}$	293.539	29.146 .198 .280 .280 .281 .281 .271 .273 .273 .273 .273 .273 .273 .273	292.279		$\begin{array}{c} 29.115\\ 29.115\\ -0.07\\ -381\\ -414\\ -381\\ -381\\ -381\\ -381\\ -381\\ -381\\ -381\\ -381\\ -381\\ -382\\ -381\\ -382\\ $	321.319	907.137
	53	$\begin{array}{c} 29.498\\ -29.498\\ -317\\ -317\\ -317\\ -317\\ -316\\ -220\\ -220\\ -220\\ -220\\ -220\\ -220\\ -220\\ -20\\ -$	293.706 293.662 293.539 293 688 293.746 293.806 293.884 293.880 293.829 293	$\begin{array}{c} 29.152\\ 29.152\\ 270\\ 277\\ 277\\ 282\\ 282\\ 282\\ 282\\ 282\\ 282$	292.376 292.327		29.108 29.108 2.825 2.8355 2.8355 2.8355 2.8355 2.8355 2.8355 2.8355 2.8355 2.83555 2.83555 2.83555 2.835555 2.83555555555555555555555555555555555555	321.369 321.326	907.315 .268
	1	$\begin{array}{c} 29.496\\$		29.161 29.161 275 275 275 285 250 2500 2550 285 285 285 285 268 268 268 268 268 268 268 268 268 268	292.376		$\begin{array}{c} 29.100\\ -114\\ -281\\ -281\\ -411\\ -411\\ -386\\ -386\\ -386\\ -148\\ -148\\ -178\\ -178\\ -178\\ -178\\ -236\\ -23$		907.451 .272
P. M.	12	$\begin{array}{c} 29.494\\ -29.494\\ -342\\ -3481\\ -452\\ -452\\ -452\\ -452\\ -248\\$	293.755	29.168 .273 .273 .387 .387 .387 .387 .387 .291 .258 .258 .258 .176	292.447		29.102 281 281 281 386 366 3	321.499	Monthily 907.701 907.451 907.315 907.137 907.331 907.451 907.637 907.884 907.932 907.841 907 Sums. 29.281 .272 .268 .262 .269 .273 .273 .278 .287 807.884 907.988 907.841 907
щ	Date.	-ieiei4.4.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0	Sums. 2	121212.4.7.1.0.1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2	Sums.		20222222222222	Sums.	Monthly Sums. Means.
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	Date.		Sums.	116161416161581608 116161416191581608 116161416191581608	Sums.	21. 22. 23. 23. 23. 23. 23. 23. 23. 23. 23
	11	29.065 29.065 29.114 29.114 363 363 363 546 546 546		29.058 29.058 1121 1121 121 121 121 121 121 121 121	93.073	29.500 29.500 269 2935 235 235 235 235 235 235 232 235 232 235 232 232
	10	29.101 29.114 29.114 29.114 29.114 201 201 201 201 201 201 201 201 201 201	92.962	29.067 29.067 232 232 232 233 253 253 253 253 253 253	93.128	29.517 29.517 269 251 251 251 2526 2526 2526 2526 2526 25
	6	29.126 29.109 29.109 29.109 29.109 29.109 29.109 205 204 205 204 204 205 204 204 204 204 204 205 201 206 201 206 201 206 201 206 201 206 201 206 201 206 201 206 201 206 200 201 206 200 200 200 200 200 200 200 200 200	92.990 2	$\begin{array}{c} 29.074 \\ -227 \\ -277 \\ $	93.130	29.528 29.528 273 273 273 2944 2944 294 294 294 292 137 137 137 137 137 292 292 292
	ø	29.126 29.2886 29.096 255 255 255 255 255 255 250 250 250 250	<u>292.778</u> 292.849 292.939 292.990 292.962 292.901	29.078 29.078 29.078 29.078 29.057 29.150 29.150 29.150 29.058 20.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5	93.120	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
M.	1-	$\begin{array}{c} 29.145\\ 29.875\\ 29.065\\ 29.065\\ 29.065\\ 2945\\ 2845\\ 2845\\ 2845\\ 286\\ 286\\ 286\\ 286\\ 288\\ 288\\ 288\\ 288$	02.849 2	29.075 175 175 236 236 236 238 123 236 233 236 233 236 240 640	203.000	20.542 256 256 256 256 2338 2338 2165 165 165 165 165 101 321.912 321.
P. P	9	29.142 29.242 29.044 29.044 274 29.044 29.274 29.274 29.274 29.274 29.274 29.274 29.274 29.274 29.274 29.274 29.274 29.274 29.274 29.274 20.2774 20.2774 20.2774 20.2774 20.2774 20.2774 20.2774 20.27755 20.2775 20.27755 20.27755 20.27755 20.27755 20.277555 20.277555 20.2775555555555555555555555555555555555	92.778	$\begin{array}{c} 29.080\\ -148\\ -242\\ -242\\ -242\\ -242\\ -262\\ -262\\ -575\\ -575\\ -575\\ -634\\ -63$	92.978	29.546 .249 .249 .332 .332 .332 .332 .332 .332 .335 .335
	20	29.151 28.851 28.851 29.027 29.027 29.027 29.267 20.277 20.267 20.2777 20.2777 20.2777 20.2777 20.2777 20.2777 20.27777 20.27777 20.27777777777	202.731	29.076 29.076 28.076 29.300 29.300 29.300 29.300 29.300 29.300 29.300 29.300 29.300 20.3000 20.30000 20.30000000000	292.907 292.978 293.000 293.120 293.130 293.128 293.073	29.545 27.5 243 243 243 248 248 201 201 201 201 201 201 201 201 201 201
	4	29.162 28.840 29.002 29.002 29.002 29.002 29.002 29.333 233 256 2333 256 256 256 256 256 256 256 256 256 256	292.713	$\begin{array}{c} 29,091\\ 28,009\\ 0.099\\ 28,964\\ 29,300\\ 293,00\\ 293,00\\ 293,00\\ 255\\ 645\\ 645\\ 645\\ 645\\ 645\\ 645\\ 645\\ 6$	292.889	29.550 29.550 315 315 315 315 315 314 218 314 218 314 218 312 312 312 312 312 312 312 312 312 312
-	63	$\begin{array}{c} 29.182\\ 28.831\\ 28.831\\ 28.967\\ 28.967\\ 2338\\ 2$	292.713	29.113 29.113 28.965 29.301 29.301 29.301 29.301 29.301 29.301 29.301 29.301 29.301 29.301 20.310 20.3113 20.3	92.941 2	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $
	53	29,205 29,205 29,5,964 29,5,964 29,5,964 3,340 3,4403,440 3,4400 3,4400 3,4400 3,4400 3,440000000000		29.140 29.140 28.968 29.301 29.301 29.301 29.301 29.301 29.301 29.301 29.301 29.301 29.301 29.301 29.301 29.301 20.3333 20.3333 2	93.007 2	29.569 .320 .3217 .317 .317 .317 .317 .322 .332 .332 .332 .332 .332 .332 .33
•	T	29.214 28.830 28.830 28.9314 29.9314 346 346 346 346 346 346 346 346 346 34	292.819 292.761	$\begin{array}{c} 29.157\\ -29.157\\ -29.28.970\\ -29.360\\ -198\\ -463\\ -674\\ -674\\ -674\\ -674\\ -674\\ -674\\ -674\\ -674\\ -674\\ -678\\ -678\\ -678\\ -678\\ -678\\ -678\\ -68$	293.059 293.007 292.941	20.589 .337 .3319 .3319 .3319 .3319 .332 .2668 .2545 .2688 .2688 .2688 .2689 .2689 .2099 .2009 .2009 .2009 .2009 .2005
	12	20.234 28.850 28.850 29.8560 29.2560 348 348 348 348 348 348 348 348 348 348		29.171 29.171 29.300 29.300 29.300 29.300 29.300 29.300 29.300 29.300 29.300 29.300 29.300 29.300 29.300 29.300 29.300 20.200 20.200 20.200 20.20000 20.20000 20.200000000		
5	II	29.247 28.865 28.9665 29.9667 29.9667 361 351 351 351 351 351 351 351 351 351 35	050 292.990 292.919	$\begin{array}{c} \textbf{29.190}\\ \textbf{29.190}\\ \textbf{.006}\\ \textbf{.006}\\ \textbf{.006}\\ \textbf{.298}\\ \textbf{.476}\\ \textbf{.476}\\ \textbf{.541}\\ \textbf{.694}\\ \textbf{.694} \end{array}$	293.178 293.109	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
4	10	29.266 28.865 28.966 29.944 29.244 29.244 387 387 387 387 387 387 387 387 387 387	293.050 2	29.202 .102 .1331 .1331 .13399 .1339 .1339 .1339 .1339 .1339 .1339 .1339 .1339 .1339	293.247 2	
	9	29.271 28.867 29.2667 29.241 370 371 370 371 370 371 370 371 370 371 370 371 370 371 370 371 370 371 370 371 371 371 371 371 371 371 371 371 371	293.058 2	29.211 29.211 2016 2016 2016 2016 2016 2017 2017 2017 2017 2017 2017 2017 2017	93.242 2	29.644 29.644 29.644 2948 2320 2330 237 2330 237 2330 237 2330 237 2330 237 237 237 237 237 237 237 237 237 237
	80	29.271 28.886 29.8286 29.228 29.228 29.228 29.228 378 378 378 378 378 378 377 378 378 37	293.018 2	29.219 29.219 29.219 281 281 281 281 281 281 281 281 281 281	292.965 293.096 293.140 293.242	29.644 29.644 29.644 355 3555 3555 3555 3555 2932 0073 2932 073 2932 073 2932 073 2932 073 2932 073 2932 073 2932 073 2935 99 0 073 2935 99 2006 1000 2006 1000 2006 1000 2006 1000 2006 2006
DI.	P.	29.271 28.885 29.973 29.914 29.214 358 358 358 358 358 373 373 373 373 373 373 373 373 373 37	02.968 2	29.227 29.227 .067 .339 .061 .339 .061 .339 .268 .422 .683 .537 .683	93.096 2	29.640 29.640 236 236 236 214 273 273 273 273 273 273 273 273 273 273
A. 1	8	29.271 28.806 28.806 29.9060 29.195 354 354 354 354 354 3567 3567	292.878 292.968	29.237 314 .050 .072 .072 .072 .072 .072 .072 .072 .07	02.965 2	29.637 29.637 221 221 223 2930 2930 2933 2933 2933 2933 2933
	ŝ	29.271 28.914 28.914 28.940 331 347 368 368 368 368 368 368 368 368 368 372 368 372 372	292.805 2	29.243 .037 .037 .037 .300 .085 .332 .085 .232 .232 .232 .232 .232 .232 .232 .23	92.871 2	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
	4	29.271 28.912 28.927 29.161 29.161 29.161 340 340 340 362 576 577	292.730	29.251 013 .013 .013 .013 .013 .0192 .0192 .0192 .0192 .0192 .0192 .0192 .0192 .0192 .0192 .0192 .0192 .0192 .0192 .0192 .0192 .0193	292.708 292.871	29.633 .450 .2057 .2057 .2056 .3560 .2246 .2246 .279 .068 .279 .279
	es	29.275 28.932 28.932 28.932 29.146 39.146 342 361 244 244 244 2567 567	292.660 2	29.265 29.265 29.265 .121 .121 .121 .121 .123 .250 .336 .250 .336 .513 .513		29.635 29.635 203 257 253 253 253 253 253 253 253 253 253 253
1	62	29.276 28.968 28.968 28.910 29.137 29.137 29.137 29.137 29.137 29.256 29.257 29.2564 2564	292.681 2	$\begin{array}{c} 29.287\\ -20.287\\ -2028\\ -176\\ -176\\ -176\\ -382\\ -382\\ -382\\ -364\\ -364\\ -504\\ -504\\ -504\\ -504\\ -504\\ -504\\ -504\\ -504\\ -504\\ -504\\ -504\\ -504\\ -504\\ -504\\ -504\\ -504\\ -504\\ -506\\$	92.728 2	$\begin{array}{c c c c c c c c c c c c c c c c c c c $
	H .	29, 282 28, 910 298, 910 200 200 200 200 200 200 200 200 200 2	292.785 2	29.307 .961 .152 .152 .155 .155 .155 .155 .391 .28,956 .29,370 .502 .502 .627	292.762 292.728 292.697	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$
P. M.	13	29.287 29.287 28.914 28.914 363 363 363 363 363 363 363 365 365 365	292.721	29 325 29 325 .046 .176 .176 .135 .386 .386 .386 .386 .386 .386 .386 .386	292.767 2	29.644 -483 -218 -218 -218 -218 -210 -206 -206 -206 -206 -104 -206 -206 -206 -206 -206 -206 -206 -206
H	Date.	ಗಣ್ಣಕ್ಕಾಂಗಣ್ಣದ್ದ	Sums. 20	1121212.1212.0212.02	Sums. 29	21. 22. 22. 22. 22. 22. 22. 22. 22. 22.
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	Date.	19894999.	Sums.	10124470914800	Sums.	1	30.585.555.555.555.555.555.5555.5555.555	Sums.	1	athly ms. ans.
	Da	-	S5 Su			-			-	.190 Monthly Sums. .440 Means.
	=	29.636 730 7730 7730 7730 682 686 696 .696 .318 .318 .318	295.785	$\begin{array}{c} 29.298\\ -010\\ .349\\ .490\\ .656\\ .381\\ .381\\ .381\\ .388\\ .388\\ .388\end{array}$	293.757		29.481 536 538 538 538 535 558 132 558 132 558 132 558 558 558 558 558 558 558 558 558 55	293.648		883.1
	10	29.623 730 732 732 732 685 685 685 .702 .702 .173 .326	295.811	29.288 29.352 29.352 29.352 29.352 665 .490 .679 .679 .153 .387	293.770 293.800		29.462 487 487 495 566 566 141 141 347 347 113	293.671		883.282 883.190 Monthly Suns. .443 .4440 Means.
	6	29.610 731 731 736 736 691 702 691 702 702 7330 .7330 .7330 .7330 .7330 .7330 .7330 .7330 .7330 .7330 .7361 .7310 .73200 .7320 .732000 .73200 .732000 .732000 .732000 .732000000000000000000000000000000000000	295.836	29.278 28.975 .3337 .491 .491 .388 .388 .388 .388 .388 .388 .388 .38	293.770		$\begin{array}{c} 29.420\\ 538\\ .6538\\ .6538\\ .6587\\ .5807\\ .5807\\ .141\\ .341\\ .341\\ .128\\$	293.651		883.257
	80	29.590 728 728 735 735 735 735 735 735 735 735 735 735	295.800	29.260 29.260 29.320 29.320 506 543 506 543 506 543 506 573 506 573 573	293.755		$\begin{array}{c} 29.404 \\ 5386 \\ 1585 \\ $	293.615		883.170 .439
M.	P	$\begin{array}{c} 29.558\\$	295.753	29.241 29.241 29.241 294 294 294 294 295 294 252 252 252 252 252 252	293.703 293.755	-	29.387 .536 .440 .475 .387 .587 .387 .387 .386 .336 .336 .311	293.574		383.030 .434
P. N	9	29.523 7722 7782 778 778 676 695 695 .695 .634 .334 .174	35.700	29.227 29.227 .020 .020 .525 .525 .525 .525 .525 .525	93.594	-	29.366 531 531 534 534 594 594 505 298 298 298 298 298 298 298 298 298 298	293.523		882.817 8
	NG.	29.491 29.723 7728 695 .677 .695 .695 .695 .695 .695 .178 .330 .178	95.687	$\begin{array}{c} \textbf{29.208}\\ \textbf{29.208}\\ \textbf{.2364}\\ \textbf{.607}\\ \textbf{.644}\\ \textbf{.644}\\ \textbf{.272}\\ \textbf{.272}\\ \textbf{.272}\\ \textbf{.272}\\ \textbf{.644}\\ \textbf{.272}\\ $	93.556		29.348 .530 .531 .697 .668 .174 .174 .278 .208 .283 .190	293.485 293.523 293.574 293.615		882.728 882.728
	4	$\begin{array}{c} 29.470\\ -730\\ -730\\ -780\\ -733\\ -733\\ -733\\ -733\\ -780\\ -78$	295.675	29.195 29.195 209 209 209 2597 2597 2524 2524 2524 2524	293.558 293.556 293.594		29.336 532 .532 .532 .673 .673 .178 .178 .178 .213 .213 .213	293.441		382.674 (
	en	$\begin{array}{c} 29.452\\ 29.452\\ .735\\ .780\\ .686\\ .688\\ .688\\ .688\\ .688\\ .329\\ .197\\ .197\end{array}$	95.695	29.176 .106 .345 .576 .345 .576 .360 .368 .368 .368 .368	293.529		29.332 555 555 555 555 555 555 555 555 555	203.492		382.716 8
	\$3	$\begin{array}{c} 29.432 \\ 29.432 \\ .741 \\ .750 \\ .691 \\ .691 \\ .631 \\ .631 \\ .631 \\ .339 \\ .339 \\ .212 \\ .212 \end{array}$	295.854 295.760 295.695 295.675 295.687 295.700 295.753 295.800 295.836 295.811	29.163 .121 .121 .166 .343 .576 .576 .576 .360 .576 .360 .576 .360 .186	293.539		29.338 5559 5559 575 1481 1481 1481 1481 1481 1481 1481 148	293.660 293.655 293.492 293.441		882.954 8
ER	F	$\begin{array}{c} 29.424\\ 29.424\\ .785\\ .785\\ .785\\ .697\\ .697\\ .562\\ .562\\ .562\\ .556\\ .222\\ \end{array}$	95.854	$\begin{array}{c} 29.172 \\ .145 \\ .165 \\ .592 \\ .598 \\ .598 \\ .598 \\ .598 \\ .598 \\ .598 \\ .501 \\ .192 \end{array}$	293.702 2		29.334 568 .378 .498 .498 .278 .245 .245	293.660		383.216 8
MB	12	$\begin{array}{c} 29.410 \\ -758 \\ -771 \\ -771 \\ -771 \\ -771 \\ -771 \\ -772 \\ -758 \\ -565 \\ -565 \\ -566 \\ $	295.931	$\begin{array}{c} 29.176\\ 168\\ 168\\ 2368\\ 539\\ 614\\ 608\\ 527\\ 196\\ 196\end{array}$	293.822		29.364 576 396 576 571 524 521 521 521 521 520 521 520 520 520 520 520 520 520 520 520 520			83.596
TE	11	29.403 766 7783 785 785 785 776 776 7716 7720 7716 7730 7730 7730 7730 7730 7730 7730 773	296.023 2	29.175 29.175 29.175 2009 583 583 583 580 580 580 580 580 580 580 580 580 580	293.942 2	-	29.375 586 534 534 534 534 5334 5325 5325 5325 533 5325 533 5325 533 5325 533 5325 533 5325 533 5325 533 5325 5355 5355 5355 5355 5355 5355 5355 5355 5355 5355 5355 5355 5355 5555 5555 5555 5555 55555 55555 55555	293.972 293.843	•	883.937 883.596 882.916 882.674 882.674 882.728 883.030 883.170 883.257 883.937 883.596 883.216 882.674 882.674 882.728 883.030 883.170 883.257 .465 .453 .424 .422 .424 .434 .439 .449
EP	10	29.396 770 7790 731 731 731 .731 .731 .731 .731 .731	115	29.177 29.177 165 .398 .570 .639 .639 .639 .601	.012	-	29.383 595.595 544 585 585 585 585 585 585 585 585 58	294.108		.235 474
S.	6	$\begin{array}{c} 29.382\\ 29.382\\ .769\\ .7780\\ .7786\\ .7726\\ .7720$.7720\\ .7720 .7720\\ .7720 .7720 .77200\\ .7720 .7720 .7720	296.113 296.	29.166 29.166 .258 .648 .648 .594 .504 .504 .200	294.037 294		29.412 59.412 565 565 565 565 565 565 565 565 575 575	294.182		84.362 8
	80	$\begin{array}{c} 29.360 \\ 29.366 \\ .766 \\ .722 \\ .732 $	96.101 2	29.158 29.158 2711 2713 2713 2775 2388 2575 2775 2775 196	94.018	-	29.425 596 557 557 557 557 557 557 557 557 557 55		-	84.270 8 .476
м.	<u>5</u>	$\begin{array}{c} 29.340 \\ .751 \\ .751 \\ .787 \\ .787 \\ .787 \\ .787 \\ .787 \\ .718 \\ .718 \\ .718 \\ .588 \\ .588 \\ .588 \\ .588 \\ .588 \\ .550 \end{array}$	96.041 2	29.147 29.147 29.147 372 372 518 .372 .518 .555 .538 .186	93.928 2		29.418 .591 .479 .547 .547 .392 .392 .392 .194	94.101		84.070 8
A. 1	9	29.312 742 742 742 742 742 742 742 742 742 74	295.982 296.041 296.101	$\begin{array}{c} 29.136\\ 229.136\\ .278\\ .372\\ .576\\ .572\\ .572\\ .519\\ .519\\ .519\\ .183\\ .183\end{array}$	293.722 293.865 293.928 294.018		29.416 -575 -575 -535 -617 -617 -617 -185 -335 -3357 -3357	293.814 293.875 294.012 294.101 294.151		83.859 8
	ъ	29.284 7725 767 767 690 687 .585 .585 .585 .585 .585 .585 .585 .5	295.8372	29.124 .081 .081 .081 .081 .081 .081 .081 .081	93.722 2		29.406 .551 .551 .510 .533 .510 .167 .318 .351	93.875		883.434 8
	4	29.242 708 7721 7721 7738 773 668 668 .668 .668 .668 .73 .668 .73 .703 .703 .703 .703 .703 .703 .703	295.7132	29.124 .057 .057 .057 .455 .645 .645 .645 .645 .645 .645 .645	293.661 2		29.397 534 564 564 564 145 .330 .333 .353	93.814		883.188 8 .439
	e	29.233 702 7721 766 666 666 670 .568 .568 .568 .269	295.708	29.126 29.126 .042 .042 .042 .042 .042 .042 .042 .042	293.610		29.395 .524 .505 .500 .541 .137 .348 .3348	993.823		.438
	52	29.217 29.217 .718 .773 .773 .773 .773 .773 .773 .773 .77	295.742 2	29.130 .038 .038 .038 .038 .038 .038 .038 .0	293.618 2		$\begin{array}{c} 29.395\\ 520\\ 518\\ .530\\ .530\\ .530\\ .128\\ .352\\$	393.839	-	383.199 8 .440
	1	29.200 .674 .721 .775 .775 .775 .775 .672 .672 .672 .680 .580 .310	295.7552	29.148 29.148 29.148 29.48 29.48 29.48 282 285 285 285 285 285 285 2940 285 2940 285 2940 285 2940 2080 2080 2080 2080 2080 2080 2080 20	293.612 2		29.397 .529 .535 .536 .530 .530 .530 .530 .530 .531 .134 .361	293.942 293.839 293.823		883.309 883.199 883.141 883.188 883.434 883.859 884.070 884.270 884. 362 884 .444 .440 .438 .439 .448 .448 .469 .469 .476 .479
P. M.	12	29.190 .657 .726 .738 .716 .697 .697 .697 .314	295.803	29.158 29.158 29.158 29.158 29.158 29.158 29.158 29.158 20.298 20.208 20	293.596 2	=	$\begin{array}{c} 29.390 \\ -494 \\ -545 \\ -501 \\ -501 \\ -532 \\ $	293.944		\$\$3.343 8 29.445
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	11	29.306 673 667 667 667 .567 .567 .567 .567 .567 .5		29.443 .196 .195 .195 .137 .137 .567 .578 .5778 .511	94.829	29.412 29.412 6947 6947 6947 6947 6947 6947 6947 0860 0860 0860 0860 0860 0860 0860 086	POL.
	10	29.290 .670 .588 .588 .588 .588 .569 .569 .569 .566	294.918 294.904	29.455 1197 5112 5112 5112 512 1191 1191 1191 1191	94.915 2	299.406 2975 29406 705 531 705 29406 705 29406 705 29406 705 29406 705 29406 705 29406 705 29406 705 29406 705 29406 705 29406 705 705 705 705 705 705 705 705 705 705	ANT.
	6	29, 255 650 650 .650 .340 .502 .501 .502 .502 .558	94.849 2	29.468 507 507 507 564 108 567 567 567	94.983 2	299.401 299.401 282 282 282 282 282 282 282 293.679 293.679 293.679 293.679 293.679 293.679 293.679 2942 2422 2422 2422 2422 2422 2422 24	001.
	80	29, 222 612 613 611 612 613 613 613 613 613 613 651	94.771 2	29.468 29.468 .295 .098 .570 .570 .570 .592 .592	94.957 2	29385 29385 29385 29385 29385 29385 29385 293.663 293.653 293.653 203.753 203.	Ent.
	P	29.187 599 599 5399 5399 5399 5390 5390 5499 5499 5499 5499 5499 5499 5499 54	94.705 2	29.471 198.198 593 593 593 586 593 586 593 586 513 613	94.952 20	29.373 29.373 29.378 2505 7535 .753 .524 .5250 .5250 .5250 .5250 .5250 .5250 .5250 .5250 .5250 .5250 .5250 .5250 .5250 .5255 .5255 .5255 .5278 .5287 .529 .5287 .529 .5287 .5290 .5287 .5290 .5287 .5290 .5287 .5290 .5287 .5290 .5287 .5290 .5287 .5290 .5287 .5290 .5290 .5287 .5290 .5287 .5290 .5290 .5290 .5290 .5287 .5290 .52000 .52000 .5200 .52000 .52000 .52000 .52000 .5200 .50	TOP
	9	29.150 .573 .573 .573 .573 .573 .573 .573 .573	04.6182	29.476 198 .198 .327 .080 .567 .567 .567 .567 .567 .567 .567 .567)4.936 20	29.351 .5281 .5281 .5286 .5286 .5286 .5286 .2319 .2319 .2316 .23366 .2336 .2336 .2336 .2336 .2336 .2336 .2336 .2336 .2336 .236	ADT.
	ю	29.120 .5356 .5356 .5356 .5356 .5488 .5417 .5487 .5477 .5477 .5477 .54777 .547777 .547777777777	94.512 2	29.479 29.479 29.479 .246 .343 .045 .045 .687 .687 .687 .687 .687 .687	94.837 20	29.311 29.311 2732 273 273 2733 2733 2733 2733 273	ATT.
	4	29,100 .5180 .518 .518 .518 .518 .562 .562 .562 .562 .562 .546	94.471 2	29.476 29.476 .460 .625 .632 .632 .632 .632	94.792 20	29.265 29.265 .739 .739 .755 .755 .2491 .238 .238 .238 .238 .238 .238 .236 .238 .238 .236 .2388 .238 .238 .238 .238 .2388 .2388 .238 .238	21.
	en	29.03 6513 6513 6513 6513 888 888 888 888 888 888 888 888 888 8	294.545 294.469 294.448 294.471 294.512 294.618 294.705 294.771 294.849	299.494 299.494 2904 2904 2904 2904 2904 2904 2904 2	$294.954 \\ 294.879 \\ 294.848 \\ 294.792 \\ 294.837 \\ 294.837 \\ 294.936 \\ 294.936 \\ 294.952 \\ 294.915 \\ 294.915 \\ 294.915 \\ 294.915 \\ 294.829 \\ 294.915 \\ 294.915 \\ 294.829 \\ 294.915 \\ 294.829 \\ 294.915 \\ 294.829 \\ 294.915 \\ 294.829 \\ 294.929 \\ 294.829 \\ 294.929 \\ 294.829 \\ 294.929 \\ 294.$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	
-	52	29.036 5.066 5.128 5.257 5.257 5.257 5.257 5.416	94.469 2	29.496 29.496 2223 223 223 223 223 223 253 253 253 25	14.879 20	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	OFT.
	1	29.036 .497 .497 .497 .497 .497 .497 .497 .497	94.545 20	29.518 29.518 2442 675 675 6322 6322 6323 6332 6332 6332 6332 633	1.954 20	29.222 29.222 29.222 29.222 29.222 29.222 29.2236 25.256 25.2582 2582	-
	13	29.036 499 .115 .379 .379 .379 .379 .379 .379 .379 .379		29.538 29.538 29.538 1442 1442 1448 1448 1448 1448 1448 144			2017.
	11	29.044 495 746 746 746 7495 7495 7495 7495 747 760 760 760 760 767 763 763	294.826 294.672	29.548 .396 .441 .441 .441 .448 .448 .448 .448 .448	36 295.314 295.071	770 29, 250 29, 251 294 352 352 294 358 353 174 774 755 66 704 715 174 765 374 175 704 765 178 704 765 178 704 765 178 704 765 178 704 765 191 195 186 195 293,822 293,675 195 293,822 293,675 191 195 186 31 913,962 913,418 463 483 463	
	10	29.047 29.047 29.5 24.2 24.2 24.2 24.2 25.60 2.5 2.60 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5	294.900 29	29.579 441 	5.336 29	29.270 29.270 29.261 22124 22124 2512 2512 2513 2513 2513 2513 2513 2513	3.
	9	29.049 1496 1410 1410 1410 1410 1410 1410 1410 141	4.925 29	29.582 .339 .520 .520 .533 .758 .533 .758 .533 .758 .533 .758 .533 .758 .758 .758 .758 .758 .758 .758 .758	295.317 295.332 295. 3	29.271 29 .448 .578 .578 .679 .679 .679 .679 .679 .679 .578 .578 .578 .578 .578 .578 .578 .578	POT.
	80	29.046 4900 .1490 .1464 .1464 .1464 .1486 .1486 .1486 .1485 .1485 .1485 .1485 .1485 .1485 .1485 .1485 .1485 .1485 .14866 .14866 .14866 .14866 .148666 .148666 .148666666666666666666666666666666666666	4.860 29	29.582 .345 .524 .500 .500 .500 .500 .500 .500 .766 .500 .785 .785 .785 .785 .785 .785 .785 .785	5.317 29	29.801 29 465 2465 2465 2465 2465 2465 2590 2568 2590 2575 2570 2576 2588 299 299 299 299 299 299 299 299 299 2	2027
	P.	29.046 29.046 2472 2472 2471 2472 2472 2472 2472 2472	4.758 29	29.580 360 374 374 347 347 365 375 365 3765 3765 3765 3765 3765 3	5.245 29	29.322 .461 .746 .595 .636 .636 .636 .636 .636 .595 .595 .595 .595 .595 .595 .595 .595 .574 .664 .7746 .7746 .7746 .7746 .7746 .7746 .7746 .7746 .7746 .7746 .7746 .7746 .7746 .7746 .7746 .7746 .7746 .7746 .7746 .7778 .7789 .7789 .7789 .7799 .709	2
	9	29.045 4515 452 452 453 458 458 458 458 458 458 458 458 458 458	294.638 294.758 294.860 294.925	29.569 29	5.103 294	29.336 29.336 26.336 26.336 26.336 26.536 26.53 25.66.55 25.65.55 25.65.55 25.65.55 25.65.55 25.65.55 25.65.55 25.65.55 25.65.55 25.65.55 25.65.55 25.65.55 25.65.55 255 2	
- International	22	29.046 -441 -734 -734 -734 -745 -747 -745 -74	294.555 29	29.566 29.566 29.566 29.566 29.566 29.566 20.0516 2510 2570 2570 2570 25119 25	5.007 298	29.356 20 .456 20 .589 .589 .589 .589 .589 .589 .589 .589 .102 .589 .102 .589 .589 .102 .102 .102 .113 .113 .244 91:	
	4	29.046 413 721 502 .582 .587 .587 .587 .587 .587 .587 .587 .587	294.484 29	29.564 29 371 29 372 29 373 29 373 29 373 29 373 29 373 29 373 29 373 29 373 29 373 29 374 29 374 29 375 29 377 20 377 20 3777 20 3777 20 377 20 377 20 377 20 377 20 377 20 377 20 3770	1.960 298	29.382 26 .443	
	3	29.040 3844 515 342 342 580 580 580 580 580 580 580 580 580 580	4.414 29	29.569 378 .378 .528 .0855 .010 .710 .710 .710 .7790	.865 29-	29.410 20 .681 .555 .681 .555 .681 .555 .681 .555 .681 .555 .681 .565 .295 .295 .594 .325 .205	
	53	29.063 3.73 5.73 5.73 5.73 5.83 5.84 5.84 5.84 5.84 5.84 5.84 5.84 5.84	294.476 294.450 294.414	29.573 29.573 29.573 29.573 29.573 29.593 29.593 29.593 20.3999999999999999999999999999999999999	$294.901 \left 294.852 \right 294.865 \left 294.960 \right 295.007 \left 295.103 \right 295.245$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	244
		29.070 360 546 546 490 480 480 488 488 488 488 488 488 488 48	4.476 29.	29.579 29.579 .216 .216 .128 .193 .533 .533 .533 .533 .533 .533 .533 .5	1.901 294	29,455 29 29,455 29 2429 2666 6666 6666 313 313 313 313 323 313 323 313 323 313 323 313 323 32	201.
		81 81 81 81 81 81 81 81 81 81 81 81 81 8	the second se			20 00 00 00 00 00 00 00 00 00 00 00 00 0	2
•	13	29.091 29	. 294.461	29.573 .428 .201 .172 .1775 .1775 .550 .5550 .5560 .5560 .5560 .5560 .5560 .5560 .5560 .5560 .5560 .5560 .5560 .5570 .5570 .5570 .5773 .57	294.902	21. 29.485 29. 21. 29.485 29. 25. 2485 25. 256 26. 540 26. 540 28. 335 30. 305 30. 305 30. 305 31. 070 80ms. 323.755 8ms. 323.755	
	Date.	Haintroctord	Sums.	20.50 20.50	Sums.	21. 221. 221. 221. 221. 221. 221. 221.	TT COTTO
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P. M.

	Date.	లంగలు ఉంగంగం అంగం అంగం అంగం అంగం అంగం అంగం అం	Sums.		11. 14. 15. 16. 19. 20.	Sums.		2988458828888 	Sums.	Monthly Sums. Means.
	II	$\begin{array}{c} 29.306\\ -432\\ -432\\ -233\\ -233\\ -51$	293.176		$\begin{array}{c} 29.430\\ 29.473\\ 29.176\\ 29.176\\ 696\\ 696\\ 2338\\ 29.148\\ 2929\\ 103\\ 29.148\\ 29.148\\ 29.138\\ 29.138\\ 29.148\\ 29.138\\ 29.138\\ 29.148\\ 29.1$	292.220		29.381 29.528 29.528 29.564 29.568 29.568 394 28.864	292.185	877.230 877.230 877.348 877.596 877.596 877.603 877.617 877.678 Monthly 8.00 8.00 8.00 8.00 8.00 8.00 8.00 8.00 8.00 8.00
	10	$\begin{array}{c} 29.306\\ 29.306\\ -180\\ -180\\ -180\\ -180\\ -180\\ -180\\ -255\\ -180\\ -255\\ -$	293.181		$\begin{array}{c} 29.420\\ 29.420\\ 28.715\\ 29.170\\706\\360$	292.286		$\begin{array}{c} 29.373\\ -28.787\\ -28.787\\ -28.722\\ -29.553\\ -395\\ -395\\ -395\\ -177\\ -28.907\\ -177\\ -28.907\\ -28$	292.211	877.678
	6	29.305 2436 2436 2467 2467 2467 2516 2516 2516 263 297 297 297 297			$\begin{array}{c} 29.408\\ 29.408\\ 29.160\\ -285700\\ -462\\ -724\\ -724\\ -380\\ -380\\ -29.150\\ -033\\$	202.278		$\begin{array}{c} 29.368\\ -527\\ -527\\ -528\\ -528\\ -29.542\\ -29.542\\ -177\\ -28.955\\ -28.955\\ -177\\ -28.955\\ -28.95\\ $	292.232	877.614
	80	29.206 9.20206 9.87 9.87 9.87 9.87 9.87 9.87 9.87 9.87	292.860 292.950 293.055 293.110 293.160 293.104		$\begin{array}{c} 29.393\\ -28.691\\ -28.691\\ -29.147\\ -704\\ -704\\ -394\\ -394\\ -28.886\\ -29.140\\ -084\\ \end{array}$	292.176		$\begin{array}{c} 29.360\\ -530\\ -530\\ -530\\ -530\\ -526\\ -526\\ -178\\ -178\\ -07\\ -07\\ \end{array}$	292.311	71.647
м.	7.	29.282 29282 29290 2900 2110 21101 2000 20000 20000 20000 20000 20000 20000 20000000000	293.110		$\begin{array}{c} 29.386\\ 29.386\\ 28.682\\ 29.130\\ .704\\ .704\\ .704\\ 28.860\\ 28.860\\ 29.113\\ .083\\ .083\end{array}$			29.350 545 545 29.158 29.158 29.509 29.509 176 .176 .002	292.348	877.603 .253
P. J	8	$\begin{array}{c} 29.270\\ -2.230\\ -2.83\\ -2.83\\ -5.24\\ $	293.055		$\begin{array}{c} 29.385\\ -29.375\\ -375\\ -375\\ -375\\ -395\\ -395\\ -703\\ -703\\ -442\\ -28.835\\ -28.835\\ -076\\ -076\end{array}$	292.079 292.145		$\begin{array}{c} 29.320\\ 29.320\\ .525\\ .28.872\\ .007\\ .483\\ .483\\ .168\\ .168\\ .168\\ .168\\ .031\\ .031\\ \end{array}$	292.445 292.436 292 462	877.596
	10	$\begin{array}{c} 29.261\\ -2416\\ -288\\ -528\\ -528\\ -523\\ -5$	292.950		29.365 29.365 29.069 375 .702 .702 .450 28.811 29.065 .065	201.962		$\begin{array}{c} 29.291\\ .517\\ .517\\ .28.890\\ .032\\ .032\\ .393\\ .393\\ .176\\393\\ .060\\ .060\\ \end{array}$	292.436	877.348 .245
	4	$\begin{array}{c} 29.248\\ -412\\ -289\\ -289\\ -325\\ -513\\ -51$	292.860		$\begin{array}{c} 29.362\\ 29.362\\ 28.660\\ 29.049\\ .534\\ .696\\ .696\\ .28.786\\ 29.035\\ 29.035\\ .057\end{array}$	291.854		$\begin{array}{c} 29.272\\ 29.272\\ .502\\ .29.063\\ .447\\ .175\\ .393\\ .393\\ .175\\ .085\\ .085\end{array}$	292.445	877.159 .239
	n	$\begin{array}{c} 29.238\\$	292.815		$\begin{array}{c} 29.351\\ 29.351\\ -412\\ -28.662\\ -334\\ -691\\ -691\\ -691\\ -058\\ -064\\ -058\end{array}$	291.727		$\begin{array}{c} & & & & & \\ & & & & & & \\ & & & & & & $	292.467	877.009
	62	$\begin{array}{c} 29.236\\$	292.810	H	$\begin{array}{c} 29.344\\ 29.344\\ 28.676\\ 29.001\\ .325\\ .678\\ .678\\ .474\\ .28.722\\ 28.988\\ 29.064\end{array}$	291.616		$\begin{array}{c} 29.245\\ -467\\ -467\\ -28.968\\ -29.187\\ -29.187\\ -334\\ -334\\ -34\\ -107\\ -$	292.442	876.868 .229
E L	T	$\begin{array}{c} 29.244\\ -416\\ -339\\ -339\\ -347\\ -547\\ -547\\ -28.850\\ -28.850\\ -29.147\\ -29.147\\ -29.147\\ -202\\ $	292.892	ľ	$\begin{array}{c} 29.343\\ 29.343\\ -428\\ -428\\ -685\\ -28.990\\ -682\\ -503\\ -503\\ -503\\ -28.740\\ -28.987\\ -29.076\\ -29.076 \end{array}$	291.759		$\begin{array}{c} 29.246\\ -29.246\\ -455\\ -455\\ -452\\ -203\\ -203\\ -203\\ -203\\ -130\\ $	292.579 292.442 292.467	877.230 .241
MBE	12	$\begin{array}{c} 29.248\\ 2.426\\$	292.940		29.356 .435 .435 .28.692 .682 .682 .682 .682 .682 .528 .326 .983 .528 .528 .528 .528 .528 .528 .528 .528	291.922		29, 243 29, 243 29, 275 29, 243 20, 275 20, 20, 275 20, 275 20	292.657	877.519 251
H	11	$\begin{array}{c} 29.260\\$	293,115 2		29.377 29.377 28.710 28.985 29.335 686 29.335 29.335 29.335 29.335 29.335 29.335 29.135	292.111		29.250 474 474 153 29.344 29.344 259 344 259 170	292.895	878.191 <mark>878.191 878.191 878.191 871 871 871 871 871 871 871 871 871 87</mark>
5	10	$\begin{array}{c} 29.262\\ -440\\ -440\\ -589\\ -58$	293.162	19	$\begin{array}{c} 29.388\\ 29.388\\ -463\\ -28.749\\ -28.980\\ -679\\ -592\\ -592\\ -592\\ -29.160\\ -29.160\\ -29.160\\ \end{array}$	292.311	Allen.	29,253 29,253 483 29,345 29,345 603 20,345 603 200 286	.072	378.545 8
4	0	$\begin{array}{c} 29.264 \\ -4.15 \\ -4.157 \\ -5.88$	93.102		$\begin{array}{c} 29.368 \\ .456 \\ .456 \\ .28.760 \\ 28.967 \\ 29.318 \\ .667 \\ .612 \\ .612 \\ .667 \\ .612 \\ .050 \\ 29.968 \\ 29.174 \end{array}$	202.340		29.254 494 494 278 29.358 29.358 313 .607 .494 .607 .313 .300 .300	293.114 293.139 293	378.381 .286
	00	$\begin{array}{c} 29.260\\ -415\\ -415\\ -577\\ -57$	202.860 202.996 293.102		$\begin{array}{c} 29.363\\ -451\\ -28.798\\ -451\\ -28.952\\ -29292\\ -660\\ -615\\ -615\\ -615\\ -292975\\ -292176$	292.352		29.254 .480 .480 .480 .324 .607 .607 .313 .313	293.114	578.462 8
M.	2.	$\begin{array}{c} 29.254\\ -20.254\\ -415\\ -415\\ -564\\ -564\\ -564\\ -564\\ -567\\ $	92.860		$\begin{array}{c} 29.355\\ 29.355\\$	292.335		29.229 .455 .336 .29.358 .295 .595 .198 .198	292.995	78.190 [5 .273
Ą.	9	$\begin{array}{c} 29.240\\ -388\\ -388\\ -388\\ -388\\ -388\\ -388\\ -388\\ -566\\ -56$			$\begin{array}{c} 29.351\\ 29.351\\ 28.834\\ 28.903\\ 28.903\\ 28.903\\ 28.903\\ 29.225\\ 033\\ 033\\ 033\\ 033\\ 033\\ 033\\ 033\\ 03$	292.273	ĨZ,	29.205 434 .434 .370 .355 .588 .588 .588 .334 .173 .588 .334 .188	992.891	877.871 8
	10	$\begin{array}{c} 29.230\\ -3.73\\ -3.73\\ -3.73\\ -5.59\\ -5.59\\ -5.59\\ -5.59\\ -5.59\\ -5.59\\ -5.59\\ -5.58\\ -$	292.719 292.707		$\begin{array}{c} 29.348\\ 29.348\\ -426\\ 28.852\\ 28.858\\ 29.210\\ -603\\ -643\\ -643\\ -643\\ -643\\ -39.171\\ 29.171\\ \end{array}$	292.239		29.181 29.181 29.337 29.337 29.337 29.337 29.337 29.337 29.337 29.337 29.337 29.337 29.337 29.337 20.181 20	292.706	877.664 8
	4	$\begin{array}{c} 29.224\\ -356\\ -356\\ -554\\ -554\\ -554\\ -554\\ -555\\ -564\\ -555\\ -566\\ -566\\ -566\\ -566\\ -266\\ -117\\ -266\\ -26$	292.654		$\begin{array}{c} 29.348 \\ -425 \\ -425 \\ -425 \\ -28.907 \\ -28.967 \\ -578 \\ -$	292.279		$\begin{array}{c} 29.162\\ -29.162\\ -408\\ -437\\ -437\\ -29.030\\ -569\\ -569\\ -180\\ -18$	292.622	377.555 252 252
	e	$\begin{array}{c} 29.220\\ 29.220\\ .148\\ .148\\ .538\\ .538\\ .538\\ .538\\ .538\\ .538\\ .28620\\ 29.116\\ .258620\\ .29.116\\ .258620\\ .2442\\ $	202.688		$\begin{array}{c} 29.342\\ 29.342\\ 28.925\\ 28.925\\ 29.180\\ .651\\ 245\\ 29.171\\ 29.171\\ \end{array}$			$\begin{array}{c} 29.150\\ -29.150\\ -148\\ -148\\ -28.689\\ -28.948\\ -28.948\\ -28.948\\ -28.948\\ -28.567\\ -2850\\ -185\\$	292.540	877.509
	53	$\begin{array}{c} 29.221\\ 2.335\\$	292.848		$\begin{array}{c} 29.346\\ 29.346\\ 28.804\\ 29.183\\ 2667\\ 667\\ 28.983\\ 29.160\\ 29.160\end{array}$	202.369 292.281		$\begin{array}{c} 29.140\\ -470\\ -470\\ -470\\ -28.692\\ -29.298\\ -29.26$	292.524	877.741 8
	1	$\begin{array}{c} \textbf{29.223}\\ \textbf{2321}\\ \textbf{.321}\\ \textbf{.321}\\ \textbf{.321}\\ \textbf{.515}\\ .$	292.933 292.848 292.688	17-14	$\begin{array}{c} 29.345\\ 29.345\\ 28.776\\ 29.182\\ 29.182\\ 671\\ 671\\ 28.965\\ 29.158\\ 29.158\\ 29.158\\ 29.158\\ \end{array}$	292.355		$\begin{array}{c} 29.124\\ -29.124\\ -392\\ -392\\ -292.508\\ -292.508\\ -292.557\\ $	292.430 292.524 292.540 292.692 292.706 292.891	877.778 877.741 877.509 877.555 877.664 877.871 878.190 878.462 878.545 878.121 .259 .258 .250 .253 .255 .262 .262 .283 .285 .285
P. M.	12	$\begin{array}{c} 29.227\\ .314\\ .314\\ .431\\ .211\\ .211\\ .231\\ .513\\ .513\\ .513\\ .513\\ .535\\ .335\\ .335\\ .451\\ .451\end{array}$	293.001		$\begin{array}{c} 29.352\\ 29.352\\ -425\\ 28.758\\ 29.177\\ -848\\ -688\\ -688\\ -328\\ 28.952\\ 29.131\\ 29.131\\ \end{array}$	292.420		$\begin{array}{c} 29.115\\ -374\\ -374\\ -374\\ -508\\ -508\\ -208\\ -26$	292.377	Monthly S77.798 Sums. 29.260
e	Date.	<u> </u>	Sums.		. 11212141219 11212141 11212141 11212141 11212141 11212141 11212141 11212141 11212141 11212141 11212141 11212141 11212141 11212141 11212141 11212141 112121 11211 11211 11211 11211 11211 11211 11211 11211 11211 11211 111	Sums.		ยุ่ยยุ่นอยุ่ยยุ่ยย่อ	Sums.	Monthly Sums. Means.

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	Date.	-i ci ci 4 i ci c	Sums.	199944499449	Sums.			Sums.	Monthly Sums. Means.
	11	$\begin{array}{c} 28.954\\ 29.937\\ 29.400\\463\\466\\466\\466\\516\\721\\721\\496\end{array}$	294.128	$\begin{array}{c} 29.543\\ -2.928.668\\ -2.928.004\\ -2.929.004\\ -2.929\\ -2.929\\ -1.121\\ -1.$	292.351		29.462 620 620 620 514 333 .333 .333 .333 .333 .333 .333 .33	323.862	10.341 ² .366
	10	28.961 28.910 29.380 29.380 29.380 29.380 275 29.380 29.380 29.380 207 207 207 207 208	293.978	29.533 29.533 28.678 29.042 28.930 28.930 28.930 298.930 298.930 298.930 298.930 298.930 298.930 298.930 298.930 298.945 209.945 209.945 200.9	292.374		$\begin{array}{c} 29.452\\ 29.452\\ .614\\ .653\\ .952\\ .9522\\ .9522\\ .9572\\ .483\\ .678\\ .678\\ .678\\ .678\\ .678\\ .678\\ .678\\ .678\\ .678\\ .678\\ .678\\ .114\end{array}$	23.924	10.276 (.364
	6	28.972 28.972 29.353 20.353 20.553 20.5553 20.5553 20.5553 20.5555 20.5555 20.5555 20.5555 20.5555 20.5555	293.962	29.513 .350 .350 .350 .350 .350 .350 .350 .35			$\begin{array}{c} 29.442\\ 604\\ 604\\ 691\\ 28690\\ 298690\\ 2986\\ 29470\\ 2986\\ -402\\ -402\\ -680\\ 680\\ -68$	23.959 3	10.2S6 9 .364
	80	28.974 28.974 29.325 20.325 20.3555 20.3555 20.3555 20.3555 20.3555 20.3555 20.3555 20.3555 20.3555 20.3555 20.3555 20.35555 20.35555 20.35555 20.355555 20.	293.954 2	29.505 .357 .357 .357 .357 .28.047 28.947 29.135 .030 .610 .1198 .1198 .1198	292.346 292.365		29.447 .592 .702 .702 .948 .928 .9495 .3385 .385 .385 .385 .385 .385 .385 .3	24.003 3	10.303 9 .365
M.	1.	28.976 298.976 298.878 29.300 582 582 582 582 565 565 565 565	93.925 2	29.507 367 367 28.965 28.965 29.103 29.103 29.103 29.103 29.103 29.103 29.103 29.103 29.103 29.103 29.103 29.507	292.253 2		29.435 .588 .701 .701 .996 .435 .701 .701 .701 .701 .701 .701 .701 .701	324.099 324.079 324.003 323.959 323.924	10.257 9.
P. N	9	28.971 298.861 292.864 757 757 757 757 757 757 757 757 757 75	293.840 293.925	29.483 .389 .389 .389 .389 .389 .598 .598 .598 .428 .395 .428	292.224 2		29.411 .707 .112 .112 .112 .405 .405 .405 .405 .142 .888 .683 .683	24.099 3.	.360
	ŝ	28.968 29.8551 29.8551 29.2538 748 748 748 748 748 748 748 748 7567	293.782 2	29.476 29.476 28.766 28.943 28.943 28.963 28.963 28.963 28.963 28.963 28.922 29.75 29.75 29.75 29.75 29.75 20.75 2	292.111 2		29.397 .559 .713 .713 .713 .713 .713 .713 .713 .713	323.991 3	09.884 9.
	+	28.966 29.200 29.200 7715 715 715 715 715 715 715 715 715 71	293.711 2	$\begin{array}{c} 29.474\\ 29.474\\ 28.790\\ 28.895\\ 28.895\\ 28.895\\ 28.895\\ 28.895\\ 29575\\ 297\\ 297\\ 297\\ 297\\ 297\\ 297\\ 297\\ 297$	292.055 2		29.401 5340 5340 5340 5340 540 540 540 540 540 540 540 540 540 5	23.997 3	09.763 9
	e	28.956 28.956 29.815 29.815 693 693 693 2955 693 2955 633 583 583 583 583 583 583 583 583 583 5	293.616	29.464 423 423 28.812 28.947 28.947 28.947 28.947 28.947 28.947 29.566 3310 3310	291.943 2		29.397 523 523 523 539 539 539 538 538 538 538 538 538 538 538 538 538	324.003 323.997	09.562 9
	62	28.946 29.796 29.796 29.796 29.796 29.796 29.797 29.297 20.97 20.97 20.01 20.0	293.501	$\begin{array}{c} 29.453\\ 29.453\\ +35\\ +35\\ 28.810\\ 28.836\\ 28.936\\ 28.936\\ 28.778\\ 29.540\\ -3315\\ -3315\\ -404\\ -$	291.805		29.373 516 713 238 515 515 677 677 677	323.868 3	909.174 909.562 909.763 909.763 910.257 910.303 910.256 910.376 910.376 .328 .341 .347 .351 .360 .363 .363 .364 .364 .364
	1	28.926 28.786 29.134 29.134 20134 20134 20134 2013 2014 2013 2014 2013 2014 2010 2010 2010 2010 2010 2010 2010	293.518	$\begin{array}{c} 29.453\\ .475\\ .475\\ .28.840\\ 28.780\\ 28.740\\ 28.740\\ 28.740\\ .334\\ .334\\ .422$	291.834		29.405 514 514 514 514 242 542 542 542 545 545 545 545 545 54	323.905 3	909.257 9
	13	28.928 28.928 2928.786 20133 2013 201	293.670	$\begin{array}{c} 29.452\\ 29.452\\ 460\\ 28.774\\ 28.950\\ 28.950\\ 28.701\\ 28.701\\ 28.701\\ 28.505\\ 28.701\\ 28.505\\ 28.701\\ 28.505\\ 28.701\\ 28.505\\ 28.701\\ 28.505\\ 28.701\\ 28.505\\ 28.701\\ 28.505\\ 28.701\\ 28.505\\ 28.701\\ 28$	291.852		29.434 526 734 734 734 734 734 734 734 734 750 734 750 734 750 7534 750 7534 750 750 750 750 750 750 750 750 750 750	324.029	
	11	28.922 28.792 292.795 670 .670 .670 .670 .623 .670	293.830	$\begin{array}{c} 29.455\\ -29.455\\ -191\\ -28.752\\ 28.752\\ 28.710\\ 28.710\\ 28.710\\ 28.710\\ 28.710\\ 28.710\\ -28.710\\ 28.710\\ -28.710\\$	292.012		29.474 545 545 545 545 128 128 578 578 522 523 517 517	324.294	0.696 910.136 909.551 .377 .359 .340
	10	28.905 29.145 29.145 29.145 29.145 29.145 29.145 29.145 255 255 255 255 255 255 255 255 255 2	293.923	$\begin{array}{c} 29.458\\ -515\\ -515\\ -515\\ -515\\ -515\\ -515\\ -28, 735\\ -28, $	292 211		$\begin{array}{c} 29.491 \\ -560 \\ -794 \\ -588 \\ $	324.552 3	10.696 9 .377
1	6	$\begin{array}{c} 28.889\\ 28.801\\ 29.1351\\ 0.135$	293.860	$\begin{array}{c} 29.455\\ -29.455\\ -522\\ -522\\ -28.713\\ -28.773\\ -29.571\\ -2938\\ -473\\ -4$			$\begin{array}{c} 29.490\\ -556\\ -790\\ -414\\ -790\\ -580\\ -580\\ -580\\ -566\\ -571\\ -719\\ -566\end{array}$	324.554	10.599 <mark>9</mark>
	00	28.870 28.193 29.193 .633 .633 .862 .863 .863 .863 .369 .605 .700	293.489 293.560 293.693 293.860	$\begin{array}{c} 29.454\\ 29.454\\ .522\\ .532\\ .037\\ 28.067\\ 28.780\\ 28.780\\ 29.560\\ 29.780\\ 29.780\\ 29.560\\ .465\\ .465\\ .465\end{array}$	292.095		29.480 546 750 413 .413 .630 .530 .530 .550 .570	324.402	361
M.	1.	28.839 29.8797 29.8797 29.829 29.829 29.839 2595 2595 2595 2595 2595 2595 2595 25	203.560	$\begin{array}{c} 29.441\\ .500\\ .500\\ .074\\ .074\\ .078\\ .076\\ .074\\ .076\\ .07$	292.020		29.480 .533 .533 .755 .755 .755 .233 .239 .239 .230 .230 .230 .236 .236 .236 .236 .236 .236 .236 .237 .373	324.328	09.908 9
A.	9	28.805 28.805 29.078 29.078 29.078 2665 2366 2386 2386 2386 2386 2386 2386 2386	293.489	$\begin{array}{c} 29.432 \\$	201.952		29.475 .523 .523 .519 .519 28.558 29.558 29.558 29.558 .579 .579 .579	324.182 324.328 324.402	09.623 9
	90	28.772 28.615 29.045 5415 .5415.5415 .5415 .5415 .5415.5415 .5415 .5415.5415 .5415 .5415.5415 .5415.5415 .5415.5415 .541	203.324	$\begin{array}{c} 29.432\\ .512\\ .512\\ .513\\ .513\\ .513\\ .513\\ .513\\ .228.797\\ .228.797\\ .2452\\ .443\\ .173\\ .433\\ .173\\ .433\end{array}$	291.953		$\begin{array}{c} 29.473\\ -520\\ -520\\ -695\\ -695\\ -285\\ -258\\ -258\\ -288\\ -288\\ -288\\ -288\\ -693\\ -69$	324.087	.334
	4	28.765 28.765 29.0240 538 343 343 343 343 343 343 343 343 343 3	293.264	$\begin{array}{c} 29.438\\ .513\\ .513\\ .513\\ .132\\ 28.062\\ 28.798\\ 29.798\\ 29.798\\ 29.453\\ 29.453\\ .154\\ .154\\ .154\end{array}$	$\underline{292.122} \ \underline{292.030} \ \underline{291.940} \ \underline{291.953} \ \underline{291.952} \ \underline{292.020} \ \underline{292.096} \ \underline{292.096} \ \underline{292.185} \\ \underline{292.185} \ \underline{292.096} \ \underline{292.096} \ \underline{292.096} \ \underline{292.185} \ \underline{292.096} \ 2$		$\begin{array}{c} 29.482\\ .673\\ .673\\ .673\\ .673\\ .673\\ .692\\ .492\\ .250\\ .492\\ .605\\ .605\end{array}$	324.050 324.087	909.402 909.594 909.437 909.254 909.364 909.623 909.908 910.190 910.599 91 .338 .342 .337 .330 .334 .343 .352 .361 .374
	0	28.766 28.875 28.997 29.907 29.507 29.57 371 371 371 371 371 371 371 371 371 37	293.320	$\begin{array}{c} 29.441 \\ .522 \\ .522 \\ .522 \\ .522 \\ .522 \\ .523 \\ .233 \\ .233 \\ .233 \\ .233 \\ .233 \\ .233 \\ .233 \\ .233 \\ .233 \\ .233 \\ .242 \\ .142 \\ $	292.030		$\begin{array}{c} 29.483\\ -496\\ -660\\ -660\\ -533\\ -533\\ -533\\ -533\\ -560\\ -260\\ -260\\ -104\\ -104\\ -108\\ -708\\ -618\\ -708\\ -618\\ -708\\ -618\\ -708\\ -618\\ -708\\ -618\\ -708\\ -618\\ -70$		909.437 s
	02	$\begin{array}{c} 28.766\\ 289720\\ 299720\\ 2984902\\ 2984902\\ 2984902\\ 2772\\ 2512\\ 25$	293.346	$\begin{array}{c} 29.452\\ 521\\ 521\\ 22.521\\ 228.625\\ 228.846\\ 228.84$	292.122	No.	$\begin{array}{c} 29.491\\ 2.483\\ .638\\ .638\\ .638\\ .638\\ .638\\ .230\\ .230\\ .2467\\ .706\\ .633\\ .$	324.126	09.594 9 .342
		28.759 28.759 28.934 28.934 29.455 29.455 29.455 29.455 29.455 20.450 25.758 25.758 25.758 25.758 25.759 25	293.309 293.346	$\begin{array}{c} 29.454\\ 29.454\\ 222.232\\ 228.455\\ 228.455\\ 228.845\\ 2332\\ 2$	292.115		$\begin{array}{c} 29.483\\$	324.038 324.126 324.087	00.402 9 .338
P. M.	12	28.830 28.948 28.948 29.436 29.436 29.436 29.436 29.432 29.432 29.432 20.432 21.8 21.8 21.8 21.8 21.8 21.8 21.8 21.	293.332	$\begin{array}{c} 29.485\\ -540\\ -540\\ -546\\ -28.651\\ -28.878\\ -28.878\\ -29.309\\ -576\\ -144\\ -144\\ -144\\ -144\end{array}$	292.262		$\begin{array}{c} 29.470\\ -470\\ -470\\ -470\\ -470\\ -623\\ -623\\ -623\\ -633\\ -533\\ -633\\ -311\\ -311\\ -311\\ -311\\ -311\\ -311\\ -312\\ -312\\ -312\\ -312\\ -32$	324.117	
	Date.	Hain trochad	Suns.		Sums.		2999489929995	Sums.	Monthly 909.711 Sums. Means. 29.345
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=	29.293	.252	.168	.432	.997	296	.270	.288	.440	459	.253	.366	1.744	.312
10	29.297 29	254	171	430	229	294	268	202	443	465	256	364	.763 351	.314
		4	•		=	10	-	61	<u>c1</u>	80	4	Ŧ	6 351	4
6	29.299	.254	.169	.431	.231	.295	.267	.292	.422	.468	.254	.364	1 351.70	.314
00	29.299	.253	.165	.423	.223	.287	.260	291	.439	.464	.255	.365	351.72	.310
-4 -1	29.297	.253	.159	.413	.213	.281	.253	.282	.434	.461	.253	.363	351.662	.305
9	29.289	.247	.147	.401	.207	.274	.248	.278	.427	.459	.253	.360	351.590	.299
10	29.281	.241	.140	.396	.194	.271	.243	.274	.424	.449	.245	.351	1.468 351.509 351.590 351.062 351.724 351.766 351.763 351.744	292
4	29.280	.225	.135	.394	.194	.272	.244	.273	.422	.443	.239	.347	2	.289
e	29.269	237	.132	398	.195	.273	.249	.276	.424	.444	.234	.341	351.472 3	.289
62	29.267	.241	.137	.409	.201	.280	.205	.283	.432	.116	.229	.328	351.508 8	.292
H	29.272	.254	.152	.421	.208	.287	.263	.290	.440	.452	.241	.331	351.611 3	.301
12	29.290	.271	.169	.431	.220	298	.271	208	.454	.465	.251	.340	351.757	.313
11	29.309	292	.179	.441	.228	.305	.379	.306	.465	.483	.271	.359	51.917 3	.326
10		.298	.184	.449	.235	.308	.285	.313	.474	.488	.285	.377	28 352.020 351.917	.335
6	29.320 29.324	297	.188	.451	.236	.309	.285	.314	.479	.489	.286	.374		.336
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4	29.272	.251	.155	.418	.215	.286	.269	.279	.439	454	.252	.330	51.620 3	.302
es	29.276	.247	.153	.411	.213	.282	.262	.277	.438	.447	.250	.337	51.593 3	.299
8	29.276	.252	.157	.415	.218	.284	.268	.281	.440	.449	.258	.342	51.640 3	.303
H	29.274	.251	.162	.421	.221	.288	.272	.286	.444	.453	.259	.338	51.669 3	.305
13	29.281	.254	.164	.429	.226	.290	.281	.286	.445	455	.260	.345	351.716 351.669 351.640 351.593 351.620 351.692 351.797 351.908 351.977 352.	29.310
Month.	January	February	March	April	May	eunf (42)	July	August	September	October	November	December	Annual Sums 33	Means

ANNUAL SUMMARY. ^{A. M.}

P. M.

P. M.

(42)

TRACINGS

FROM THE

SELF-RECORDING INSTRUMENTS,

TO ILLUSTRATE CERTAIN

METEOROLOGICAL PHENOMENA

DURING THE

YEAR 1886.

HE tracings on Plates Nos. 1 and 1 A show the barometer corrected to 32° Fahrenheit. This correction is made automatically by the barograph. Plates Nos. 4 and 5 give the relative humidities in percentages of saturation.

Curve 1, Plate No. 1 A, shows the barograph trace on Jan. 9, during a remarkable cyclonic storm which, moving northeastward along the Atlantic coast, apparently passed centrally over this station, and the barometer reached the lowest point yet recorded. Plate No. 6 shows the tracing of the Draper anemograph on this day. The hull in the wind in the middle of the day was coincident with or immediately preceded the passage of the cyclone centre, as well as can be determined from synoptic charts; but this hull preceded the occurrence of the minimum pressure recorded at this station by nearly two hours. Plate No. 7 shows the changes in wind direction during this cyclone. The sinuous line on this plate was traced through the centre of the oscillations of the wind vane, as shown on the original anemoscope sheet. (The vane is never steady during high winds, but continuously oscillates, first to one side, then to the other, making a broad trace on the anemoscope sheet.) The results of a special study of this cyclone are given by Prof. Upton in the American Meteorological Journal, Vol. III., No. 8.

Curve 2, Plate No. 1, shows the tracing of the barograph on the morning of Feb. 27, during one of the severest gales on record. The sharp depression at 10.20 A. M. was coincident with the opening of a trap door in the top of the tower, and the other less marked sharp depressions were noted by the observer as being coincident with severe gusts of wind. The pressure gauge shows the pressure during some of the gusts to have been over forty pounds per square foot, which is equivalent to a velocity of about 90 miles per hour. The total wind movement for the day was 1,467 miles. The barograph tracing is but a sample of what occurred in a less marked degree during all of the severe gales of the year. (For further information, see *Science*, Vol. VIII., page 325.)

Curve 3, Plate No. 1 A, shows the barograph trace during four hours, ending at 3 A. M., of March 22. There was also a slight upward swell of the temperature curve during these hours. An inappreciable quantity of snow fell, and bright flashes of lightning were seen about 1 A. M., but no thunder was heard. Severe thunderstorms were, however, reported from distant points on this night. The wind suddenly backed for a brief interval from northeast to west at 12.15 A. M., then, returning to northeast, slowly backed during the night to west. A decided decrease in wind velocity between 12.30 and 2 A. M. accompanied the rise in pressure.

Curves 1, Plates Nos. 2 and 4, show tracings of the thermograph and self-recording hygrometer, respectively, from 10 A. M. to 12 M. of April 7. The sudden rise in temperature and fall in humidity at 11.20 A. M.was coincident with a brief clearing of the sky near the zenith and the appearance of the sun, the observatory during the rest of the day being enveloped in a dense fog. Accompanying these phenomena, there was a sudden shift of the wind from southwest to north. Similar appearances of sunshine during the year did not produce similar effects on the temperature and humidity, and it is suggested that in this case the phenomena may have arisen from a brief, local descending current of air.

Curves 2, Plates Nos. 2 and 4, show the sudden fall of temperature and sudden rise of humidity which accompanied a thunder-storm between 4.45 and 6.20 p. m. of May 5. There was also a slight rise of the barograph curve. The wind suddenly shifted from south to northwest at 4.45 p. m., after which it slowly backed again to south. No noticeable change in wind velocity occurred. Rain fell from 4.45 to 8.40 p. m., and amounted to 0.42 inch. Curve 1, Plate No. 8, shows the tracing of the self-recording rain gauge during the time.

Curves 4, Plate No. 1 A, 3, Plates Nos. 2 and 4, show the tracings of the barograph, thermograph, and hygrometer, respectively, between 3 and 6 A. M. of May 31. Thunder was first heard on this morning about 3 A. M. Rain began at 4.15, and ended at 5.20 A. M., and 0.35 inch fell. Curve 2, Plate No. 8, shows the tracing of the self-recording rain gauge. The wind suddenly shifted from west to north at 3.30 A. M., then returned to west at 4 A. M., but again shifted to north at 5 A. M. The wind velocity decreased both before and after the storm, but blew with a velocity of about twenty-five miles per hour from the north during the storm.

Curves 4, Plates Nos. 2 and 4, show the tracings of the thermograph and hygrometer on June 10 between 7 and 10 P. M., during which time a light thunder-shower passed over the observatory. The clouds attending this shower were broken and not well developed. There was an outspreading top, but no cirrus fringe. About 0.10 inch of rain fell, most of which came in a sudden down-pour between 8.5 and 8.10 P. M. See curve 3, Plate No. 9. During the storm the wind veered from northeast to southwest, and there was an increase in velocity at 7.55 P. M., lasting about five minutes. Thunder was not heard until the rain had nearly ceased, but continued for about half an hour as the storm passed to the east, apparently increasing in intensity.

Curve 5, Plate No. 1, shows the tracing of the barograph between 2 and 4 A. M., July 30, during which time a thunder-storm passed over the observatory, attended by a most brilliant and almost continuous display of

lightning and loud thunder. Several houses in the neighboring towns were set on fire by the lightning. 0.10 inch of rain fell; most of it, as shown by the self-recording rain gauge in Plate No. 9, curve 4, fell between 2.45 and 2.50 A. M. The wind veered from southwest to northwest during the passage of the storm, and backed to south after the storm passed. There was a slight decrease in wind velocity for a short while preceding and following the storm, and a decided increase during its passage. Both the temperature and humidity were high, and showed no marked changes during the passage of the storm.

Curves 6, Plate No. 1 A. 5 (dotted), Plate No. 2, and 5, Plate No. 5, show the tracings of the barograph, thermograph, and hygrometer, between 3 and 6 P. M. of Ang. 12. A thunder-storm passed over the observatory immediately after 4 P. M., attended by a heavy shower of rain and a little hail. Almost the whole of the rain (0.42 inch) fell in a rapid down-pour, lasting from 4.05 to 4.25 P. M. See tracing of the self-recording gauge, curve 5, Plate No. 9. The wind oscillated between north and west during the passage of the storm, and blew with a decidedly increased velocity from 4.15 to 4.20 P. M.

Plate No. 3 shows some inversions of temperature between the summit and base of the hill. Curve 1 shows the tracing of the thermograph at the summit from noon of Ang. 22 to noon of Ang. 23. Curve 2 (dotted) shows the tracing of a Draper thermograph at the base, or rather on the slope of the hill, four hundred feet beneath the summit. The time scale of this latter tracing is enlarged to make it correspond with the tracing at the summit. It is seen that the temperature was higher at the base during the day and decidedly lower at night. The temperature at the base continued to fall until sumrise of the 23d, while at the summit it rose after 11 p. M. of the 22d. This inversion occurred on an unusually clear, quiet night, and is a marked example of what almost invariably occurs on such nights. (For further information see *Science*, Vol. VIII., pp. 233 and 281.)*

In a similar manner curves 3 and 4 (dotted) show the tracings of the thermographs at the summit and at the base of the hill, respectively, from 11 A. M. of Nov. 17 to noon of Nov. 18. It is seen that the temperature at the summit rose continuously, while the temperature at the base fell from 1 r. M. of the 17th to near 3 A. M. of the 18th, when it was 20° lower than at the summit. This was caused by the not uncommon occurrence of a flow of cold northerly winds around the base, while a strong southerly wind prevailed at the summit. At 10 P. M. of the 17th the wind was blowing three miles per hour from the northwest at the Boston Signal Office, which is ten miles north of Blue Hill Observatory, and about five hundred feet lower; while on Blue Hill it was blowing at the rate of twenty-eight miles an hour from the south. Reports from other stations show that this thin cool northerly current overspread the whole of New England, and was accompanied by a dense fog. Between 3 and 4 r. M. of the 17th these two currents were fighting for the mastery at the summit of Blue Hill, and its effects are seen on the thermograph curve and on the hygrometer curve, 9, Plate No. 5. During this time a cool, damp, foggy current would roll in, lasting five or ten minutes; then it would be displaced by a warmer current from the south lasting about the same interval. This alternate action lasted over half an hour, after which the southerly current remained permanently.

Curve 6, Plate No. 4, shows a marked example of the rapid fall in humidity which usually follows the passage of a storm. Curve 6, Plate No. 2, shows the temperature during this interval. These curves are from tracings of the hygrometer and thermograph from 9 A. M. to 3 P. M. of Sept. 24. Curve 7, Plate No. 5, which exhibits the tracing of the hygrometer from 7 A. M. to noon of Nov. 4, shows another marked example of the rapid fall of humidity immediately following the passage of the line of minimum pressure in a storm.

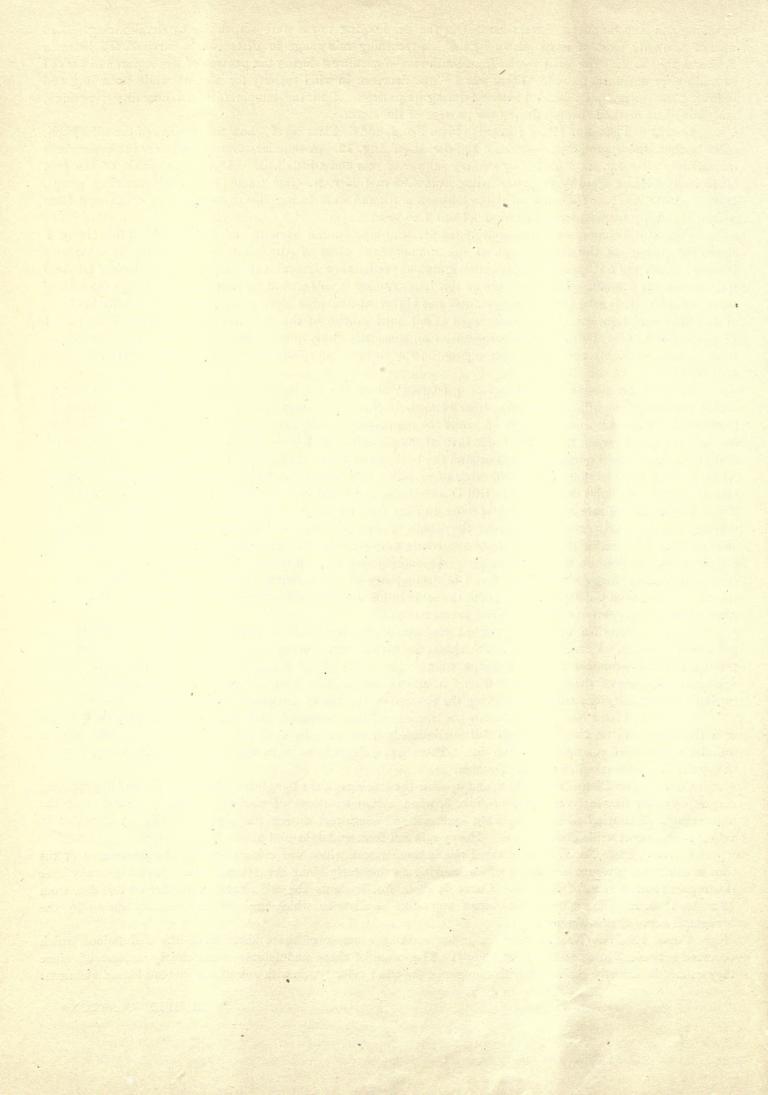
Curves 7, Plates Nos. 1 and 2, show the tracings of the barograph and thermograph during the passage of a thunder-storm on Nov. 6. Rain fell continuously from noon to 4.30 P. M. of this date, ending with a thunder-storm which passed over to the east. There was a slight increase in wind velocity during the passage of the storm, but no marked change in direction.

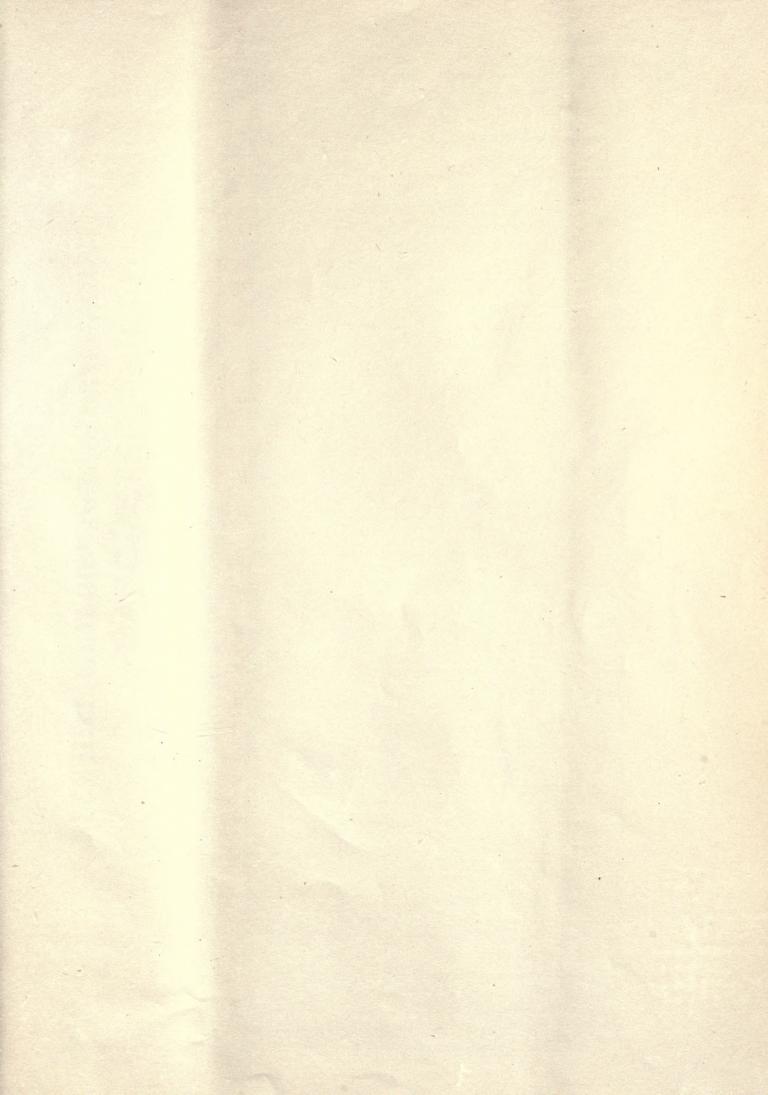
Curves 8, on Plates Nos. 1 A, 2, and 5, show the tracings of the barograph, thermograph, and hygrometer, respectively, on the early morning of Nov. 7, when a thunder-storm of moderate intensity passed over the observatory. The wind oscillated between southeast and southwest during the night, and slightly increased in velocity for a short while about 4 A. M. Heavy rain fell from midnight to 4 A. M.

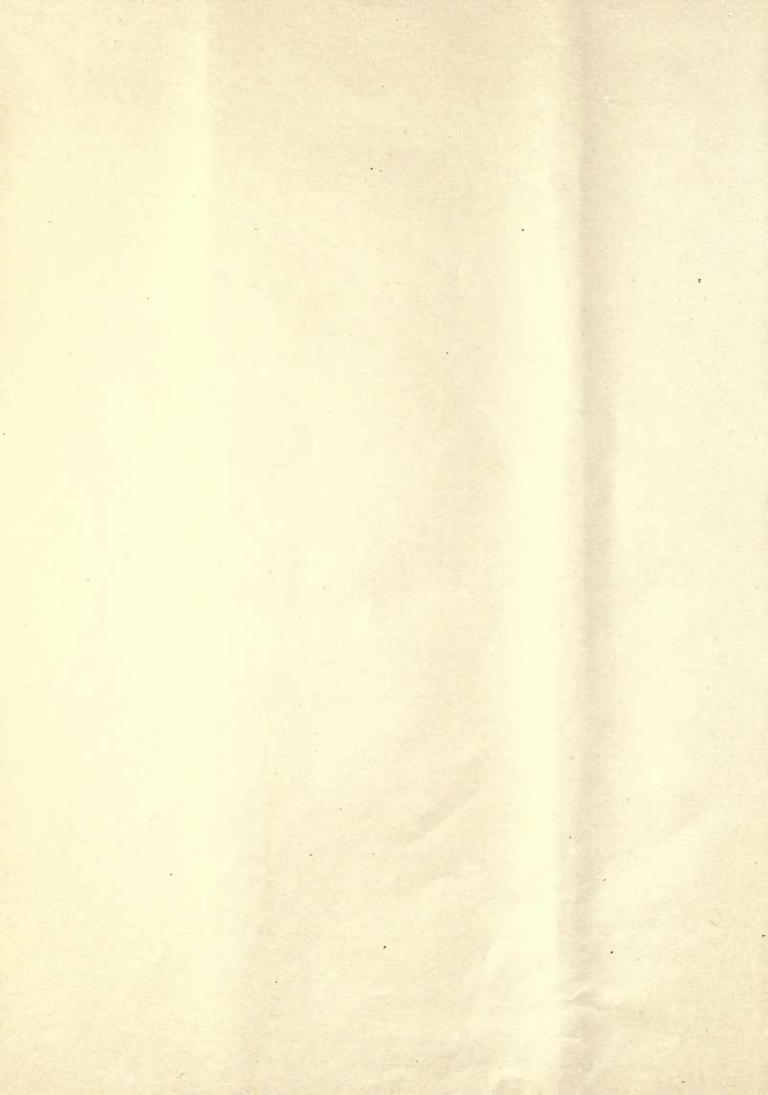
Curve 9, Plate No. 2, shows a rapid rise in temperature which was coincident with the occurrence of the time of minimum pressure in a storm which, moving northeasterly along the Atlantic coast, passed centrally over this region about 9 P. M. of Nov. 25. Curve 9, Plate No. 1, shows the fall of the barometer on this date from 12 M. to 11 P. M. This curve shows small wave-like oscillations which are not uncommonly shown by the barograph curve at this observatory.

Curve 10, Plate No. 1 A, gives a rather striking example of these short wave-like undulations which occurred between 7 A. M. and noon of Dec. 7. The cause of these undulations is not clearly understood, since they cannot be directly connected with changes of the wind velocity, or with any of the meteorological elements.

H. HELM CLAYTON.

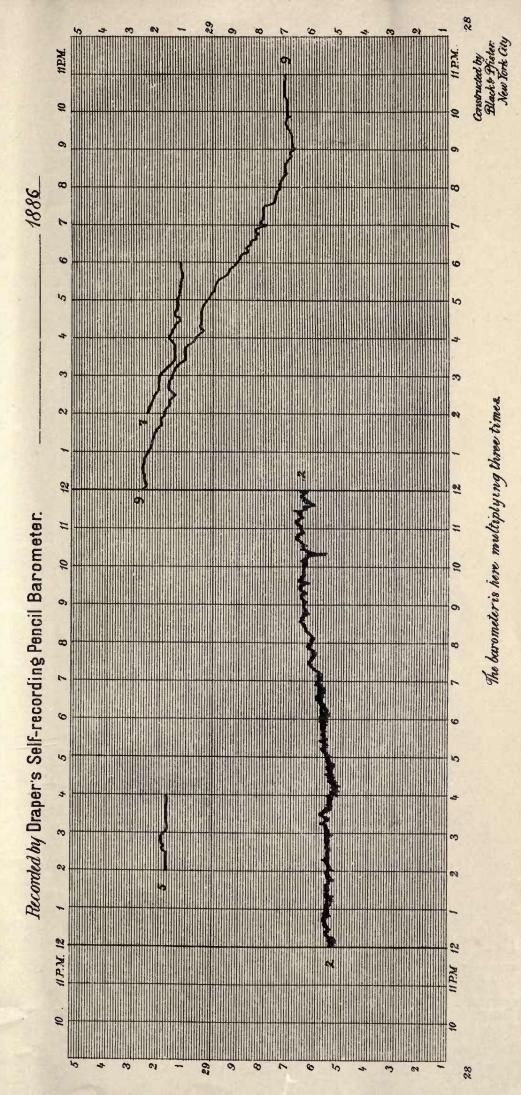




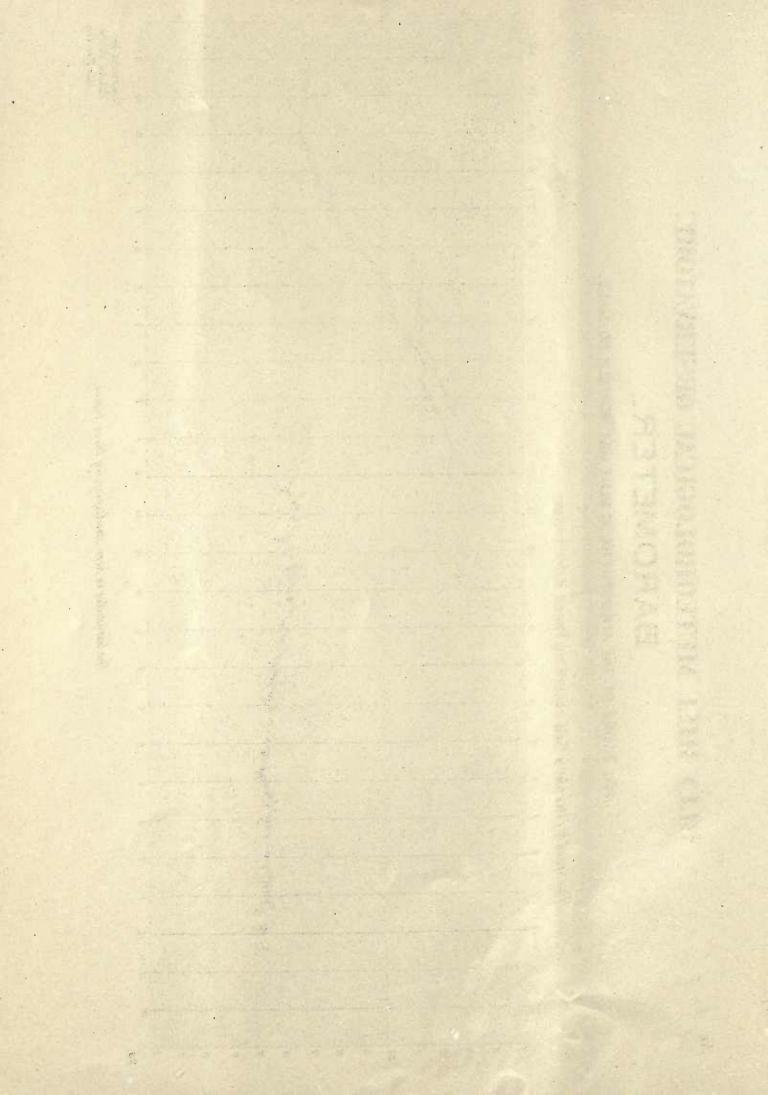


BLUE HILL METEOROLOGICAL OBSERVATORY BAROMETER.

PRESSURE OF THE ATMOSPHERE AT BLUE HILL, NORFOLK CO., MASS.

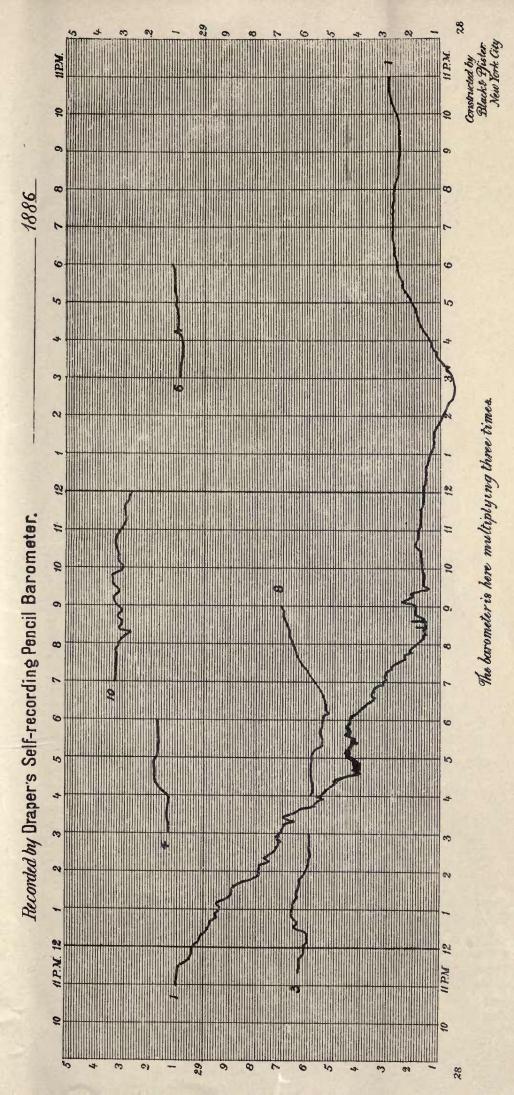


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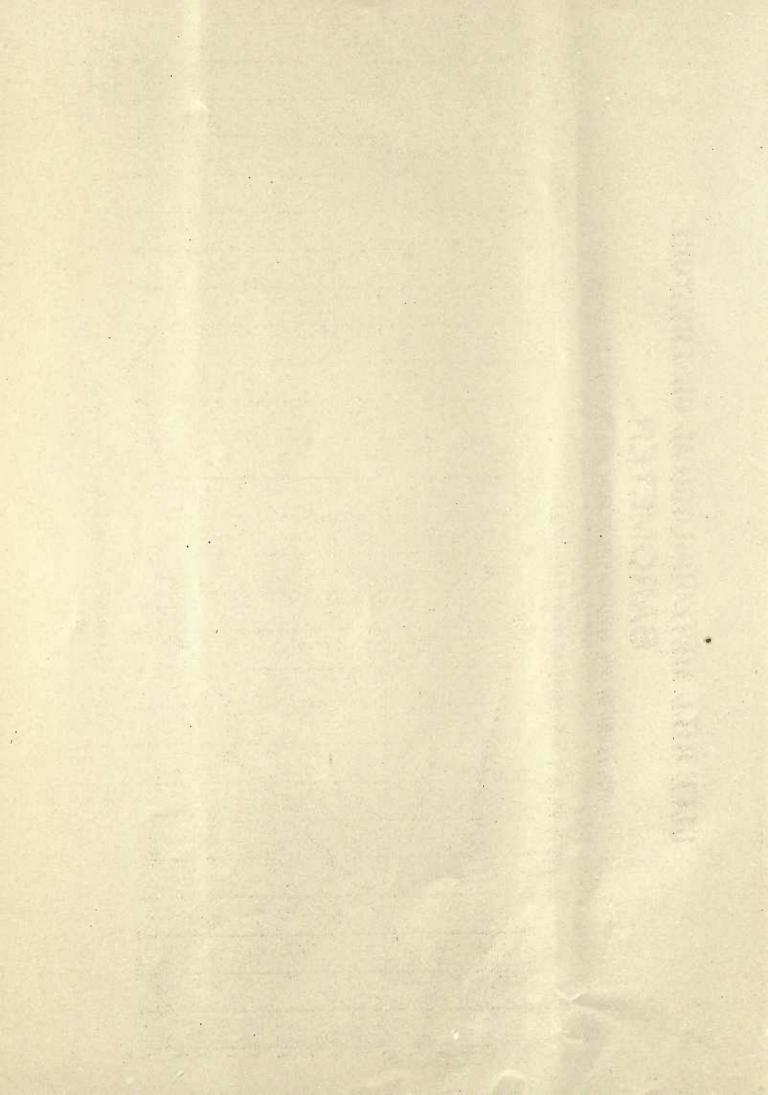


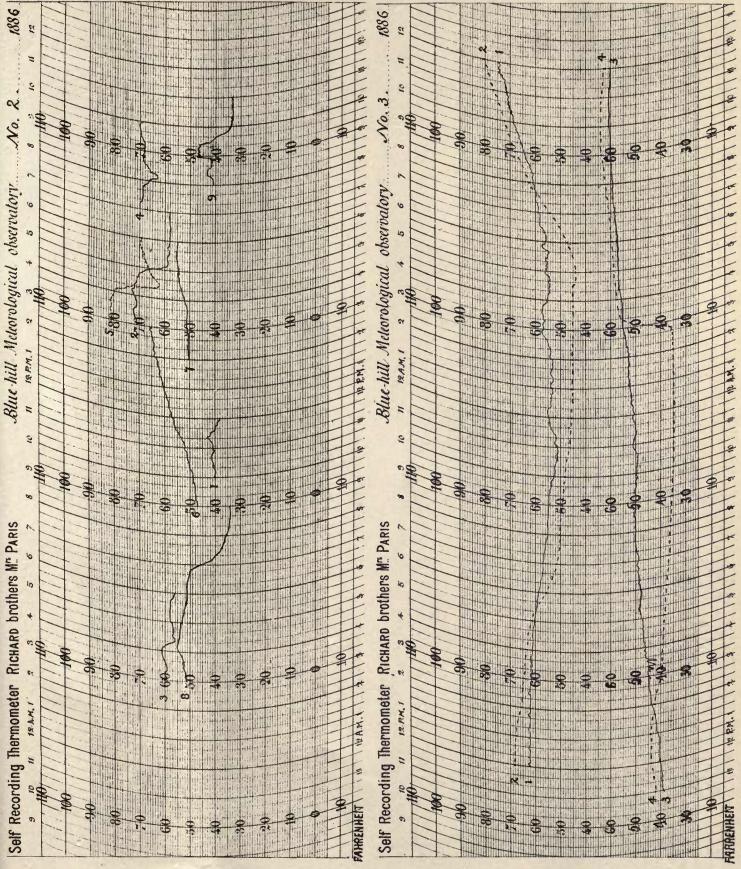
BLUE HILL METEOROLOGICAL OBSERVATORY BAROMETER.

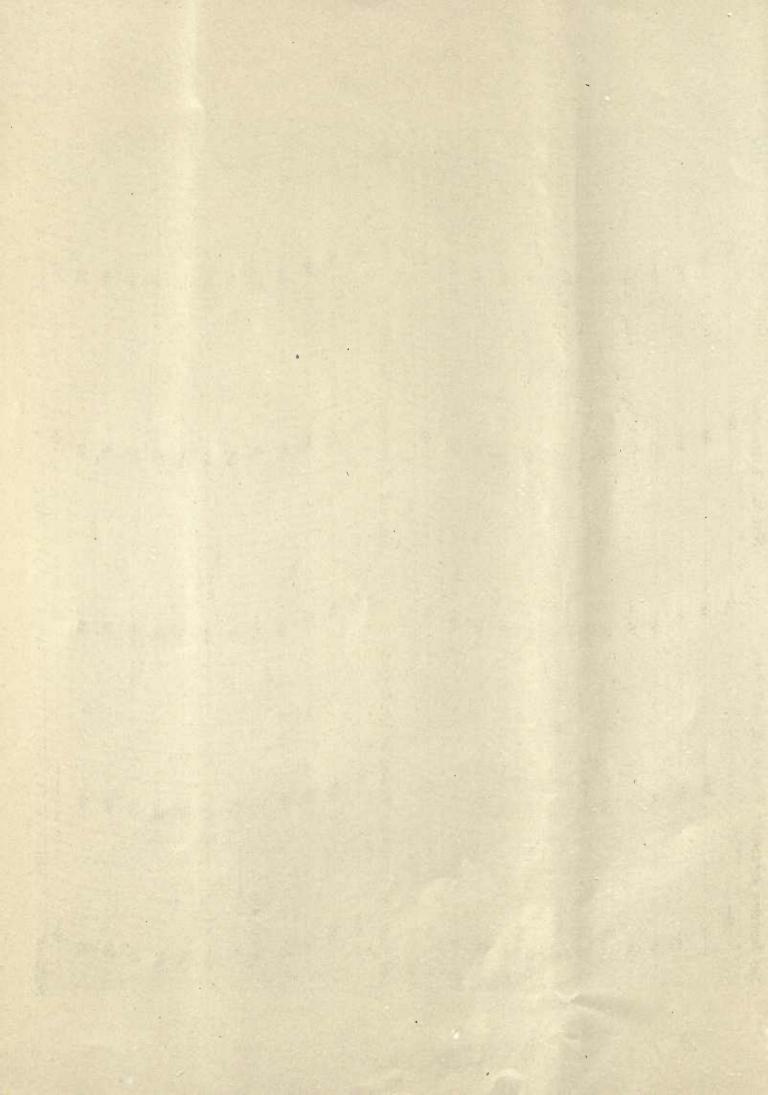
PRESSURE OF THE ATMOSPHERE AT BLUE HILL, NORFOLK CO, MASS.



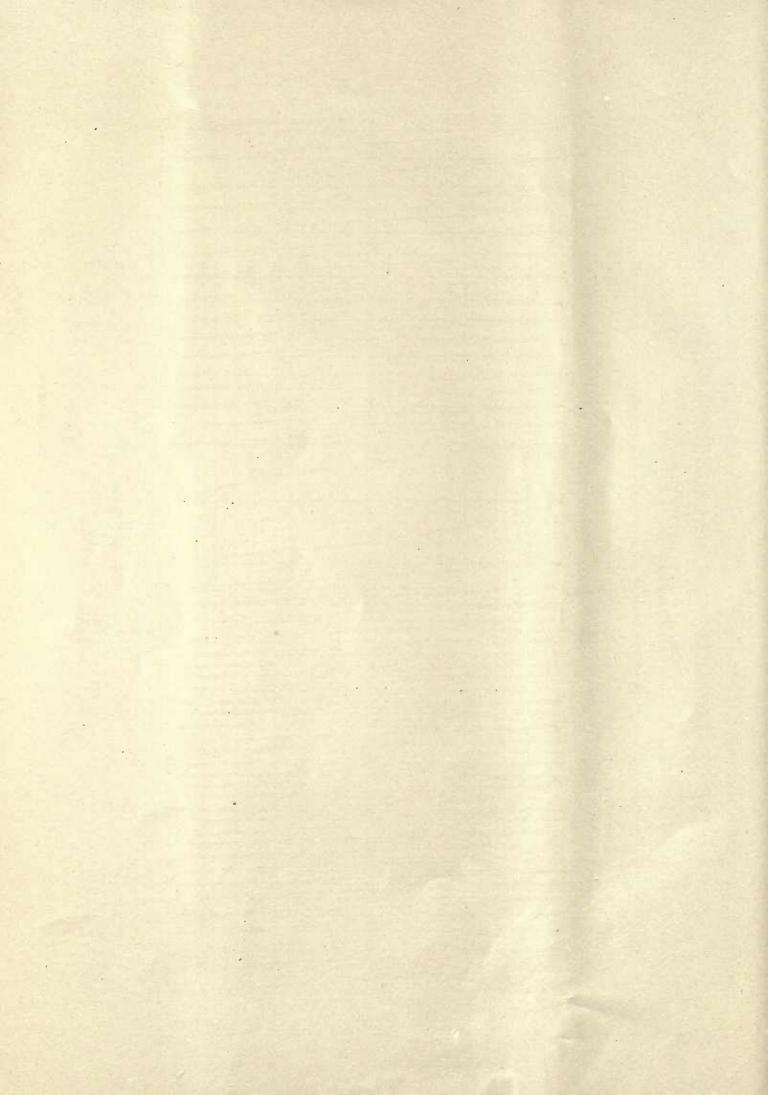
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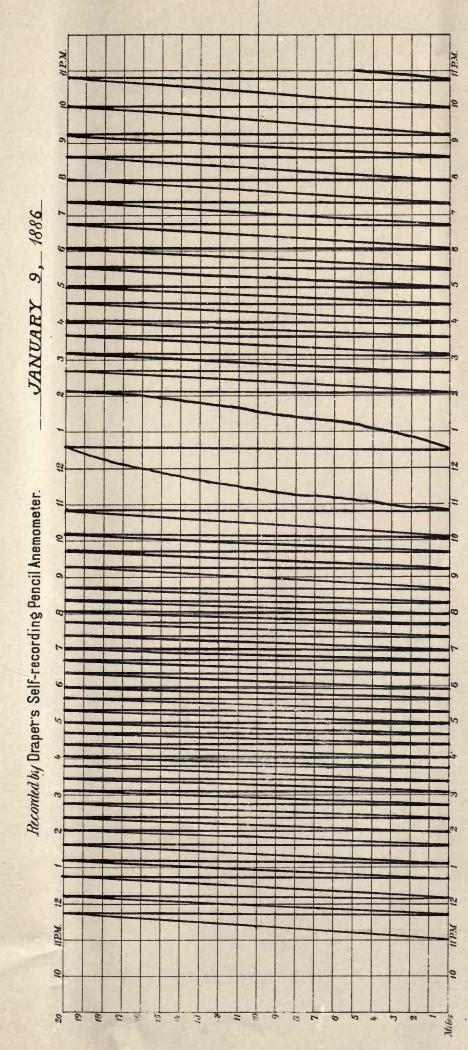
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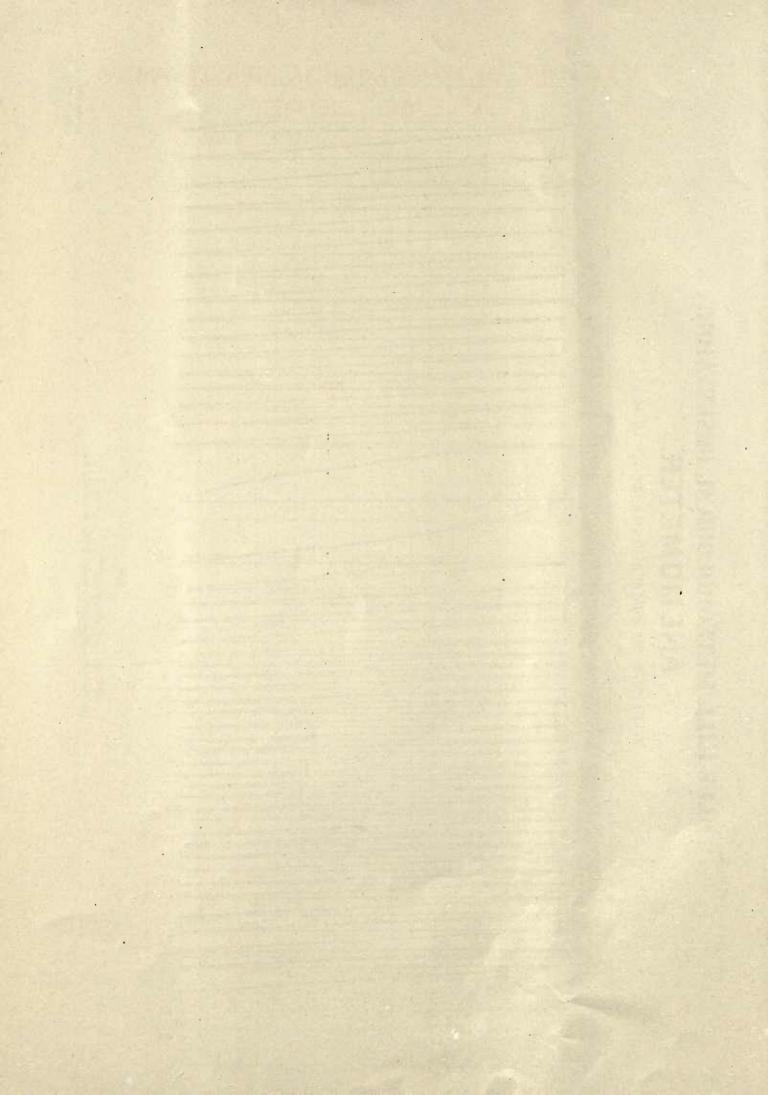
A0.6. BLUE HILL MEYEOROLOGICAL OBSERVATORY.

ANEMOMETER.

VELOCITY OF THE WIND AT BLUE HILL, NORFOLK CO, MASS.

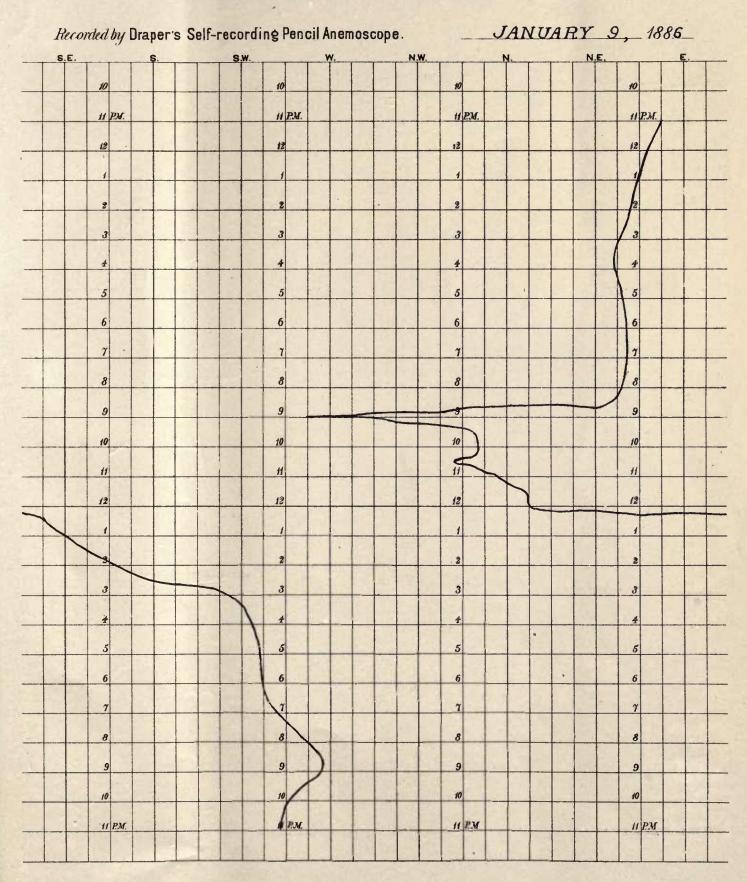


The hours are marked by the vertical lines. The distance travelled in miles by the horizontal lines.



No. 7. BLUE HILL METEOROLOGICAL OBSERVATORY. ANEMOSCOPE.

DIRECTION OF THE WIND AT BLUE HILL, NORFOLK CO., MASS.



Constructed by Black & Pfister: New York City

