SOME CRITERIA FOR DISTINGUISHING LARGE SCALE WEATHER PROCESSES

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ABSTRACT

The concept of a large scale weather process covering a hemisphere or perhaps the whole earth and lasting for periods of twenty to thirty days presents some possible value as an aid in extending weather forecast periods beyond those now used with any degree of confidence, In defining and studying such processes various factors must be considered such as the general atmospheric circulation trends and flow patterns, centers of high pressure and low pressure action, and zones of convergence of airflow and the movement of these zones. Comprehensive charts, flow pattern charts, or any other chart giving a broadscale weather picture over an extended period of time are of much use in making a subjective study. Statistical studies by computation of correlation coefficients or better yet by use of contingency tables furnish a more objective view of the problem. It is the purpose of this study to make preliminary investigations of these factors using some of these techniques. From a study of these processes it is hoped a proceedure will be developed for forecasting the general atmospheric flow pattern and from this a reasonable weather forecast for several weeks.

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CHAPTER I

THE PROBLEM AND ITS BACKGROUND

The forecast of weather for periods of more than two or three days ahead has been subject to much investigation and numerous attempts have been made to set up rules for forecasting days, weeks, and sometimes even months or years ahead. The concept of a large scale weather process, covering a hemisphere or perhaps the whole earth and lasting for periods of twenty to thirty days, presents some possible value as an aid in extending weather forecast periods beyond those now used with any degree of confidence.

I. THE PROBLEM

Statement of the problem. It was the purpose of this study to make preliminary investigations of criteria for distinguishing large scale weather processes by the consideration of such factors as the general circulation trends and flow patterns, the centers of high pressure and low pressure action, and the principal zones of convergence of airflow by the use of such techniques as comprehensive charts, airflow pattern charts, investigation of some rhythms both by visual study of graphs and by time lag correlations, and a statistical study of temperatures and flow patterns around the northern hemisphere.

Importance of the problem. With the vast increase in the number of weather observation stations all over the world, with the standardization of weather records all over the world, and with the compilation of the fourty year northern hemisphere daily surface historical weather map files, it has now become possible to make hitherto impossible studies of weather occuring in wide areas over the earth's surface. Much evidence has been presented that large scale weather processes do exist. Many techniques for investigation have been suggested and it is intended that this paper summarize and expand upon these.

II. DEFINITIONS OF TERMS USED

Before discussing methods of approach which have been suggested, some definitions of terms used throughout this paper are needed.

Natural synoptic period. The natural synoptic period is the period during which the currents in the troposphere move in a certain direction causing the dynamic centers to occupy a given position in space which changes with transition to a new period.[1]

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1 S. T. Pagava, editor, The Basic Principles of the Synoptic Method of Long Range Weather Forecasting (Leningrad Moscow: U.S.S.R. Hydrometeorological Office, 1940), p. 119.

Elementary synoptic process. An elementary synoptic process is one "during which the sign of the barometric area and the main currents of warm and cold air remain constant throughout the synoptic region."[2]

Large scale weather process. The large scale weather process is a long process consisting of several natural synoptic periods in a relatively uniform succession. During the process, lasting from twenty to thirty days, certain features may remain permanent.

Comprehensive chart. A comprehensive chart is a chart upon which are plotted all the positions of the centers of the high and low pressure areas for the period of the chart. On the chart may or may not be trajectories of highs and lows, lines separating the highs from the lows, or lines drawn around highs or lows of various intensities.

Flow pattern chart. A flow pattern chart is a chart upon which is located for the period of the chart the principal centers of action, paths of airflow, and zones of convergence of airflow.

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2 Ibid., p. 115.

III. BACKGROUND

Most investigations into extended weather forecasting fall into one of two categories. One is based upon studies of what has happened before and upon studies of variations and rhythms in weather records. The other attempts to relate some phenomena occuring now or in the past to some phenomena occuring at some time in the future.

Sir Gilbert Walker. Sir Gilbert Walker[3] during the late nineteenth and early twentieth centuries attempted to correlate the Indian monsoon with various factors such as the snowfall in the Himalyas, the April-May rain at Zanzibar and Seychelles, the South American atmospheric pressure, the Indian Ocean atmospheric pressure, the May monsoon in Ethiopia, and ship reports in the Indian Ocean. This data was fit into regression equations or forecast formulae. It is interesting to note that forecast formulae made for one period of years did not verify well in another group of years.

Walker also noticed a group of oscillations in pressure patterns over the earth's surface.[4] The southern

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3 R. B. Montgomery, et al., Reports on Critical Studies of Methods of Long Range Weather Forecasting, Monthly Weather Review, Supplement No. 39, May 3, 1939. pp. 16-19.

4 Ibid., pp. 3-12.

oscillation is a variation from high pressure over South America, low pressure over the Indian Ocean with a strong monsoon to low pressure over South America, high pressure over the Indian Ocean with a weak monsoon. The north Pacific oscillation varies from a weak Pacific high, weak Aleutian low to a strong Pacific high, deep Aleutian low or from weak circulation patterns to strong circulation patterns respectively. The north Atlantic oscillation is a similar relationship involving the Azores high and the Icelandic low. Empirical formulae were devised for interpreting the intensity and variation in these oscillations.

United States Weather Bureau. In addition to Walker's work on correlating data from various stations all over the world, Weightman of the United States Weather Bureau has investigated the correlation of pressures from sixty four stations all over the world with selected stations in the United States.[5]

The zonal index has been devised by the United States Weather Bureau Five Day Forecast Group as a measure of the westerly flow between 35° and 55°N. A high index indicates zonal flow and a low index, weak or no zonal flow. In addition to the zonal index, indices of subtropical easterlies

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5 Richard H. Weightman, Preliminary Studies in Seasonal Weather Forecasting, Monthly Weather Review, Supplement 45, Sept. 1939. 99pp.

and polar easterlies have been defined. The forecasts of this group are based largely upon forecasts of these indices and the interpretation of the forecast values of these indices. It is interesting to note that the zonal index has irregular rhythms of from five to ten weeks in length. There is also a good correlation of the North American index with the northern hemisphere index and a good lag correlation of the Pacific Ocean index with the Atlantic Ocean index.

German investigations. Baur attempted to correlate the circulation with various meteorological phenomena so as to devise forecasting rules for weather in Germany. He divided the study of weather into three parts; weather occuring from day to day, "Broad Weather" -- a similar circulation occuring throughout a period averaging five and a half days in length, and "Grossvetter" -- a large weather process lasting from fifteen days to a month.[6] He observed the following in investigating the atmospheric circulation over the North Atlantic from month to month:[7] (1) an above normal pressure gradient between Ponta Delgada and Iceland with negative pressure departures in the circumpolar and

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6 F. Baur, Official Weather Forecasting for 10-day Periods in Germany, Bulletin American Meteorological Society Vol. 17, 1936. pp. 148-153, 252-254.

7 Montgomery, op. cit., pp. 60-63.

subpolar regions will be maintained the following month; (2) an irregular pressure departure distribution is not characterized by the continuance of an abnormally high North Atlantic circulation; (3) with a positive pressure departure in the circumpolar and subpolar regions plus a weak pressure gradient from Ponta Delgada to Iceland the gradient remains abnormally low; (4) an irregular distribution of pressure departure in the polar regions attended by a weak pressure gradient no longer maintains the persistence of the weak pressure gradient.

Rhythms and Oscillations. Among the many investigations into rhythms and oscillations in weather phenomena the following are of interest. DeFant[8] found rainfall periods in Europe and Japan of 5.7, 8.7, 12.7, and 24.5 days with a possible error of plus or minus ten per cent. Darling[9] in an investigation of the eastern lobe of the Pacific high pressure cell discovered waves of 24, 29, 95, and 381 days in duration. German investigations at Leipzig[10] showed that the winters in Europe are predominated by pressure oscillations lasting twenty to twentyfour days.

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8 A. DeFant, Die Veränderung in der Allgemeinen Zirchulation der Atmosphäre in der Geniessigten Berieten der Erder, Sitz. Akad. Wiss., Wien, Vol. 20 No. 121, 1912. p. 379

9 Donald A Darling, "Report on the Accomplishments of the Statistical Project, June to September, 1942", (unpublished report to the Meteorology Department, California Institute of Technology, Pasadena, 1942) pp. 6,12.

10 Pagava, op. cit.,p. 7.

Russian school of extended forecasting. The Russians have approached the problem of extended forecasting through a study of the general circulation of the atmosphere with a special emphasis upon axes of polar outbreaks, natural seasons, and natural synoptic periods. The axes have been classified in two categories; the normal outbreak moves from northwest to southeast and the ultra-polar outbreaks come from the north, northeast, or east. In Figures 1 and 2 below the various types of axes may be seen.

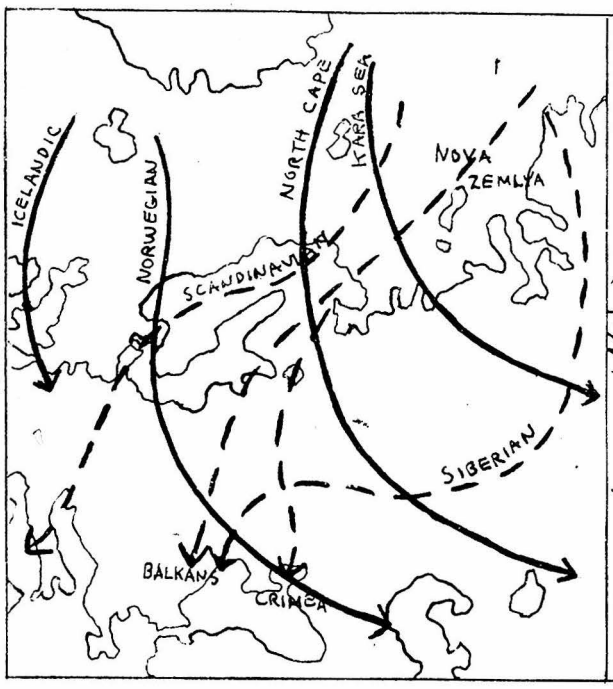

FIGURE 1

AXES OF PATHS OF HIGHS OVER EUROPE IN WINTER. [11]

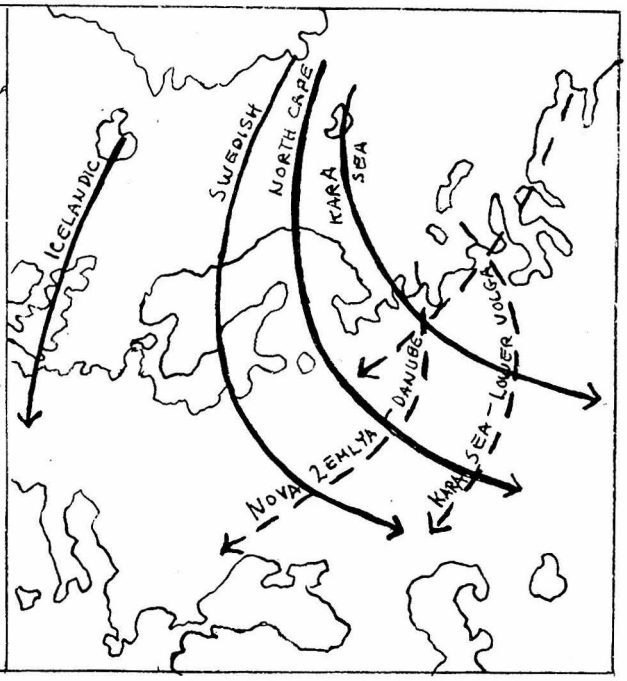

FIGURE 2

AXES OF PATHS OF HIGHS OVER EUROPE IN SUMMER. [12]

POLAR AXES ⟶

ULTRA-POLAR AXES - - - →

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11 and 12 Pagava, op. cit., Fig. 9.

The five Russian seasons are spring, summer, fall, pre-winter, and winter. The lengths of the seasons vary from twenty seven to thirty six days in the warm months and from thirty to sixty four days in the cold months. Each season is typified by certain influences; each influence in turn is typified by some group of anti-cyclonic tracks. The influences have been divided into five groups depending upon the direction from which the highs move.

The natural synoptic period has already been defined. Usually in the two days of transition at the beginning of a natural period lines of demarcation between high and low pressure centers are formed holding the remainder of the period. The natural synoptic lasts from three to six days and compares roughly with the weather type patterns developed at the California Institute of Technology. Both are derived from the idea that the interaction of different air bodies along zones of separation are an effect rather than a cause of the general atmospheric circulation pattern.

The Russians in investigating the forecast of various extremes in weather phenomena have noticed that the cases of an extreme are usually preceeded by a similar chain of weather events over a wide area lasting a month or more before the event to be forecast. The chain of events falls into a group of two natural synoptic periods and a transition or intermediate period between them. These groups are

called by the Russians large scale weather processes.[13] Several groups may fall together so that there are three or more natural synoptic periods tied together by two or more intermediate natural synoptic periods. This is known as a "Macro-process".

An example of a large scale process describing action exerted along the Scandinavian (ultra-polar) axis and the Hungarian (ultra-polar) axis using the Icelandic (normal) axis as a connecting link is given as follows;

> . . . an area of high pressure gradually develops in the middle latitudes in western Europe extending eastward approximately as far as a line connecting Stalingrad and Gorky. Cyclones moving in an easterly direction develope in the regions of the central Volga, Vyatka, and Kama Rivers. . . . The process is very long and occupies a period of as much as one month . . . at least three natural synoptic periods.[14]

By combining this process with a similar process for successive action along the Norwegian (normal), Scandinavian (ultra-polar), and Icelandic (normal) axes a "Macro-process" is obtained. A fifth axis of action must be included to complete the process which is summarized as follows:

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13 Pagava, op. cit., p. 73.

14 Loc. Cit.

AXIS	CENTERS OF ACTION		
	Danish	Taimyr	American
Norwegian (normal) to Scandinavian (ultra-polar)	high	low	high
to Icelandic (normal)	high	high	high
to Hungarian (ultra-polar)	low	high	high
to Kara Sea (normal)	low	low	high

The development of the American center is very intensive. The activity is caused by the activity of the American center of action plus the interrelated state of the Danish and Taimyr centers of action. The existence of the process depends upon the state of the primary centers of action in the subtropical zone, such as the Azores and the Pacific high cells, and upon the intensity of the polar centers of action.

> In the absence of necessary conditions, various links in the process may drop out of the common chain and the process itself will either proceed more rapidly as a result of inadequate development of the different parts, or develop in a different direction on reaching a certain stage.[15]

Broadscale processes observed by Elliott. Elliott has observed several broadscale processes. The Connection Process occurs off the west coast of continents.[16] In the

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15 Pagava, op. cit., p. 75.

16 Robert D. Elliott, Extended Weather Forecasting by Weather Type Methods, (Washingto, D.C.: United States Weather Bureau, February, 1944), pp. 10-15.

first phase a low deepens rapidly out in the middle of the ocean building up a dynamic ridge ahead of the low by the second phase. This warm dynamic ridge then drifts eastward with a cold stratospheric ridge above it on phase three pulling cold air south ahead of it as it moves over the continent. In the last phase the cold air is pulled down over the continent causing lower pressure in the continent and also causing the ridge to remain stationary aloft.

In the Building-back Process[17] a large dynamic pressure cell, usually over a continent with a cold shield at its base, exists in the initial phase. A series of troughs passes along the northern edge with each trough bringing more fresh air in behind it and causing the cell to build back with each trough passage.

In the Blocking Action Process a blocking high over Europe is followed in one week by a blocking high over North America. Added evidence for this is the good lag correlation of the Pacific zonal index with the Atlantic zonal index.

Centers of action, flow patterns, and zones of convergence in the northern hemisphere. In concluding a discussion of what has been done in studying large scale weather processes it is well to review the principal centers of

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17 Elliott, op. cit., p. 11.

action and the most important flow patterns and zones of convergence in the northern hemisphere. In Figure 3 are seen the mean centers of action for the five Russian natural seasons;[18] the general winter flow pattern indicated by large arrows labeled according to influence; "P" for polar, "SP" for sub-polar, and "T" for tropical; and the principal zones of convergence of airflow in winter indicated by the black lines, the width of the line indicating the intensity of activity in such areas.

The principal source of cold air in the winter is the Taimyr High which extends over most of Siberia with a wedge freqently extending towards Alaska. This center of action provides the strongest outbreaks of cold air in the northern hemisphere. The Pacific high cells provide the longest winter trajectory of air over a warm water surface in the northern hemisphere and therefore the tropical air coming up from the south off the east coast is the most humid in the northern hemisphere. The region off the east coast of Asia is probably the most intense zone of convergence in the northern hemisphere. Krick has suggested[19] that rhythmic impulses set up by the generation of cyclones in this zone

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18 Pagava, op. cit., Fig. 8.

19 Irving P. Krick, A Dynamical Theory of the Atmospheric Circulation and Its Use in Weather Forecasting, (Pasadena, California: California Institute of Technology, February, 1942) pp. 9-10.

FIGURE 3
CENTERS OF ACTION, WINTER FLOW PATTERN, AND WINTER ZONES OF CONVERGENT AIR FLOW.

SEASONS	INFLUENCES
1. Winter	P Polar
2. Spring	SP Sub-polar
3. Summer	T Tropical
4. Fall	
5. Pre-winter	

may start the eastward moving three day waves observed frequently over the rest of the hemisphere.

In the winter a similar zone exists of the east coast of North America and extending back occasionally along the gulf coast. Also in the winter minor zones of convergence exist when proper conditions are set up. One is in the middle of the Pacific Ocean between Midway Island and the Hawaiian Islands occuring when the Pacific high cell is in two parts or when the western lobe contains fresh air from Asia which is being modified and the eastern lobe is the stagnant remains of the old cell. When the circulation is such that cold air tends to flow out over the Gulf of Alaska from Alaska and British Columbia, a zone of convergence forms up the northwest coast of North America with storms traveling down into the great basin area of the United States from the northwest.

A region of convergence exists from the Cape Verde-Azores Island region through the Mediterranean area when fresh masses of cold air come down from the northwest, north or northeast and are trapped in a position farther south than usual. This can happen either with an intense Iceland low and a deep trough bringing cold air far south, or with a high moving across the Atlantic Ocean until its eastern lobe extends through Europe pulling some cold air out of eastern Europe, or with an ultra-polar outbreak from Russia.

In the summer the Taimyr high is completely missing as a center of action. The oceanic high centers of action are greatly intensified and thermal low pressure areas occupy large portions of the continents. There is no real source of cold air; however some zones of convergence do exist. These are usually boundaries between tropical and sub-polar airmasses.

IV. SOURCE OF DATA

The primary source of data for this thesis was the file of Historical Northern Hemisphere Weather Maps. The maps from January, 1925 through May, 1936 were used since the data for this period were the most complete and consistent for any continuous period.

In using this data several dangers must be realized. First, only a comparatively small period of time was used. It is quite possible that in another period many different features may be found. That is why this thesis attempts only a study of the general techniques for investigating large scale weather processes. It is felt that a much longer period of data must be examined before any definite results as to types of processes may be obtained.

Another danger is in using the analyses as they are drawn on the maps. Very often individual tendencies of the analysts have crept in and frequently the data is such that

no really definite analysis can be made.

In investigating and using the actual data on the maps great care must be used in selecting data for the same time period throughout the study or , if this is impossible, correcting the data for differences in time. Often it is necessary, if a few days are missing from a record, to make estimates of the data.

A further discussion of the problems of collecting data will be included in the individual chapters when such matters are concerned.

V. ORGANIZATION OF REMAINDER OF THESIS

The remainder of the thesis is divided into discussions of the various investigations made. The first studies weather processes by the use of comprehensive charts with trough passages at various meridians distinguishing the length of the processes. Next a more detailed investigation into trough passages is made, first from a statistical view point and second by analysis of graphs. From these studies three large scale weather processes were selected and studied. Lastly a statistical investigation was made in a study of polar outbreaks over the northern hemisphere. In the final chapter a summary of these investigations and recommendations for further study are made.

CHAPTER II

COMPREHENSIVE CHARTS

A comprehensive chart is a chart upon which are located all the centers of low and high pressure areas for the period of the chart. This chapter is intended to give some of the uses to which this type of chart may be put to use along with some of the advantages and disadvantages in using such a chart.

Assumptions. In first investigating the existence of large scale weather processes by use of comprehensive charts it was assumed that (1) the shorter processes or elementary synoptic periods would consist of one pattern of circulation lasting three to six days over an area, (2) several of these shorter processes would make up longer processes lasting two to four weeks, and (3) groups of these longer processes would make up a season and give it its character. It was also assumed that trough passages or passages of frontal zones of convergence at fixed localities were good indicators of a change of process; that the succession of a certain kind of trough passage or certain kinds of successions of trough passages might indicate a longer process; and that between the longer processes and between the seasons there might be several transitional trough passages.

From a study of trough passages for the winter of 1928-29 it was noted that at almost regular intervals of time troughs were located simultaneously within 15° longitude of 135° E., 135° W., 45° W., and 45° E. It was decided to use these intervals as the periods of the comprehensive charts.

Plotting. On the comprehensive charts were plotted all the positions of highs and lows, wedges, waves, and marked troughs occuring in the period of the chart using the symbols illustrated below.

High Pressure Center o

Ridge

Wedge

Disintegrating Center

The pressure of the highest isobar was placed above the symbol and the date below. The wedge symbol points toward the area of highest pressure and the ridge symbol is oriented along the axis of the ridge.

Low Pressure Closed Center •

Open Wave

Trough

Disintegrating Center

The pressure of the lowest isobar was placed above the symbol and the date below. The wave symbol is oriented

along the warm sector isobars and the trough symbol points toward the area of lowest pressure.

Analysis. In analyzing the comprehensive charts, first, a line separating all high symbols from low symbols was drawn. Then lines surrounding all highs above 1030, 1040, 1050, and 1060 millibars respectively and lines surrounding all lows below 1010, 990, and 970 millibars respectively were drawn. On some charts red lines were drawn in the troughs appearing from the above analysis and blue lines along the wedges. Very little difference could be seen in these comprehensive trough and wedge lines from the actual trajectories of highs and lows and so on most of the charts the trajectories of highs and lows are drawn in blue and red respectively.

Charts were plotted for the period from December 11, 1928 to December 31, 1929. In Figures 4-7 are seen examples of charts frpm each season.

Results of investigation. This first investigation showed that the comprehensive charts were helpful in that, in such an analysis an approximation to a mean flow chart and a dynamic chart were combined in one. In looking at a series of charts the gradual change in processes can be readily seen, appearing frequently like series of synoptic charts.

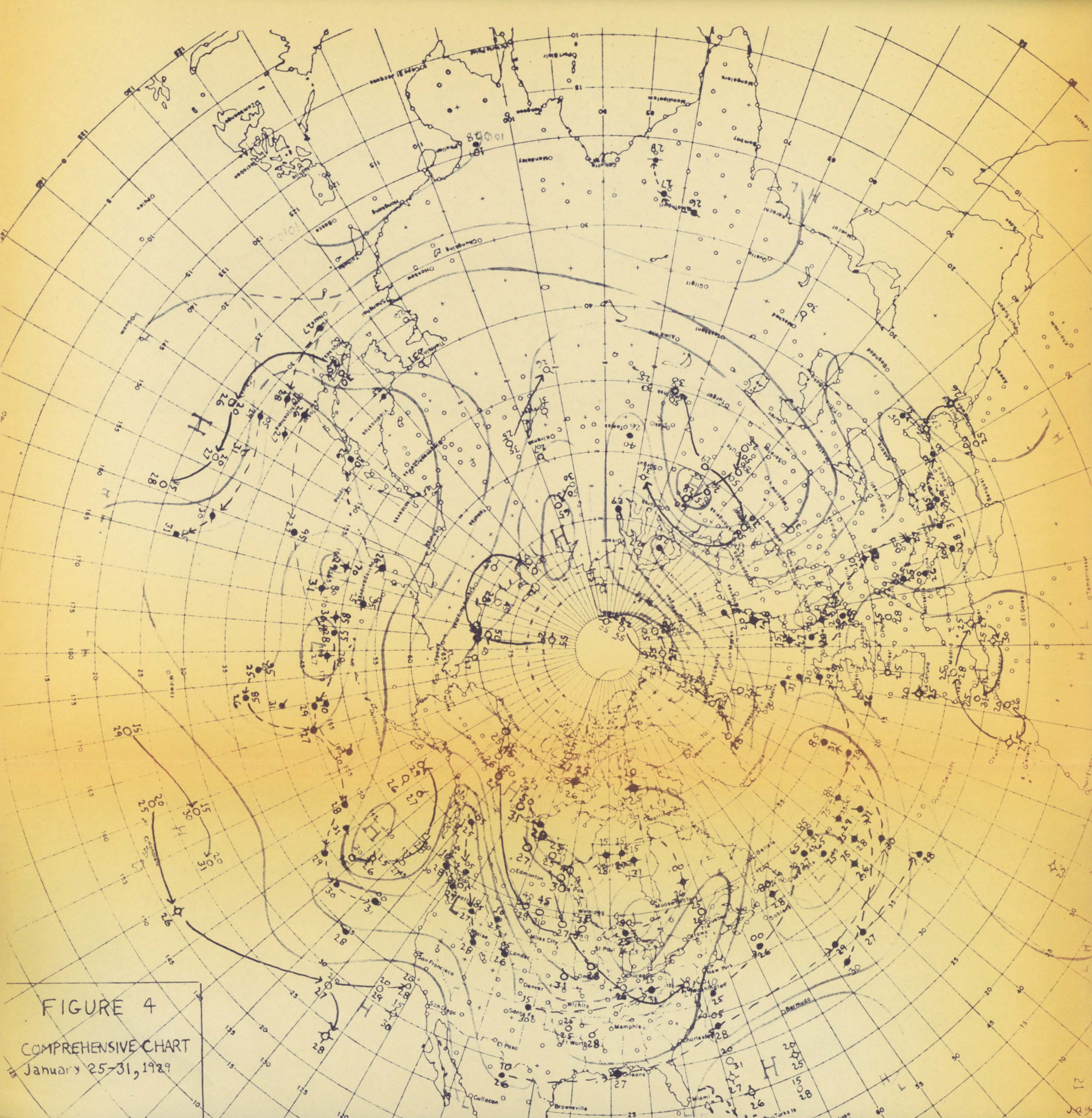

FIGURE 4

COMPREHENSIVE CHART
January 25-31, 1929

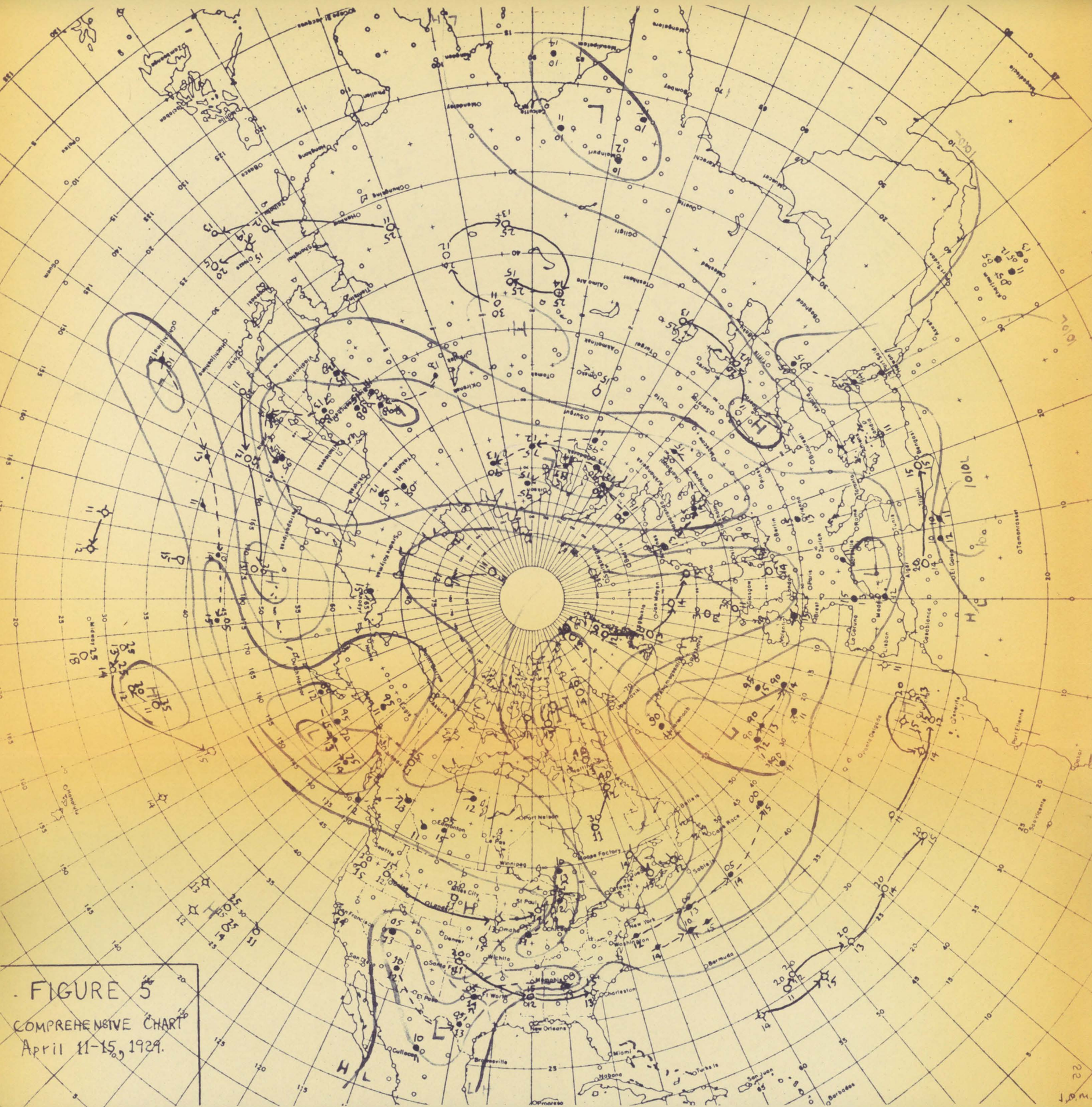

FIGURE 5

COMPREHENSIVE CHART

April 11-15, 1929.

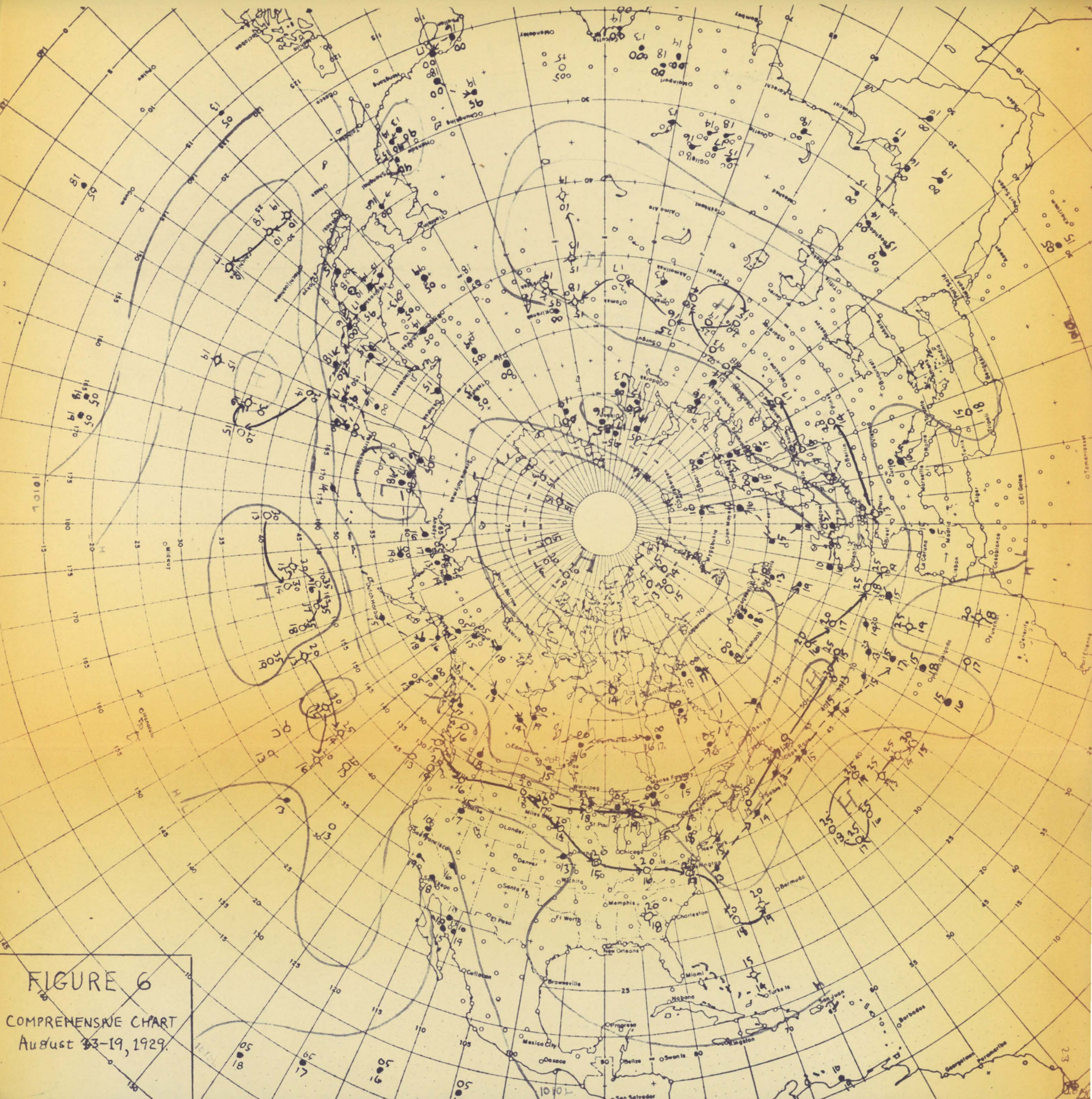

FIGURE 6

COMPREHENSIVE CHART
August 13-19, 1929.

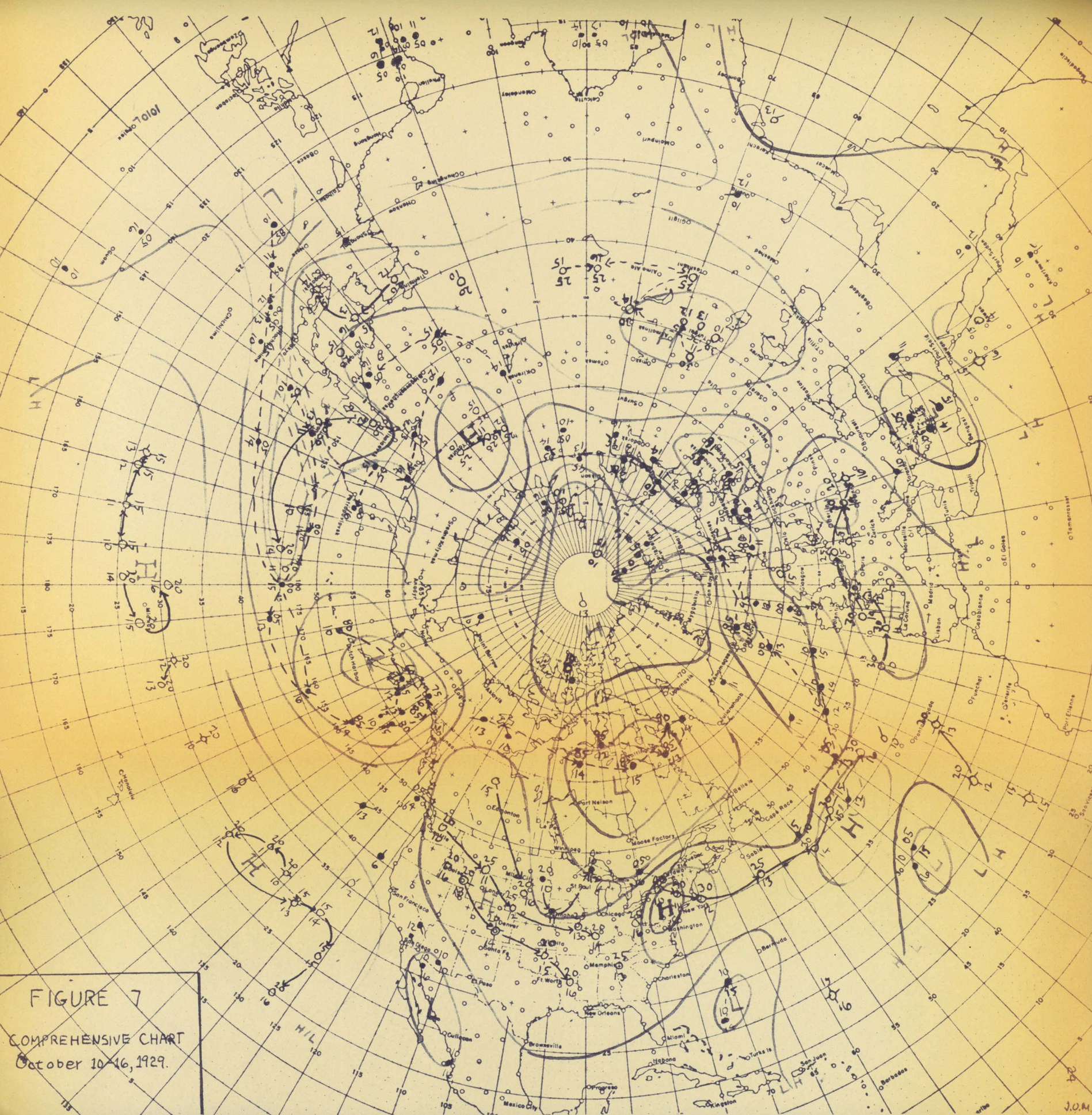

FIGURE 7

COMPREHENSIVE CHART
October 10-16, 1929.

This study was not successful in that further investigation showed that the troughs did not act according to the trends first noticed; that this observed trough passage phenomena was merely a characteristic of that particular winter. In particular, the troughs almost disappeared entirely in some zones during the summer. The comprehensive charts were often hard to analyze since several processes appeared to be going on in one region while one or part of one was occuring in another and since the processes all over the northern hemisphere did not appear to stop and start at the same time.

CHAPTER III

PRESSURE TROUGHS

From the previous study of comprehensive charts it was seen that a more thorough investigation of pressure troughs or zones of convergence was needed. If such troughs are to be of aid in distinguishing weather processes, a study of the regularity or irregularity of trough passages at specified localities should prove beneficial. This study was attempted, first, statistically and, second, when statistical methods proved too cumbersome and uncertain, a graphical study was made.

I. COLLECTION OF DATA

The raw data for this study were obtained from the files of the Northern Hemisphere Historical Weather Maps and are recorded in Appendix A. Data were collected for the period from January 1, 1925 to April 30, 1935. Pressure data at longitudes 135° E., 135° W., 45° W., and 45° E. and trough position data for troughs near each of these meridians were collected.

The pressure data, listed under "P" in Appendix A, consists of the value of the lowest isobar (last two numbers of the value; ie., 20 for 1020 mb.) between 15° N. and 35° N., 35° N. and 55° N., and 55°N. and 80°N. along each of

the meridians listed above. Pressures of tropical storms, typhoons, and hurricanes are succeeded by a "t" , ie., (00t). If no isobar crossed the meridian within the limits of a zone, the value of the next highest isobar was recorded.

The position of each trough in degrees of longitude from the selected meridians and within fifteen degrees of these meridians is recorded under "T" in the appendix. The position was recorded as plus if the trough was located to to the right of the meridian and minus if to the left of the meridian. If groups of positions are connected by a bracket. thus [0 0 0 , the trough is stationary at that position for the period included in the brackets.

II. STATISTICAL STUDY

Using data from the winter of 1925-26 at longitude 135° W. between latitudes 35° N. and 55° N. correlations of lowest isobar values for time lag periods up to eighty two days were computed.

Computation. A strip of 162 days from November 15, 1925 to April 24, 1926 was prepared and labeled the "y" strip. A strip of 80 days from November 15, 1925 to February 2, 1926 was prepared and labeled the "x" strip. The "x" strip was moved along the "y" strip having a different position for each day's lag.

The lag correlations were computed using the exact formula,

$$r_{xy} = \frac{\sum_1^m x_i y_i - \frac{1}{m}\sum_1^m x_i \sum_1^m y_i}{\left[\sum_1^m x_i^2 - \frac{1}{m}\left(\sum_1^m x_i\right)^2\right]\cdot\left[\sum_1^m y_i^2 - \frac{1}{m}\left(\sum_1^m y_i\right)^2\right]} = \frac{\sum_1^m x_i y_i - n\, m_x\, m_y}{n\, \sigma_x\, \sigma_y}$$

where m_x and m_y are the means and σ_x and σ_y are the standard deviations of the "x" and "y" strip data respectively.

The variance of x, σ_x^2, is the same in all lag correlation coefficient computations but the variance of y, σ_y^2, changes with each computation. Snedecor's "F" Distribution[1] was used to find the value of σ_y^2 above which it was significantly different from σ_x^2. Values of σ_y^2 with which the probability that the difference in variances due to chance is less than one per cent are called significantly different from σ_x^2. Values of σ_y^2 for which the probability lies between one per cent and five per cent are barely significantly different from σ_x^2.

Probable errors for the more significant correlation coefficients were computed using the formula,

$$P.E. = .674\,\frac{1-r^2}{\sqrt{n}}$$

The computations and results are given in Table I and Figure 8.

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1 John F. Kenney, Mathematics of Statistics, Part Two (New York: D. Van Nostrand Co., Inc., 1939), pp. 145-46.

TABLE I

COMPUTATION OF LAG CORRELATION COEFFICIENTS

A. STATISTICS FOR "x" STRIP

$$nm_x = \sum_1^m x_i = \underline{4355} \qquad n\sigma_x^2 = \sum_1^m x_i^2 - \frac{1}{m}\left(\sum_1^m x_i\right)^2$$

$$= 245925 - 237074 = \underline{8851}$$

B. LEVELS OF SIGNIFICANCE FOR σ_Y^2

Snedecor's "F" distribution for this study was taken as $F = \frac{n\sigma_Y^2}{n\sigma_x^2}$ where x and y have the same number of values and $\sigma_Y^2 > \sigma_x^2$. Then, using the value for $n\sigma_x^2$, obtained in part A, above, a formula for $n\sigma_Y^2$ is developed: $n\sigma_Y^2 = 8851\,F$.

With 79 degrees of freedom for both x and y, for a 1% level of significance, F=1.69 and $n\sigma_Y^2 = 14980$ and for a 5% level of significance, F=1.45 and $n\sigma_Y^2 = 12830$.

In part C values of $n\sigma_Y^2$ which are barely significantly different from $n\sigma_x^2$ are succeeded by "BS" and those which are significantly different are succeeded by "S".

TABLE I

COMPUTATION OF LAG CORRELATION COEFFICIENTS (CONTINUED)

C. STATISTICS FOR "y" STRIPS AND CORRELATION COEFFICIENTS

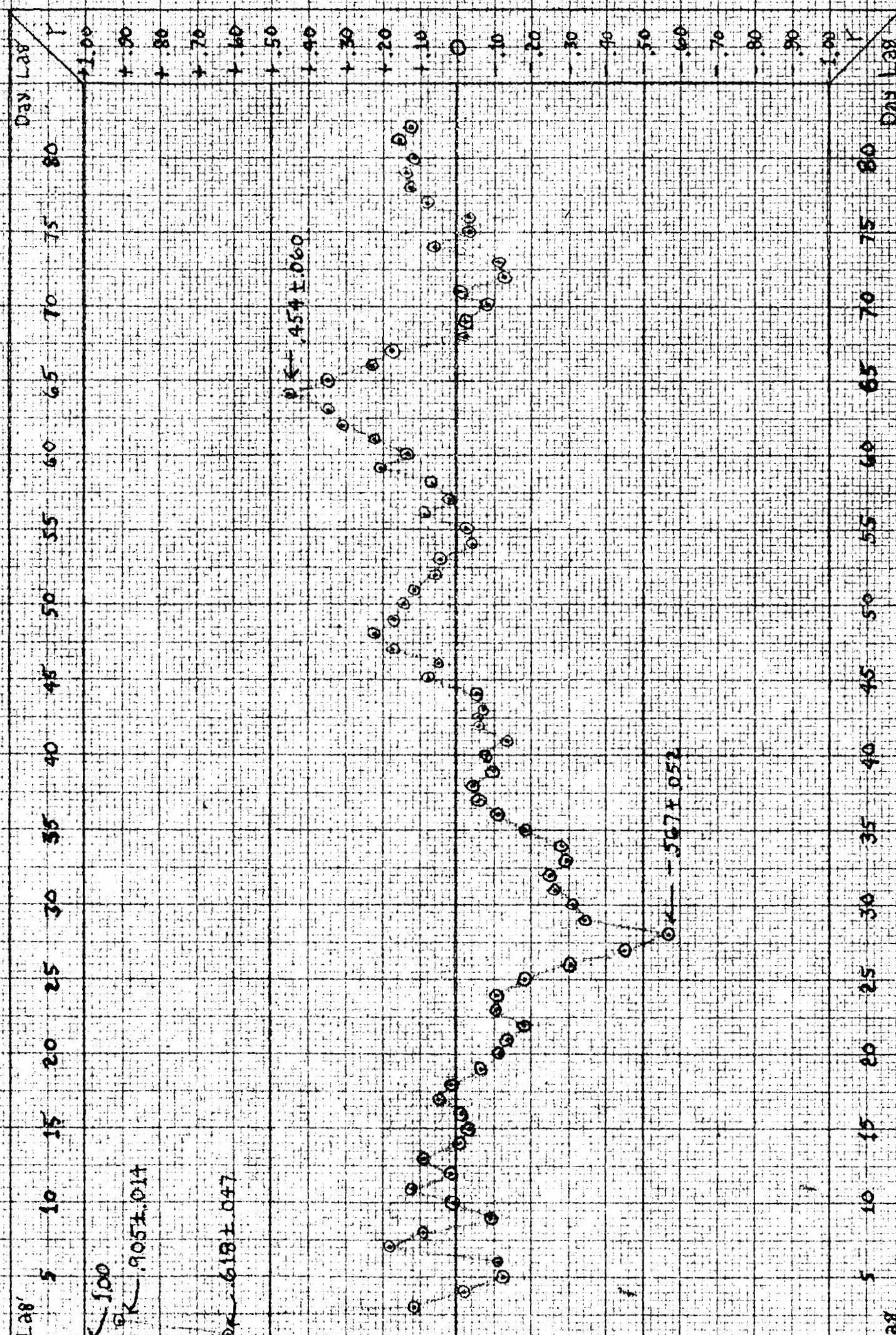
Day Lag	$\sum_1^m X_i Y_i$	$m m_Y$ $\sum_1^m Y_i$	$\frac{1}{m}(\sum_1^m Y_i)^2$	$\sum_1^m Y_i^2$	$\frac{1}{m}\sum_1^m X_i \sum_1^m Y_i$	$m\sigma_Y^2$ $\sum Y_i^2 - \frac{1}{m}(\sum_1^m Y_i)^2$		D $\sum X_i Y_i - \frac{1}{m}\sum X_i \sum Y_i$	r_{XY} $\frac{D}{m\sigma_X\sigma_Y}$
1	241350	4330	234481	243800	235718	9339		+5632	+.618
2	242800	4300	231150	241700	234080	10550		+8720	+.905
3	235250	4300	231150	241700	234080	10550		+1170	+.121
4	233775	4290	230051	240700	233536	10649		+ 239	+.025
5	231250	4270	227911	238700	232448	10789		-1198	-.123
6	230025	4245	225250	235575	231087	10325		-1062	-.111
7	230925	4210	221551	232250	229182	10699		+1743	+.180
8	229800	4205	221025	231625	228910	10600		+ 890	+.092
9	227425	4195	219975	230525	228365	10550		- 940	-.097
10	229225	4210	221551	232100	229182	10549		+ 43	+.004
11	230650	4215	222078	232675	229484	10597		+1166	+.121
12	229150	4205	221025	231475	228910	10450		+ 240	+.025
13	229850	4205	221025	231475	228910	10450		+ 940	+.097
14	229075	4210	221551	232000	229182	10449		- 107	-.011
15	228025	4195	219975	230275	228365	10300		- 340	-.035
16	228500	4200	220500	230750	228638	10250		- 138	-.014
17	229075	4200	220500	230750	228638	10250		+ 437	+.046
18	228825	4200	220500	230750	228638	10250		+ 187	+.018
19	226825	4180	218405	229150	227549	10745		- 724	-.074
20	226125	4175	217883	228625	227277	10742		-1152	-.118
21	225350	4165	216840	227525	226732	10685		-1382	-.142
22	225200	4170	217361	228150	227008	10789		-1808	-.185
23	225725	4165	216840	227575	226732	10735		-1007	-.103
24	226775	4185	218928	229575	227808	10647		-1033	-.106
25	226025	4185	218928	229575	227820	10647		-1795	-.185
26	226700	4220	222605	233250	229736	10645		-3026	-.312
27	226500	4240	224720	235450	230815	10730		-4315	-.445
28	225800	4240	224720	235450	230815	10730		-5015	-.567
29	226950	4240	224720	235450	230815	10730		-3865	-.540
30	228775	4260	226845	238050	231904	11205		-3129	-.313
31	230600	4285	229585	240925	233625	11340		-2605	-.260
32	232075	4310	232201	244050	234626	11849		-2551	-.250
33	233550	4345	235988	248075	236531	12087		-2981	-.288
34	235075	4370	238711	250700	237892	11989		-2817	-.274
35	236600	4380	239805	251800	238436	11995		-1836	-.178
36	237825	4390	240901	252900	238981	11999		-1156	-.112
37	238875	4400	242000	255300	239525	13300	BS	- 650	-.060
38	239550	4410	243101	256500	240069	13399	BS	- 519	-.047
39	240300	4435	245865	258225	241430	12360		-1130	-.106
40	240875	4440	246420	258800	241430	12380		- 828	-.079

TABLE I

COMPUTATION OF LAG CORRELATION COEFFICIENTS
(CONTINUED)

Day Lag	$\sum X_i Y_i$	$n m_Y$ $\sum Y_i$	$\frac{1}{n}(\sum Y_i)^2$	$\sum Y_i^2$	$\frac{1}{n}\sum X_i \sum Y_i$	$n\sigma_Y^2$ $\sum Y_i^2 - \frac{1}{n}(\sum Y_i)^2$		D $\sum XY - \frac{1}{n}\sum X \sum Y$	r_{XY} $\frac{D}{n\sigma_X\sigma_Y}$
41	240525	4445	246975	259425	241975	12450		-1450	-.137
42	242200	4460	248645	261000	242792	12355		- 592	-.057
43	242625	4470	249761	262100	243336	12339		- 711	-.068
44	242825	4470	249761	262100	243336	12339		- 511	-.049
45	243300	4455	248088	260375	242519	12287		+ 781	+.076
46	242500	4440	246420	258650	242025	12230		+ 475	+.046
47	242750	4425	244758	257075	240888	12317		+1862	+.178
48	243425	4430	245311	257650	241158	12339		+2267	+.217
49	244650	4460	248645	261550	242792	12905	BS	+1858	+.174
50	245450	4480	250880	264150	243880	13270	BS	+1570	+.145
51	246000	4495	252563	266175	244697	13612	BS	+1303	+.118
52	246175	4510	254251	268050	245513	13799	BS	+ 662	+.060
53	246100	4510	254251	268050	245513	13799	BS	+ 587	+.053
54	244800	4505	253688	267325	245241	13637	BS	- 441	-.040
55	244975	4505	253688	267325	245241	13637	BS	- 266	-.024
56	245975	4500	253125	266600	244969	13475	BS	+1006	+.091
57	244925	4495	252563	265875	244697	13312	BS	+ 228	+.020
58	245500	4495	252563	265875	244697	13312	BS	+ 803	+.073
59	246925	4495	252563	265875	244697	13312	BS	+2228	+.203
60	245925	4490	252001	265300	244424	13299	BS	+1501	+.137
61	246575	4485	251440	264825	244152	13385	BS	+2423	+.222
62	247500	4485	251440	264825	244152	13385	BS	+3348	+.308
63	248700	4500	253125	266100	244969	12975	BS	+3731	+.347
64	249600	4495	252563	265875	244697	13112	BS	+4903	+.454
65	247350	4475	250320	263475	243608	13155	BS	+3742	+.346
66	245800	4470	249761	262850	243336	13089	BS	+2464	+.228
67	244450	4455	248088	261125	242519	13037	BS	+1931	+.179
68	242525	4450	257531	260500	242244	12969	BS	+ 281	+.026
69	242800	4465	249202	262225	243083	13023	BS	- 283	-.026
70	242475	4470	249761	262850	243336	13089	BS	- 861	-.080
71	242750	4460	248645	261550	242792	12905	BS	- 40	-.003
72	242950	4465	249202	262175	243083	12973	BS	- 133	-.012
73	243125	4470	249761	262700	243336	12939	BS	- 111	-.001
74	244500	4480	250880	263500	243880	12620		+ 620	+.058
75	244325	4495	252563	264775	244697	12212		- 372	-.036
76	244600	4500	253125	265200	244969	12075		- 369	-.035
77	246350	4510	254251	266300	245513	12048		+ 838	+.081
78	247050	4515	254815	266825	245785	12010		+1265	+.123
79	248850	4545	258213	270125	247418	11912		+1432	+.138
80	251100	4590	263351	274850	249868	11499		+1232	+.121
81	253325	4625	267383	278175	251773	10792		+1552	+.158
82	255950	4680	273780	283400	254768	9620		+1182	+.128

FIGURE 8



GRAPH OF LAG CORRELATION COEFFICIENT
AGAINST LAG TIME PERIOD

Conclusions. The most significant values of correlation coefficients obtained were those of .618 -.047 for a one day lag, .905 -.014 for a two day lag, -.567 -.052 for a twenty eight day lag, and .484 -.060 for a 64 day lag. The relatively high coefficients for the one and two day lags may be partly due to persistence effects. However the two day relationship appears fairly significant. The others indicate, perhaps, the existence of a sixty four day rhythm.

It must be remembered that the data used were for only one region in one season of one year. Considerable more work must be done before any really valid conclusions can be made. However it was felt that in view of the large amount of computation necessary it was not practical to continue on this study.

III. ANALYSIS OF A PRESSURE CURVE

The value of the lowest isobar crossing the meridian of 135° W. between 35° and 55° N. was plotted against time on a graph for the 124 month period beginning January 1, 1925 and ending April 30, 1935. This graph is presented in Figures 9 and 10. It can be seen upon examining this graph that certain sections of the curve seem to fall into various rhythms. Some occurences of interest are to be noted.

Thirteen month rhythm. This rhythm may have some

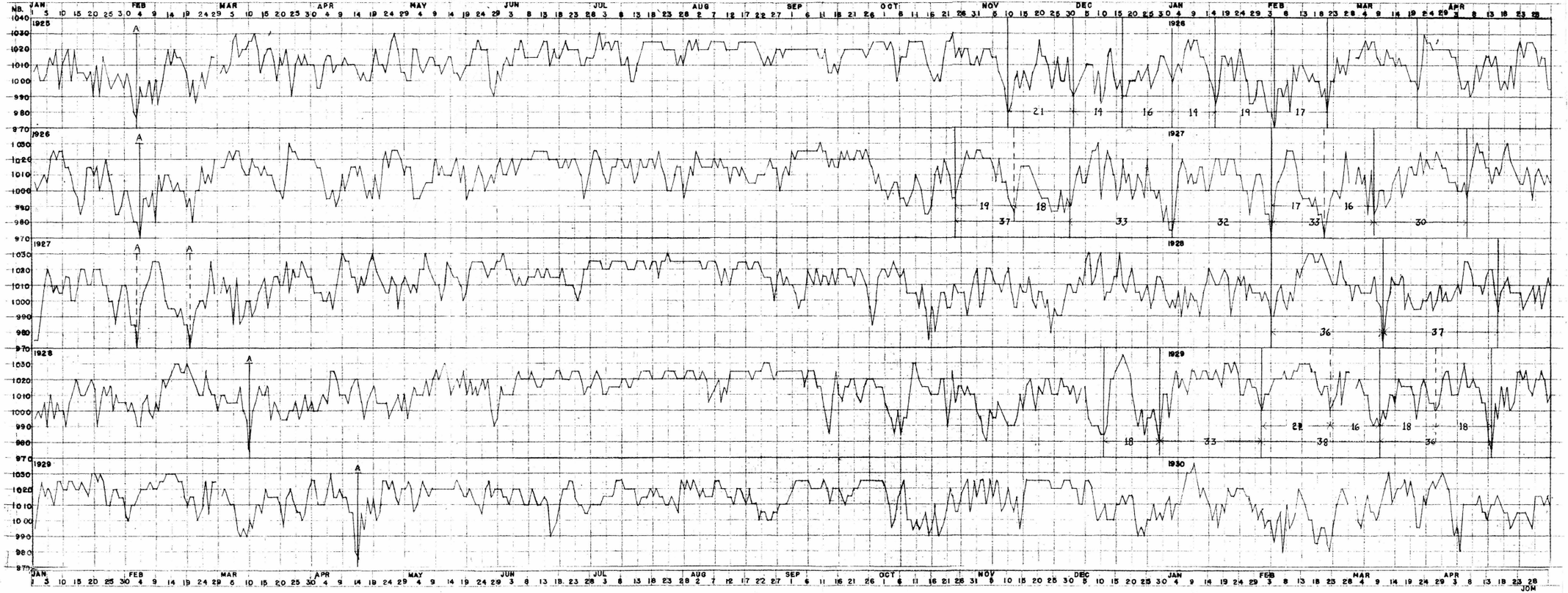


FIGURE 9

GRAPH OF THE DAILY VALUES
OF THE
LOWEST ISOBAR CROSSING
135° W. BETWEEN 35° N. AND 55° N.

January 1, 1925 to April 30, 1930.

Periods are bounded by vertical black lines and sub-periods by vertical dashed lines.

The trough passages indicating a thirteen month rhythm are marked by "A". Dashed vertical lines thus marked are used when several possibilities exist.

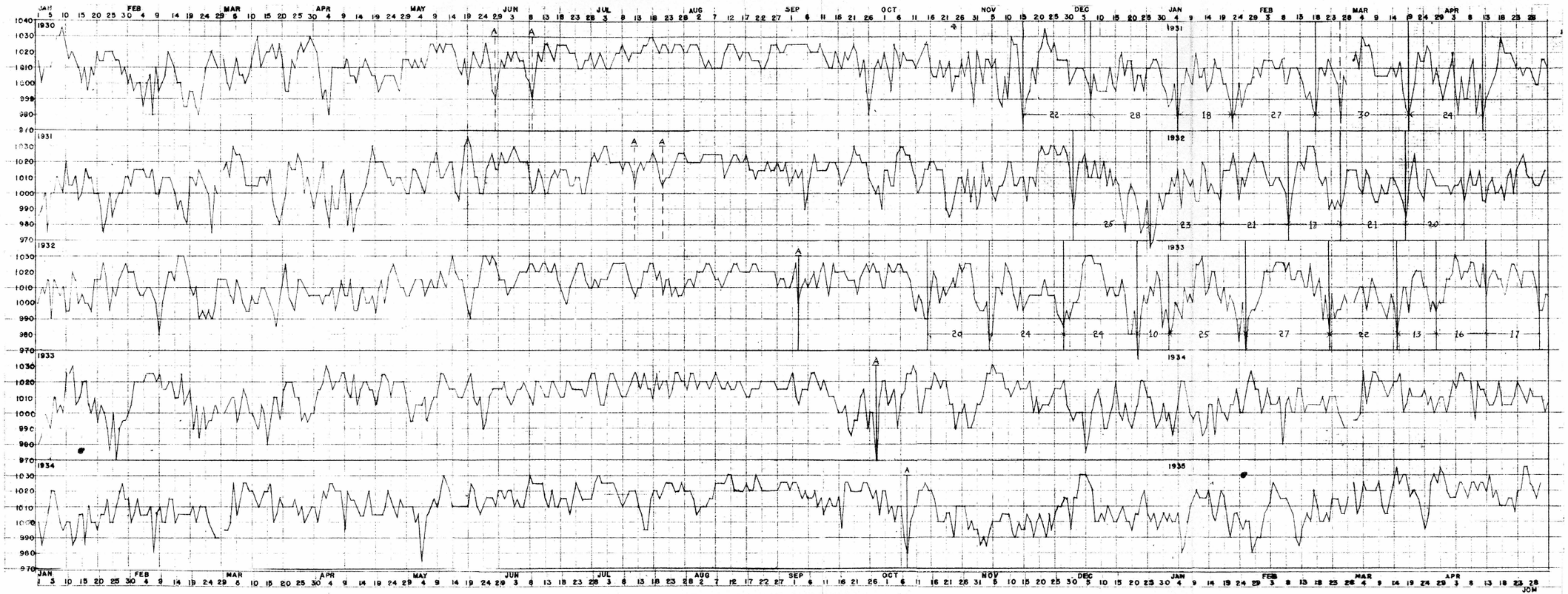


FIGURE 10

GRAPH OF THE DAILY VALUES
OF THE
LOWEST ISOBAR CROSSING
135° W. BETWEEN 35° N. AND 55° N.

January 1, 1930 to April 30, 1935

Periods are bounded by vertical black lines and sub-periods by vertical dashed lines.

The trough passages indicating a thirteen month rhythm are marked by "A". Dashed vertical lines thus marked are used when several possibilities exist.

indirect connection with the type of large scale weather processes occuring at various times of the year. In the case studied the rhythm varied from twelve to thirteen and a half months. Perhaps the twelve month oscillation was merely the annual oscillation to be expected.

It was first noted that the deepest trough of the winter occured within one day of the same day in the years 1925, '26, and '27 in the month of February. There is also a certain similarity in pressure trends during the first two months of these years. In the next two years the thirteen month rhythm was apparent with deepest trough passages occuring in March 1928 and April 1929. However the shadow of the annual rhythm remained, with deep troughs occuring 1928 and 1929 within a few days of the first observed deepest trough date and in 1929 a marked deepening occured in March within three days of the date of the 1928 deepest trough.

For the next few years it is hard to detect the rhythm since it passes through the spring and summer months. However some unusual deepenings did occur and it is possible to weakly trace the oscillation. Marked trough passages occured on May 28, 1930 and June 9, 1930 deepening to 990 mb. In 1931 a trough passage July 12 of 1005 mb. was observed and in 1932 on September 3 deepening to 1000mb occured. On September 28, 1933 the rhythm again shows itself strongly

with the deepest trough of that season occuring on this date. Next year the deepest low of the 1934-35 season occurs on October 8, 1934.

Other similar analyses can be made but much care must be taken in considering seasonal variations, general acceleration or retardation of weather patterns, and the chances that troughs sometimes may travel off to the north before they reach 135° W.

Twenty five day rhythms. At times a rhythm of twenty five days plus or minus ten days was noted. The principal variation is from year to year; once a rhythm of a certain period is set up during a season it continues, with few exceptions, within a few days of that period for the remainder of the season.

A summary of the periods between major trough passages follows;

November 10, 1925 to February 21, 1926; six periods varying from fourteen to twenty one days.

October 24, 1926 to April 6, 1927; five periods varying from thirty to thirty three days with the first and fourth periods split into two equal parts each. (For the same season the correlation coefficient study showed a sixty four day rhythm.)

February 3, 1928 to April 16, 1928; three periods varying from thirty six to thirty eight days.

December 7, 1930 to April 12, 1931; five periods, four of which vary from twenty five to thirty days and the period of January 4-22 being only eighteen days in length.

December 1, 1931 to April 12, 1932; six periods, five of which vary from twenty to twenty five days and and the seventeen day period of February 9-26 occuring thirteen months after the eighteen day period in 1931.

October 14, 1932 to May 24, 1933; ten periods of a marked but irregular nature running 20, 24, 24, 10, 25, 27, 22, 13, 16, 17, and 25 days respectively.

Conclusions. This method of analyzing pressure data is very subjective. The analysis of the northern hemisphere charts from which the data were taken is subject to the ideas and idiosynchroses of the analyst. Many cases arise in interpreting just what data to record, especially if the pressure field is very flat. Once a graph such as illustrated is drawn up, it is easy to start reading into it relationships for which no positive proof exists.

As yet no certain treatment can be applied to such irregular rhythms as these. Statistical approaches require the employment of large computing sections, too large perhaps for practical considerations. Harmonic analysis also requires extensive calculation. Other methods of testing data for periods have been considered but none of them take into account the testing of data for periods of a variable duration.

CHAPTER IV

EXAMPLES OF LARGE SCALE WEATHER PROCESSES

Using the information obtained in the previous investigations, three large scale weather processes were isolated. In no way was it expected that these processes would be typical of all large scale processes or of large scale processes in general. There is much doubt that any two are ever alike.

I. SELECTING THE PROCESSES

The first step was to look at the large graph (Figure 10) of the lowest isobar value along 135° W. between 35° N. and 55° N. and select sections with the smoothest curve in oscillations of approximately twenty five days and also with the most marked trough conditions. Using these criteria the periods from January 1, 1933 to January 28, 1933 and from January 28, 1933 to February 22, 1933 were selected. Then, as a matter of interest, the best defined period thirteen months before the first of these two periods was selected.

Comprehensive charts. The January 1933 process was plotted on one comprehensive chart but this proved much too complex for any kind of analysis. The process was then divided into two parts, that characterized by a general rise

in pressure along the 135° W. meridian, and that characterized by general fall. Here again the situation was too complex for any complete analysis. However it was noted that the storm tracks off the east Asia coast tended to move to the southeast in the period of general pressure rise in the eastern Pacific Ocean and back again to the northwest with general pressure fall. This may indicate some sort of east-west oscillation in the Pacific high cell.

Comprehensive charts were then plotted for each natural synoptic period of the two large scale processes from January 1, 1933 to February 22, 1933. The first was divided into two sections, one of three and the other of four natural synoptic periods. These are presented in Figures 11 through 17. The second process was divided into two sections of three natural synoptic periods each.

It was found that several of the processes overlapped and that occasionally the periods started at different times in various regions. For these reasons some of the comprehensive charts overlap. The charts were plotted and analyzed as in Chapter II with the trajectories of highs and lows in blue and red respectively and with lines being drawn around groups of highs and lows of various intensities.

For the period from November 30, 1931 to December 24, 1931 a series of comprehensive charts, each approximately one natural synoptic period in length, were available from the

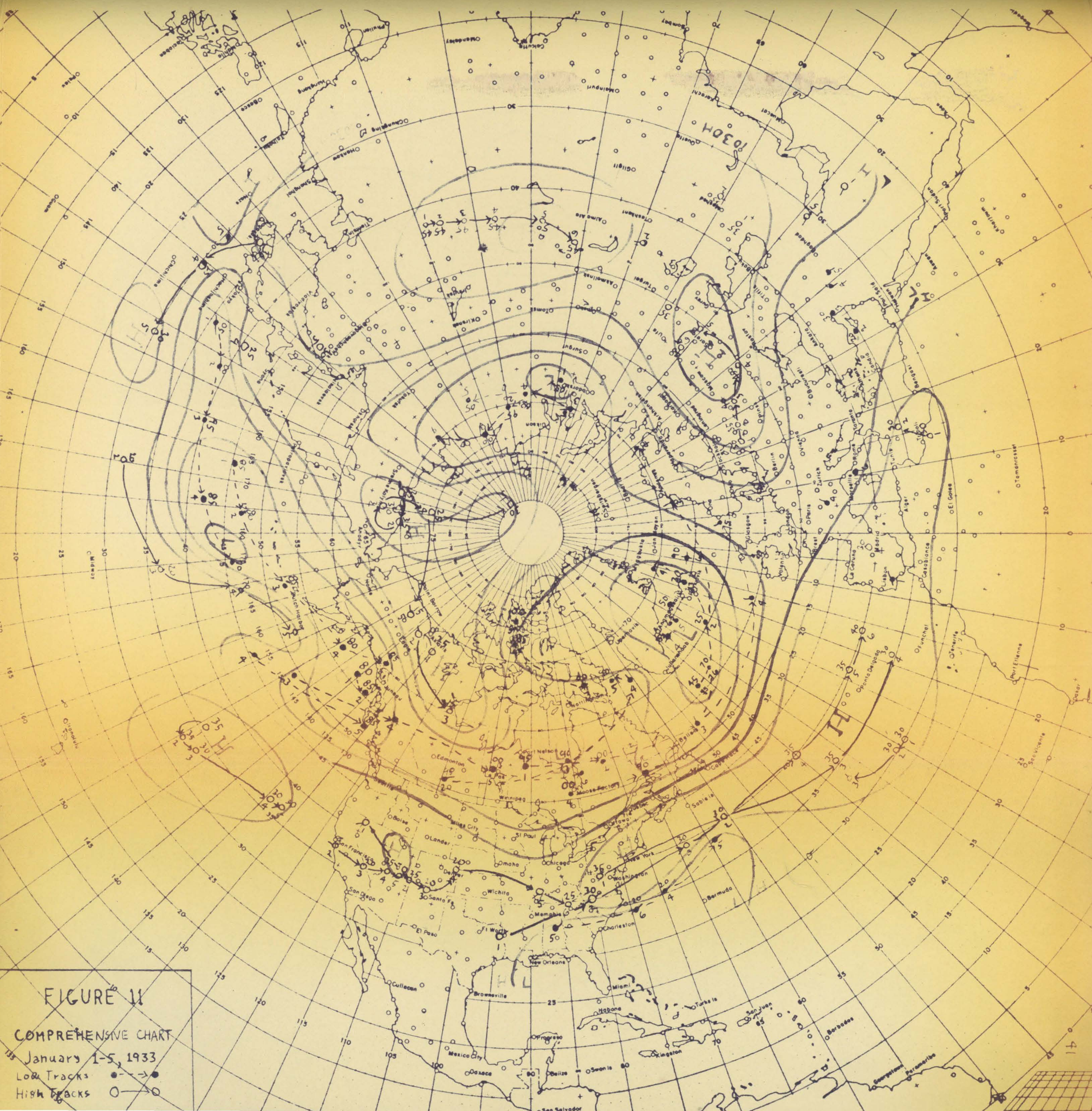


FIGURE 11

COMPREHENSIVE CHART

January 1-5, 1933

Low Tracks ●- - ->●

High Tracks ○——>○

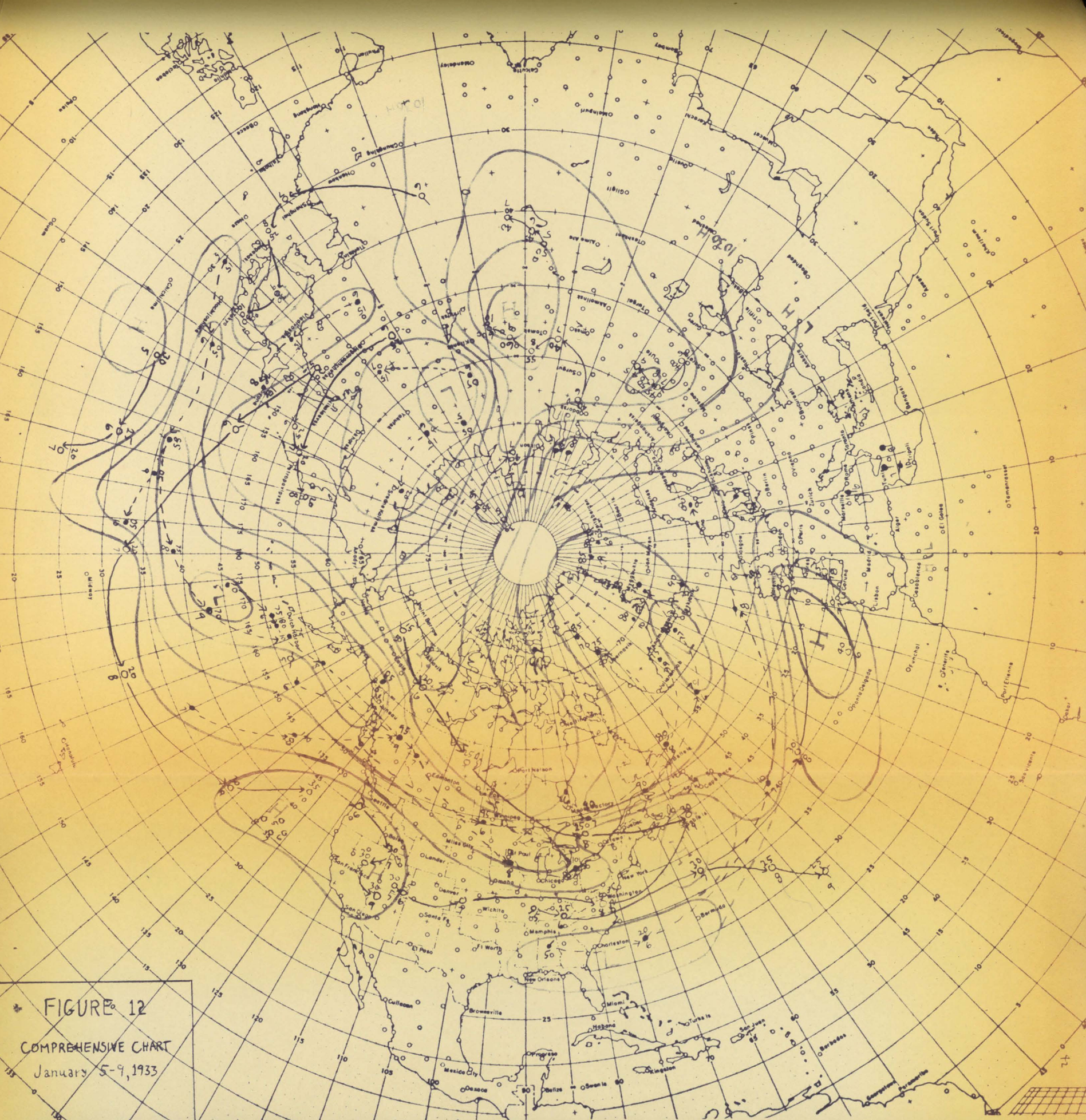


FIGURE 12

COMPREHENSIVE CHART

January 5-9, 1933

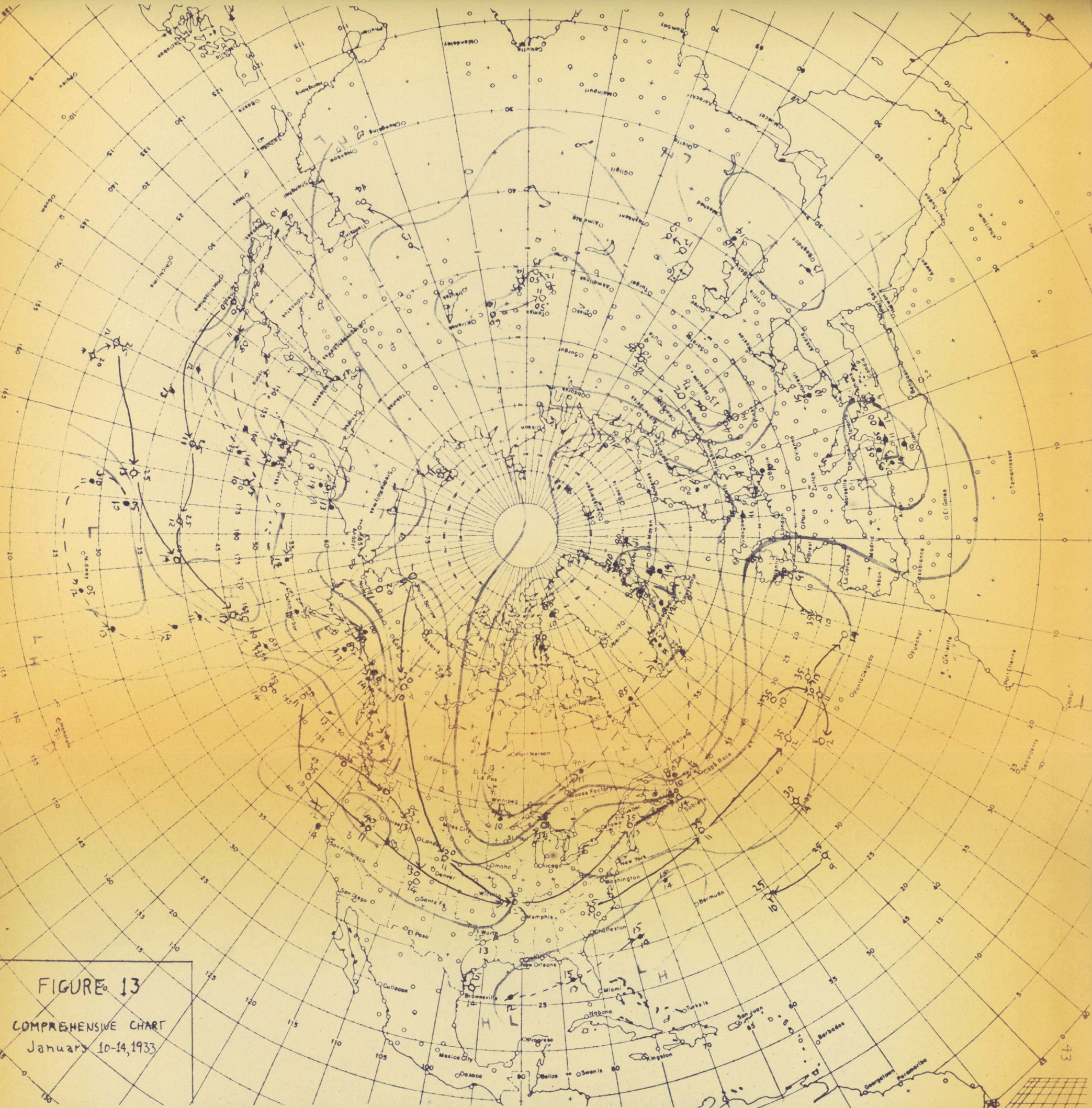


FIGURE 13

COMPREHENSIVE CHART

January 10-14, 1933

FIGURE No. 14

COMPREHENSIVE CHART

January 13-16, 1933

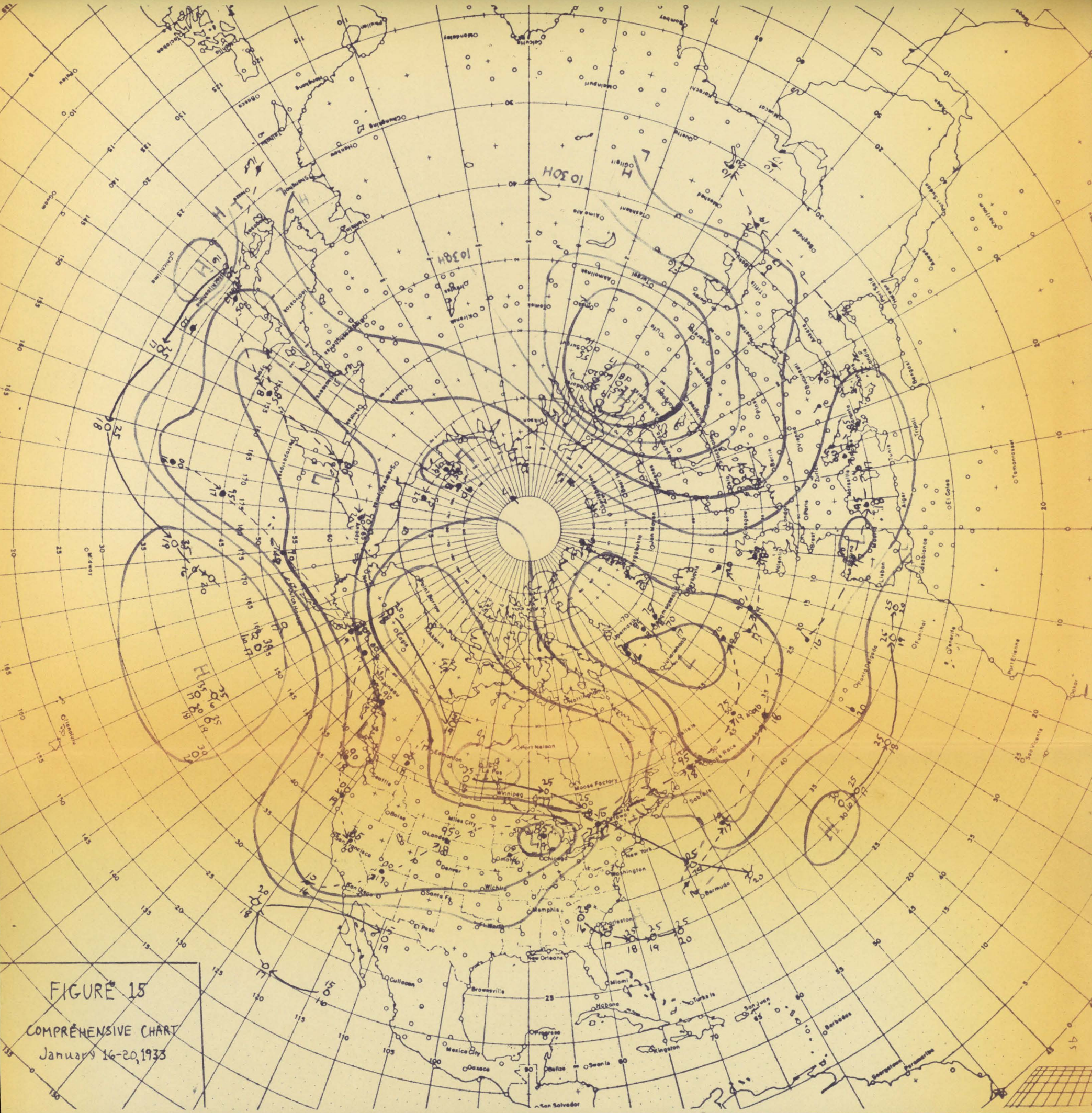


FIGURE 15

COMPREHENSIVE CHART

January 16-20, 1933

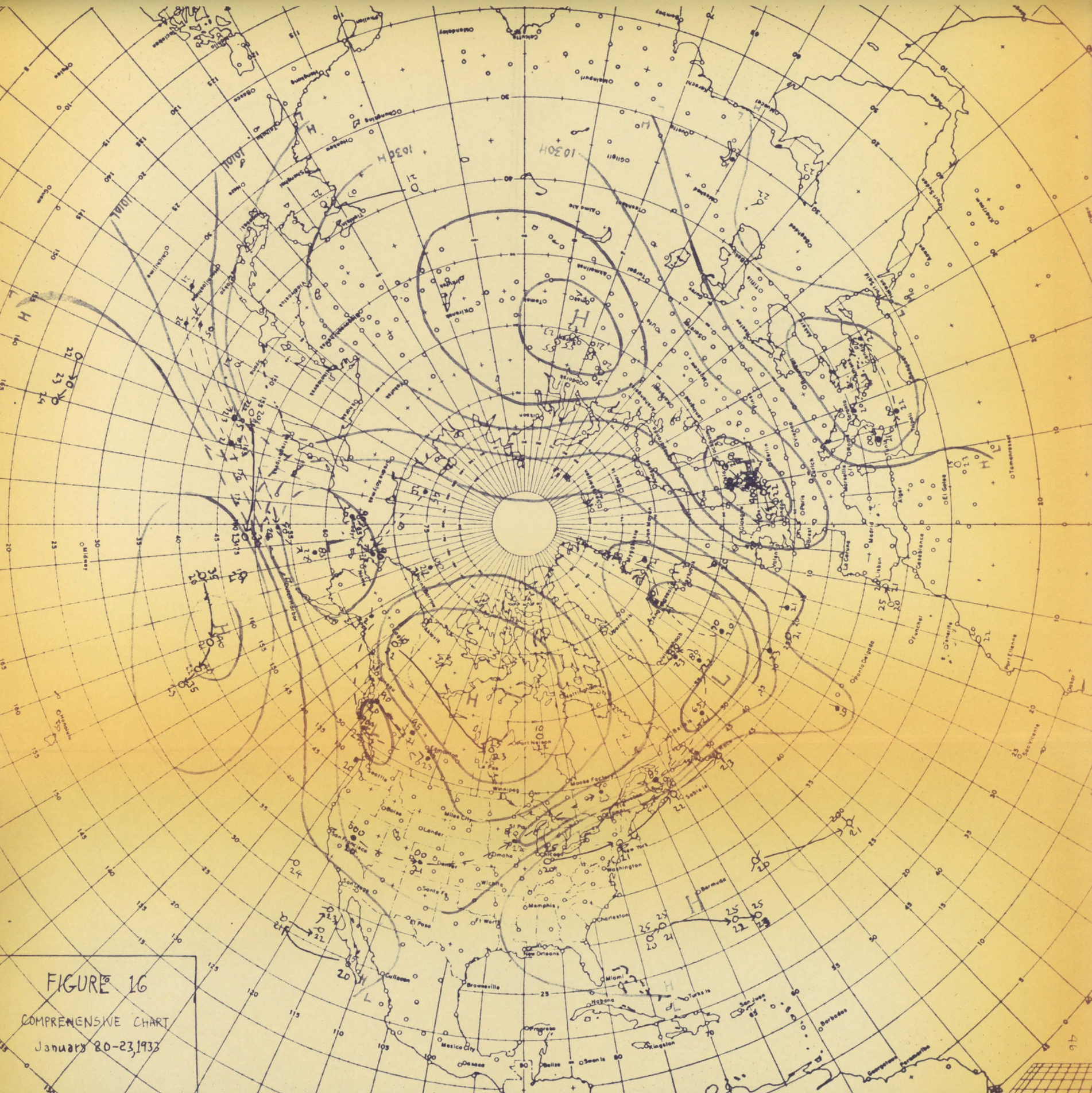


FIGURE 16

COMPREHENSIVE CHART

January 20-23, 1933

FIGURE 17

COMPREHENSIVE CHART

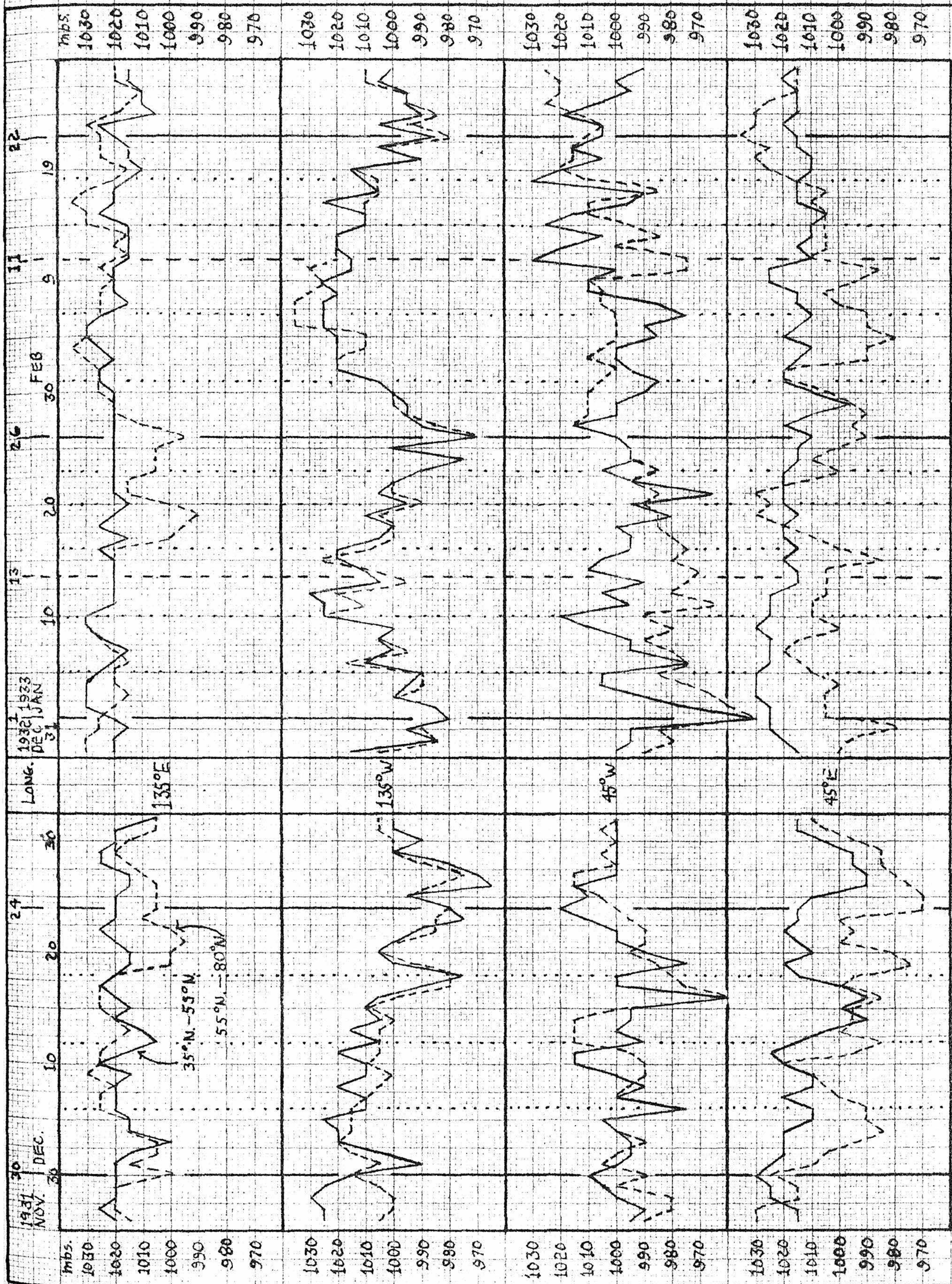
January 23-26, 1933

files of the Meteorology Department at the California Institute of Technology. The period covered by these four charts agreed within a day of the period indicated by the graph. There is little resemblance in this portion of the pressure graph curve to that of January 1933 thirteen months later except that both processes begin and end with notable deep trough passages and that the second deepening is more intense. Also in each case the last natural synoptic period of the process begins with a deepening as deep or almost as deep as that of the final trough passage.

Trough passages. After the comprehensive charts were plotted and analyzed graphs, Figure 18, were prepared for each of the processes showing the daily trend of the lowest isobar values at longitudes 135° E., 135° W., 45° W., and 45° E. On the graphs values for lowest isobars between latitudes 35° N. and 55° N. are connected by solid lines and values between 55° N. and 80° N. are connected by dashed lines. The vertical solid lines mark the limits of the large scale processes; the vertical dashed lines, the division of the 1933 processes into two sub-processes each; and the vertical dotted lines mark the limits of the natural synoptic periods.

Favorable indications of some sort of correlation between marked deepening in these zones and the limits of

FIGURE 18



TROUGH PASSAGES AT 135° E., 135° W., 45° W., AND 45° E.
DURING THREE SELECTED LARGE SCALE PROCESSES

the large scale processes can be seen in that a major trough passage occured at all meridians within a day of the start of the January 1933 processand that at three out of four meridians major trough passages occured within a day of the beginning of each of the other two processes. The major trough was delayed four days in eastern Europe with the beginning of the December 1931 process and accelerated five days in the Atlantic with the beginning of the February 1933 process.

Unfavorable factors to be considered in investigating such a relationship are the apparant randomness of the curves and the high degree of subjectivity that must be employed in interpreting the curves.

II. ANALYSIS OF PROCESSES

Flow pattern charts. The comprehensive chart is often very complex and contains of necessity many finely plotted points. To bring out the general flow pattern, the principal centers of action, and the main zones of convergent air flow or frontogenetical and cyclogenetical activity it was decided to draw up a composite chart.

From the comprehensive charts it was noticed that some highs and lows during each natural synoptic period remain fairly stationary. These comprise the principal centers of action for that period and on the composite

flow pattern charts a line is drawn encircling these positions with the lowest or highest isobar value of the low or high center of action respectively placed inside this line.

The cases of moving highs and lows were more difficult to analyze. Usually the lows develop as cyclonic wave formations along the polar or arctic fronts. On the flow pattern charts a line is drawn along the general cyclone path during the period and representing the mean zone of convergence for the period as well as a mean frontal position. A widening of this line an the charts indicates a zone where marked deepening of storms or marked frontogenesis occurs. Dashed lines indicate a weak or uncertain zone of convergence with no intensive activity.

The moving highs, being really large masses of moving air, were treated as part of the general flow pattern. To represent the flow pattern arrows are drawn indicating the general flow around the centers of action, the movements of high pressure areas, and the outbreaks of cold air. The type of flow was considered as to influence; on the charts "P" for polar, "SP" for sub-polar, and "T" for tropical. Polar air was defined as any air coming from arctic or continental polar air source regions auch as Canada, Alaska, Siberia, Greenland, and the Arctic Sea. Sub-polar air was defined as maritime polar air coming from the Pacific and

Atlantic sub-polar highs. Tropical air was defined as air coming up from the south around the sub-polar high cells or as warm air pulled up from the south by deepening low pressure areas.

In some cases where polar air flowed out for some time over water it was called sub-polar. Likewise tropical air pulled far northward was classified as sub-polar. In cases where a cold high moved out of a continent pulling up tropical air behind it with the whole mass being mixed, the mixture of the two air masses was called sub-polar.

The length of the arrow in most cases represents the distance traveled by the air during the period of the chart and the width of the arrow in most cases the intensity of flow. In both the estimation of the length and width of the arrows a large amount of subjectivity was used.

Flow pattern charts for each natural synoptic period of each of the three large scale weather processes studied are presented in Figures 19 through 35.

Comparison of Processes. In comparing large scale processes thirteen months apart; that of January 1933 with that of December 1931, the following similarities and differences are found. The December process has only four natural synoptic period whereas the January process of equal length has seven periods. This may indicate that either the first

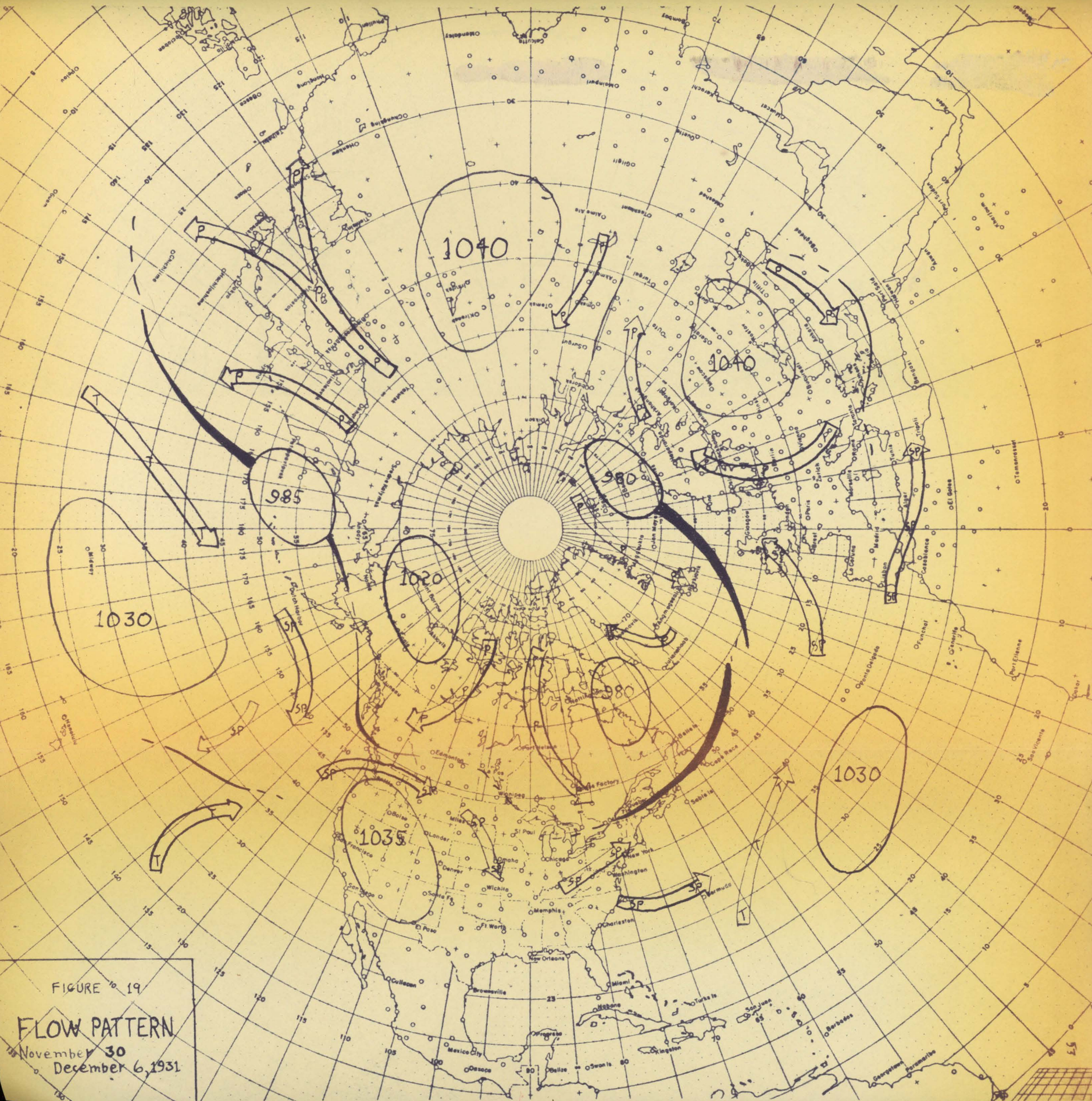


FIGURE 19

FLOW PATTERN

November 30

December 6, 1931

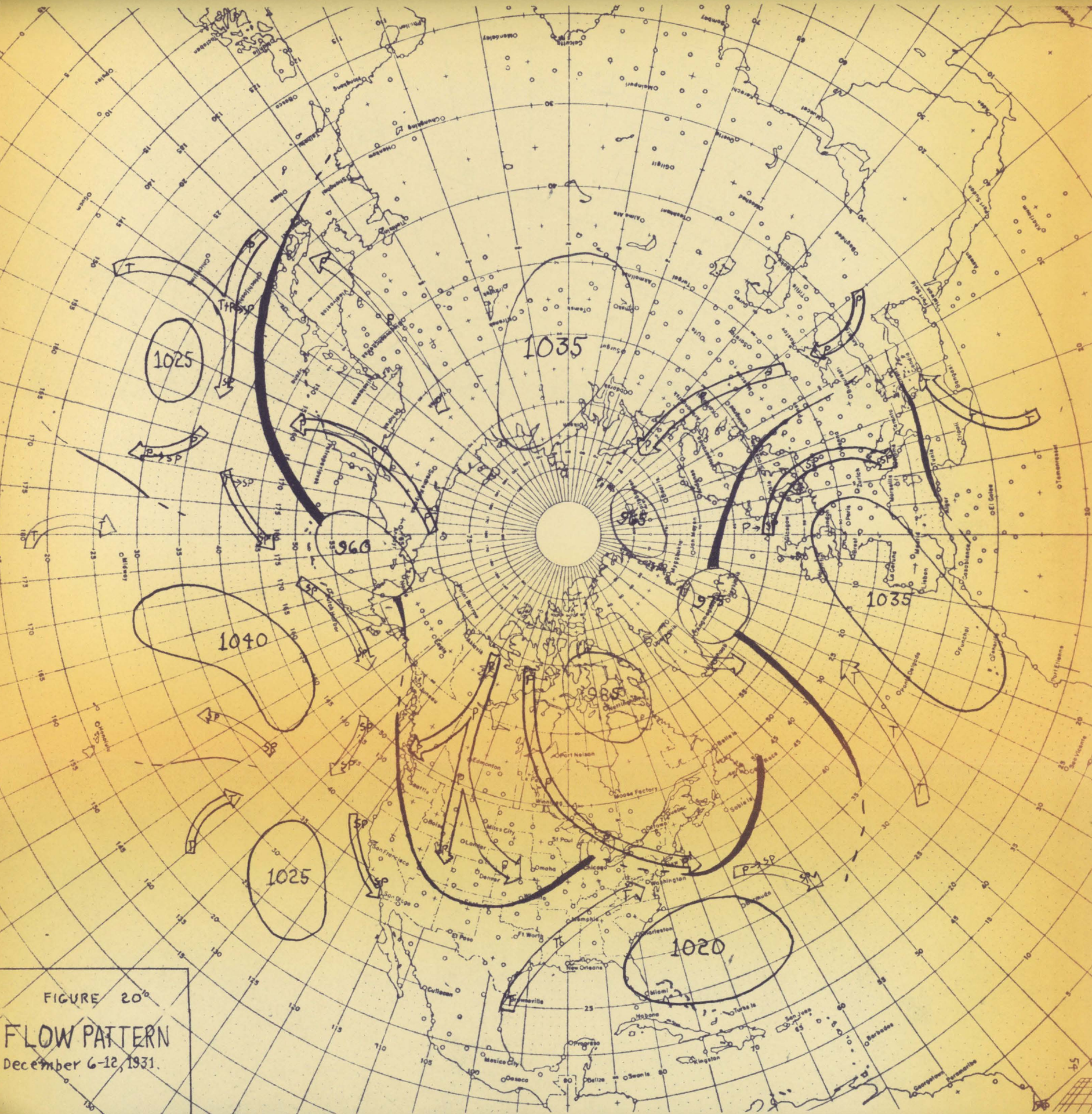


FIGURE 20

FLOW PATTERN

December 6-12, 1931.

FIGURE 21

FLOW PATTERN

December 12-18, 1931

FIGURE No. 22

FLOW PATTERN

December 18-24, 1931

FIGURE 23

FLOW PATTERN

January 1-5, 1933

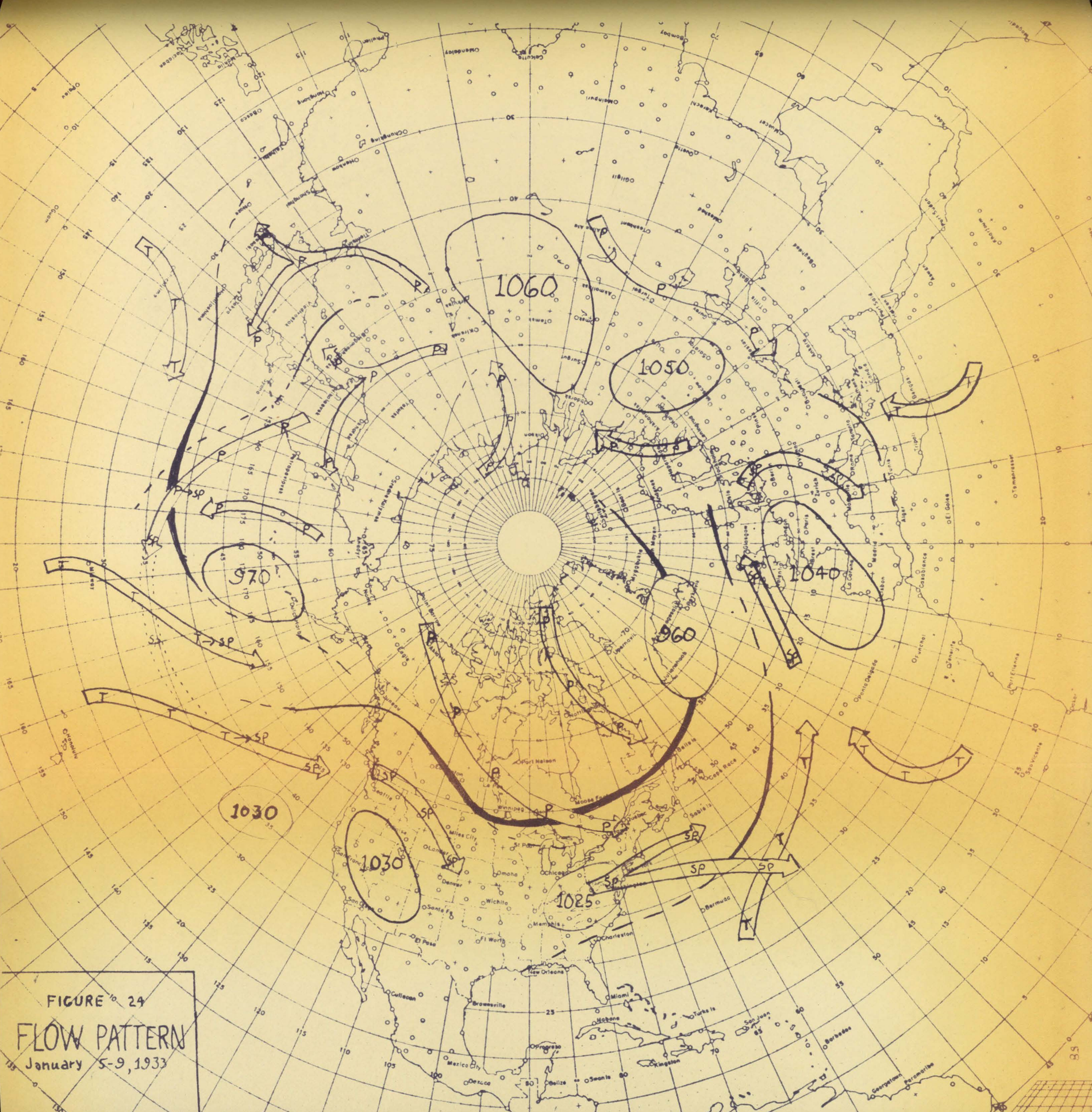


FIGURE 24

FLOW PATTERN

January 5-9, 1933

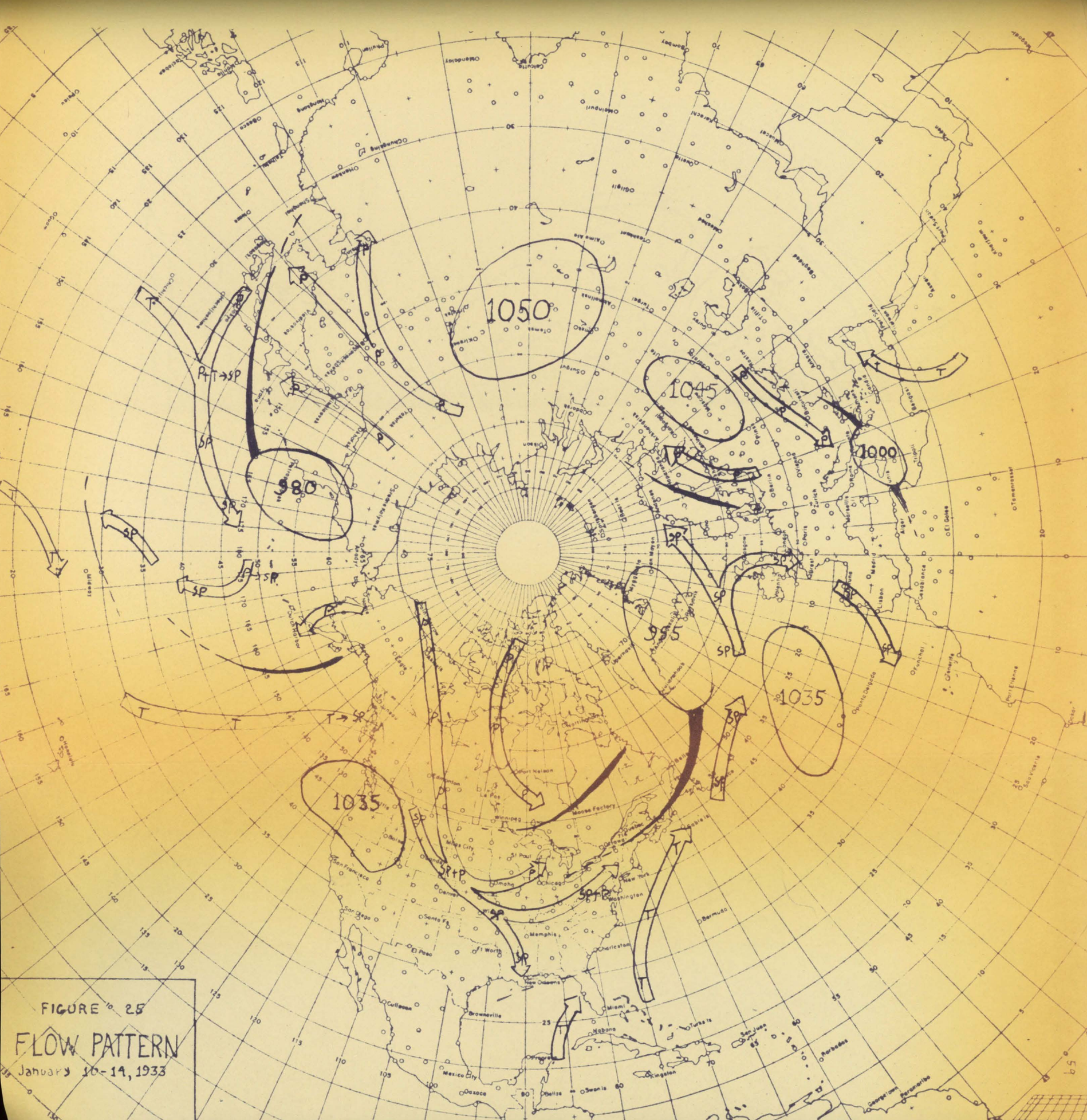


FIGURE 28

FLOW PATTERN

January 10-14, 1933

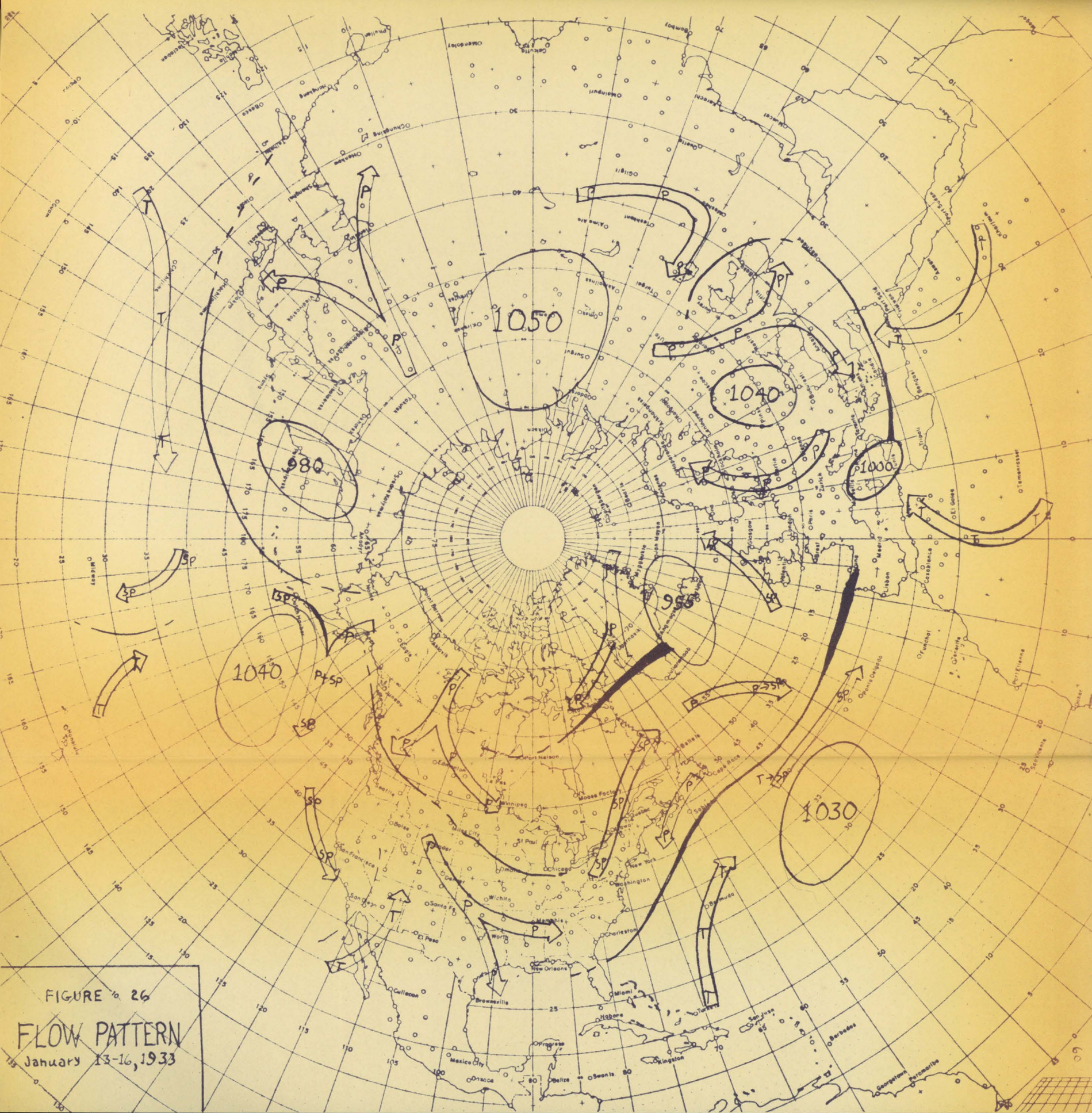


FIGURE 26

FLOW PATTERN

January 13-16, 1933

FIGURE 27

FLOW PATTERN

January 16-20, 1933

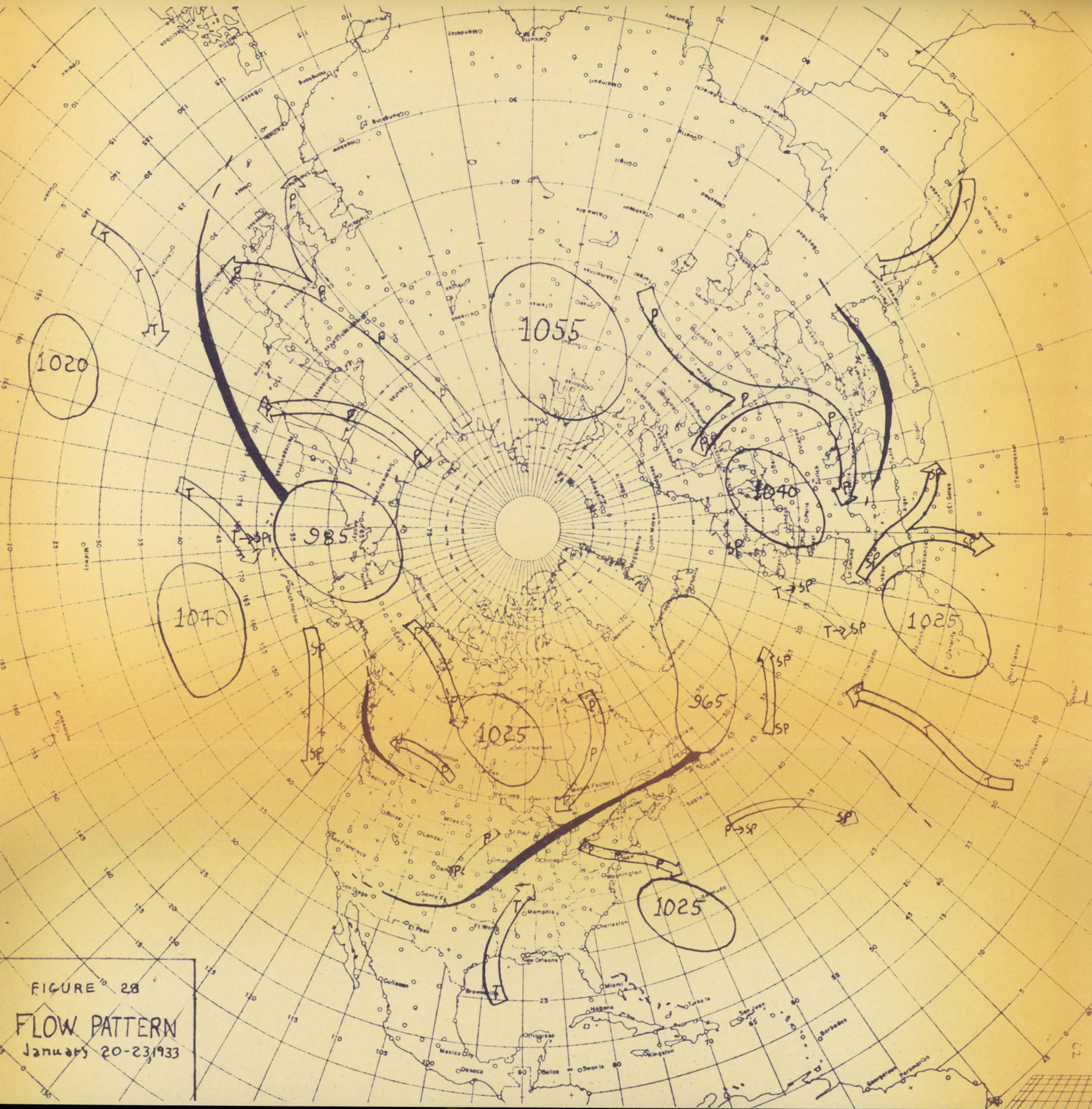


FIGURE 28

FLOW PATTERN

January 20-23, 1933

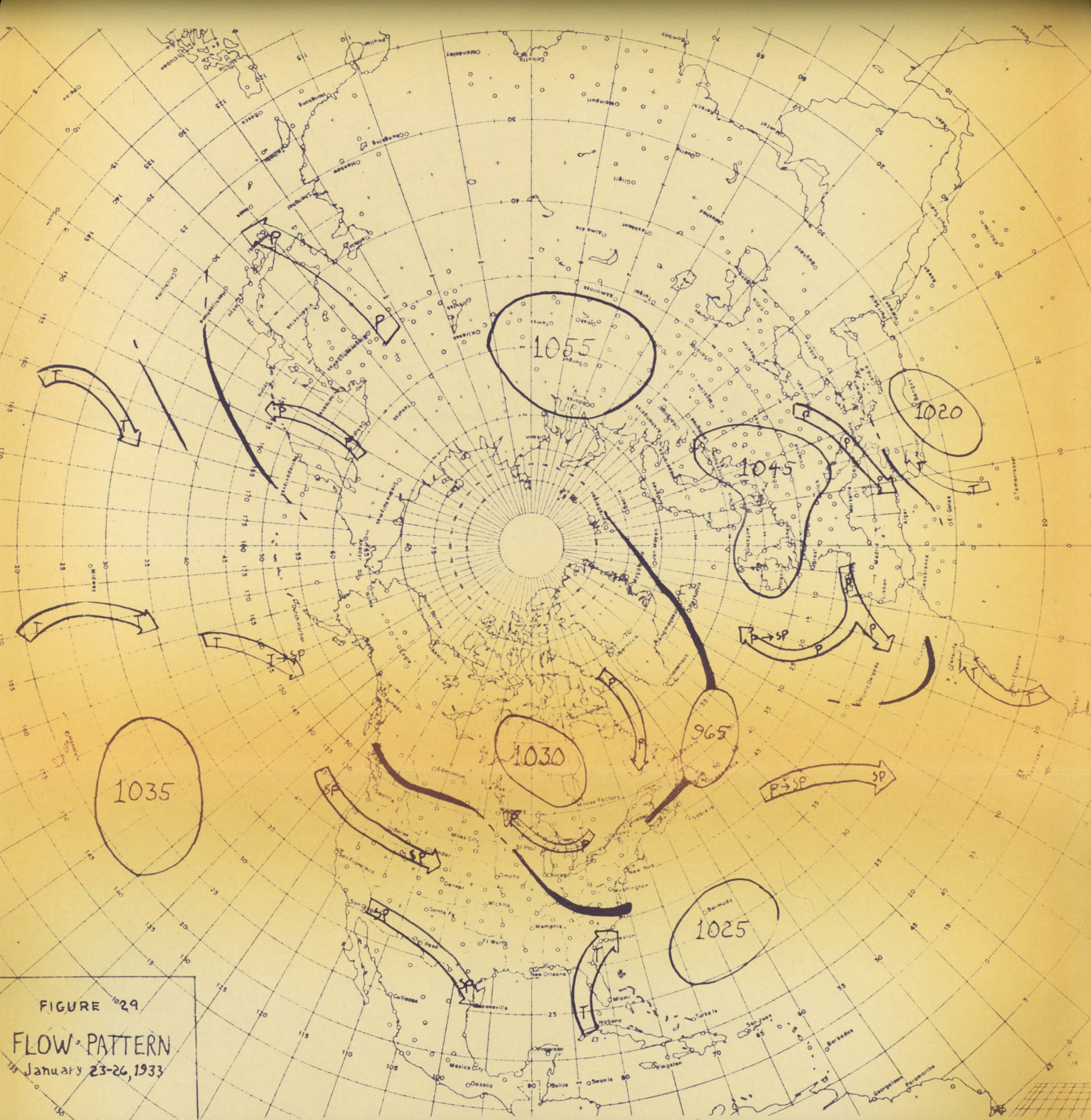


FIGURE 29

FLOW-PATTERN

January 23-26, 1933

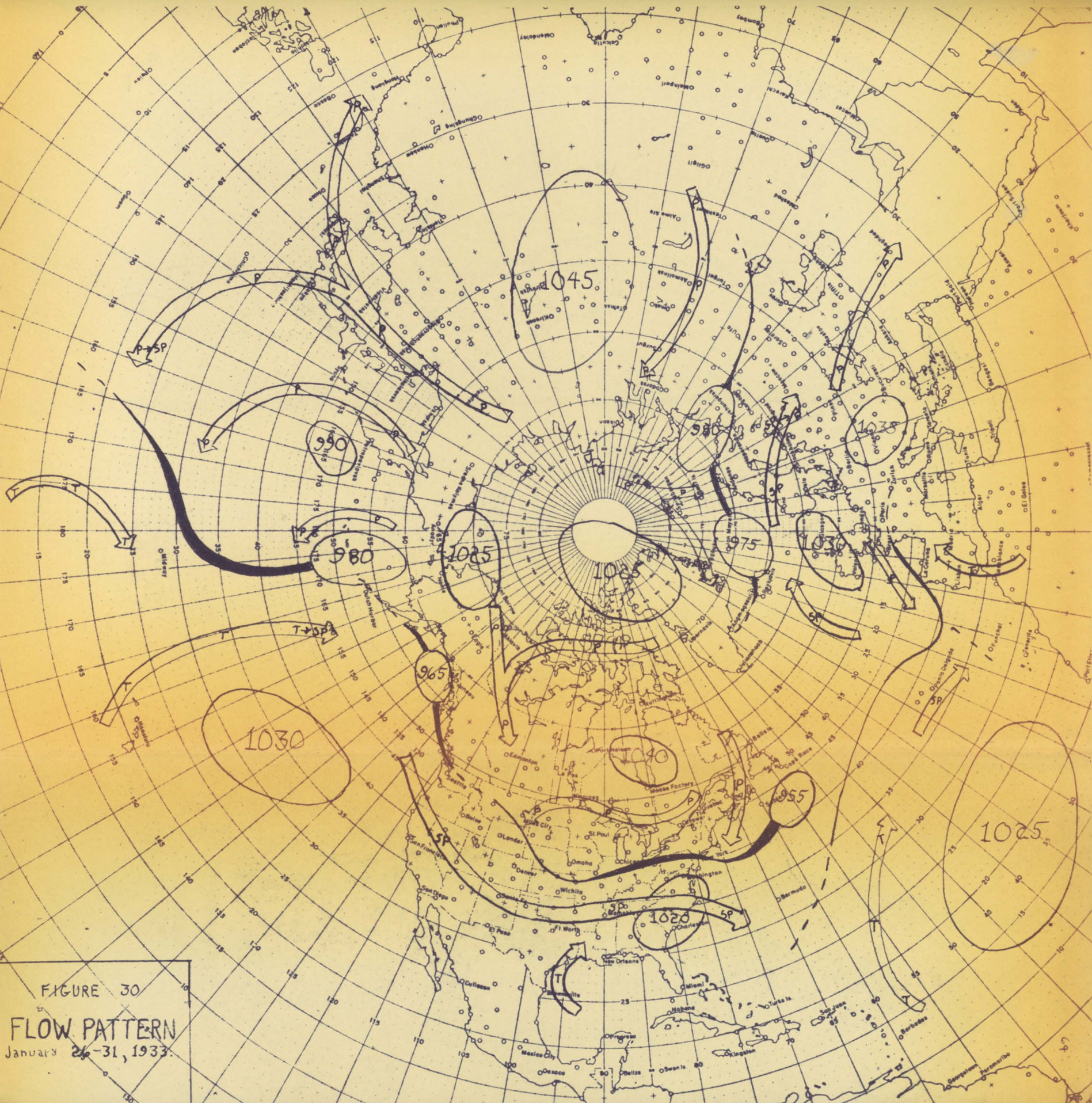


FIGURE 30

FLOW PATTERN

January 26-31, 1933.

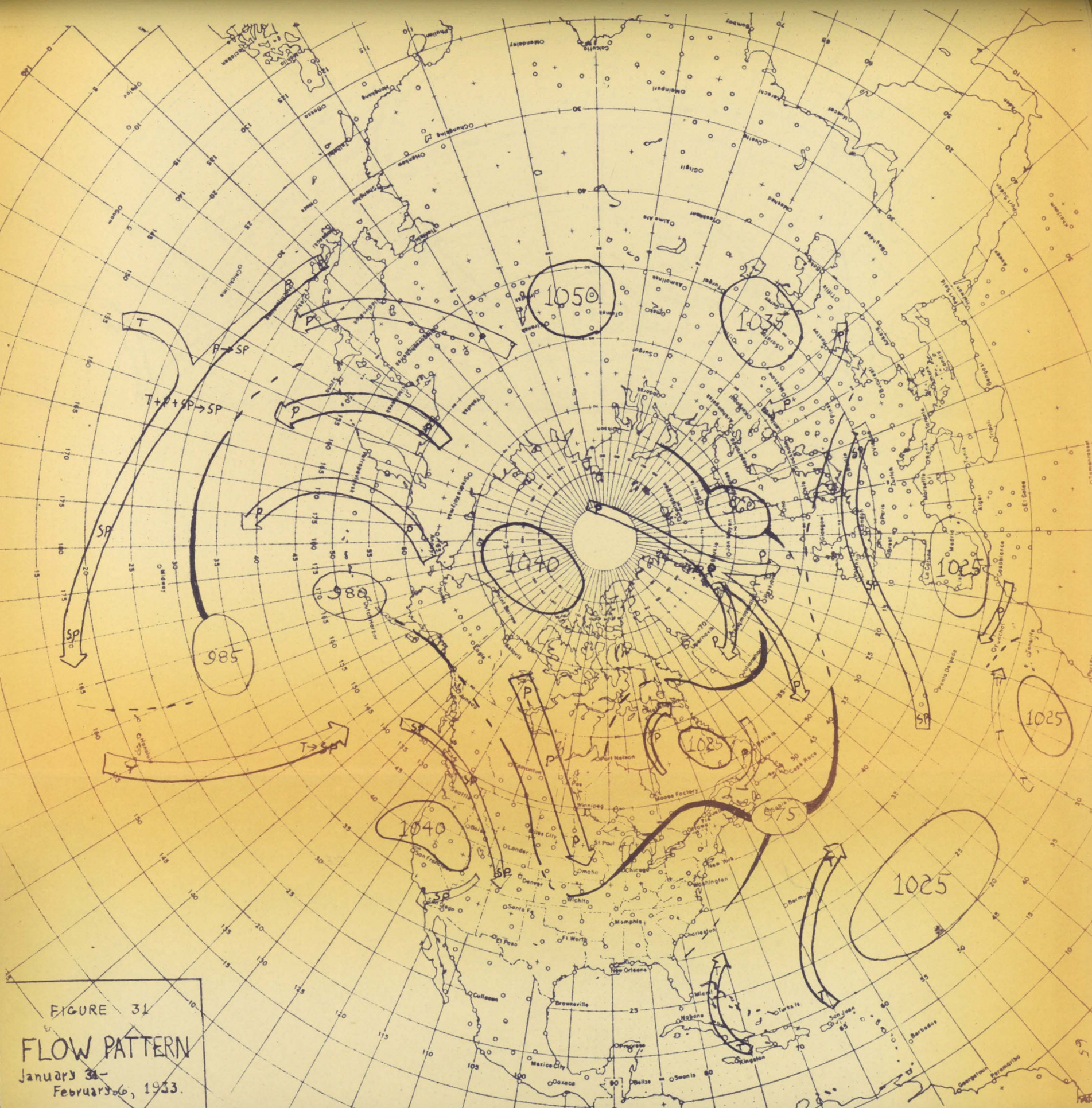


FIGURE 31

FLOW PATTERN

January 31–
February 6, 1933.

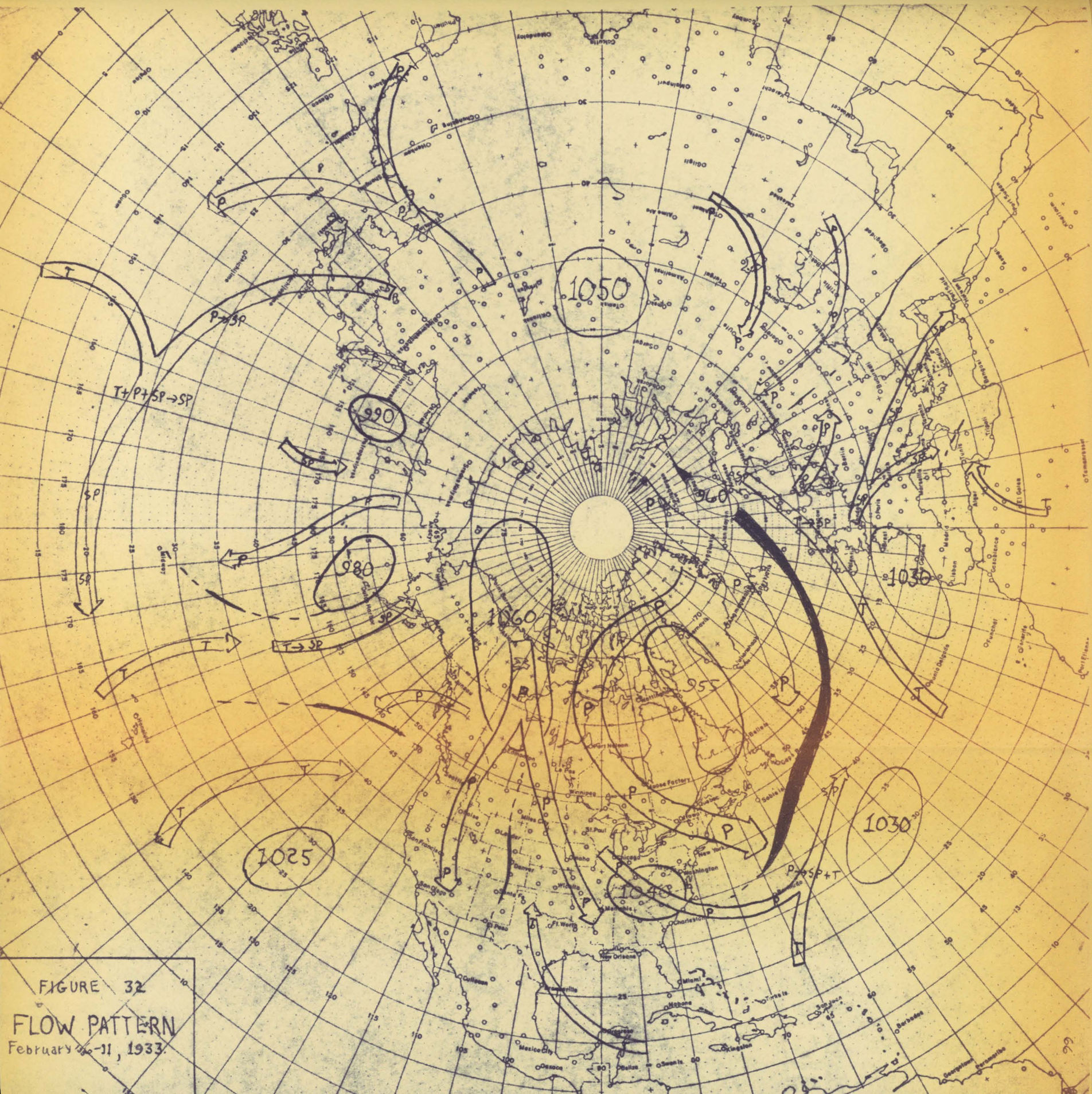


FIGURE 32

FLOW PATTERN

February 10-11, 1933.

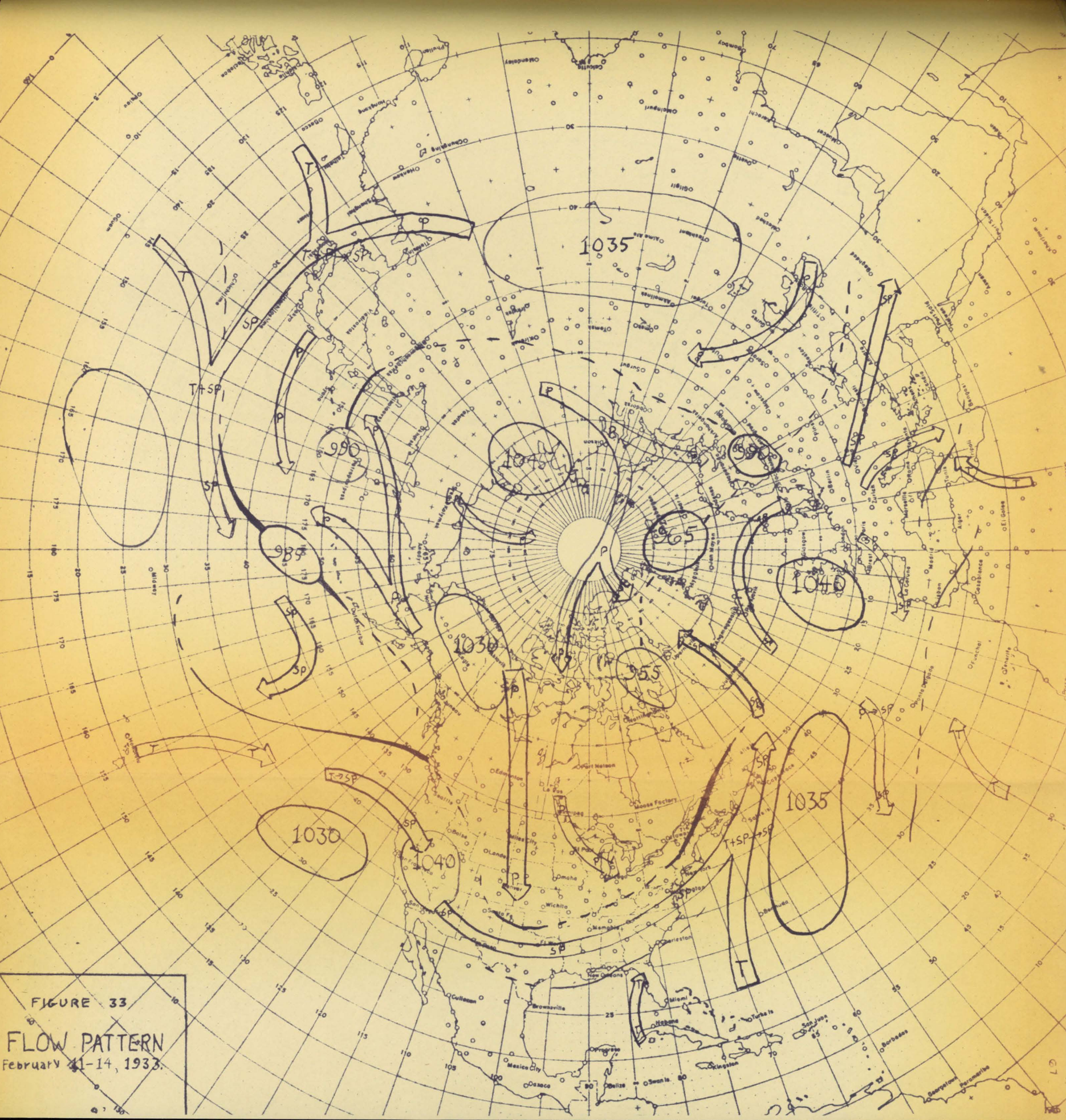


FIGURE 33

FLOW PATTERN

February 11-14, 1933.

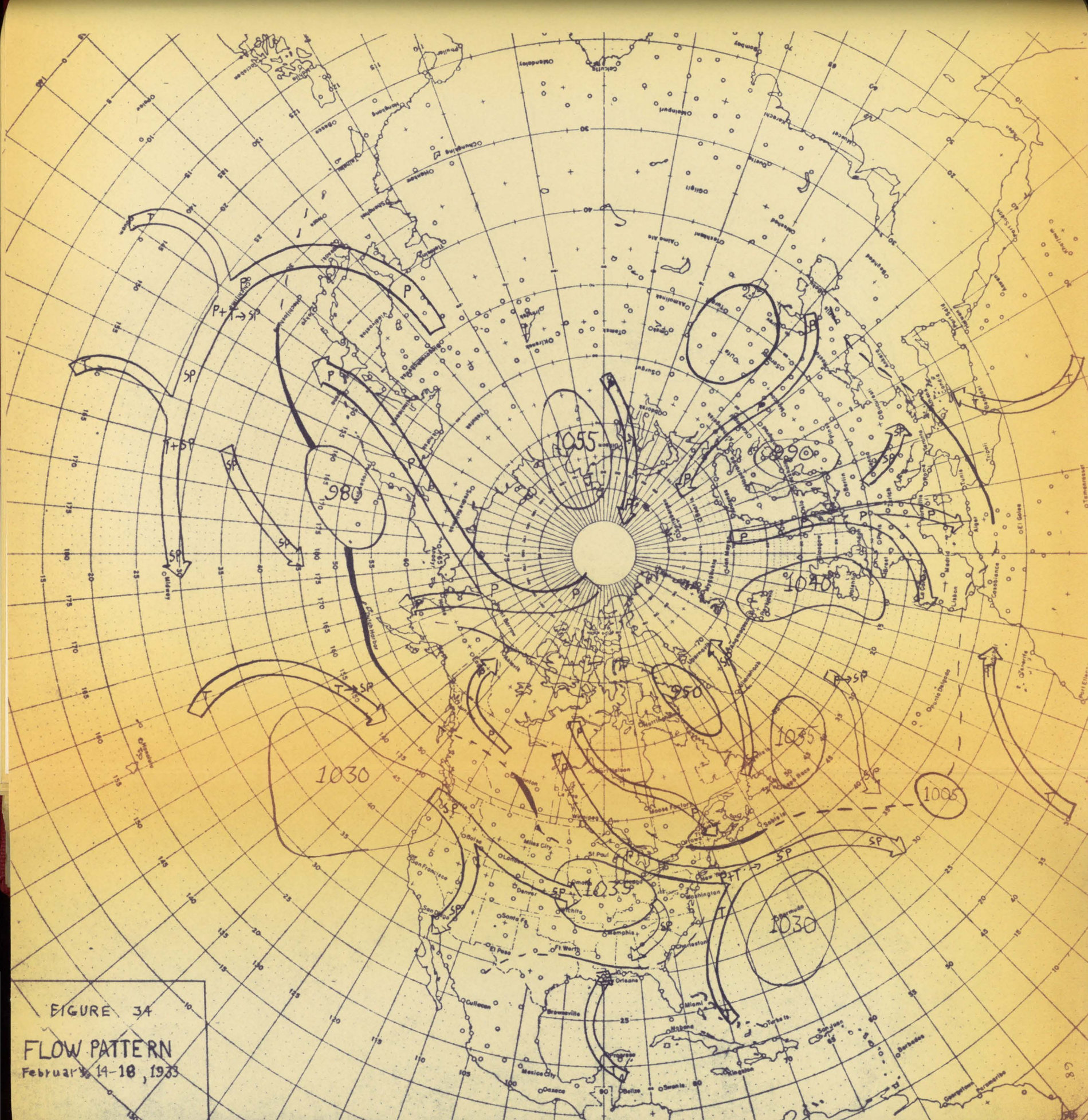


FIGURE 34

FLOW PATTERN

February 14-18, 1933

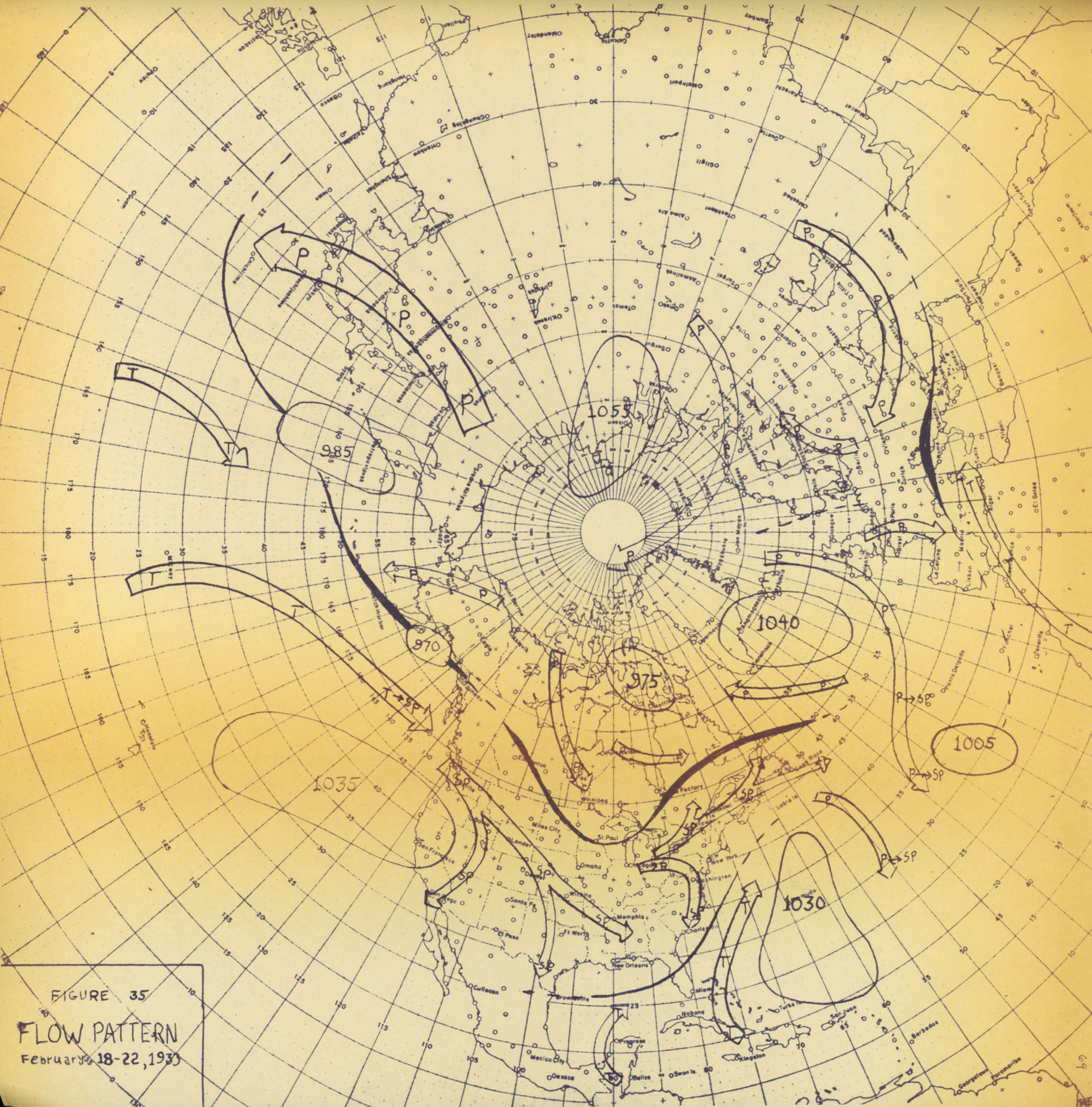


FIGURE 35

FLOW PATTERN

February 18-22, 1933

process was made up of slower,more persistent periods or that some of the periods of the first process might have been split into two natural synoptic periods.

Comparing the two processes by positions and intensities of the centers of action it is seen in the initial period that the high centers of action occupied approximately the same areas with the exception of the Pacific center of action which is considerably larger in area and located between the Hawaiian Islands and Midway in the December process,and smaller and area but with a higher pressure and located east of the Hawaiian Islands in the January process.The highest pressure of the centers of action varied within five millibars between the two processes in each case excepting the Taimyr and Alaskan centers of action which were ten to fifteen millibars higher in the January process.

There were more differences between the two processes in investigating the low centers of action than in investigating the high centers. The Icelandic low was markedly deeper in the January process than in the December process when it is weaker and shifted toward Spitzbergen. The tendency for the low centers of action to be shifted in the January process to the west of the positions in the December may be seen to a certain extent all over the hemisphere.

In comparing the two processes it is well to point

out similar circulation features. The general flow pattern is very much alike in the two processes for the first natural synoptic period. The second period of the January process contains many of the features of the initial December process.

The third period of the January process is much like the second period of the December process except that the pattern in North America has been shifted to the west in the December process as compared to the January process. The principal zones of convergence in the Atlantic are shifted some twenty degrees eastward in December due to the faster outflow of cold air from Canada which in turn was motivated by an upper Hudson Bay low center of action.

The fourth natural synoptic period of the January process is similar off the east coast of Asia and over the Atlantic Ocean and Europe to the third period of the December process shifted fifteen to twenty degrees eastward. Elsewhere it is difficult to see any similarity excepting perhaps the minor convergence zone off the British Columbia coast and the polar outbreak to the Great Lakes region of North America.

In the next respective periods of each process a similarity in convergence zones is seen off the east coast of Asia, in the central Atlantic Ocean, and in the Mediterranean Sea areas with almost identical polar outbreaks

across Canada and the northeastern United States to the Atlantic Ocean and almost identical high centers of action off the southeast coast of the United States. Flow patterns over most of Europe and Asia were shifted from thirty to forty degrees west in the January process from their positions in the December process.

The February 1933 process has some similar features to the January 1933 and December 1931 processes with these features in general shifted to the south and away from the continents. For the most part however good analogies are difficult to find and a comparison of the February process with either the January or December processes is not readily made.

III. CONCLUSIONS

The group of flow pattern charts is presented as an idea of what is to be expected in the way of analyzing large scale weather processes by means of maps. It is true that such a study is even more subjective than the use of comprehensive charts but if proper care is taken flow pattern charts can present a much clearer picture of the process.

In looking at the charts it can be seen that in winter the continental polar highs are evidently a dominant feature in the mechanisms operating the large scale weather processes. The large polar high centers of action build up

and release their air in the form of polar outbreaks. These outbreaks may occur simultaneously in various parts of the hemisphere or as one concerted push through one area.

In the summer the maritime highs dominate bringing sub-polar air to the west coasts of continents and tropical air to the east coasts. Here again there may be some evidence that the tropical air may come in surges in various parts of the hemisphere or in one concerted push through one area.

By the use of flow pattern charts and comprehensive charts it is possible that the study of cold and warm air surges may lead to a clearer picture of the large scale weather process.

CHAPTER V

POLAR OUTBREAKS

In the previous study it was seen that polar air masses and polar outbreaks seemed to be a dominating influence in the development of large scale weather processes in the winter. This pointed to a more thorough and objective study of such phenomena.

I. COLLECTION OF DATA

The data was collected from the files of the northern hemisphere historical daily weather maps. In addition to records of polar outbreaks actual temperature data was collected. Data for eight variables were collected as follows:

A. The intensity of the strongest polar high in the northern hemisphere.

B. The mean temperature of five east Asian stations.

C. Polar outbreaks into the Pacific Ocean out of the Kamchatka region classified as to how far south they move.

D. The mean temperature of five Alaskan stations.

E. Polar outbreaks into the central North American region classified as to how far south they move.

F. The mean temperature of five northeastern American stations.

G. Polar outbreaks into the Atlantic Ocean from Greenland classified as to how far south they go.

H. The mean temperature of five European stations.

I. Ultra-polar outbreaks into Europe classified as to how far south they go.

The southward movement of the outbreaks was defined by one of five values, four of these indicating a position and the value zero indicating no outbreak present. The intensity of the strongest polar high was given five possible values and the mean temperatures ten possible values. The mean temperature and polar high intensity values are continuous numerical variables but the polar outbreak data are discontinuous in that an outbreak moves south and either stagnates or moves off with the westerlies followed some time later by another outbreak.

A summary of the variables for which data was collected and of the values assigned to each variable is given in Figure 36.

The recording of the temperature data for the most part was purely objective. Now and then missing reports required the estimation of a temperature. In the following cases data for a station was off time from the rest of the data for that station; five months of Shanghai and one month of Moscow and Rostov were six hours early, and one month of Blogoveschensk, Nome, and Bethel was three hours late.

Estimating the intensity of the strongest polar high was a little less objective than collecting the temperature data. The recording of the southward extent of the polar

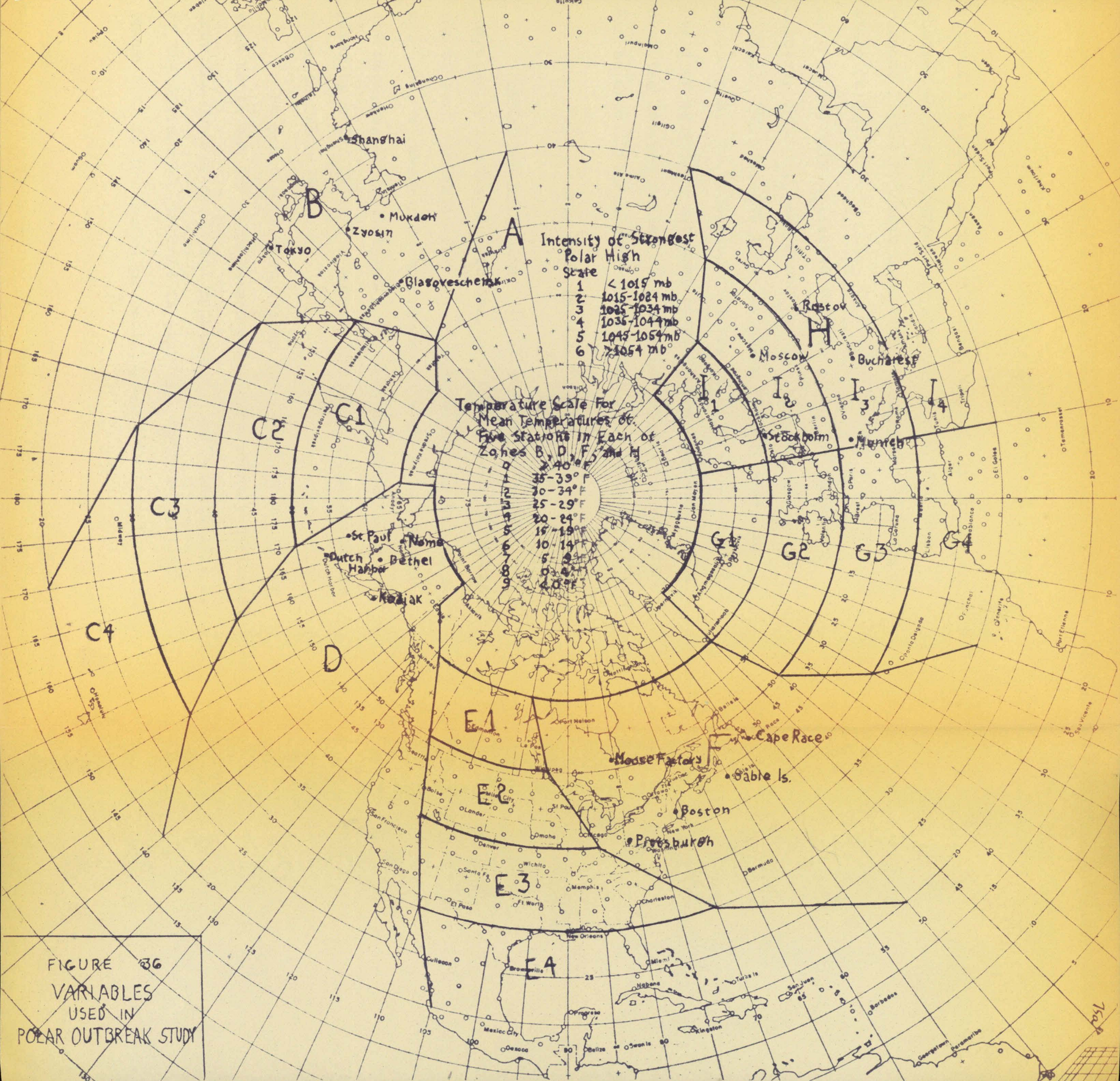


FIGURE 36
VARIABLES USED IN POLAR OUTBREAK STUDY

outbreaks was much more subjective, especially in the Kamchatka-Pacific and Greenland-Atlantic zones. For these reasons little has been done with anything but the temperature data.

Data were collected for the months of December, January, February, and March for the winters of 1928-29, 1930-31, 1932-33, and 1934-35. These are presented in Appendix B. The selection of these winters was made on the basis of selecting the most complete and consistent data over the longest period of time. The intermediate winters can be used to check any results from this study.

II. STATISTICAL STUDIES

Means and variances. The means and variances were computed by months, by seasons, and for the entire population of each variable. For a variable, X, having values x_1, x_2, ..., x_n where n is the number of data in the sample, the mean, m, is given by $m = \frac{1}{n}\sum_{i=1}^{n} x_i$ and the variance, s^2, is given by $s^2 = \frac{1}{n}\sum_{i=1}^{n} x_i^2 - m^2$. A summary of these computations is given in Table II.

The means were then tested to see if the means for each month and for each season were significantly different from the mean of the total population. The probability, P, of the difference in means is expressed by $P = 1 - 2\int_0^{m'} f(t)\,dt$ where f(t) is the normal probability distribution function

TABLE II

MEANS AND VARIANCES OF DATA

IN POLAR OUTBREAK STUDY

	Dec	Jan	Feb	Mar	1928-1929	1930-1931	1932-1933	1934-1935	Total
A m_2	4.40	4.70	4.35	3.68	4.35	4.37	4.53	3.89	4.29
s^2	.713	1.805	1.352	.925	.987	1.283	1.529	1.331	1.296
B m_2	3.36	4.87	3.91	1.70	3.59	3.71	3.81	2.73	3.46
s^2	1.654	1.130	3.399	1.497	3.038	4.252	2.856	2.018	3.159
C m_2	.08	.16	.10	.51	.04	.14	.57	.10	.21
s^2	.138	.335	.160	.175	.041	.220	.378	.122	.235
D m_2	3.26	4.40	4.31	4.32	3.43	4.20	4.76	3.85	4.07
s^2	3.759	.824	4.219	3.426	5.984	1.645	4.367	.244	3.255
E m_2	.61	.85	1.11	.76	1.05	.61	.77	.88	.83
s^2	.623	1.245	.911	.748	.393	.727	.721	.961	.908
F m_2	3.37	4.18	4.27	3.03	3.66	3.41	3.59	4.14	3.71
s^2	1.377	3.157	1.428	1.811	2.266	1.140	2.203	2.993	2.149
G m_2	.16	.32	.36	.41	.38	.36	.32	.19	.31
s^2	.265	.470	.440	.453	.508	.375	.517	.177	.416
H m_2	2.26	3.70	3.74	1.32	3.43	2.82	2.50	2.62	2.75
s^2	1.120	2.189	8.012	1.741	4.020	2.510	2.651	6.363	4.092
I m_2	.36	.44	.37	.03	.50	.16	.25	.27	.30
s^2	.507	.758	.622	.039	.717	.247	.508	.489	.503
n	124	124	112	124	121	121	121	121	484

and $m' = \frac{\mu - m}{6^2}$, μ is the of the population, 6^2 is the variance of the population, and m is the mean of the sample. Probabilities of less than .01 were considered significant and those from .01 to .05 were considered barely significant. With probabilities of more than .05 the means were not considered significantly different. None of the means in this study proved anywhere near being significantly different from their population mean; the lowest probability, .80 for the 1934-35 season of variable A, was considerably above even the .05 level of significance.

The variance of each month and of each season was compared with the variance of the population using Snedecor's F distribution[1], $F = \frac{s_1^2}{s_2^2}$ where s_1^2 is the larger of the two variance estimates. The variance estimate is given by The degrees of freedom employed in using this test are $N_1 = n_1 - 1$ and $= N_2\ n_2 - 1$. The variance is considered significantly different if the probability of it not differing from the population variance is less than one percent, barely significant if the probability is between one and five per cent, and not significantly different if the probability is more than five per cent. Table III contains the results of this test.

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1 John F. Kenney, Mathematics of Statistics, Part Two, (New York: D. Van Nostrand Co., Inc., 1939), pp. 145-46.

TABLE III

SIGNIFICANCE OF VARIANCES IN POLAR OUTBREAK STUDIES.

Under column S, S indicates a significant difference.
BS indicates a barely significant difference.
NS indicates no significant difference.

		F	N_1	N_2	S
A	Dec.	1.80	483	123	S
	Jan.	1.41	123	483	S
	Feb.	1.05	111	483	NS
	Mar.	1.38	483	123	BS
	1928-29	1.30	483	120	BS
	1930-31	1.00	483	120	NS
	1932-33	1.19	120	483	NS
	1934-35	1.04	120	483	NS
B	Dec.	1.89	483	123	S
	Jan.	2.54	483	123	S
	Feb.	1.09	111	483	NS
	Mar.	2.08	483	123	S
	1928-29	1.02	483	120	NS
	1930-31	1.36	483	120	BS
	1932-33	1.10	483	120	NS
	1934-35	1.55	483	120	S
C	Dec.	1.67	483	123	S
	Jan.	1.44	123	483	S
	Feb.	1.46	483	111	S
	Mar.	1.32	483	123	BS
	1928-29	5.80	483	120	S
	1930-31	1.06	483	120	NS
	1932-33	1.62	120	483	S
	1934-35	1.91	483	120	S
D	Dec.	1.16	123	483	NS
	Jan.	3.90	483	123	S
	Feb.	1.31	111	483	BS
	Mar.	1.06	123	483	NS
	1928-29	1.85	120	483	S
	1930-31	1.96	483	120	S
	1932-33	1.36	120	483	BS
	1934-35	7.57	483	120	S
E	Dec.	1.43	483	123	BS
	Jan.	1.39	123	483	BS
	Feb.	1.01	111	483	NS
	Mar.	1.20	483	123	NS
	1928-29	2.28	483	120	S
	1930-31	1.24	483	120	NS
	1932-33	1.24	483	120	NS
	1934-35	1.07	120	483	NS

		F	N_1	N_2	S
F	Dec.	1.55	483	123	S
	Jan.	1.48	123	483	S
	Feb.	1.49	483	111	S
	Mar.	1.17	483	123	NS
	1928-29	1.07	120	483	NS
	1930-31	1.87	483	120	S
	1932-33	1.04	483	120	NS
	1934-35	1.41	120	483	S
G	Dec.	1.56	483	123	S
	Jan.	1.14	123	483	NS
	Feb.	1.07	111	483	NS
	Mar.	1.10	123	483	NS
	1928-29	1.22	120	483	NS
	1930-31	1.10	483	120	NS
	1932-33	1.26	120	483	NS
	1934-35	2.33	483	120	S
H	Dec.	3.60	483	123	S
	Jan.	1.85	483	123	S
	Feb.	1.98	111	483	S
	Mar.	2.33	483	123	S
	1928-29	1.01	483	120	NS
	1930-31	1.62	483	120	S
	1932-33	1.53	483	120	S
	1934-35	1.57	120	483	S
I	Dec.	1.02	123	483	NS
	Jan.	1.52	123	483	S
	Feb.	1.25	111	483	NS
	Mar.	7.94	483	123	S
	1928-29	1.44	120	483	S
	1930-31	2.01	483	120	S
	1932-33	1.02	483	120	NS
	1934-35	1.02	120	483	NS

From this study it appeared that the variance was not stable enough from month to month or from season to season to warrant any further study of that statistic.

Correlation study by use of contingency tables. A contingency table is a table of the frequencies of matches of the various values of the variables for which the study is being made. It is felt that this method of attack yields a broader and more analytic picture of the correlation of variables than that obtained by the computation of correlation coefficients. This study was made with the temperature data only.

In setting up a system for recording the number of matches all the data were first recorded on one large sheet. Then strips of paper with holes cut in them at the appropiate places for the relationship to be studied were moved down the large strip and the matches were thus sorted out and recorded in the contingency table. In matching two variables this contains but two dimensions and requires but one sheet to record all the frequencies of match. In a three variable study three dimensions are necessary and the tabulation of matches requires as many sheets as the number of values the third variable assumes.

For each table, both two variable and three variable, the sums of each row and of each column are computed and

recorded along the margins of the table; these are called the marginal totals. For a three way match these marginal totals may be combined into a marginal total table. Three of these marginal total tables are possible for each three way contingency table and each of these marginal total tables may be considered a two way contingency table.

Tables of two way matches were made of the lag of temperatures in Alaska after those in east Asia in lags of three, six, nine, up to thirty days. Likewise tables were made for the lag of temperature in northeastern North America after those in Alaska and of those in Europe after northeastern North America. Two three way contingency tables were prepared, one of the lag of temperatures in Alaska after those in east Asia and northeastern North America and the other of the lag of temperatures in northeastern North America after those in Alaska and Europe. By collapsing these tables two way matches were obtained for the temperatures in Europe with those in Alaska and those in east Asia with those in northeastern North America and the lag in temperatures in northeastern North America after those in Europe and those in Alaska after those in northeastern North America as well as a second group of temperature lags in Alaska after those in east Asia and in North America after those in Alaska. All of the above mentioned contingency tables are shown in Appendix C.

To look for a significant relationship groups of matches must be tested for significant differences from those expected by chance. The groups of matches along each of the diagonals of each of the two way tables were tested to see if there was any direct linear correlation between the variables matched.

The method used in testing for a significant difference of means is employed here to test for a significant difference of the observed number of matches, M, from the expected number, μ. The probability, P, that the observed number of matches is not different from the expected number of matches is given by $P=1-2\int_0^{\alpha} f(t)dt$ where normal deviate, $\alpha=\frac{M-\mu}{6}$. If a contingency table has the marginal totals $A_1, A_2, \ldots, A_r$ and $B_1, B_2, \ldots, B_s$ with a total number of n matches in the table, then $\sum_1^r A_i=\sum_1^s B_j=n$. For a group of cells in the table, G, the observed number of matches is merely the sum of all the matches in the group; $M=\sum_G m_{ij}$. The expected number of matches is given by $\mu=\frac{1}{n}\sum_G A_i B_j$ and the variance, 6^2, is given by $6^2=\frac{\mu^2}{n-1}+\frac{n}{n-1}\mu+\frac{1}{n(n-1)}\sum_G A_i B_j(A_i+B_j)$.

For these tests, since a large number of possibilities may be realized, the significance levels must be strengthened. This was done by considering normal deviates of 3.00 or more as significant and of from 2.80 to 3.00 as barely significant. The probability of a normal deviate of 3.00 is .0026 and that of a normal deviate of 2.80 is .0052.

In the tests the diagonals of a positive correlation are labeled I and those of a negative correlation are labeled II. In some cases a relation proved significant with one diagonal whereas a diagonal of the same sign and with the same data but shifted several cells over showed no significant relation.

In table IV is listed a summary of the computations and results of the tests of the two way tables for significant correlations for only those tests giving a normal deviate of 2.80 or more.

In studying the three variable contingency tables the frequency of match in each cell is so small and the marginal totals are so small compared to the total number of matches that the problem must be approached by a study of rare occurences. In computing the probability that the observed number of matches is not significantly different from the expected number of matches the normal distribution must be replaced by the Poisson distribution. This simplifies matters somewhat in that with such a distribution only the expected value need be known. In a three variable table this is computed for each cell by the equation $\mu = \frac{A\beta C}{n^2}$ where A, B, and C are the marginal totals for the cell and n is the total number of matches. For a group of cells $\mu = \frac{\Sigma_G A_i \beta_j C_k}{n^2}$.

A graph of the cumulative probability curves has been derived from the Poisson exponential, $P = 1 - \left[1 + \mu + \frac{\mu^2}{2!} + \cdots + \frac{\mu^{m-1}}{(m-1)!}\right] e^{-\mu}$,

TABLE IV

SIGNIFICANT CORRELATIONS

FROM THE TWO VARIABLE CONTINGENCY TABLES

n is the total number of matches.
m is the observed number of matches.
μ is the expected number of matches.
σ^2 is the variance.
σ is the standard deviation.
S is the sign of the correlation.
α is the normal deviate.

Cases where tests using two different sets of data were made are given even though one set of data showed no significant correlation.

	n	m	μ	σ^2	σ	S	α	Significance
Northeastern North America with East Asia, (F-B).								
	364	76	55.975	44.216	6.65	+	3.01	Significant
	364	74	52.211	37.489	6.15	+	3.54	Significant
Alaska with Europe, (D-H).								
	364	67	44.163	34.023	5.83	+	3.92	Significant
	364	55	38.049	29.077	5.39	+	3.14	Significant
Alaska after East Asia, (B lag D).								
9 days	304	71	53.184	40.143	6.35	+	2.80	Barely significant
9 days	364	56	55.286			+		Not significant
21 days	304	59	42.226	31.696	5.64	-	2.97	Barely significant
21 days	364	70	52.978	43.862	6.62	+	2.57	Not significant
Northeast North America after Alaska, (D lag F).								
3 days	304	68	50.421	39.174	6.26	-	2.81	Barely significant
3 days	364	63	57.958			-		Not significant
6 days	304	72	57.861	40.703	6.39	-	2.99	Barely significant
6 days	364	61	53.211			-		Not significant
Europe after North America, (F lag H).								
3 days	304	74	52.782	39.513	6.30	+	3.37	Significant
9 days	304	73	54.434	40.798	6.38	+	2.91	Barely significant
15 days	304	65	45.108	34.209	5.85	+	3.40	Significant
Alaska after Northeast North America, (F lag D).								
No significant correlations found.								
Northeast North America after Europe, (H lag F).								
6 days	364	88	67.335	50.979	7.14	+	2.89	Barely significant
30 days	364	62	42.302	32.281	5.68	-	3.47	Significant

Note: For diagonals used in these tests see Appendix C.

by Thorndike[2]. For purposes of this and similar studies it is necessary to extend these curves down to expected values of one thousandth. Since the data were not available the curves could only be extended down to expected values of one hundredth; Figure 37.

By examination of the contingency tables it can be seen that groups of cells must be taken in order to get marginal totals large enough to give expected values large enough to be used on the graph. Because of this the test is perhaps too crude to use when the variables are given so many values. No successful tests were made in view of this needed change in the organization of the contingency tables.

III. SUMMARY

The study of polar outbreaks by the methods just described and illustrated is by no means complete; only a preliminary examination was intended. To make a more complete study all of the tables for time lags day by day up to at least thirty days should be recorded. Tables of zero lag should be made for each group of two, three, and all four of the temperature variables. Three way lag correlation contingency tables should be prepared lagging the temper-

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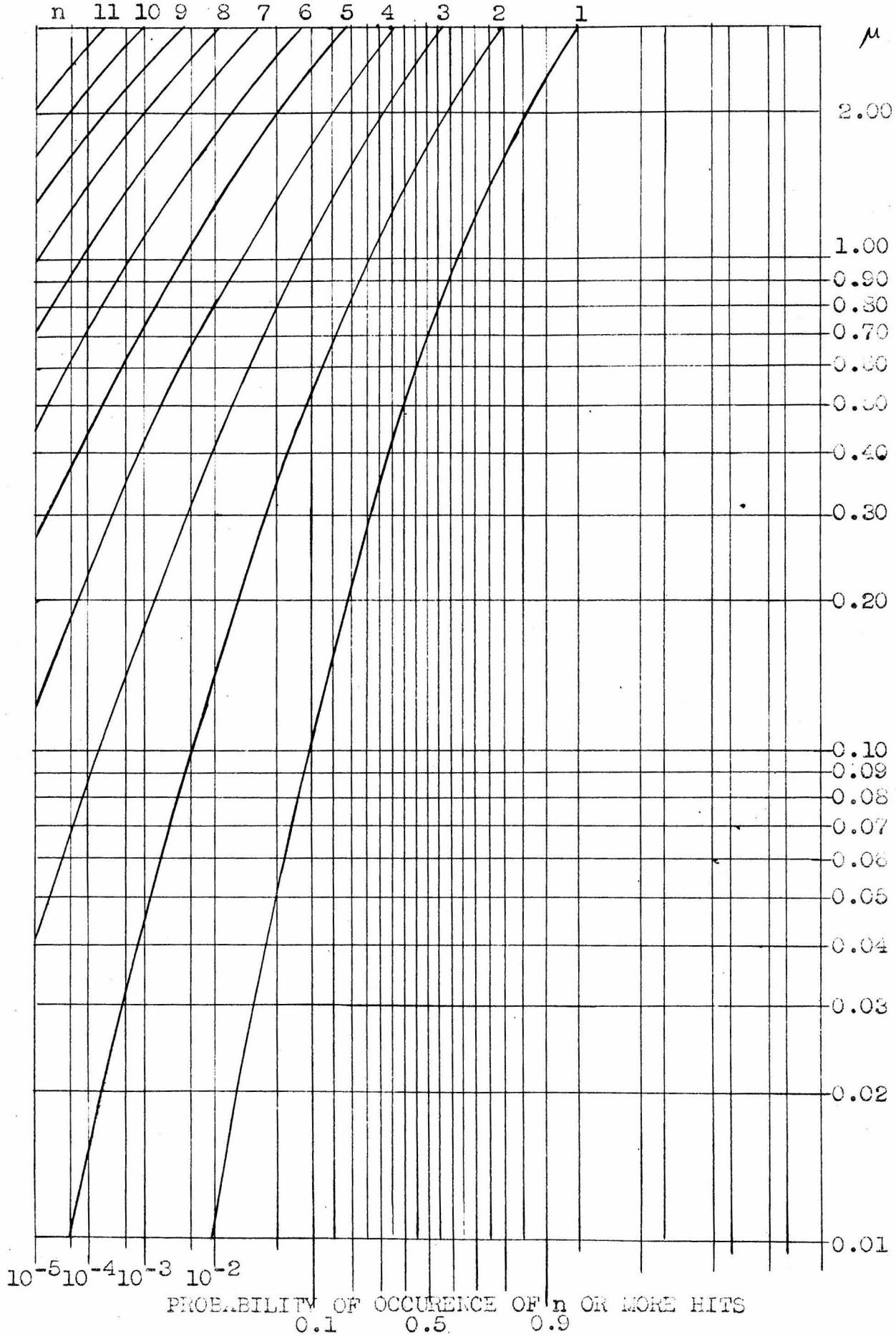
2 Frances Thorndike, Applications of Poisson's Probability Summation, Bell System Technical Journal, Vol. V, pp. 604-624.

FIG. 37: CUMULATIVE PROBABILITY CURVES-POISSON EXPONENTIAL.



ature in the European zone after those in the two adjoining zones and the temperatures in the Asiatic zone after those in its two adjoining zones. This work should be checked with fresh data from the intervening winters. It can be seen from the results obtained that a significant relation for one period may not hold for another.

In this study the following important features were observed. There is evidently a good positive correlation of the temperatures at opposite sides of the hemisphere which may indicate that polar outbreaks or surges of cold air occur on opposite sides of the hemiphere at the same time. This is born out partially in the observation that similar weather processes often occur in the Pacific and Atlantic oceans simultaneously.

There is a series of lag relationships between the temperatures in northeastern North America and Europe which appear to have some importance. The tests showed significant three and fifteen day lags of a positive nature of the European temperatures after those in northeastern North America indicating, perhaps, that three and fifteen days after a polar outbreak occurs over North America polar outbreaks occur over Europe. A thirty day negative lag of the temperatures in northeastern North America after those in Europe was shown to be significant indicating that a polar outbreak may occur over North America thirty days after a warming

period or surge of warm air in Europe.

Because of the incompleteness and the untested validity of the significance of these tests it is impossible to incorporate these results into a large scale weather process scheme until much more work has been done. It is entirely possible that the use of data from a different period of years will give very different results. Like most statistical studies of weather phenomena the present amount of data, voluminous though it may seem to those used to treating with such methods, is all too little to make any rigorous conclusions.

CHAPTER VI

SUMMARY

The problem of distinguishing large scale weather processes can be divided into two parts; first, to define the transition period between processes and, second, to show how one process differs from another and how parts of processes may have similar features.

Criteria for defining the transition period. One criterion of the beginning and end of large scale weather processes is the occurence of trough passages at various fixed positions around the hemisphere. However, this also may be used to separate the natural synoptic periods and the problem is to tell which trough passages mark the transition period. Quite often, usually once a month at least, an intense deepening will occur simultaneously or within a natural synoptic period at two or more zones ninety degrees apart around the hemisphere. This can be used as a transition since it usually indicates the start of a considerable flow of cold air south and warm air north.

Polar outbreaks and surges of tropical air can be used to mark the transition from one process to another. Several consecutive natural synoptic periods may have similar surges of air. In selecting an initial natural

synoptic period of a process with such a sequence of periods it would be better to select either that period associated with the most marked trough developments or the first of such a group of natural synoptic periods.

The weather patterns occasionally fall into a group of natural synoptic periods of zonal flow and another group of meridional flow. In such cases the selection of large scale processes is fairly straightforward.

The position of the principal zones of convergent airflow and the variation in this position can be used to interpret the beginning and the end of the processes. These zones either tend to move in one direction for several natural synoptic periods or to remain stationary thus defining the character of their activity during the process.

Distinguishing one process from another. In observing the similarities and differences of large scale weather processes one first notices the length of the process and the number of natural synoptic periods into which it may be divided. Many processes are similar but for the omission of a period or the substitution of one period by some other type of period in the sequence of periods. Some processes may be fast versions of a slower process.

The location and intensities of the centers of atmospheric action is another factor to be examined in

comparing processes. A most striking comparison of similar and asimilar features is obtained using this method. It is often necessary to shift the whole pattern of the centers of action over the hemisphere or just in one zone in one direction or another to compare processes.

The timing and intensity of polar outbreaks may be used to differentiate the large scale weather processes. A certain sequence of outbreaks in various parts of the hemisphere may characterize a certain process. Studies in correlation of temperatures in various parts of the hemisphere may be valuable in determining how long after an outbreak occurs in one region an outbreak or perhaps a surge of warm air may be expected in another region. This timing may vary from year to year or from groups of years to groups of years as well as from season to season. Flow patterns are an additional aid in this type of analysis.

Zones of convergent airflow are also valuable in determining similarities and differences in weather processes. The intensity of cyclonic developments along these zones may lead to the inclusion of an extra natural synoptic period or the stagnation and prolongation of a natural synoptic period so that two processes starting out with similar features may not appear similar in their later stages. From the study of pressure curves it was seen that there is frequently some characteristic rhythm each season in the intensity of trough

passages. Perhaps this could be used to indicate a change in the structure of the process.

Conclusions. There are many difficulties in using all these criteria for distinguishing large scale weather processes. Over most of the material available only a subjective investigation can be made. When an objective study is made a tremendous mass of computation must be accomplished before any results of significance are to be found. In statistical investigations there are many pitfalls leading to erroneous conclusions as to the significance of relationships so discovered.

From these studies further work is indicated in the study of trough passages at meridians equally spaced around the hemisphere; in the studies of polar outbreaks, tropical air inflow, and temperature fluctuation; in the compilation of an extensive file of comprehensive charts and flow pattern charts; and in the application of these studies to both hemispheres. It is felt that these large scale processes may be dependent upon weather phenomena occuring all over the earth's surface as well as just over the northern hemisphere.

The large scale process as yet has no solid position as a forecast tool. It is much too nebulous a conception to be adopted for rigid forecasting rules. It is thought that

eventually a dynamic theory will be evolved which will take into account such mechanisms in the atmosphere. At present data are far too scarce to make any definite conclusions. From these studies and further work of a more thorough and objective nature it is hoped that a proceedure will be developed for forecasting the general atmospheric flow pattern and from that, a reasonable weather forecast for a period of several weeks.

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APPENDIX A

TROUGH POSITION DATA

1925 JAN	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	15	10		15	25	05	-4	00	20	00	+8	90	15	25	-8	85
2	20	15		25	20	10		00	20	00	+12	90	15	20		05
3	15	20		15	25	00	+4	00	15	05		95	15	15	0	90
4	15	25		15	20	00	+2	00	20	20		85	20	95	+3	70
5	15	25		20	20	05		00	10	05	-7	95	20	85	-7	80
6	15	30		20	20	15	-5	15	20	05	+6	90	20	00		80
7	15	30		15	20	10	+3	10	20	10	-8	90	20	00		85
8	15	25		20	20	20	+10	10	20	75	+8	00	15	00	+5	95
9	15	25		25	20	85	+8	90	20	85	-3	90	15	00	0	00
10	15	20	0	20	20	10		00	15	85	+9	85	15	10	-3	05
11	15	15	+9	15	15	15	-5	10	20	05	+9	90	15	05	0	00
12	15	25		20	15	20		20	25	60	+8	85	15	15		85
13	20	30		20	15	00	+3	15	20	05		95	15	20		80
14	15	25		25	15	20	+8	35	20	95	-10	90	15	25		90
15	10	20		20	15	05	+1	95	20	85	0	75	15	25	0	65
16	10	15	0	15	20	05	0	00	20	05	+10	90	15	05		70
17	15	25		25	15	05	-5	05	20	05		95	15	00	+10	75
18	15	20		20	15	00	+5	90	20	80	+3	80	15	20		85
19	10	20		20	15	05	-7	05	20	85	0	25	15	30	+10	75
20	10	20		20	15	90	+10	90	20	05		90	20	05	0	90
21	15	20		20	15	10	0	05	25	15	-10	95	15	10	+8	90
22	15	20		20	15	90	0	90	15	90	+3	90	15	00	0	95
23	15	15	+10	20	20	15	-7	15	20	05	-10	00	15	10	+7	00
24	15	15		15	15	10	+10	15	10	80	0	85	20	20		00
25	15	10	0	10	20	00	0	10	20	90	-5	85	20	25		00
26	15	10		10	20	95	-5	95	20	00	-7	90	20	15	0	00
27	15	10	+3	10	20	00		05	25	10	-10	90	20	15		05
28	15	15		25	20	05	-3	15	25	00	0	80	15	15		10
29	05	15		25	25	00	0	10	25	05	+3	80	15	20		15
30	10	15		30	15	95	0	05	20	10		90	15	20		10
31	15	20		30	20	05		05	25	00	-5	00	15	20		10

1925 FEB	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	20	25		25	20	95	-3	95	20	90	+10	75	15	20		10
2	15	30		25	15	80	-7	75	20	15	-2	95	15	10	-5	00
3	15	30		30	20	75	-9	25	20	20		00	15	05	0	90
4	15	30		30	20	95	+10	85	20	20		95	15	10		90
5	15	30		30	20	90	-5	95	20	20		05	15	05	-5	85
6	10	15	+3	20	20	90	+5	90	25	10	-10	05	15	10	+2	75
7	15	20		10	20	00	-3	05	20	00	0	85	15	15	+3	80
8	15	20		20	25	85	+10	90	20	05	-5	95	15	20	+3	95
9	15	10	0	25	05	00	-5	00	20	05		95	15	20		90
10	15	20		25	00	85	0	25	20	20		05	20	15	-10	00
11	15	20		20	05	95	+10	25	20	10		05	15	20	+5	65
12	15	15		15	15	10		25	20	10		05	15	20	+8	05
13	15	15		20	15	20	-5	25	20	20		15	20	25		05
14	15	15		20	15	10	0	20	20	10	-3	05	15	30	+5	60
15	15	15		20	10	20		25	20	15	+12	05	15	35		05
16	10	10	-5	20	10	15	-10	15	20	20	-9	05	15	30		10
17	15	05	0	20	10	15	-4	15	20	15	+8	00	15	25		10
18	15	20		25	10	10	0	10	20	10	-5	10	15	20		05
19	10	15		20	15	05	0	10	20	95	+15	70	15	15		95
20	15	15		20	20	90	-4	00	25	20		95	15	20		05
21	15	10	-3	25	15	00		00	20	10	+5	00	15	20		00
22	20	05	0	30	10	85	+3	05	20	25	-12	00	15	20		05
23	20	10	+3	25	20	95		95	20	10	+10	00	15	20		15
24	15	15		30	20	05	-5	10	20	00	-5	95	20	25		15
25	10	20		20	20	95	0	00	25	10		00	15	25		15
26	10	10	+3	25	20	05	0	10	25	25		15	15	15		10
27	15	20		25	20	15		15	20	05	-5	10	15	20		20
28	15	20		26	20	15	-9	15	25	05	0	00	15	20		25
29																
30																
31																

1925 MAR	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	15	05	+5	15	20	05	+5	00	20	15	+3	05	10	20	-7	15
2	15	15		15	20	10	-7	05	25	30		10	15	20	+7	20
3	20	10	+2	10	20	05	+4	00	25	10	-5	05	15	05	-3	05
4	15	10		20	20	10	+7	05	25	15	-5	60	15	05	+5	05
5	15	10	+2	15	20	25		20	20	30	-5	10	15	15	-10	10
6	20	20		20	20	30		20	15	25		20	15	05	+2	95
7	15	20		10	15	15	-3	05	15	20		30	15	00	-10	90
8	15	05	-2	15	20	20		20	15	15	0	05	15	05		95
9	15	10		15	20	20		25	15	20	-8	15	15	05		00
10	15	05	-5	20	20	25	-8	30	10	95	0	85	15	10	-10	10
11	10	05	-5	15	20	25	-5	25	15	15		05	15	10	-10	10
12	15	15		20	20	30	-15	25	15	10		95	15	15	+8	10
13	20	15	-9	25	20	20	0	20	05	05	0	90	15	20		25
14	15	20		25	20	05	+2	05	00	10	+8	90	10	10	-10	15
15	15	15	+9	25	20	15	0	15	00	20		05	10	00	+3	20
16	15	20		30	20	20		15	20	05	0	90	10	05	0	10
17	15	20		30	15	20		10	20	20		05	10	10	+5	10
18	15	20		30	20	15	-4	20	20	30		15	10	15		15
19	10	15		20	20	00	+5	00	20	25		20	10	10	+3	00
20	10	15	0	20	25	15	+4	15	10	15		30	05	15		95
21	15	20	+7	25	20	10	-10	00	10	15	-9	15	10	15		95
22	20	20		20	20	20		00	10	15	-5	10	10	25		00
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24	10	15		20	15	90	+6	85	15	15	-5	20	10	20		15
25	15	15		15	20	10	0	05	10	10	-5	15	10	10	0	20
26	10	20		20	20	15	+3	00	05	00	0	20	10	15		15
27	15	15	+1	15	20	10	+7	10	15	00	0	10	10	20		20
28	15	15		15	20	15		15	20	00	0	10	10	20		20
29	05	00	+2	15	20	10	-2	15	20	05	+1	15	10	20	-10	20
30	15	15		15	20	10	+5	15	20	15		20	10	15	-9	15
31	15	20		20	20	10	-5	10	20	20		15	10	15	-5	00

1925 APR	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	15	20	-8	20	20	95	+5	10	20	25		15	10	15		90
2	15	00	+2	10	20	95		15	20	15	0	10	10	15		00
3	10	05	+9	20	15	10		20	20	20		15	05	10		05
4	00	10		10	20	15	-7	10	20	20		10	05	05	0	95
5	15	20		15	20	15		10	20	05	-8	10	10	05	0	10
6	20	20		10	20	05		05	20	95	-5	90	10	00	0	05
7	20	20	0	10	15	10	-3	20	20	95	+5	90	10	10	-5	95
8	15	10	+9	10	15	10	-3	15	20	00		95	10	10		00
9	15	00		00	15	10	0	10	95	-7	95	10	15	-5	90	
10	20	95	-2	95	15	15	+5	15	20	95	+13	85	10	20		05
11	15	05	-3	10	10	10	0	20	25	95		75	10	10		20
12	15	10	+7	10	10	10		15	20	05		90	10	10		00
13	15	15	+10	05	10	10		10	20	15	0	10	10	15		15
14	15	20		05	10	05	-10	20	20	15	-3	00	10	10	-7	05
15	10	20		20	15	00	+5	10	20	15	+5	10	10	15	-3	05
16	15	10		05	20	05	+9	00	20	15	-7	10	10	10		00
17	15	05	-9	05	20	00	-10	95	20	15	0	00	10	15		05
18	15	05	-1	95	20	00	+3	00	20	15	+3	00	10	15		05
19	15	10		05	20	10		10	20	15	-4	00	10	20		00
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22	15	15		15	20	10		10	20	15	0	95	10	00	+10	95
23	15	15		10	20	05	+2	95	20	10	-10	05	10	10		10
24	15	15		00	20	15	+12	05	20	95	-10	95	10	15		15
25	10	05	0	10	20	25		10	10	00	0	10	10	15		20
26	10	05		10	20	30		20	95	90	0	10	10	30		40
27	15	20		95	20	20	-8	20	00	90	+5	20	10	25		10
28	10	05		95	20	05	0	05	10	85		25	10	20		05
29	15	95		95	15	05	-11	05	15	00	+9	25	10	15		20
30	15	00	0	00	20	00	-7	00	10	25		30	10	10		25
31																

1925 MAY	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	15	00	-3	95	15	00	0	00	10	95	0	15	05	15	-8	20
2	10	05		05	15	20		15	15	15		25	05	15	-5	10
3	10	05	-7	05	15	20		25	20	20		20	05	10		15
4	10	05	-3	05	15	10	-3	10	15	10	-7	10	05	10		20
5	10	05	+5	05	15	05	0	10	20	15	-3	20	05	10		00
6	15	15		20	15	10		10	20	20	0	25	05	10		15
7	10	05	0	10	15	15		10	20	20	-5	20	05	15		20
8	05	05	-7	10	15	15	-3	20	20	10	+7	05	10	10		20
9	10	10	-5	10	15	10	+5	20	20	10	0	10	10	15		20
10	10	05	0	05	15	10		15	25	10	-3	10	10	15		20
11	10	10	0	10	15	05	0	15	25	20		15	15	15		05
12	10	15		15	15	10	+9	15	20	15		15	05	10		20
13	15	10	-10	10	15	15		15	20	00	+5	00	05	15		10
14	05	00	-4	05	20	15		15	20	05	0	05	10	15		10
15	00	00	+2	00	15	05	-3	20	25	25		15	05	10		15
16	10	10		05	05	05	+5	15	25	20	-8	10	05	05	-5	15
17	10	10		15	00	00	+5	10	20	05	0	05	05	00	+5	05
18	10	05	0	05	05	05	+7	15	20	95	+3	05	05	05		10
19	10	05		15	15	10	0	10	20	95	+5	00	05	10		05
20	05	00	-5	10	15	10	-7	10	20	05		05	05	10		05
21	10	05	+5	05	20	20	+10	10	20	05		05	00	05		10
22	15	10		15	20	20		15	20	95	-10	10	05	00	-5	90
23	15	10		15	20	25		25	20	10		10	05	00		00
24	15	15		15	15	20		20	20	95	0	00	05	05		15
25	10	15		05	15	20	0	15	20	95		95	05	15		15
26	05	15		00	15	20		15	25	05		05	05	20		15
27	10	15		05	20	95	0	00	20	15	-8	10	05	20		10
28	10	15		05	15	90		95	20	95	+5	00	05	15		15
29	15	05		05	20	05		05	20	00		95	05	10	0	15
30	15	10		10	20	00	-4	10	20	10		05	05	10		25
31	15	10		05	20	10		05	20	15		05	05	10		15
JUN																
1	15	10		05	20	15		10	20	05	-7	05	10	15	0	10
2	10	00	0	95	20	10		10	20	05	-4	05	10	20	+10	15
3	15	10		10	20	10		10	20	95		95	05	15		15
4	10	05	-10	05	20	20		15	20	00		00	05	10	-10	05
5	05	05	0	05	20	20		15	20	90	-5	00	05	00	0	95
6	05	15		10	20	25	-7	15	15	00		00	00	95	0	05
7	05	15		20	20	15	+2	20	10	00	+9	05	10	10	-10	15
8	00	10		10	20	15		15	15	05		00	10	10	-10	15
9	00	00	0	95	20	15		15	20	00	+5	95	05	10		15
10	05	05		05	20	15		15	20	15		05	05	10		10
11	10	05	-10	05	15	15	0	10	20	20		00	05	05	-10	05
12	10	95	-3	95	15	20		00	20	10	-6	10	05	05	+3	10
13	15	00	0	00	15	25		20	20	15	0	10	05	95	0	95
14	05	05	-3	05	15	25		20	20	20	+3	10	10	95	+2	90
15	05	00	+7	10	15	10	-5	10	20	10		00	05	10		00
16	15	00		00	15	20		15	20	05	-10	00	05	05	-5	05
17	15	00		00	20	15	+10	10	20	10	-10	05	05	10	+7	05
18	10	00	0	00	20	15	0	15	20	10	0	10	05	05	-10	05
19	10	05	+2	05	20	20		15	20	05		05	05	10	-8	00
20	10	10	+2	05	20	25		20	25	95	0	10	05	10	-8	10
21	10	05	0	05	20	20	-10	20	20	00		05	05	05		10
22	10	05		05	20	20	-8	20	20	10		05	00	05		15
23	10	00	-7	00	20	20	-8	10	20	10		10	05	05		15
24	10	90	0	90	15	20		10	20	15	-3	15	05	05		10
25	10	90	+10	90	15	10	-3	15	20	20		10	05	05		10
26	05	95		00	15	10	-3	10	20	25		15	05	05		10
27	00	00		10	15	15	0	10	20	10	-5	10	05	00		10
28	00	00		10	15	15		05	20	15		10	05	05		05
29	00	00		10	15	15	-5	10	20	25		15	05	10		10
30	00	05		05	20	20	+5	10	20	15		10	05	05		15
31																

1925 JUL	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	05	05	+10	10	15	30		15	20	20		15	05	05	-10	10
2	10	05	0	15	15	20	-2	15	20	15	-10	15	05	05		15
3	10	05		05	15	25		10	20	10	0	10	10	10		10
4	05	10	+5	10	15	25		15	20	15	-10	15	10	15		15
5	10	10		10	15	20	-5	20	20	20	0	15	05	15		20
6	10	10		15	15	25		25	20	15	-8	15	00	10		15
7	10	10	0	15	15	25	-5	10	20	10	0	05	00	05		15
8	10	15		20	15	10	-3	05	20	05	0	95	00	05	-7	10
9	05	15		15	15	10	-3	05	15	15	-5	00	05	10	-5	10
10	10	15	+5	15	15	15	-5	10	15	05	+7	00	05	10	0	15
11	10	10	+5	15	15	00	-2	05	20	10		00	05	15		15
12	05	05	+5	10	20	00	-5	00	20	10		00	05	10		10
13	05	10		15	15	10	0	10	15	10		00	05	05		10
14	10	00	+8	00	15	15	+1	15	15	10	-5	05	05	10	0	10
15	10	05		05	15	25		10	20	10	-4	05	00	05	-10	15
16	05	05		10	15	25		15	20	10	-7	10	00	05	0	15
17	10	05		10	15	25		15	20	15	0	00	00	05		10
18	10	05		00	10	25		15	20	25		05	00	10		15
19	10	05		05	10	25		15	20	15		05	00	10		15
20	10	00	0	00	05	25		20	20	15		05	00	10		05
21	10	00		00	10	25		15	20	15	-5	10	00	10		15
22	10	05		05	05	20		15	20	25		15	00	05		10
23	90	05		10	10	20		20	20	15	0	15	00	05		05
24	05	15		15	10	20		20	20	20		20	00	00		00
25	05	15		15	10	20	-7	10	15	15	-7	15	00	00		00
26	05	15		10	10	10	-2	15	15	10	-2	05	05	05	+3	10
27	05	05		00	10	15	-12	20	20	15	-5	10	05	10		00
28	10	00	0	95	15	10	0	15	15	05	0	05	00	10	-5	05
29	10	05		05	15	20		10	20	05		05	00	10	-10	10
30	10	05	0	05	20	25		20	20	10	0	15	05	15	-7	15
31	05	05		10	20	20		20	15	15	-5	15	05	10	0	05
AUG																
1	10	10	0	10	15	25		15	15	00	+7	00	05	10		05
2	05	05		00	20	20		10	20	15		05	05	10		00
3	05	10	0	05	15	20		10	20	05	+3	05	00	10		05
4	10	15		10	15	20		20	20	10		10	00	05	-5	05
5	05	10	-7	15	20	20	0	15	20	15		15	00	00	0	00
6	05	40	0	10	15	25		15	15	10		10	00	10		95
7	05	05	+2	10	15	25		15	15	15		15	00	10	-5	95
8	05	05	+9	05	15	25		20	15	20		10	00	05	-3	05
9	05	10		15	15	25	+5	20	20	15	-2	05	00	00	0	15
10	05	10		05	15	25		15	15	10	+2	05	00	05	+5	05
11	05	10		05	15	20		20	20	10		05	00	10		10
12	00	05		05	20	20		15	15	10		00	00	05		05
13	05	05		05	15	20		15	15	05	-3	05	00	10	-10	05
14	05	05		15	15	20		20	20	15	0	10	00	05	-12	10
15	05	05		15	20	25		25	15	20		15	00	05	-10	10
16	05	00		05	15	25		20	15	15	-4	15	00	05	-5	10
17	05	00		05	15	25		20	15	20		05	00	05	-5	10
18	05	00		00	15	25		20	15	15		10	00	10	+5	05
19	00	10		15	15	25		15	20	10	+8	05	00	05		05
20	05	15		15	15	25		20	20	15		10	05	00	-5	95
21	05	15		15	15	20		20	20	05	-10	05	05	05		95
22	95	15		10	15	15		15	20	15	-10	10	00	10		10
23	90	15	-5	05	15	10	-5	10	20	10	-8	10	05	10		15
24	90	05	-5	10	15	15	-2	10	20	05	+2	05	00	10		15
25	90	05	0	05	15	10	+5	10	20	05	+4	05	00	10		20
26	00	05	0	05	15	15		15	15	05	-7	95	00	10		15
27	05	10	+9	10	20	20		10	15	00	+3	90	05	10		20
28	10	15		10	15	20		15	20	15	-10	95	05	10	-10	20
29	05	10		05	15	15	-5	05	15	00		00	05	10	-7	20
30	05	05	0	05	15	20	+8	05	15	10		00	05	10		15
31	95	10		10	10	20		10	15	10		05	00	05	-2	10

1925 SEP	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	80T	10		15	10	20		10	15	10		10	00	00	+1	00
2	85T	15		20	15	20		05	20	15		20	00	05	-2	90
3	00T	10		20	15	20		15	20	20		15	00	00		95
4	00T	10		25	10	20		20	20	20	-5	20	00	10		95
5	05	10		05	15	20		15	20	20		20	00	10	-3	95
6	10	10		05	10	20	-2	05	20	15	-8	10	00	10	0	00
7	05	90	0	05	15	20		15	20	95	0	10	00	10		00
8	00	05	+7	10	10	20		10	15	10	+8	00	00	10		00
9	05	15		15	10	20		05	15	15	-5	10	00	05	0	10
10	00T	10	0	05	15	15	0	05	15	15	+2	10	05	05		05
11	10	15	+5	10	15	15	-5	05	20	15		05	00	15		10
12	10	15		10	15	20		05	15	20		05	05	15	-10	05
13	10	15	0	10	15	05	+2	05	15	05	+3	95	05	05	0	05
14	15	15		15	15	05	0	05	15	15		00	00	05	+5	05
15	10	20		15	15	10		10	15	05	-3	90	00	15		10
16	10	15		15	10	05		15	15	10		95	00	15		05
17	10	15	-5	20	15	15		15	20	10		95	00	10	-10	05
18	10	0	+6	10	15	20		20	20	10		05	00	00	0	00
19	10	10		10	15	20		00	20	00	-7	95	00	10	+10	05
20	15	15		15	15	20		95	15	00	+5	05	05	15		05
21	15	15		15	15	20		20	15	15		05	05	20		15
22	15	15		15	15	20		15	15	10		10	05	15		15
23	15	10	-3	10	10	20	-7	10	20	95	0	95	05	15		20
24	05T	10	0	10	10	20	+8	05	15	10		95	10	20		10
25	00	10	+8	10	10	15	0	15	15	15		00	10	20		00
26	05T	05		00	05T	20		10	15	95	0	95	15	20		10
27	00T	15		05	05T	25		20	15	05	+7	05	15	15		95
28	90T	15		05	15	15		20	15	15		95	15	15		15
29	95T	10		15	15	25		15	15	95	0	80	15	15		90
30	95T	85T	0	05	15	25		15	15	10		05	15	20	+3	90
31																
OCT																
1	10	10	+7	10	15	25		20	15	10	0	95	15	20		95
2	10	10		15	15	20	0	15	15	05	+2	95	15	15		80
3	15	20		10	15	25		15	15	15		95	15	00	[0	80
4	15	15	-7	15	15	20		20	15	15		05	15	90	[0	85
5	10	10	+3	15	15	00	-5	15	15	25		20	15	95	[0	05
6	10	15		15	15	15	+5	15	15	20		20	15	95	[0	90
7	10	10		10	15	15		15	15	10	-5	10	15	10		90
8	15	15	-10	05	15	15	0	20	15	00	-2	05	15	90	+2	95
9	10	05	+2	15	15	25		10	10	95	0	05	10	15		80
10	10	15		10	15	25		15	15	90		00	15	00	-5	75
11	10	20		20	15	25	-5	20	20	05	-4	10	15	05	+3	70
12	05	15		15	15	25		15	20	95	+9	00	10	10		85
13	05	15		20	15	25		15	20	90		90	10	15		00
14	10	15		20	15	20		15	15	95	+4	00	15	15		10
15	10	20		15	20	10		10	20	00		00	15	05	-3	00
16	10	15	-5	10	20	05	0	05	15	05	+10	00	15	10	0	90
17	10	20	-3	15	15	00	-2	00	05	90	+5	10	10	10	-7	70
18	10	20	0	15	20	05	2	05	15	75	-5	85	10	05	+5	95
19	10	10	0	10	15	00	-3	00	15	75		75	10	10	-8	00
20	10	00	+3	00	20	15	-5	15	20	85		85	10	00	-2	00
21	10	10		10	15	25		20	20	75	+5	75	15	05	+12	95
22	10	05		10	20	25		20	20	90		85	15	10		00
23	10	10		10	20	30		25	20	05		95	15	20		05
24	10	20		10	20	15	+5	15	15	80	+5	85	15	20		05
25	15	20		15	20	20		25	15	95		95	15	20		05
26	15	10		10	15	15	+5	20	15	05		05	15	20		10
27	10	10	0	10	15	20	-4	20	20	80	+8	80	15	25		10
28	10	15	+2	15	15	20		15	20	85	+3	85	15	25		20
29	15	15		15	20	10	+5	05	15	10		10	15	20		00
30	15	15		15	20	10		00	15	80	+4	90	15	20		10
31	15	20		20	15	15	+2	05	15	85		90	10	05	0	00

1925 NOV	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	95T	15		15	20	10	+7	05	20	05	-6	05	15	10	+9	10
2	00	15		20	20	20		20	15	05		00	15	15		15
3	10	10	0	15	20	20		20	20	15		00	15	20		05
4	15	15		10	20	20		15	15	10	-10	10	15	25		00
5	20	10	0	05	20	15	-4	15	10	05	+10	10	15	00	-7	95
6	20	15		90	20	15		15	15	10		15	15	95	+3	95
7	20	20		15	20	05	+2	05	15	15		15	15	05	-3	95
8	20	20		15	20	00	-5	00	15	15		15	15	05		90
9	20	20	+1	20	20	95	0	95	20	15		15	15	05		95
10	15	20		10	20	80	0	85	20	90	0	85	15	15		00
11	15	15	+4	15	20	85	-7	85	20	05	+7	85	20	25		05
12	10	10	-3	20	20	00	+7	00	15	15		85	20	20	0	00
13	15	15		25	20	05	-3	05	20	15	+2	90	15	25		05
14	15	10	0	20	20	95		95	15	10		05	15	30		05
15	20	15		15	20	05	-5	05	20	00	0	00	20	35		05
16	15	25		20	15	00	+5	95	20	95	+10	95	15	30		15
17	15	25		25	20	95	0	95	15	10	-5	95	15	10	0	10
18	15	25		25	20	05	+2	00	15	05	-2	90	15	15		05
19	15	15	+2	10	15	10		10	10	10	+7	10	15	20		95
20	15	05		05	15	25		25	15	25		20	10	85	-3	80
21	15	05	+4	15	20	15	0	15	20	30		20	10	90	0	80
22	15	20		20	15	15	-11	05	15	05	-5	15	15	00		80
23	15	25	0	20	15	10	0	10	10	05	+5	05	15	10		90
24	15	25		20	15	95	-2	95	20	25		15	20	05	-10	95
25	15	20		15	15	05	-5	05	15	10	-7	20	15	05	+5	95
26	10	20		20	15	15	-10	20	10	10	+3	15	15	15		00
27	10	10		10	40	00	0	25	15	10	-2	15	15	05	-10	10
28	05	00	0	20	00	00	-5	15	05	05	+5	20	15	95	+5	90
29	15	05		25	05	15	+0	05	10	10	+0	25	15	05		90
30	15	20		30	05	95	+2	95	15	15	0	15	15	10	0	85
31																
DEC																
1	15	95	0	25	10	90	+3	90	15	25	+8	10	20	20	+10	90
2	15	00		25	15	95		90	20	25		15	20	25		05
3	15	10		05	20	00	0	05	15	15		05	15	10	-4	00
4	15	15	+2	10	20	05	0	05	15	05		15	15	15	0	90
5	15	15		30	20	10		05	05	05		10	15	15		95
6	15	25		20	20	10		10	05	10		10	15	20	-2	95
7	15	15	-2	25	20	10		10	15	05		00	15	20		00
8	15	10	+3	25	05	90	0	95	15	05	-7	05	15	20	0	05
9	15	20	-7	25	20	05		05	10	95	+5	95	15	25		05
10	15	10	+7	20	20	85	0	85	15	00	-7	05	15	20		00
11	15	00		00	20	95	+1	90	10	85	0	10	15	20		10
12	15	05		00	20	15		00	15	05		05	15	15		10
13	15	95	-8	95	15	20	-7	20	20	15	-8	15	15	05	-8	00
14	15	10	+5	10	20	05	0	05	20	05	-4	05	15	10	0	05
15	10	00	0	20	20	95	0	00	10	90	-5	00	15	15	-10	15
16	15	15		20	20	00	0	05	10	90	+9	90	15	95	+8	90
17	10	15		15	15	90	+3	95	05	95	0	00	15	20		05
18	15	10		15	15	90	+8	95	10	00	-5	00	15	05	0	05
19	10	20		20	20	00		05	10	95		05	15	00		00
20	05	15	-7	30	15	00	0	15	15	05		10	10	05		95
21	00	00	+5	30	15	00		05	20	15		20	20	20		05
22	10	00		20	20	05	0	10	20	15	-7	15	15	15	-7	20
23	20	10		10	20	00		00	15	90	+5	95	15	10	0	15
24	20	15		15	20	05	+5	05	10	75	+4	85	15	05	-10	15
25	25	15	-2	20	15	10	0	10	10	70		80	15	05		95
26	20	25		25	00	95	-3	25	20	80		80	15	05	0	95
27	15	15	0	25	05	00	+8	15	15	70	0	75	15	10	0	00
28	15	10	+8	25	10	05	+3	15	15	70	-5	70	15	20		05
29	15	15		25	20	15		20	15	75		75	15	15		05
30	00	05		15	20	15		10	20	95	0	80	15	10	0	95
31	15	20	-10	10	15	10	0	05	15	95		85	15	00	-10	85

1926 JAN	135E 15-35 P	135E 35-55 P	135E 55-80 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 55-80 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 55-80 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 55-80 T	45E 55-80 P
1	15	10	+5	20	20	05	-3	05	15	00	-5	85	15	95	0	80
2	15	15		20	20	00	-8	00	20	90		90	15	10	0	95
3	15	15		20	20	05	0	05	20	90	+7	85	10	10	+10	95
4	20	15	0	20	20	10	-3	10	20	90		85	15	20		00
5	15	15		25	25	05	+1	00	15	95		85	15	25		10
6	15	15		20	25	20	-3	00	20	95	+5	75	20	25		15
7	15	15		25	20	25		05	20	95	-7	85	15	25		20
8	15	15	+2	25	20	20	-3	05	20	65	0	65	15	25		20
9	15	25		10	20	25		20	15	80		80	15	15		15
10	20	25		15	20	25	-5	15	20	80	-7	80	15	20	-10	05
11	15	20	-10	10	15	15	-10	10	25	85	-7	70	15	15	-8	05
12	20	10	0	10	15	15	0	00	20	00	+7	85	15	10	-3	00
13	15	15		10	15	10	-3	10	20	15		95	15	25	+10	95
14	15	15		15	15	00	+8	00	20	05	0	10	10	30		10
15	15	15		10	15	95	-7	00	20	05		15	15	25		05
16	15	10	0	10	15	85	0	85	20	10	-10	05	15	25		00
17	15	15	0	15	20	95	+10	95	20	00	+5	85	20	20		10
18	15	20	-8	15	20	15		15	15	05	-5	80	15	10	+5	15
19	10	10	+10	20	20	15	0	15	15	05		00	15	10	-10	10
20	15	15		15	20	10	-5	10	15	95	0	00	15	15		10
21	15	15		15	20	15		20	15	00		00	15	20		15
22	20	15		20	20	00	0	00	15	00		95	15	25		25
23	20	25		20	20	10	-4	10	20	55	[0	55	15	20	-5	15
24	20	20		20	25	20		10	20	60	[0	55	15	20	+5	05
25	20	20		20	20	10		10	20	65	[0	55	15	25		05
26	20	20	-5	20	10	00	0	10	20	85		70	15	10	-11	00
27	20	20	+8	10	00	85	-2	05	20	00		70	15	00	+4	95
28	15	30		10	10	85	+8	85	20	85	+5	95	15	05	+10	00
29	15	30	0	00	15	90		90	20	85	-5	85	16	10		00
30	15	20	+8	20	00	00	0	00	20	70		70	15	00	+3	95
31	15	25		15	10	00	+9	10	20	85		80	15	20		05
FEB																
1	20	20		20	15	90	-5	05	20	95		95	15	25		05
2	20	25		20	95	80	+5	00	20	90	-10	80	15	20		10
3	15	15	0	25	10	80	-2	85	10	00		85	15	20		15
4	20	20		20	15	70	+5	70	20	00		95	15	25		15
5	20	20		05	20	95	+5	90	15	05	0	05	15	20		25
6	20	20		20	15	95	+2	95	15	75	0	90	20	20		25
7	20	15	-10	20	20	90	+5	90	20	90		90	15	20		10
8	20	15	+2	10	20	00	-7	95	15	80	0	80	15	20	-10	10
9	20	10	0	00	20	80	0	80	20	80	-10	80	15	20		20
10	15	10	+10	00	15	10	-6	05	20	80	+8	80	15	20		20
11	25	10		00	15	00	+3	10	15	95	-7	95	15	25		15
12	20	10	-5	10	15	10		15	05	70	0	90	15	30		00
13	20	15	-10	15	15	10	0	15	05	80		80	15	30		95
14	15	05	+5	25	15	05	+7	10	15	90	-8	65	10	25		20
15	15	15		15	15	00	+2	10	20	05		75	15	25	-2	00
16	20	10		15	15	05	-8	10	20	00		60	15	25		00
17	20	25		25	15	00	+3	05	20	85	-5	90	15	15	-7	10
18	15	10	0	20	15	00	-2	00	15	85	+5	90	10	15		00
19	20	15		15	20	90	+10	90	20	00		05	10	15		95
20	15	25		20	15	95		80	25	85	-3	95	15	15	-10	10
21	20	30		30	15	80	+5	80	25	70	-10	55	10	10	0	05
22	10	05	0	25	20	00		90	20	75	+7	70	15	15	+10	15
23	20	05		20	20	00		85	20	80	+8	80	15	20		10
24	20	15		20	20	15	-9	05	20	95	-10	80	20	25		00
25	20	30		00	15	05	+5	00	05	00	+3	75	20	25		85
26	20	25		15	20	10	-3	05	20	05		85	15	30		80
27	20	15	+5	15	15	05		05	20	95	0	95	15	25		85
28	15	15	-5	05	20	20		20	20	95	-5	90	15	25		90
29																
30																
31																

1926 MAR	135E 15-35 P	135E 35-55 P	135E 55-80 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 55-80 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 55-80 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 55-80 T	45E 55-80 P
1	20	15		10	15	15	0	15	15	90	0	85	15	25		70
2	20	20		00	15	15		15	20	15		05	15	20		25
3	20	20		90	15	20	0	15	20	25		00	10	05		70
4	15	20	-5	15	20	25		25	20	05	-5	05	15	00	+2	85
5	20	20		20	15	20	-5	20	20	10	-5	90	15	05	-10	85
6	20	25		20	15	25		15	20	00	0	90	05	00	-7	90
7	20	25		15	20	25		20	10	10	+5	80	10	00	+5	95
8	20	20	-5	20	20	15		15	10	05		80	10	10		00
9	20	20	-7	15	15	10	-2	10	10	15	-10	10	10	10		85
10	15	05	+7	05	20	10	+5	10	20	10	-9	00	10	10		80
11	20	10	-5	10	15	20		20	25	90	0	05	10	10		80
12	20	10	0	10	15	15	+3	15	15	80		85	10	10	-10	85
13	10	05	-3	15	15	15	-8	20	15	95	-4	90	15	85	0	80
14	05	05		15	15	10	0	20	20	90		85	15	90	+5	70
15	15	10		10	20	15	+8	10	15	85	+1	75	15	05		85
16	20	05		05	20	10	-7	10	20	05		85	15	05	-7	05
17	15	15	+2	20	20	10	+8	05	20	00	0	00	15	10	-2	05
18	15	15		15	20	05	0	05	05	05	0	05	15	15	0	15
19	10	15	-5	10	25	00	-2	85	15	90	+10	90	10	15	0	15
20	15	10	0	10	20	00		80	15	05		05	10	20		20
21	15	05		05	15	95	+0	75	20	05	-5	05	10	20		20
22	15	10	0	15	20	10	+2	10	20	10	+8	10	10	10	-7	00
23	15	10	0	15	15	30		30	20	00		00	10	05	+5	80
24	15	10	0	15	15	25	-7	30	10	05		10	15	15		85
25	20	15		15	15	25		30	15	00	-7	05	15	05		95
26	15	15		00	15	20		25	20	95		05	10	10	0	00
27	20	00	-5	05	15	20		20	20	95		05	15	15		00
28	20	00	0	00	15	20		15	20	95	+3	05	15	20		90
29	15	05	+8	10	15	20		25	10	90		00	15	20		10
30	15	10		05	15	20		25	05	90	+7	00	15	15		15
31	15	15	0	10	15	20		20	05	90		00	15	20		20
APR																
1	15	10		10	10	15		15	10	95		00	15	05	0	05
2	10	10	-5	10	10	15		10	00	85	0	90	10	05	0	05
3	10	10	0	15	00	05	-5	05	00	80		85	10	05		10
4	15	15	0	15	00	95	0	15	10	00		90	10	15		10
5	15	10		10	95	95	+2	15	20	00		00	05	15		00
6	15	95	-7	00	00	00	0	10	10	00	+3	00	10	00		00
7	10	95		95	95	90	+2	10	20	90	0	90	15	95	0	95
8	10	95	0	05	15	95	0	95	25	95		95	05	00	+8	00
9	05	05	+8	10	20	10	-3	10	20	00		00	10	95	+5	95
10	10	00		10	20	00	0	10	20	00	0	00	15	10		05
11	15	00		10	20	10		10	20	80		80	10	10		05
12	10	95	0	05	15	15	0	15	20	70	+2	70	10	10	-5	05
13	15	10	0	15	15	15	0	05	20	80		70	10	15	+3	05
14	15	10	-5	10	15	10		05	20	95		85	10	10	+7	05
15	15	10	-5	10	20	15	0	10	20	15		90	15	20		10
16	15	05	0	05	20	05	-3	10	20	95	-7	00	15	20		15
17	05	10		10	15	95	+5	05	20	90		90	15	25		20
18	05	05	+7	10	15	00	-5	00	25	90	0	00	20	20		10
19	15	00	-10	10	15	95	+5	95	20	95		85	20	15		15
20	05	90	+4	15	15	10		05	20	10		05	15	15	-5	10
21	20	10		15	15	05	+2	05	20	05	-4	10	15	20		15
22	15	10		10	20	20		15	25	00	0	00	15	20		20
23	15	15		10	20	25	-7	25	20	05	-8	95	15	25		20
24	05	00	0	10	15	15	0	15	20	10	+5	05	15	25		25
25	10	05		10	15	25		25	20	25		15	15	20		20
26	15	05		10	20	25		15	20	20		15	15	15		15
27	15	05		05	15	25	-5	15	25	05	+8	05	15	15		15
28	05	05	-5	10	15	20	-7	10	25	05	+1	05	10	10		10
29	20	10	-5	15	15	10	+3	10	30	25		20	15	20		15
30	20	15		10	15	15		15	25	10	-9	10	15	15		20
31																

1926	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
MAY																
1	20 05	-5	00		20 15	-7	15		20 00			10	10 15			15
2	20 10	-3	10		20 15	+3	15		15 10	0		15	10 15			10
3	20 15		15		20 15	-10	30		15 00	+5		20	10 15			15
4	20 15		15		15 15		30		15 10			30	15 10			05
5	20 00	-5	00		20 00	-7	15		15 10			30	15 05	0		05
6	10 95	+3	95		20 05		05		15 15			25	15 10			20
7	15 95	0	95		20 05		05		15 15			25	15 10			25
8	15 05		05		20 05		05		10 10			25	10 10	+5		20
9	20 05		05		20 20		25		10 10	+5		30	10 10			25
10	15 05	0	05		15 10	-10	30		15 15			25	10 10	-10		20
11	10 10		15		20 15	0	15		15 10			10	10 05	-5		05
12	10 10		20		15 10		15		15 05	-10		05	10 05	0		05
13	00 10		20		15 10		10		20 05	0		05	10 05	0		15
14	05 15		20		20 10		05		25 20	+5		00	10 10	+10		15
15	10 20		25		20 15	-3	10		25 25	-10		00	10 15			10
16	15 10		15		20 20		15		25 10	0		05	10 15			10
17	15 00	-2	05		20 05	-7	15		25 10			00	10 15			15
18	15 10		20		20 15		15		20 10			05	10 10	-2		15
19	15 15		20		20 95	-2	95		20 05			10	15 10			15
20	15 15		15		20 00	-9	00		20 00			10	15 10	+5		20
21	10 10	-5	15		20 00	0	05		20 05	-10		05	10 10			20
22	05 05	0	05		20 05	+5	05		25 05	+7		95	05 10	-5		25
23	10 10	+3	00		20 15		05		20 05			05	10 10			15
24	10 10	+5	15		20 10	-2	10		20 15			15	10 15			10
25	10 05		05		20 00	+2	05		20 05			15	05 15			10
26	15 00	-5	00		20 05	+5	10		15 05	-7		15	15 15			10
27	10 95	+3	95		20 10	-7	10		20 05	+5		10	05 05	-2		15
28	10 00		05		15 05	0	00		20 10	0		10	05 05	+3		15
29	05 00	0	10		20 15		15		20 15			20	05 10			15
30	10 00	+5	00		20 20	-10	20		20 15	-10		15	10 10			20
31	15 05		00		20 10	-5	10		20 20			05	10 10			15
JUN																
1	15 05		05		15 10		10		15 10	-3	00		10 15			00
2	15 05	-10	00		15 15		10		20 05	+5	05		10 15			15
3	15 05	0	00		15 20	-2	00		25 15		15		10 20			10
4	15 10	+5	05		20 10	-10	95		20 10	-11	10		10 15			20
5	15 10		05		20 15	0	05		20 10	-2	10		10 20			20
6	15 05	0	05		10 20		20		20 15		10		15 15			20
7	15 00	+5	00		15 20		25		25 10		10		15 15			20
8	10 00	-7	00		15 20		20		25 20		20		10 15			10
9	15 00	0	05		15 20		25		20 15	-3	15		10 05	-10		05
10	10 10	+5	15		15 25		25		25 05	+2	10		10 00	0		10
11	10 10	+8	20		25 25		25		25 10		15		05 00	+5		15
12	05 10		15		20 25		20		20 95	-5	10		05 10			15
13	95 05		15		20 25		20		15 00	0	10		05 10			15
14	00 00		10		20 25		20		20 05		05		05 10	0		15
15	10 05		10		25 20		15		15 95	+4	00		05 10			10
16	15 00		10		25 20		20		15 05		05		05 10	-10		05
17	15 05		05		25 20	-3	25		15 00	+3	05		05 05	0		95
18	10 10	+5	10		20 15	0	20		15 05		10		05 05	+5		90
19	10 10		10		20 15		15		15 15		15		05 10			00
20	10 10		05		20 20		15		20 15		15		10 15			05
21	10 05	0	05		15 15	-3	20		20 15	0	15		00 15			05
22	10 05	-8	05		20 20		20		20 10		10		05 05	0		05
23	10 05	-10	10		20 20	-10	20		25 15		10		05 15			10
24	10 05	-10	05		15 15	-5	15		25 20		10		05 15			15
25	10 00		05		15 10		10		25 15		10		10 10			15
26	00 95	-5	05		15 05	0	00		15 10	0	10		05 10	-10		05
27	05 05	+10	05		15 05	-3	05		15 15	+5	15		05 05	0		15
28	05 05	0	15		15 15		05		15 15		10		05 10			15
29	10 05		05		15 25		10		15 10	0	15		05 05	0		05
30	10 00	0	05		15 25		10		25 10	+10	10		05 10			15
31																
JUL																
1	15 05	+2	10		20 20		10		20 00	-5	00		00 00	0		15
2	15 05		05		15 10	0	10		15 05	+10	00		00 05	-5		10
3	15 00	0	00		15 05	-5	05		20 10		05		00 05	-10		10
4	10 00	+1	05		15 05	+10	05		15 15		10		00 00	-7		10
5	10 95	+5	05		15 15		10		20 95	0	10		00 00	-2		95
6	05 05		05		20 15		10		20 95	+8	95		00 05	0		05
7	10 10		05		20 20	-5	10		15 10		10		05 05			00
8	15 05		05		20 20	-10	15		20 90	-3	00		05 05			10
9	15 95	0	00		15 15	0	10		20 85	-5	85		05 10			00
10	15 10		10		15 15		10		20 95	+10	95		05 10			05
11	10 05		05		15 20	-10	15		20 05		05		00 05			95
12	10 05	-5	05		20 05	0	10		20 10		05		00 15			05
13	10 00	+5	00		20 10	-10	10		20 10	+2	10		95 05	-5		00
14	10 05		05		15 20	-3	15		15 15		10		00 00	0		90
15	10 10		05		15 15	-5	20		15 15	-5	00		00 05			95
16	15 00	-5	05		15 15	+5	20		15 15		05		00 05			95
17	10 95	0	00		15 20		15		20 20		05		00 00	0		10
18	05 00		10		15 20		20		20 10	0	00		05 05			00
19	10 05		05		15 15	0	15		20 10		00		05 05	0		00
20	10 10		05		15 25	-5	15		20 15		00		00 05			00
21	10 05	-3	05		15 15	0	15		20 05	0	05		05 00			00
22	10 05	0	05		15 10	-10	00		15 00	+2	00		00 05			00
23	10 05	-5	05		10 00	-10	05		20 10		10		05 05			05
24	10 05		05		15 00		00		15 10		05		00 05			05
25	10 00	+2	00		20 10	-6	10		15 15		05		00 00	0		05
26	10 05		05		15 15		15		20 05	0	95		05 05			05
27	10 05		05		15 15		05		15 05		90		05 00			00
28	10 00	-5	05		20 95	-5	05		20 10	0	00		05 05			05
29	05 95	+2	10		20 05		05		15 10	0	00		05 05			10
30	10 05		15		20 15	-10	00		20 15		05		05 00	-5		10
31	15 10		10		20 10	-2	05		15 15		05		05 05	-5		05
AUG																
1	15 10		05		20 25		15		20 20	+5	10		05 05	+5		00
2	15 00	-5	10		15 20	0	15		20 10		05		05 00	+3		00
3	15 90	+3	00		15 25		15		20 05		05		05 10			10
4	10 95		95		20 25		15		20 15	-12	10		05 05			10
5	10 00	0	05		15 25		15		20 00	0	00		00 10	+3		16
6	10 10		10		15 25		10		20 10	+10	00		05 10			15
7	15 05		05		15 30		10		20 25		15		05 10			15
8	10 10		10		15 25		15		20 20		15		05 05			15
9	05 95	0	00		20 30		15		20 10	-7	15		05 05			10
10	10 05		05		20 25		20		15 00	0	05		05 05	0		10
11	00 05		05		15 25		15		20 05		05		05 05			10
12	05 10		10		15 15	0	15		20 10		10		00 00			10
13	10 10		10		10 25		15		15 05	+5	05		00 00			15
14	10 15		15		15 25		20		20 15		15		05 05			15
15	10 15		05		15 20	0	15		20 10	-7	10		05 10	-3		15
16	10 15		10		15 15		10		15 95	+5	00		05 00	0		00
17	10 05	0	05		00 10	+3	05		20 05		05		05 95	+10		95
18	05 05		15		00 05	0	95		15 00	-5	00		05 00	0		00
19	10 10		10		15 05		00		15 10		10		00 10			00
20	10 10		10		15 05		05		15 05		10		05 10	-2		00
21	10 10		10		15 10	+5	10		15 05	+2	05		05 15			05
22	10 05	0	05		10 10	0	10		20 15		05		05 10			00
23	10 10		10		15 10	0	05		20 15		00		05 00	-3		00
24	10 10		10		15 15	-5	05		20 15		05		05 00	0		95
25	10 10	-10	10		15 20		05		20 15		00		10 00	+10		90
26	10 05	-8	15		20 15		00		20 10	+5	05		05 05			90
27	05 95	+2	10		15 15	-5	05		20 05	+2	10		05 05	-5		95
28	10 10		15		15 00	-3	00		15 20		15		05 05	+3		95
29	10 10	-5	10		15 10	+3	05		15 10	-7	15		05 10	+10		05
30	10 10	-3	05		15 15		05		15 00	+5	10		05 15			15
31	10 10	+5	05		15 10	0	05		20 10	-2	10		05 10			15

	135E				135W				45W				45E			
	35	35-55	55-80		35	35-55	55-80		35	35-55	55-80		35	35-55	55-80	
1926	P	P	T	P	P	P	T	P	P	P	T	P	P	P	T	P
SEP																
1	OT	10		95	15	25		10	15	10		10	00	05		90
2	05	10	-7	90	15	20		15	15	10		05	00	10		90
3	10	05	-3	00	15	25		15	15	05	+5	05	00	10		05
4	15	10	+6	05	15	25		15	15	10		00	00	15		15
5	15	15		15	15	25		10	15	05		00	00	15		10
6	15	10		10	15	25		15	15	10	0	05	00	15		00
7	15	10		15	15	25		20	15	15		10	10	10	+5	95
8	10	10		20	15	25		20	15	15		10	05	05	-5	00
9	15	10		20	15	25		25	15	15	0	10	05	05	0	00
10	15	15		10	15	30		25	15	10		10	05	10		05
11	15	10	-11	15	15	25		20	15	10	-7	10	05	15		10
12	10	05	-5	15	15	25		15	15	10	-5	05	00	15		05
13	15	05	0	20	15	15		15	20	15		05	00	20		85
14	15	10	+5	05	15	20		15	15	15	-6	15	00	20		80
15	10	10		05	15	15		15	20	10	+5	10	00	15	-3	95
16	OT	10		10	15	15		15	20	10		10	95	10	0	05
17	05	00	+5	15	15	25		20	15	20		05	00	10	-5	10
18	10	05	0	10	15	20		10	15	15		10	00	10	0	10
19	15	10		05	15	25		15	15	20		05	00	10	-5	15
20	15	10		05	20	20		20	15	20		05	15	15	-10	00
21	10	15		05	20	20		20	20	20		05	00	10		15
22	10	15	-10	00	15	25		20	OT	20	-10	05	05	10		15
23	10	05	-5	95	15	25	-10	30	15	05	-7	20	05	10		20
24	10	00	+2	05	15	20		20	OT	00	0	90	05	15		20
25	10	05		10	15	25		20	20	15		05	00	15	-10	20
26	15	95	0	05	15	20	-12	10	20	00		90	05	15	-5	15
27	10	05	+8	10	15	15	+8	10	20	10	+8	80	10	15	+10	05
28	10	20		25	15	05		05	20	20		80	10	15		15
29	OT	20		15	15	10	-12	10	20	15		85	10	20		10
30	10	15	0	10	15	00	0	00	20	15	+5	00	05	25		05
OCT																
1	10	10	+7	10	15	00	-3	00	20	10	-5	05	10	25		95
2	10	10		15	15	95	+10	90	15	00		00	10	15	0	90
3	10	05	-6	05	15	00	-3	00	20	10		95	10	20		95
4	10	00	0	00	10	05	+5	00	20	10	0	90	10	05	-4	00
5	OT	10	0	05	15	05	-4	00	15	15	0	00	10	00	0	00
6	10	00	+7	05	15	95	-4	95	15	10	-6	05	10	90	+10	85
7	10	15		15	15	95	+8	90	15	15		05	10	00	+5	95
8	10	05		05	10	90	0	00	20	10	-5	10	10	10		10
9	10	10		00	15	95	+8	10	20	10	+6	10	10	20		95
10	OT	15		15	15	00	+8	05	20	10		15	10	20		00
11	10	15	0	20	15	10		15	20	00	0	05	10	10		90
12	10	15	+6	20	15	05	-8	20	20	10		10	10	15	0	80
13	10	20		15	10	00	-8	10	20	05	0	15	10	00	-7	85
14	10	25		30	05	85	0	00	10	05	+2	25	10	00	0	85
15	10	20		30	15	85	-5	05	15	15		25	10	05	+7	85
16	10	05	+3	30	15	90	+7	85	15	15	-7	20	10	95	+8	85
17	10	10		25	15	10		00	20	10	0	15	15	10	0	90
18	10	10		05	15	15		15	10	10	-5	25	15	15		95
19	10	10		05	15	05	0	05	10	10	-5	20	15	15		05
20	10	05	-7	00	15	20		15	10	95	+2	15	10	10		10
21	10	05	+8	05	15	15		20	15	15		25	15	20		15
22	10	05	0	15	15	10		10	20	15		25	15	20		15
23	10	95	+5	10	15	95	-5	00	20	10	0	10	15	10		05
24	10	00	+5	10	15	95		85	15	10	-5	20	15	00	0	80
25	10	15		20	15	05	0	95	15	05	+3	15	15	95	0	95
26	15	20		20	15	10		95	OT	15		25	15	10		95
27	10	20	-10	30	15	20		10	15	15	0	15	15	15		10
28	10	10	0	20	15	25		20	15	20		15	10	10	-7	15
29	10	05	+8	15	15	20	-7	20	20	20		20	15	20	+5	10
30	10	05		20	15	20		05	15	95	0	95	15	20		00
31	10	15		15	10	25	-11	15	15	00		90	15	15	+10	05

	135E				135W				45W				45E			
	35	35-55	55-80		35	35-55	55-80		35	35-55	55-80		35	35-55	55-80	
1926	P	P	T	P	P	P	T	P	P	P	T	P	P	P	T	P
NOV																
1	10	20		25	15	25		20	15	05	-7	05	15	15		95
2	10	15		20	15	20		25	15	00	0	85	15	00	0	00
3	10	05		05	15	20		20	15	10		95	15	20		05
4	10	00	-2	10	15	20	+5	15	15	10		00	10	20		15
5	15	15		10	15	15	-7	15	15	05	0	00	15	25		15
6	15	25		25	15	05	+3	05	15	05		05	15	20		20
7	15	25		25	20	20		25	15	15		05	15	20		15
8	15	30		25	20	05	0	10	15	10	-3	05	15	25		95
9	15	25		25	15	05		05	15	15		05	15	25		95
10	15	15	0	15	15	95	0	95	15	15		05	10	25		05
11	15	25		25	15	90	+8	90	15	90	+10	90	15	25		95
12	15	25		20	20	85		85	20	90		85	15	20		10
13	15	15	+3	10	20	00		00	15	10		95	10	25		00
14	15	20		05	15	15	-5	10	20	10		95	15	25		00
15	15	20	0	15	15	15	-5	10	15	05		95	15	25		95
16	15	15		10	15	15		10	10	05	0	95	10	10	0	85
17	15	05	0	05	10	15		25	15	15		15	15	00	0	90
18	15	10		10	15	10	-5	20	20	05	+8	95	10	15		05
19	20	15		15	10	05	-8	25	20	15		10	10	20		95
20	15	15		10	10	00	-5	25	20	20		20	15	20		15
21	15	15		15	10	95	0	15	20	05	-3	00	15	25		20
22	15	20	0	15	10	95	-5	10	20	05	+10	05	15	25		05
23	15	15		15	10	95	+5	10	20	05	+10	00	15	30		05
24	10	20	0	20	15	85	+8	95	15	05	-5	90	10	20		00
25	15	05	-3	20	15	85	0	95	15	15	-12	00	15	20		05
26	15	05		20	05	85	0	00	20	00	+13	75	10	20		15
27	15	10		20	20	00		00	15	20		00	10	20		20
28	15	20		20	15	85	-3	00	20	10	-10	00	10	15	-5	15
29	15	20	0	25	15	95	-3	00	15	05	0	90	15	10	0	05
30	15	25	-10	25	10	90	+8	95	15	20	0	85	20	20		15
DEC																
1	15	00	-2	20	10	00	+5	00	15	15		95	15	20		15
2	15	00	+10	05	15	10		10	15	15		10	10	20	-10	20
3	15	00		10	20	15		15	20	05	-7	05	15	20	0	05
4	15	20		20	20	05	-5	05	15	95	+3	85	15	20		10
5	15	25		25	20	05	0	05	15	05	-5	90	20	25		10
6	15	20		25	20	15		05	15	00		55	20	25		00
7	00	00	+6	25	15	25		15	15	10	-7	80	15	15		10
8	15	95		00	20	25	-7	10	15	95	0	80	15	10	-10	05
9	20	95		95	15	30		10	OT	10	-8	85	10	05	0	10
10	15	00		00	15	95	-5	90	10	00	0	00	10	15		90
11	15	10		10	15	15		15	10	20		05	10	10	-5	85
12	15	10		10	15	25		30	10	20		20	05	05	0	90
13	15	20	0	20	20	20		25	10	00	-3	15	15	90	+5	85
14	15	20		25	15	10	-12	10	15	00	+2	00	15	05		95
15	15	20		30	20	85	0	95	15	10	-6	00	15	05	-10	00
16	15	15		30	20	00	0	00	15	25		10	15	10	0	95
17	15	15	+5	25	15	20	14	15	15	00	0	90	15	05		00
18	20	20		30	20	05	0	85	15	15		95	15	10	+10	90
19	20	30		40	20	10	+8	95	15	90	0	10	15	15		00
20	15	25	-5	35	20	95	+7	90	15	90	+7	85	20	10	0	05
21	15	15	+5	30	15	00		00	20	00		90	15	10		00
22	10	10		40	15	10		10	00	85	0	95	10	05	+3	15
23	15	15		25	20	05	+5	00	95	90	0	00	15	20		05
24	15	15		10	20	95	+7	85	00	80	+7	85	15	20		00
25	10	15	+2	15	20	20		15	10	85		85	15	05		95
26	15	20		20	20	00	-6	90	15	05	-3	05	15	10		75
27	20	20		20	20	00	-10	90	15	95	-5	95	15	95	0	85
28	15	15		10	20	85	+2	90	15	00	0	00	20	95	-10	95
29	15	25		15	20	00	-10	95	15	20		05	20	80	0	70
30	20	25		10	10	80	0	80	20	10	-7	15	20	00		95
31	20	20	0	15	15	90	+8	80	20	85	0	85	20	00		00

1927	135E 25-35	135E 35-55	135E 55-80	135W 25-35	135W 35-55	135W 55-80	45W 25-35	45W 35-55	45W 55-80	45E 25-35	45E 35-55	45E 55-80
	P	P	T P	P	P	T P	P	P	T P	P	P	T P
JAN												
1	20	10	0 0	10	75	-3 00	20	00	95	20	85	0 85
2	20	05	0 0	15	75	85	25	20	05	20	90	+8 95
3	15	05	+5 05	20	90	90	25	00	+4 00	15	15	00
4	15	15	15	15	10	+5 10	20	85	-7 80	15	25	95
5	15	10	10	20	20	05	20	00	95	15	10	90
6	15	20	20	20	15	+5 00	20	00	-7 00	15	05	-3 90
7	15	10	+5 15	15	05	+4 15	20	00	90	20	15	25
8	10	15	15	10	10	-3 05	20	05	-10 90	20	15	-10 00
9	10	10	05	05	05	+4 15	20	00	0 90	15	15	+10 90
10	15	05	05	10	05	+5 35	25	15	90	15	25	95
11	15	10	+5 15	20	15	20	25	15	+5 00	20	15	15
12	15	05	10	20	15	20	20	25	00	05	00	-6 10
13	15	15	15	15	00	-3 25	15	10	+5 90	05	05	+8 00
14	15	25	30	20	00	0 15	20	25	05	20	15	00
15	05	00	0 20	20	10	15	20	20	95	20	25	15
16	15	25	25	15	20	20	20	20	10	15	30	20
17	10	10	+5 15	20	20	25	20	10	-5 10	15	25	20
18	10	10	15	20	10	-3 15	20	10	+10 95	15	25	25
19	15	15	20	20	10	+8 25	15	25	+8 00	15	30	30
20	10	15	20	15	20	20	15	30	10	15	30	20
21	10	15	20	15	20	-5 15	15	10	0 90	15	30	15
22	10	15	20	15	20	15	15	05	80	15	20	15
23	15	15	15	20	10	-5 10	15	85	+8 75	10	20	20
24	15	20	25	20	10	-8 10	20	85	70	10	20	20
25	15	20	20	20	00	0 00	20	90	75	10	20	-10 15
26	15	15	20	20	00	95	20	90	-7 70	15	20	10
27	15	15	20	25	85	+10 85	20	95	+5 80	10	25	10
28	15	20	20	20	00	00	20	05	90	15	25	95
29	15	25	25	15	10	05	20	10	00	15	10	85
30	20	25	25	15	10	+3 10	20	10	-10 05	10	20	85
31	20	25	25	15	05	-5 05	15	10	00	10	20	85
FEB												
1	20	25	25	15	85	0 85	15	85	0 75	15	25	90
2	20	25	15	15	85	-5 85	15	95	+10 80	10	20	00
3	15	25	25	15	70	85	20	80	-2 90	15	20	10
4	15	20	-5 20	15	95	-9 90	15	65	+15 65	15	25	05
5	15	15	+7 25	15	05	95	15	65	+4 75	15	20	85
6	15	15	25	15	10	15	15	80	65	15	20	-10 95
7	20	20	25	20	15	-8 15	20	10	85	15	15	-7 05
8	20	20	30	20	25	15	20	80	+5 95	15	15	+8 85
9	20	20	25	20	25	-5 20	20	95	75	15	15	-10 85
10	15	20	20	20	25	20	20	95	85	10	05	-5 00
11	15	20	25	20	15	30	25	00	0 80	10	00	-3 00
12	15	20	20	05	00	-7 20	15	90	-5 95	10	10	10
13	15	20	20	00	95	+5 15	20	10	-7 95	15	20	10
14	15	15	-5 20	05	95	+5 10	20	00	00	15	20	10
15	05	05	+10 20	00	95	-5 00	20	05	00	15	15	0 05
16	15	15	+7 20	10	90	-3 00	10	85	0 95	15	00	+7 00
17	20	25	30	05	95	-8 85	15	90	00	15	05	05
18	15	25	25	25	85	80	20	10	05	15	10	-10 15
19	10	20	30	25	85	+5 85	20	15	+5 95	10	05	-4 15
20	05	20	30	20	70	0 75	20	10	95	15	15	-5 20
21	10	20	25	20	85	-3 80	20	15	90	20	20	25
22	20	20	20	20	55	95	20	05	0 95	20	15	-10 25
23	20	20	20	20	00	05	10	95	+10 00	10	10	0 25
24	15	15	-10 15	10	00	-8 10	20	90	90	15	20	15
25	10	10	0 15	20	95	95	15	95	95	15	30	20
26	10	15	20	20	05	-3 05	20	00	+10 00	15	30	20
27	15	15	15	20	25	20	25	10	10	15	30	25
28	15	10	15	20	05	+5 05	20	00	-2 00	15	25	20
29												
30												
31												

1927	135E 25-35	135E 35-55	135E 55-80	135W 25-35	135W 35-55	135W 55-80	45W 25-35	45W 35-55	45W 55-80	45E 25-35	45E 35-55	45E 55-80
	P	P	T P	P	P	T P	P	P	T P	P	P	T P
MAR												
1	10	15	15	20	05	+5 05	15	05	0 90	15	20	20
2	15	15	20	20	15	10	05	95	+5 90	15	25	20
3	15	25	25	20	05	0 00	20	15	05	15	25	15
4	15	20	-8 25	20	10	-8 00	25	00	0 05	15	25	10
5	15	20	0 25	25	85	85	25	95	-5 90	10	15	15
6	15	30	30	25	15	05	15	05	+5 00	10	15	10
7	20	35	35	20	85	+5 80	20	10	+10 10	10	20	+2 15
8	15	20	-5 00	20	90	-3 90	20	15	10	10	25	00
9	10	00	+5 30	20	00	95	20	10	-5 10	15	15	05
10	05	95	+10 20	20	00	-2 00	20	10	0 05	15	10	05
11	15	10	35	20	90	0 85	15	10	95	15	20	00
12	15	20	-10 20	20	95	85	20	05	-10 95	10	20	05
13	15	15	0 15	20	05	0 00	15	10	+10 95	10	20	-3 05
14	15	15	+5 15	20	10	10	15	15	00	10	10	+4 05
15	15	20	15	20	15	0 15	20	95	95	10	10	+7 00
16	15	15	-10 15	20	95	+5 95	20	70	0 85	10	10	00
17	15	15	0 15	20	05	00	15	90	95	10	15	95
18	15	15	15	20	15	15	20	05	00	15	00	+3 00
19	05	15	20	20	15	-3 05	20	00	90	15	20	-10 95
20	15	15	-8 15	20	10	0 15	20	85	+8 85	15	20	05
21	20	15	0 20	20	10	05	20	85	85	10	15	0 95
22	20	15	10	20	25	-8 25	20	85	80	15	95	0 90
23	15	20	15	20	05	+7 05	20	80	+3 80	10	00	00
24	20	20	20	25	20	-7 10	25	95	90	10	10	10
25	10	20	0 15	20	15	10	20	00	00	10	10	15
26	10	15	15	15	15	-5 0	10	20	05 -10	00	15	20 15
27	15	25	95	25	25	15	20	90	+8 00	10	15	-10 05
28	15	05	05	15	20	15	20	00	0 90	15	20	+10 15
29	15	05	-10 05	15	15	-8 10	25	10	95	05	20	05
30	15	05	0 05	20	15	+9 15	25	05	90	15	25	05
31	10	15	+10 15	15	05	+5 10	20	00	0 00	10	20	00
APR												
1	10	15	-5 20	10	05	10	20	10	05	10	15	15
2	10	20	0 15	15	05	+8 05	15	00	+8 05	10	10	-12 15
3	10	20	20	15	00	00	15	05	05	10	10	-5 20
4	10	15	25	15	00	-3 00	15	05	0 10	10	10	-5 15
5	15	15	25	15	05	+7 00	15	15	10	10	05	0 15
6	15	15	20	15	95	95	15	15	05	05	05	15
7	15	20	-10 25	20	10	10	20	10	00	00	00	15
8	10	15	-5 10	15	20	20	10	05	-8 20	05	05	20
9	15	20	15	15	30	25	05	90	0 10	10	10	10
10	15	20	20	15	25	25	10	80	90	10	15	00
11	10	15	15	15	25	-10 15	15	95	-4 00	10	15	00
12	15	20	-10 20	20	15	-8 15	20	95	95	10	05	-5 05
13	15	15	-3 10	20	15	-3 15	15	15	0 00	10	10	-7 10
14	05	05	0 10	05	05	+4 05	20	05	-8 05	10	05	0 00
15	15	15	15	15	15	90	20	95	0 95	10	05	+7 90
16	15	20	20	20	10	00	20	00	+10 85	10	05	90
17	15	15	-5 10	20	15	15	15	10	90	10	10	-7 00
18	15	10	-2 10	20	25	25	10	00	+4 05	10	10	-4 85
19	15	10	-4 15	20	30	15	15	00	+8 00	15	05	-10 85
20	15	00	0 05	15	20	20	15	10	0 85	10	05	0 85
21	15	95	+10 95	15	15	-5 20	15	20	10	10	05	+10 80
22	15	00	95	20	10	10	15	10	-3 20	10	95	-2 80
23	15	05	-10 00	15	05	-5 05	05	05	0 10	10	85	+4 75
24	15	00	0 00	15	05	-8 05	05	05	+4 15	15	00	25
25	15	05	-10 10	20	15	05	10	10	+8 25	10	15	95
26	15	95	-3 95	15	10	0 10	20	15	25	10	10	05
27	15	00	-5 10	20	95	95	20	15	20	10	10	00
28	15	00	0 00	15	10	10	15	05	-3 25	10	15	+5 95
29	15	15	-10 20	15	15	15	20	10	+5 25	10	20	05
30	15	10	+1 20	15	10	-7 15	20	15	+3 15	10	15	00
31												

1927 MAY	135E 35-85 P	135E 35-85 P	135E 35-85 T	135E 35-85 P	135W 35-55 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 35-85 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 35-55 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	15	10		15	20	05	+10	05	25	15	+8	05	05	15		95
2	25	05	-2	25	20	10	-7	10	20	15		15	05	10		00
3	10	05	-4	20	20	05	+7	05	20	05	0	10	05	10	+3	10
4	15	05	-5	15	20	20	-3	20	20	00	+3	10	05	15		15
5	05	00	+5	15	20	20	-5	25	20	00		05	05	20		00
6	10	10		05	20	30		30	15	05		10	10	20		05
7	15	10		10	20	20		20	20	05	-5	10	10	15		10
8	15	00	0	00	20	15	-3	10	20	05	-5	00	10	10	0	05
9	15	05	+5	05	20	10		10	20	05	+2	05	10	10	+8	05
10	15	10	+3	10	20	10	0	10	15	00	+5	05	10	10		05
11	15	15		15	15	00	+4	00	20	05		05	05	05	-10	00
12	15	10		15	15	10	+5	10	20	20		15	10	10	0	05
13	15	15		00	15	25		15	20	20		15	05	15		90
14	10	10	+5	15	20	20	-5	15	20	15		15	10	10	+5	00
15	15	10	-10	10	20	15	0	10	20	05	-3	15	10	10	0	10
16	15	00	-2	00	15	15	+5	15	20	15		10	10	20		00
17	10	10		10	20	10	-5	10	20	25		15	10	15		05
18	15	05	+7	15	15	00	0	00	20	20		10	15	20		15
19	15	05	-3	10	20	05		05	20	20		15	15	10	-3	10
20	15	10		10	20	20		20	20	15	-3	15	15	15		10
21	15	05	-4	15	20	25		10	20	05	0	00	15	20		15
22	10	05		20	20	25	-8	15	20	10	0	00	10	10		10
23	10	10		15	20	25	+10	15	15	10	+5	05	10	10		20
24	10	10		15	20	25		20	15	90	0	05	10	10		20
25	10	15		15	20	20		15	15	85	+5	90	10	10	-10	25
26	10	15		15	20	15		15	20	00		00	10	10		15
27	10	00	0	00	20	20		15	15	00	0	05	10	15		15
28	05	00	+5	00	20	30	-9	20	15	20		20	10	15		15
29	10	05		05	20	25	0	25	20	25		20	10	15		15
30	10	05		05	20	25		25	20	10	0	10	10	15		15
31	10	05		10	20	30		20	20	20		10	05	10		15
JUN 1	10	10	0	05	15	20		20	20	20		05	05	10	0	10
2	15	15		05	20	20		20	20	10	-10	15	00	10		00
3	10	10		05	20	15	-7	15	20	00	+5	95	05	15		05
4	10	00		00	20	10	+3	15	20	10		05	05	10		05
5	05	00	+5	90	15	15		20	20	20		10	05	10		10
6	15	00		00	15	10	-2	15	20	20		20	05	10		00
7	10	95	+7	05	15	10	-2	15	20	15	-3	15	05	10		05
8	05	95	0	00	20	15		10	20	10		15	10	10	-3	00
9	10	05		00	20	15		15	20	10	-5	15	05	05	+5	95
10	15	05		00	20	15		15	20	10		15	05	10		00
11	00T	95		95	20	20		15	20	10	+5	15	05	15		05
12	10	10		10	20	15		15	20	10		10	10	20		05
13	15	10		10	20	15		10	20	90	0	00	05	10		10
14	15	05	-7	10	15	20		15	20	90	+5	95	05	10		10
15	05	00	-2	10	20	15	-9	10	20	95		95	05	10		15
16	00	90	+7	05	15	15	+5	05	20	10	-7	10	05	10		20
17	20	80		85	15	15		10	20	15		15	05	05	0	05
18	10	00		00	15	15	-5	15	20	20		15	10	05	+5	05
19	15	05		05	20	20		20	20	15		05	10	05	+7	05
20	10	05		05	20	10	-5	15	20	15	0	15	05	10		10
21	10	05		05	15	10	+7	10	20	25		15	10	10		10
22	05	00		00	15	10	0	10	20	25		10	10	10	0	10
23	05	00		05	20	05	-3	15	15	20		10	05	10		10
24	05	05		05	20	00	+3	10	15	15		10	05	05	0	10
25	00T	05		05	15	05	+8	10	15	10	-5	10	05	05	+5	05
26	10	05		05	15	20		05	20	25		10	05	05		05
27	10	05		05	15	20		05	20	25		10	05	10		10
28	10	10		10	15	25		10	20	25		15	05	10		10
29	10	15		15	15	25		20	20	30		10	00	10		05
30	15	10		10	15	25	-5	20	20	25		15	10	10		10
31																

1927 JUL	135E 35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	15	05		10	20	25		15	20	15		10	05	10		10
2	15	00	0	00	20	20		15	20	10		10	05	10		10
3	15	05		05	20	20		15	20	20		10	05	10		10
4	15	05		10	20	20	-5	15	20	15		10	05	05	0	05
5	10	05		10	15	25	0	20	20	10	-6	05	00	05		05
6	05	05	+5	10	15	25		20	20	05	0	00	00	05		10
7	10	05		05	15	25		10	20	15		05	05	05		10
8	10	05		05	15	25		05	15	20		05	05	05	+5	10
9	15	05		90	15	25		10	20	15	-7	05	05	00	0	05
10	15	00	0	00	15	20	+5	10	20	20		00	05	00		05
11	10	05		05	15	20	-3	15	20	15		90	05	05	-5	00
12	10	10		05	20	20		20	20	15	+5	00	00	00	0	05
13	10	10		10	20	25		20	20	10		05	00	00		15
14	10	05		00	15	25		15	20	00	0	00	10	10		15
15	10	10		00	15	25		15	20	20		15	05	05	+8	15
16	10	10		05	20	20		15	20	20	+10	15	15	10		15
17	10	05		10	15	20		15	20	15		15	05	10		15
18	10	00	-8	00	15	25	+8	15	20	20		25	05	10		10
19	10	00	-2	95	15	25		15	20	25		10	05	10		05
20	10	05		00	15	15	-5	15	20	30		15	00	05		10
21	05	95	-5	10	15	25		20	20	30		10	05	05		10
22	10	25		05	15	25		15	20	30		05	00	05	+10	10
23	05	05	+8	05	15	30		10	20	20		05	00	10		10
24	10	10		10	15	25		10	20	20		05	00	05	-5	05
25	10	95	0	95	20	25		15	20	20		10	05	05	-5	05
26	10	00	+3	10	20	25		15	20	15	-6	10	05	10	0	05
27	10	00	+7	00	20	25		20	20	00		00	00	05		10
28	10	05		05	15	25		20	25	10		10	00	05	+7	10
29	10	05		95	20	25		15	20	10	0	10	05	10		15
30	10	05	+5	10	15	25		10	20	15	+5	15	00	05		20
31	10	05		15	15	25		15	15	05	-5	05	00	15		20
AUG 1	10	95	-5	95	15	25		10	20	10		05	05	05		20
2	10	00	+8	95	15	25		15	15	05	0	10	05	10		20
3	10	00		00	15	20	+8	15	20	00	-7	10	05	10		20
4	00T	05	0	95	15	20		15	20	05	+10	05	05	05	0	15
5	10	10	+10	10	15	25		20	20	15		10	05	05	+7	10
6	10	10		00	20	25		15	20	10	0	20	05	10		15
7	10	05		05	15	25		15	20	20		20	05	15		15
8	10	00		05	10	20	+10	15	20	25		25	05	10		15
9	05	05		10	15	10	-3	10	20	20	-8	30	05	10		05
10	05	95	-3	10	15	20		10	20	05	+5	25	05	10		10
11	00T	00	+5	10	15	15	0	05	20	05	-4	20	00	05		00
12	05	05		10	15	10	0	10	20	15		25	00	05	0	10
13	10	10		10	15	20		15	20	10	-4	25	00	05		15
14	10	95	0	95	15	20		15	15	20		25	00	05		10
15	10	05		05	15	25	+3	15	20	25		30	00	05		10
16	10	05	0	10	20	25		25	20	25		20	00	05	0	05
17	10	05	-7	10	15	25		25	15	10	0	15	00	10		05
18	10	90	0	00	15	20		20	15	05	-4	05	00	05	0	10
19	10	10		10	15	20		20	15	00	+10	00	00	05	+5	10
20	10	05	-7	05	15	25		25	15	10		10	00	10		10
21	00T	10	-2	10	15	25		20	20	15		15	00	10		10
22	00T	05	+7	05	15	20	+3	10	15	25		10	00	10		10
23	00T	10		10	15	15		05	20	20		10	05	10		00
24	00T	15		15	15	15	-2	10	15	10	-8	05	05	10		00
25	00T	15		15	15	15		10	20	05	-8	05	05	10		00
26	00T	10		05	15	00	0	00	15	00		90	05	05		10
27	10	15		15	15	15		10	20	10		05	00	10		10
28	10	05	0	05	10	20		15	15	00	0	00	00	10	0	15
29	05	00	0	00	10	10	+4	10	15	05		00	05	10		10
30	00T	00		00	15	15	-8	00	15	10		05	00	10		15
31	05	85	+5	90	10	10	+7	05	15	15		00	05	10		10

1927 SEP	135E 25-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 25-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 25-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 25-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	10	15	+4	90	10	10	-3	05	15	10		95	05	10		10
2	95	95	0	05	10	05	-5	00	15	10		95	00	95		10
3	05	95		10	15	95	0	95	15	15		10	05	10		05
4	05	85		10	10	00	+8	95	20	20		15	00	10	-5	10
5	05	05		10	15	00		00	20	10	0	15	00	05	-7	10
6	15	10		10	15	20		10	15	00	0	05	05	10		10
7	05	15		05	15	15		05	20	00		00	05	15		00
8	10	10	0	05	10	10	05	15	20	10		00	15	00	10	00
9	10	10		10	10	20	-9	10	20	05	-4	15	05	10		95
10	10	05	-4	05	15	10	+5	05	15	00	+5	00	00	15		95
11	10	00	+5	00	10	15		15	15	15		00	05	10		95
12	10	10		10	15	15		15	15	15		15	05	15		90
13	00	05	0	10	15	10	0	10	15	10	-5	15	05	10		00
14	10	10		10	15	20		15	15	05		05	05	10	-5	00
15	10	05	0	05	15	10	+8	05	15	15	-10	20	05	10	+5	05
16	10	10		15	15	20		20	15	95	-5	05	05	10	-5	05
17	15	15		10	15	20		30	10	85	+5	90	05	15		10
18	10	10	0	15	15	20		30	15	95		00	05	15		15
19	15	10		15	15	15	0	20	10	05	+10	10	05	10		10
20	15	20		20	15	15	+5	20	15	15		20	05	95	+4	90
21	10	15		15	15	10		20	15	10		10	05	90	0	90
22	10	15		20	15	20		20	15	10		10	05	95		90
23	10	20		25	15	20		20	15	25		25	10	05		85
24	10	20		25	20	15		15	15	15	-7	15	10	15		05
25	10	25		25	20	10	-5	05	10T	10		00	10	15		15
26	10	20		20	15	95	-10	95	10T	10		00	10	15		95
27	00	15		15	15	85	+5	85	15	10		00	10	15		90
28	05	05	-7	05	15	00	-7	90	15	15		00	10	15		00
29	10	10	+8	10	15	15		00	15	10	-5	05	10	15	-10	15
30	15	10	0	10	15	20		10	15	00	+2	05	10	15		15
31																
OCT																
1	10	10		15	15	20		15	15	20		10	10	20		15
2	10	90	0	15	15	15	0	25	15	90	+1	95	05	15		15
3	10	00		10	15	20	+10	20	15	90	+10	90	05	15		00
4	15	05	0	10	15	25		20	15	05		90	05	10		10
5	15	15		15	15	20		20	15	85	-5	90	05	10	-5	10
6	15	15		25	20	15	0	10	20	10	0	85	05	10	0	15
7	10T	15		25	15	20		15	15	15		95	05	15	0	15
8	10	05	0	15	15	05	-4	95	15	20		20	10	15	+5	15
9	15	10	+8	10	20	05	-10	95	15	05	-2	05	10	10	+10	05
10	10	10	-2	15	15	05	+4	00	15	15		15	10	10	+10	00
11	15	00		10	15	05	-7	95	20	05	-4	10	15	10		90
12	15	10		15	15	95	0	95	15	00	+5	95	15	05	-6	00
13	15	15		20	15	10	+4	95	15	30		10	10	10	+5	05
14	15	20		00	15	95		95	15	25		15	10	15		05
15	10T	20	0	10	15	75	0	05	15	15		00	10	20		05
16	10	15	+8	00	10	95	+5	85	10	10		15	15	10	0	95
17	10	20		05	15	80	0	95	10	05		20	15	20		85
18	10	20		15	15	95	-5	90	15	10		20	15	00	-5	00
19	15	20	-8	20	10	05	0	15	10	10		25	15	00	+5	90
20	15	15	0	15	15	05		05	10	10		25	15	20		90
21	10	15	+8	15	15	95	0	95	15	05	-10	10	15	05	+3	80
22	10	20		15	15	95	0	95	15	90	+2	95	15	15		90
23	00T	10	-10	10	15	00		00	10	80		80	15	20		00
24	10	10	0	15	15	10		10	10	80	+5	80	15	15		05
25	10	15		10	10	05	+5	10	10	90		90	15	00	-2	00
26	10	20		20	05	05	+7	05	15	05		05	15	00		95
27	00T	15		25	15	05		00	15	00	-3	05	15	00	0	00
28	00T	15	-7	15	15	90	0	90	15	05		10	10	10		00
29	10	10	0	15	20	05		00	15	05		05	15	00		95
30	15	15	+6	05	20	15	-5	15	05	90	0	00	10	00	0	00
31	15	10		05	20	20	+9	15	00	90	+9	95	15	15		10

NOV	135E 25-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 25-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 25-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 25-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	15	05		05	20	05	+3	90	15	05		00	15	20		10
2	15	15		05	20	05	+3	95	15	10		10	10	00	0	85
3	15	15		10	15	20	0	15	15	25		05	10	10		95
4	10	15		20	15	20		20	15	25		95	10	15		85
5	10	10		15	15	15		15	05	15		25	10	00	0	00
6	15	20		10	15	10		10	15	15		20	10	05		05
7	15	20	0	15	15	10		15	10	20		20	15	20		05
8	15	20		15	05	05	0	15	15	25	-6	15	10	10		75
9	15	15		15	15	15		20	15	25	0	05	10	10		80
10	15	15	-2	20	15	20		25	20	30		00	10	05		90
11	15	05	0	10	15	05	0	25	15	00	+5	00	10	05	-10	90
12	15	90	+10	00	15	95	+9	20	15	15		95	10	20	0	05
13	05	95		00	15	95		10	15	10	-5	05	10	15	-5	15
14	10	05		00	20	10		15	15	10	+7	95	15	10	+8	00
15	10	10		05	20	05		20	15	10		80	15	15		00
16	05	95	0	00	20	05		10	15	10		90	15	15	-8	00
17	10	10		15	15	-5	15	05T	10			90	15	10	+6	05
18	10	15		15	00	-2	20	05	15			05	15	15	-2	20
19	10	20		15	15	15	+5	00	15	05		05	15	20		20
20	15	20	-9	15	15	05		00	15	15	-7	10	15	25		25
21	10	05	+1	10	15	05		95	20	10	-2	00	15	10	0	20
22	15	15		10	15	95	+2	80	20	05	+4	00	15	20		15
23	10	25		25	20	00		90	20	05		95	15	30		20
24	15	25		15	20	80	+3	80	15	95	-2	90	15	30		00
25	10	30			15	95		95	15	95		90	10	25	-10	10
26	10	15	-3	15	20	90		90	20	10	-3	90	15	30	-10	10
27	15	15	0	15	20	90	0	80	15	10	+8	00	15	20		15
28	05T	25			25	00		00	15	00	0	95	15	20		95
29	05T	25		15	20	10		10	15	10	+10	80	15	25		00
30	15	30		15	20	10		10	15	05	-5	95	15	20		05
31																
DEC																
1	20	25	0	25	20	05		05	10	00		00	15	20		05
2	15	20	+8	20	20	05	0	05	10	90	+5	75	15	25	-10	90
3	15	25		20	15	15	0	10	15	10		80	15	20		80
4	15	25	-5	15	20	10	0	05	15	90	0	75	15	15	+5	20
5	20	25	+5	15	20	25		30	15	00		85	15	25		05
6	15	20		10	15	30		30	15	90	-3	80	15	25		15
7	15	15		10	15	10	+4	20	15	90		80	15	20		20
8	15	15	-2	15	15	15		15	15	05		05	10	20		20
9	10	10		10	15	15		20	15	15		10	15	25		20
10	15	15		10	20	30		10	15	05	-4	05	10	20		05
11	15	25		25	20	00	+7	00	15	00	+8	00	15	20		05
12	15	25		25	20	05		05	15	05		05	15	20		90
13	15	15	-10	15	20	05		05	05	85	+4	10	10	20		05
14	15	15	+5	15	20	15		10	05	90		05	10	20	-10	10
15	15	15		15	20	15	0	05	85	80	+4	85	15	00	-2	95
16	15	15		15	15	30	-10	15	95	15		00	15	20		05
17	10	15	0	15	20	10	0	05	05	90		00	15	15		25
18	15	15		20	20	05	0	05	00	75		95	15	10	-7	15
19	15	15		15	15	15	+5	15	05	70	+10	90	10	10	-7	95
20	20	10	0	10	15	20		15	00	85	-10	00	05	00	+3	00
21	20	20	-10	25	20	05	-3	05	00	90	+2	00	15	05		85
22	15	15	+10	25	15	05	-5	05	85	85	+5	05	15	15	0	90
23	95	95	+10	20	20	00	+5	05	05	90	+2	10	15	20		05
24	20	15		20	10	05	+5	15	15	10		10	15	20		00
25	20	10	+5	10	15	10		05	20	10	-5	05	15	15	-12	90
26	15	00		00	20	95	+4	95	15	85	+5	10	15	15		10
27	15	05	0	10	20	00		00	10	90	0	90	20	20		10
28	10	05	+10	15	20	15		15	05	95	0	95	20	15	-7	10
29	15	15		20	15	15		15	00	05		90	15	15	0	10
30	20	15		10	15	10		20	05	15		00	15	20		05
31	20	10		10	10	00	-3	25	10	05	0	00	15	05	0	05

1928 JAN	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	15	10	0	15	10	95	0	20	15	15		95	15	15		15
2	15	10		25	15	00		10	15	00	+5	90	15	25		00
3	15	15		30	15	95	0	00	20	05	-5	70	15	25		35
4	15	15		20	20	05	+4	05	15	25		85	10	25		70
5	15	20		20	20	90	+8	85	20	10	+5	90	15	10	-10	00
6	15	25	+10	25	20	10	-7	05	20	85	+5	85	10	05	-10	95
7	20	30		20	20	95	-3	95	20	00		75	15	05	0	95
8	20	35		20	20	05	0	95	15	05	+8	80	15	10	-5	05
9	15	20	-3	25	20	00		00	15	00	+8	90	15	10	-3	05
10	15	15	+5	25	20	00		00	15	10		90	15	15	0	00
11	20	20		20	15	90	-5	80	15	85	+10	85	15	20		10
12	20	20		25	15	05	+8	00	20	90	-7	85	20	10	-10	85
13	20	25		10	15	10		10	20	95	+10	90	20	05	0	90
14	15	25			20	20		10	25	05	-6	95				
15	20	20	-5	15	15	15		00	20	85	+8	70	15	10		00
16	20	25	+5	25	20	10	-5	05	20	00	+7	70	20	10		95
17	15	25		20	20	10	0	05	20	80		55	15	10	0	95
18	15	15		20	20	15	+3	20	10	75	+6	65	15	20		35
19	20	30		20	15	20		20	10	80	0	75	15	20		05
20	20	35		30	20	15	-8	15	20	85		75	15	25		10
21	20	35		20	20	90	+4	15	20	95	-2	95	15	25		95
22	15	25		15	20	05	+10	15	25	80	0	70	15	30		00
23	15	15	0	20	20	15	-4	15	20	85		55	15	30		75
24	15	20		10	20	10	+7	10	20	00	0	70	20	30		80
25	15	25	0	15	20	15	+5	15	20	00		75	15	30	+10	70
26	15	25		15	15	00	-2	05	20	00	-6	00	20	35	+10	90
27	15	05	0	15	10	10	0	15	20	90	+8	70	15	30		90
28	10	10		05	10	05		15	20	10		80	15	30		00
29	15	10		15	15	05	+8	20	20	15		90	15	30		10
30	15	15		15	15	05		15	20	95	0	95	15	30		25
31	20	20		15	15	00	-5	15	20	05		85	15	30		15
FEB																
1	15	20		20	05	05	0	15	20	10	6	90	15	25		20
2	15	20		20	05	00	+5	05	20	15		00	15	10	-10	15
3	15	25	+5	20	10	90	+5	05	20	90	0	75	10	10	-10	90
4	15	25		15	15	90	-3	90	20	10		80	15	20		05
5	15	15	-5	25	20	05	-4	05	20	05	-7	85	15	20		05
6	10	10	+4	20	20	10	0	10	20	00	-5	80	10	25		90
7	15	15		15	20	00	+8	00	15	95	0	90	10	20		85
8	15	15		15	20	95	-3	95	10	00		95				
9	15	10		10	15	05	0	05	10	25		95	15	05	+3	85
10	15	15		15	15	00	+2	15	15	10		05	15	95	0	70
11	15	20		20	15	20		15	20	05	-5	00	10	95	0	80
12	15	30		30	20	15	-5	10	10	95		95	15	00		85
13	15	30	-7	30	15	20		15	05	90	0	95	15	05		95
14	15	15		30	20	25		15	10	95		90	15	05	-5	95
15	15	25		25	15	30		15	20	05		70	10	00	0	00
16	15	20		25	20	30		15	25	10		85	10	05		05
17	15	20		25	15	25	-7	15	25	90	0	90	10	10		10
18	20	25		25	15	25		35	20	90		90	15	00	0	00
19	15	20		15	20	30		30	15	75	-4	70	15	95	+3	95
20	20	10		05	15	25		30	20	70		60	15	10	+7	05
21	15	10		10	20	20		25	25	95	-8	70	15	10	0	10
22	15	10	-5	15	20	15	0	20	25	00	+4	75	15	15		15
23	15	05	+5	15	20	10		20	30	10		90	15	15		95
24	15	15		20	20	10	0	15	25	15		00	15	15		05
25	20	20		20	20	25		15	25	90	+5	90	15	20		80
26	20	15	0	15	20	15		15	15	85	0	80	15	20		85
27	20	25		10	15	10	+2	15	10	85	+10	80	15	20		05
28	20	30		20	15	10	-3	15	25	95	-10	85	15	15		95
29	15	15	+5		10	00	0	20	20	90		70				
30																
31																

1928 MAR	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	15	15		20	10	10	+5	25	15	05	+5	95	15	20		20
2	00	90	+4	15	10	10		30	15	10	-7	10	15	15		15
3	15	10		20	15	05	0	25	20	05	+5	00	15	10		10
4	10	15	0	20	05	05	+4	10	20	05	0	05	15	15		25
5	10	15		20	20	05		05	20	05		05	15	20		15
6	15	25		30	20	05	-5	05	20	15	-3	15	15	20		05
7	15	25		30	20	15		20	15	10	+5	10	15	15		00
8	10	20		30	20	00	-3	05	15	15		05	15	10		10
9	05	10		25	20	95	+7	95	20	00	0	05	15	20		15
10	05	05		25	20	75	-2	70	20	10		05	15	10	-7	15
11	15	10		30	20	00		95	15	15	+5	00	15	05	+5	05
12	15	15		30	20	05		05	20	05		05	15	15		00
13	15	20		25	20	15		15	20	05	-5	10	15	05		00
14	15	25		25	20	10	-7	10	05	00	+10	10	15	10		00
15	20	20		20	15	10	0	95	15	10		10	15	15		95
16	20	10	-10	10	20	15		15	15	00	-5	00	20	25		15
17	15	05	0	05	20	95	0	95	20	90		95	15	30		95
18	10	10	+10	10	15	05	-3	00	15	10		05	15	30		95
19	15	15	-8	15	20	00	+3	10	20	15		00	10	15		00
20	15	10	+3	20	20	95	0	00	15	00	-3	05	15	25		15
21	15	15		05	15	95	-10	95	15	95		95	15	25		10
22	15	15		15	15	95	0	00	10	90		90	15	20		00
23	15	15		10	15	00		05	15	00		00	15	25		95
24	20	10	-8	10	15	00		00	15	00	-5	00	15	30		05
25	10	00	0	05	15	05	-8	00	20	85		80	10	25		20
26	15	95		95	15	95	+8	05	20	00	+5	90	20	25		15
27	15	00	0	00	15	00		00	20	15		00	15	30		15
28	15	15		20	15	10	-4	05	20	05		05	10	20		05
29	15	25		30	20	00	-10	00	20	10	0	10	10	20		05
30	15	25		20	15	05	+8	05	20	05	+5	05	10	15		05
31	15	25	-5	25	15	00		00	20	95		90	05	10		15
APR																
1	15	25	0	15	20	00	0	00	20	90	0	75	10	15		15
2	15	15		05	20	05	+10	05	20	00		90	10	15		10
3	10	15	+7	10	20	10		10	20	15		90	10	15		15
4	15	20		10	20	05		00	20	90		85	10	20		15
5	15	20		20	20	25		15	20	10	+8	90	10	10	-5	00
6	15	15		10	20	25		30	20	05	-8	95	15	10	0	05
7	15	10		10	20	20		25	20	05		05	10	05	+10	00
8	15	00	0	00	20	10		20	20	15		05	10	90	-2	95
9	15	10	+5	10	20	10		10	20	05	-10	00	10	85	+10	85
10	10	15		15	20	10	-4	10	20	95	+5	90	05	05		05
11	15	20		20	20	05	-7	05	20	05	0	40	05	05	0	05
12	15	05	0	05	20	15		15	25	10		95	05	15		15
13	10	10	0	15	20	20		20	25	10		10	15	15		10
14	00	10		20	20	20	-7	20	10	05	-5	15	05	10	-7	10
15	05	10		20	15	05	-2	10	00	95	+5	20	15	10	+5	15
16	10	15	-10	15	15	95	-3	10	20	15		20	10	10		05
17	15	00	0	00	15	05	+8	10	20	05	0	10	05	10		10
18	15	05		05	15	10		10	20	00	+5	10	10	00		00
19	15	10	+5	10	20	15		10	20	05	+1	05	10	05	+10	05
20	15	15		15	20	05	0	05	20	95	-10	95	15	10		10
21	10	15	-5	15	15	05	+4	00	20	95	+3	95	10	10	-5	10
22	00	00	0	15	20	05	0	10	20	95		95	10	10	+4	05
23	15	15		10	15	05		05	20	00		00	10	15		00
24	15	05	-10	05	15	95	-2	05	20	15		10	15	20		05
25	15	00	-7	05	15	00	0	10	20	10	-4	10	15	15		90
26	10	00	0	10	10	05		10	20	00		00	10	15	-5	00
27	15	05		05	20	10	0	95	20	95	-5	95	10	20		10
28	10	10	-10	10	15	00	0	90	25	05		05	10	15		10
29	15	10	+8	10	15	10		05	20	20		15	10	15		10
30	10	05	-5	10	15	95		95	20	15		15	10	15		20
31																

	135-E				135W				45W				45E			
	15-35	35-55	55-80		15-35	35-55	55-80		15-35	35-55	55-80		15-35	35-55	55-80	
1938	P	P	T	P	P	P	T	P	P	P	T	P	P	P	T	P
MAY																
1	10	10	0	15	15	05		05	20	05		05	10	10		20
2	10	10		05	20	15	-5	10	20	15		10	10	00	+2	10
3	10	15		05	15	10	0	05	20	05		10	10	05		05
4	10	10		05	15	10	-10	05	20	00	-5	20	10	00	-2	10
5	00	00	+5	05	15	10	+5	05	15	90	+2	15	05	00	+5	00
6	10	05	0	05	15	20		05	20	90		15	10	10		05
7	10	05		10	15	10	0	00	20	05		10	10	15		95
8	15	05	0	10	20	20		10	20	10	+10	00	10	20		05
9	15	00		00	20	25		15	20	15	+5	05	10	20		05
10	05	00	0	00	15	20	0	20	20	20		10	10	15	-5	05
11	00	00	0	00	15	25		20	20	20		10	10	15	-7	10
12	10	00		00	15	30		25	20	15		10	10	15	-2	20
13	10	05		95	15	20	-5	25	20	20	-10	00	10	15		15
14	05	00	+8	05	15	10		10	20	15	-5	20	10	15	-5	20
15	05	95	-3	15	20	15	0	10	20	15	0	25	10	10	0	10
16	10	05	+10	20	20	20		10	15	10	0	20	10	15	+7	10
17	10	10		15	20	15		10	15	15		25	10	15		10
18	10	10		05	20	25		15	15	05	-7	15	05	15		20
19	15	05	-5	05	20	10	-3	15	15	05	-4	20	05	15	+5	20
20	15	05	0	05	20	20		15	15	05	0	15		15		15
21	15	10	+5	10	20	10		10	15	05	-2	15	10	10	0	95
22	15	10		10	15	15		05	15	10	-7	25	10	10	+9	05
23	05	05	-10	05	15	10	0	15	15	15		30	10	10		10
24	10	10	0	15	15	20	+8	15	15	15	+8	25	10	15		15
25	10	00	-8	05	15	15		15	20	20		20	10	15		15
26	05	00	0	00	15	20	-5	10	25	15		15	10	10	-10	10
27	05	10		10	15	00	0	05	20	10	+7	10	10	10	-5	10
28	15	10		10	20	20	0	00	20	15		15	10	10		15
29	15	05		05	20	95		95	20	10		10	05	10		15
30	15	95	0	95	20	15		10	20	15		20	05	10	0	15
31	10	10	+5	05	20	10		15	20	10		15	05	05		05
JUN																
1	05	10		05	20	10	-8	10	20	15		20	05	05		05
2	10	10		00	20	10	0	15	20	05	+2	05	05	05	-5	05
3	10	10		05	20	10	-7	05	20	15		15	05	10	0	10
4	10	05		05	20	20		05	15	10	-5	10	05	05	+5	05
5	10	05		05	15	25		15	15	00	+5	05	00	10		05
6	15	95		95	15	20		20	15	95		05	00	10		00
7	10	00	0	95	15	20		25	15	05		10	00	05	-4	00
8	10	10	+7	05	15	20	-5	20	20	10		10	00	10		05
9	10	05	[-8	05	15	25		25	20	05	0	15	95	10		05
10	10	10	[-8	10	15	20		20	20	10		15	95	05	-2	10
11	10	10	-9	15	20	15	-10	05	20	15		15	00	05		10
12	10	05	-3	20	20	15	+7	05	25	00	+5	00	00	10		10
13	05	05	0	10	20	20		10	20	10	-7	10	00	05	-7	00
14	00	05		15	20	20		10	15	05	+3	20	00	10	0	95
15	00	05		15	20	20		05	20	00		20	00	10		95
16	10	10		10	20	20	-10	15	20	10	-7	20	00	05		00
17	10	10		05	20	25		15	20	00		05	00	15	-2	00
18	10	10		05	20	25		20	20	00		05	00	10		15
19	10	05		10	15	20		15	20	10	+5	10	00	10	0	10
20	05	00	0	05	15	20		10	20	10		10	00	15		05
21	05	05		10	20	20		05	20	15		15	00	10		10
22	10	05	+5	05	15	25		10	20	10	-5	15	00	05		10
23	15	05		00	15	25		10	15	10	0	15	00	05	0	05
24	10	00	-4	00	15	25		15	15	15		10	00	05	+10	00
25	10	05		00	15	20	-10	10	20	20		10	05	05		95
26	05	05		00	15	10	0	05	20	15	-5	10	00	00	0	95
27	10	00		00	15	15		15	20	20		05	00	05		00
28	10	05		05	15	15		15	20	20		15	05	10		10
29	05	05		05	15	20		15	20	15	0	15	00	10	-5	10
30	05	05	+2	00	15	25		20	20	25		10	00	05	+2	10
31																

	135-E				135W				45W				45E			
	15-35	35-55	55-80		15-35	35-55	55-80		15-35	35-55	55-80		15-35	35-55	55-80	
1938	P	P	T	P	P	P	T	P	P	P	T	P	P	P	T	P
JUL																
1	15	10	-5	00	20	20		15	20	15		15	05	15		10
2	15	10	0	10	15	10	-5	10	20	05	-2	05	05	15		05
3	15	10	+5	05	15	10		10	20	05	+7	05	05	15		05
4	10	10		10	15	15	+5	10	20	15		10	05	10		15
5	15	10	0	05	20	15	0	10	20	10	-7	05	05	10	-10	00
6	15	10		05	20	15	0	10	20	00	+9	95	05	05	0	95
7	10	05		05	15	15	0	10	20	10		95	10	10		05
8	10	00	-5	05	15	20		05	20	10		95	05	10	-5	00
9	00	10		10	15	20		10	20	95	+8	95	10	10	0	00
10	10	05	0	05	15	15	0	05	20	10		00	05	10	0	10
11	10	05	-5	05	15	15		05	20	05	-5	95	10	10	-10	10
12	10	05		05	15	20		10	20	05	-3	05	05	05	-2	10
13	10	05	-5	00	15	20		15	20	15		00	05	10		05
14	10	05		00	15	25		15	20	15		00	05	15	0	10
15	10	95	0	00	10	25		15	20	20		05	05	10		00
16	10	00		05	10	25		15	20	15		05	05	10		95
17	05	05	0	05	10	25		20	20	15	+8	05	05	10	0	05
18	10	10		10	15	20		10	20	15	+8	05	05	10		10
19	10	15		10	15	20		15	20	10		05	05	10	-7	05
20	10	10		10	15	20		05	20	05	+2	05	05	10	-6	10
21	10	10		10	15	20		05	20	05		05	05	10		05
22	05	10	0	10	15	25	-7	05	20	00	+10	00	05	10		05
23	05	05		05	15	25		15	20	10	+8	05	05	10	0	10
24	00	10		10	15	25		15	20	20		15	05	05		05
25	05	10		10	15	25		15	20	15	-10	15	05	10		10
26	05	05	-10	10	20	20		20	20	05	-7	10	05	05		00
27	05	00		05	20	20		15	20	05		10	05	05	+5	00
28	05	00		05	20	20		15	20	10	+7	15	05	05		05
29	05	00	-5	00	15	25		20	20	20		20	05	05		95
30	05	10		05	15	25		15	20	15	-3	20	05	05		00
31	10	20		25	15	15		15	05	05		05				
AUG																
1	05	10		05	20	10	-2	00	20	20		10	00	10		10
2	00	05		10	20	25		05	20	20		10	05	10		15
3	00	05		10	20	25		10	20	95	-1	10	05	15	-5	15
4	05	05		10	20	25		15	15	00	+5	05	05	10		15
5	00	10		10	15	25		20	15	05		25	05	10	+5	15
6	05	05		05	15	25		20	20	05		05	00	05		15
7	00	05	-6	05	20	25	-5	15	20	00	+10	00	00	10		15
8	05	10		05	20	15	+10	10	00	05	-7	10	00	05		15
9	05	10		05	20	05	-3	05	20	20		10	00	05	0	10
10	05	10		05	20	15	-5	05	20	20		15	00	05	-6	05
11	05	10	-5	05	20	10	-2	00	20	20		10	00	10		10
12	00	05		10	20	25		05	20	20		10	05	10		15
13	00	05		05	15	25		10	20	95	-1	10	05	15	-5	15
14	00	05		10	15	25		15	15	00	+5	05	05	10		15
15	00	10		10	15	25		20	15	05		25	05	10	+5	15
16	05	05		05	15	25		20	20	05		05	00	05		15
17	00	05	-6	05	20	25	-5	15	20	00	+10	00	00	10		15
18	00	05	-3	10	15	25		20	20	05	-3	95	00	15		15
19	00	10		15	15	20		15	20	10		05	00	10		10
20	10	05		15	15	25		10	20	05		15	00	05	+5	05
21	10	50	0	10	15	25		15	20	15		15	00	10		15
22	05	10		15	15	25		20	20	25		25	05	10		10
23	05	10		10	15	30		15	20	20		20	05	15		05
24	00	05	-2	05	15	30		20	20	20		25	00	10	-10	90
25	00	05	0	05	10	25		15	15	25		25	00	15	0	90
26	00	05		05	15	20		15	20	25		15	05	15		95
27	00	15		15	10	25		20	20	25	-5	20	00	10		00
28	00	15		15	10	25		15	15	15	0	15	00	15		00
29	00	10		15	15	25		10	20	15		10	05	10		00
30	10	00		20	15	25		05	20	10	-2	95	05	10		10
31	10	00		25	15	25		20	25	05	-5	00	00	10		15

1928	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
SEP																
1	10	15		15	20	25	-10	10	25	00	0	90	05	10		10
2	10	10	0	05	15	25	0	05	20	05		85	05	10	-5	85
3	10	15		10	15	25		15	20	15		85	05	10	-4	05
4	10	10		10	15	25	-10	15	20	10		95	05	15		15
5	10	05	-10	05	15	15	+2	15	15	85	+3	95	05	15		05
6	10	00	0	00	15	25		20	20	00		00	05	20		10
7	10	05		10	15	25		05	15	05		00	05	15		05
8	00T	10		20	15	25		00	15	05		90	05	15	-5	05
9	00T	00	-5	15	15	15	-7	00	15	05	-2	95	05	10	0	15
10	00T	05	+10	05	15	15		05	10T	05	0	05	05	15	0	15
11	00T	10		10	15	05	+7	05	15	10	0	90	05	15	0	20
12	00T	15		20	20	95	0	90	15	15	0	90	05	15	0	15
13	10	20	+5	20	20	85	-4	85	15	05		95	05	15		15
14	10	05	0	05	15	10	-5	00	15	10	0	85	05	20		15
15	10	05	+8	05	20	25		15	15	15		00	05	20		15
16	10	05		05	15	10	0	10	15	15	0	10	05	20		15
17	10	10		05	15	05	0	10	20	20		10	05	20		20
18	10	10		00	15	15		10	15	20		10	05	15	-4	15
19	00T	05	-5	05	15	15	-7	05	20	15	-5	05	05	15		15
20	10	10	0	05	10	20	-7	10	15	10	0	00	05	20		00
21	10	15		15	15	20		15	20	10		10	05	20		00
22	10	15		15	15	10	+2	20	20	05		05	05	15		15
23	10	10	-7	15	15	05	+2	10	20	05	-3	15	05	10		10
24	10	00	0	05	15	15	+1	05	20	15		25	05	15		10
25	10	80		85	15	20		15	15	10	0	25	05	15	-5	85
26	10	05		90	15	20		25	10	10	0	25	05	05	0	90
27	15	10		00	10	20		15	20	20		25	10	15	+5	90
28	15	00	0	05	10	15		10	20	15	0	20	10	10		10
29	15	05		10	15	15	0	15	20	15	-5	05	10	15		00
30	10	10			20	15	0	15	20	00	+7	00				
31																
OCT																
1	00T	15		10	15	05	-3	00	20	15	-8	10	10	15		00
2	00T	20	+4	10	20	00		00	20	10	+9	05	10	00	-5	95
3	00T	20	+8	05	15	95	+1	95	15	10		05	10	10	+5	80
4	00T	15		05	15	85	+10	85	15	05	-2	05	05	15		95
5	10	15	-10	05	15	00		95	15	90	+7	05	10	15		00
6	00T	15	-5	15	15	85	+2	85	20	00		05	10	20		10
7	05	05	-2	00	15	95	0	95	20	00	-8	00	10	20		10
8	05	95	+5	00	15	95	0	00	20	00	-2	05	10	20		00
9	10	90		05	15	15		10	20	00		00	10	20		90
10	10	15		10	15	30		10	15	05		05	10	15		95
11	10	20		15	20	30		20	10	00	0	00	05	15		95
12	15	20		05	10	20		05	15	90		90	05	15	-7	10
13	10	20		15	20	15	0	95	10	80		80	10	15	-10	05
14	10	15	-10	15	15	15	-10	05	05	85	+5	90	10	05	0	95
15	10	15	-3	15	15	15		05	15	90	+5	80	10	10		90
16	00T	15	0	15	15	10	+4	10	15	95		80	10	15	-5	95
17	00T	15		10	15	10	-5	05	15	95	+10	75	10	15		05
18	10	15		05	15	10		90	20	00	-8	85	15	20		00
19	10	10		05	15	20		05	15	15		95	15	15		05
20	10	10		00	10	20	-5	05	20	10		10	15	20	-10	15
21	10	05	+5	00	15	90	-4	80	20	05	-7	05	10	15		15
22	10	15		20	15	05	48	95	20	00	+2	00	15	25		10
23	10	20	-10	25	15	25		05	20	10		00	15	25		25
24	05	15	0	15	15	05	-5	05	20	10	-8	00	15	25		25
25	05	20		20	10	15	-3	20	20	05	+10	00	10	25		20
26	00T	20	+10	15	15	15	-3	25	20	05		00	10	20		05
27	00T	15	0	20	15	10	0	15	20	10	-5	95	10	20		05
28	90T	15	+5	20	15	15	+5	25	15	10	+5	10	10	15		10
29	00	05		05	15	10		20	15	25		15	10	20		15
30	05	15		15	15	10		15	15	15	-3	20	10	20		05
31	15	15		10	15	00	-5	10	15	10	+5	00	15	20	0	05

1928	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
NOV																
1	15	15		10	10	95	-2	00	15	25		85	10	20		20
2	15	95	0	05	00	85	-2	00	15	15	-5	05	15	20		25
3	15	15		15	15	80	-5	90	15	05	+9	95	10	20		00
4	20	20		20	15	00		85	15	10		05	10	15		95
5	15	25		25	15	95	+6	95	20	00	+0	10	10	15		95
6	15	15	0	25	15	95	-2	90	15	95		90	10	20		05
7	15	25		25	15	05	-6	95	10	00	0	00	15	20		05
8	15	15	0	20	15	00	-7	00	15	75	+6	80	15	20		00
9	15	20		20	15	95	-2	00	15	85		85	15	20		10
10	15	20		20	15	90	-8	00	15	70	+6	85	10	20		10
11	15	25		20	15	90	+5	00	15	90		95	15	10	-10	95
12	15	25		20	15	90		90	20	15		95	15	10	0	25
13	15	20	0	15	20	95	+4	00	20	90	+8	05	15	20		90
14	15	20		15	20	10		10	20	05	-5	05	15	05	0	90
15	15	05	+5	15	15	00	+2	05	15	10		10	15	20		00
16	15	20		15	20	15		95	20	05		05	15	15		00
17	15	20		15	20	20		15	20	10	+5	05	15	15		05
18	15	20		20	15	10	0	95	15	10	-7	10	15	15		00
19	10	20	+10	25	15	00	0	95	20	10	+10	05	15	15		10
20	10	15	-3	15	15	15	0	00	20	00		95	15	15	-10	20
21	10	05	+4	05	15	10	0	10	20	65	+9	45	10	10	+4	20
22	15	10		10	15	20		10	20	85	+5	80	15	15		10
23	15	00	-3	00	15	20		20	15	10	-9	85	15	20	-7	00
24	10	05	+10	05	15	10	-2	10	15	00		90	15	15		05
25	00T	05	0	05	15	10	+4	10	15	10	+4	00	15	20		00
26	95T	15		10	15	15	15	-10	10	15	20	-10	15	20		05
27	00T	15		15	20	20	-5	20	15	05	-3	95	15	10		05
28	00T	20		20	20	15	0	15	15	05	0	85	15	15	+5	05
29	10	20		25	20	15	0	10	15	05	+10	00	15	20		00
30	15	20		25	15	10	+7	10	20	10	0	95	10	20	-10	05
31																
DEC																
1	15	25		25	15	15	0	25	20	15	+5	85	10	20	-8	05
2	10	15	-5	15	20	05	+5	20	15	15	-7	05	10	15	-10	10
3	10	00		10	15	10		15	20	00	+5	00	10	15	-10	10
4	10	90	+5	95	15	15		10	20	20		10	15	20		15
5	15	00		00	15	15	-10	10	15	25		15	10	15	-7	05
6	15	15		15	15	95	-4	05	20	20		25	10	15	-7	00
7	15	20		20	15	90	+5	85	20	00	0	95	10	15	-7	05
8	15	25		25	15	90	-5	90	15	20	+4	95	10	15	-5	00
9	15	10	+5	25	15	90	-6	85	20	20		00	15	15		05
10	15	30		30	20	85	+10	80	20	20		10	15	15		10
11	15	25		30	15	85	-5	85	20	90	+4	95	20	20		20
12	15	20		20	15	90	+10	90	15	05	-3	00	20	20		20
13	10	15		15	15	20		10	10	05	+8	05	15	20		20
14	15	20	0	20	15	20		05	15	05	+5	00	20	15	-10	15
15	10	10	0	20	15	25		15	10	00	-2	00	15	15	0	00
16	10	25		25	15	30		15	15	95	+7	00	15	10	0	10
17	10	15	-2	20	20	35		25	20	00	+4	00	15	15	-7	25
18	15	15		20	20	30		30	20	05		95	10	10	-5	05
19	15	20		10	20	25	-10	25	20	90	-5	90	15	15		05
20	15	20		00	20	10	-5	00	20	15	+5	90	15	20	-5	10
21	15	20		15	20	00	-4	95	15	20		95	20	20	-5	15
22	20	15	0	05	20	90	-3	90	20	85	+3	80	20	25		80
23	15	25		15	20	00	+0	00	20	95		25	20	25		70
24	15	20		10	15	85	+1	85	20	15	-7	85	20	35		90
25	10	20		20	20	95	-10	95	20	00		90	20	30	+10	90
26	15	20		95	10	95	0	95	20	00	-5	90	15	30		90
27	20	15		05	15	00	-5	10	15	00		85	15	15	-10	95
28	05	10	+3	05	15	90	+5	25	20	10		85	15	00	0	90
29	15	15		15	20	80	+9	90	20	05		15	15	05	-5	90
30	15	20		20	20	10	+7	10	20	85	-4	85	15	10	+4	90
31	10	00	+6	25	20	10	0	20	20	80	+5	70	15	10	0	05

1929 JAN	135E 15-35 P	135E 35-55 P	135E 55-80 T	135E 55-80 P	133W 15-35 P	133W 35-55 P	133W 55-80 T	133W 55-80 P	45W 15-35 P	45W 35-55 P	45W 55-80 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 55-80 T	45E 55-80 P
1	10 05		25		15 95	+4	00		20 90			85	20 20	-5		05
2	15 20		25		15 15			15	20 10			90	20 15	0		90
3	15 20		25		20 25			25	20 90	0		75	20 25			95
4	15 20		25		20 15	0		25	20 05			70	20 25			95
5	15 10	0	15		15 20			15	20 00	+2		80	15 20	0		05
6	15 15		20		15 15			15	20 10			95	15 20	0		05
7	15 20		15		15 10	0		05	20 95			95	15 20	0		15
8	15 15	0	10		15 25			15	20 00	-8		45	15 15	0		20
9	15 15	0	10		15 25			05	15 05	0		00	20 20			00
10	15 15		15		20 20			20	20 10			10	20 15	-3		05
11	15 20		20		15 20			15	20 20			20	15 00	+5		00
12	15 25		25		15 25			25	15 15			20	15 00			00
13	15 15		25		15 25			20	15 05			05	15 95			85
14	15 05	+4	25		15 20	-7		20	20 15	0		15	15 90	5		80
15	15 15		20		15 20			20	15 00	+9		95	15 15			00
16	15 30		30		15 25			10	15 00	0		95	15 25			05
17	15 30		30		15 20			15	20 95			95	15 25			15
18	10 25		30		20 15			20	20 00			90	15 25	+10		20
19	15 25		30		15 30			25	20 95	+9		90	15 25			20
20	15 30		30		15 30			25	15 65	+5		75	15 20			20
21	10 30		35		15 25			25	05 55	-4		55	15 25			20
22	15 25		30		20 30			25	00 65	0		65	15 25			25
23	15 25		25		15 25			20	00 90			95	15 20	-7		40
24	15 25		25		20 10	0		05	05 85	0		85	15 25			40
25	15 30		25		20 10			10	95 65			05	15 30			30
26	15 20	+7	20		15 20			20	95 80			00	15 30			40
27	15 20		20		20 20			30	90 65	-5		00	15 30			45
28	10 15		25		15 15			30	90 80			05	15 20			55
29	10 15		15		15 15			20	00 80	-10		00	15 25			50
30	10 20		25		05 05	0		25	10 80			00	15 20			40
31	10 15		25		10 00	+5		20	10 85	+10		95	15 10	-7		30
FEB																
1	10 15		25		15 10			20	15 00			05	10 10			15
2	15 25		35		10 10	-3		15	20 00	-10		00	10 15	0		15
3	15 20		30		20 15			20	15 80	0		95	10 10	0		15
4	15 20		25		20 20			25	20 90			75	10 10			20
5	15 20		25		20 20			20	20 00			85	10 05	0		15
6	15 20		25		20 20			25	20 15			85	15 15			15
7	15 20		25		20 25	-4		20	20 20			95	15 15			95
8	15 10	-2	25		20 20			25	20 20			00	10 15			10
9	15 10		15		20 20			25	20 95	0		95	15 15			10
10	15 15		15		15 25			25	20 10			95	15 10	+5		10
11	15 10	-2	15		15 25			20	30 90	0		90	15 25			15
12	15 10		15		20 30			20	20 05			95	20 25			15
13	15 15		20		20 30			15	25 00	+10		85	15 25			15
14	15 20		20		20 30			15	25 00			75	15 15			20
15	15 20		20		20 30			20	20 00	-5		95	15 20			35
16	15 15		15		20 25			25	20 80	+10		05	15 15			30
17	15 15	0	15		20 25			20	15 00			10	15 15			25
18	15 05		20		15 15			05	05 05			10	15 20			30
19	15 20		20		15 10	+9		90	20 10			10	10 10	-5		35
20	15 20		20		15 15			05	20 05			85	10 10			30
21	15 15		25		15 15			10	25 95	+5		70	10 10	0		20
22	15 05	0	20		20 00	0		00	25 20			00	15 20			15
23	15 20		20		20 05			05	20 95	+7		95	10 15			00
24	15 25		25		20 10	0		00	10 90	+7		80	10 10			10
25	15 35		25		20 25			15	20 90			90	15 20			95
26	15 30		25		20 05			00	15 00	0		00	15 30			05
27	20 20	-5	20		20 25			15	15 90			95	20 10			10
28	15 15	0	20		20 25	-7		10	15 00	-7		00	15 10	0		15
29																
30																
31																

1929 MAR	135E 15-35 P	135E 35-55 P	135E 55-80 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 55-80 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 55-80 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 55-80 T	45E 55-80 P
1	15 15		20		15 15			90	10 85	+2		90	20 15			00
2	15 20		25		15 20			10	10 85			95	20 25			80
3	15 15		15		15 15	15	-7	05	15 85			90	15 05			90
4	15 15	0	20		15 10	+2		00	00 00			05	15 00			95
5	15 20		25		15 10			00	15 00			05	15 05			90
6	15 30		30		15 95	+5		90	15 00			00	15 15			00
7	15 20	0	20		15 90			90	05 65	0		75	15 15	-5		05
8	15 15		15		10 95			95	20 90	-7		80	15 10	0		05
9	15 15		15		05 90	0		95	20 95	+8		80	10 15			10
10	15 15		15		20 00			95	20 20			95	15 05	-3		10
11	10 05		05		20 95	0		85	20 10	-3		90	15 15			95
12	10 00	0	20		20 10			95	20 10	+3		10	10 10			95
13	10 00		10		25 10			05	20 95	+5		05	15 90	-7		90
14	20 15		15		25 05	0		95	10 90	+5		90	10 95	0		90
15	15 15	0	10		20 20			20	20 00			00	10 95	-10		95
16	15 20		20		20 15			15	15 95			95	15 05	-5		05
17	15 20	-7	10		20 15			15	20 00	-5		95	15 10			00
18	15 10	0	00		25 15			10	15 85	-7		90	10 20			85
19	10 05		05		25 15			05	15 85	+7		85	10 10	-2		05
20	15 05		00		15 10	+8		00	20 95			80	15 20			90
21	15 05		05		20 95			95	20 05			95	15 20			85
22	15 05		00		20 15			15	20 00	+7		85	15 20			05
23	15 00	0	00		20 20			20	20 05	0		85	15 15			10
24	15 10		95		20 15			15	20 95			80	10 15			15
25	15 15		05		20 05	0		05	15 00	+7		90	10 20			05
26	15 10		10		20 05	+10		90	20 10			85	15 20			10
27	15 05	-5	05		20 00	0		05	20 95	0		95	10 20			90
28	10 15		00		20 05			05	15 05	+5		00	15 10			85
29	15 10		05		20 20			20	15 15			15	15 80	-5		80
30	15 20	5	15		20 25	-8		10	15 00			10	05 90	0		90
31	15 25		15		15 25			95	10 00	0		15	10 90	0		90
APR																
1	15 25		15		10 10	0		00	20 00			00	15 95			95
2	15 25		15		05 10	+4		10	20 20			00	15 05			05
3	15 15	0	15		15 10			15	20 05	+4		05	15 10			05
4	15 15		10		20 20			20	20 15			05	15 00			95
5	15 10	+5	10		20 30			15	20 20			05	15 05	-7		15
6	15 10		15		25 15			10	20 95	0		00	15 05	+8		00
7	15 15		10		25 15			15	20 00			00	05 10			05
8	15 15		15		25 20			25	10 00	-2		90	10 15			15
9	15 15		15		20 15	0		15	05 95			90	10 10	-4		10
10	15 15		95		20 15	+4		05	15 00	-5		00	10 15			05
11	15 05		05		15 05			00	15 05			90	10 15			00
12	15 10	-7	05		15 05			00	15 10			10	10 20			00
13	10 00	+4	95		20 80	0		90	20 10			10	10 15			95
14	15 00		95		20 75	-10		80	20 10			15	10 10			10
15	15 06	-2	05		20 05	-2		05	15 05	+8		10	10 05	-2		05
16	15 05	+4	10		25 95	+5		00	20 10			15	10 15			10
17	15 10		10		20 15			15	20 20			20	15 15			00
18	15 10		10		20 05	+5		15	25 25			30	10 15			95
19	15 15	0	15		20 15			10	25 10	0		15	10 10			05
20	15 15	0	15		20 00	-4		15	20 10	+8		10	10 10			10
21	15 15		10		20 05			20	15 95	+8		10	10 05			90
22	15 15		20		20 25			25	20 05			05	10 10			05
23	15 15		95		20 25	-7		20	20 05			10	15 15			15
24	15 05		00		20 20	0		15	20 95			15	15 10			15
25	15 15		95		20 25			15	20 15			10	15 15			15
26	10 85	0	90		20 15			10	20 25			20	15 15	+10		10
27	10 80	+3	85		20 10			00	20 25			25	10 10			10
28	10 95		95		20 20			10	20 15	-2		05	10 15	-		05
29	15 00		00		20 20			15	20 25			10	15 10			05
30	10 05		05		20 25			20	20 20			15	15 15			10
31																

1929	135E 15-35	135E 35-55	135E 55-80	135E P	135W 15-35	135W 35-55	135W 55-80	135W P	45W 15-35	45W 35-55	45W 55-80	45W P	45E 15-35	45E 35-55	45E 55-80	45E P
MAY																
1	15	10		15	20	20		20	25	10	-2	10	10	15		15
2	15	15		15	20	05	+1	10	25	15		15	10	15	-5	05
3	10	05	0	20	20	10	+5	10	20	20		20	10	15		10
4	15	15		20	20	20		25	20	25		25	10	15	-6	15
5	15	20		20	20	25		25	25	25		20	10	15		20
6	15	15		15	20	20		25	20	30		20	10	15	-	25
7	10	05	-8	15	15	15		30	20	20		15	05	10		15
8	10	15		15	10	20		15	20	15		10	05	10		15
9	10	15		15	15	20		10	25	05	0	00	05	10		10
10	15	15		15	15	20		15	25	15		05	10	10		10
11	15	10	-5	10	15	20		20	25	20	-5	05	10	15		15
12	15	15		10	20	20		25	20	15		10	10	10	-5	05
13	10	10		10	20	20		25	25	10		10	05	10	+5	15
14	15	10		00	20	20		20	20	00	0	00	05	10		10
15	16	05	-8	05	15	20	+5	15	20	05		05	05	10		10
16	15	05		10	20	25		15	20	10		05	05	10		20
17	10	00		00	20	20		15	20	05	-5	05	10	10		15
18	05	10		10	15	15	0	10	20	90	+7	90	05	10		15
19	15	05	0	05	20	15	0	10	20	10		95	10	15		20
20	15	10		10	20	20		20	20	05	+5	95	10	10		20
21	10	10		05	20	15		15	25	15		05	10	10		15
22	05	10		95	20	10	0	00	20	15		10	10	10		05
23	05	05		05	15	10	-5	10	20	00	0	00	10	10		15
24	10	10		10	20	05		05	20	15		10	05	10	+5	10
25	10	10		10	20	20		10	20	20		15	05	05		20
26	10	05	-10	00	15	25		15	20	15		15	05	05		25
27	10	90	[0	90	15	15	+7	10	20	10	0	05	05	10		20
28	10	00	[0	90	15	20		00	20	10	0	05	10	10		05
29	10	95		95	15	20		05	20	15		15	10	10		00
30	10	00		90	15	20		15	15	00		05	05	10	-10	10
31	10	15	-3	00	20	15		15	10	95		15	05	10		10
JUN																
1	10	05		05	20	15	-10	15	15	05		05	05	05		05
2	10	05		05	15	10	0	20	15	05		05	05	00	0	00
3	10	05		05	15	20		20	20	05	+5	05	05	05	+10	15
4	10	10		05	20	20		20	20	05		05	05	10		90
5	05	05		10	20	20		15	20	10		05	05	05		85
6	05	05		10	20	15		15	20	20		15	00	10	-10.00	
7	10	05		05	20	10	-5	10	20	25		10	05	05	-5	05
8	15	00		00	20	10	0	10	25	15	-5	10	00	05	[0	00
9	10	05		05	20	20		10	20	00	0	00	00	00	[0	00
10	10	10		15	20	15	0	05	20	95		95	05	10		95
11	05	10		05	20	10	0	10	20	10	+5	05	00	10	0	05
12	10	05		00	20	10	+6	05	20	15	-7	10	05	05		05
13	10	00		00	15	15		05	20	10	+4	05	00	05		10
14	10	00		00	20	10	-8	10	20	20		00	05	95	[0	00
15	05	00	0	05	20	90	+5	95	20	15		05	05	00	[0	10
16	05	00		10	15	95		95	20	20		10	05	05		10
17	05	00		10	20	00	0	00	20	10		10	05	10		15
18	00	00	+10	10	20	10		05	20	95	-6	05	00	15		15
19	10	05		05	20	20		10	20	00		10	00	15		10
20	05	05	0	10	15	20	-7	15	20	00	0	10	00	15		10
21	00	05		05	15	25		25	20	15		15	05	10		10
22	10	10		10	15	25		25	20	10	+4	15	05	10		10
23	10	05		05	15	15	-2	20	20	10	+9	10	00	05		05
24	15	05		00	15	10	0	15	20	15		15	00	05		00
25	15	10		05	20	10		10	20	15		15	00	05		95
26	15	15		10	20	05	-2	05	20	15		15	00	05		90
27	15	10		10	20	05	+2	05	20	05		10	05	05	-5	00
28	10	05		05	15	10		10	20	05	+8	05	00	05		05
29	10	00	0	00	20	10		10	25	20		15	00	05	-3	00
30	00	00		10	20	10	-5	20	20	15		20	00	00	-3	05
31																
JUL																
1	10	05		15	15	10	+4	10	20	15		25	00	00	0	10
2	10	05	T	0	10	15	15		10	20	10	0	25	00	05	+8
3	10	00	T		10	15	15		15	20	20		20	00	05	
4	05	05			05	15	15		05	20	10	0	10	00	00	
5	05	00			10	15	15		10	20	15		10	00	00	
6	05	05	+5	05	20	25		15	20	15		10	00	00		95
7	10	10			05	15	25		20	20	15	+5	05	00	00	
8	15	10			10	15	25	-5	15	20	05		05	00	05	
9	15	05	0		10	15	20	0	15	15	10		05	00	05	
10	15	00	0	0	15	20		15	20	20		05	05	05	[8	20
11	10	95	0	95	20	20		10	20	15	-8	00	00	00	[8	15
12	10	00	0	95	15	20		05	20	15	-3	05	00	05		15
13	10	95	0	95	15	10	0	10	20	15		05	00	00		15
14	95	T	00		05	20	15	0	10	20	15		10	00	00	
15	00	T	05		00	20	15		10	20	15		05	00	00	-5
16	05	T	00	6	05	20	15		15	20	15	-4	05	00	05	0
17	10	95	+3	00	20	20	0	20	20	00	+4	05	00	05		95
18	15	05			05	15	15	+4	15	20	10	-5	15	00	00	
19	10	05			00	20	20		10	20	15		15	00	05	
20	10	00			00	15	15	0	05	20	20		20	00	05	
21	05	T	95	0	95	15	15	0	05	20	25		20	05	10	
22	10	00	+8	00	20	10	0	05	20	15	0	15	00	05		05
23	10	05			10	15	10	+4	10	20	10	+8	10	00	05	
24	10	05			10	20	15		10	20	10		20	05	05	
25	10	10			10	20	10	0	05	20	10	0	10	05	05	
26	10	05	-8	10	20	05		05	20	05	+7	05	00	05	-10	00
27	10	00	-2	05	20	25		00	25	05		05	05	05	0	00
28	15	00	0	05	15	20	0	05	25	20		15	00	00	0	00
29	15	10		10	20	25		10	20	05		05	00	05		05
30	15	80	-7	10	15	20		15	20	10		10	00	00		05
31	10	05	-7	05	20	25		15	20	05	-3	10	00	05		05
AUG																
1	10	00	0	05	15	20		20	20	05	0	05	00	05		10
2	10	10		10	20	15	+5	15	20	15		10	05	10		15
3	10	10		10	15	20		20	15	10	-4	10	05	10		05
4	10	10		10	15	15		15	20	10	0	05	00	05	-5	05
5	05	T	10		05	15	15	0	15	20	15		15	00	05	
6	05	T	05		00	15	15		05	20	15		15	00	00	
7	05	T	00	-5	00	15	25		00	20	15		05	00	00	
8	10	05	+5	05	15	25		10	20	10	-5	05	00	00		20
9	10	00	0	05	15	20	6	15	20	15		05	00	00		15
10	10	10		15	15	20		10	20	15		10	00	05		00
11	10	15		10	15	15	+4	05	20	15	+6	05	00	05		05
12	10	15		10	15	15	-7	05	15	20		10	00	05		00
13	10	05	-2	05	15	10	0	05	20	25		15	00	05		05
14	10	05	0	10	15	20		05	20	20	+3	15	00	05	-5	10
15	05	05		05	15	20		05	20	20	-6	20	00	00		10
16	10	05		10	15	15	-8	10	20	15	+6	15	00	05		05
17	10	95	+2	10	15	10	+4	10	20	10	0	05	05	05		10
18	10	10		10	15	20		05	20	15		10	00	05		15
19	10	10		10	15	10		05	20	15	-5	00	00	00		10
20	10	05	-2	10	15	10	+5	00	20	15	0	10	00	05		10
21	05	00	+3	10	10	00	-3	00	20	15	-6	15	00	05		15
22	10	10		10	15	05	+8	00	20	05	0	10	00	05		20
23	15	15		15	15	05		05	20	15		15	05	10		25
24	10	15		05	20	00	0	00	20	15		15	05	05		25
25	10	10		05	15	00	+4	00	20	20		20	00	05		10
26	10	05	-4	10	15	05	-4	20	20	15		20	05	10		00
27	10	95	+9	00	15	05	0	20	20	05	+6	15	05	10	0	90
28	10	00		05	15	10	0	10	20	20		20	05	05		95
29	10	05		10	15	10	+5	10	15	10	-6	15	05	10		05
30	10	05		10	15	10	+4	15	15	10	+8	10	05	10		15
31	10	00	+7	05	15	15		15	20	20		10	05	10		05

1929 SEP	135E 15-35	35-55	55-80	135W 15-35	35-55	55-80	45W 15-35	35-55	55-80	45E 15-35	35-55	55-80
	P	P T	P	P	P T	P	P	P T	P	P	P T	P
1	10 00	0 05	20 20		20	20 05		05	05 10		10	
2	10 05	-5 10	20 25		20	15 00	+9	00	05 15		15	
3	10 10	10	15 25		15	20 05	-5	10	05 10		10	
4	10 10	15	15 25		15	20 95		00	05 10	0	10	
5	10 15	15	20 25		20	10 00	+5	00	05 10		10	
6	05 15	10	20 25		20	15		10	05 10		10	
7	05 10	-3 10	15 20		15	15		05	05 05	-5	95	
8	00 10	+5 15	15 20		20	15		05	05 00	0	25	
9	00 10	20	15 20		20	20 10	0	10	05 05		85	
10	10 10	+5 15	15 20		15	20 15		05	05 10		00	
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12	10 15	10	15 20		10	20 85	0	80	05 10		10	
13	10 05	0 05	20 10	-5	10	20 15		00	05 10		05	
14	10 00	-4 10	15 20		10	20 20		00	05 10		10	
15	15 00	+3 05	15 20	-8	10	15 15		05	05 15	+10	05	
16	15 95	95	15 20	-10	15	20 10	0	95	05 15		10	
17	10 05	05	20 15	-7	15	15 20		10	05 15		10	
18	15 05	0 10	20 10	+3	05	15 15		95	05 15		10	
19	15 10	10	15 15		10	15 15		05	05 10		05	
20	10 05	0 05	16 15		15	15 15	-3	10	05 10		00	
21	10 10	10	15 20		20	15 15	-7	10	05 10		00	
22	10 15	15	15 20		20	15 10	+3	05	05 10		10	
23	10 15	15	15 25		25	15 10		95	05 10	+10	15	
24	15 15	0 00	15 25		15	15 10		00	05 05	-8	10	
25	10 15	00	15 25		15	15 10		05	05 10	+8	95	
26	10 10	+5 05	15 25		10	15 15	-10	10	05 15		00	
27	10 10	05	15 25	-5	15	15 15	+11	00	05 15		10	
28	15 05	0 10	15 25	+5	10	20 20		00	05 15		90	
29	00T 10	15	20 25		15	20 15	-5	10	05 15		00	
30	15 20	10	15 25		20	20 00	-3	05	05 15		80	
31												

1929 NOV	135E 15-35	35-55	55-80	135W 15-35	35-55	55-80	45W 15-35	35-55	55-80	45E 15-35	35-55	55-80
	P	P T	P	P	P T	P	P	P T	P	P	P T	P
1	15 15	15	15 25		05	10 15		05	15 20		00	
2	15 10	+10 05	15 25		20	10 10	+4	00	15 20		00	
3	15 05	05	20 10	-3	05	95	+4	95	15 20		05	
4	15 10	10	15 25		25	15 00		90	15 20		95	
5	10 20	20	20 15		15	15 15		95	15 15	-7	90	
6	15 15	0 15	20 25		20	15 05	-5	00	15 20	+3	95	
7	15 20	20	20 20		10	20 15		85	15 20		95	
8	15 20	25	15 05	0	00	20 15		90	15 25		95	
9	15 25	25	15 10		10	20 25		90	10 20		00	
10	15 25	25	15 20		15	20 95	-2	90	15 25		00	
11	15 20	-10 20	20 10	0	05	20 15		00	15 25		10	
12	10 15	+5 15	20 05	-7	05	20 25		05	10 15		95	
13	15 25	25	20 15		10	15 10	-9	10	10 15		00	
14	15 25	25	20 95	0	95	15 10	+8	05	15 15		10	
15	15 20	20	15 15		00	15 15		10	15 20		20	
16	15 20	15	15 25		20	15 85	-6	90	15 20		10	
17	15 05	-2 00	15 25		25	15 60		60	15 20		10	
18	15 10	10	15 25		30	20 90		90	15 20	-3	00	
19	15 10	15	15 25		30	20 10		05	15 20	-10	05	
20	15 10	0 10	15 25		25	20 90	+3	95	15 05	0	05	
21	10 15	15	15 25		15	20 00		00	15 20		15	
22	10 20	20	15 25		25	20 00	+10	00	15 20		20	
23	10 15	15	15 25		15	15 10		05	15 20		25	
24	15 15	10	20 20		95	20 05		05	15 20		20	
25	10 15	15	15 20		90	15 10	-9	00	15 25		10	
26	10 15	20	15 20		95	15 10	+5	80	15 20		20	
27	20 25	30	15 20		15	15 95		90	15 15		25	
28	15 30	-7 25	10 25		25	15 00		00	10 15	-10	20	
29	15 20	+2 20	10 25		05	20 85	+1	95	15 15	-10	05	
30	15 25	25	10 25		30	20 80	+3	80	15 15	-10	10	
31												

1929 OCT	135E 15-35	35-55	55-80	135W 15-35	35-55	55-80	45W 15-35	35-55	55-80	45E 15-35	35-55	55-80
	P	P T	P	P	P T	P	P	P T	P	P	P T	P
1	15 10	-10 05	15 20		10	20 15		00	10 10		95	
2	15 25	15	20 10	-5	90	20 15		10	10 15	-8	90	
3	15 20	15	20 95		90	20 20		05	10 20		85	
4	10 15	20	15 00	0	95	20 10		10	10 05	0	95	
5	05T 15	20	15 15		05	20 05	+10	05	10 15		00	
6	10 15	-5 10	15 20		20	25 05		05	10 15		10	
7	05T 05	+2 05	20 25		20	20 15		10	10 15		20	
8	10 20	05	15 00	-5	05	20 05		00	10 15		25	
9	10 15	-7 15	15 00	+5	00	20 00	-2	95	10 15		00	
10	00T 10	0 15	15 95	0	00	20 10		00	10 15		95	
11	05T 10	15	15 00		90	20 10	+7	05	10 15		90	
12	00T 15	15	15 95	0	85	15 10		05	10 15		00	
13	15 15	0 15	15 00	0	90	20 20	+10	05	10 15	-10	95	
14	15 05	+3 10	15 05		00	15 15		05	15 15		90	
15	10 15	15	15 90	-1	90	15 15		05	15 15	-8	90	
16	10 10	0 00	15 85		85	15 20		95	15 00	+8	85	
17	00T 15	95	15 10	-8	85	00T 15		10	15 05		95	
18	10 10	0 10	15 90	+5	05	15 15		00	15 15		05	
19	10 15	10	15 95		95	15 15		10	15 20		20	
20	10 15	00	15 00		05	15 10T	0	95	15 20		10	
21	10 15	05	15 10		15	10 15	0	95	15 25		10	
22	10 15	10	15 20		15	20 15	0	00	15 20		90	
23	10 10	0 15	15 15		05	20 20	+4	05	15 15		90	
24	15 25	15	15 05	-8	05	20 10		00	15 20		95	
25	10 15	10	15 05	0	95	20 05		05	15 20		95	
26	10 10	+4 05	15 15		00	20 00	-3	00	15 20		00	
27	15 15	15	15 20		10	20 95	0	85	15 20		15	
28	15 15	15	20 20		20	20 10		00	15 20		10	
29	15 15	15	15 05	0	95	15 85	0	85	15 20		05	
30	15 15	-5 15	15 25		15	15 95		80	15 20		90	
31	15 10	+5 10	15 15		10	15 10		05	15 20		05	

1929 DEC	135E 15-35	35-55	55-80	135W 15-35	35-55	55-80	45W 15-35	35-55	55-80	45E 15-35	35-55	55-80
	P	P T	P	P	P T	P	P	P T	P	P	P T	P
1	15 25	-3 25	15 20		15	20 75	0	65	15 15		15	
2	15 25	25	15 20		15	20 80		75	15			
3	15 15	+2 20	10 10	-8	15	20 80	-15	70	15			
4	15 25	15	15 10	-3	20	20 80	+5	70	20 20		20	
5	15 25	20	15 25		20	20 85	0	75	15 25		30	
6	20 30	30	20 25		10	20 85		70	15 20		20	
7	20 20	+4 25	15 20		25	15 90		70	15 20		20	
8	15 25	25	15 10	-10	15	15 95	+10	75	15 15		10	
9	15 25	15	10 00	0	15	20 05	-5	95	10 20		15	
10	15 25	30	15 05		10	20 95		95	15 20		10	
11	15 20	20	10 10		15	15 95	-5	95	15 20		10	
12	15 25	15	15 00	+6	10	15 00	+8	00	15 20		00	
13	15 25	10	10 00	0	10	15 15		05	15 15		95	
14	15 20	25	10 00		10	20 10		10	15 15		00	
15	15 20	35	20 10		20	15 05	-5	05	15 15	-5	90	
16	15 15	-2 10	20 10		15	20 10	+5	95	15 15	0	95	
17	15 15	+10 20	15 15		15	20 05	+4	95		0	00	
18	15 15	35	15 10	0	20	20 15		95	15		95	
19	15 20	20	20 15	-8	20	15 15	-4	90	15 20		90	
20	15 15	15	15 15	-3	15	20 05		95	15 25		90	
21	15 20	00	15 00	+7	00	20 95	0	00	15 25		00	
22	15 20	20	20 90	+4	00	15 85		85	15 25		10	
23	15 20	0 20	15 95	+1	95	15 95	+2	90	15 25		25	
24	15 15	15	15 90	0	90	20 10		90	20 30		20	
25	15 20	20	15 00		00	20 70	+4	75	15 25		30	
26	15 15	0 25	15 00		90	20 10		05	15 20		20	
27	15 25	25	15 10		00	20 00	+5	90	15 25		10	
28	15 30	20	15 00	-3	90	25 00	-10	00	15 30		15	
29	15 20	20	15 05	0	90	25 10		00	15 30		15	
30	15 20	20	10 00		90	20 10		05	15 25		10	
31	15 25	30	10 10		05	20 80	+5	70	15 25		05	

1930	135E 15-35 P	35-55 P	35-55 T	55-80 P	135W 15-35 P	35-55 P	35-55 T	55-80 P	45W 15-35 P	35-55 P	35-55 T	55-80 P	45E 15-35 P	35-55 P	35-55 T	55-80 P
JAN																
1	15 25			25	15 15			15	20 10			95	15 25			00
2	15 25			30	20 00	0		05	20 15			05	15 25			00
3	10 20			30	15 10			15	20 00		+5	90	15 25			00
4	15 20			20	15 10			20	20 10		-10	05	15 25			95
5	15 15			15	15 10			20	20 10		+5	00	15 25			90
6	15 25			15	15 20			15	20 15			95	20 20			00
7	15 20			10	20 30			15	20 10			05	15 15			75
8	15 20			10	15 30			10	20 20			00	15 20		0	75
9	15 25			15	15 35			05	20 05			90	15 20			75
10	20 25			10	15 25			05	20 00			80	15 30			80
11	15 25			20	15 15			15	20 00		+2	95	15 25			85
12	15 20			15	20 20			20	20 10			00	20 25			95
13	15 15			05	15 15			20	35 15			10	15 25			95
14	15 15		+8	10	10 10		-8	25	20 05		+7	05	15 20		-10	00
15	15 20			00	00 00		6	25	25 15			15	15 20		-8	00
16	15 20		+10	20	15 10			25	25 95		-4	95	15 20		-3	00
17	15 20			20	20 95		+5	20	20 85			75	15 25			10
18	15 20			15	15 10			20	25 15			00	15 25		-3	85
19	15 20			05	20 15			20	35 15		+1	05	10 20		0	90
20	20 20			05	20 20			15	20 90		+11	70	15 20			25
21	20 20			05	15 15		0	20	25 00			60	15 15		-10	75
22	15 20			05	15 15		+4	15	25 95		-8	80	15 10		0	00
23	15 15			10	15 20			20	25 00			80	15 20			00
24	15 10			10	15 20			25	20 00			90	15 15			00
25	10 20			15	15 30			25	25 05			80	15 10		0	95
26	15 25			25	10 15			25	20 00			95	20 15			00
27	15 25			30	15 15			20	25 00			95	15 15			15
28	10 15		+4	30	15 05		-10	15	25 10			00	15 05		0	05
29	15 15			25	15 10			15	25 05			95	15 25			20
30	15 25			30	20 00		-5	00	20 90			90	15 10			20
31	05 25			30	25 05		0	05	25 05			00	15 15			20
FEB																
1	05 15			25	20 95		0	90	20 90		+8	05	15 20			25
2	15 25			25	25 00			85	20 05		+4	05	15 20			20
3	15 30			25	20 00		-5	00	20 10			00	15 15		0	10
4	15 25			25	15 85		+4	95	15 05		+4	05	15 15			05
5	05 20		-5	20	20 00			85	15 10			05	10 10		0	10
6	15 20			20	15 05			00	20 90		-3	90	15 20			05
7	15 25			25	15 80		+6	80	15 80		+10	75	15 20			15
8	20 20		0	25	15 10			00	25 00			90	20 00		-2	05
9	10 15			20	20 95		+3	95	25 05		-2	10	20 10			10
10	15 20			15	20 00		+9	90	20 05		+7	80	15 15			15
11	20 20			10	20 05			05	20 05		-2	85	15 10			10
12	25 20			20	15 20			10	20 10		0	85	15 15		-2	90
13	25 30			35	15 15		+6	15	15 10		+4	05	10 15			90
14	20 30			25	15 10			15	20 15			95	15 20		0	70
15	20 25			30	20 00			95	15 05			95	15 15			95
16	15 20		+5	30	20 00			95	20 25			95	15 15			10
17	20 30			25	20 85		-7	80	20 05		0	05	15 20		-5	10
18	20 25			20	15 85		0	85	20 20			10	15 20		+0	00
19	20 15			20	10 95		0	95	20 20			95	15 20			90
20	20 20		0	15	20 95			95	15 15			05	15 20			05
21	20 25			15	00 85		-3	95	15 15			10	15 20			05
22	25 20			20	10 80		+7	80	15 00		+4	95	15 20			95
23	10 10		-10	00	25 95			85	10 05			85	10 10		-5	00
24	15 15		+6	05	25 10		-8	00	15 10			05	15 20			20
25	15 10			05	20 15			20	15 10			05	10 20			15
26	05 10		-10	10	25 20			25	10 00		0	00	15 15			15
27	15 25			20	15 15		-4	20	05 70		+5	70	15 25			10
28	15 20			20	10 10		0	15	95 85		+5	65	15 25			00
29																
30																
31																

1930	135E 15-35 P	35-55 P	35-55 T	55-80 P	135W 15-35 P	35-55 P	35-55 T	55-80 P	45W 15-35 P	35-55 P	35-55 T	55-80 P	45E 15-35 P	35-55 P	35-55 T	55-80 P
MAR																
1	15 20		-5	20	10 15			15	15 10			90	10 05			90
2	15 20			20	00 00		+4	95	20 15			05	10 00		0	00
3	10 15		+6	25	10 95		+7	20	20 10			10	15 20			70
4	15 20			25	05 05			15	25 05			05	10 95			80
5	15 25			30	15 15			15	25 10		+5	90	15 00			90
6	15 30			25	20 05		-5	00	25 15			95	15 90		0	85
7	15 30			25	15 05		+8	90	20 20			05	15 00			85
8	15 25			25	15 00			90	15 10		-4	10	15 90			80
9	15 25			15	20 05			00	10 05		0	15	15 95		+5	95
10	15 30			10	15 15		-7	05	20 00		-2	05	15 10			05
11	15 20			15	15 25			15	20 95		0	90	15 05			90
12	20 25			20	20 30			10	20 15			10	15 05			00
13	10 00		0	15	20 10			15	20 20			25	15 00		-10	00
14	15 00		+10	15	15 15			10	10 05		-5	25	15 05		0	90
15	15 05			10	20 20			20	15 10			20	10 10			00
16	15 05			10	15 20			95	15 05		0	20	15 00		-5	95
17	15 05		0	10	15 25			10	15 00		+6	15	15 10		-7	00
18	15 10		+10	05	20 15			10	10 85		+8	15	15 05		0	10
19	10 20			25	25 25			15	20 95			05	10 20			25
20	15 25			25	20 15			15	20 95		-10	05	10 15			10
21	20 20			20	20 95		-5	95	15 85		-5	85	10 25			05
22	15 25			15	20 95			95	10 00		-5	00	10 15			10
23	15 25			20	20 15			10	15 00		+3	00	15 15			25
24	15 25			35	20 10			15	10 00		0	00	10 15			20
25	15 20			20	15 20			15	20 00			00	10 20			25
26	15 15			10	15 25			10	20 90			90	10 15			00
27	20 15			10	15 20			20	20 15			15	10 10			10
28	05 00		0	10	15 25			25	20 05		+1	05	10 10			10
29	15 05			10	20 30			25	20 90			95	10 05		-2	20
30	15 15			15	15 25			15	15 90		-3	85	10 10			15
31	10 20			15	10 20		-7	95	25 00			25	10 15			05
APR																
1	10 15			10	15 05			90	15 00			00	10 20			95
2	15 20			15	15 90		0	85	25 05			00	10 20			20
3	15 20		-3	15	15 95			95	20 05			05	10 15			15
4	15 15			95	15 80		0	75	20 95		+7	95	10 20			15
5	15 15			90	20 10		-7	00	20 95		-3	00	10 15			20
6	15 15		0	00	15 10		+2	10	20 85		+9	90	10 20			15
7	15 10			05	15 10			15	25 15			10	15 15			00
8	10 00		+4	00	15 10		0	15	20 15			10	10 15			15
9	15 05			05	20 10			15	20 15			05	10 15			05
10	05 90		0	00	10 15		-5	25	20 20			20	10 05		-6	05
11	10 10			10	10 05		+5	25	15 15		[-5	05	10 10		0	10
12	15 05			05	10 05		+3	20	15 15		[-5	25	10 05		+7	10
13	15 10			05	15 00		+1	15	10 05		0	05	10 05			05
14	15 05		0	95	15 10			10	20 15			10	10 15			15
15	10 00			00	15 10			15	20 95		-8	95	10 15			20
16	15 95			90	15 15			15	20 10		+3	15	15 20			05
17	20 00		0	00	10 10			25	25 10		-2	10	10 20			15
18	15 10			10	10 05		+5	25	20 15		+10	15	10 10			15
19	15 10			20	10 05		0	20	20 25			20	10 05			20
20	15 05		0	15	10 95		-4	20	10 10			15	05 05			20
21	15 10			10	15 00		+4	20	10 00		-2	20	10 10			20
22	15 15			15	15 05		-2	15	15 05		+5	20	10 20			25
23	15 05		0	10	20 05			10	20 15			25	15 15			30
24	15 10		0	10	20 05		-7	10	15 15			20	10 10			20
25	15 00		+7	15	15 05		+4	10	25 10		-2	10	10 10			15
26	15 15			15	15 00			05	25 10		0	10	10 10		+7	10
27	15 20			25	20 95		+6	00	25 15		+10	10	10 05		+5	15
28	15 20			25	20 15			05	25 10			05	10 15			10
29	10 20			25	20 15		-7	10	15 00		0	15	05 15			00
30	15 20			25	20 15			00	25 00			00	15 10			05
31																

1930 MAY	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-70 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-70 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-70 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-70 P
1	15	10		15	20	10	+3	05	25	05		05	10	00	0	10
2	15	05	0	05	20	15		10	25	05	0	00	10	05		05
3	15	10		15	20	10		10	20	05		00	10	05		00
4	15	20		15	15	15	+6	05	25	10		05	10	00	0	00
5	10	05	0	00	20	10	+8	05	20	05	+2	05	10	10		00
6	15	05	-7	00	20	15		05	10	05	0	00	10	15		05
7	15	00	+2	10	20	25		20	20	90		95	10	15		15
8	15	15		15	15	25		15	20	90	0	00	10	15		25
9	05	10	-4	10	20	20		15	20	95		95	10	15		25
10	15	10		15	20	25	-5	25	20	05	-5	05	10	20		20
11	15	05	+10	05	15	20	0	25	20	10	+7	10	05	10		05
12	10	05	-2	10	20	25		25	15	05		05	05	05		10
13	10	15		15	20	25		25	20	90	-4	90	05	05	-4	10
14	15	10	0	15	20	25		25	15	05	0	00	10	10		05
15	15	15		15	20	20	-3	15	20	15		05	10	10		00
16	10	10		10	20	10	0	05	25	25		15	10	10		00
17	15	10	-10	05	20	05	0	95	20	15	-7	10	10	10		10
18	15	95	-2	05	20	15	-2	00	20	15	+3	05	10	10		10
19	15	95	-2	95	20	00	+7	00	25	00	+2	00	10	10	-5	20
20	10	00	-5	05	20	10		10	20	10		05	10	10		15
21	10	00		05	20	20		10	20	20		95	10	15		15
22	10	05		10	20	15	0	10	10	05	[-5	10	05	15		20
23	15	10		10	20	10		10	15	05	-5	15	05	15		10
24	15	10		90	20	15		10	20	15	-5]	15	10	15		95
25	15	05		95	15	25		20	25	20	-10	10	10	15		00
26	15	00	0	00	20	15	-10	20	25	10	0	15	10	15		15
27	15	00	0	00	15	05	-2	15	20	05		10	10	20		15
28	10	05		05	20	90	+7	05	20	10		10	10	15		05
29	15	00	0	05	20	05		15	20	10	0	15	10	10		00
30	15	05		05	20	15		10	20	05	0	10	10	10	0	05
31	15	05		10	15	10	+4	05	20	15		10	10	05	0	05
JUN 1	05	00		05	20	20		10	20	05	+2	10	05	05		05
2	05	00		05	20	15		15	20	05		90	05	10		05
3	10	10		10	15	10	+4	05	20	05	+4	05	00	05		05
4	10	05	0	05	20	10	-7	05	20	10		05	00	15	0	15
5	05	05		10	20	15		05	20	10	-4	05	05	10		10
6	10	05		05	20	15		05	20	15	+5	05	05	10	+4	95
7	15	10		00	20	05		05	20	15		00	00	10	+4	85
8	15	10		95	20	00	-5	00	20	20		05	05	10		95
9	15	15		00	20	90	+5	90	20	15		05	05	10		10
10	15	10		10	15	05		95	20	25		10	05	00	0	00
11	15	10		95	20	20		05	20	10		00	05	10		00
12	15	10		10	15	15	+8	15	20	05	0	95	05	10		95
13	15	15		05	15	25		15	20	00		00	05	05		95
14	10	15		05	15	25		15	20	10		05	00	05		00
15	00	10	-8	00	15	20		20	20	05		05	00	05		10
16	10	00	0	95	15	15		10	20	00	-7	00	00	00		05
17	10	05		05	20	25		15	20	00	0	95	05	05		05
18	10	00	-10	95	20	25		25	20	05		00	05	10	0	05
19	10	95	0	00	15	25		25	20	05		00	05	10		10
20	10	95		00	20	25		20	20	10		05	05	05	0	05
21	05	05		10	20	20		20	20	20		15	00	00		00
22	10	10		10	15	20		10	20	10		10	00	05		05
23	15	10		05	20	20	+4	10	25	10		10	00	05		10
24	15	10	-8	10	15	10	-7	10	20	10	+10	05	00	05		10
25	10	05	+8	10	20	10	+3	15	25	10	+5	05	00	05		05
26	15	10		10	20	15		10	25	05	-2	05	00	05	-7	00
27	15	00		00	15	15		05	20	05	-3	00	00	15		05
28	10	95	+5	95	20	20		05	25	10		10	00	10		05
29	10	95	0	95	15	10	0	10	20	15		15	00	10		10
30	10	05		00	15	15	+7	15	25	10	+5	00	00	05	0	05
31																

1930 JUL	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-70 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-70 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-70 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-70 P
1	10	00		00	15	20		10	20	15		10	00	00		05
2	15	05		05	15	15	-5	15	20	15		10	00	00		10
3	10	10		10	15	10	-2	05	20	15		00	00	05	-5	10
4	05T	05		05	15	10	+7	10	20	15		00	00	05		10
5	10	10		05	15	15		10	20	15	-10	95	00	05		10
6	10	10		10	15	20		10	20	15	-3	10	00	05	-5	05
7	10	05		05	15	20		15	20	20	+5	15	00	00	-5	00
8	10	05		05	15	25		15	20	15		15	00	00	+10	00
9	10	05	0	05	15	20		15	20	05		05	00	05		05
10	45	00		00	15	15	-5	15	20	15		10	00	00		00
11	05T	00		00	15	20		15	20	25		20	00	00	0	00
12	05T	95	-10	95	15	20		20	20	20		10	00	05		05
13	05T	95	-4	95	15	20		15	15	25	+4	20	00	05		10
14	05T	00	+6	05	15	20		15	20	25		15	00	00	-3	00
15	05	05		10	15	25		15	20	20		20	00	00	+5	05
16	05	05		10	20	25		10	20	15	-4	15	05	05		00
17	05	05		15	20	30		15	20	10	+6	10	00	00		05
18	05	05	-10	05	15	30		10	20	10	-4	05	00	00		05
19	10	05T		10	15	25		05	20	05		05	00	05		10
20	10	10		00	15	20	-10	05	20	15		10	00	05		10
21	05T	00	0	95	15	25		10	20	05	-3	05	00	05	0	10
22	10	95	+4	90	15	25		10	25	10	+4	05	00	00	+5	00
23	10	00		00	15	20		15	20	00	-2	00	00	00		00
24	05T	05		05	15	20		10	20	10		05	00	00		05
25	05T	00	+8	00	15	25		15	20	10		05	05	05		05
26	05	05	-10	05	15	25		20	20	20		20	00	05	-7	05
27	00T	05	-5	05	15	25		20	20	20		20	05	05	-2	05
28	10	00	+4	00	15	20		15	20	15	-5	15	05	05	0	05
29	05T	05		05	15	20	0	15	20	10	-2	15	00	05		05
30	00T	00T		00	15	25		15	20	15		15	05	05		05
31	00T	00T		05	15	25		10	20	15	0	10	00	00		05
AUG 1	10	10		05	15	25		10	20	10	0	10	00	00		05
2	05T	00	0	95	15	20		10	20	15		15	00	00	0	05
3	10	05		00	15	15	-4	10	20	15		15	05	10		05
4	10	10		95	15	10	0	15	20	10	-2	10	00	05		05
5	10	10		00	20	15	+4	10	20	05	+10	05	00	05		05
6	10	10		00	20	10	-2	10	15	90	-3	00	95	00		05
7	00T	15		05	15	10	+2	10	15	85	+12	90	00	05	0	10
8	00T	00	-5	00	15	10	0	15	15	00	-5	00	00	05	0	05
9	00T	00	0	00	15	10	+4	10	15	10		10	00	05		10
10	05	05		05	15	20		05	20	20		20	00	00		15
11	00T	10		10	15	25		15	20	15		10	05	05		15
12	00T	00		15	15	25		10	20	10	0	05	05	05	-2	10
13	00T	05		15	15	25		10	20	20	-7	05	05	05	+4	00
14	00T	05		15	15	20		10	15	20	-6	10	05	05		00
15	00T	05		10	15	15		10	15	15	0	15	05	05		00
16	05	05		05	15	20		15	20	25		20	05	05		20
17	05	05		05	15	20		15	20	25		15	05	05		20
18	05	05		10	15	20		10	15	20	-9	15	05	05		20
19	05	00		15	15	15		10	15	15		15	05	10		20
20	10	05		10	15	15	-5	15	15	15	-3	15	10	10		20
21	10	05		15	15	15	0	15	20	10	+10	10	05	10		20
22	10	05	0	20	15	10	+5	15	20	15		15	05	15		20
23	10	10		15	15	10		10	15	15	-9	10	05	15		20
24	10	15		20	15	15		15	20	20		15	05	10		15
25	10	15		15	15	25		15	15	20		15	05	10	0	05
26	10	15		05	15	25		20	20	15		15	05	10	-5	10
27	15	15		10	15	25		15	20	15		15	05	10	+10	10
28	15	15		10	15	20		15	20	10	-7	15	05	10		15
29	15	15		05	15	20		15	20	15	+5	15	05	10		15
30	15	10	-7	10	20	25	-5	15	20	15		15	05	10		15
31	10	10		05	15	25		10	20	25		15	05	10		10

1930 SEP	135E 15-25 P	135E 25-55 P	135E 55-80 T	135E 55-80 P	135W 15-25 P	135W 25-55 P	135W 55-80 T	135W 55-80 P	45W 15-25 P	45W 25-55 P	45W 55-80 T	45W 55-80 P	45E 15-25 P	45E 25-55 P	45E 55-80 T	45E 55-80 P
1	10	15		05	15	25		15	20	20		15	10	10		00
2	15	15		15	15	25		20	20	20		20	10	10		00
3	10	15	+3	10	15	25		15	20	15	0	15	10	00	0	05
4	10	15		10	15	25		15	20	10		10	10	05		05
5	10	20		15	15	25		15	15	00	-2	05	10	05	0	05
6	05	10		05	15	25		20	15	05	+8	05	10	05		05
7	10	05		05	15	20		15	20	15		10	10	10		05
8	10	00	0	00	15	20		15	20	20		25	10	10		10
9	10	05		05	15	20		15	15	05	0	10	10	10		15
10	15	10	0	05	15	25		20	15	10		05	10	10	0	10
11	15	15		10	15	20		10	20	10	+2	10	10	15		15
12	15	20		15	15	15		05	15	10		10	05	10		20
13	15	20		20	15	10	-10	00	20	00	+5	00	10	15		15
14	10	15		20	15	10	-5	00	20	05		05	10	15		10
15	10	15		20	15	20		10	15	05		00	10	10		15
16	10	15		20	15	15		00	15	10	+2	10	10	10		15
17	10	20		20	15	10	-5	05	20	15		10	10	15		05
18	10	15		20	15	20		15	20	20		15	10	15		95
19	10	15		15	15	05		10	20	05	-10	10	10	15	-7	05
20	10	15		15	15	20	+5	95	20	05	+5	05	10	15	+5	10
21	10	05	-2	15	15	25		05	20	10		10	10	15		15
22	10	10	0	10	15	20		20	20	15		15	10	15		15
23	10	95	+5	00	15	05	+3	15	20	10		15	10	15		15
24	10	05	-10	05	15	15		15	15	00	+5	05	10	10		15
25	10	10		10	15	95	0	95	15	90	+5	00	10	10		00
26	10	15		15	15	80	+5	80	15	95		00	10	15		00
27	15	20		20	15	95	+10	95	15	90		95	10	15		95
28	10	20		20	15	10		00	15	10		10	10	15		95
29	05	15		15	15	15		00	20	15		15	10	15		95
30	15	15		15	15	10		00	15	20		20	15	10		00
31																
OCT																
1	05	10	-5	05	15	20		00	15	20		20	10	05	0	00
2	10	00	0	05	15	10	-5	05	15	15	+5	00	10	10		10
3	10	00		05	15	95	0	95	20	15		05	15	20		05
4	10	00		00	15	25		15	20	20		10	10	10		00
5	10	05		05	15	20		20	15	20		15	15	05		00
6	10	15		00	10	10	+5	10	20	15		20	15	10		05
7	15	15		00	15	20		10	20	20		20	20	95	-5	85
8	15	15		00	15	15		15	15	15		20	15	05	0	80
9	15	15		15	15	15		15	15	20		15	10	15		10
10	10	20		15	15	15		10	20	20		15	15	15		95
11	15	15		10	15	10	+5	05	15	05	-5	15	15	20		90
12	15	10	0	10	15	15	-7	05	15	00	+10	00	15	25		10
13	15	15		05	15	20	+5	20	15	00		05	15	20		15
14	15	15		00	15	25		25	15	00		00	15	15	-5	00
15	15	15		10	15	25		25	15	10		05	15	15		00
16	15	20		15	15	10	-8	25	15	05		00	10	15		15
17	15	20		20	15	05	-7	15	20	10	-2	95	15	20		05
18	15	10	-2	15	15	05	+4	05	20	05		00	15	20		15
19	15	10		15	15	15		10	15	15		05	15	20		00
20	05	10		20	15	05	-3	10	20	05		05	15	20		00
21	15	15		10	20	10	+5	10	20	05	+2	00	15	15		00
22	15	15		10	15	15		15	20	15		95	10	10		10
23	15	20		15	15	95	+5	95	20	15		00	15	15		10
24	15	25		25	15	05		95	15	05		05	15	20		10
25	15	15		20	15	05	-7	00	15	00	-2	10	16	25		10
26	15	15		25	15	15	+5	95	15	05		15	15	20		15
27	15	20		20	15	05		00	15	95		15	15	15		05
28	10	20		25	15	20		10	15	90		95	10	15		10
29	15	20		20	15	00		00	15	10		15	15	15		20
30	00	05		25	15	85	0	90	15	25		20	15	20		00
31	10	15	-5	25	15	20		10	15	10		10	15	20		00

1930 NOV	135E 15-25 P	135E 25-55 P	135E 55-80 T	135E 55-80 P	135W 15-25 P	135W 25-55 P	135W 55-80 T	135W 55-80 P	45W 15-25 P	45W 25-55 P	45W 55-80 T	45W 55-80 P	45E 15-25 P	45E 25-55 P	45E 55-80 T	45E 55-80 P
1	10	05	0	20	15	10	-5	10	15	05		90	10	15		00
2	15	05		05	10	00	0	95	15	15		05	10	20		95
3	20	95		95	15	15	0	15	15	15	-2	05	10	20		05
4	15	05		05	15	15		20	15	15		00	15	20		10
5	15	15		15	20	10		10	20	20		85	15	20		90
6	05	10		10	20	15	0	00	15	15		00	15	25		05
7	15	15		15	10	90	-5	05	15	00	-5	95	15	20		05
8	15	15		20	20	85	+8	85	15	05		85	15	20		80
9	10	10	+5	20	15	05	+8	90	15	25		10	15	20		95
10	15	15		10	20	90	0	90	15	20		20	15	05		95
11	15	10		10	15	30		25	15	10	-2	00	10	00	-7	90
12	15	15		15	15	25		25	00	00	0	00	15	05	0	95
13	15	20		15	20	25		25	95	90	+2	15	15	05		90
14	20	25		15	20	00		00	95	90	+3	20	10	85	0	80
15	20	30		15	15	75	+8	70	10	95	+5	15	10	05		85
16	20	25	+7	10	15	90	+8	90	15	75		00	15	95		80
17	20	25		15	15	95		95	20	85	-2	00	20	10		80
18	15	25		15	15	10		10	15	90		05	15	00		95
19	15	25	-8	20	15	00		95	10	00		00	20	15		95
20	15	10	0	15	15	20		85	15	10		10	20	20		85
21	15	00		15	15	25		00	20	90		90	20	05	0	05
22	15	10		15	15	35		20	15	05		85	20	15		90
23	20	15		05	15	25		25	20	85	+5	80	15	20		00
24	15	20		10	15	20		20	20	95		80	15	10		05
25	20	20		10	15	25		25	20	20		00	15	10	+3	15
26	20	15		15	15	15	+4	15	20	00		00	15	15		15
27	20	10		10	20	15		05	20	10		85	15	20		15
28	15	10		15	20	15		15	20	95	-5	85	15	30		05
29	15	15	0	15	15	15		20	20	10	-5	75	15	25		15
30	10	10		20	15	00	+2	10	20	05		90	15	10		15
31																
DEC																
1	10	15		20	20	05		15	20	10		85	15	10		10
2	15	20		20	20	10		10	20	10	-10	75	15	15		80
3	15	20		10	20	10	-2	10	20	00	+8	80	15	25		80
4	15	20		05	20	10	-3	90	15	10		90	15	10		70
5	05	25		10	20	05	-5	95	20	25		00	15	15		80
6	15	20		10	20	00	-2	95	20	20		00	15	20		90
7	15	20		10	15	90	0	85	20	15		05	20	25		10
8	15	15		15	15	05	-2	00	20	95		05	15	25		15
9	15	15		15	20	95	+6	95	20	90		95	15	20		15
10	15	10	-5	10	20	95	+7	05	15	80		80	15	15		25
11	15	15		20	20	95		95	20	85	+8	85	15	20		30
12	15	20		20	20	95	+5	95	20	15		90	15	20		15
13	15	20		20	20	10		95	20	10		95	15	20		20
14	15	20		20	20	00	+2	00	20	80	+7	15	15	20		30
15	15	25		10	20	95	+6	85	20	05		80	15	20		25
16	15	25		05	20	15	0	05	20	75	+8	75	20	30		15
17	15	15		95	20	20		05	20	95		80	15	30		20
18	15	05	+5	00	20	05		00	20	05		90	15	30		25
19	15	15		05	15	15		05	15	15	-7	95	15	30		15
20	15	15		15	15	15		15	15	00	0	10	20	30		15
21	15	15		10	15	95	+5	95	15	15		15	15	25		00
22	15	10		10	15	05	0	05	15	10	+1	10	15	25		15
23	15	15		10	15	05		00	15	20		00	15	20		10
24	20	10		10	20	95	+4	95	20	00	-8	10	15	15		10
25	20	10		10	20	10		95	20	00	-7	95	20	20		20
26	20	25		25	20	10		05	20	00		95	15	15		25
27	20	20	+5	25	20	15		95	20	95		90	20	10	-4	15
28	20	20		30	20	15		15	20	05	-10	00	15	10	+5	10
29	15	25		30	15	10	-5	10	20	80	0	95	15	15		05
30	15	30		30	15	00	-4	10	25	95	-5	95	10	10		15
31	15	30		30	10	95	-3	00	20	00	-10	00	20	30		20

1981	135E 12:35	135E 35-55	135E 55-80	135W 12:35	135W 35-55	135W 55-80	45W 12:35	45W 35-55	45W 55-80	45E 12:35	45E 35-55	45E 55-80
	P P T D			P P T P			P P T P			P P T P		
JAN												
1	15 15 30			05 85 +4 85			15 90 05			15 20 20		
2	15 15 25			15 90 0 90			15 00 00			20 25 10		
3	20 30 35			25 00 -8 00			15 85 +5 80			20 25 10		
4	15 15 +8 30			15 75 +8 75			15 90 75			10 20 10		
5	15 25 40			20 00 95			20 95 -5 85			10 25 15		
6	10 20 35			20 00 +2 00			20 10 95			15 25 10		
7	20 30 30			15 10 10			15 10 00			15 25 95		
8	10 20 25			20 05 00			15 85 +2 90			15 20 90		
9	10 10 15			20 00 +3 95			15 00 +1 00			15 25 10		
10	15 15 00			20 20 15			15 20 00			15 25 10		
11	20 15 10			20 05 -5 05			20 20 20			15 20 00		
12	20 15 15			15 05 +5 05			00 05 -5			20 20 25 05		
13	15 10 +8 10			20 10 -8 95			00 05 +5			15 25 95		
14	20 10 10			20 95 +4 95			00 00 00			15 20 95		
15	15 15 15			20 00 0 00			05 05 0			15 20 00		
16	15 15 +5 20			15 15 15			15 10 -10			10 15 05 00		
17	15 20 25			15 10 15			15 85 +5			85 20 95 85		
18	05 15 20			15 10 -4 25			20 90 0			90 05 05 85		
19	15 15 20			15 00 +5 15			20 00 00			00 10 95 -10 00		
20	20 20 25			10 00 0 00			20 10 10			00 00 +5 15		
21	20 20 20			10 90 05			20 95 +5 00			15 10 10		
22	15 10 -3 20			00 75 0 85			20 95 95			10 15 10		
23	15 15 20			20 85 +6 85			20 00 00			20 25 20		
24	15 25 30			20 00 -7 00			20 05 0			00 15 25 15		
25	15 15 30			15 85 +5 95			15 00 0			05 15 25 10		
26	15 15 05			20 95 90			20 90 80			20 20 10		
27	20 10 10			20 00 +2 00			20 95 +7 80			15 15 20		
28	20 15 10			10 00 -4 00			20 05 95			15 15 20		
29	15 15 +9 20			10 10 0 00			20 10 +5 95			10 05 0 20		
30	20 20 20			15 10 00			15 20 85			10 15 20		
31	15 10 +4 20			15 05 05			15 85 +5 00			15 25 25		
FEB												
1	15 15 20			15 15 +5 00			20 90 0 90			15 30 25		
2	15 15 30			15 15 10			25 00 +3 90			15 20 15		
3	15 20 30			15 15 +10 10			20 05 85			15 20 10		
4	15 20 25			20 15 15			20 10 +7 80			15 15 05		
5	05 10 25			20 10 00			20 05 85			15 20 05		
6	15 20 20			20 10 -3 05			20 05 -5 95			15 20 10		
7	20 20 20			15 05 -2 10			20 90 +6 95			15 20 10		
8	20 20 20			00 00 0 15			15 95 90			10 15 25		
9	15 25 30			00 00 +5 10			20 10 90			15 15 15		
10	20 25 30			10 10 05			20 05 -4 90			15 20 05		
11	20 30 30			10 10 05			20 25 00			15 20 85		
12	20 30 15			15 10 0 95			20 20 00			10 15 -8 85		
13	15 15 15			15 05 00			15 05 85			10 10 -7 90		
14	10 15 10			20 00 -2 00			15 20 05			15 20 00		
15	20 20 05			20 90 0 00			15 15 0			15 25 05		
16	20 20 20			20 95 +5 95			15 00 -10			95 20 30 05		
17	20 20 20			20 85 85			05 10 0			90 15 20 10		
18	15 15 15			25 80 0 80			10 10 00			15 20 95		
19	20 20 20			20 10 05			00 00 10			15 20 80		
20	15 25 95			20 10 +5 05			00 00 05			15 25 95		
21	15 05 95			20 05 00			15 00 0			00 15 25 00		
22	10 20 00			20 15 +5 00			05 95 -10			15 15 25 95		
23	10 15 +5 10			20 10 05			05 90 00			15 20 95		
24	15 10 05			20 05 -5 05			05 95 05			15 20 05		
25	20 20 05			20 00 00			15 00 15			15 20 00		
26	15 20 15			25 75 +5 80			15 10 15			15 20 00		
27	15 15 10			20 05 -7 00			00 90 20			15 00 -10 75		
28	20 20 20			20 00 0 95			10 25 -5 05			15 05 -6 80		
29												
30												
31												

1981	135E 12:35	135E 35-55	135E 55-80	135W 12:35	135W 35-55	135W 55-80	45W 12:35	45W 35-55	45W 55-80	45E 12:35	45E 35-55	45E 55-80
	P P T P			P P T P			P P T P			P P T P		
MAR												
1	20 15 15			20 15 -5 15			05 85 05			15 15 90		
2	20 10 10			20 20 20			10 80 85			15 10 90		
3	20 15 15			20 10 +9 10			00 85 +5 00			10 95 -3 05		
4	15 15 15			20 30 25			10 00 05			05 05 +5 10		
5	20 10 -5 10			15 25 05			10 00 95			15 20 20		
6	15 10 0 10			20 25 25			10 85 90			10 20 20		
7	15 10 10			20 20 35			10 00 05			15 25 10		
8	15 05 05			20 05 +4 20			05 05 20			15 20 10		
9	15 10 10			15 05 -6 10			15 15 20			15 10 10		
10	15 10 0 10			10 05 -3 20			25 15 25			10 10 10		
11	10 05 10			15 05 +8 10			10 95 0 20			10 10 15		
12	15 15 15			20 05 05			15 95 20			15 10 -5 05		
13	15 20 25			20 10 15			15 05 10			15 10 0 00		
14	15 25 25			20 10 -4 20			10 05 15			15 05 90		
15	15 25 -6 15			20 05 +2 10			05 95 10			15 10 90		
16	15 20 -3 20			20 15 15			10 05 10			15 00 -5 00		
17	15 20 +5 15			15 95 +2 10			20 15 10			10 10 +10 10		
18	15 10 10			20 85 90			25 20 10			10 10 90		
19	20 15 -3 10			20 80 0 90			10 00 0 05			05 05 0 00		
20	15 15 10			20 90 -5 90			10 95 -2 15			10 15 05		
21	15 10 10			20 00 95			15 00 -7 15			15 20 05		
22	15 00 0 15			15 20 15			00 90 +5 10			15 20 00		
23	05 05 +8 15			20 15 15			10 85 00			15 25 95		
24	15 10 10			20 15 15			05 05 15			15 20 05		
25	15 15 15			20 25 25			00 95 15			15 15 10		
26	10 05 +5 05			20 20 25			15 10 10			10 10 -7 00		
27	15 05 00			20 00 0 10			15 10 15			10 10 80		
28	15 05 05			20 10 05			10 05 20			15 15 05		
29	15 10 10			20 00 00			00 00 15			10 00 -3 10		
30	15 15 10			20 90 -2 90			15 15 10			15 00 00		
31	05 10 0 10			20 00 0 00			20 20 10			10 15 15		
APR												
1	10 10			15 10 10			20 10 10			10 15 10		
2	15 10			15 20 20			20 25 20			10 05 05		
3	15 10			10 95 -2 05			20 20 15			10 10 10		
4	15 10 -5 10			15 80 +6 85			20 05 0 05			15 20 20		
5	10 00 +7 30			15 05 00			20 00 -2 00			10 25 10		
6	10 95			20 90 +5 90			25 10 00			15 20 05		
7	15 10			15 90 90			20 05 90			15 15 00		
8	20 10			20 10 00			20 05 95			10 15 15		
9	20 05			15 15 -9 15			20 95 0 85			10 15 20		
10	20 05			15 80 +5 85			20 10 95			10 10 0 05		
11	10 10 0 05			15 00 -9 00			20 20 00			10 10 10		
12	15 05 05			15 75 +3 90			15 00 95			10 10 -5 25		
13	15 05 05			15 90 75			15 20 +6 05			15 10 10		
14	15 10			15 95 90			05 15 05			10 20 10		
15	10 10			15 00 95			10 00 -5 10			10 15 15		
16	10 05 +5			15 05 0 00			00 05 05					
17	10 10			20 15 10			15 10 10			05 05 10		
18	15 05			20 30 25			15 10 10			10 15 20		
19	15 10			20 20 30			15 20 15			10 20 25		
20	15 05			15 20 20			15 20 15			10 15 25		
21	10 05			15 20 25			10 10 05			10 15 20		
22	15 10			15 15 25			15 15 10			10 10 10		
23	20 10			10 10 25			15 10 -9 10			10 15 15		
24	15 15			10 10 20			15 05 05			15 10 15		
25	20 20			05 05 +7 10			00 00 -3 15			10 15 20		
26	15 10			10 10 15			15 05 05			10 10 15		
27	15 15			10 10 15			15 15 05			10 10 15		
28	15 10			05 05 10			15 10 -5 10			10 10 15		
29	10 05			05 10 -3 20			15 10 0 10			10 10 15		
30	10 05 -3			15 00 15			15 20 20			10 15 25		
31												

1931	135E 15	35	55	80	135W 15	35	55	80	45W 15	35	55	80	45E 15	35	55	80
MAY	P	P	T	P	P	P	T	P	P	P	T	P	P	P	T	P
1	05	10	15	20	15	15	20	15	15	05	15	10				
2	15	15	15	20	15	15	20	05	0	10	05	15	15			
3	15	15	15	10	10	-3	15	20	15	05	05	15	20			
4	15	15	-10	20	05	05	0	15	20	05	05	15	20			
5	10	10	20	00	00	0	00	20	95	+8	05	05	20	10		
6	10	05	-5	15	05	10	00	20	00		10	10	15	10		
7	15	15	15	10	20	10	15	95	00		10	10	10	10		
8	15	10	-8	10	15	20	10	15	00		05	05	15	15		
9	15	15	15	15	25	20	20	00	+4	00	05	10	05			
10	15	10	+4	20	15	10	10	20	05	-7	05	05	10	05		
11	15	15	20	15	10	00	20	05	+8	05	05	10	05			
12	10	15	15	15	15	05	20	10		05	10	10	05			
13	15	20	15	15	20	10	20	10		05	10	05	05			
14	15	15	15	15	20	15	20	05	+8	05	10	10	05			
15	00	00	-5	15	20	00	0	05	20	15	15	10	10			
16	05	10	+8	10	20	05	15	05	20	00	-5	00	05	10	05	
17	10	05	05	20	15	05	20	00		00	10	10	05			
18	15	00	00	20	30	20	20	90	+5	90	05	10	95			
19	15	05	0	00	20	35	35	20	90	85	05	10	00			
20	15	10	00	15	30	30	20	05		05	05	15	00			
21	15	00	0	80	15	10	+5	10	20	15	10	05	15	00		
22	05	05	+5	80	15	10	10	20	15	15	05	05	15	10		
23	05	05	95	10	00	+5	95	20	20	20	10	15	20			
24	05	15	00	15	00	+10	00	20	25	20	10	10	20			
25	05	10	15	20	15		05	20	25	25	05	15	20			
26	10	10	10	20	20		05	20	20	20	05	15	15			
27	10	05	-8	10	20	25	10	20	15	15	05	10	10			
28	10	05	-5	10	20	15	15	20	10	-3	10	05	10			
29	15	05	05	15	15	0	00	20	00	-2	00	05	05	10		
30	10	10	15	15	25	15	10	95	+5	05	05	05	15			
31	10	10	10	15	20	20	15	05		10	05	10	20			
JUN																
1	10	10	10	15	20	15	20	15		20	10	15	15			
2	10	10	10	15	25	15	20	20		20	10	15	10			
3	15	10	-6	10	20	30	15	20	10	-5	20	05	15	05		
4	10	05	0	10	20	25	20	15	05	0	20	05	10	-2	00	
5	10	10	05	15	20	15	15	05		20	05	10	00			
6	10	10	10	20	20	10	10	00	0	20	05	05	0	00		
7	05	10	10	15	20	10	15	10		20	05	10	00			
8	10	10	05	20	10	15	15	10		25	05	05	00			
9	10	15	15	15	00	+5	10	15	15	30	05	10	00			
10	10	15	15	15	05		05	20	20	30	10	10	10			
11	00	00	-5	15	15	15	10	20	25	25	05	15	10			
12	05	05	10	15	10	-9	10	25	20	20	05	05	10			
13	10	10	15	15	00	+2	15	25	25	20	05	00	00			
14	10	15		15	00	+10	15	20	15	-5	15	05	00	05		
15	10	10	10	15	10		15	20	15		15	05	05	+7	05	
16	10	10	10	20	15		15	20	15		10	05	10	00		
17	15	10	05	20	10	+5	05	20	20		15	05	05	00		
18	15	15	15	15	15		10	20	20	20	05	10	05			
19	10	05	05	15	15	-8	10	20	15	00	05	10	10			
20	05	00	-5	00	20	15	-2	10	20	15	10	05	10	05		
21	00	00	0	00	20	05	0	05	20	10	10	05	05	10		
22	00	00	-10	00	20	05	+7	05	20	00	-7	00	05	05	00	
23	10	00	00	15	10		00	20	05		05	05	10	95		
24	10	05	-10	05	15	10	-5	00	20	00	00	05	05	00		
25	10	10	10	15	00		05	20	10	0	05	05	05	00		
26	10	10	15	15	00	+5	00	20	15		10	10	10	-2	10	
27	10	00	05	15	10		05	20	20		15	05	05	+5	05	
28	05	00	10	15	20		15	20	20		15	05	05		00	
29	05	00	00	15	25		15	20	25		15	05	05		05	
30	10	00	05	15	20		20	20	20		10	05	05		00	
31																

1931	135E 15	35	55	80	135W 15	35	55	80	45W 15	35	55	80	45E 15	35	55	80
JUL	P	P	T	P	P	P	T	P	P	P	T	P	P	P	T	P
1	00	00	05	15	25	20	20	05	00	05	05	-4	00			
2	05	05	15	15	30	15	20	10	05	05	05	+5	00			
3	05	05	00	15	30	15	20	20	15	00	05	05				
4	05	05	90	15	20	15	20	15	10	00	05	05				
5	05	05	00	15	20	10	20	10	10	00	00	10				
6	05	05	05	15	20	10	20	05	0	00	05	05	15			
7	10	10	05	15	20	15	20	10	05	00	05	15				
8	10	10	05	15	15	-5	15	20	20	20	05	05	15			
9	10	10	00	15	20	10	20	25	20	00	00	15				
10	10	15	05	15	20	10	20	25	15	05	00	-5	05			
11	05	10	00	15	15	10	20	25	15	00	00	0	00			
12	05	10	10	15	05	0	05	20	20	10	00	0	00			
13	10	10	10	15	15	10	20	15	05	00	00	0	00			
14	15	10	10	15	20	10	20	15	-3	15	05	05	10			
15	10	10	10	15	20	10	20	10	0	10	05	05	10			
16	15	05	05	15	20	10	20	10		10	05	05	15			
17	15	05	05	15	20	10	20	15		15	05	10	10			
18	15	05	05	15	25	10	20	15		15	00	05	10			
19	10	10	10	15	20	15	20	15	-3	15	05	05	10			
20	10	10	10	15	10	0	10	20	05	05	05	05	10			
21	05	05	15	15	05	00	20	10		10	00	05	10			
22	10	15	20	15	10	95	15	05		05	00	05	15			
23	10	10	10	10	10	00	20	10		10	00	00	05			
24	15	10	10	15	15	05	20	10		10	00	05	05			
25	10	05	10	10	20	05	20	15		15	00	00	10			
26	10	05	05	15	25	05	15	20		15	00	00	10			
27	10	05	05	10	25	10	15	15	-5	15	00	00	10			
28	10	10	00	15	25	10	20	15		15	00	05	10			
29	10	05	00	15	20	10	20	10		10	05	05	10			
30	10	00	-5	00	15	20	10	20	05		05	00	00			
31	10	10	10	15	20	00	20	10	-7	00	00	00	10			
AUG																
1	15	15	15	15	20	10	20	95	0	95	00	05	10			
2	15	10	10	15	20	10	20	05		00	05	05	15			
3	15	00	-5	10	15	25	15	20	20	05	00	05	10			
4	10	00	+3	05	20	25	15	15	20	10	00	05	05			
5	10	00	00	15	25	15	15	15	15	00	00	00	95			
6	05	10	10	15	25	10	15	10	-8	15	00	00	00			
7	05	15	10	15	25	10	20	10	+2	15	00	00	95			
8	05	15	10	15	25	10	20	10	-5	15	00	05	00			
9	10	05	10	15	25	10	20	10	+3	10	00	00	05			
10	10	00	0	05	15	10	10	15	05	00	00	00	05			
11	10	05	05	15	15	10	20	10		05	00	05	15			
12	10	10	10	15	20	10	20	15		10	00	05	10			
13	10	10	05	20	25	00	20	15		00	00	05	10			
14	05	95	-3	95	20	25	05	20	15	10	00	05	0	05		
15	00	00	+5	00	15	20	15	20	20	20	00	00	0	05		
16	05	05	05	15	20	15	20	15		20	00	05	10			
17	05	10	05	15	25	10	20	20		15	00	10	0	05		
18	05	00	-8	00	20	15	+5	10	20	15	20	95	00	05		
19	10	00	+5	00	15	15	-10	10	20	05	+2	20	00	00	10	
20	05	10	10	15	10	0	10	20	10		20	00	05	10		
21	05	10	10	15	15	0	15	20	15		20	00	05	+5	05	
22	00	00	10	15	15		15	20	10	+5	15	00	00		05	
23	00	00	10	15	15		15	20	15	0	00	00	00		10	
24	05	10	-5	10	15	20	15	15	10	+6	00	00	05		10	
25	10	00	+2	00	15	15	0	15	20	15	00	05	05		15	
26	10	10	10	15	15		20	20	15		05	00	05		15	
27	10	95	+1	10	15	20	20	20	05	0	10	00	05		15	
28	10	10	10	15	15		10	20	00	+5	00	05	05		10	
29	10	10	00	10	15		05	20	10		10	05	05		10	
30	10	05	05	15	20		10	20	10		10	00	00	+5	00	
31	10	15	05	20	05		05	15	20		15	05	05		00	

1931 SEP	135E P	135E P	135E T	135E P	135W P	135W P	135W T	135W P	45W P	45W P	45W T	45W P	45E P	45E P	45E T	45E P
1	15	20	15		15	10	+4 00		15	20		25	05	10		95
2	15	20	20		15	15	00		15	15		25	05	15		95
3	05T	10	20		15	10	05		20	10	+4	25	05	15		90
4	05T	15	15		15	15	10		20	15		25	05	10		05
5	05T	10	10		15	90	+5 90		15	20		20	05	10		05
6	10	10	10		15	00	05		15	20		20	05	10		10
7	10	10	10		15	15	15		15	20		20	05	05	-5	05
8	10	10	05		15	15	10		15	15		20	05	10	+5	85
9	10	05	05		15	15	05		15	10	-2	20	05	05		95
10	10	05	05		15	15	10		15	05	+3	05	05	10		95
11	10	05	10		15	15	10		20	10	+2	10	05	10		00
12	10	00	+2 05		15	15	10		15	00	0	95	05	15		00
13	10	05	05		15	20	15		10	00	+9	00	05	10	-5	05
14	15	20	20		15	20	20		10	10	-5	95	10	10	+6	95
15	15	20	20		15	20	15		15	05	-5	90	10	15		90
16	15	20	20		15	15	10		15	00	0	90	10	10		90
17	15	20	20		15	05	+3	10	15	15	+7	85	10	05		95
18	15	15	15		15	10	05		20	15		05	10	15		05
19	15	10	10		15	15	10		15	00	0	95	10	10		90
20	15	00	05		10	20	15		20	00	+4	85	10	00	0	00
21	15	15	10		15	30	25		20	10		05	10	10	+10	10
22	15	15	10		15	25	10		15	10	+2	10	05	10		10
23	15	15	15		15	25	10		15	00		15	05	10		90
24	10	15	0 00		15	20	15		20	00		00	10	10		00
25	15	15	05		15	20	15		20	05		00	10	05	0	00
26	00T	00T	05		15	10	0	10	20	90		85	10	95	+10	95
27	00	05T	05		15	05		10	20	05		95	05	05		95
28	10	00	+5 10		15	00		00	20	10		95	10	10		00
29	10	00	00		15	05	-5	05	15	15		00	10	10		05
30	15	00	+6 05		15	90	-3	90	20	95	+2	00	10	15	-10	05
31																

1931 OCT	135E P	135E P	135E T	135E P	135W P	135W P	135W T	135W P	45W P	45W P	45W T	45W P	45E P	45E P	45E T	45E P
1	15	00	00		15	15		95	20	15		95	10	10	0	00
2	15	10	10		20	15		00	15	00	+8	95	10	10		05
3	15	15	05		15	05		05	15	15		90	10	10		85
4	15	25	25		15	05	+5	05	20	10		95	10	05	0	85
5	10	15	15		15	25		10	20	05		00	10	10		95
6	10	10	0 10		15	30		10	20	10	-10	05	10	10		00
7	10	15	10		15	30		05	20	00	+10	00	10	10		10
8	10	15	+5 10		15	25		10	15	10		00	10	20		10
9	10	20	25		15	25		05	15	95	-2	95	10	20		05
10	10	20	10		15	15		95	20	15		00	10	20		05
11	10	15	10		15	10	0	95	20	20		10	10	20		95
12	10	15	10		15	00	-3	00	20	10	-5	05	10	20		85
13	10	10	05		15	05	6	00	20	90	-7	85	10	25		90
14	10	15	15		15	15		95	15	05		95	10	20		95
15	10	20	15		15	15		00	20	10	+5	05	10	15		85
16	10	15	0 15		15	20		00	20	20		15	10	15		85
17	10	05	+10 10		20	20		10	15	20		15	10	20		85
18	15	15	10		15	15		95	15	15		10	10	10		85
19	10	25	10		15	15		05	10	10		25	10	15	0	00
20	10	20	00		15	15		10	05	00	+4	20	15	15		00
21	10	20	+5 05		15	90	-5	90	10	00		25	10	10		95
22	10	15	15		20	85	+6	85	05	05		25	15	05		90
23	10	25	20		15	90	-5	90	05	05		20	15	25		90
24	10	20	05		15	00		00	05	00	-7	05	15	15		90
25	10	10	15		15	10		10	05	00		10	15	05		95
26	10	10	10		15	10		10	15	95	+2	15	15	10		00
27	15	00	05		15	00	+3	00	15	00		10	15	15		95
28	15	05	05		15	15		20	15	00	+5	00	15	20		90
29	15	15	00		15	95	0	95	15	00	+2	05	15	25		80
30	15	05	00		15	10		00	20	15		15	15	10		00
31	15	15	10		15	90	-5	90	15	10		10	15	15		05

1931 NOV	135E P	135E P	135E T	135E P	135W P	135W P	135W T	135W P	45W P	45W P	45W T	45W P	45E P	45E P	45E T	45E P
1	15	20	10		15	95	+0	85	15	05		10	15	10		10
2	15	15	20		15	20		00	15	05	+4	00	15	20		10
3	15	30	15		15	05	-5	10	20	05		95	15	20		95
4	10	20	05		15	10	0	10	20	00		95	15	25		85
5	10	15	05		20	00	0	85	20	05		05	15	25		85
6	10	05	+1 00		15	95	+8	80	15	90	+1	80	15	25		95
7	10	05	05		15	05	0	00	20	00	-6	00	15	20		05
8	15	20	10		15	05	0	05	20	00		00	15	20		15
9	10	10	0 15		15	10		05	15	10		10	15	25		15
10	10	20	20		15	20	+6	05	20	10		05	15	25		15
11	15	25	20		20	20		10	20	05		00	15	25		15
12	10	25	20		20	05		05	15	90	+6	80	15	25		15
13	15	20	20		15	05		05	20	00		90	15	25		00
14	15	15	15		15	10		15	15	15	0	75	15	25		15
15	10	15	20		15	10		10	15	80		80	15	20		15
16	10	20	20		15	95	0	05	15	00		90	15	25		25
17	05T	15	0 20		15	10		10	10	10		90	15	25		25
18	05T	10	+0 15		20	10		05	15	15		95	15	20		10
19	10	10	10		20	05		05	15	10		85	15	20		20
20	05	15	10		15	25		15	15	20		85	15	15		15
21	10	20	10		15	30		15	20	15		95	15	20		20
22	0	20	15		15	25		10	15	05		00	15	25		20
23	00	20	15		15	25		15	15	05		00	15	20		25
24	15	25	15		15	30		15	15	05		95	15	20		30
25	15	20	25		15	30		20	15	05		85	10	15	-5	35
26	15	20	15		15	25		05	20	95	-5	90	15	15	0	30
27	15	25	20		15	25		00	20	90		80	10	15		30
28	15	20	20		15	30		00	15	00		80	15	25		15
29	15	20	20		20	25		05	20	05		00	15	25		15
30	15	20	00		15	15	-7	15	20	10	-6	90	15	30		25
31																

1931 DEC	135E P	135E P	135E T	135E P	135W P	135W P	135W T	135W P	45W P	45W P	45W T	45W P	45E P	45E P	45E T	45E P
1	15	20	15		15	90	+5	05	20	00		05	15	25		10
2	15	15	0		15	05	+7	15	20	95	0	00	20	20		05
3	15	00	05		15	20		20	20	95	0	90	15	20		95
4	15	15	15		15	20	-8	15	20	00		00	15	20		85
5	15	15	15		20	25	0	15	20	05		05	10	10		90
6	15	20	25		20	10	+4	15	15	25	+5	75	10	10		90
7	15	20	25		15	10		10	20	00		00	10	20		00
8	15	20	20		15	20		05	15	90	-7	95	20	10		05
9	15	15	30		15	10	+4	00	10	00	+8	90	20	10	0	10
10	15	25	25		15	10		10	15	15		90	15	20		20
11	15	15	-5	25	15	20		05	15	15		95	15	25		95
12	10	05	+8	20	15	05	+5	05	10	90	0	15	15	15		85
13	15	10	15		15	15		05	15	00		15	15	05		00
14	20	20	20		15	05	-2	00	15	15	+6	15	15	90	0	95
15	15	15	25		15	10	-5	10	20	20		00	10	00	+5	95
16	15	20	25		15	05	-3	00	20	60	+5	60	15	90	-5	85
17	20	25	25		10	90	0	80	25	00		75	20	00	0	00
18	15	20	20		15	75	+5	80	20	00	+10	80	20	15		95
19	15	15	00		15	00	+5	95	20	15	+7	85	20	20		75
20	15	15	00		15	05		05	15	90	+2	95	20	10	0	80
21	15	20	95		15	00	+5	00	15	00		90	15	15		00
22	20	25	00		15	90	+7	85	05	00		90	20	20		95
23	15	20	10		10	15	0	85	15	10	+9	95	15	15		00
24	15	20	05		20	80		80	15	20		00	15	15		70
25	15	20	05		20	95		95	15	10	+2	05	15	10		70
26	15	15	05		10	65	+8	85	15	15		15	15	90	-5	15
27	15	15	10		15	70		75	15	00	-7	15	20	90	+10	80
28	15	25	15		15	80		90	10	00	-6	00	20	85		85
29	15	25	20		15	00		00	20	00	+7	05	20	95		85
30	15	20	15		15	90	-4	00	20	00	-5	00	20	05		95
31	15	20	05		15	00		05	15	00		05	20	05		05

	135E				135W				45W				45E			
	15-35	35-55	55-80		15-35	35-55	55-80		15-35	35-55	55-80		15-35	35-55	55-80	
1932 JAN	P	P	T	P	P	P	T	P	P	P	T	P	P	P	T	P
1	15	05	0	05	15	00	+5	05	05	00	+6	00	20	15		10
2	15	05		05	15	10		10	20	05		05	20	15		05
3	15	00	-5	00	15	05	0	00	20	05		05	20	05	0	00
4	10	10	-7	05	15	15		10	10	05	0	00	20	00	+5	90
5	10	25		25	15	00	0	85	15	15		10	15	10	+10	90
6	10	20	-2	30	15	15		15	15	15		05	15	15		90
7	10	05	+5	05	20	10		10	15	15		05	15	10		85
8	10	20		20	20	05		05	20	05	+7	95	15	10		70
9	15	20		00	25	10		95	20	00		85	15	15		95
10	20	15		95	20	05	-5	85	20	05		85	15	15		10
11	20	20	0	15	15	05	0	05	20	05	+8	80	20	15		95
12	15	15		15	20	20		10	20	05		80	20	20		95
13	20	15		10	15	15		05	20	05		75	20	25		95
14	20	20		05	20	00	0	00	20	05		80	20	30		00
15	20	25		05	20	05		00	20	00		85	20	25		00
16	15	25		00	20	00		00	20	00	-2	85	25	35		95
17	20	30		15	20	00	-2	05	20	00		85	25	25		95
18	20	25		15	20	05	+10	00	20	10		90	25	30		85
19	20	25		15	20	15		15	20	00	+4	85	25	30		75
20	20	25		10	20	15		15	20	05		85	20	25		80
21	20	15	+8	10	20	15		05	15	15		90	20	30		80
22	20	15		05	20	20		15	15	05		00	20	25		75
23	15	15		05	20	15		05	15	10	-5	95	20	25		00
24	15	20		05	20	05	-2	05	15	10		95	20	25		15
25	15	20		10	15	10		00	15	80	+4	80	20	25		90
26	15	20		15	15	05	+2	00	15	05	-5	75	15	05		80
27	15	20		05	25	15		15	15	05	+7	80	15	10		05
28	15	20		15	20	20		20	20	15		90	15	05	0	95
29	15	20		05	15	25		25	05	05	0	05	15	10		65
30	15	25		00	20	20		50	15	00	+8	10	15	85		75
31	15	25		10	15	20		20	15	05		05	20	00		95
FEB																
1	15	30		15	15	20		20	15	05	0	90	15	05		00
2	15	15	0	20	15	10	0	10	10	05	+6	00	15	85	0	85
3	15	20		30	15	05		15	20	05	+10	95	20	05		05
4	15	20		30	05	05	0	00	15	00	-10	85	15	10	+5	10
5	15	20		30	10	10	+7	10	15	10		85	15	05	-5	05
6	15	20		25	15	10		10	10	95	0	05	15	10	0	05
7	15	25		35	10	05		05	20	05		85	10	10		20
8	15	25		25	05	00		00	25	20		95	15	10		10
9	10	20		20	20	80		80	20	20		10	15	10		10
10	10	20		10	15	00		00	20	80	+2	90	15	10	+8	00
11	20	20		20	20	10		10	15	20		10	15	10		05
12	20	25		20	15	20		20	15	20		05	15	20		05
13	15	25		10	15	20		10	15	20		20	15	95	+5	05
14	15	25		15	15	15		95	15	00	-2	00	20	10		00
15	15	15		80	15	30		20	15	95	+8	90	20	20		00
16	15	10		20	15	30		15	10	05	+9	85	20	30		85
17	15	15		00	20	30		15	10	85	-3	00	20	25		80
18	20	25		20	20	20		20	05	85	0	10	15	20		70
19	15	20		10	20	10		10	10	80	-5	90	15	15	-5	80
20	15	20		20	20	05		05	10	90	+5	85	15	05		95
21	15	25		25	15	10		10	00	80	0	00	15	00	0	00
22	10	25		25	15	90	-5	90	05	80	+7	90	15	00		90
23	15	25		30	15	95		95	15	10	-5	95	05	95	0	85
24	15	25		35	20	90		85	15	85	0	85	10	10		00
25	10	10		20	20	95		80	15	95	+4	85	15	20		95
26	15	20		10	20	80		85	20	05		10	10	10		00
27	20	15		05	20	00	+8	85	20	05		00	15	15		90
28	15	95		85	20	15	-7	15	15	10		05	15	20		00
29	15	05		95	20	15		15	10	00	-2	00	15	15		10
30																
31																

	135E				135W				45W				45E			
	15-35	35-55	55-80		15-35	35-55	55-80		15-35	35-55	55-80		15-35	35-55	55-80	
1932 MAR	P	D	T	P	P	P	T	P	D	P	T	P	P	P	T	P
1	15	15		90	20	15		20	05	00		05	10	10	-4	10
2	15	15		10	20	15		20	00	95		15	10	15		00
3	15	10		10	15	05		15	00	95		15	10	20		05
4	15	00	-5	00	15	00	-5	00	00	00		20	10	25		20
5	20	10	+5	05	20	15		15	00	95		20	15	25		20
6	15	15		15	15	10		20	00	90	-2	05	15	25		35
7	10	15		20	00	00	0	25	10	85		90	15	25		35
8	15	15		20	00	95		20	10	85	+5	95	15	20		25
9	15	20		10	10	95	0	15	10	90		00	15	05	-5	05
10	15	15		15	15	05		15	15	80		95	15	05		00
11	15	15		20	10	00	0	20	10	80	+8	90	10	20		00
12	15	10		25	10	00	+4	15	05	80	+3	95	10	20		05
13	15	10	0	25	15	10	+8	10	10	80		90	10	15		00
14	15	10		15	15	10		10	10	85	-7	00	15	20		05
15	20	10		20	20	05		10	05	80	-2	10	15	20		10
16	20	15		20	20	00		05	10	80		00	15	10		05
17	20	15		20	20	95		05	10	80		00	10	10		00
18	15	15		20	20	85		95	20	85		95	15	20		00
19	15	15		20	20	05		95	20	80	+7	90	10	15	-7	10
20	15	15		25	20	15		10	15	10		00	10	15		10
21	20	20		25	20	25		15	20	00		05	10	15		00
22	15	20		20	20	05	+3	10	20	05	+10	05	10	10		10
23	15	20		20	20	00		00	20	00		95	10	00	0	00
24	15	15		05	20	95		00	20	95		95	10	05		00
25	15	15		15	20	15		10	20	85	-10	90	15	10		00
26	15	10	-5	05	20	15		15	20	95		90	15	10		00
27	15	05	+8	25	20	10	0	15	20	00		00	15	20		00
28	10	00		20	20	05		10	15	85	+5	95	15	15		00
29	15	10		15	20	05		00	15	20		20	15	20		05
30	20	00		00	20	05		00	15	20		25	10	10		10
31	15	00		00	15	05	0	05	10	15	-7	05	10	20		15
APR																
1	15	95	0	00	20	05		95	20	25		20	15	20		00
2	15	05		05	20	00		95	15	30		10	15	20		05
3	15	10		10	20	05	-5	00	15	20		95	10	20		10
4	15	05	-5	10	20	05	+8	05	15	20		10	10	15		00
5	10	95	+5	00	15	10		05	10	10	6	05	10	10		90
6	10	00		00	20	95	+4	05	15	10		25	10	10		90
7	10	00		00	20	05		10	20	10		15	15	05	+2	90
8	15	15		10	15	15		20	15	15		15	15	10		90
9	15	10	+5	10	20	05	-3	10	15	15		25	10	10		95
10	15	10		10	15	05	+6	05	15	10		20	10	10		95
11	15	10		10	15	15		05	15	05		10	10	10	+5	95
12	05	05	+5	05	15	95		10	15	20		15	10	15		00
13	15	05		10	15	95	+7	10	15	25		15	15	20		10
14	15	15		15	15	85		05	20	25		20	15	15		15
15	10	10	+5	10	15	10		10	20	20		20	10	10		15
16	15	20		20	20	00	+10	05	20	20		20	05	10		15
17	15	25		15	20	00		00	20	20		30	10	10		05
18	10	10	0	05	15	05	-2	10	20	20	0	15	10	10		05
19	15	10	-3	15	20	95		00	20	15		20	10	10		05
20	15	10	+8	15	20	10		10	20	20	-9	20	10	10		10
21	15	10		10	15	15		15	15	05	0	15	05	00	0	15
22	15	10	-5	15	15	00	-3	85	15	85	+4	05	15	00	+5	10
23	15	10		10	15	15		10	20	00		00	10	10		15
24	05	05	-3	05	15	20		20	20	00	-10	05	10	15		10
25	15	00		05	20	25		20	20	85	-7	95	10	15		10
26	15	00		05	15	15		15	15	00	+10	00	05	05		10
27	15	10		10	15	10		10	20	10		05	10	05	+5	15
28	10	95	+2	95	10	10	-7	15	20	15		15	10	05		20
29	15	90		90	10	05	-3	20	20	05	-2	05	10	10		15
30	15	00		00	10	05	-2	20	15	05	+4	10	10	15		10
31																

1932	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
MAY																
1	15	10	0	00	15	10		15	20	20		20	10	15		15
2	10	05	+5	00	20	15		15	15	15		25	10	15		10
3	15	15		10	15	15		10	15	15		25	10	15		15
4	15	20		20	20	15		10	15	05	-5	15	10	15		15
5	10	00	+2	20	20	05		05	20	15	-5	15	15	20		20
6	15	10		15	20	10		05	20	15	0	15	10	10		10
7	15	05		10	20	15		05	20	10	0	20	10	15		15
8	10	05	0	05	15	10		10	20	10		10	10	15		10
9	15	05	-5	05	20	10	0	10	15	05	+5	10	10	10		05
10	15	15		15	20	20		10	15	00		10	10	05	0	05
11	15	15		15	15	15	-3	05	15	05		10	10	10		10
12	10	05	0	15	15	10	+5	05	20	15		15	10	10		20
13	15	05	-5	05	20	20		10	20	15		10	10	10		15
14	15	10		05	20	30		15	20	10		10	10	15		10
15	15	15	-8	10	20	20		15	20	05	0	15	10	15		15
16	15	20		25	15	15		10	20	10		10	10	10	0	10
17	15	15		20	20	15		15	25	10		15	10	05	+5	15
18	10	10	0	15	20	05	-7	15	25	20		15	10	05		15
19	15	00		05	20	95	+7	00	25	20		15	05	10		05
20	15	00	+8	05	20	90		00	20	15	+4	15	10	05	0	05
21	05	95	-3	15	20	10		10	20	10		10	10	10		00
22	05	90	+5	05	20	10	-5	00	20	15	-5	15	05	00		00
23	15	00		00	20	20		10	20	15		20	10	10		10
24	15	00		10	20	30		15	20	10	0	05	10	10		15
25	00	80	-5	10	15	30		20	20	20		05	10	05	0	20
26	10	90	+5	05	15	25		20	20	20		20	10	15		20
27	10	00		05	20	30		15	20	15		15	05	10		10
28	05	05		05	15	25		15	20	10	+8	15	10	10		05
29	15	05		00	20	15		10	20	10		10	10	10		05
30	15	00	-8	05	15	15		10	15	15		15	10	15		10
31	15	00		10	15	15		10	20	10	-2	20	10	10		10
JUN																
1	15	00	-5	00	20	05	-2	05	20	25		20	10	00	-3	00
2	15	10	+5	05	20	10		05	20	25		20	10	10		00
3	10	10		10	20	10		00	20	15	-5	20	10	15		10
4	10	10		10	20	15		00	20	05	[illegible]	10	10	10		15
5	10	10		10	20	20		05	20	00	[illegible]	25	10	10		05
6	10	10		10	20	20		15	20	05		10	05	05		05
7	10	10		15	20	20		20	20	15		20	05	05		00
8	10	10		10	20	25		25	20	20		15	05	05		05
9	15	15		15	20	25		25	20	15		10	05	05		05
10	15	15		10	20	20	0	20	20	15		10	00	00		10
11	10	10		10	20	20		15	20	15		05	00	05	-8	10
12	10	10		10	20	25		10	25	05	+5	05	05	05		15
13	10	05	-8	05	20	25		05	20	00		00	10	10		95
14	10	05		05	20	20		15	20	10		05	10	05		10
15	10	05		00	20	20		10	20	15		10	05	10		15
16	05	05		00	20	25		10	20	05	0	10	05	10		15
17	10	10		00	20	15	-7	15	15	05	+5	10	05	10		15
18	15	05		05	20	10	-2	15	20	20		10	05	15		10
19	10	10		05	20	05		00	20	15	-8	10	05	10		15
20	10	10		05	15	00	+4	00	15	15	-4	10	05	10		15
21	10	05		05	15	10		05	20	10	-2	05	05	10		10
22	10	05		05	15	15		10	20	15	+10	10	05	10		05
23	05	05		05	15	20		15	20	15		10	05	05		10
24	05	05		10	15	25		15	20	20		15	05	05		05
25	10	10		15	15	25		15	20	15		15	05	05		15
26	10	10		15	15	15		15	15	15	-3	15	05	05		10
27	10	10		15	15	10	0	10	20	05		10	05	10		10
28	10	15		15	15	10		10	20	10		10	05	05		05
29	15	10		05	15	15		10	20	00		10	05	10		05
30	15	15		10	15	10	0	10	20	10		10	05	10		05
31																
JUL																
1	10	10		10	15	15		05	20	10		10	05	10		05
2	10	10		10	15	15		10	20	15		15	05	10		05
3	10	10		10	15	15		10	20	20		10	00	05		10
4	15	05		00	15	20		15	20	00		00	05	05		10
5	10	05		10	15	25		20	20	05		05	00	05		10
6	10	05		10	15	25		20	20	00	0	00	00	05		05
7	10	05		10	15	25		20	20	05	+5	05	00	05		10
8	10	10		10	15	25	-5	20	20	15		05	00	00		10
9	10	10		05	15	25	+8	20	20	20		10	00	05	-5	05
10	10	10		05	15	15		15	20	25		15	00	00	0	10
11	10	05		00	15	10		05	20	05	+5	05	00	00		05
12	10	05		00	15	05		00	20	20		20	00	00		00
13	10	05		00	15	10		05	20	20		15	05	05		05
14	10	10		05	15	10		10	20	15		10	00	00		05
15	10	10		05	15	20	+5	10	20	20		20	00	00		05
16	10	05		05	20	20		10	20	10	0	10	00	00		05
17	10	00		00	20	25		05	20	10	+6	10	05	05		15
18	10	05		05	20	25		10	20	25		10	05	05		15
19	10	05		05	20	15		05	20	25		15	00	00		05
20	10	10		10	20	20		10	20	25		15	00	00		05
21	15	05		05	20	05	-2	05	20	20	-5	15	00	00		05
22	15	00		05	15	15	+5	05	20	25		10	00	00		05
23	10	05		10	15	15		05	20	20		15	00	00		05
24	10	00	-3	05	15	05	-2	10	20	20		20	05	05		05
25	10	00		00	15	10	+6	10	20	20		20	00	00		05
26	15	05		10	15	05	0	10	20	10	0	15	00	00		10
27	10	05		10	15	05		05	20	10		15	00	00		10
28	10	05		10	15	10		10	20	20		20	00	00		15
29	10	10		10	15	15		10	20	10		10	00	00		15
30	10	10		10	15	15		60	15	10		10	00	00		15
31	10	10		10	15	10		90	20	15		05	00	00		05
AUG																
1	10	10		00	15	20		00	20	15		15	05	05		05
2	10	10		10	15	20		05	20	15		00	05	05		10
3	10	10		00	15	20		05	20	15		00	00	00		00
4	10	05		05	15	25		05	15	10	+3	05	00	00		10
5	10	05		10	15	25		05	15	05		05	00	00		10
6	10	10		05	15	20		10	20	15		10	00	00		10
7	10	10		05	15	15	-5	05	20	15		05	05	05		10
8	05	00		00	15	15		05	20	10		10	00	00		10
9	05	05		05	15	10	+8	10	15	15		10	00	00		15
10	05	05	-10	00	15	15		15	15	15		10	00	00		20
11	05	05		05	15	20		10	15	05	0	05	00	00		05
12	00	00		05	15	20		15	20	20		05	00	00		10
13	05	05		05	15	25		20	20	10		10	00	00		15
14	05	05		10	15	25		20	15	05	-5	05	00	00		15
15	05	05		05	15	20		15	15	15		05	00	00		15
16	05	05		10	15	20		10	15	20		10	00	05		15
17	05	05		05	15	20		10	15	25		15	05	05		15
18	05	05		10	15	20		15	20	25		20	05	05		05
19	10	05		10	15	25		20	15	25		15	00	05		00
20	05	00		10	15	25		10	15	25		10	05	05		05
21	05	10		10	15	20		10	15	25		15	05	05		00
22	05	15		10	15	20	-7	10	05	05		00				
23	10	20		10	15	20		10	20	15	0	05	00	05		00
24	15	20		15	15	20		05	20	10	+8	10	05	05	-5	00
25	15	20		10	15	20		10	15	10		00	05	05		00
26	15	15		10	15	20		10	20	15	0	00	00	05		10
27	15	15		10	15	10	0	05	20	15		05	00	05		05
28	15	10		15	15	15		05	20	10		05	00	05		05
29	15	05	+5	15	15	15		10	20	15		00	05	05		05
30	15	15		15	15	10	-5	10	20	05		05	05	05		10
31	15	10	+3	05	15	10		05	20	05		00	05	05		05

1932	135E 35-55 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 35-55 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 35-55 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 35-55 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
SEP																
1	15	10		15	15			10	20	10		00	05	10		10
2	15	20		15	20	25		15	20	15		10	05	10		05
3	15	20		15	20	00	0	05	20	15	0	10	05	10		05
4	15	15		15	20	10	-5	00	20	20		05	05	10		05
5	10	15		15	20	05		00	20	15		10	05	10		10
6	10	15		15	15	10	-3	10	20	05		00	05	10		05
7	10	15	+8	10	20	15		15	20	20		05	05	10		00
8	10	15		20	20	20		15	20	00	0	05	05	10		00
9	10	10		15	15	10	-2	05	20	15		05	05	10		05
10	ost	15		10	15	20		10	20	15		05	05	10		00
11	10	15		10	20	25		15	20	10		05	05	10		05
12	10	10		15	20	15		10	20	05	+5	05	05	05		05
13	15	15		15	20	05	+5	00	20	05		05	05	10		05
14	05	20		15	15	25		05	15	15		05	05	15		05
15	10	15		10	15	20		10	20	15		05	05	15		05
16	10	15		15	15	20		00	15	25		15	05	15		00
17	10	15		10	15	20		10	15	15		20	05	10		00
18	10	15		15	15	20		05	15	20		20	05	15		05
19	10	15		20	15	15		05	10	10		25	05	15		10
20	10	15		20	15	15		05	10	10		15	10	15		05
21	15	15		20	15	15	-2	15	15	20		20	10	15	0	05
22	10	10		20	15	05	0	00	15	25		10	10	05	-2	00
23	15	15		10	15	15		10	15	25		15	05	10		00
24	15	15		10	15	20		15	15	25		20	10	15		00
25	15	15		05	15	25		00	15	15	-5	15	10	15		00
26	15	15		10	15	20		00	20	20		10	10	15		10
27	15	15		15	15	25		05	15	15	0	00	10	15		05
28	10	15		10	15	20		05	10	10		05	10	15		05
29	15	10		10	15	20		05	15	15		15	15	15	+5	05
30	10	15	+5	05	15	10		10	15	10		20	10	10		10
31																
OCT																
1	ost	15		05	15	10		00	20	10		15	10	15		05
2	ost	15		15	20	25		20	20	10	0	10	10	15		05
3	ost	10		10	15	20		15	15	25		05	10	10		80
4	10	05		10	15	20		05	20	20	-4	00	10	10		05
5	10	15		05	15	25		10	15	20		00	10	15		05
6	10	20		10	15	25		20	15	20		05	10	15		15
7	ost	20		05	10	20		25	15	15		05	10	10		15
8	10	15	0	05	15	20		15	15	20		10	10	10		25
9	15	10		10	15	15		15	20	10	0	05	10	10		10
10	20	10		10	20	05	-8	10	15	20		00	10	10		10
11	15	15		10	15	25	0	25	15	25		00	10	15		05
12	15	15	0	15	15	05		05	15	10		00	15	10		15
13	15	20		05	15	00	-2	00	15	00	-5	00	10	15		10
14	15	15		10	15	00	-3	90	15	00	-6	00	10	15		00
15	15	15		15	15	00		00	15	10	+2	00	10	10		05
16	15	15		10	15	05		05	15	20		05	10	15		10
17	15	10	-5	20	15	20		20	15	15		00	10	15		05
18	15	05	+5	10	15	15		15	15	15	0	05	10	15	-5	05
19	15	05		10	20	00		05	15	05	+3	00	10	10		05
20	15	15		15	20	10		15	15	15		05	10	10		00
21	15	10	-5	20	15	05	+5	05	15	05		05	10	15	0	00
22	15	15	-2	20	15	10		10	20	05	-6	00	15	05	-5	05
23	15	10	+2	10	15	15		15	20	00	+10	00	15	15		15
24	15	10		00	15	10		05	20	00	+8	05	10	15		00
25	10	05		00	15	25		05	20	20		05	10	15		05
26	15	00	+5	00	15	20		15	15	20		15	15	10		05
27	15	10	-8	10	15	25		20	15	20		15	15	10		10
28	15	10	0	10	15	25		15	15	15		00	15	15		05
29	15	10		10	15	25		10	20	15		15	15	15		05
30	15	05	-3	05	20	05	0	05	15	05	+9	05	15	15		05
31	15	10		15	20	00	-7	00	20	05		05	15	15		10

1932	135E 35-55 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 35-55 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 35-55 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 35-55 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
NOV																
1	15	10		10	20	05	+4	00	15	10		15	15	15		05
2	15	05	-10	00	20	05		00	15	20		15	15	10	-5	15
3	15	10	0	10	20	00		00	15	00	-3	00	15	10	0	05
4	15	05	-3	10	15	15	+2	05	15	00	+2	00	15	15		05
5	15	15	-2	00	20	80	+6	80	ost	10		05	10	10		05
6	10	10	+2	05	20	10		05	ost	10		05	15	15		05
7	15	00		05	20	10	-9	15	ost	05	+10	00	15	15		00
8	15	00		05	15	05	+5	00	ost	10	-8	05	15	15		10
9	15	05		05	15	25		20	ost	00	+4	05	15	15		05
10	15	20		20	15	20		25	05	05		05	15	15		15
11	10	15	-5	15	15	15		15	20	05		00	15	20		00
12	10	15		00	20	05	-5	00	15	05		00	15	20		10
13	ost	20		20	20	95		00	20	10		05	15	15		15
14	95	00		20	20	10		10	20	10		05	15	20		00
15	10	10		05	15	95	0	10	20	10	0	05	15	10	+5	90
16	15	20		10	20	00		00	20	20		10	15	15		85
17	15	15	-5	10	20	05	0	05	15	25		00	10	00	0	90
18	15	15		05	20	05	-7	00	15	10		95	15	05		05
19	15	15		10	20	05		00	20	15	-5	95	15	15		05
20	15	20		10	15	05	-5	00	15	20		05	15	20		95
21	15	05		05	15	05		95	20	00	-5	85	15	25		05
22	15	10		10	15	15	-9	10	20	15		00	15	30		95
23	15	20		20	15	05	+5	90	20	10		05	15	25		85
24	15	05	0	10	10	05	+4	10	15	05	+6	10	20	25		00
25	15	15		15	10	05	+5	05	15	10		05	20	20		95
26	10	20		20	10	95	+3	90	20	20		10	10	10	-5	85
27	15	20		15	05	90	0	05	20	00	-5	85	15	20		00
28	15	15		15	05	85	0	85	15	10	+7	80	20	25		00
29	15	15		25	10	95	+5	90	20	15		95	20	25		75
30	15	10		10	20	90		85	20	20		05	15	25		60
31																
DEC																
1	15	15	+5	20	20	00	-9	00	20	15		05	15	25		90
2	15	25		15	20	00	+5	90	20	10		00	15	25		95
3	15	25		15	20	05	-5	95	20	10	+8	80	20	30		80
4	10	20		10	15	25		10	20	90	-5	90	20	30		95
5	10	20		10	15	30		30	20	15		95	20	30		95
6	ost	15		05	20	30		35	20	95	-4	95	20	25		10
7	05	10		00	15	30		25	20	10	+10	00	15	20		25
8	15	15		05	15	25		25	15	30		10	10	25		15
9	20	20		10	15	25		15	15	15	-7	10	10	10	0	80
10	15	20		15	20	25		95	10	20	0	05	20	20		85
11	15	10	0	10	15	15		10	15	20	+7	00	20	10	-5	85
12	15	05	+8	15	10	05	0	10	05	15		05	20	10	+8	05
13	15	10		15	10	10		15	10	05		05	20	20		15
14	15	05		05	15	10		15	05	15		15	20	20		85
15	15	05		05	15	05	-3	15	20	80	+9	80	15	25		85
16	15	00		00	20	05		10	20	85		80	15	25		15
17	15	20		15	20	15		10	20	95	+10	80	10	20		15
18	15	25		20	20	05	0	10	15	05		80	15	25		00
19	15	15	-5	25	20	80	+2	80	20	05	+5	85	15	25		85
20	15	15		20	20	80	+4	90	20	05		90	15	25		85
21	15	15		15	20	95		85	20	90		85	15	05		95
22	15	20		20	15	65	0	25	20	00		90	15	15		05
23	15	25		25	20	90		85	20	85	0	90	20	20		15
24	15	30		30	20	05		95	20	85		95	15	20		20
25	15	25		20	20	00	-9	90	15	05		90	20	25		25
26	15	15		15	20	10		10	15	00		90	15	10	0	00
27	15	10		25	20	05		05	20	85	0	75	15	35		10
28	10	20		30	20	20		10	15	05		90	20	10	0	95
29	10	20		30	20	15		15	20	00		90	20	15		00
30	10	20		30	20	85	0	85	20	95		80	15	20		95
31	15	15		30	15	95		90	20	85		85	20	25		80

1933	135E 35-55 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 35-55 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 35-55 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 35-55 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
JAN																
1	15	20		25	20	80	+4	90	20	50	+10	50	20	25		05
2	20	30		20	20	85		85	20	75		60	20	25		05
3	20	30		15	20	00		00	20	90		65	20	30		05
4	20	30		20	20	95		90	20	05		75	20	30		00
5	15	25		20	15	90	+3	90	20	05		85	20	30		10
6	20	20		15	20	10		15	20	75	+5	75	20	25		15
7	15	15	o	20	15	00		95	20	95		80	20	25		20
8	15	25		25	15	05	-9	05	15	95		90	15	25		15
9	20	30		30	15	00		00	20	10	+7	80	15	30		00
10	15	30		30	15	25		25	20	20		90	10	25		10
11	15	20		20	15	25		10	20	95	+10	65	15	25		10
12	20	20		20	15	30		20	15	05		80	15	25		05
13	15	20		20	15	05		95	15	90		75	10	15		05
14	20	20		20	15	10		10	15	10		70	15	15		05
15	20	20		20	10	20		25	15	05		80	15	20		85
16	20	25		20	10	20		10	20	95		75	16	15		00
17	15	15		00	15	05	+5	00	20	95		80	15	20		10
18	15	25		95	15	00	+10	00	20	00	+5	85	15	20		20
19	15	20		90	15	10		05	05	80	+3	85	15	15		30
20	15	15		05	15	95		90	20	95		90	15	20		25
21	15	20		15	15	05		00	10	65	+5	85	15	20		30
22	10	20		15	15	00	+8	00	15	80	+5	95	15	20		15
23	15	20		05	15	90	-5	90	20	05		85	15	20		00
24	15	20		05	20	75	+10	75	20	95	0	95	15	15		10
25	15	20		05	20	00		00	10	95		95	15	15		00
26	15	20		95	20	90	+4	90	20	00		00	20	10	+3	90
27	15	20		10	20	90		85	15	15		15	20	20		95
28	15	20		20	20	95	0	95	05	00	+5	10	15	10		90
29	15	20		20	20	95		00	05	00		10	20	95		95
30	15	20		25	15	00		00	00	90		10	15	10		05
31	15	25		25	15	05		05	95	85	-5	05	15	20		20
FEB																
1	15	25		25	15	20		20	95	95		00	20	20		20
2	15	20		30	15	20		20	05	00		10	15	15		90
3	15	25		35	15	20		10	10	00		05	10	10	-5	90
4	15	30		30	20	20		10	05	85	-2	00	15	20		80
5	15	30		30	20	25		35	15	90		00	10	15		90
6	15	25		25	20	25		35	05	75	-4	00	10	10		90
7	15	15	+5	25	20	25		35	15	85	+10	05	10	15	-10	00
8	15	20		25	20	20		30	20	10		05	10	15	-4	05
9	15	20		20	20	25		25	20	10		10	15	25		95
10	15	20		25	20	15	-9	30	20	00	+5	75	15	25		85
11	15	15		15	20	15	+8	20	15	30		75	10	10	+10	10
12	15	15		20	20	20		20	15	20	-9	00	15	15	-5	05
13	15	15	o	15	25	20		20	20	05	+6	85	15	10	+3	05
14	10	15		30	25	10	-7	10	20	25		95	15	10		05
15	15	25		30	20	10		10	10	15		10	15	05		05
16	15	20		35	20	25		10	15	95		10	15	15		10
17	15	20		30	20	05	+4	15	15	90	+8	85	15	15		05
18	15	15		20	20	10		05	20	30		10	10	15		15
19	15	10		15	20	15		15	20	20		20	10	10		25
20	15	15		25	20	90	-3	90	10	05	+3	15	10	10		30
21	15	15	+3	25	20	05		05	15	15		15	10	15		25
22	15	20		25	20	85		80	15	05	-5	10	10	15		35
23	15	25		30	20	05		95	20	05	+5	05	15	20		30
24	10	05	+8	20	20	90	o	85	20	20		15	15	15		30
25	15	10		15	20	95	+9	95	15	05	-5	25	15	15		25
26	15	10		10	20	95		95	10	95	+3	20	10	15		15
27	15	15		20	20	05	o	10	05	00	-5	20	15	20		15
28	10	15		20	20	00	+8	10	00	90	+4	25	15	15		15
29																
30																
31																

1933	135E 35-55 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 35-55 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 35-55 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 35-55 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
MAR																
1	10	20		20	20	00	o	10	05	90		20	15	20		10
2	15	20		20	20	05	+7	10	15	05		15	10	05	-3	15
3	15	20		20	20	10		10	20	10		05	10	10		10
4	15	15	+3	20	20	10		20	20	10		10	15	20		05
5	15	20		25	20	95	-2	95	20	05		05	15	25		05
6	15	20		20	15	05	+9	05	10	00	-4	00	15	20		20
7	15	20		20	15	15		15	00	85	+5	95	15	10	-6	25
8	15	25		25	15	10	-8	30	20	00		90	15	20		30
9	15	25		25	10	00	-5	25	20	10		95	15	15		25
10	15	25		25	10	00	+4	20	20	90	o	90	10	15		25
11	10	20		20	05	95	+8	05	20	85	+2	85	10	10		10
12	15	20		20	10	90		90	20	95		90	00	00	-4	10
13	15	20		25	15	05	-5	05	20	05		00	10	05		95
14	20	25		25	15	00	o	05	20	00	+4	00	10	00		95
15	15	20		25	15	80	o	00	20	10		10	05	05		05
16	10	10	+8	20	15	95		90	20	15		15	10	05		05
17	15	15		20	20	10		05	20	90		00	15	05		85
18	15	15		15	20	10	o	05	20	00		00	10	10		95
19	15	05		05	20	95	-2	00	15	90	+4	05	10	15		05
20	10	00	+1	20	20	15		05	15	95		00	10	20		00
21	15	20		20	15	20		20	20	00		00	10	15		05
22	10	10	-5	15	20	20		25	20	05		95	10	15		15
23	10	10		10	15	20		20	20	85	+7	90	10	15		15
24	10	20		20	20	10	+4	20	20	95		95	10	15		10
25	00	10		20	20	10	+10	20	15	00	-6	95	10	10		95
26	10	20		20	10	95	0	20	15	05	+5	00	10	05		05
27	05	05		10	10	00		05	20	15		10	10	10		10
28	15	10		10	20	95	0	95	20	20		10	10	10		00
29	15	10	-3	20	20	90		90	20	10	+4	10	05	05	-8	00
30	15	15		20	20	90		85	20	10		10	10	05		10
31	15	20		10	20	15		00	20	05	+2	15	10	10		00
APR																
1	15	15		05	20	15		05	20	05	+5	10	05	10		90
2	15	15		05	20	20		15	20	05		10	05	05		10
3	15	00		90	20	30		20	20	15		10	05	10		00
4	10	10	+4	00	15	25		10	20	15	+10	15	10	10		00
5	15	05	+10	00	15	15		15	20	15		15	05	05		05
6	15	15		15	15	20		15	15	00	+3	15	10	05	-2	10
7	15	10		10	15	20		20	00	90	+2	15	10	05		05
8	15	00	+4	00	20	25		25	10	05		15	10	10		15
9	10	10	+8	10	20	25		15	15	15		15	10	15		10
10	10	10	0	10	20	15		15	20	20		20	10	15		10
11	15	15		10	20	16		10	20	10	-5	15	10	10	-2	85
12	15	15		15	20	25		25	20	10	+3	20	10	15		90
13	15	10		20	20	05	-2	05	20	15		25	10	10	-3	05
14	15	10	-5	05	20	15		00	20	10		25	10	10		00
15	10	95	+5	00	15	20		20	15	20		25	10	10		05
16	15	00		10	20	20		25	15	20		25	10	05	+5	10
17	15	05		10	20	15		15	10	15		15	15	90	-5	90
18	15	10		05	15	15		15	15	10		05	10	00	+5	00
19	15	15		15	20	05	-2	05	15	05		05	10	00		00
20	15	15		05	20	15	-5	15	20	05		10	10	10		05
21	15	15		05	20	25		15	15	00		05	10	10		10
22	15	10		10	20	25		25	10	05	+5	05	10	10		05
23	10	05	-6	10	20	20		20	20	05		05	10	05	o	95
24	05	05	+5	10	20	10	o	10	15	05	-5	05	10	10		95
25	05	05	-2	15	20	20		15	20	00		00	10	10		05
26	05	10		05	20	20		05	20	15		10	10	05	o	00
27	05	10	-5	95	20	20		10	20	30		20	10	05		05
28	15	05		95	20	20		15	20	25		25	15	05		10
29	15	00	-8	95	20	10		05	20	25		20	10	15	-2	10
30	15	05	+5	05	20	95	o	00	20	25		10	10	10	o	05
31																

1933	135E P	135E P	135E T	135E P	135W P	135W P	135W T	135W P	45W P	45W P	45W T	45W P	45E P	45E P	45E T	45E P
MAY																
1	15	10		10	20	95	+8	00	10	05	+5	05	10	15		05
2	10	05	0	00	20	05		00	20	10		10	15	10		10
3	10	05	+8	05	20	05	-2	05	15	10	-5	10	15	00	0	00
4	05	05		05	20	05	+2	05	20	10		05	15	05		00
5	15	00		00	20	10		10	20	05	-5	05	15	10		05
6	15	00		00	20	95	0	05	15	05		05	15	15		15
7	15	10		05	20	05		05	20	90		90	15	15		10
8	15	10		10	20	10		10	15	95	-4	90	15	20		15
9	10	15		10	20	10		10	20	90		95	15	15		15
10	10	05	-8	00	20	15		20	20	10	-5	00	10	10		10
11	15	05	0	05	20	25		20	20	10	+4	10	10	10		15
12	15	15		15	20	20		15	10	95	0	15	10	10		15
13	15	15		15	20	15	0	15	15	00		10	10	10	-5	10
14	20	10	0	05	20	15		15	20	00		10	10	10	-5	05
15	15	10	-5	10	15	15	-7	10	15	75	0	90	10	10		10
16	15	05	0	10	20	10	0	10	15	80	+7	85	10	10		10
17	15	05	-5	10	20	10		10	20	85		90	10	10		15
18	15	15		10	20	15		15	20	95		00	10	10		25
19	15	05	0	15	20	20	+5	15	20	05		95	10	10		25
20	10	05		05	15	25		05	20	00	+5	00	10	10		15
21	15	05	+5	05	20	10		00	20	95	-4	90	10	10		15
22	15	05	+6	05	15	05	0	10	20	05	+2	00	10	05	-3	20
23	10	05	-10	00	20	10		10	20	15		15	05	10		20
24	10	00	0	00	20	90	-2	05	20	15	0	10	05	10		10
25	15	15		15	20	95		05	20	10		10	05	10		15
26	10	15		15	20	10		05	20	05	+7	10	05	10		10
27	00	05		05	20	15		15	20	95	0	05	05	10		10
28	05	10		10	20	15		15	20	00	+10	00	05	05		05
29	10	10		10	20	15		15	20	00	0	00	05	00	0	10
30	10	15		15	20	15		05	20	05		05	10	95	+1	10
31	15	15		15	20	20		10	20	10		10	05	00		05
JUN																
1	15	10		05	20	10		05	20	15		15	05	05		00
2	10	10		05	20	05	-3	00	20	05	-5	05	10	00		00
3	10	10		10	15	10		05	20	85	+4	85	10	00	-5	00
4	10	10		15	15	15		15	20	00		05	05	10		00
5	10	05		05	15	15		10	25	10		15	05	05		05
6	05	00	-4	05	20	20		10	20	10		00	10	10		05
7	00	00	+5	05	20	15		15	20	10	0	05	05	10		05
8	10	05		10	20	10	-7	05	15	00	0	10	05	10		15
9	10	05		10	15	05	+4	05	20	05		00	05	10		15
10	10	10		10	20	20		15	15	10	0	15	05	10		10
11	15	10		10	20	20		15	20	15		15	05	10		05
12	15	15		15	20	15	-2	10	20	10	-2	10	05	10		05
13	15	15		15	20	10	0	15	20	00	+5	00	05	20		10
14	15	15	-5	05	15	10	+6	10	20	15		00	05	05		05
15	15	05		05	20	20	-7	15	20	20		00	05	05		00
16	05	05		05	15	20		15	20	10		15	05	10		15
17	10	00		10	15	15		15	20	20		15	05	05		15
18	10	05	+8	05	20	10	-3	10	20	15		20	05	05		10
19	10	10		10	20	10	-2	10	20	20		15	05	05		05
20	10	10		10	20	20		20	20	15	-7	15	00	05		05
21	15	10		10	15	20		15	20	10		10	05	05		10
22	15	10		05	15	15		15	20	15		10	00	05		10
23	15	10	15	05	20	15	-2	20	20	15		05	00	05		05
24	15	05		05	20	15	+5	15	20	10	-4	10	00	05		10
25	15	05		10	20	15		10	20	05	+5	05	00	00		00
26	10	05		05	20	10	+4	05	20	20		05	00	00		00
27	15	15		15	15	20		10	20	20		05	00	00		00
28	15	15		10	20	25		05	20	15		00	00	05	0	00
29	15	10		05	20	20		05	25	10		95	00	00	+2	05
30	15	10		10	20	15		00	20	05	-2	00	00	00	0	00
31																
JUL																
1	15	10		10	20	05		05	20	10		95	05	10		05
2	15	10		10	15	05		05	20	95	-3	95	05	10		95
3	05	10		05	20	15		00	20	15	+7	00	05	05	0	00
4	10	10		10	20	25		15	20	20		00	05	00		95
5	15	10		05	20	20		05	20	05		95	05	05		00
6	15	15		00	20	20		10	20	05		05	00	05		90
7	15	10		05	20	15		05	20	05		10	05	10		95
8	15	10		00	15	10	+5	05	20	95	+5	95	05	10		00
9	10	10		00	15	10		10	20	10		10	05	05		05
10	10	05		05	15	15	0	10	20	15		10	05	05		90
11	10	10		15	20	20		10	20	15	-5	10	05	05		00
12	10	10			20	25		05	20	10		00	10	00		05
13	10	10			15	20		05	20	15	-7	05	10	10		05
14	10	10			20	15		15	20	15	-2	05	10	10		10
15	10	10		10	20	25		15	20	10		05	10	10		05
16	10	10		10	15	15		05	20	15		00	10	10		05
17	10	05		05	15	15	-2	00	20	15		05	00	05		15
18	10	00	-5	00	15	10	+4	10	15	15		10	00	00		15
19	10	05		05	15	25		10	20	05	-5	05	00	00		15
20	10	05		05	15	15	0	15	20	10	0	05	00	05		10
21	10	05		05	15	20		05	15	10	-3	05	05	05		10
22	10	05		05	15	20	-7	00	15	25		15	05	05		10
23	10	00	+8	05	15	10	+4	10	15	20		15	00	00		10
24	10	05		10	20	15		15	20	20		15	00	05		10
25	15	05	+5	00	20	25		10	20	15		15	00	05		10
26	15	10			15	20		10	15	10		05	05	05		00
27	15	10		10	15	15		05	15	10		05	05	05		05
28	15	10		10	20	15		00	20	10	-5	00	05	10		05
29	15	15		10	15	15	-9	15	20	10	0	00	05	10		90
30	10	10			15	15	+4	05	15	10	-3	00	10	15		90
31	10	05			15	20		15	15	05	+5	00	10	10		10

1933 SEP	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	10	00	+5	00	15	25		20	20	15		05	10	10		05
2	10	10		10	15	10	-7	10	20	10		95	05	10	0	05
3	05	05		10	15	05	+4	05	15	15	-5	95	05	10		10
4	00	00		05	20	15		20	15	15	-2	05	10	15		15
5	05	05		05	15	15	+7	10	15	15		05	10	10	-5	05
6	10	10		10	15	15		10	15	00	-4	95	05	05	+4	05
7	10	10		10	15	25		95	15	10	+2	05	10	10		05
8	10	10	-2	15	15	25		85	20	10		10	05	10		10
9	10	10		10	15	20	-5	05	15	15		10	10	10		05
10	15	15		10	20	15		10	15	10		20	05	10		95
11	15	20		10	15	20		15	20	00		10	05	10		95
12	10	15	-9	15	15	15	-5	15	20	15		00	10	10		00
13	15	05	0	10	20	10	0	05	20	05		05	05	10		00
14	10	00	+8	00	15	10		10	15	00		90	05	10		10
15	10	15		10	15	05		05	20	00		90	05	10		05
16	10	15		20	15	00	+4	05	20	00		90	05	05	0	05
17	15	20		20	15	00	+8	05	20	00		85	05	05		20
18	15	20		20	20	05	-7	00	15	10		95	05	05		20
19	15	15	-7	10	15	90	+4	95	15	00		95	05	05		20
20	00	05	-5	10	15	85		85	15	90		90	05	10	0	15
21	05	05		15	15	95		90	20	00	+4	90	05	15		05
22	10	10		10	20	95		90	15	15		00	05	15		15
23	10	10		05	20	10		10	15	10		05	05	20		15
24	15	15		05	20	15		10	15	05	-3	00	05	15		15
25	10	15		10	20	90	-3	00	15	15		00	05	15		20
26	10	05	-5	05	15	00	0	95	15	15		05	05	15		25
27	10	00	+5	00	15	00	+5	00	15	15		10	05	15		20
28	10	10		15	15	70	0	70	15	20		10	10	10		20
29	15	10	0	15	15	05		00	15	05	+3	05	10	10		00
30	15	15		15	15	20		10	15	20		15	10	10		25
31																
OCT.																
1	15	10		10	15	20		15	15	10	0	10	10	15		80
2	15	15		10	15	05	-2	10	15	20		15	10	15		90
3	15	20		10	15	10		00	15	20		10	10	10	-7	05
4	15	20		05	20	15		00	10	15		15	10	00	0	95
5	15	20	-5	95	15	90	-3	90	15	15		20	10	05		95
6	15	15	+5	00	15	10		00	15	15		30	10	00	0	00
7	10	15		10	15	15		10	15	25		20	10	10		05
8	15	10	+3	15	15	25		15	15	15		15	10	10		00
9	15	20		15	15	25		20	15	05		15	10	15		10
10	15	20		15	15	30		15	05	05	+4	00	10	20		10
11	10	20		05	15	25		15	15	15		00	10	15		95
12	10	25		05	15	00	-5	90	15	00	+5	90	10	20		85
13	10	25		90	20	00		95	15	15		00	10	15		80
14	10	25		10	15	15		00	15	10		00	10	15		10
15	10	15	0	05	15	15	-7	05	15	15		10	10	15		05
16	10	15		10	15	15	+4	05	15	00	+5	95	10	15		85
17	15	20		15	15	25		15	15	15		00	10	15		10
18	10	20		10	15	20		15	15	10		05	15	15		15
19	00	00		10	15	15	+5	25	20	05	-3	95	10	20		20
20	00	00		05	15	20		25	15	20		00	10	20		90
21	05	05		10	15	20		30	15	25		15	10	15		10
22	10	00	-2	05	20	05	+3	20	15	10	+5	25	10	15		20
23	15	95	+8	05	15	05		20	15	20		25	10	20		15
24	15	15		00	15	90	0	95	15	20		20	10	20		00
25	15	20		05	15	00	+5	00	15	25		10	15	20		00
26	15	20		10	15	00		00	15	20		25	15	15		15
27	15	25		10	15	05	+5	90	15	15		20	15	20		15
28	15	15	+4	15	15	90	-7	90	10	15		20	15	25		10
29	15	20		20	10	90	+4	90	15	15		10	15	25		05
30	15	15		20	15	95	+10	00	10	10		15	15	20		10
31	15	20		20	15	05		05	00	-5		15	15	25		10

1933 NOV	135E 15-35 P	135E 35-55 P	135E 35-55 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 35-55 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 35-55 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 35-55 T	45E 55-80 P
1	15	10	0	15	15	05	-5	10	05	00	-4	05	15	20		10
2	15	05		05	15	10	0	15	05	00	-2	00	15	20		20
3	15	10		10	15	25		10	10	95	+4	95	15	20	0	10
4	15	10	-5	10	15	25		15	10	90	0	10	15	20		05
5	15	10	-5	10	15	30		30	15	90	-5	95	15	15		05
6	15	95	+9	10	15	25		25	15	80	+7	80	15	15		90
7	10	00		05	20	25		25	15	90		90	15	00		80
8	10	25		25	20	25		25	15	10		05	20	05	+8	80
9	00	25		30	20	15		05	20	60		95	15	10		90
10	00	20	-5	20	20	15		15	15	20		95	15	20		85
11	00	15	+1	10	25	10		00	20	10		10	15	15		95
12	00	25		05	20	15		05	15	05	+7	75	15	10		95
13	00	30		05	20	20		15	15	00	+5	90	15	15		05
14	00	25		15	20	15		20	15	20		95	15	20		15
15	10	15	0	05	20	15	-3	05	20	10		05	15	20		25
16	15	20		15	20	15		10	15	00	-2	85	20	15	+10	90
17	15	15	+8	05	20	20		10	15	05	-5	90	15	15	0	20
18	15	20		15	20	00		00	15	95		90	15	20		75
19	15	05	-5	20	20	10		05	15	10		90	15	20		00
20	15	20		20	20	00		05	15	95	-2	95	15	25		20
21	15	15	+4	20	15	05		00	20	00	0	90	15	20		15
22	15	25		25	15	05	0	05	20	05		05	15	20		00
23	15	25		20	20	05	-8	05	15	05		00	15	20		10
24	15	15		15	15	10		05	15	10	-3	95	20	15		10
25	15	15	-5	20	15	15	-5	10	15	10		95	20	15		15
26	15	10	+10	10	20	15	0	10	15	00	+10	90	20	10	0	05
27	15	20		15	20	15	0	10	15	05		90	15	10		10
28	15	15		20	20	20		15	15	55	+3	65	20	10		90
29	15	15	0	15	20	05		95	20	80		55	15	10	-5	90
30	10	10		95	20	00	0	00	20	55		80	10	10	0	05
31																
DEC																
1	15	15		85	15	95	0	25	15	85	-2	80	10	10		15
2	10	10		95	15	00	+9	00	10	95	0	70	10	15		00
3	15	10		10	20	00		00	15	80		80	15	20		00
4	15	20		20	20	00		00	15	90		90	15	10	0	80
5	15	25		20	20	15	-2	25	15	00		95	10	00		85
6	15	25		10	20	85	0	85	15	05		95	15	25		95
7	15	25		05	20	00		00	10	10	0	00	15	15		95
8	15	25		15	20	10	-7	15	15	05	-2	10	15	10	+5	00
9	10	15		25	15	15		15	15	10		95	15	15		95
10	10	15		25	10	05	-8	20	15	20		10	15	10		85
11	10	15		15	15	90	-5	20	10	15		00	15	00		90
12	10	20		20	15	90		15	20	05		00	15	10		00
13	10	20		20	20	00		05	15	00	0	95	15	15		95
14	10	25		25	20	05		05	20	10		85	15	20		00
15	15	25		20	20	20		20	20	95	+5	80	15	20		85
16	10	10	+5	25	20	00		00	20	10		85	15	15		75
17	15	15		15	20	95	+5	00	20	00	0	85	15	05	0	00
18	15	15		05	20	05	+5	15	20	95		00	15	15		95
19	15	10		10	20	95	+10	00	00	95	0	90	15	10		75
20	15	05		00	20	90	0	00	20	95		85	10	05		05
21	15	05		10	20	00		10	20	00		90	15	10	+7	00
22	15	05		15	15	05	+2	15	20	95	0	90	15	15		00
23	10	10		15	20	20		20	20	85	0	75	15	15	+10	10
24	10	10		20	20	20		20	20	95		85	15	15		05
25	15	15		30	15	10		25	20	10		75	15	05		10
26	15	25		20	15	10		20	20	85	+8	65	20	15		15
27	15	20		20	10	00	-4	10	20	10		95	15	25	+10	25
28	05	05		15	05	90	+5	00	20	85	+5	75	15	25		30
29	15	15		20	10	95		95	20	00		80	10	25		25
30	10	05	+3	15	15	05		10	15	85		70	10	25		30
31	15	10		10	85	95	0	15	20	00		75	15	30		30

1934	135E 15-35 P	135E 35-55 P	135E 55-80 T	135E 80- P	135W 15-35 P	135W 35-55 P	135W 55-80 T	135W 80- P	45W 15-35 P	45W 35-55 P	45W 55-80 T	45W 80- P	45E 15-35 P	45E 35-55 P	45E 55-80 T	45E 80- P
JAN 1	15 15		15		10 60	+10		10	20 00			85	15 25			25
2	15 15		25		20 85	+4		90	20 05	-5		90	15 30			20
3	15 15		25		20 95			95	20 00			85	15 25			10
4	15 15		20		20 05			05	15 15			90	15 25			95
5	15 20		20		15 20			10	15 05			85	15 20			90
6	10 20		20		15 20			15	20 05			85	20 25			85
7	15 25		10		15 10			05	20 05	0		95	15 25			85
8	15 25		10		20 00	-2		95	20 05			90	10 15			75
9	15 25		10		20 95	+10		85	20 75	0		85	15 30			80
10	10 15	+5	15		20 10			10	20 85			80	15 25			90
11	15 20		15		20 10	-7		10	20 95			85	15 25			85
12	10 15		20		20 85	+10		85	20 90	+5		85	10 15			05
13	15 10		20		20 90	+4		90	20 95			90	10 10			95
14	20 25		10		20 05			00	20 05			95	15 25			95
15	15 25		00		20 05	-2		05	20 60	0		95	20 35			00
16	05 10	+5	00		20 85			85	20 00			00	15 30			05
17	15 20		10		20 10			00	20 10			00	15 30			00
18	15 15		15		20 00	-2		05	20 05	-2		10	15 30			95
19	10 05	+5	15		20 00	+9		95	20 90	+10		80	15 25			95
20	10 10		25		20 95			95	20 00	-4		75	15 20			85
21	15 20		30		20 05			95	20 95			80	15 20	0		90
22	15 15		25		20 05			05	20 10			90	15 20			90
23	15 25		25		20 15			15	20 10			05	15 20			85
24	15 25		15		20 00			95	20 15			10	15 25			75
25	15 25		05		20 00			00	20 25			00	15 20			85
26	15 25		10		20 10			95	20 05	0		95	15 20			00
27	15 25		10		20 20			15	15 05	0		85	20 30			90
28	15 25		10		20 25			15	20 15			85	20 25			80
29	15 25	+6	05		20 15	-2		10	20 05			95	20 25			65
30	15 20		10		20 15			10	20 05			95	20 25			70
31	15 25		00		20 00	0		00	20 15			90	15 20			90
FEB 1	10 20		95		15 05	-2		00	20 10	-2		95	20 25			65
2	05 10		95		15 15	+8		10	15 20			00	15 25			65
3	15 15		85		05 05	0		00	20 20			00	15 15			95
4	15 15		90		15 05	0		00	20 15			95	15 15	+5		00
5	15 10		95		20 05	+5		05	20 15			10	15 20			85
6	15 15		85		10 00	-7		10	20 05	0		05	15 95	-5		70
7	20 15		15		15 80	0		90	20 20			10	10 85	0		70
8	20 15		05		20 05			95	20 10	+7		80	10 95			80
9	20 20		10		15 10	-5		10	20 15			95	15 85	-5		85
10	15 20		05		15 00	0		00	20 90	-4		90	15 05	+8		90
11	20 20		10		10 60	0		20	20 00	+8		85	10 10			00
12	15 20		15		15 15			05	25 00	-5		75	15 05	0		05
13	15 20		05		15 15			05	25 05			95	15 20	+9		80
14	15 10		95		10 00	0		05	25 90			65	15 20			60
15	15 10		90		10 05			10	20 05	+4		80	15 15			80
16	15 15		00		05 05			20	20 20			05	10 15	-5		80
17	15 10	-4	95		15 05	-2		15	20 10	+3		90	10 15			75
18	15 10	+10	05		10 05	-3		25	20 30			10	15 05	-10		85
19	15 25		15		15 05	+7		20	20 15			15	15 00	+8		85
20	15 25		15		10 10			15	20 10	-3		10	15 90			75
21	15 15		20		10 00	+5		20	20 10			15	15 00	-10		85
22	15 15		20		15 10			10	25 95	+2		90	15 15	+5		95
23	15 15		15		15 10			20	20 20			05	15 05			95
24	15 10		15		15 10			15	25 10			15	15 90	+5		85
25	10 15		20		10 00	+5		10	20 90	+5		90	15 15			15
26	15 15		20		15 95	-8		95	20 15			95	15 20			15
27	15 15		15		20 90			90	25 10			10	15 25			20
28	15 20		10		20 90	0		90	25 10			90	10 20			15
29																
30																
31																

1934	135E 15-35 P	135E 35-55 P	135E 55-80 T	135E 80- P	135W 15-35 P	135W 35-55 P	135W 55-80 T	135W 80- P	45W 15-35 P	45W 35-55 P	45W 55-80 T	45W 80- P	45E 15-35 P	45E 35-55 P	45E 55-80 T	45E 80- P
MAR 1	15 20		95		20 95	-5		90	20 10			90	20 05	0		10
2	15 20		05		20 95			95	20 10			90	15 20			10
3	15 15		10		20 00	+4		90	20 05			90	15 20			05
4	15 15		15		20 25			05	20 20			05	15 20			10
5	15 10		10		20 05	0		10	20 15			10	15 15			05
6	20 10		10		20 15			15	20 05			95	15 15			10
7	15 10	-3	25		20 25			25	25 00	-2		90	10 15			05
8	15 10		30		20 25			30	20 90			85	15 15			00
9	15 20		30		20 20			20	20 05	-7		85	15 15			95
10	15 30		30		20 20			10	20 95			95	15 20			95
11	15 30		35		15 15			15	20 10			05	15 05	-4		05
12	10 10		30		10 10	-5		25	20 95	-7		00	15 15			05
13	10 00	+2	25		10 15			20	20 95			90	15 10	+5		10
14	05 95		15		15 20			20	20 05			90	15 05			10
15	05 95		05		15 20			15	20 00	0		85	15 15			05
16	10 05		15		20 25			25	20 10			05	15 15			05
17	10 10		10		15 00	-6		05	20 05	-2		10	15 10			10
18	20 05	0	15		15 05	-3		05	20 00			95	15 15			00
19	20 10		10		15 15			10	20 95	-5		95	15 20			25
20	15 05	+4	10		15 10	0		20	20 15			80	15 15			25
21	10 00		05		15 10	+5		25	20 15			85	15 20			15
22	15 00		00		15 10	+8		30	20 10	-6		95	10 20			25
23	10 10		10		15 10			30	20 10	0		05	10 20			30
24	15 05		10		15 15			25	15 05	+6		00	10 25			20
25	10 10		10		10 05	-8		25	15 25			05	15 20			15
26	15 10		10		10 10			20	20 20			15	10 15			00
27	10 15		10		15 00	-7		15	15 35			10	10 15			95
28	10 15		15		15 05	-10		10	20 10	-5		10	10 10			20
29	15 15		05		15 10	-6		10	20 20			20	10 15			25
30	15 10		05		20 10	+4		10	20 10	0		05	10 25			25
31	15 10	-7	05		15 00	0		05	20 15			10	10 15			25
APR 1	10 10		15		20 10			10	20 25			15	10 10			10
2	15 15		15		15 20	-8		05	20 30			30	10 10			15
3	15 05	-4	20		15 15	0		10	20 15			30	10 10			15
4	15 20		20		15 15			10	05 00	0		20	10 15			00
5	10 15		15		15 25			10	05 05			30	10 10			05
6	10 15		10		15 20			20	00 85	0		30	10 10			10
7	15 15		05		15 20			15	00 80	0		25	10 15			00
8	15 00	-4	00		15 20			15	95 90	+7		25	10 15			95
9	15 00		00		15 15	-2		90	05 00			20	15 20			95
10	15 20		15		10 20			05	15 00			25	15 20			05
11	15 05	0	10		15 15			20	10 95	0		20	10 15			05
12	15 05		05		15 15			15	05 05			20	10 15	-8		10
13	15 10		10		15 10			30	10 10			20	10 05	+5		05
14	15 15		10		15 05			15	20 20			25	10 05			05
15	15 15		00		15 05	0		00	20 20			25	10 15			15
16	10 05		05		15 10			90	20 20			25	10 15			15
17	15 10	-2	15		20 20			00	20 20			25	10 10			00
18	10 10		05		15 05			15	25 20			10	10 10			10
19	10 10		10		10 05	-5		15	20 10			05	10 10			05
20	05 10		15		20 05	-2		10	20 25			10	10 15			95
21	10 00	0	10		15 05	0		10	20 25			20	10 10	0		05
22	15 10	+8	10		10 10			15	20 20			00	10 05	-4		05
23	15 05		10		20 20			10	25 15			15	10 10	-3		00
24	10 00		05		20 15			20	20 20			10	10 15			05
25	15 05		05		20 10	0		10	20 20			15	10 15			10
26	10 05		10		15 05			10	20 10	0		05	10 10			15
27	10 10		15		20 15			10	20 10	+2		95	10 10			20
28	10 05		10		20 10	+3		10	20 10			00	10 15			05
29	05 05		05		15 10			15	25 10			95	10 15			95
30	15 15		05		20 10	+8		10	20 10			90	10 15			00
31																

1934	135E 15-35 P	135E 35-55 P	135E 55-80 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 55-80 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 55-80 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 55-80 T	45E 55-80 P
MAY																
1	15	15		10	20	10	-8	10	20	15		90	10	10		00
2	15	10		00	20	00	+4	00	25	10		95	10	15		90
3	15	15		00	15	05		00	20	10		95	10	15		90
4	15	15		00	15	15	+3	80	20	10		00	10	10		05
5	15	15		95	15	90	+5	90	20	10		05	15	15		20
6	15	15		90	15	05		00	20	95	o	95	15	15		15
7	15	15		05	15	10		05	20	90		90	10	15		15
8	15	05	-2	00	20	15		10	20	00	-8	95	15	15		20
9	15	05	+8	05	20	10	-4	15	20	10		95	15	15		10
10	15	10		00	20	20		20	15	20		00	10	10		95
11	15	15		95	20	30		20	15	20		10	10	10		90
12	15	05		05	15	25		10	20	25		10	10	10		05
13	05	05	+6	00	15	20		15	20	30		20	10	10		00
14	10	05		95	15	10	+5	15	20	25		25	10	10		90
15	15	15		05	20	10	+7	05	20	25		20	15	10		10
16	10	10		05	20	10		00	20	15	o	15	10	10	-5	05
17	10	05		05	20	10		10	20	10	-5	10	10	20		15
18	10	05		10	20	10		15	20	05		05	10	20		10
19	05	05		05	15	10		10	20	00	+1	05	10	15		95
20	05	05		10	20	25		20	20	10		10	10	10		15
21	10	00	-5	10	15	20	-7	15	20	15		15	10	10	-10	10
22	10	05	-2	10	10	10	0	10	20	15	o	20	05	10	-5	05
23	10	05	o	10	15	05	+5	10	20	10	+5	15	05	05	o	00
24	10	10		10	15	10		10	15	15		25	05	05	+2	00
25	05	05		15	15	15		05	15	15	-7	10	10	15	-3	00
26	05	05	-7	10	15	15		00	20	20		05	10	10		95
27	10	10		15	15	15		00	20	15		05	10	10		00
28	05	15		10	15	10		05	20	10		05	10	05		00
29	10	15		15	15	20		10	15	05	+6	95	05	10		10
30	10	15		15	15	20		20	15	10		95	05	10		15
31	10	15		10	15	15		20	20	00		00	10	10	o	20
JUN																
1	15	10		00	15	20		15	20	90	o	90	10	10	o	10
2	10	05	-7	05	20	20		15	20	95	+10	95	10	05		05
3	05	00	o	10	20	10	o	10	20	10		05	05	05		05
4	05	00		10	20	15		15	20	15	+5	15	05	10		05
5	05	95		10	15	10		10	20	15		15	05	15		05
6	10	00		05	15	10		10	20	00	o	10	05	10		10
7	15	00		90	20	20		10	20	05	-5	05	05	05		15
8	15	95		95	20	30		10	20	15	-5	20	05	05		10
9	10	00		00	20	25		20	20	10		10	00	05		05
10	05	10		05	15	25		10	15	15		20	00	05		05
11	10	05		10	15	25		15	15	10		20	05	05		05
12	15	05	-7	10	15	25		20	10	05		15	05	05		95
13	10	00	-2	10	15	15	-6	15	20	10		20	00	10		95
14	15	10		00	20	10	+3	10	20	15		15	05	10		05
15	15	15		10	20	20		10	20	10		10	00	05		10
16	10	10		10	20	10	-5	10	20	05	-5	15	05	00	+5	00
17	15	10		10	15	10	+4	05	20	05	-3	15	05	10		10
18	10	05		00	20	15		05	20	05		15	05	05		05
19	10	10		05	20	15		00	20	10	+1	20	05	00		00
20	05	00	+5	05	20	15		05	20	20		20	05	05	o	00
21	15	10		10	15	05	+4	10	20	25		20	05	05		10
22	15	10		05	20	15		05	25	15	-2	15	05	15		15
23	15	10		10	20	25		10	20	05	-1	00	05	10		05
24	15	05		05	20	20		15	20	00	+5	00	00	00	-5	05
25	15	05		10	20	15		15	20	15		10	05	05	o	05
26	10	00		05	20	15	o	15	20	10	-8	10	00	05		10
27	10	05	+10	05	20	15	+7	15	20	00	-2	00	00	05		05
28	10	05		05	20	15		20	20	05		05	00	00		10
29	10	05		00	15	25		25	20	15		10	00	05		10
30	10	05		05	15	30		20	20	10		15	00	00		10
31																

1934	135E 15-35 P	135E 35-55 P	135E 55-80 T	135E 55-80 P	135W 15-35 P	135W 35-55 P	135W 55-80 T	135W 55-80 P	45W 15-35 P	45W 35-55 P	45W 55-80 T	45W 55-80 P	45E 15-35 P	45E 35-55 P	45E 55-80 T	45E 55-80 P
JUL																
1	10	05	o	10	15	25		10	20	90	+2	00	05	10		10
2	10	00		00	15	25		05	20	00		05	10	05		05
3	10	05		05	20	25		05	20	10		10	05	05		10
4	15	10		10	20	25		15	20	20		15	05	05		15
5	15	05	o	10	20	25		10	20	10	-5	10	05	05		15
6	15	10		10	15	20		10	20	00	+5	00	05	10		20
7	15	10		10	15	15		05	20	10		10	05	05		20
8	10	05		05	15	10		00	20	05	-6	05	05	05		15
9	10	00		10	15	15		05	20	00	+7	00	00	05		15
10	05	00	+7	05	20	20		05	20	10		05	05	05		15
11	05	00	+1	10	15	20		15	20	10		05	05	05		15
12	05	05		05	15	20		15	20	10		05	05	05		20
13	05	05		10	15	10	-2	15	20	15	-5	10	00	05		20
14	00	10		10	15	05	o	05	20	15		15	05	10		15
15	00	05		10	15	05	-2	05	20	20		15	05	05		15
16	05	10		15	15	05	+4	05	20	10		20	00	05		15
17	05	10		15	15	15		05	20	05		10	00	05		15
18	10	10		15	15	20		10	20	10		10	00	05		10
19	10	10		15	15	20		15	20	15	-4	15	05	05		10
20	10	10		10	15	15		10	20	10		10	05	15		20
21	10	10		10	10	20		10	20	15		00	05	05		15
22	15	10		00	15	25		05	20	10		05	00	05		00
23	10	05		95	15	20		30	20	10		10	00	05		00
24	10	10		95	15	25		15	20	15		10	00	05		10
25	15	10		00	15	20	-1	10	20	20	-10	10	00	05		10
26	15	15		00	15	20		20	20	15	o	15	00	00		10
27	15	05		05	20	25		10	20	15		10	00	05		05
28	10	05	+6	95	15	20		10	20	15		15	00	05		10
29	15	15		95	20	20		10	20	15		10	00	05		05
30	15	15		00	20	20		10	20	10	-2	10	00	05		05
31	15	20		10	20	15		10	20	10	+8	05	00	05		15
AUG																
1	10	15		10	20	05	o	05	20	20		10	00	05		15
2	05	10		10	10	10	+10	10	20	15	-5	10	05	05		20
3	00	00	-1	10	15	10	-2	10	20	05	+8	05	00	00		15
4	00	05		10	20	10	+3	15	20	15		15	05	05	o	05
5	00	10		10	15	15	+8	15	15	10	-7	10	00	00	o	10
6	05	10		10	20	15		15	20	10	-3	10	00	00		05
7	10	10		10	15	25		15	20	15		05	00	00		05
8	10	10		10	15	25		20	20	20	o	05	00	00	+5	05
9	10	05		05	15	25		20	20	20		10	00	05		10
10	10	00	T	05	20	25		20	20	15		10	00	05		00
11	10	00		10	15	30		25	20	15	+5	05	00	05		00
12	10	00		10	20	30		20	20	10	o	05	05	05		05
13	10	10		10	20	20		10	20	20		00	05	05		05
14	10	10		05	20	20		15	20	20		05	05	05		05
15	10	10		05	20	20		05	20	05	+4	05	05	05		05
16	15	10		05	20	20		15	20	15		10	05	05		05
17	10	10		05	20	25		15	20	10	+8	10	05	05	-5	05
18	10	10		10	15	20		15	20	10		10	00	00		00
19	15	10		10	15	20		15	20	10		10	00	05	-5	05
20	15	10		10	15	30		20	20	15		15	05	00	-3	00
21	10	10		10	15	25		25	20	15		15	05	05	-3	05
22	10	10		10	15	20		25	20	15	-4	15	05	05		15
23	10	05	+5	05	15	20		20	15	15	+5	15	05	10		15
24	10	05		05	15	20		10	20	10	-6	15	05	10		15
25	10	00		00	15	20		15	20	15		15	05	05		05
26	00	00		00	20	20		20	20	05	-3	05	05	10		15
27	05	05		05	20	20		20	20	05		05	05	05		20
28	15	15		15	20	25		15	20	15		10	05	10		20
29	10	10	+3	15	20	25		10	20	20		15	05	10		20
30	10	10		10	15	25		15	15	20		15	05	10		20
31	10	15		05	15	20		05	15	15	o	15	05	10		20

1934	135E P	135E p	135E T	135E P	135W P	135W p	135W T	135W P	45W P	45W p	45W T	45W P	45E P	45E p	45E T	45E P
SEP																
1	10	10		10	15	25		10	20	15		15	05	10		25
2	10	15		10	15	25		10	15	15		15	05	05		20
3	15	20		05	15	20		10	20	20		15	05	10		25
4	15	20		20	15	15		15	20	20		10	10	15		25
5	10	00	-4	20	15	20		05	15	15		10	05	15		30
6	05	00	0	15	15	15	-2	00	15	20		20	05	10		25
7	10	10		15	15	15		00	15	20		05	05	10		25
8	05	05	-5	05	20	20		10	15	20		05	05	10		20
9	05	95	-1	15	15	10	0	10	15	15		00	05	05		20
10	10	95	0	05	15	15		15	15	10		00	05	05		20
11	10	05		15	15	05		10	15	05	-4	00	05	05		10
12	15	10		15	15	10		10	15	10		10	05	10		10
13	10	10	-7	10	15	15		15	20	15		00	05	15		10
14	10	15		15	15	10		10	20	15		05	05	10		10
15	10	10	0	10	15	10		10	20	15		15	05	10		15
16	00T	15		15	15	15	-10	15	20	15		10	05	10		15
17	05T	10	0	15	15	05		05	15	20		05	05	10		05
18	05T	10	+8	20	15	25		25	15	15		05	05	15		05
19	05T	10		15	15	25		25	15	15		05	05	15		10
20	00T	05		20	15	20		10	15	10	0	10	05	10		10
21	10	10		05	15	20		20	15	15		10	05	15		25
22	10	15		15	15	20		25	15	25		05	10	10		25
23	15	05		05	15	20		15	20	20		10	05	10		20
24	15	05	0	05	15	25		10	15	05	+7	00	05	10		25
25	15	05	0	05	20	25		10	15	10		05	05	10		15
26	15	10		05	15	20	-7	10	15	05		00	10	10		15
27	10	20		20	15	15	-4	05	15	10		05	10	15	-5	10
28	10	20		20	15	20		05	15	10		10	10	15	0	10
29	15	15		20	15	05	0	15	15	15		00	10	10	-2	10
30	10	10	+3	10	15	20		10	15	15		05	10	05	+6	10
31																
OCT																
1	10	20		20	15	20		10	15	05	-4	00	10	10		10
2	10	15		15	15	05	+8	10	20	00		05	10	15		10
3	10	15	+8	15	20	10	0	05	20	20		15	10	20		05
4	05	10		10	15	00	0	00	15	15	-5	15	10	15		05
5	00T	20		10	15	10	-9	00	15	00	+7	05	10	15		25
6	10	15		05	15	10	+5	05	20	10		00	10	15		30
7	05	15		00	15	00		05	20	10		05	15	20		15
8	05T	20		15	20	00		05	20	00		05	15	25		00
9	05T	15	+5	15	15	00		05	15	00	0	00	15	20		05
10	05T	15		15	15	10		00	15	00		00	10	20		05
11	05T	10		20	15	10		05	15	05		00	15	20		00
12	15	20		20	15	20		05	15	15		10	15	20		05
13	15	15	-10	15	15	20		15	20	15		15	15	10		00
14	15	10	+5	10	15	25		10	15	10		20	10	00	0	05
15	15	10		10	15	20		25	15	15		15	15	05		05
16	10	05		05	15	20		05	15	15		10	10	05		05
17	05T	15		05	15	15		05	15	15		05	15	20		10
18	10	10		05	15	00		00	20	10	0	00	15	15		00
19	15	15		00	20	00	-3	05	20	10	+6	10	15	10	-10	05
20	15	15		05	15	00	+8	00	20	10		05	15	10	0	05
21	15	10	-6	10	15	05	+10	05	15	15		10	15	20		05
22	10	10	0	05	20	05		05	10	00	-6	10	15	20		00
23	05T	20	+5	05	20	00	+5	00	05	05	+5	05	15	20		00
24	05T	10	+5	10	15	10	-5	00	15	15		00	15	20		05
25	00T	00		05	15	10		10	15	15		05	15	20		10
26	05	05		05	15	10		20	20	15		10	15	20		10
27	10	10		00	15	10		15	20	05		20	15	20		05
28	15	20		00	05	05	-2	15	20	00	0	05	15	15		05
29	20	20		15	10	00	+2	05	20	15		15	15	20		05
30	15	10	-10	10	05	05	+5	00	20	25		25	15	20		05
31	15	10	-5	10	15	05	-7	05	15	15		15	15	20		15

1934	135E P	135E p	135E T	135E P	135W P	135W p	135W T	135W P	45W P	45W p	45W T	45W P	45E P	45E p	45E T	45E P
NOV																
1	10	05	-3	00	20	05		05	15	15	0	15	15	20		20
2	15	05		00	15	10		10	20	25		25	15	20		15
3	15	10		05	15	05		05	20	10	-5	10	15	20		05
4	15	15		15	15	05	-6	05	20	05	+6	00	15	20		00
5	10	10	-10	10	10	00	+8	00	20	20		05	10	20		05
6	10	10	-4	20	10	00		00	20	15		00	10	20		10
7	15	05	+10	15	15	00		00	20	20		05	10	20		20
8	10	00		10	15	05		05	20	15		10	15	20		20
9	15	00		05	15	05		05	15	20		05	15	20		05
10	15	10		10	15	05		05	15	25		00	15	25		00
11	15	15		15	10	05	+2	10	20	05	0	05	15	20		05
12	15	20		20	15	00	+7	00	20	20		15	15	20		25
13	15	15	0	20	10	00	-5	05	20	15		15	15	20		15
14	20	15		15	15	05	+7	05	20	05	+4	80	15	25		00
15	20	15		20	15	05		05	15	05	0	00	15	25		00
16	15	15		15	20	05	0	05	15	10		05	15	30		00
17	15	15	-6	15	20	00		05	20	15		05	15	35		05
18	15	10	+4	15	15	00	+5	00	15	00		00	15	30		05
19	15	10		10	20	00		05	15	15		00	15	25		10
20	15	10		10	20	05		10	20	15		00	15	25		05
21	15	15		15	20	00	0	10	15	10	+5	10	15	25	-10	05
22	15	20		20	20	00		00	15	15	+7	00	15	25	-5	05
23	15	25		25	15	05		05	15	20		05	15	15	0	00
24	15	25		20	20	05	0	05	15	10		05	15	15		00
25	15	25		20	15	05		00	15	15		05	15	20		00
26	10	15		15	15	10	-6	10	15	10	0	05	15	20		00
27	10	10		05	20	10		05	10	05	+3	20	15	20	-7	05
28	15	15		00	15	15	-2	10	10	05	+8	20	15	05	+5	05
29	15	10		10	20	15	-5	10	15	00	+10	20	15	00	+4	05
30	10	05		05	20	05	+5	00	15	10		20	15	00		00
31																
DEC																
1	05T	15		15	15	15		10	20	15		15	15	00		00
2	10	20		20	15	15		15	20	15		10	20	05		00
3	10	25		25	20	30		10	20	05	0	05	15	10	+5	05
4	05T	25		15	20	30		05	20	05		00	15	20		10
5	00T	25		15	15	30		10	20	05	-7	05	15	15		05
6	10	25		15	15	25		05	15	15	+10	05	15	20		00
7	15	20		15	15	20		05	20	20		05	20	25		05
8	15	10	-5	10	15	00		00	20	00		00	15	20		15
9	15	15	+6	20	15	00	0	00	15	05	0	00	15	20		10
10	15	20		15	15	05	-7	00	20	25		25	20	25		10
11	20	20		15	15	00	-12	05	20	00		00	15	25		05
12	15	20		15	15	10		10	20	00	0	05	15	20		05
13	15	15		15	15	05		05	20	10	+8	05	15	30		00
14	15	10		10	15	00		00	20	05	-10	05	15	30		05
15	15	15		15	20	00	-5	00	15	00	-2	00	15	25		15
16	15	20		20	20	05	+8	05	05	15	+4	05	15	20		15
17	15	10	0	15	20	10		10	15	05		05	15	25		10
18	15	15		15	20	00	0	00	20	05	0	00	15	25		05
19	15	20		20	15	00		05	15	05	+7	05	10	20		00
20	15	25		25	15	05		05	20	10		00	10	15		10
21	15	20		20	20	05	+10	05	20	00	+4	00	10	15		15
22	15	15	-2	20	20	05	0	05	20	05		05	15	20		25
23	15	15		20	20	15	-7	15	10	00	+4	05	10	15		00
24	15	20		20	20	20		20	15	00		00	15	20		05
25	15	20		20	15	05	0	15	15	00	-3	05	15	20		10
26	15	20		20	15	00		05	20	00		00	15	25		10
27	15	25		15	15	05		10	20	00		00	15	20		05
28	10	20		25	15	05	+2	00	05	00	-2	00	15	15		15
29	15	25		25	15	00	+10	00	15	15	+3	00	15	20		20
30	15	30		20	20	05		05	15	00	-5	05	15	20		15
31	05	05	0	25	20	00		05	00	05	-2	05	15	25		15

	135E				135W				45W				45E			
	15-35	35-55		55-80	15-35	35-55		55-80	15-35	35-55		55-80	15-35	35-55		55-80
1935 JAN	P	P	T	P	P	P	T	P	P	P	T	P	P	P	T	P
1	15	25		20	15	05	-8	05	05	75	+5	75	15	25		05
2	15	25		20	00	00	0	15	15	10		90	15	10		15
3	15	15	0	25	00	00	+5	00	20	95	0	00	15	15	-3	20
4	15	20		20	15	05		05	20	10		00	15	10	+7	20
5	15	25		20	20	80	0	80	20	05	0	90	15	10		25
6	20	15		10	20	85	-4	85	15	15		95	15	15		80
7	15	15	-10	15	15	00	+7	00	15	10		80	15	15		90
8	20	20		20	15	10		10	15	20		90	15	20		90
9	15	20		10	15	15		05	20	15		90	15	30		95
10	15	05	0	15	10	20		05	20	10		95	15	35		00
11	15	25		20	15	15		15	20	10		10	15	35		95
12	15	25		10	15	15		20	20	00		85	15	35		05
13	15	25		15	15	15		15	05	95	-3	95	15	30		00
14	10	15		25	15	20		20	15	90	+5	85	15	30		95
15	05	00	+5	20	15	05		05	15	00	-5	80	15	30		00
16	05	05		15	15	00	+5	05	10	80	+4	75	15	20		10
17	15	10		10	20	10		20	10	05	0	90	10	15		95
18	15	05		05	15	20		20	20	10		10	15	15		90
19	20	10		05	20	15		20	00	85	-2	85	15	20		90
20	20	15	0	20	15	00	+4	05	10	00	+4	00	15	05	-5	80
21	15	05	+9	10	15	90		00	15	10	+6	95	15	10		90
22	15	10		20	15	05		25	05	85		00	15	05	-10	90
23	20	20		25	15	05		10	95	10		95	15	05	0	90
24	20	20		25	15	00		05	80	15		90	15	85	-10	70
25	20	25		20	15	95	0	95	10	15		20	15	05	+5	75
26	20	25		20	10	00		00	15	15	0	05	15	10		90
27	15	25		05	10	00		00	20	20		00	15	25		05
28	15	25		05	05	80	-3	95	20	10	0	10	15	20		20
29	15	20		10	95	85	-2	95	20	20		00	15	20		75
30	15	20	+10	05	10	90		95	20	30		00	15	10		00
31	15	20		10	10	90		00	25	95	-2	95	05	00	-5	95
FEB																
1	20	15		90	15	05		00	20	15	0	95	05	05	0	85
2	15	15	-5	10	15	10		15	15	10		00	10	00		85
3	15	10		05	20	15	+5	15	20	10		00	05	00	-8	90
4	15	10	+5	15	20	25		20	20	05		90	05	00	-2	95
5	15	15		20	20	20		05	20	00		95	10	05	+10	95
6	15	20		20	20	15	0	10	20	90	+5	75	15	15		00
7	15	30		25	20	15		05	20	00		80	15	25		00
8	15	25		20	20	15		10	15	00		85	15	25		70
9	20	20	0	05	20	10		00	20	10		95	15	25		85
10	15	10	+8	85	25	05	0	90	20	05	-9	00	15	20		85
11	15	05		75	20	90	0	85	20	95		95	15	20		95
12	15	00		80	20	85	0	95	20	95	+5	95	15	15		70
13	20	00		00	20	95		95	20	95		90	15	10	+4	85
14	20	15	0	10	20	00		00	10	95	+5	95	10	10		75
15	15	20		15	05	05	-5	05	15	00	+10	85	15	15		80
16	15	20		15	15	00	0	00	15	90		90	15	05		95
17	15	20		15	20	20		95	15	00	0	95	15	00	+5	00
18	15	15		20	15	10		15	20	00	-7	85	15	95	0	95
19	15	15		20	20	00	0	20	20	85		80	15	10	+5	00
20	15	20		20	25	00	0	00	25	00		95	10	00		80
21	15	15	0	15	20	05	0	10	20	00	-4	00	15	05		75
22	10	10	+10	20	25	00		10	20	95	+4	95	15	05		75
23	15	25		15	25	15		15	25	00	+10	00	15	10		90
24	15	20		10	20	15		20	20	10		05	15	10		90
25	15	15		10	20	15	0	15	20	90	+5	90	15	15		95
26	10	15	0	15	20	05	+5	20	20	90		85	15	15		90
27	15	15		20	15	05		20	20	95		85	15	20		00
28	15	15		15	15	10	+5	20	25	90		95	15	15		95
29																
30																
31																

	135E				135W				45W				45E			
	15-35	35-55		55-80	15-35	35-55		55-80	15-35	35-55		55-80	15-35	35-55		55-80
1935 MAR	P	P	T	P	P	P	T	P	P	P	T	P	P	P	T	P
1	15	15		20	15	15		15	20	00		95	15	10		95
2	15	15	-5	20	20	95	0	85	20	05		85	15	10		05
3	15	10	+2	20	20	00	+10	05	20	05	+5	90	15	00	-5	10
4	10	10		20	20	15		15	20	00	0	00	15	10		10
5	15	15		15	20	10		15	15	80	+7	85	15	15		05
6	20	10		00	15	10	+5	20	20	85		85	15	15	-3	05
7	15	10		00	15	10		10	20	80		80	10	20		20
8	15	05		05	20	10		10	15	00	+10	95	15	25		15
9	20	00	+4	05	25	15		15	10	05		95	15	30		05
10	15	10		05	15	00	0	00	05	95		00	15	20		15
11	15	05		05	20	95	-2	15	20	05		05	15	15		15
12	15	05	+4	05	25	95	-5	95	20	00	+3	00	15	15		10
13	15	10		15	20	05	0	05	20	05		10	15	05	+4	05
14	15	15		15	15	15		15	20	90	-2	95	15	10		05
15	15	15	-4	15	20	25		15	20	85		80	15	15		00
16	15	10		10	15	15	0	15	20	05	-2	10	10	10		90
17	20	10		10	15	20		15	20	00		00	15	25		95
18	10	10	-7	15	15	20		05	20	05		05	15	20		00
19	05	05	+10	15	15	05		05	20	85	+4	85	10	15		95
20	15	15		15	15	10		10	20	05		05	10	10	0	05
21	15	10		10	20	10		10	20	05		15	10	15		10
22	15	15		15	20	05	+9	05	15	80		85	10	10	0	10
23	15	20		25	20	95		85	10	90	0	00	10	20		15
24	05	05	+3	25	20	85	+8	85	15	05		05	15	20		05
25	15	10		20	20	95	+5	95	15	00	-5	05	15	20		95
26	15	20		25	20	15		15	15	00		15	10	20		00
27	15	20		25	15	20		20	10	85	0	00	10	10		90
28	05	15		25	15	15		20	15	95	-2	95	10	10		00
29	15	20		25	15	25		30	20	05	+8	00	05	10		00
30	15	20		25	15	20		30	20	20		05	05	05		20
31	10	20		20	10	10	0	25	15	00	-5	00	10	05		10
APR																
1	15	20		20	10	05	-8	25	20	95	+8	05	10	10		10
2	15	15		15	10	05	-3	25	20	05		05	10	10		15
3	05	10	-5	15	15	05	+2	20	10	05	-5	10	10	10	+5	20
4	15	10	0	10	15	15		25	15	95		05	10	15		25
5	15	15		10	10	15		15	20	90		95	10	20		15
6	15	15		15	10	10		20	10	90	+4	90	10	15		10
7	15	15		20	05	05		20	15	90	0	05	10	15	0	05
8	15	20		20	15	15		10	15	05		10	10	15		10
9	15	05	-5	05	20	15		10	20	10		10	10	15		10
10	10	05	0	05	15	10	0	20	20	20		20	10	10		15
11	05	00	+8	00	15	15	+3	20	15	15		20	10	10	0	05
12	15	10		10	15	15		30	10	10		20	10	05		00
13	15	15		25	10	10	+5	25	15	15		10	10	05		05
14	15	15		20	15	20		20	15	20		15	10	00		00
15	10	10	+7	20	15	05		00	20	25		20	10	10	0	05
16	15	20		10	20	10		05	20	20		20	10	10		15
17	15	15	+5	15	20	00	+4	00	15	10		10	10	05	0	15
18	15	20		15	15	00		00	15	20		30	10	05	+4	15
19	15	00	-8	00	15	00		00	20	20		20	10	05	+4	10
20	15	95	0	95	20	05	+8	00	15	10	-5	20	10	10		15
21	15	05		10	20	05		05	15	05	+5	15	15	15		20
22	15	05	+3	00	15	90		95	25	95	0	05	15	15	+5	20
23	10	15		15	15	10		05	00	90	+3	10	15	15		20
24	10	05	-4	10	15	10		05	15	85		85	10	10		15
25	10	15		20	15	25		10	15	90		90	15	10		10
26	10	10		15	15	25		25	10	00	0	05	15	10		10
27	15	05	0	15	15	15		35	15	05	+5	10	15	05		00
28	10	10	0	25	20	10		30	15	95		00	10	00	+3	95
29	05	05	+5	30	15	05	+5	15	15	95		00	10	00	-3	00
30	10	05		20	20	15		15	15	00		95	10	15		10
31																

APPENDIX B

DATA FOR THE STUDY OF POLAR OUTBREAKS

Stations

1. Shanghai, China.
2. Tokyo, Japan.
3. Zyosin, Korea.
4. Mukden, Manchuria.
5. Blagoveschensk, Siberia.
6. Dutch Harbor, Alaska.
7. Saint Paul Island.
8. Bethel, Alaska.
9. Nome, Alaska.
10. Kodiak, Alaska.
11. Moose Factory, Canada.
12. Pittsburgh, U.S.A.
13. Boston, U.S.A.
14. Sable Island.
15. Cape Race, Newfoundland.
16. Stockholm, Sweden.
17. Munich, Germany.
18. Bucharest, Rumania.
19. Moscow, U.S.S.R.
20. Rostov, U.S.S.R.

Estimated data is placed in a circle unless otherwise indicated.

December, 1928

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	57	34	30	18	-6	37	36	30	27	37	18	37	41	38	28	36	37	41	32	39
2	50	43	32	14	-2	37	34	39	28	41	8	36	32	29	37	36	(35)	34	25	45
3	37	52	18	14	-4	37	34	35	30	48	3	43	(32)	36	36	34	(37)	36	23	43
4	32	45	18	21	(0)	39	34	25	28	37	16	37	(41)	39	32	34	(38)	24	16	37
5	36	43	18	19	-1	36	34	30	21	37	9	34	43	46	37	37	(35)	29	(28)	34
6	41	37	32	19	3	37	36	16	18	36	-9	18	(30)	46	41	36	37	36	25	37
7	48	39	32	16	3	37	32	12	0	32	-5	27	30	32	34	(34)	(30)	34	27	39
8	50	39	32	27	(-9)	32	27	3	-4	37	-7	30	(28)	37	32	36	(36)	41	28	36
9	43	(45)	30	10	-11	37	23	0	-6	36	2	25	(32)	52	37	(32)	(32)	41	30	27
10	46	(41)	30	16	-17	27	18	-15	-24	21	27	26	20	50	45	27	(33)	38	21	30
11	52	48	30	9	-18	27	19	-6	-2	10	34	30	22	37	39	30	(31)	38	24	32
12	46	37	25	7	-15	37	(26)	1	-6	18	30	20	(33)	36	34	28	(32)	46	25	28
13	50	(48)	18	7	-11	36	36	3	5	37	37	39	(39)	32	25	27	(37)	43	(29)	29
14	48	37	25	14	-8	36	34	23	12	39	27	43	(40)	43	30	23	(35)	50	25	45
15	39	39	23	5	-24	32	34	25	25	39	30	(42)	32	34	34	23	(31)	50	(29)	46
16	32	45	16	3	-18	32	30	25	21	39	36	46	(48)	41	34	27	(31)	41	12	(35)
17	41	36	(18)	12	(-20)	30	32	29	23	34	30	(48)	45	34	28	28	23	45	-6	41
18	45	41	12	0	-18	34	25	24	25	40	9	(23)	(45)	52	28	27	(31)	32	3	(38)
19	41	32	14	3	-8	36	30	12	10	30	5	30	32	37	37	32	(25)	30	0	23
20	39	36	16	10	3	32	28	-11	7	37	-8	32	39	43	34	32	(27)	28	-6	25
21	43	34	21	27	-2	28	19	32	3	36	-18	10	6	52	37	28	(33)	30	16	25
22	48	32	16	14	-4	27	19	12	7	34	0	(8)	18	34	34	30	(30)	28	21	21
23	54	41	25	10	-6	25	18	10	-6	38	(10)	25	21	28	25	28	(28)	27	21	19
24	43	41	21	5	-15	27	19	9	(0)	30	30	27	27	30	37	36	(26)	25	18	19
25	41	41	28	10	-6	25	18	-11	-1	36	0	34	34	41	36	31	26	30	4	21
26	48	34	23	3	-6	29	16	18	-24	28	19	28	37	34	34	34	(35)	27	21	16
27	48	(33)	25	10	-8	21	21	-17	-17	30	36	39	37	37	25	34	(40)	34	27	(28)
28	34	41	27	9	(-10)	32	30	-15	7	37	19	34	45	37	34	26	43	28	30	31
29	34	36	21	14	-13	32	28	-6	16	28	3	37	(30)	41	45	25	41	(27)	28	34
30	40	36	25	14	-11	28	16	19	12	34	7	28	(30)	37	37	27	(34)	31	18	32
31	36	(39)	21	7	3	32	28	1	12	34	0	28	(30)	34	30	21	(37)	36	9	(12)

	A	B	C	D	E	F	G	H	I
1	6	3		2	1	2	0	1	
2	7	3		1	1	2	0	1	
3	5	4		1	1	2	0	1	
4	4	4		2	2	2	0	2	
5	4	4		2	3	2	0	1	
6	4	3		3		3	3	1	
7	4	3		4		4	3	1	
8	4	3		5		4	0	1	
9	4	4		5		3	0	2	
10	5	4		7		2	6	2	
11	4	4		6		2	0	2	1
12	4	4		5		2	0	2	1
13	5	4		7		2		2	
14	4	4		3		1	0	1	1
15	4	5		2		2	0	1	1
16	4	5		5		0		2	1
17	5	5		2	1	1		3	2
18	4	5		2	1	2		3	2
19	4	5		4	1	3		4	2
20	4	4		3	2	3		4	
21	5	5		4		5		3	
22	4	4		4		5		3	
23	4	3		5		4		3	
24	5	5		5		2		3	
25	6	4	1	6		3		3	
26	5	4	1	6		2		3	
27	4	4		7		2		2	
28	4	4		5	1	2	1	2	
29	4	5		4	3	2		2	
30	4	4		4	1	3	1	3	
31	4	4		4	1	4	2	4	

Stations 5, 8, and 9 are three hours late.

Stations 19 and 20 are six hours early.

	1	2	3	4	5			6	7	8	9	10		11	12	13	14	15		16	17	18	19	20
1	38	34	9	-2	-14			36	34	8	+12	34		1	10	38	(30)	(42)	30		19	28	42	17	39
2	36	29	10	3	-18			38	34	-6	-10	28		2	-16	(18)	(36)	40	32		23	23	43	11	35
3	42	30	23	14	-5			36	32	0	4	38		3	-10	18	20	30	34		(33)	26	39	10	34
4	46	28	21	0	-17			38	32	26	18	38		4	-24	(23)	(30)	38	28		25	20	37	15	23
5	50	32	23	7	-10			40	36	34	28	38		5	6	34	26	16	18		28	27	32	22	18
6	42	37	9	5	-12			32	34	28	30	38		6	-4	34	34	12	(20)		28	(25)	27	21	19
7	43	33	23	18	-11			30	32	25	32	38		7	-16	18	(30)	(46)	40		(30)	22	25	23	15
8	50	32	19	7	-11			36	30	22	22	38		8	-20	2	18	(20)	30		30	21	34	16	23
9	46	37	26	15	-16			36	32	26	22	38		9	-26	(30)	(20)	16	16		28	18	25	18	6
10	50	39	27	22	-20			34	34	26	30	42		10	-4	46	40	30	12		28	18	23	27	17
11	58	35	30	18	-17			32	34	32	26	30		11	-24	30	28	(42)	32		28	10	25	20	14
12	52	37	34	23	-15			36	32	(30)	28	38		12	-32	18	34	26	24		39	18	25	27	26
13	55	38	34	32	4			36	34	26	18	36		13	-34	20	28	34	34		36	27	32	20	(23)
14	56	40	36	10	-3			40	36	32	20	34		14	-40	0	(6)	34	32		18	28	37	-1	30
15	40	44	18	3	-10			44	38	36	24	38		15	-20	(42)	(30)	12	18		19	25	25	3	6
16	41	34	16	7	-8			40	38	34	16	34		16	-20	8	(18)	28	6		19	24	30	5	(20)
17	42	34	21	10	-12			38	36	24	0	28		17	6	30	20	20	14		19	19	30	15	32
18	41	38	23	3	-14			40	28	34	24	28		18	0	60	(40)	34	(20)		25	25	21	28	33
19	35	37	10	7	-26			42	38	36	28	26		19	0	38	50	(69)	20		25	36	19	19	34
20	37	32	12	0	-24			40	38	30	22	26		20	-10	36	(48)	34	26		12	39	28	4	21
21	42	34	18	1	-18			40	38	32	32	28		21	-10	26	(29)	16	20		30	28	25	9	33
22	42	34	12	-4	-14			38	38	22	30	28		22	-20	26	28	18	18		32	32	21	18	20
23	42	34	12	1	-15			36	32	26	32	40		23	6	28	30	22	12		25	36	14	6	21
24	41	32	12	3	-7			40	34	30	28	40		24	-10	26	26	22	26		28	30	12	-1	(12)
25	43	34	10	18	-9			44	36	32	22	32		25	12	32	32	22	25		30	28	21	1	19
26	40	35	23	6	-11			42	38	20	20	32		26	-6	16	26	24	28		28	19	36	3	17
27	30	40	25	10	-11			42	30	18	26	30		27	-25	20	18	26	32		28	19	45	4	18
28	40	32	20	0	-15			42	38	10	28	38		28	-10	22	18	26	32		30	21	36	-4	19
29	30	31	12	-1	-17			42	34	12	26	34		29	-6	16	(12)	(39)	32		30	37	(36)	8	9
30	47	30	10	0	-12			38	32	12	16	32		30	-6	16	25	32	34		32	(19)	27	-7	1
31	38	32	13	-7	4			38	38	4	12	32		31	-2	18	28	32	36		28	27	23	-8	-1

	A	B	C	D	E	F	G	H	I
1	5	6		4	2	2		3	
2	3	6		5	3	4		3	
3	4	4		4	2	5		3	
4	4	5		2	2	5		4	
5	4	4		1	2	4		3	
6	3	5		2	4	5		4	
7	5	4		2	2	4		4	
8	4	5		2	3	6		3	
9	5	4		2	1	6		5	
10	4	4		2	1	3		4	
11	4	3		2	2	4		5	
12	4	3		2	1	5		3	
13	5	2		2	2	5	1	3	
14	5	3		2	2	7	2	4	
15	4	5		1	2	6	2	5	
16	5	5		2		7	2	4	
17	5	5		3		5		4	
18	6	5		2	1	2	1	3	
19	6	6		2	2	2		3	
20	6	6		2	3	3		4	2
21	6	5		2	1	6		3	3
22	6	6		2	1	6	1	3	3
23	6	5		2	2	4	1	4	
24	5	5		2		5	1	5	
25	5	4		2	1	3	1	4	
26	6	5		2	2	5	2	4	
27	6	5		3	1	6		4	
28	6	5		2	2	5		4	1
29	7	6		2	2	5		4	1
30	6	6		3	3	4		6	1
31	7	5		3	2	4		6	2

Station 1 is six hours early.

Station 11 is estimated

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	36	32	10	4	-8	46	37	6	-2	28	0	18	28	34	30	27	25	16	-11	1
2	28	33	18	5	4	32	32	22	6	38	0	14	28	(32)	26	25	12	9	10	-4
3	28	32	29	4	0	35	32	14	18	38	-2	16	24	(28)	22	22	12	14	20	0
4	30	37	28	11	2	37	(35)	18	6	30	-10	18	16	24	20	(20)	12	23	8	13
5	30	36	27	13	-4	36	36	28	28	40	4	20	33	22	18	10	27	26	-30	9
6	35	38	23	9	-9	36	36	36	24	40	16	34	28	24	24	19	21	23	-30	-12
7	40	35	19	9	-13	38	34	34	30	38	0	34	38	32	20	13	25	1	-16	11
8	40	38	16	-1	-10	34	34	36	26	38	-14	30	(34)	34	34	27	12	(7)	-37	-15
9	33	36	7	0	-12	38	34	30	30	38	-10	34	(34)	32	30	(15)	21	25	-11	-4
10	33	28	9	11	-11	34	(34)	36	28	38	-20	18	36	38	32	16	-2	(2)	-7	0
11	40	32	18	9	(7)	34	34	36	32	40	-10	12	24	28	30	16	2	9	-3	1
12	33	34	5	3	-8	42	34	36	26	40	-10	12	(18)	24	24	18	8	5	7	10
13	38	29	14	7	-8	38	38	40	32	42	-24	14	16	(24)	20	21	(5)	16	8	10
14	40	32	21	14	-11	30	36	(30)	30	42	-12	30	28	20	10	12	3	30	10	8
15	40	28	19	18	-8	40	36	18	34	42	0	22	(21)	25	22	19	7	25	12	7
16	43	30	19	23	-7	35	36	34	30	40	-16	28	32	24	18	18	18	16	0	14
17	50	41	30	33	-8	38	34	30	26	40	-30	30	32	28	16	17	18	16	13	12
18	43	36	27	19	-6	34	32	24	18	40	-2	40	38	24	30	18	14	18	18	13
19	48	35	24	25	-6	38	34	18	10	34	-30	22	36	36	28	18	25	19	12	9
20	48	34	32	35	1	36	(30)	4	-1	32	-25	4	11	(32)	20	14	23	14	-5	4
21	48	43	31	34	-2	34	30	-4	-10	28	2	22	22	18	31	25	18	16	-2	1
22	52	43	28	12	-10	36	32	-14	-12	32	-20	30	22	22	28	28	21	12	2	2
23	46	46	21	9	-14	34	14	-20	-16	30	-12	10	16	30	26	9	41	21	-1	2
24	40	30	21	10	-9	22	10	-12	-12	30	-20	24	14	18	18	5	28	30	-8	1
25	43	30	21	21	-9	24	14	-2	-8	28	-16	38	(30)	24	20	14	46	36	-7	5
26	40	30	32	32	1	28	14	-12	14	38	8	50	28	12	10	10	34	37	0	11
27	45	30	36	36	0	38	14	-10	18	6	12	36	34	24	18	16	34	37	3	33
28	43	(43)	32	21	0	30	14	-12	-18	10	12	32	(34)	34	20	28	19	28	7	37
29																				
30																				
31																				

	A	B	C	D	E	F	G	H	I
1	6	6	0	4	3	4		6	2
2	5	5		3	1	4		6	2
3	5	5		3	1	5		6	2
4	5	4		3	1	6		5	3
5	5	4		2	1	5		7	1
6	5	5		1	2	3		8	2
7	5	5		1	2	3		8	2
8	4	5		2	2	4		9	3
9	4	6		2	3	4		7	1
10	4	6		2	3	4		8	1
11	4	4		1	4	5		7	
12	3	6		1	1	6		7	
13	3	5		1		6		6	
14	3	5		2		5		6	
15	4	5		2	1	5		6	
16	4	4		1	1	5		6	
17	4	3		2	2	5		5	
18	4	4		2	2	3		5	
19	4	3		3	2	5		5	1
20	5	2		4	1	7		6	2
21	4	2		5	2	5		6	2
22	4	3		5	3	5		6	3
23	4	4		7	1	6		6	2
24	4	5		7		6	1	6	2
25	4	4		6		5	1	5	2
26	4	3		5		4	1	5	
27	5	3		6		3	1	3	
28	5	3	0	7	1	3	2	4	
29									
30									
31									

Station I is six hours early.

Station II is estimated

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	42	54	21	14	0	32	12	-18	-24	42	1	0	32	34	28	26	36	18	25	10	11
2	38	33	19	12	0	38	10	-16	-26	34	2	2	32	32	32	20	26	21	21	26	11
3	36	29	23	18	9	30	10	-16	-28	30	3	10	30	34	(32)	8	36	21	25	20	9
4	38	41	39	30	8	34	24	-22	-22	16	4	10	42	36	(35)	(20)	32	30	32	21	17
5	42	42	25	20	5	38	30	-12	-16	22	5	-12	30	42	(38)	30	38	38	28	10	32
6	45	36	31	29	3	32	14	-8	-12	20	6	-4	24	36	48	32	24	32	30	12	35
7	48	36	32	32	6	20	20	-10	-8	22	7	-4	20	44	32	28	19	34	30	12	27
8	50	42	29	27	18	24	20	-12	-10	20	8	-23	16	20	32	32	39	39	27	0	12
9	53	46	28	30	19	32	24	-14	-18	18	9	-24	26	32	22	(33)	23	48	34	17	10
10	48	43	32	23	4	32	16	+18	-20	26	10	0	12	12	24	(38)	30	46	27	4	27
11	49	41	30	36	17	22	8	-18	-24	28	11	-10	32	18	18	24	36	43	37	9	6
12	48	41	31	27	14	20	6	-8	-22	16	12	32	46	38	(16)	16	46	24	36	18	(9)
13	43	(35)	24	21	8	18	22	-22	-26	8	13	14	38	(44)	34	22	46	39	43	33	31
14	42	32	25	34	10	22	10	-18	-14	20	14	30	58	(42)	22	8	46	36	50	29	32
15	53	33	28	28	12	32	6	-2	-12	34	15	20	46	38	24	12	24	32	48	12	25
16	52	39	34	37	18	38	8	8	2	34	16	0	48	(40)	32	26	39	43	34	17	23
17	59	45	34	34	23	28	(20)	28	14	40	17	-10	26	28	34	32	41	43	30	14	16
18	68	51	34	27	18	34	14	18	2	38	18	22	32	28	22	28	43	50	48	12	30
19	52	55	34	24	23	28	16	-4	6	36	19	0	46	44	40	22	48	50	50	18	20
20	55	36	39	31	30	28	8	-6	-14	34	20	-10	40	46	31	32	48	61	43	(20)	26
21	58	39	43	41	23	34	32	-16	-6	24	21	18	48	38	32	36	48	59	45	34	27
22	65	48	37	44	28	40	34	28	12	38	22	0	58	56	48	32	52	57	45	37	29
23	78	50	38	36	28	31	32	28	22	34	23	20	62	48	30	34	41	49	41	38	31
24	63	64	37	30	24	34	32	28	26	34	24	-6	54	47	(35)	20	37	48	46	32	34
25	55	49	37	37	30	30	25	12	6	34	25	24	64	36	24	20	36	48	59	23	29
26	53	44	32	42	32	30	30	-2	-2	38	26	20	48	54	38	24	37	52	59	27	33
27	48	52	34	46	28	34	34	6	12	30	27	20	40	40	32	36	50	54	65	28	34
28	48	59	35	27	22	34	32	28	18	34	28	18	40	38	28	22	57	45	54	(37)	32
29	48	41	30	36	38	32	32	26	24	28	29	14	36	34	34	24	43	52	55	30	37
30	58	44	37	41	21	44	36	32	22	32	30	36	46	(40)	32	26	30	50	56	16	34
31	59	51	(36)	28	15	40	32	24	4	44	31	0	48	48	36	28	39	54	54	17	23

	A	B	C	D	E	F	G	H	I
1	5	3		7		4		4	
2	4	4		7		4	1	4	
3	4	4		7		4	2	4	
4	4	2		7	1	3	1	3	
5	4	3		6	1	3	2	3	
6	4	3	1	7	1	3	2	3	
7	5	2	1	7	2	4		3	
8	5	2		7	1	5	1	4	
9	6	1		7	2	5	2	3	
10	4	2		6		5		3	
11	4	2		8		5		3	
12	3	2	1	8		5		3	
13	3	3		8		2	1	1	
14	3	3		8		2	1	1	
15	4	2		6		3	2	2	
16	3	1		5		3		2	
17	3	1		5		4		3	
18	3	0		4	1	3		1	
19	3	1		5	1	2		1	
20	2	1		6	2	3		0	
21	3	0		6	1	2		0	
22	3	0		2	1	1		0	
23	3	0		3	1	1		0	
24	3	0		2	1	2		1	
25	4	0		4		2		1	
26	4	0		5		1		0	
27	3	0		4	1	2		0	
28	3	1		3		3		0	
29	3	1		3	1	3		0	
30	4	0		2	1	1		1	
31	4	1		3		2		1	

Station I is six hours early.

Station II is estimated.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	41	42	19	15	-15	34	36	32	14	42	-15	32	34	58	44	36	45	51	39	29
2	48	37	17	0	-21	30	26	22	24	38	-24	8	14	44	52	37	39	43	21	(91)
3	55	42	23	2	-23	28	28	20	22	36	-15	30	20	23	30	41	36	34	20	34
4	48	38	26	20	-25	30	30	14	12	32	-20	38	36	38	38	43	30	41	28	27
5	52	38	30	20	-18	32	32	26	20	38	16	38	30	(40)	32	39	34	41	36	28
6	53	43	29	21	-8	32	28	14	28	40	26	40	34	40	26	39	34	45	32	28
7	55	41	28	35	-9	32	30	16	30	38	24	40	36	40	34	41	43	45	31	37
8	52	45	34	15	-12	24	28	18	20	34	20	34	(36)	38	42	(34)	37	41	26	30
9	55	48	37	31	0	22	18	12	25	24	30	32	38	36	(40)	41	36	36	29	27
10	52	38	33	36	-7	30	30	2	12	36	0	36	(34)	38	38	39	34	39	23	33
11	55	44	33	22	5	24	28	4	12	34	4	42	32	28	30	37	30	50	36	27
12	58	48	32	18	2	30	26	6	(1)	(30)	0	34	(38)	38	28	39	34	43	7	33
13	49	46	23	13	-9	30	24	4	(6)	34	-2	32	26	42	34	34	32	37	1	19
14	50	39	21	10	-16	32	28	-20	-14	22	-4	(28)	22	26	34	30	43	38	3	18
15	52	38	27	9	-29	38	36	30	-4	32	-12	24	29	40	(28)	30	37	36	6	18
16	53	38	24	12	-25	36	34	6	16	36	-4	16	4	22	28	30	34	45	-4	20
17	55	35	30	21	-32	32	28	32	10	38	14	18	18	26	20	27	34	34	8	14
18	61	34	36	12	-31	32	30	14	20	38	4	26	32	32	30	25	28	34	13	34
19	56	40	33	12	-26	34	30	14	12	(36)	20	32	36	36	26	30	28	36	13	30
20	50	40	33	15	(10)	34	30	16	20	38	24	32	36	34	28	36	27	30	(10)	(25)
21	44	44	21	7	5	26	30	8	20	38	-14	20	34	36	38	37	19	25	7	22
22	38	35	15	7	-2	30	26	12	(0)	30	6	28	32	36	32	32	25	21	15	-3
23	36	33	26	16	-3	30	26	0	4	32	6	26	32	40	34	(32)	27	32	15	19
24	38	33	24	17	-20	32	28	2	0	28	2	23	28	34	40	32	27	28	16	23
25	45	37	26	21	-26	30	32	2	2	32	14	22	24	30	36	32	25	30	6	22
26	52	34	31	26	-17	34	36	18	28	34	8	36	36	38	30	28	30	37	5	27
27	56	38	32	17	(-20)	36	34	38	10	4	16	34	34	38	30	28	41	37	0	34
28	49	39	28	4	-28	36	36	22	6	36	10	28	28	42	38	30	39	32	-6	11
29	57	41	14	6	-30	34	36	12	0	90	12	28	28	32	34	39	36	21	-12	7
30	45	37	9	3	-28	34	30	26	4	36	-4	34	32	32	30	34	41	23	-6	4
31	43	34	15	10	-32	36	32	16	4	26	-4	16	26	36	26	37	(42)	27	-2	3

	A	B	C	D	E	F	G	H	I
1	3	4		2	2	2		1	
2	3	5		3	1	5		1	
3	3	5		3	2	5		2	
4	4	4		4		3		2	
5	3	4		2		2		1	
6	3	3		3		2		1	
7	3	2		3		1		0	
8	3	3		3		2		2	
9	3	2		4		1		2	
10	4	2		4		3		2	1
11	5	2		4		3		1	1
12	4	2		5		3		2	2
13	4	4		4	1	3		3	2
14	4	4		6	1	4		3	
15	5	5		3	2	4		3	
16	5	4		3	2	6		3	
17	6	4		3		5		4	
18	6	4		3		3		3	
19	7	4		3		2		3	
20	7	3		3		2		3	
21	7	4	1	4		4	1	4	
22	5	5	1	4		3		5	
23	4	4		5		3		3	
24	4	5		5		3		3	
25	4	4		4		4		4	
26	4	3		2		2		3	
27	5	3		4		3		3	1
28	5	5		3		3		4	2
29	5	5		4		3		5	
30	5	6		4		3		5	
31	5	6		4		4		4	

Station 1 is seven hours early.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	44	30	36	27	-21	32	28	2	22	33	-16	16	28	34	36	31	41	34	2	0
2	46	35	24	7	-23	26	32	-4	6	20	-6	18	22	30	28	32	39	39	3	3
3	53	39	30	30	-23	32	28	-6	4	36	-8	36	30	22	18	30	35	34	1	17
4	55	41	31	10	(-22)	30	20	-14	-12	24	0	40	40	36	36	27	40	41	5	29
5	50	36	25	6	-21	34	28	-16	-10	26	-4	42	42	31	26	28	38	43	12	32
6	33	35	19	-2	-24	38	28	-3	-19	(30)	-16	32	36	34	18	23	34	41	28	(30)
7	33	40	17	-2	-24	32	30	18	4	38	-12	22	22	42	42	28	28	37	20	32
8	40	31	14	-4	-33	34	22	28	14	36	0	24	20	24	34	23	27	36	23	26
9	28	36	16	-11	-33	34	30	26	7	32	0	24	22	26	32	21	23	30	16	14
10	22	28	-4	-14	-39	24	30	10	8	38	16	30	26	42	30	32	21	25	16	29
11	26	27	12	-8	-29	34	26	18	4	36	-10	30	28	36	(42)	32	18	28	9	23
12	27	28	16	5	-33	30	26	6	0	34	0	36	34	30	34	30	21	28	28	18
13	28	33	12	12	-28	33	28	14	(14)	38	-8	26	34	32	24	28	19	34	17	28
14	34	32	17	6	-20	32	26	16	30	28	-12	28	30	34	38	30	25	37	23	32
15	36	34	17	19	-17	32	22	-6	(0)	36	-4	18	8	32	34	27	30	37	24	34
16	40	34	25	7	-14	34	24	-4	10	36	20	22	14	(20)	30	21	28	37	26	32
17	37	38	21	11	-18	38	30	16	8	40	14	38	30	28	30	32	32	33	33	34
18	40	36	18	12	-45	30	34	36	30	40	-4	32	34	26	30	20	32	36	30	32
19	45	36	19	1	-36	36	34	(32)	36	38	-10	42	30	24	(28)	24	(38)	31	22	34
20	42	32	14	2	-27	32	34	32	28	34	0	30	36	42	30	(25)	31	39	20	22
21	43	32	19	24	-27	32	34	12	16	36	-20	16	(30)	34	34	(28)	29	37	7	24
22	44	36	19	11	-15	34	32	0	10	40	-24	16	18	28	30	(28)	32	34	5	19
23	42	44	21	5	-17	28	20	-8	6	36	-20	26	14	(20)	26	(28)	48	28	11	16
24	43	32	19	21	+27	32	20	-12	-2	32	-14	38	8	24	28	34	45	35	4	16
25	46	34	20	13	-18	34	18	-2	-14	34	0	46	10	10	16	(36)	42	36	-9	8
26	33	43	19	-7	-9	36	32	0	10	36	0	36	42	34	28	36	34	34	-11	8
27	28	31	25	9	-4	34	24	-2	14	32	-28	42	36	30	26	36	30	34	-8	14
28	33	36	27	19	-15	34	30	-4	12	36	-4	(32)	40	(33)	38	34	32	25	12	24
29	37	36	30	7	-29	34	18	-4	0	38	-8	38	34	22	18	23	39	28	10	18
30	39	40	30	24	1	32	10	6	14	36	-10	30	12	36	28	25	37	39	-1	19
31	43	42	(32)	32	-8	22	18	36	(12)	38	-20	26	14	28	28	28	30	21	-2	12

	A	B	C	D	E	F	G	H	I
1	4	4		4	1	4	1	4	
2	5	5		5	1	5	1	4	
3	5	3		5		4	2	4	
4	6	4		6		2	1	3	
5	7	5		6		3	2	2	
6	7	6		5		4		2	
7	7	6		4		4		3	
8	6	6		3		4		3	
9	5	7		3		4	1	4	
10	5	9		4		3		4	
11	5	7		4	1	3		4	
12	4	7		5	1	3		3	
13	3	6		3	1	4		3	
14	3	6		3	3	4		3	
15	4	5		5		5		2	
16	3	5		4		4		3	
17	4	5		3		3	1	2	
18	4	6		2		4	1	2	
19	4	6		1		4	.	2	1
20	4	6		2	1	3		3	1
21	4	5		3	2	5	1	4	2
22	4	5		4	1	6		4	
23	3	5		5	1	6		3	
24	5	5		6		5		3	
25	4	5		6	1	5		4	
26	3	5		4	1	3	1	4	
27	4	5		4	2	4	1	4	
28	4	4		4		3		3	
29	4	5		5		4		4	
30	4	3		4		5		4	
31	4	3		3		5		5	

Station 1 is seven hours early.

Station 11 is estimated.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	52	39	27	12	17	32	12	20	12	32	0	24	(8)	20	20	25	30	(28)	(0)	(10)
2	50	48	24	14	-20	30	24	24	18	40	-22	38	(22)	22	22	27	32	(25)	5	(2)
3	51	43	25	9	-26	30	18	30	16	36	20	24	12	24	24	19	34	23	3	(0)
4	40	40	18	9	-22	24	18	12	16	36	-20	34	32	24	26	25	(37)	25	0	5
5	28	37	16	(10)	-24	24	12	0	12	32	12	22	10	30	34	23	28	22	-2	5
6	28	32	12	-1	-26	24	10	8	-6	30	-14	22	28	24	30	16	22	23	(12)	0
7	32	30	5	-3	-21	20	12	10	-2	34	-24	28	12	20	24	14	22	28	3	3
8	36	29	17	7	-18	34	22	4	16	30	-4	42	(20)	16	4	31	23	22	-2	-3
9	34	36	16	5	-4	34	32	28	20	34	-12	34	30	40	(34)	15	27	27	10	0
10	35	30	14	3	-17	34	30	27	26	36	-16	27	22	32	(38)	34	28	28	3	2
11	34	30	18	14	-18	28	32	28	20	43	14	16	(28)	31	40	37	39	28	16	8
12	35	28	23	23	-17	30	26	18	16	(30)	-2	34	4	36	34	36	37	30	9	8
13	35	16	28	7	-15	29	36	10	12	20	-6	42	36	(36)	25	27	32	29	(10)	8
14	34	36	22	7	(-20)	32	22	22	14	36	-20	16	20	36	32	27	28	32	14	10
15	35	39	17	9	-6	(30)	16	16	12	39	20	(20)	14	(42)	38	30	28	29	1	0
16	35	(36)	14	7	-17	20	12	6	-6	34	12	(36)	36	(34)	30	27	32	32	13	2
17	32	35	14	19	-13	31	12	8	-14	5	-14	40	(30)	36	24	24	30	46	7	20
18	36	28	24	18	-22	22	22	0	0	32	-10	-12	40	30	34	25	36	40	5	0
19	38	37	26	16	-17	22	14	2	-4	34	14	32	40	32	10	30	32	43	7	10
20	40	35	48	14	-13	26	8	-2	-8	36	20	34	34	32	30	36	(40)	40	21	12
21	40	39	25	19	-9	20	2	0	6	32	5	32	36	(36)	(32)	38	(42)	38	7	15
22	40	34	25	19	-11	14	24	(0)	-14	20	13	32	26	34	34	34	32	33	16	20
23	42	37	24	9	-8	28	30	-14	(-7)	24	10	30	32	34	40	30	32	40	12	18
24	40	23	19	12	-13	28	30	-10	-24	28	10	28	(30)	36	34	23	30	30	1	3
25	44	34	24	14	(-5)	28	(20)	-14	-22	28	18	26	30	30	32	33	(39)	32	3	14
26	45	46	23	11	11	20	18	-28	-22	18	10	28	34	34	20	33	(43)	37	18	12
27	46	45	29	12	-4	(18)	10	-36	-6	10	8	26	30	32	36	26	(42)	40	32	35
28	32	35	19	11	(9)	(20)	10	-24	-2	32	0	30	30	32	34	25	(40)	43	14	37
29																				
30																				
31																				

	A	B	C	D	E	F	G	H	I
1	4	3		4		6	1	5	
2	5	4		3		5		5	
3	6	4		3		4		5	
4	6	5		4	1	4		5	
5	6	6		5	1	4		5	
6	5	7		6	2	5		6	
7	6	7		5		6		6	2
8	5	6		4	1	5		6	2
9	5	5		2	2	3		5	2
10	5	6		2		4		5	
11	5	5		2	1	3		3	
12	5	5		4	1	4		4	
13	5	6		4	2	3		4	
14	5	5		3	3	5		4	
15	5	5		4		3		5	
16	5	5		6	1	3	1	4	
17	5	5		7		4	1	4	
18	5	5		5		3		4	
19	5	4		6		3		4	
20	4	2		6	1	2		2	
21	5	4		6		3		1	
22	5	4		7		3		3	
23	5	4		6		3		3	
24	4	5		6	1	3		5	
25	4	4		7	1	3	1	4	
26	4	3		8	2	3	1	3	
27	4	3		9		3	1	1	
28	4	4		7		3	2	2	
29									
30									
31									

Station 11 is Estimated.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	(39)	30	21	18	14	25	12	14	-16	26	1	0	38	38	38	53	(20)	30	(90)	14	(30)
2	(38)	34	27	27	-6	30	22	6	8	36	2	6	26	30	34	36	21	28	52	36	(32)
3	46	45	45	50	12	31	30	8	16	34	3	0	30	32	34	36	27	30	34	32	(30)
4	43	41	27	23	9	34	26	28	22	38	4	16	26	(34)	32	32	27	28	36	23	34
5	43	39	30	28	12	34	24	30	4	38	5	16	26	32	32	32	(20)	25	41	27	40
6	45	(41)	30	32	9	34	26	22	10	34	6	4	20	34	32	32	21	23	34	14	20
7	48	45	23	16	12	36	32	26	20	36	7	-6	26	32	32	26	28	25	32	5	23
8	(45)	45	34	28	19	32	32	24	36	30	8	0	27	36	28	(32)	25	25	55	7	25
9	(41)	46	34	39	10	38	32	20	26	26	9	2	30	(36)	34	30	(25)	24	50	10	45
10	(45)	48	34	28	12	34	28	20	26	28	10	-2	(23)	(38)	36	32	27	27	48	14	47
11	(50)	45	32	21	9	34	26	12	24	28	11	-2	20	32	(30)	30	(28)	26	(55)	18	30
12	(50)	39	41	30	7	34	28	2	20	30	12	8	26	(33)	32	30	27	34	39	27	40
13	(53)	41	32	37	9	30	20	4	8	29	13	2	26	36	34	34	18	28	39	28	38
14	(58)	39	34	45	18	32	22	0	0	30	14	6	34	32	34	32	28	32	41	19	33
15	57	42	36	30	25	34	26	10	2	30	15	16	32	36	(36)	32	27	37	46	30	40
16	(97)	46	38	16	7	34	23	4	8	28	16	16	32	38	30	31	27	39	26	18	40
17	(44)	52	26	15	12	40	22	9	0	20	17	8	34	(31)	36	30	30	34	36	10	35
18	41	38	30	34	14	(34)	18	6	6	22	18	18	32	36	34	26	32	34	(32)	17	30
19	(44)	41	40	26	10	(30)	14	-4	12	28	19	2	36	(36)	30	(34)	25	39	36	28	28
20	(55)	49	30	31	23	24	12	-8	8	26	20	-6	32	36	32	36	43	41	(50)	23	30
21	(62)	43	41	45	(23)	20	12	-6	6	30	21	4	36	44	(38)	36	50	46	55	32	36
22	(65)	50	39	31	21	24	14	0	6	30	22	18	40	(38)	38	36	50	46	57	39	40
23	(45)	59	35	24	18	28	18	30	11	34	23	24	36	40	36	36	39	52	52	43	40
24	(50)	38	32	37	21	28	28	22	26	32	24	24	(36)	(39)	36	32	41	52	59	37	35
25	(52)	49	36	35	21	30	20	12	24	32	25	14	34	40	30	26	36	45	57	22	42
26	(47)	63	30	27	14	34	24	14	4	36	26	-4	38	34	32	30	45	39	28	32	48
27	(50)	50	45	35	14	32	18	8	32	40	27	-4	(39)	40	34	30	46	45	39	34	40
28	(50)	47	35	36	18	(34)	16	4	6	38	28	5	38	38	34	34	28	50	39	37	42
29	(52)	50	38	45	25	38	18	-6	-4	36	29	16	(34)	38	34	30	30	42	54	32	50
30	(55)	53	39	40	18	34	30	-6	-8	36	30	0	30	42	42	37	30	37	39	34	33
31	(55)	48	32	31	27	32	32	-8	12	34	31	0	36	(40)	40	36	26	31	39	27	35

	A	B	C	D	E	F	G	H
1	4	4		6		3	1	3
2	4	4		4	1	3	1	2
3	4	1		4	2	3	1	2
4	4	3		2	1	4	1	2
5	4	2		3	1	3		2
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8	5	2		2	1	3		3
9	4	2		3	1	3	1	2
10	4	2		3		3	1	2
11	4	2		3	1	4	2	2
12	5	2		4		3	2	2
13	5	2		5		2		2
14	5	1		5	1	3		2
15	4	1		4	2	4		1
16	3	2		5		3		2
17	4	2	1	5		3		3
18	4	2	1	5	1	3		2
19	3	2		5		3		2
20	3	1	1	6		3		1
21	3	0	2	6	1	2		0
22	3	0		5		2	1	0
23	4	1		4		2	2	0
24	4	1		3	1	2	2	0
25	4	1	1	4	1	3		0
26	3	1	1	5	1	3	1	1
27	3	1	2	3	2	3	1	0
28	3	1	3	4	3	2	1	1
29	4	0		5	4	2	2	0
30	3	0		5		2		1
31	3	1		5		2		2

Station 11 is estimated.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	52	43	39	25	20	38	20	-8	0	22	40	28	48	48	42	37	37	41	27	32
2	55	46	33	19	-8	30	22	-6	-6	32	26	42	42	49	40	39	36	36	25	32
3	57	48	37	23	-2	26	22	(-8)	-12	28	12	52	50	44	35	41	48	49	34	32
4	54	52	36	18	(0)	40	36	2	-8	30	11	50	46	(42)	30	39	45	55	36	30
5	43	49	32	21	(15)	38	38	10	8	36	10	34	40	49	36	39	57	54	25	37
6	34	50	19	18	-4	38	36	32	(40)	(39)	6	48	44	(42)	44	34	32	52	32	36
7	34	38	25	18	-6	40	39	26	30	40	-6	58	52	44	34	32	32	54	34	39
8	(33)	41	24	17	-6	40	36	(40)	24	40	-32	28	40	48	50	28	32	41	32	39
9	41	38	27	24	9	36	36	36	34	40	-30	24	27	30	44	32	(32)	39	28	32
10	48	36	30	37	11	42	32	42	30	38	-30	22	22	32	28	31	30	37	23	34
11	45	41	34	23	5	40	38	40	36	34	-16	24	25	(20)	28	37	27	36	28	30
12	34	50	18	3	-4	36	36	38	36	40	2	34	26	32	10	32	27	34	23	26
13	34	32	23	19	-9	34	30	30	31	35	-6	24	30	(26)	45	39	28	37	28	25
14	41	41	19	12	5	34	30	26	23	34	-20	14	30	38	32	36	34	37	12	27
15	36	39	25	17	-5	28	32	12	18	38	-32	12	22	34	32	34	(32)	31	25	21
16	33	39	28	27	21	32	30	26	26	40	-22	2	10	26	22	41	32	34	30	25
17	46	35	30	34	14	34	36	18	20	38	8	18	0	20	12	43	27	30	34	18
18	50	36	33	28	-2	34	36	34	34	38	-8	14	14	28	14	42	27	(35)	32	24
19	45	41	38	19	-11	34	30	14	30	34	-16	18	20	26	24	42	28	41	36	25
20	39	45	21	2	-6	34	34	34	18	32	-18	18	26	34	32	45	27	43	34	30
21	43	40	27	18	-2	34	28	16	10	34	32	34	34	32	24	39	25	36	36	32
22	45	41	22	4	-11	30	24	8	10	32	14	36	40	40	18	37	30	32	32	(31)
23	50	37	26	19	7	38	32	-2	8	20	10	40	36	30	30	37	36	30	25	27
24	50	43	29	5	-11	32	34	-2	8	30	(28)	32	40	39	14	41	34	30	25	21
25	45	36	28	17	-13	30	34	-4	-6	36	(32)	58	50	30	19	36	36	(34)	27	43
26	45	38	30	27	-8	36	32	0	4	32	-14	36	52	64	30	37	32	34	38	19
27	41	42	36	20	-9	34	28	6	-2	34	18	36	34	30	34	39	30	32	28	34
28	41	41	29	16	-11	30	28	0	-6	30	(0)	38	(42)	30	34	41	28	27	36	34
29	39	39	28	10	-6	34	22	-8	-9	36	(24)	28	34	35	32	43	27	37	36	30
30	41	41	31	8	-2	28	20	-6	-6	20	-72	38	42	38	30	32	29	28	36	30
31	32	41	(5)	6	-7	42	28	-12	-10	20	-24	36	43	44	34	32	50	30	34	32

	A	B	C	D	E	F	G	H
1	4	1		6		0		1
2	5	3		6	1	1		2
3	5	2		6		1		0
4	4	2		4		1	1	0
5	5	2		3		2	1	0
6	6	4	3	2	1	1		1
7	6	4		2	1	1		1
8	5	4		1	1	3		2
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10	5	2		1	1	6		2
11	5	2		1	2	5		2
12	5	4		1	3	4		3
13	5	4		2	2	3		2
14	4	4		3	1	5		3
15	4	3		3	2	6		3
16	5	2		2		7		2
17	5	2		3	1	6		2
18	5	3		1	1	6		2
19	5	3		3		6		2
20	4	4		2		5		1
21	4	3		4		6		2
22	4	4		4		2		2
23	4	3		5		3		2
24	4	4		4		2		3
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26	4	3		4	1	2		2
27	5	3		4	1	2		2
28	4	4		5		3		2
29	5	4		5		2		1
30	5	4		6		3		2
31	5	5		6		3		1

	1	2	3	4	5				6	7	8	9	10		11	12	13	14	15		16	17	18	19	20
1	32	38	13	5	-11				30	18	18	-6	20		1 -2	14	10	38	24		37	42	27	21	32
2	32	38	27	-2	-20				32	22	-14	-26	18		2 2	32	29	20	32		37	39	30	28	28
3	43	37	27	3	-17				34	16	-12	-9	20		3 30	32	34	32	32		43	43	30	27	23
4	43	37	25	7	-16				28	18	-22	-18	12		4 2	48	48	36	40		43	39	32	19	25
5	41	41	27	10	-15				28	20	-10	-16	(22)		5 -8	34	48	38	44		32	45	34	21	25
6	37	41	27	21	-17				30	18	-20	-12	(22)		6 -8	34	36	32	30		35	34	32	19	25
7	37	45	21	22	-24				32	14	-14	-8	(22)		7 -14	52	46	34	38		34	39	32	19	18
8	37	41	27	15	(-17)				24	16	-12	-6	(22)		8 -33	32	20	28	44		34	37	37	19	19
9	45	41	27	15	-16				22	10	-12	-12	32		9 -12	38	24	18	24		34	37	31	18	9
10	46	38	32	3	-14				24	8	-10	-8	30		10 -36	32	30	38	44		30	31	27	18	16
11	(35)	45	16	8	-20				22	19	-2	-4	34		11 -8	(40)	46	28	32		32	34	21	19	25
12	28	38	10	0	(-15)				28	11	-14	-14	20		12 -34	22	40	38	44		34	25	20	0	27
13	28	33	10	-4	-8				36	36	-22	-20	20		13 -26	22	18	31	24		26	25	18	9	23
14	24	34	12	0	-9				40	36	⓪	-4	36		14 -13	25	12	12	24		28	19	28	12	16
15	34	31	16	1	-8				38	32	26	20	34		15 28	32	28	24	30		30	21	10	10	5
16	39	34	26	19	-11				36	34	28	22	38		16 -28	36	34	28	32		25	30	19	0	7
17	28	42	21	0	-17				32	34	10	19	32		17 -24	48	44	30	32		22	34	35	-4	10
18	34	38	14	-2	-22				43	34	20	0	28		18 -14	34	34	38	38		21	25	25	0	19
19	29	37	12	7	(-20)				39	30	12	10	30		19 6	33	36	24	24		21	28	25	-11	(10)
20	37	36	13	-6	(-10)				(35)	34	2	6	-8		20 -8	32	42	18	40		10	27	34	-12	14
21	(38)	36	22	0	-6				36	30	22	8	12		21 -4	40	34	32	22		1	23	32	-15	0
22	34	35	18	1	-11				40	34	14	+18	24		22 18	52	40	(32)	(32)		10	19	19	-8	5
23	32	38	6	-3	-22				30	18	-20	+16	24		23 12	40	54	18	(40)		19	19	19	-2	4
24	33	37	11	3	-13				28	24	-38	+18	16		24 -16	32	38	34	34		23	10	20	-9	7
25	30	36	10	0	-15				30	16	-24	+24	20		25 28	44	36	28	29		32	18	16	7	9
26	25	32	3	-7	-11				34	24	-18	-22	18		26 -20	38	(32)	28	22		32	14	10	-4	9
27	25	28	7	-3	-4				38	32	-24	+30	16		27 -40	42	30	26	(36)		36	12	9	9	1
28	23	38	11	1	-4				42	24	-34	-26	22		28 -18	28	38	32	39		37	14	16	28	25
29	28	28	15	2	-4				32	30	-12	-6	16		29 -18	26	34	34	44		36	14	18	25	27
30	32	32	17	4	-2				30	28	-6	-12	20		30 -8	20	30	44	40		25	25	19	19	25
31	36	36	14	3	0				34	25	-4	9	28		31 18	36	30	34	32		30	31	28	10	27

	A	B	C	D	E	F	G	H	I
1	5	5		7	1	5		2	
2	5	5		7		4		2	
3	5	5		7	1	2		2	
4	5	5		8		1		2	
5	5	4		7		2		2	
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15	5	5		2	1	3		5	2
16	6	4		2	2	4		5	3
17	6	5		3	2	3		5	
18	7	6		3		3		5	
19	7	5		4	1	3		5	
20	5	6		6		3		5	1
21	6	5		4		3		7	2
22	6	5	2	5		1		7	2
23	6	6	2	7		2		6	
24	5	6	2	8		4		6	2
25	5	6	3	8		2		5	2
26	5	7		7		4		6	3
27	4	6		7		5		6	3
28	4	6		7		4	2	4	
29	4	6		6		4	3	4	
30	5	5		6		3	4	4	
31	5	5		5	1	2		3	

	1	2	3	4	5	T	AV	6	7	8	9	10	T	AV
1	32	35	21	(2)	(8)	87	17	34	30	-10	2	20	76	15
2	32	39	18	(5)	-9	83	17	36	22	-6	0	32	84	17
3	32	36	19	(2)	-9	85	17	34	14	-10	-8	34	64	13
4	36	32	21	(9)	-13	86	17	32	10	14	-8	33	81	16
5	36	33	25	16	-18	102	20	32	20	16	6	34	108	22
6	36	39	23	19	-4	111	22	30	34	32	27	36	169	34
7	41	39	28	5	-16	98	20	32	32	36	32	38	170	34
8	36	43	(25)	16	-6	114	23	34	30	32	34	38	168	33
9	37	45	23	9	-24	90	18	40	(28)	44	36	37	195	39
10	34	45	18	2	-16	83	17	36	34	32	36	36	176	35
11	36	37	14	-1	-20	66	13	28	34	20	20	38	140	28
12	36	32	16	5	-13	76	15	36	30	26	22	34	148	30
13	39	41	19	19	-8	110	22	32	28	24	12	34	130	26
14	37	41	19	12	-6	105	21	32	26	28	28	34	148	30
15	37	34	23	(18)	-8	106	21	36	(30)	-2	-4	30	90	18
16	41	37	23	10	-4	109	21	40	28	6	-6	34	102	20
17	39	32	16	3	2	92	18	42	32	-8	-12	30	84	17
18	36	32	12	-4	5	81	16	36	32	6	-8	36	112	22
19	36	38	18	5	5	98	20	34	32	-4	-14	32	80	16
20	37	36	23	7	(0)	103	21	36	32	-14	-16	25	63	11
21	41	43	12	1	3	100	20	34	24	-16	-24	30	88	9
22	43	41	12	3	-2	97	19	25	8	-22	-20	28	20	4
23	48	41	25	10	(-4)	120	24	30	0	-19	-12	20	19	4
24	34	37	19	3	(-12)	81	14	11	-11	-22	-14	20	-16	-3
25	37	45	9	-1	6	90	18	16	0	-20	-22	30	4	1
26	37	36	16	3	3	95	19	20	2	-12	-18	(22)	12	2
27	43	37	23	10	(4)	117	13	26	28	-16	-6	14	46	9
28	41	43	25	-3	6	112	12	28	30	0	0	16	74	15
29														
30														
31														

	11	12	13	14	15	T	AV	16	17	18	19	20	T	AV
1	8	(36)	(30)	34	32	140	28	39	45	(43)	9	22	158	32
2	16	36	46	35	32	165	33	39	(45)	40	26	14	169	33
3	-4	26	32	36	38	128	26	37	39	37	15	23	151	31
4	0	28	30	30	32	120	22	32	50	37	27	10	156	31
5	-22	9	28	32	36	83	17	34	(37)	41	15	20	160	32
6	-18	10	10	26	30	58	12	30	48	43	17	23	161	32
7	-34	36	30	22	28	82	16	28	46	43	14	12	143	29
8	-34	30	36	34	20	116	23	37	45	35	7	17	144	29
9	-38	-2	6	45	39	50	10	35	45	38	5	12	135	28
10	(-28)	6	10	26	26	38	8	30	46	34	14	1	135	25
11	-12	22	22	28	16	76	15	30	36	(60)	25	32	163	33
12	-24	8	15	28	36	53	11	36	36	28	17	28	146	29
13	-6	30	(20)	22	27	93	19	36	37	30	21	19	143	29
14	-6	41	36	34	28	131	26	28	37	34	19	30	148	30
15	-12	26	(34)	34	(32)	114	23	23	28	36	25	33	144	29
16	-26	32	(18)	22	31	57	13	4	30	34	19	19	123	25
17	-30	40	34	30	20	94	19	21	34	32	16	19	120	24
18	0	35	38	30	32	135	27	31	30	28	12	28	119	24
19	22	30	28	30	32	142	28	16	28	38	16	30	126	25
20	(32)	(40)	38	30	30	170	32	23	27	36	12	28	126	25
21	-6	32	30	40	26	122	24	30	23	30	10	23	116	23
22	(2)	(25)	28	30	32	117	23	25	22	34	1	23	105	21
23	12	44	42	39	26	163	33	21	27	34	19	39	135	27
24	-8	32	40	38	30	132	26	27	28	34	10	9	108	22
25	-16	44	30	30	32	120	24	25	28	41	9	16	119	24
26	-14	28	30	32	32	108	22	30	30	36	1	12	109	22
27	-10	24	30	36	32	112	22	28	30	30	3	12	103	21
28	-10	(28)	28	(38)	34	118	24	30	32	32	1	10	105	21
29														
30														
31														

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5	5	4	0	4	3	5	1	2	0
6	5	4	0	2	1	6	1	2	0
7	6	4	0	2	2	5	1	3	0
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9	4	5	0	1	1	6	1	3	0
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15	5	4	0	5	2	4	0	3	0
16	5	4	0	4	2	6	1	3	0
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26	5	5	0	8	0	4	0	4	0
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28	6	6	0	5	1	4	0	4	0
29									
30									
31									

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1	39	41	19	-2	(6)	97	28	30	-10	7	18	73	18	(32)	(33)	34	32	149	30	34	50	9	23	126
2	43	39	16	0	-4	94	34	26	-10	-6	24	68	14	28	34	36	32	144	30	39	32	18	14	133
3	45	41	23	(42)	-2	105	26	22	-8	(-2)	18	56	22	32	38	(40)	36	162	(28)	43	37	19	10	138
4	41	45	14	-8	-6	91	26	14	-8	(-2)	28	58	10	30	32	36	30	140	27	55	37	18	7	144
5	36	43	12	-4	(-3)	84	30	20	(-8)	(-7)	30	65	-4	28	30	32	30	116	27	48	52	7	34	108
6	34	36	12	-2	-4	76	26	20	-8	(-7)	26	57	6	24	16	30	32	108	28	48	54	9	34	173
7	34	39	16	1	-2	88	30	18	-12	(-8)	34	62	4	(30)	34	30	22	120	(25)	46	48	10	(30)	159
8	39	39	21	7	5	111	24	30	-8	(8)	34	80	6	34	32	32	30	134	30	42	36	10	19	135
9	44	36	21	19	10	130	36	30	14	(12)	32	124	4	28	38	40	32	142	32	45	32	14	19	142
10	39	36	27	1	18	121	36	32	9	(20)	36	133	-14	12	22	34	32	86	36	37	34	19	19	145
11	37	36	39	12	12	136	32	30	14	(7)	36	119	-18	24	12	18	28	64	36	37	37	19	21	150
12	39	43	23	10	10	125	26	26	6	(-6)	32	84	-24	28	24	22	22	72	27	36	36	25	16	150
13	37	34	25	23	(14)	133	32	13	-10	-14	26	47	-20	(30)	34	28	24	106	34	50	36	36	25	181
14	45	37	30	25	16	153	16	4	-12	-10	24	22	4	60	36	28	22	150	34	55	50	36	32	207
15	46	45	30	27	18	166	14	(0)	-20	-18	(30)	-4	-4	34	38	32	22	122	(40)	55	54	36	35	220
16	39	39	28	27	21	154	16	-6	-14	-10	12	-2	-22	24	(27)	32	36	97	45	59	61	34	34	233
17	50	39	36	30	18	173	26	3	(-10)	-12	25	42	-20	38	(36)	28	24	106	46	(59)	66	33	32	236
18	46	43	27	(26)	21	165	24	20	(0)	8	28	80	-26	42	36	26	23	106	46	46	(61)	41	36	229
19	50	46	32	34	24	186	30	26	8	-8	28	84	0	46	28	30	26	130	27	63	56	39	39	224
20	48	45	36	28	23	180	34	(24)	14	(-10)	10	72	-2	42	32	28	32	132	29	(50)	61	36	36	212
21	45	43	34	30	27	179	38	32	10	10	26	124	14	42	36	32	28	152	32	(40)	(42)	34	36	184
22	41	52	30	30	25	178	34	32	30	22	34	152	16	30	40	40	(44)	170	34	(40)	37	34	39	189
23	41	51	34	30	21	183	36	32	26	24	36	154	4	30	(36)	30	32	132	37	(40)	(46)	27	37	177
24	43	45	(35)	28	21	172	34	30	32	22	34	152	-14	24	(22)	26	24	82	48	(44)	39	32	43	206
25	45	39	34	36	19	173	34	26	20	(7)	32	119	10	34	32	24	29	129	54	(49)	(41)	31	36	211
26	45	45	34	27	23	174	36	28	6	(-7)	34	97	14	(37)	28	38	12	123	48	(55)	43	37	34	217
27	41	45	34	27	30	177	36	28	28	(26)	34	146	22	30	36	38	26	152	46	(53)	50	25	37	211
28	41	43	34	30	36	184	32	28	20	10	32	122	4	(32)	(36)	28	30	130	52	58	54	30	30	224
29	43	50	34	36	21	184	28	10	8	6	32	84	-8	28	(34)	32	32	118	52	(63)	63	36	46	259
30	45	52	48	37	25	207	20	6	-6	-2	30	48	-2	34	28	30	32	122	55	69	54	36	39	258
31	45	45	37	37	28	192	34	16	8	7	34	99	32	(48)	40	32	35	187	40	48	55	46	43	232

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1	40	45	24	14	(7)	34	36	12	4	38	1	32	46	52	50	36	32	32	45	27	32
2	42	45	27	18	(9)	36	34	16	20	30	2	8	35	41	(50)	48	39	41	36	25	32
3	40	44	26	14	(5)	38	36	31	30	41	3	-8	36	34	42	38	41	52	41	16	27
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26	48	40	30	20	-2	38	38	16	22	36	26	2	(32)	38	26	16	25	41	34	14	18
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31	42	(40)	23	11	-12	32	30	(-10)	-16	22	31	16	24	14	30	34	31	45	23	3	16

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2	47	43	27	14	-15	38	36	(6)	6	32	-24	20	18	38	30	30	39	30	7	21
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17	31	34	12	0	(46)	38	36	16	22	32	(-5)	(40)	24	14	(8)	30	36	28	10	32
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21	35	45	10	5	(-30)	30	28	-10	4	28	-16	48	32	28	16	34	16	26	14	23
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25	40	33	25	14	1	36	34	-10	-2	22	-20	12	-2	26	36	(30)	39	36	16	19
26	33	32	20	6	(0)	34	32	-28	-2	26	-24	26	18	24	22	23	39	39	38	36
27	35	(40)	23	16	-2	30	24	-16	-4	18	-32	1	4	28	28	27	32	39	34	32
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Station 1 is estimated.

February, 1935

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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2	45	40	27	(12)	9	32	24	12	10	36	28	24	22	20	20	32	37	32	5	27
3	47	34	30	(20)	5	36	24	16	24	30	4	34	34	36	32	(32)	34	41	25	32
4	49	34	25	(15)	4	36	36	26	22	40	-20	21	32	42	36	28	41	34	19	28
5	44	39	18	0	-6	32	24	12	12	38	-28	28	8	28	38	23	(34)	36	22	34
6	34	30	16	0	(10)	30	22	14	6	38	-16	16	2	14	10	25	39	32	21	25
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9	45	43	27	28	(2)	36	10	-18	-24	34	13	28	(30)	32	26	27	18	25	14	32
10	38	41	20	9	6	26	10	-16	-22	36	16	28	29	34	(32)	27	19	32	28	34
11	37	45	19	10	0	24	10	-18	-18	34	-32	30	26	32	28	28	23	21	18	(25)
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13	38	39	20	30	19	32	30	-6	6	36	16	28	24	16	10	36	37	19	(18)	36
14	44	36	32	22	(12)	28	28	-2	6	26	(20)	(44)	26	(14)	6	36	45	16	25	10
15	47	43	27	19	(10)	26	22	-6	11	30	10	52	32	32	36	32	46	28	45	22
16	48	46	30	19	12	24	26	-4	6	22	-12	(40)	(32)	34	32	28	45	34	(30)	34
17	41	39	24	21	(8)	26	24	20	0	28	-18	28	32	22	22	25	(34)	43	25	(34)
18	44	39	22	20	10	30	28	8	12	36	-20	30	26	28	26	30	46	43	23	34
19	50	42	35	22	(12)	32	24	16	18	28	-10	(32)	(30)	32	22	46	54	43	18	28
20	46	37	27	28	18	32	32	24	10	24	-16	32	28	22	30	39	54	43	26	32
21	52	47	41	25	(12)	32	24	26	22	28	30	22	20	30	8	43	54	45	36	30
22	44	47	29	22	14	36	26	25	20	34	-22	20	22	28	20	42	52	45	34	34
23	45	36	29	34	21	32	20	20	12	34	16	30	20	14	10	41	45	41	34	30
24	50	42	34	35	21	26	20	22	-4	34	-4	26	(22)	(32)	18	36	41	55	36	37
25	49	46	31	31	28	32	30	12	0	38	-34	(48)	(38)	(34)	36	34	45	47	32	39
26	52	45	30	37	(20)	34	32	28	22	32	-25	22	(38)	40	26	39	37	52	32	43
27	51	47	31	30	(18)	34	32	22	24	32	-26	10	14	34	16	34	39	55	34	34
28	53	50	33	26	19	28	32	29	14	34	-8	20	(12)	16	18	32	43	50	39	(34)
29																				
30																				
31																				

	A	B	C	D	E	F	G	H	I
1	3	3		5		5	0	3	
2	4	3		4	1	4		3	
3	4	3		3	1	3		2	
4	4	3		2	1	4		2	
5	4	5		4	1	5		2	
6	4	6		4	2	7		3	
7	4	6		6		6		3	
8	4	3		6		3		3	
9	5	3	1	7	1	3		4	
10	5	4	1	7	1	3		3	
11	4	4	1	7		5		4	
12	4	3		5		4		3	
13	4	2		4	1	5		3	
14	5	3		5	1	4		3	
15	5	3		5	1	2		2	
16	4	3		5		3		2	1
17	3	3		4		5		2	1
18	3	3		4		5		1	
19	3	2		4	1	4		1	
20	3	2		4	2	5		1	
21	3	1		3	1	6		0	
22	3	2		3	2	6		0	
23	3	2		4	1	5		1	
24	2	1		4	1	7		0	
25	3	1		4	2	4		1	
26	4	1		2	3	4		0	
27	4	1		4	3	6		1	
28	3	1		3	2	6		0	
29									
30									
31									

Station 1 is estimated.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	47	43	33	31	(20)	34	32	10	22	28	(0)	36	20	(18)	23	37	45	55	37	(35)
2	50	46	39	28	(23)	32	32	18	0	26	-2	46	36	32	(23)	25	39	54	37	(36)
3	48	41	32	33	(20)	34	34	14	16	22	-14	(34)	(40)	36	20	27	37	(48)	19	33
4	48	39	32	25	(18)	36	34	10	30	28	6	42	34	22	24	28	30	(36)	21	(28)
5	45	36	30	25	24	38	34	6	(24)	26	-4	38	38	20	14	28	28	27	19	32
6	52	40	30	28	(20)	34	32	12	18	28	-16	52	46	22	18	30	32	(28)	21	24
7	52	39	34	34	(20)	34	34	30	18	30	-20	28	26	20	22	32	27	(32)	21	27
8	56	45	37	38	6	40	34	22	26	30	-16	(22)	20	16	(14)	36	19	34	21	16
9	62	55	36	37	14	34	34	39	16	36	(-20)	24	(18)	16	14	43	27	27	27	25
10	57	46	32	22	(8)	30	30	20	12	(30)	22	42	(32)	(33)	8	43	32	(28)	32	32
11	50	37	35	38	25	28	34	4	(24)	34	16	42	44	33	12	36	36	39	34	34
12	58	41	39	30	10	30	30	30	24	36	(-22)	32	(34)	32	24	46	45	(40)	36	34
13	48	45	33	28	12	36	34	30	28	30	-16	26	32	34	32	42	46	(38)	30	34
14	55	42	33	33	21	34	34	24	24	38	-21	34	24	34	30	45	46	(42)	10	32
15	58	46	33	31	(22)	36	(24)	30	28	34	16	(38)	28	22	14	46	48	(32)	23	23
16	51	51	41	32	18	46	32	30	28	36	22	62	(40)	30	6	41	(50)	(32)	34	28
17	57	48	40	33	13	34	32	30	30	42	-4	44	46	36	(32)	31	55	(38)	32	34
18	51	45	40	40	20	34	34	24	4	37	-4	(25)	24	34	(23)	37	(48)	(44)	34	34
19	49	54	28	25	12	38	36	30	16	38	30	46	(28)	28	14	34	(56)	48	34	36
20	41	48	28	24	14	40	34	30	28	34	(8)	48	42	(34)	28	34	60	43	21	25
21	42	38	30	27	19	44	38	(32)	24	34	8	52	40	30	28	34	63	57	23	30
22	47	35	33	(49)	14	38	36	38	26	46	12	48	(43)	(36)	30	39	(64)	(58)	25	39
23	49	45	38	39	22	34	30	4	-8	28	16	56	38	32	34	43	(51)	(59)	52	37
24	62	40	37	34	21	28	30	-12	-12	(26)	5	38	(40)	34	30	32	(47)	68	39	39
25	54	47	40	31	19	38	33	-18	-14	25	-8	(40)	(30)	(32)	(32)	36	52	(48)	(33)	45
26	55	41	37	32	15	36	39	6	4	24	0	(32)	28	30	24	50	(59)	(53)	30	46
27	50	40	36	36	21	36	28	16	16	32	-8	36	30	30	22	36	(60)	61	36	45
28	49	40	34	36	(33)	38	32	(20)	24	32	30	44	38	(34)	26	37	(55)	(48)	28	43
29	45	43	27	29	(29)	42	34	30	20	36	14	42	(36)	34	32	30	36	(48)	34	41
30	46	44	32	36	34	34	34	34	(18)	32	14	44	40	34	32	37	32	(36)	32	41
31	44	41	32	43	(25)	36	34	32	30	30	4	40	(33)	32	28	37	(37)	(36)	(36)	46

	A	B	C	D	E	F	G	H	I
1	3	1		3	1	5		0	
2	3	1		4	2	3		1	
3	4	1		4	2	4		2	
4	4	2		3		3		3	
5	4	2		3	1	4		3	
6	4	2		3	1	4		3	
7	3	1		3	3	5		3	
8	4	1		2		6		3	
9	5	0		2		6		2	
10	5	2		4	1	3		2	
11	5	1		3	2	3		1	
12	4	1		2	1	4		0	
13	4	2		2	1	4	2	1	1
14	3	1		2	3	4	1	1	2
15	3	1		2		4	1	2	
16	2	1		2	1	2	1	1	
17	4	1		2		2	1	1	
18	4	1		3		4	2	1	
19	4	2		2		3		0	
20	3	2		2	1	2		1	
21	3	2		2	1	2	1	0	
22	3	2		1		2	1	0	
23	4	1	1	5	2	1		0	
24	4	1		6		3		0	
25	4	1	1	6		3		0	
26	5	1	2	4		4		0	
27	5	1		3		4	1	0	
28	4	1		3		2	1	0	
29	4	1		2	1	2	1	1	
30	4	0		2	2	2	2	1	
31	4	1		2		3		1	

Station 1 is estimated.

APPENDIX C

CONTINGENCY TABLES

FOR THE POLAR OUTBREAK STUDIES

All the diagonal groups tested are indicated in the tables with values of the normal deviate given along the diagonal line only in cases of significance.

TWO VARIABLE TABLE

D after B

3 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	1	1					3
2	1	7	8	4	1	1			25
3	6	10	9	14	9	4	2		54
4	5	13	21	18	18	9	8		92
5	5	22	10	18	9	8	6	3	81
6	8	9	6	10	6	2	6		42
7		2	1		2	1			6
8,9			1						1
Σ	20	64	57	65	48	25	22	3	304

6 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	2						3
2	3	4	10	4	4				25
3	2	7	11	13	12	4	5		54
4	5	20	14	24	12	11	5	1	92
5	6	16	12	21	11	4	10	1	81
6	2	9	4	5	8	6	7	1	42
7			1	1	3	1			6
8,9					1				1
Σ	18	57	54	68	51	26	27	3	304

9 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	1			1				3
2	1	4	10	4	5	1			25
3	2	10	13	14	5	4	5	1	54
4	3	17	13	31	12	7	6	3	92
5	7	12	13	11	10	13	8	1	81
6	1	9	6	6	10	6	4		42
7		2	1	1	1	1	280		6
8,9	1								1
Σ	16	55	56	67	50	32	23	5	304

12 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1			2				3
2		3	6	6	9	1			25
3	1	8	12	16	11	2	3	1	54
4	4	17	17	22	11	8	11	2	92
5	3	17	14	15	10	15	5	2	81
6	2	7	3	9	5	4	6	3	42
7		1	1		2	2			6
8,9				1					1
Σ	13	54	53	69	50	32	25	8	304

15 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	1						3
2	1	3	5	8	5	2	1		25
3	1	7	9	17	10	4	6		54
4	3	18	11	16	20	8	11	5	92
5	3	14	12	18	11	8	7	3	81
6	4	5	11	4	7	5	5	1	42
7	1			2		2	1		6
8,9						1			1
Σ	13	53	49	65	53	31	31	9	304

18 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1			2		1				3
2		3	4	10	4	2	1	1	25
3		6	13	11	9	6	8	1	54
4	4	13	10	18	15	13	12	7	92
5	4	20	9	18	14	7	7	2	81
6	1	9	5	7	6	4	3	1	42
7			1	2	1	1	1		6
8,9				1					1
Σ	12	51	44	67	50	36	32	12	304

21 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1				2	12.97				3
2		1	3	7	6	5	3		25
3		3	7	10	11	6	9		54
4	1	15	15	18	14	12	12	2	92
5	8	20	5	9	11	11	11	6	81
6	2	9	6	9	7	5	3	1	42
7			2	2			1	1	6
8,9			1						1
Σ	11	48	37	65	55	39	39	10	304

24 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1	1	1				3
2	1	4	3	6	6	3	3	1	25
3	3	9	9	15	8	6	4		54
4	3	14	17	11	14	15	10	2	92
5	3	16	10	8	11	8	15	6	81
6	2	7	5	9	5	7	6	1	42
7			1	3	2				6
8,9			1						1
Σ	12	54	47	59	45	39	38	10	304

27 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1	1					3
2	1	3	8	1	3	5	4		25
3	1	8	7	13	11	4	4	2	54
4	3	18	13	20	11	12	12	3	92
5	4	13	11	11	13	13	13	3	81
6	3	10	7	8	3	3	4	4	42
7			3	1	1				6
8,9			1						1
Σ	12	53	50	59	43	37	37	13	304

30 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1						1	1		3
2	2	4	5	6	2	5	5	1	25
3	4	7	11	13	5	8	5	1	54
4	2	24	14	16	10	9	12	5	92
5	4	12	9	14	13	18	10	1	81
6		5	5	7	10	3	5	7	42
7		2	2		1			1	6
8,9						1			1
Σ	12	55	46	56	41	40	38	16	304

TWO VARIABLE TABLE

F after D

3 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		2	2	4	6	8			22
2		4	12	11	19	14	4		64
3	2	7	23	5	6	8	2		61
4	6	8	6	14	11	7			62
5		9	7	14	8	3	3		44
6	3	6	5	7	3	3			27
7	1	3	5	6	3	1	2		21
8,9			1	1	1				3
Σ	12	39	71	70	57	44	11		304

6 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	2	4	5	9	1		22
2		8	14	12	11	8	3		64
3	3	5	15	18	11	8	1		61
4		8	8	15	11	9	1		62
5	2	7	8	9	6	7	5		44
6	2	3	7	6	9	1	1		27
7	1	2	8	5	3	2			21
8,9		1	1	1					3
Σ	10	35	73	70	70	44	12		304

9 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		3	4	3	6	4	2		22
2		13	10	16	11	10	2		64
3		5	15	15	11	13	2		61
4	3	6	8	18	7	7	2		62
5	1	6	10	6	13	6	3		44
6	1	2	6	7	8	2	1		27
7			8	6	4	3			21
8,9		1	1			1			3
Σ	7	36	73	70	60	46	12		304

12 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	3	4	3	6	5			22
2		8	15	16	13	6	3		64
3		9	15	16	10	7	4		61
4		5	10	5	11	13	2		62
5	2	4	9	13	9	5	2		44
6		5	6	8	5	2	1		27
7	1		8	3	3	6			21
8,9				1	1	1			3
Σ	7	32	73	75	60	45	12		304

15 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	2	4	5	7	3	1			22
2	3	8	14	16	9	12	2		64
3		5	18	15	12	9	4		61
4		7	15	7	18	11	4		62
5		3	9	8	11	12	1		44
6		2	9	5	4	6	1		27
7	1	2	5	7	4	1	1		21
8,9			1	1		1			3
Σ	6	31	76	66	61	51	13		304

18 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		4	3	10	3	2			22
2	1	4	17	14	15	12	1		69
3	1	9	14	19	5	5	3		61
4	1	4	18	16	9	9	5		62
5		4	14	10	5	5	1		44
6		2	5	6	8	6			27
7		4	5	5	3	8	2		21
8,9	1				1	1			3
Σ	4	31	81	75	59	42	12		304

21 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		3	10	3	6				22
2		5	9	20	12	11	1		69
3	1	5	16	17	10	9	3		61
4	1	3	18	6	11	11	3		62
5	1	4	11	13	7	6	2		44
6		8	10	2	5	3	2		27
7	1	3	4	6	6	1			21
8,9		1	1	1					3
Σ	4	29	79	83	57	41	11		304

24 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	4	2	10	4	1			22
2		3	18	14	17	12			64
3	1	3	20	5	8	10	4		61
4		4	20	11	12	11	4		62
5	1	2	12	13	9	5	2		44
6	1	6	4	10	3	2	1		27
7		4	5	5	5	2			21
8,9			1	1	1				3
Σ	4	26	82	79	59	43	11		304

27 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	4	7	2	4	4			22
2		4	12	21	18	7	2		64
3	1	4	14	17	10	9	1		61
4	1	3	22	15	11	7	3		62
5		4	9	11	9	7	4		44
6		2	6	7	4	7	1		27
7		2	5	7	4	3			21
8,9		2		1					3
Σ	3	25	80	81	60	44	11		304

30 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		4	6	2	6	4			22
2		6	16	13	18	7	4		69
3	2	2	14	20	9	10	1		61
4		5	21	16	15	3	2		62
5	1	3	7	15	5	11	2		44
6		1	10	8	3	3	2		27
7		2	2	9	4	4			21
8,9		1	1		1				3
Σ	3	24	77	86	61	42	11		304

TWO VARIABLE TABLE
H after F

3 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	6	5	3	2	1				17
2	9	15	10	4	3	1			42
3	3	13	16	16	4	3	3	1	69
4	2	15	17	10	7	7	4		68
5	2	11	17	10	8	3	1	2	54
6	1	7	17	6	6	4	1	1	43
7		3	5	3				3,3,1	11
8,9									
Σ	23	69	95	57	29	18	9	4	304

6 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	2	5	7	3					17
2	4	14	15	8	1				42
3	2	14	20	16	9	6	2		69
4	3	14	21	12	7	9	4	3	68
5	4	10	14	11	6	7	2		54
6	2	8	12	9	8	2	1	1	43
7		3	7	1					11
8,9									
Σ	17	68	96	60	31	19	9	4	304

9 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1		7	8	2					17
2	2	13	13	12	2				42
3	3	12	22	13	6	7	1		69
4	4	8	19	18	11	3	3	2	68
5	6	6	17	9	8	5	1	2	54
6	1	13	9	5	4	7	4		43
7		2	5	3				2,1	11
8,9									
Σ	17	61	98	62	31	32	9	4	304

12 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1		8	7	1	1				17
2	3	9	17	8	3	2			42
3	8	9	21	14	11	4	1	1	69
4	2	8	23	7	7	7	4		68
5	2	9	14	12	8	3	4	2	54
6	3	7	12	9	4	7		1	43
7	1	2	3	5					11
8,9									
Σ	19	52	97	66	34	23	9	4	304

15 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	2	8	4	1	2				17
2	1	4	18	11	5	2			42
3	4	14	19	16	9	4	3		69
4	4	10	18	14	12	6	4		68
5	5	6	13	19	6	9	1	2	54
6	2	7	14	12	2	2	3	1	43
7	2	1	4	3		1			11
8,9									
Σ	20	50	91	71	36	22	11	3	304

18 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	2	3	8	2	1		1		17
2		5	21	9	3	1	2	1	42
3	6	12	14	19	12	3	2	1	69
4	4	7	19	21	10	4	2	1	68
5	4	6	18	9	6	10	1		54
6	1	12	14	9	2	3	1	1	43
7	2	4	1	2		2			11
8,9									
Σ	19	49	95	71	34	23	9	4	304

21 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	4	4	5	3				17
2		1	22	9	6	2	1	1	42
3	4	14	16	17	10	4	3	1	69
4	2	11	17	22	5	11			68
5	5	8	16	10	7	5	2	1	54
6	3	13	15	6	2	1	3		43
7	4	1	4		1			1	11
8,9									
Σ	19	52	94	69	34	23	9	4	304

24 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	2	5	3	5	2				17
2	1	5	14	11	7	1	3		42
3	2	12	24	14	7	5	2		69
4	3	11	21	16	8	7	2		68
5	2	12	15	11	6	5	1	2	54
6	3	7	15	9	3	5		1	43
7	6	1	1	1			1	1	11
8,9									
Σ	19	53	93	70	33	23	9	4	304

27 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	2	6	5	3			1		17
2		7	9	15	7	3	1		42
3	2	12	24	13	4	9	1	1	69
4	3	14	17	20	10	3		1	68
5	1	10	13	8	5	7	3	1	54
6	4	7	14	8	5	3			43
7	5		3		1		1	1	11
8,9									
Σ	23	56	88	67	32	29	10	4	304

30 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	6	9	3	2	1			17
2		6	10	15	7	3	1		42
3	3	10	21	12	15	6	2		69
4	4	3	25	15	8	7	4	2	68
5	5	6	16	10	5	8	4		54
6	7	10	12	2	6	3	1	2	43
7	5	2	1		1	2			11
8,9									
Σ	25	43	84	57	44	30	12	4	304

THREE VARIABLE TABLE, D after B and F.

D=1

3 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2			1						1
3			1		1				2
4					1	2			3
5				2	1	1			4
6				3					3
7									
8,9									
Σ			2	5	3	3			13

6 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1							1
2									
3									
4			1		1	1			3
5			3	2		1			6
6				3					3
7									
8,9									
Σ		1	4	5	1	2			11

9 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2				1					1
3									
4		1			1	1			3
5		1	2	1	3				7
6					1				1
7									
8,9			1						1
Σ		2	3	2	5	1			13

12 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2			1						1
3						1			1
4			1		1	1			3
5		1		1	1				3
6				5					5
7									
8,9									
Σ		1	2	6	2	2			13

15 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1					1				1
2									
3					1				1
4		1		1		1			3
5				1	1	1			3
6			1	1	1	1			4
7				1					1
8,9									
Σ		1	1	4	4	3			13

18 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2			1						1
3									
4		1	1	1	1				4
5	1	1			2				4
6		2	1		1				4
7									
8,9									
Σ	1	4	3	1	4				13

21 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1					1				1
2				1					1
3									
4			1						1
5		1	2	1	2	1	1		8
6			1			1			2
7									
8,9									
Σ		1	4	2	3	2	1		13

24 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1				1					1
2					1				1
3		1		1			1		3
4		1		1	1				3
5		1	1	1					3
6		1	1						2
7									
8,9									
Σ		4	2	4	2		1		13

27 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2					2				2
3				1					1
4			3						3
5			1		1	1	1		4
6			1			2			3
7									
8,9									
Σ			5	1	3	3	1		13

30 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2				1	2				3
3		1	1		1		1		4
4				2					2
5	1		1		1	1			4
6									
7									
8,9									
Σ	1	1	2	3	4	1	1		13

THREE VARIABLE TABLE, D after B and F.

D=2

3 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	4	5	5	1				16
2			2	3	2				7
3		1		2	1				4
4			3	2	4	1			10
5		1	4	3	7	5	1		21
6		2	1	1	2	3			9
7					1	1			2
8,9									
Σ	1	8	15	16	17	11	1		69

6 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	2	4	5	1	2			15
2			1	3	3				7
3			1		1		1		3
4			4	6	4	3			17
5		4	1	4	4	2	1		16
6		2	1	5		2			10
7			1						1
8,9									
Σ	1	8	13	23	13	9	2		69

9 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1		1	2	1	3			8
2		4	3	3	1				11
3		1	2	2	3	2	1		11
4		2	5	4	4	1			16
5		1	3	2	2	3	1		12
6		2	1	6					4
7			1	1					2
8,9									
Σ	1	10	16	20	11	9	2		69

12 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		2	1	4	2	3			12
2		2	2	1	2				7
3				3	2	2	1		8
4		3	5	3	2	2			15
5	1	4	2	2	6	3	1		19
6		2		3	2				7
7				1					1
8,9									
Σ	1	13	10	17	16	10	2		69

15 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	1	4	2	3			11
2		1	2	3	1	1			8
3			1	3			1		5
4		3	7	3	4	2			19
5	1	2	4	5	7	2			21
6		2		3					5
7									
8,9									
Σ	1	9	15	21	14	8	1		69

18 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			2	5	1	1			9
2		1	1	3	1	1			7
3			2	2	2				6
4		3	4	3	2				12
5	1	3	6	5	6	5			26
6		2	1	3	1	2			9
7									
8,9									
Σ	1	9	16	21	13	9			69

21 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1				3	1	5			9
2			1	1	2	1			5
3		2	1	3	1				7
4	2	3	3	5	2	1			16
5	3	5	6		6	3			23
6		2	4	3					9
7									
8,9									
Σ	5	12	15	15	12	10			69

24 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1				3	1	1			5
2			1	3	4				8
3			5	4	4				13
4	1	6	4	3					14
5	2	3	6	3	3	2	1		20
6		1		3	1	3			9
7									
8,9									
Σ	3	10	16	20	13	6	1		69

27 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			2	1		1			4
2			1	1	3	1			6
3		1	3	3	3	1	1		12
4	1	8	4	3	3	2	1		22
5	1	5	4	1	1	1			13
6		2	1	5	2	1			11
7									
8,9									
Σ	3	16	15	19	12	7	2		69

30 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1					2	2			4
2			1	1	1	1	2		6
3		1	1	6	4				12
4	1	9	7	2	5	1	1		26
5	1	4	2	1	1	2	1		12
6		1		1		2	1		5
7			2		1				3
8,9			1						1
Σ	2	15	14	11	14	8	5		69

THREE VARIABLE TABLE., D after B and F.

D=3

3 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	4	5	4	1	1			16
2			3	3	1				7
3	1	1		1	3	1	1		8
4			4	2	1	1	1		9
5			3	3	2	2	1		11
6				5		1			6
7			1						1
8,9			1						1
Σ	2	5	17	18	8	6	3		59

6 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	2	3	2	2	1	2			12
2		2	3	2	2	1			10
3	1	2	4	3					10
4		2	3	1	3		1		10
5			2	1	5	3			11
6				3	2				5
7			1						1
8,9									
Σ	3	9	15	12	13	6	1		59

9 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	1	2	5		1			10
2			2	2	4				8
3		2	1	2		1			6
4		2	6	1	2	1			12
5		3	2	1	4	5			15
6			1	5		1			7
7			1						1
8,9									
Σ	1	8	15	16	10	9			59

12 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	2	3		2			8
2			1	2	3	1			7
3			7	1	1				9
4		1	6	4	3	1			15
5		1	5	3	2	5			16
6		1		1		1			3
7				1					1
8,9									
Σ		4	21	15	9	10			59

15 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1				4					4
2			3	2	3				8
3		2	1	1	4	2			10
4		1	4	5	1	1			12
5		2	4	4	1	2	1		14
6		1	2	5	1	1	1		11
7									
8,9									
Σ		6	14	21	10	6	2		59

18 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1						3			3
2		1	3	2	3				9
3		3	7	4	2	1			17
4		2	6	2	1	3			19
5			4	2	2	1	1		10
6			1	3			1		5
7				1					1
8,9									
Σ		6	21	14	8	8	2		59

21 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1	1	1				3
2				4	4				8
3		1	2	5	3	1	1		13
4		2	5	1	2	4	1		15
5			4	3	3	1			11
6		1	1	3	1	1			7
7			1						1
8,9			1						1
Σ		4	15	17	14	7	2		59

24 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			2	1					3
2			3	3	1	1			8
3	1	2	4	3		1			11
4	1	2	5	2	4	3	1		18
5		1	4	2	5				12
6			3	2					5
7				1					1
8,9			1						1
Σ	2	5	22	14	10	5	1		59

27 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1					1	1			2
2			5	4		1			10
3			1	4	2	1			8
4		3	5	5	2	1			16
5			3	3	3	3	1		13
6				5	1	1	1		8
7					1	1			2
8,9									
Σ		3	14	21	10	9	2		59

30 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1	2					3
2	1		2	1	2				6
3		1	4	7	1	2			15
4		2	4	6	3	1	1		17
5		1	2	3	4	2			12
6		1	1	1	1	1			5
7						1			1
8,9									
Σ	1	5	14	20	11	7	1		54

THREE VARIABLE TABLE, D after B and F.

D=4.

3 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	2	3	4	1	1	3			14
2			3		1	1			5
3		1	4	2	2	2			11
4		3	3	4	2		1		13
5		2	4	3	2	2			13
6			1	6	1	1	1		10
7									
8,9									
Σ	2	9	19	16	9	9	2		66

6 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	2	3	2		1			9
2		2	4	2	1				9
3		1		3	2	2			8
4		3	3	3	3	2	3		17
5			6	3	4	3	1		17
6			1			2			3
7					1	1			2
8,9			1						1
Σ	1	8	18	13	11	11	4		66

9 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		3	3	1	2	1			10
2			3	1	1	1			6
3	1	1	4	4	2				12
4		1	5	4	5	2	3		20
5			5	2	2	2			11
6				5	1				6
7					1				1
8,9									
Σ	1	5	20	17	19	6	3		66

12 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			2	2					4
2		1	3	3	2				9
3		4	4	3	3	1			15
4		3	5	1	4	2	1		16
5			3	5	2	1			11
6			3	5		1	1		10
7									
8,9			1						1
Σ		8	21	19	11	5	2		66

15 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1						1
2		2	3	2	3				10
3		2	5	7	1				15
4			7	2	4	2			15
5	3		7	1	4	3			18
6			1	3	1				5
7			2						2
8,9									
Σ	3	4	26	15	13	5			66

18 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1					1	1			2
2			3	3	2				8
3		2	2	6	1		1		12
4	1	2	5	4	2		2		16
5	1	2	4	3	4	4			18
6			2	3		1	1		7
7			1	1					2
8,9			1						1
Σ	2	6	18	20	10	6	4		66

21 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1						1
2			5	2	1				8
3		1	4	5	1	2			13
4		6	4	2	4	1	3		20
5			6	1	1	4			12
6				7			2		9
7			1	2					3
8,9									
Σ		7	21	19	7	7	5		66

24 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1		1				2
2	1		2	1		1			5
3		3	2	8	2	2			17
4		2	5	4	2	2	4		19
5		1	3	1	2	4			11
6		2	1	4		1		1	9
7			1		1	1			3
8,9									
Σ	1	8	15	18	8	11	4	1	66

27 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1					1	1			2
2			1						1
3	1	4	4	7	2	2			20
4	1	3	3	4	4	1	4		20
5	1	1	5	4	1	2			14
6			3	4		1			8
7			1						1
8,9									
Σ	3	8	17	19	8	7	4		66

30 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1				1					1
2			3	1	1	1			6
3	1	3	4	1	2	3			14
4		5	5	2	4	3	2	1	22
5		1	5	2	2	5			15
6			1	6					7
7				1					1
8,9									
Σ	1	9	18	14	9	12	2	1	66

THREE VARIABLE TABLE, D after B and F.

D=5

3 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		3	5	2					10
2		2	3	2	2				9
3		1	2	2	1				6
4			3	2	3	3			11
5			5	4		3			12
6			2	4					
7			1	1					
8,9									
Σ		6	21	17	6	6			56

6 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		4	4						8
2		1	4	1	1		1		8
3		1	3	2	1	2			9
4		2	1	1	2	1			7
5			3	3	1	6			13
6		1		3	2	1	2		9
7			1	1					2
8,9									
Σ		9	16	11	7	10	3		56

9 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		2	3	2					7
2		1	5	1	1				8
3			2	3	1	1			7
4		2	2	2	2	2			10
5	1	1	3	2	1	3	1		12
6		1	1	4		3	2		11
7				1					1
8,9									
Σ	1	7	16	15	5	9	3		56

12 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			2	1					3
2		1	7	3					11
3	1	2	1	5	1	1			11
4			2	4	3	1	1		11
5			6	2	3				11
6		1	1	4	1				7
7			1		1				2
8,9									
Σ	1	4	20	19	9	2	1		56

15 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			2	1		1			4
2		1	2	2	1				6
3	1	1	3	3	1	1			10
4		3	6	3	2		3		17
5		3	6	2	1	1			13
6			2	3		1			6
7									
8,9									
Σ	1	8	21	14	5	4	3		56

18 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1						1
2		1	1	1	1				4
3			3	4	1	1			9
4		2	5	2		5	2		16
5	1	2	8	3	1	2	1		18
6			1	3	1	2			7
7			1						1
8,9									
Σ	1	5	20	13	4	10	3		56

21 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1						1
2		1	7						8
3			2	1					3
4		1	8	7	4	3	1		29
5			4	4	3	2			13
6		1		4	1	1			7
7									
8,9									
Σ		3	22	16	8	6	1		56

24 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1						1			1
2	1	1	2	1			1		6
3			3	1	1	1			6
4		3	7	3	4	3			20
5	1		5	5	2	3			16
6			1	3	1				5
7			1	1					2
8,9									
Σ	2	4	19	14	8	8	1		56

27 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1	1					2
2	1	1	1		1		1		5
3		2	5	2	1				10
4		4	6	1	2	3			16
5	1	1	6	1	3	5			17
6		1		2			1		4
7			1	1					2
8,9									
Σ	2	9	20	8	7	8	2		56

30 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1						1			1
2	1	1		1					3
3			3	2	1	1			7
4		2	5	1	2	3			13
5		1	6	4	5	3	1		20
6			3	5	1	2	1		12
7									
8,9									
Σ	1	4	17	13	9	10	2		56

THREE VARIABLE TABLE, D after B and F.

D=6

3 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		2	1	1					4
2		4	2	1					7
3			1	1	1				3
4		1	2	4	2	1	2		12
5		2	5	1	4	4			16
6			1	2	1				4
7				1					1
8,9									
Σ		9	12	11	8	5	2		47

6 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1	2	1				4
2		1	3		2				6
3		1	1	1	3				6
4	1	1	4	1		1	1		9
5		1	3	4	1	1			10
6		1	2	7	1	1			12
7									
8,9									
Σ	1	5	14	15	8	3	1		47

9 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		2		1					3
2		2	1	2	1				6
3		1	2	1		1			5
4		2	2	2	2	1	1		10
5	1		5	6	2	1			15
6		1	1	2	2	1			7
7						1			1
8,9									
Σ	1	8	11	14	7	5	1		47

12 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1				1	1				2
2			2	3	2				7
3				1		1			2
4		2	4	3	1	1	1		12
5	1	1	5	4	3	4			18
6			1	1	1	1			4
7			1			1			2
8,9									
Σ	1	3	13	13	8	8	1		47

15 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1			1			2
2			3	2			1		6
3		2	3			1			6
4		3	2	2	1	3	1		12
5			3	4	2	3			12
6				2	1	2	1		6
7				1	1				2
8,9			1						1
Σ		5	13	11	5	10	3		47

18 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1		1				2
2			2	1			1		4
3		1	1			3			5
4		2	4	6	5	1			18
5		1	4	2	2	1			10
6				7					7
7					1				1
8,9									
Σ		4	12	16	9	5	1		47

21 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1				1					1
2			1			1			2
3	1	1	6	1	5	1			15
4		2	3	2	4	1			12
5			3	3		4	1		11
6				1	2	3			6
7									
8,9									
Σ	1	3	13	8	11	10	1		47

24 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1					1	1			2
2			2		1	1			3
3		1			3	1			5
4	1	2	4	3	4	2			16
5			2	2	3	5	1		13
6				5	3				8
7									
8,9									
Σ	1	3	8	10	15	9	1		47

27 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1				2					2
2	2		1		1	1			5
3		1	1		1	2			5
4		2	5	3	7	1			18
5		1	4	4	2	2			13
6			1	1	1				3
7									
8,9			1						
Σ	2	4	13	10	12	6			47

30 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1								1
2					1	1			2
3	1	3	1		2	2			9
4		1	3	4	2	1			11
5	1	2	7	2	6	2			20
6			1	2	1				4
7									
8,9									
Σ	3	6	12	8	12	6			47

THREE VARIABLE TABLE, D after B and F.

D=7

3 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2		1	1		1		1		4
3			5	2		1			8
4		2	6	1	2	1	1		13
5	1	1	2	1	1				6
6		2	1	1	1	1	1		7
7									
8,9									
Σ	1	6	15	5	5	3	3		38

6 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2									
3		2	2	3	2	1			10
4			7	4	2	1			14
5	2	1	5	1	2	1			12
6			1	1					2
7									
8,9									
Σ	2	3	15	9	6	3			38

9 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2					1		1		2
3		1	3	2	4				9
4	1	2	4		1	1	1		10
5		1	5	1	3	3			13
6			2		1	1			4
7									
8,9									
Σ	1	4	14	3	9	5	2		38

12 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2							1		1
3		2			3	1			6
4	1	3	2	2	4	2	2		16
5			5	1		3			9
6			1	2		2	1		6
7									
8,9									
Σ	1	5	8	5	7	8	4		38

15 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2					1	1	1		3
3		1	1		3	4			9
4	1	2	1		4	2	1		11
5			2	1	2	3			8
6			1	4		1			6
7						1			1
8,9									
Σ	1	3	5	5	10	12	2		38

18 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2							1		1
3	1	1	1		3	4			10
4	1	2	1	1	8		1		14
5			2	1	1	3			7
6				3	1	1			5
7						1			1
8,9									
Σ	2	3	4	5	13	9	2		38

21 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2					1	1	1		3
3						4			4
4		3	4	3	3	1			14
5		1	1	5	3	2			12
6				3	1				4
7						1			1
8,9									
Σ		4	5	11	8	9	1		38

24 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2						2	1		3
3					1	3			4
4			3	3	3	1			10
5	1	1	4	5	1	2			14
6				3		3	1		7
7									
8,9									
Σ	1	1	7	11	5	11	2		38

27 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2		1			1	2			4
3		1			1	2			4
4	2		2	4	3	2			13
5		1	4	2	4	2			13
6		1		3					4
7									
8,9									
Σ	2	4	6	9	9	8			38

30 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2	2		1		1	1			5
3	2	1	1		1				5
4	2	2	4	1	2	2			13
5	1		3	3	1	2			10
6				4	1				5
7									
8,9									
Σ	7	3	9	8	6	5			38

THREE VARIABLE TABLE, D after B and F.

D=8,9

3 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1					1				1
2					3				3
3				1		1			2
4			2	1					5
5	1	2	2		2				5
6									
7									
8,9									
Σ	1	2	4	2	6	1			16

6 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2		1		1	1				3
3			3						3
4		2	2		1	1			6
5			2		1				3
6			1						1
7									
8,9									
Σ		3	8	1	3	1			16

9 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2			1						1
3		1	1						2
4			1	4	1	1			7
5			2	3	1				6
6									
7									
8,9									
Σ		1	5	7	2	1			16

12 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2									
3			3	1					4
4		1	1	1	1				4
5			2		1	1	1		5
6				1	1	1			3
7									
8,9									
Σ		1	6	3	3	2	1		16

15 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2									
3			1	1					2
4				2	4				6
5		1	1	1		2	1		6
6				1	1				2
7									
8,9									
Σ		1	2	5	5	2	1		16

18 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2					1	1			2
3					1				1
4			2	1	2	2			7
5			1	3		1			5
6					1				1
7									
8,9									
Σ			3	4	5	4			16

21 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2					1		1		2
3					1				1
4		1	1		2				4
5	1	2	2	2					7
6				1					1
7					1				1
8,9									
Σ	1	3	3	3	5		1		16

24 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2					1				1
3					1				1
4		1	2	1	2				6
5		2	3		2				7
6				1					1
7									
8,9									
Σ		3	5	2	6				16

27 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2									
3					2				2
4		1	2			1			4
5			1		3	1			5
6				2	1	1			4
7				1					1
8,9									
Σ		1	3	3	6	3			16

30 days

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2		1							1
3		1							1
4	1		2		2				5
5				1					1
6		2		3	1	1			7
7				1					1
8,9									
Σ	1	4	2	5	3	1			16

THREE VARIABLE TABLE, D after B and F, Marginal totals for B.
TWO VARIABLE TABLE, D after F.

3 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			2	5	3	3			13
2	1	8	15	16	17	11	1		69
3	2	5	17	18	8	6	3		59
4	2	9	19	6	9	9	2		66
5		6	14	17	6	6			56
6		9	12	11	8	5	2		47
7	1	6	15	5	5	3	3		38
8,9	1	2	4	2	6	1			16
Σ	7	45	105	90	63	44	11		364

6 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	4	5	1	2			13
2	1	8	13	23	13	9	2		69
3	2	9	15	12	13	6	1		59
4	1	8	18	13	11	11	4		66
5		9	16	11	7	10	3		56
6	1	5	14	15	8	3	1		47
7	2	3	15	9	6	3			38
8,9		3	8	1	3	1			16
Σ	8	46	103	89	62	45	11		364

9 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		2	3	2	5	1			13
2	1	10	16	20	11	9	2		69
3	1	8	15	16	10	9			59
4	1	5	20	17	14	6	3		66
5	1	7	16	15	5	9	3		56
6	1	6	11	14	7	5	3		47
7	1	4	14	3	9	5	2		38
8,9		1	5	7	2	1			16
Σ	6	45	100	94	63	45	11		364

12 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	2	6	2	2			13
2	1	11	10	17	16	10	2		69
3		4	21	15	9	10			59
4		8	21	17	11	5	2		66
5	1	4	20	19	9	2	1		56
6	1	3	13	13	8	8	1		47
7	1	5	8	5	7	8	4		38
8,9		1	6	3	3	2	1		16
Σ	4	39	101	97	65	47	11		364

15 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	1	4	4	8			13
2	1	9	15	21	14	8	1		69
3		6	14	21	10	6	2		59
4	3	4	26	15	13	5			66
5	1	8	21	14	5	4	3		56
6		5	13	11	5	10	3		47
7	1	3	5	5	10	12	2		38
8,9		1	2	5	5	2	1		16
Σ	6	87	97	96	66	50	12		364

18 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	4	3	1	4				13
2	1	9	16	21	13	9			69
3		6	21	14	8	8	2		59
4	2	6	18	20	10	6	4		66
5	1	5	20	13	4	10	3		56
6		4	12	16	9	5	1		47
7	2	3	4	5	13	9	2		38
8,9			3	4	5	4			16
Σ	6	37	97	94	66	51	12		364

21 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	4	2	3	2	1		13
2	5	14	15	15	12	8			69
3		4	15	17	14	7	2		59
4		7	21	14	7	7	5		66
5		3	22	16	8	6	1		56
6	1	5	13	8	11	10	1		47
7		4	5	11	8	9	1		38
8,9	1	3	3	3	5		1		16
Σ	6	37	98	91	68	51	12		364

24 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		4	2	4	2		1		13
2	3	10	16	20	13	6	1		69
3	2	5	22	14	10	5	1		59
4	1	8	15	16	8	11	4	1	66
5	2	4	19	14	9	8	1		56
6	1	3	8	10	15	9	1		47
7	1	1	7	11	5	11	2		38
8,9		3	5	2	6				16
Σ	10	38	94	93	67	50	11	1	364

27 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			5	1	3	3	1		13
2	3	16	15	14	12	7	2		69
3		3	14	21	10	9	2		59
4	3	8	17	19	8	7	4		66
5	2	9	20	8	7	8	2		56
6	2	4	13	10	12	6			47
7	2	4	6	9	9	8			38
8,9		1	3	3	6	3			16
Σ	12	45	93	85	67	51	11		364

30 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	1	2	3	4	1	1		13
2	2	15	14	11	14	8	5		69
3	1	5	14	20	11	7	1		59
4	1	9	18	14	9	12	2	1	66
5	1	4	17	13	9	10	2		56
6	3	6	12	8	12	6			47
7	1	3	9	8	6	5			38
8,9	1	4	2	5	3	1			16
Σ	17	47	88	82	68	50	11	1	364

THREE VARIABLE TABLE, D after B and F, Marginal totals for D.
TWO VARIABLE TABLE, B with F

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	4	16	20	13	3	5			61
2		7	15	9	10	1	1		43
3	1	4	13	11	9	5	1		44
4		8	23	18	15	9	5		76
5	2	6	25	17	19	17	2		88
6		1	6	22	5	6	3.01		45
7			2	2	1	1			6
8,9			1						1
Σ	7	45	105	90	63	44	11		364

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			4	5	3	5			17
2		3	11	10	8	2	2		36
3	1	7	16	16	10	9	1		60
4	2	14	28	20	21	11	5		101
5	4	9	29	19	18	17	2		98
6		4	6	22	5	6	2		45
7			2	2	1	1			6
8,9			1						1
Σ	7	37	97	94	66	51	12		364

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	4	12	14	11	3	5			49
2		7	15	9	10	1	1		43
3	1	7	19	12	9	5	1		49
4	1	10	25	16	16	10	5		83
5	2	6	25	18	18	17	2		88
6		4	6	22	5	6	2		45
7			3	1	1	1			6
8,9			1						1
Σ	8	46	103	89	62	45	11		364

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			3	5	3	5			16
2		1	14	8	9	3	2		37
3	1	5	15	15	11	8	1		56
4	2	18	29	20	21	11	5		106
5	4	9	28	19	18	17	2		107
6		4	6	22	5	6	2		45
7			2	2	1	1			6
8,9			1						1
Σ	7	37	98	91	68	51	12		364

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	2	8	9	11	3	5			38
2		7	15	10	9	1	1		43
3	1	7	15	14	9	5	1		54
4	1	12	25	17	18	10	5		92
5	2	7	27	18	18	17	2		86
6		4	6	22	5	6	2		44
7			2	2	1	1			6
8,9			1						1
Σ	6	45	100	94	63	45	11		364

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			3	5	3	3			14
2	2	1	10	8	8	4	2		35
3	1	7	19	17	12	8	1		60
4	3	17	30	20	20	11	5		106
5	4	9	28	19	18	16	2		96
6		4	6	22	5	7	1	1	46
7			2	2	1	1			6
8,9			1						1
Σ	10	38	99	93	67	50	11	1	364

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		3	7	11	3	5			29
2		4	16	12	9	1	1		43
3	1	8	15	14	10	7	1		56
4	1	13	26	18	19	10	5		92
5	2	7	28	18	18	17	2		92
6		4	6	22	5	6	2		45
7			2	2	1	1			6
8,9			1						1
Σ	4	39	101	97	65	47	11		364

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			3	4	2	3			12
2	3	2	9	5	8	5	1		33
3	1	9	14	17	12	8	1		62
4	4	21	30	20	21	11	5		112
5	4	9	28	15	18	17	2		93
6		4	6	22	5	6	2		45
7			2	2	1	1			6
8,9			1						1
Σ	12	45	93	85	67	51	11		364

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	5	9	3	5			23
2		4	13	11	9	2	2		41
3	1	8	15	15	10	8	1		58
4	1	13	27	18	20	11	5		95
5	4	8	27	19	18	17	2		95
6		3	7	22	5	6	2		45
7			2	2	1	1			6
8,9			1						1
Σ	6	37	97	96	66	50	12		364

B \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1		1	3	2	3			10
2	4	2	7	5	8	4	2		32
3	4	11	15	16	12	8	1		67
4	4	21	38	18	20	11	4	1	110
5	4	9	26	16	20	17	2		93
6		4	6	22	5	6	2		45
7			2	2	1	1			6
8,9			1						1
Σ	17	47	88	82	68	50	11	1	364

THREE VARIABLE TABLE, D after B and F, Marginal totals for F.
TWO VARIABLE TABLE, D after B.

3 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1		16	16	14	10	4		1	61
2	1	7	7	5	9	7	4	3	43
3	2	4	8	11	6	3	8	2	44
4	3	10	9	13	11	12	13	5	76
5	4	21	11	13	12	18	6	5	88
6	3	9	6	10	6	4	7		45
7		2	1		2	1			6
8,9			1						1
Σ	13	69	59	66	56	47	38	16	364

6 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	15	12	9	8	4			49
2		1	10	9	8	6		3	43
3		3	10	8	9	6	10	3	49
4	3	17	10	11	7	9	14	6	83
5	6	16	11	17	13	10	12	3	88
6	3	10	5	3	9	12	2	1	45
7		1	1	2	2				6
8,9				1					1
Σ	13	69	59	66	56	47	38	16	364

9 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1		8	10	10	7	3			38
2	1	11	8	6	8	6	2	1	43
3	3	11	6	12	7	5	9	2	55
4	7	16	12	20	10	10	10	7	92
5	1	12	5	11	12	15	13	6	85
6		7	7	6	11	9	4		44
7		2	1	1	1	1			6
8,9	1								1
Σ	13	69	59	66	56	47	38	16	364

12 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1		12	8	4	3	2			29
2	1	7	9	9	7	7	1		43
3	1	8	9	5	11	2	6	4	56
4	3	15	15	16	11	12	16	4	92
5	3	19	16	11	11	18	9	5	92
6	5	7	3	10	7	4	6	3	45
7		1	1		2	2			6
8,9				1					1
Σ	13	69	59	66	56	47	38	16	364

15 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	11	4	1	4	2			23
2		8	6	10	6	6	3		41
3	1	5	10	5	10	6	9	2	58
4	3	19	12	15	14	12	11	6	95
5	3	21	14	18	13	12	8	6	95
6	4	5	11	5	6	6	6	2	45
7	1			2		2	1		6
8,9						1			1
Σ	13	69	59	66	56	47	38	16	364

18 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1		9	3	2	1	2			17
2	1	7	9	8	4	4	1	2	36
3		6	11	12	9	5	10	1	60
4	4	12	14	16	16	18	14	7	101
5	4	26	10	18	18	10	7	5	98
6	4	9	5	7	7	4	5	1	45
7			1	2	1	1	1		6
8,9				1					1
Σ	13	69	59	66	56	47	38	16	364

21 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	4	3	1	1	1			16
2	1	5	8	8	8	2	3	2	37
3		7	13	13	3	15	4	1	56
4	1	16	15	20	24	12	14	4	106
5	8	25	11	12	13	11	12	7	97
6	2	9	7	9	7	6	4	1	45
7			1	3			1	1	6
8,9			1						1
Σ	13	69	59	66	56	47	38	16	364

24 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	5	3	2	1	2			14
2	1	8	8	5	6	3	3	1	35
3	3	13	11	11	6	5	4	1	60
4	3	14	18	19	20	16	10	6	106
5	3	20	12	11	16	13	14	7	96
6	2	9	5	9	5	8	7	1	46
7			1	3	2				6
8,9			1						1
Σ	13	69	59	66	56	47	38	6	364

27 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1		4	2	2	2	2			12
2	2	6	10	1	5	5	4		33
3	1	12	8	11	10	5	4	2	62
4	3	22	16	20	16	18	13	4	112
5	4	14	13	14	17	13	13	5	93
6	5	11	8	8	9	3	4	4	45
7			2	1	2				6
8,9						1			1
Σ	13	69	59	66	56	47	38	6	364

30 days

B \ D	0,1	2	3	4	5	6	7	8,9	Σ
0,1		4	3	1	1	1			10
2	3	6	6	6	8	2	5	1	32
3	4	12	15	13	7	9	5	1	67
4	2	26	17	22	13	11	13	5	109
5	4	12	12	15	20	20	10	1	94
6		5	5	7	12	4	5	7	45
7		3	1	1				1	6
8,9		1							1
Σ	13	69	59	66	56	47	38	6	364

THREE VARIABLE TABLE, F after D and H.

F=0,1

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
3 days									
0,1									
2	2								2
3									
4	3				1		1		5
5	1								1
6									
7		1							1
8,9									
Σ	6	1			1		1		9
6 days									
0,1									
2	2				1				3
3					1				1
4	1								1
5	2	1							3
6		1							1
7									
8,9									
Σ	5	2			2				9
9 days									
0,1									
2	2								2
3									
4		1	1						2
5		1							1
6	1			1					2
7									
8,9	1								2
Σ	4	2	2	1					9
12 days									
0,1									
2									
3	1								1
4	1								1
5	1	2							3
6			1						1
7			1	1					2
8,9	1								1
Σ	4	2	2	1					9
15 days									
0,1									
2	1		2						3
3									
4									
5									
6		1	1						2
7			3						3
8,9	1								1
Σ	2	1	6						9

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
18 days									
0,1									
2									
3		1	1						2
4			1						1
5									
6	1								1
7			2	1					3
8,9		1	1						2
Σ	1	2	5	1					9
21 days									
0,1									
2									
3		1	1						2
4	1								1
5			1						1
6									
7		1	2	2					5
8,9									
Σ	1	2	4	2					9
24 days									
0,1		1							1
2									
3	1								1
4	1								1
5	1				1				2
6		1			1				2
7			1	1					2
8,9									
Σ	3	2	1	1	2				9
27 days									
0,1		1							1
2									
3		1							1
4	1	1							2
5					1	1			2
6			1						1
7				1		1			2
8,9									
Σ	1	3	1	1	1	2			9
30 days									
0,1									
2									
3	2	1			1				4
4						1			1
5		1	1						2
6									
7				1		1			2
8,9									
Σ	2	2	1	1	1	2			9

THREE VARIABLE TABLE, F after D and H.

F=2

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
3 days									
0,1					1				1
2	5			1					6
3	5	1	1		1				8
4	3	2		1			1		7
5	3	2	1	2			1		9
6	6	1	2	1	1				11
7		1	1	2					4
8,9			1	1					2
Σ	22	7	6	8	3		2		48
6 days									
0,1	1								1
2	2	2	2	1					7
3	3		1	1	1				6
4	5	1	1		2				9
5	2	3	2	1	1				9
6	2	1	1						4
7			2	2		1			5
8,9	1		2	1	1				7
Σ	18	7	11	6	5	1			48
9 days									
0,1									
2	6	2	3	1	2				14
3	1	1	2						4
4	1	2	1	1					5
5	3	5	1				1		10
6	3	2	2	1					8
7			2	1					3
8,9	1		1	1		1			4
Σ	15	12	12	5	2	1	1		48
12 days									
0,1									
2	2	1	3	2					8
3	1	6	3						10
4		3	1		1	1	1		7
5	1	3	4	2					10
6			3	1					4
7			1	4					5
8,9	2		2						4
Σ	6	13	17	9	1	1	1		48
15 days									
0,1									
2	2	4	4	2	1				11
3	1	4	4	1	1				9
4	2	3	3						7
5		4			2				7
6	1	1	3		1				6
7			2	4					6
8,9			2						2
Σ	6	12	18	7	5				48

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
18 days									
0,1		1							1
2	2	2			1				5
3	2	4	3	3	1				13
4	2	5	1	1					9
5		2	1			1			4
6			4	1					5
7		1	3	3		2			9
8,9	1			1					2
Σ	7	15	12	9	2	3			48
21 days									
0,1			1						1
2		2	3	1					6
3	3	2	3		1				9
4	3	3		1		1			8
5		2	2	1		1			6
6	1	2	5	1	1				10
7		2		4	1				7
8,9		1							1
Σ	7	14	19	8	3	2			48
24 days									
0,1		1	1			1			3
2	1	1	1	1	2				6
3	1	2	3	1					7
4	5	1		2					8
5	1		1			1			3
6		1	4	1					6
7		2	3	4		2			11
8,9	1		1	2					4
Σ	9	8	14	11	2	4			48
27 days									
0,1		1				1			2
2	2	1				2			5
3	3	2	1	1	1				8
4	3	5	1	1					10
5	1	2	2	1		1			7
6			4		2				6
7			3	1		2			6
8,9		1	1	1		1			4
Σ	9	12	12	5	3	7			48
30 days									
0,1	1	1				1	2		5
2	3	1	2		1			1	8
3	1		1	1					3
4	5	1	1	1			1		9
5		2	2	1		2			7
6	1	1	2	2					6
7		3	1	1		1			6
8,9	1		1	1		1			4
Σ	12	9	10	7	1	5	3	1	48

THREE VARIABLE TABLE, F after D and H.

F=3

3 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1								1
2	5		2	2	3	2			14
3	3	5	3	3	3	1			18
4	5	2	4	3	1	1	1		17
5	2	5	5	2	1				15
6	3	2	3	4	2	1			15
7	1	2	2	5	1	2			13
8,9	3	1	2						6
Σ	23	17	21	19	11	7	1		99

6 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1							1	1	1
2	5	2	5	2	3				17
3	2	3	4	1	1	1			12
4	1	3	2	5	2	1	1		15
5	2	4		1	2	3			12
6	8	2	6	4	1				21
7	2	2	5	4	1	1			15
8,9	2		1	2	1	1			6
Σ	22	16	23	19	10	7	2		99

9 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	1	2						4
2	1	1	1	4	4		1		12
3	2	6	1	1	3				13
4	3	5	3	4	2		1		18
5	3	3	5	4		1			16
6	2	1	6	2	2	1			14
7	2	2	5	5	1	3			18
8,9	2		1		1				4
Σ	16	19	24	20	13	5	2		99

12 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1						1		1	2
2	4	3	6	3	2	1			19
3		2	4	3	2				11
4	4	4	2	5	5	1			21
5	1	4	4	1		3	1		14
6	2	4	3	2	2	1			14
7	1	5	5	3					14
8,9	1		1	2					4
Σ	13	22	25	19	11	7	1	1	99

15 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1			1	1		3
2	1	3	3	2	5				14
3		4	3	4	4	1			16
4	2	8	1	6	4	1			22
5		4	4	4		1			13
6	3	4	4	3		1			15
7		3	3	4					10
8,9	3	1	1	1					6
Σ	9	27	20	24	13	5	1		99

18 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1						1			1
2	2	2	4	3	3	2	1	1	18
3	2	3	6		2	1			15
4	1	2	2	7	4	1			17
5		3	12	4	1	1			21
6	1	4	6	1	2	1			15
7		4	2	1	1	1			9
8,9	1		2						3
Σ	7	18	35	16	13	8	1	1	99

21 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1		2	1			1	2	2	8
2	1	2		3	2				8
3		3	4	4	3				14
4	2	5	7	4	5	1			23
5	2	2	3	2	2	2			13
6	2	5	4	5	1	1			18
7			3	7		1			11
8,9	1		1	1		1			4
Σ	8	19	22	26	13	7	2	2	99

24 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1							1
2	1	3	5	2	1		1	2	15
3	3	1	8	2	5	1			20
4	1	5	6	5	3		1		21
5	1	5	4	3	1	2			16
6	1	1	7	2	1	1			13
7		1	4	3		2			10
8,9			1	1	1				3
Σ	7	17	35	18	12	6	2	2	99

27 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1		3	2			1		2	8
2	1	1	4	2	4		1		13
3	2	4	6		4	1			17
4	3	6	3	7	4	2	1		26
5	1	2	5	2			1		11
6	1	2	2	2		1			8
7			1	7		1			12
8,9	1	3	1	2					4
Σ	9	21	29	22	12	6	3	2	99

30 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1		3	1	1		1			6
2	2	3	6	3	3	1			18
3	3	2	3	1	4	3			16
4	2	3	6	8	5	1			25
5		2	3	3	1	1			10
6	2	1	6	2	3	1			15
7		1		4					5
8,9		1	1	2					4
Σ	9	16	26	24	16	8			99

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
3 days									
0,1								2	2
2	1	3	3	4	1		1		13
3	5	1	2	4	2	1			15
4	2	5	2	5	2		1		17
5	2	7	4	1	1	1			16
6	1	2	8	2					13
7	1		3	3		3			10
8,9	2		1	3					7
Σ	14	18	23	22	6	5	3	2	93
6 days									
0,1			2						2
2	5	1	5	2	1				14
3	1	4	5	4	2	2			18
4	5	2	7	5	1	1			21
5		2	6	4			1		13
6		1	6	1	2	1			11
7		3	1	4		3			11
8,9		1	1	1					3
Σ	11	14	33	21	6	7	1		93
9 days									
0,1				1					1
2	1	3	5	3	3				15
3	3	1	5	4	2	2			17
4	2	5	5	6	5	3			26
5		3	5	1	1	2			12
6	2	2	3	2	1				10
7		3	3	1		1			8
8,9			1	3					4
Σ	8	17	27	21	12	8			93
12 days									
0,1			2						2
2	1	2	4	3	4	2			16
3	4	1	5	3	3	1			17
4	2	3	7	5	1				18
5	2	3	7	3	1				16
6	2	3	7						12
7	1		2	1	1	3			8
8,9	1	1	1	1					4
Σ	13	13	35	16	10	6			93
15 days									
0,1		2	1		1	1	1		6
2	2	2	6	3	1	2			16
3	3	2	5	4	1				15
4	5	2	3	5	3	1	2		21
5		2	6	2					10
6		1	6	2	2				11
7	1	3	3	4					11
8,9	1			1		1			3
Σ	12	14	30	21	8	5	3		93

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
18 days									
0,1			3		1	1	2		7
2	1	2	9	2	1			1	16
3	2	3	6	2	1				14
4	4	2	7	5	2		1		21
5	2	5	5	3	2				17
6	1	1	4	2					8
7		1	2	5					8
8,9			1	1					2
Σ	10	14	37	20	7	1	3	1	93
21 days									
0,1			1						1
2	2	4	9	3	2	1	2	2	25
3	2	3	11	3	1				20
4	4	5	3	4	1				17
5		6	8	1					15
6			2	1					3
7		3	4			1			8
8,9				3	1				4
Σ	8	21	38	15	5	2	2	2	93
24 days									
0,1		3	2	1	1		1	2	10
2		1	5	3	2		1		12
3	4	4	3	2	1	2			16
4	4	4	2	5	1	2			18
5		7	5	3			1		16
6	2	4	5	2					13
7		2	1	3					6
8,9		1		1					2
Σ	10	26	23	20	5	4	3	2	93
27 days									
0,1	1		1						2
2	5	5	6	3	1	1		1	22
3	3		7	4	1	3			18
4	3	2	7	3	2	1	1		19
5		7	4	1	1	1			14
6		2	5	3					10
7		3	2		1	1			7
8,9					1				1
Σ	12	19	32	14	7	7	1	1	93
30 days									
0,1	1	1							2
2	3	3		1	4	1	1		13
3	4	6	6	4	1	2			23
4	2	5	5	3	2	1	1		19
5	3	5	6	1	2		1		18
6	1	4	2	1					8
7		2	2	3		3			10
8,9									
Σ	14	26	21	13	9	7	3		93

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
3 days									
0,1			1			2	2		5
2	1	2	3	5	2	1		1	15
3	1		1	1	2	3			8
4	1	1	4	5	1				12
5	1	3	3		1	1			9
6	1	1	3						5
7		1	4	2					7
8,9						1			1
Σ	5	8	19	13	6	8	2	1	62
6 days									
0,1		1				2	1		4
2		1	3	5	1	1	2	2	15
3	1	2	1	2	3	1			10
4	1	5	1	3		1	2		13
5	1	3	2						6
6		1	5	2					8
7		2	1	3					6
8,9									
Σ	3	15	13	15	4	5	5	2	62
9 days									
0,1					1	2	1	2	6
2	1	1	3	3			1	2	11
3			2	3	1	1			7
4	1		4	2					7
5		7	5		2				14
6	1	2	5	1					9
7		1		5		1			7
8,9	1								1
Σ	4	11	19	14	4	4	2	4	62
12 days									
0,1		1	1			1		1	4
2	1	1	3	2	2		2	1	12
3			1	3	2	3			9
4	1	4	4	3	1				13
5		4	4	1	1				10
6			5	3	1				9
7				1		2			3
8,9				1		1			2
Σ	2	10	18	19	7	7	2	2	62
15 days									
0,1			1					2	3
2		1	3	1	2			1	8
3		2	3	3		3			11
4	1	2	4	5		1	2		15
5		5	4	2		2			14
6			3	1					4
7		1			1	4			6
8,9			1						1
Σ	2	11	19	12	3	10	2	3	62

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
18 days									
0,1		1						1	2
2		1	4	5	5	2			13
3	1	2	4	4	4	2			17
4		4	3	2		1			11
5		3	1	1					6
6	1	1	4	1	1				8
7			1	1		1			3
8,9				1		1			2
Σ	2	12	17	15	8	7		1	62
21 days									
0,1		2	1	1	1	1			6
2		1	4	4	3	1			13
3	1	3		3	3	1			11
4		1	5	3		1	1		11
5		2	3	3					8
6		1	5						6
7		2	2			2			6
8,9			1						1
Σ	1	12	21	14	7	6	1		62
24 days									
0,1		1	1			1	1		4
2		3	4	7	1	3			18
3			3	4	1				8
4		3	2	5	1	1			12
5		4	4	2					10
6		1	2		1				4
7		3		1	1				5
8,9						1			1
Σ		15	16	19	5	6	1		62
27 days									
0,1			1		1		2		4
2		2	6	6	2		2		18
3	2	3	2	1	1	1			10
4	2		4	2	1		2		11
5	1	3	2	4					10
6	1		3						4
7		2	1	1					4
8,9				1					1
Σ	6	10	19	15	5	1	6		62
30 days									
0,1	1	2			1			2	6
2	1	2	6	7			1	1	18
3	1	2	2	3	1				9
4	1	3	4	5	1		1		15
5		3							5
6		1	2						3
7		1	2		1				4
8,9				1	1				2
Σ	4	14	16	18	5		2	3	62

THREE VARIABLE TABLE, F after D and H.

F=6

3 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	2	1					4
2		2	4	2	1		1	1	11
3		2	5						7
4	9		3		2	2			11
5		1	2	1		1			5
6		2	1						3
7				1					1
8,9									
Σ	4	8	17	5	3	3	1	1	42

6 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1	1	1			2	5
2		1	1	3	3	1			9
3	2	1	2			1			6
4		2	3	2	1		1		9
5		4	4						8
6	1	2							3
7			2						2
8,9									
Σ	3	10	13	6	5	2	1	2	42

9 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2			5	2		3			10
3	1	1	4	1	2	2			11
4	3		3	1	1		2		10
5			3	1					4
6		1	3						4
7		1		1					2
8,9		1							1
Σ	4	4	18	6	3	5	2		42

12 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1				1	1		2		4
2			1	2	1				4
3		1	3			1			5
4	2		4	3		1	3		13
5		4	1	1	1				7
6		1							1
7		3	1	3					7
8,9					1				1
Σ	2	9	10	10	4	2	5		42

15 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1				1					1
2			1	5		1	1	1	9
3	2	2	1		1				6
4			4	1	1				6
5	1	3	6		1		1		12
6		1	2	1					4
7				1					1
8,9				2	1				3
Σ	3	6	14	11	4	1	2	1	42

18 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1				1				1	2
2		1	2	3	1	1	1		9
3	1	1	1	2					5
4	2	2	5		1		2		12
5		2	2				1		5
6		1	1	2					4
7			1	2					3
8,9				1	1				2
Σ	3	7	12	11	3	1	4	1	42

21 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2			3	3	1	1			8
3	1	2	2	1	1	2			9
4			5	5	1		1		12
5		4	3	1			1		9
6			3						3
7						1			1
8,9									
Σ	1	6	16	10	3	4	2		42

24 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2	2	1	4	1	2				10
3		4	3	1		2			10
4		2	6		3		1		12
5		1	4	1					6
6			1	1					2
7			1			1			2
8,9									
Σ	2	8	19	4	5	3	1		42

27 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1		2		1					3
2		1	3	2	1				7
3	1	1	2	4					8
4		1	3	3					7
5		3	4						7
6		2	3	1	1				7
7			1	2					3
8,9									
Σ	1	10	16	13	2				42

30 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1		3						4
2			3	2	1	1			7
3	1	2	5	1	1				10
4	1		2						3
5		4	6	1					11
6			2	1					3
7		1	2	1					4
8,9									
Σ	3	7	23	6	2	1			42

THREE VARIABLE TABLE, F after D and H.

F=7

3 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2			2		2				4
3		1	1						2
4									
5		1	1	1					3
6									
7		1	1						2
8,9									
Σ		3	5	1	2				11

6 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2			1	1		1			3
3				1					1
4					1				1
5		2	2	1					5
6			1						1
7									
8,9									
Σ		2	4	3	1	1			11

9 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1			1				1		2
2				1					1
3		1		1					2
4				1			1		2
5		1	1	1					3
6									
7			1						1
8,9									
Σ		2	3	4			2		11

12 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2				2				1	3
3		1	1	1	1				4
4				1					1
5			2						2
6				1					1
7									
8,9									
Σ		1	3	5	1			1	11

15 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2				1			1		2
3		1	2			1			4
4			3						3
5			1						1
6									
7						1			1
8,9									
Σ		1	6	1		2	1		11

18 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2				1		2			1
3			1			2			3
4		1		1	1		1		4
5		1							1
6									
7		1				1			2
8,9									
Σ		3	1	2	1	3	1		11

21 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2			1						1
3			1			2			3
4					1		2		3
5			1		1				2
6			1		1				2
7									
8,9									
Σ			4		3	2	2		11

24 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2									
3			1	1	2				4
4			2				2		4
5			1		1				2
6				1					1
7									
8,9									
Σ			4	2	3		2		11

27 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2			1		1				2
3					1				1
4			1	1	1				3
5			2	1	1				4
6				1					1
7									
8,9									
Σ			4	3	4				11

30 days

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1									
2	1		3						4
3	1								1
4			1				1		2
5		1	1						2
6			1	1					2
7									
8,9									
Σ	2	1	6	1			1		11

THREE VARIABLE TABLE, F after D and H, Marginal totals for D.
TWO VARIABLE TABLE, F after H.

3 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	6	1			1				9
2	24	7	6	8	3		2		48
3	23	17	21	19	11	7	1		99
4	14	18	23	22	6	5	3	2	93
5	5	8	19	13	6	8	2	1	62
6	4	8	17	5	3	3	1	1	42
7		3	5	1	2				11
8,9									
Σ	74	62	91	68	32	23	10	4	364

6 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	5	2			2				9
2	18	7	11	6	5	1			48
3	22	16	23	19	10	7	2		99
4	11	14	23	21	6	7	1		93
5	3	15	13	15	4	5	5	2	62
6	3	10	13	6	5	2	1	2	42
7		2	4	3	1	1	289		11
8,9									
Σ	62	66	97	70	33	23	9	4	364

9 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	4	2	2	1					9
2	15	12	12	5	2	1	1		48
3	16	19	29	20	13	5	2		99
4	8	17	27	21	12	8			93
5	9	11	19	14	4	4	2	4	62
6	4	4	18	6	3	5	2		42
7		2	3	4			2		11
8,9									
Σ	51	67	105	71	34	23	9	4	364

12 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	4	2	2	1					9
2	6	13	17	9	1	1	1		48
3	13	21	25	19	1	7	1	1	99
4	13	13	35	16	10	6			93
5	2	10	18	14	7	7	2	2	62
6	2	9	10	10	4	2	5		42
7		1	7	5	1			1	11
8,9									
Σ	40	70	110	74	34	23	9	4	364

15 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	2	1	6						9
2	6	12	18	7	5				48
3	9	22	20	24	13	5	1		99
4	12	14	30	21	8	5	3		93
5	2	11	19	12	3	10	2	3	62
6	3	6	14	11	4	1	2	1	42
7		1	6	1		2	1		11
8,9									
Σ	34	72	113	76	33	23	9	4	364

18 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	2	5	1					9
2	9	15	12	9	2	3			48
3	7	18	35	16	13	8	1	1	99
4	10	14	39	20	7	1	3	1	93
5	2	12	17	15	8	7		1	62
6	3	7	12	11	3	1	4	1	42
7		3	1	2	1	3	1		11
8,9									
Σ	30	71	119	74	34	23	9	4	364

21 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	2	4	2					9
2	9	14	14	8	3	2			48
3	8	19	22	26	13	7	2	2	99
4	8	21	38	15	5	2	2	2	93
5	1	12	21	14	7	6	1		62
6	1	6	16	10	3	4	2		42
7			4		3	2	2		11
8,9									
Σ	26	74	119	75	34	23	9	4	364

24 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	3	2	1	1	2				9
2	9	8	14	11	2	4			48
3	7	17	35	18	12	6	2	2	99
4	10	26	23	20	5	4	3	2	93
5		15	16	19	5	6	1		62
6	2	8	19	4	5	3	1		42
7			4	2	3		2		11
8,9									
Σ	31	76	112	75	35	23	9	4	364

27 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	3	1	1	1	2			9
2	9	12	12	5	3	7			48
3	9	21	24	22	12	6	3	2	99
4	12	19	32	14	7	7	1	1	93
5	6	10	19	15	5	1	6		62
6	1	10	16	13	2				42
7			4	3	4				11
8,9									
Σ	38	75	108	73	34	23	10	3	364

30 days

F \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	2	2	1	1	1	2			9
2	12	9	10	7	1	5	3	1	48
3	9	16	26	24	16	8			99
4	14	26	21	13	9	7	3		93
5	4	14	16	18	5		2	3	62
6	3	7	23	6	2	1			42
7	2	1	6	1			1		11
8,9									
Σ	46	75	103	70	34	23	9	4	364

THREE VARIABLE TABLE, F after D and H, Marginal totals for F.
TWO VARIABLE TABLE, D with H.

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	1	3	1	1	2	2	2	13
2	14	7	14	14	9	3	2	2	65
3	14	10	13	8	8	5			58
4	18	10	13	14	7	3	4		69
5	9	14	16	7	3	3	1		58
6	11	8	19	7	3	1			47
7	2	6	11	13	1	5			38
8,9	5	1	4	4	1	1			16
Σ	74	62	91	68	32	23	10	4	364

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1		2	3	1	1	2	2	2	13
2	5	8	19	14	9	3	2	2	62
3	8	14	23	11	8	5			69
4	9	16	19	16	8	3	4		75
5	2	16	21	8	3	3	1		54
6	4	7	19	7	3	1			41
7		7	11	13	1	5			37
8,9	2	1	4	4	1	1			13
Σ	30	71	119	74	34	23	9	4	364

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	1	3	1	1	2	2	2	13
2	14	7	17	14	9	3	2	2	68
3	9	10	13	9	8	5			54
4	13	13	14	15	7	3	4		69
5	7	19	16	7	3	3	1		56
6	11	8	19	7	3	1			49
7	2	7	11	13	1	5			39
8,9	5	1	4	4	1	1			16
Σ	62	66	97	70	33	23	9	4	364

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1		4	4	1	1	2	2	2	16
2	3	9	20	14	8	3	2	2	61
3	7	14	22	11	9	5			68
4	10	14	19	17	8	3	4		75
5	2	16	21	8	3	3	1		54
6	3	8	20	7	3	1			42
7		8	11	13	1	5			38
8,9	1	1	2	4	1	1			10
Σ	26	74	119	75	34	23	9	4	364

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	1	3	1	1	2	2	2	13
2	11	7	17	14	9	3	2	2	65
3	7	10	14	10	8	5			54
4	10	13	17	15	8	3	4		70
5	6	20	20	7	3	3	1		60
6	9	8	19	7	3	1			47
7	2	7	11	13	1	5			39
8,9	5	1	4	4	1	1			16
Σ	51	67	105	71	34	23	9	4	364

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1		7	4	1	1	2	2	2	19
2	4	9	19	14	8	3	2	2	61
3	9	11	21	11	9	5			66
4	11	15	18	17	8	3	4		76
5	3	17	19	9	3	3	1		55
6	3	8	19	7	3	1			41
7		8	10	12	1	5			36
8,9	1	1	2	4	1	1			10
Σ	31	76	112	75	34	23	9	4	364

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	3	1	1	2	2	2	12
2	8	7	17	14	9	3	2	2	62
3	6	11	17	10	8	5			57
4	10	14	18	17	8	3	4		74
5	5	20	22	8	3	3	1		62
6	4	8	19	7	3	1			42
7	2	8	10	13	1	5			39
8,9	5	1	4	4	1	1			16
Σ	40	70	110	74	34	23	9	4	364

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	7	4	1	1	2	2	2	20
2	8	10	20	13	9	3	3	1	67
3	11	11	18	10	8	5			63
4	12	15	19	17	8	3	4		78
5	3	17	19	9	3	3	1		55
6	2	6	18	7	3	1			37
7		8	8	12	1	5			35
8,9	1	1	2	4	1	1			10
Σ	38	75	108	73	34	23	10	3	364

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1		2	3	1	1	2	2	2	13
2	6	8	19	14	9	3	2	2	63
3	6	13	18	12	7	5			61
4	10	14	18	17	8	3	4		74
5	2	19	27	8	3	3	1		57
6	4	8	19	7	3	1			42
7	1	7	11	13	1	5			38
8,9	5	1	4	4	1	1			16
Σ	34	72	113	76	33	23	9	4	364

D \ H	0,1	2	3	4	5	6	7	8,9	Σ
0,1	4	7	4	1	1	2	2	2	23
2	10	9	20	13	9	3	2	2	68
3	13	13	17	10	8	5			66
4	11	12	19	17	8	3	4		74
5	3	18	19	8	3	3	1		55
6	4	7	15	7	3	1			37
7		8	7	10	1	5			31
8,9	1	1	2	4	1	1			10
Σ	46	75	103	70	34	23	9	4	364

THREE VARIABLE TABLE, F after D and H, Marginal totals for H.
TWO VARIABLE TABLE, F after D.

3 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	1	2	5	4			13
2	2	6	14	13	15	11	4		65
3		8	18	15	8	7	2		58
4	5	7	17	17	12	11			69
5	1	9	15	16	9	5	3		58
6		11	15	13	5	3			47
7	1	4	13	10	7	1	2		38
8,9		2	6	7	1				16
Σ	9	48	99	93	62	42	11		364

6 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	1	2	4	5			13
2	3	7	17	14	15	9	3		68
3	1	6	12	18	10	6	1		54
4	1	9	15	21	13	9	1		69
5	3	9	12	13	6	8	5		56
6	1	4	24	11	8	3	1		49
7		5	15	11	6	2			39
8,9		7	6	3					16
Σ	9	48	99	93	62	42	11		364

9 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1				4	1	6		2	13
2	2	14	12	15	11	10	1		65
3		4	13	17	7	11	2		54
4	2	5	18	26	7	10	2		70
5	1	10	16	12	14	4	3		60
6	2	8	14	10	9	4			47
7		3	18	8	7	2	1		39
8,9	2	4	4	4	1	1			16
Σ	9	48	99	93	62	42	11		364

12 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			2	2	4	4			12
2		8	19	16	12	4	3		62
3	1	10	11	17	9	5	4		57
4	1	7	21	18	13	13	1		74
5	3	10	14	16	10	7	2		62
6	1	9	14	12	9	1	1		42
7	2	5	14	8	3	7			39
8,9	1	4	4	4	2	1			18
Σ	9	48	99	93	62	42	11		364

15 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1			3	6	3	1			13
2	3	11	14	16	8	9	2		63
3		9	16	15	11	6	4		61
4		7	22	21	15	6	3		74
5		7	13	10	14	12	1		57
6	2	6	15	11	4	4			52
7	3	6	10	11	6	1	1		38
8,9	1	2	6	3	1	3			16
Σ	9	48	99	93	62	42	11		364

18 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	1	7	2	2			13
2		5	18	16	13	9	1		62
3	2	13	15	14	17	5	3		69
4	1	9	17	21	11	12	4		75
5		4	21	17	6	5	1		54
6	1	5	15	8	8	4			41
7	3	9	9	8	3	3	2		37
8,9	2	2	3	2	2	2			13
Σ	9	48	99	93	62	42	11		364

21 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		1	8	1	6				16
2		6	8	25	13	8	1		61
3	2	9	14	20	11	9	3		68
4	1	8	23	17	11	12	3		75
5	1	6	19	15	8	9	2		54
6		10	18	3	6	3	2		42
7	5	7	11	8	6	1			38
8,9		1	4	4	1				10
Σ	9	48	99	93	62	42	11		364

24 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	3	1	10	4				19
2		6	15	12	18	10			61
3	1	7	20	16	8	10	4		66
4	1	8	21	18	12	12	4		76
5	2	3	16	16	10	6	2		55
6	2	6	13	13	4	2	1		41
7	2	11	10	6	5	2			36
8,9		4	3	2	1				10
Σ	9	48	99	93	62	42	11		

27 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1	1	2	8	2	4	3			20
2		5	13	22	18	7	2		67
3	1	8	17	18	10	8	1		63
4	2	10	26	19	11	7	3		78
5	2	7	11	14	10	7	4		55
6	1	6	8	10	4	7	1		37
7	2	6	12	7	4	3			34
8,9		4	4	1	1				10
Σ	9	48	99	93	62	42	11		

30 days

D \ F	0,1	2	3	4	5	6	7	8,9	Σ
0,1		5	6	2	6	4			23
2		8	18	13	18	7	4		68
3	4	3	16	23	9	10	1		66
4	1	9	25	19	15	3	2		74
5	2	7	10	18	5	11	2		55
6		6	15	8	3	3	2		37
7	2	6	5	10	4	4			31
8,9		4	4		2				10
Σ	9	48	99	93	62	42	11		