

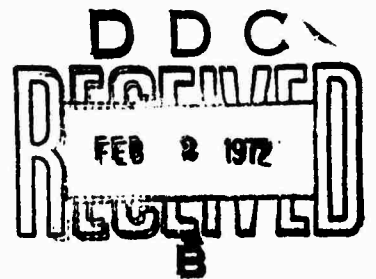
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R-915-ARPA

November 1971

Global Climatic Data for  
Surface, 800 mb, 400 mb:  
January

C. Schutz and W. L. Gates



A Report prepared for  
ADVANCED RESEARCH PROJECTS AGENCY

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PREFACE

Meteorological studies suggest that technologically feasible operations might trigger substantial changes in the climate over broad regions of the globe. Depending on their character, location, and scale, these changes might be both deleterious and irreversible. If a foreign power were to bring about such perturbations either overtly or covertly, either maliciously or heedlessly, the results might be seriously detrimental to the security and welfare of this country. So that the United States may react rationally and effectively to any such actions, it is essential that we have the capability to: (1) evaluate all consequences of a variety of possible actions that might modify the climate, (2) detect trends in the global circulation that presage changes in the climate, either natural or artificial, and (3) determine, if possible, means to counter potentially deleterious climatic changes. Our possession of this capability would make incautious experimentation unnecessary, and would tend to deter malicious manipulation. To this end, the Advanced Research Projects Agency initiated a study of the dynamics of climate to evaluate the effect on climate of environmental perturbations. This Rand Report is a technical contribution to this larger study.

An important part of the Rand/ARPA research program on the dynamics of climate is the evaluation of the accuracy of simulations of the global climate given by numerical solutions of models of the general atmospheric circulation. To perform this evaluation systematically requires a knowledge of the global distribution of the common climatic variables such as pressure, temperature, humidity, wind, and precipitation, together with the associated distributions of the elements of the global radiation and hydrologic balances. Such data, we have discovered, are not readily available, and even those that are obtainable are usually in a variety of forms and not immediately comparable to other climatic data.

The data presented in this Report are the result of an attempt to gather in one place and in a common format the best available global climatological data on selected meteorological variables for the month of January. As such, they represent the first part of a set of seasonal data being compiled for a Global Climatic Atlas.

SUMMARY

From selected climatological data sources the January global distribution of pressure, temperature, wind, and moisture is reconstructed for the surface, 800 mb, and 400 mb. These data are supplemented by presentations of the global distributions of cloudiness, evaporation, precipitation, and selected elements of the surface heat balance. All data are presented on a global grid of 4° latitude by 5° longitude and are given in the form of both tabulated values and machine-analyzed maps.

ACKNOWLEDGMENTS

Sincere appreciation is extended to those at the National Climatic Center of the National Oceanic and Atmospheric Administration (NOAA), the National Center for Atmospheric Research (NCAR), and the Environmental Technical Applications Center (ETAC) of the Air Force, who cooperated in making available the latest magnetic tapes of surface and upper-air data for this special analysis. Thanks are also due Marsha Dade, Mikki Fujisaki, Esperanza Rodriguez, Bob Mobley, and Al Nelson of Rand, for their work in processing these tapes and reducing the data to its desired form.

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## 1. INTRODUCTION

The data presented in this Report describe the global distribution of the primary climatic elements of pressure, temperature, wind, and moisture, together with a number of components of the surface heat balance. Both smoothed and unsmoothed data were gathered and processed for use in the evaluation of climate simulation experiments made with numerical general circulation models. The present Report, however, is a response to the recognition that these data may also be useful as a climatic summary in their own right.

A primary purpose of the present compilation of data is to present the "observed" January distribution of those meteorological variables simulated by the two-level atmospheric model of Mintz and Arakawa [see Mintz (1968) and Arakawa (1970)]. This model simulates the wind, temperature, and geopotential at two tropospheric levels, which for our purposes may be regarded as the 400-mb and 800-mb levels, and also the moisture distribution at the lower (800-mb) level. At the earth's surface the model simulates the pressure, the surface air temperature, and the ground temperature, together with the elements of the surface heat balance, including the net radiation flux, the latent heat flux associated with surface evaporation, and the surface flux of sensible heat. The model also simulates elements of the hydrologic balance, including cloudiness, precipitation, and ground wetness. A documentation of this model for use in the Rand research program on climate dynamics is in preparation (Gates et al., 1971).

In spite of a search for the best possible data, the January global distribution of each of these variables was not readily available in the climatic literature. Those variables that were available at the surface, at 800 mb, and at 400 mb are summarized in Table 1.1, which also serves as a guide to the Report's sources of information, maximum period of record, maps, and data tabulations. In most cases the 800-mb and 400-mb data had to be interpolated at the 4° latitude, 5° longitude grid of the Mintz-Arakawa model from the various formats of unsmoothed data in the taped data sources, whereas most of the surface data were visually interpolated from analyses published in atlases. A global analysis of each

Table 1.1

## IDENTIFICATION OF SELECTED CLIMATIC VARIABLES FOR JANUARY

Data or Variable	Units	Sources	Max Record	Level <sup>a</sup>		
				Surface	800 mb	400 mb
Sea-level pressure	mb	1) Crutcher and Meserve (1970) 2) Taljaard, <i>et al.</i> (1969)	1931-1960 1929-1967	14,40,68-71		
Temperature (air)	deg C	1) Crutcher and Meserve (1970) 2) Taljaard, <i>et al.</i> (1969)	1931-1960 1929-1967	15,41,72-75	26,53,120-123	60,148-151
Temperature (sea surface)	deg C	Washington and Thiel (1970)		16,42,76-79		
Geopotential height	10 <sup>2</sup> m	1) Crutcher and Meserve (1970) 2) Taljaard, <i>et al.</i> (1969)	1950-1964 1948-1966		27,54,124-127	34,61,152-155
Relative humidity	%	1) Crutcher and Meserve (1970) 2) Taljaard, <i>et al.</i> (1969)	1931-1960 1929-1967	17,43,80-83	28,55,128-131	
Cloudiness	Fractions	1) Environmental Technical Applications Center (1971) 2) Miller, <i>et al.</i> (1970)	1963-1968 - 1967-1970 -	18,44,84-87 19,45,88-91		
Precipitation	mm day <sup>-1</sup>	Academy of Sciences, USSR (1964)	1950-1956 (?)	20,46-47,92-99		
Evaporation	mm day <sup>-1</sup>	Budyko (1963)	1955-1960 (?)	21,48,100-103		
Solar radiation absorbed	10 <sup>2</sup> ly day <sup>-1</sup>	Budyko (1963)	1955-1960 (?)	22,49,104-107		
Radiation balance	10 <sup>2</sup> ly day <sup>-1</sup>	Budyko (1963)	1955-1960 (?)	23,50,108-111		
Sensible heat flux	10 ly day <sup>-1</sup>	Budyko (1963)	1955-1960 (?)	24,51,112-115		
Lat balance	10 <sup>2</sup> ly day <sup>-1</sup>	Based on Budyko (1963)	1955-1960 (?)	25,52,116-119		
Wind (east-west)	m sec <sup>-1</sup>	Crutcher (1961)	1948-1953		29,56,132-135	35,62,156-159
Wind (north-south)	m sec <sup>-1</sup>	Crutcher (1961)	1948-1953		30,57,136-139	36,63,160-163
Geostrophic wind (east-west)	m sec <sup>-1</sup>	1) Crutcher and Meserve (1970) 2) Taljaard, <i>et al.</i> (1969)	1931-1960 1929-1967		31,58,140-143	37,64,164-167
Geostrophic wind (north-south)	m sec <sup>-1</sup>	1) Crutcher and Meserve (1970) 2) Taljaard, <i>et al.</i> (1969)	1931-1960 1929-1967		32,59,144-147	38,65,168-171

<sup>a</sup>The three numbers in the right-hand columns are the page numbers of the global map analyses, the zonally averaged data, and the global data tabulations, respectively.

variable selected is given in Section 3, together with a tabulation of the associated grid-point data in Section 5. Exceptions are the observed winds, for which only northern-hemisphere data are presently available in adequate quantity. Geostrophic wind analyses are included, however, for both the northern and southern hemispheres, in an effort to present an approximation to the global wind pattern for January. For each of the data distributions shown in Section 3, the corresponding distribution of the zonal averages is given in Section 4, along with the global average value. Further details of the data selection and processing are given below. In the grid-point data tabulations of Section 5 the asterisk (\*) denotes missing data; these regions correspond to the blank or "no data" areas on the analyzed maps and zonal averages of Sections 3 and 4.

## 2. DATA SELECTION AND PROCESSING

The processing or manipulation of each primary source of the mean January data identified in Table 1.1 is briefly described below. After a careful review of all known sources of pertinent data, it was concluded that the sources used here represent the best collection of "global" data possible at the present time, at least for the purpose of comparison with the model's global simulations. Further discussion of the observational content, special processing, and limitations of these data (including various record lengths) are given in the data publications themselves. Although the remarks made below refer to the data of Figs. 3.1 through 3.24, they also apply to the corresponding zonally averaged data of Figs. 4.1 through 4.24, as well as to the supporting grid-point data tabulation of Tables 5.1 through 5.24.

### A. SURFACE DATA

The surface and sea-level meteorological data shown in Sections 3, 4, and 5 are based upon unsmoothed data extracted from magnetic tapes containing the January averages for the northern and southern hemispheres in the publications NAVAIR 50-1C-52 (Crutcher and Meserve, 1970) and NAVAIR 50-1C-55 (Taljaard et al., 1969). A linear interpolation was applied to the 5° latitude tabulated data to generate data every 4° latitude beginning at the poles, while the 5° longitude data presentation was left intact.

#### 1. Pressure, Temperature, and Relative Humidity

The sea-level pressure (Fig. 3.1), the surface air temperature (Fig. 3.2), and the surface dew-point temperature were taken from these sources. The dew point was then converted to relative humidity (RH) by the formula

$$RH = \frac{e^A(p - 6.11 \text{ mb } e^B)}{e^B(p - 6.11 \text{ mb } e^A)} \quad (1)$$

where  $p$  is the (total) air pressure (in mb) and the parameters  $A$  and  $B$  are given by

$$A = 17.269 T_d (T_d + 237.3 \text{ deg C})^{-1} \quad (2)$$

$$B = 17.269 T (T + 237.3 \text{ deg C})^{-1} \quad (3)$$

with  $T_d$  the dew-point temperature (in deg C) and  $T$  the air temperature (in deg C). The resulting surface relative humidity distribution is shown in Fig. 3.4.

The global distribution of the January average sea-surface temperature as shown in Fig. 3.3 is based upon the data contained in the NCAR publication of the monthly averages (Washington and Thiel, 1970). The NCAR data were extrapolated by at most  $2.5^\circ$  in the direction of land or ice (interpolated in some cases of small islands or narrow peninsulas), and then transferred to the present  $4^\circ$  latitude,  $5^\circ$  longitude grid by interpolation. This extrapolation and interpolation was done by Dr. R. C. Alexander at Rand. The lowest sea temperature in the NCAR data was 0 deg C.

## 2. Cloudiness

The distribution of total cloud cover as shown in Fig. 3.5A was constructed from the digitized representation of both satellite and conventional observations compiled by the Global Weather Central for ETAC (1971). These data were collected at 0000Z and 1200Z, and were compiled for this presentation in terms of the total cloud cover  $C$  from the formula

$$C = \sum_{N=0}^8 \frac{C_{00,N} + C_{12,N}}{2} \frac{N}{8} \quad (4)$$

where  $C_{00,N}$  and  $C_{12,N}$  are the percentage of the 00Z and 12Z observations which have  $N$ -eighths cloud cover. These digitized cloud data

appear on the GWC (Global Weather Central) grid. This is a square grid with octagonal boundaries superimposed on a polar stereographic projection, with a southern boundary at approximately 15°N. Equations from Scientific Services Technical Note #1 (1962) were used to transform the latitude and longitude of each of the 46 × 72 points of the present grid to the coordinates in the GWC grid, followed by a bi-linear interpolation using the four nearest GWC grid values.

Since the northern-hemisphere data of Fig. 3.5A contain all modern cloud observations, during both day and night hours, it is considered the best representation of northern-hemisphere total cloud cover available. In an effort to obtain global coverage, however, Fig. 3.5B was constructed from a digitized representation of the sun-oriented TIROS data of Miller (1970) and Miller et al. (1970). These computer-rectified data give the mean daytime cloudiness at approximately 1400 local sun time. Since they compare favorably with the gross features in Fig. 3.5A associated with storm tracks, anticyclones, and the inter-tropical convergence zone, they are presented as an extension of these data into the southern hemisphere. Since the present satellite observations do not effectively discriminate between clouds and highly reflective ground surfaces such as ice, snow, and desert, the Miller data presented here contain systematic errors when interpreted in terms of cloud cover. Nevertheless, they probably represent the best cloud-cover data now available in the southern hemisphere.

### 3. Precipitation

The global distribution of the annual precipitation shown in Fig. 3.6A was interpolated by hand on a 5° latitude-by-5° longitude grid from the Academy of Sciences, USSR (1964) publication. A linear interpolation was then applied to the 5° latitude data to generate the 4° latitude data required.\*

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\* Figure 3.6B has not been reproduced here because stratification resulted from Jacobs's (1968) method of apportionment, which was for each 10° of latitude; there was no means of determining how to eliminate the stratification.

In an effort to obtain data more descriptive of the northern-hemisphere winter, the mean global precipitation for December-January-February was derived from these data, and is shown as a zonal average in Fig. 4.6B. This was accomplished by expanding the seasonal apportionment of precipitation for the ocean between 60°N and 60°S given by Jacobs (1968) (see Table 2.1). Jacobs's apportionment for 50° to 60°N and for 50° to 60°S was extended unchanged to the poles for the Atlantic (75W-25E) and Pacific (110E-75W) sectors, as were the apportionments for the Indian Ocean (25E-110E) for 20° to 30° N and 40° to 50°S to fill out the global grid. This seems consistent with the January influence of the strong Siberian high which gives most of Asia a comparatively dry winter season [Kendrew (1963), Schutz (1967)]. Because this approach uses only Jacobs's ocean apportionment, the values over land would not give a true winter representation of precipitation were this procedure used over the globe. At certain latitudes in the northern hemisphere the zonal average will be systematically in error. For example, amounts would be low in the extreme southwestern United States and between the eastern Mediterranean and the Persian Gulf, where most of the annual precipitation is recorded during the winter season. In the southern hemisphere, because of the greater expanse of ocean, discrepancies over land are less noticeable in the zonal average (Fig. 4.6B).

#### 4. Evaporation

The January mean surface evaporation shown in Fig. 3.7 was drawn from data interpolated from those of Budyko (1963). We note that there are very few isopleths over the land in the northern hemisphere, since there the evaporation is generally  $\leq 10$  mm. The rapid increase of evaporation across the shoreline, however, produces a packing of the isopleths, especially along the eastern coasts of the continents. In the southern hemisphere, January is the middle of the wet season, and the surface evaporation over land is therefore more comparable with that over ocean. In mountainous areas in both hemispheres, the evaporation isopleths are interrupted by the lack of data.

Table 2.1  
APPORTIONMENT OF PRECIPITATION (IN PERCENT)  
BY 10° LATITUDE ZONES (JACOBS, 1968)  
DECEMBER-JANUARY-FEBRUARY

Latitude	Atlantic Ocean	Pacific Ocean	Indian Ocean
	DJF	DJF	DJF
50°-60°N	28	20	--
40°-50°N	31	25	--
30°-40°N	33	31	--
20°-30°N	27	29	13
10°-20°N	25	18	10
0°-10°N	22	24	22
0°-10°S	28	33	27
10°-20°S	22	32	30
20°-30°S	23	24	24
30°-40°S	18	18	17
40°-50°S	20	22	22
50°-60°S	26	24	--

## 5. Radiation and Heat Balance

The January solar radiation received at the earth's surface, shown in Fig. 3.8, was interpolated onto the  $4^\circ$  latitude,  $5^\circ$  longitude grid from the data of Budyko (1963). The breaks in the isopleths over land are caused by the mountainous areas for which no radiation data were available.

The January surface radiation balance shown in Fig. 3.9 and the surface sensible heat flux shown in Fig. 3.10 are also based upon interpolations from the data of Budyko (1963), and, like Fig. 3.8, show a lack of data in mountainous and polar regions. The distribution of the January surface heat balance shown in Fig. 3.11 was constructed by subtracting the interpolated data for the surface sensible heat flux (Fig. 3.10) and that for the heat lost by surface evaporation (proportional to the data of Fig. 3.7) from the data for the surface radiation balance (Fig. 3.9). This latter quantity is itself the excess of the solar radiation absorbed at the surface over the net long-wave radiation lost by the surface.

### B. UPPER-AIR DATA

#### 1. Temperature and Relative Humidity

The values for the free-air temperature and the dew point represent unsmoothed information drawn from the data tapes supporting the two NAVAIR publications by Crutcher and Meserve (1970) and Taljaard et al. (1969) that were used above for the surface observations. Specifically, the mean January temperature at 800 mb, as shown in Fig. 3.12, was computed by linear interpolation from the data for 850 mb and 700 mb. The 400-mb January temperature distribution shown in Fig. 3.19 was constructed by a similar interpolation between the data at 500 mb and 300 mb. The resulting 800-mb and 400-mb data were then interpolated horizontally onto the  $4^\circ$  latitude,  $5^\circ$  longitude grid.

The relative humidity distribution for 800 mb shown in Fig. 3.14 was computed from the dew point and pressure according to Eqs. (1) through (3), where the 800-mb dew point was itself found from linear interpolation between the taped dew-point data for 850 mb and 700 mb.

## 2. Height

The heights for the 800-mb and 400-mb surfaces shown in Figs. 3.13 and 3.20 were found from the heights of the 850-mb and 500-mb surfaces, respectively, as well as from the values of the temperature at 850, 700, 500, and 300 mb, as shown below. If  $\bar{T}$  is an average temperature, the height of an isobaric surface  $z$  relative to that at a reference surface  $z_0$  may be written from an integration of the hydrostatic equation as

$$z - z_0 = \frac{R\bar{T}}{g} \ln (p_0/p) \quad (5)$$

where  $R$  is the gas constant,  $g$  the acceleration of gravity, and  $p_0$  the reference isobaric surface. Selecting 850 mb and 500 mb as reference surfaces, we then have for the 800- and 400-mb heights the relations

$$z_{800} = z_{850} + 1.480 \text{ m deg}^{-1} T_{850} + 0.296 \text{ m deg}^{-1} T_{700} + 484.9 \text{ m} \quad (6)$$

$$z_{400} = z_{500} + 4.843 \text{ m deg}^{-1} T_{500} + 1.695 \text{ m deg}^{-1} T_{300} + 1784.9 \text{ m} \quad (7)$$

Here the subscripts denote evaluation at pressure surfaces and the temperatures are in deg C [with the last terms representing the conversion to deg K as in Eq. (5)]. Specifically, the mean temperature between 850 and 800 has been written as  $\left(\frac{5}{6} T_{850} + \frac{1}{6} T_{700}\right)$ , and the mean temperature between 500 and 400 mb as  $\left(\frac{3}{4} T_{500} + \frac{1}{4} T_{300}\right)$ , corresponding to the assumption of a temperature distribution linear in pressure between 850 and 700 mb and between 500 and 300 mb, respectively.

## 3. Winds

The distribution of the observed winds at 800 mb and 400 mb shown in Figs. 3.15, 3.16, 3.21, and 3.22 were obtained by interpolation from the data published by Crutcher (1961) in the form of mean January cross sections, with subsequent linear interpolation onto the present grid.

These data are given for the northern hemisphere only, in view of the scarcity of even seasonally averaged wind data in the southern hemisphere. To alleviate this, the average January geostrophic winds at both 800 mb and 400 mb were computed from the data of Crutcher and Meserve (1970) and Taljaard et al. (1969), and are shown in Figs. 3.17, 3.18, 3.23, and 3.24. It may be noted that the observed and geostrophic winds agree well in the northern hemisphere at both the 800-mb and 400-mb levels.

The wind in the Mintz-Arakawa model is computed on a "u,v grid" whose points are centered within the primary or pressure grid used for the other calculations. Values at the u,v grid points were found through a bilinear interpolation of the source data so that the first value falls at 88N, 177.5W, rather than at 90N, 180W. Because of this staggered wind grid the maps of the zonal and meridional wind components should be offset 2 degrees south and 2.5 degrees east of the indicated grid. The latitude marked 90N thus indicates 88N in Figs. 3.15 through 3.18, 3.21 through 3.24, 4.15 through 4.18, and 4.21 through 4.24, while there is no wind defined at the latitude marked 90S.

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3. GLOBAL CLIMATIC ANALYSIS

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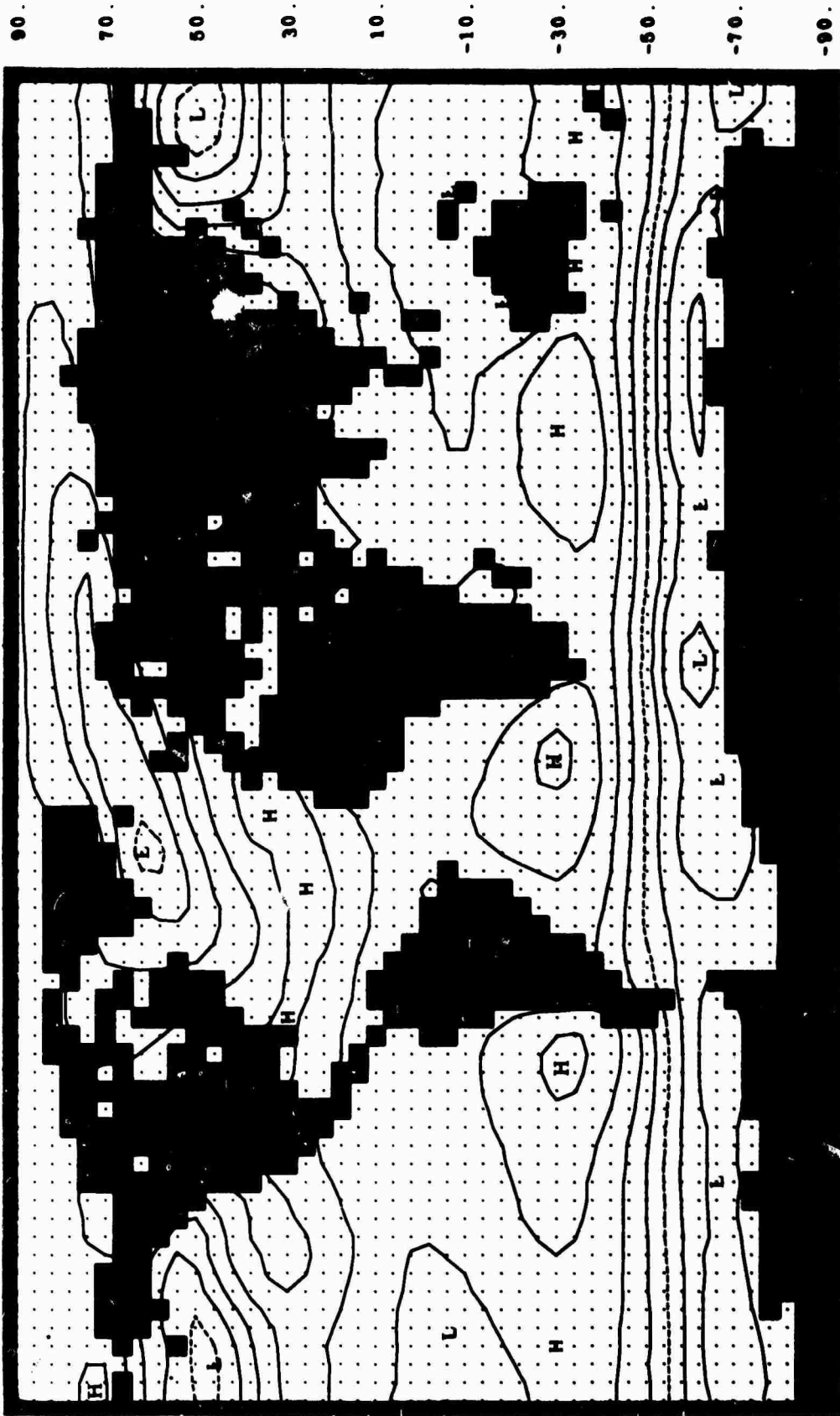


Fig. 3.1 -- Mean January sea-level pressure in mb. The analysis interval is 5 mb and the 1000-mb isobar is dashed. Reduced from data of Crutcher and Meserve (1970) and Taljaard et al. (1969).



Fig. 3.2 -- Mean January surface air temperature in deg C. The analysis interval is 5 deg and the 0 deg C isotherm is dashed. Reduced from data of Crutcher and Meserve (1970) and Taljaard et al. (1969).

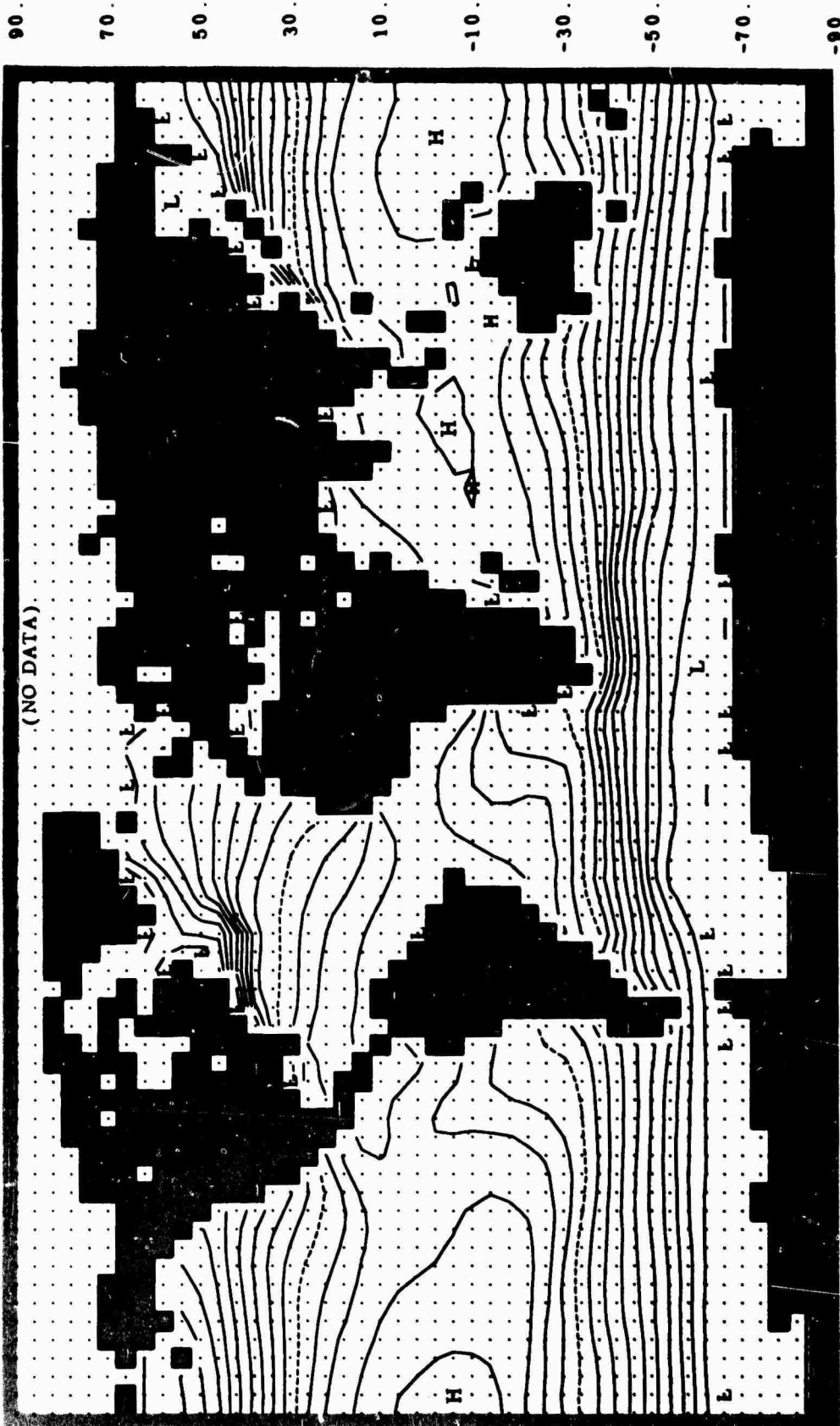


Fig. 3.3 -- Mean January sea-surface temperature in deg C. The analysis interval is 2 deg and the 20-deg C isotherm is dashed. Reduced from data of Washington and Thiel (1970).

90.  
70.  
50.  
30.  
10.  
-10.  
-30.  
-50.  
-70.  
-90.



Fig. 3.4 -- Mean January surface relative humidity in percent. The analysis interval is 20 percent and the 60-percent isohume is dashed. Computed from dew-point data of Crutcher and Meserve (1970) and Taljaard et al. (1969).



Fig. 3.5A -- Mean January total cloud cover (northern hemisphere only) in fraction of the sky covered. The analysis interval is 0.1 and the 0.5 isoline is dashed. Prepared from data from the Environmental Technical Applications Center (1971).

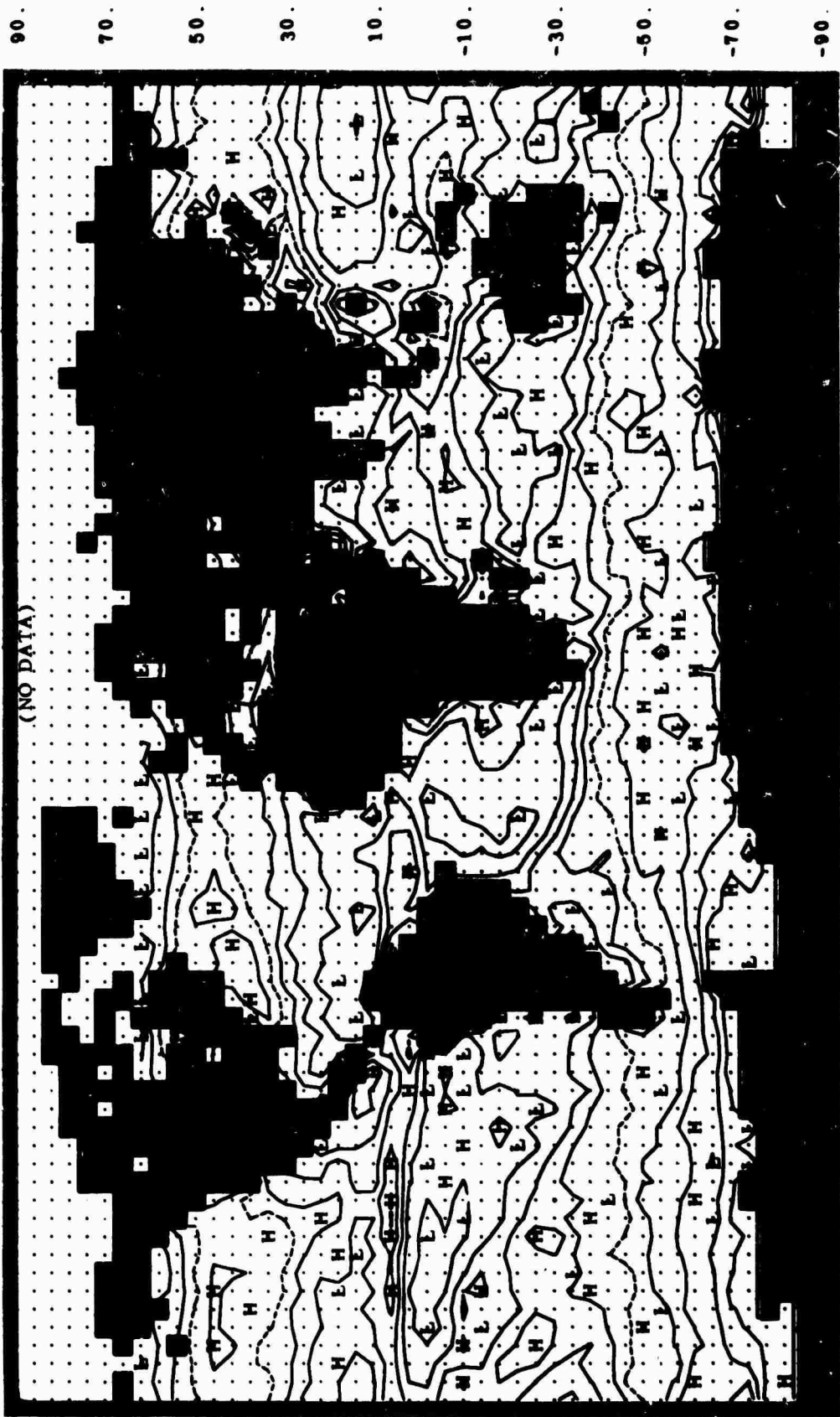


Fig. 3.5B -- Mean January total cloud cover in fraction of the sky covered. The analysis interval is 0.1 and the 0.5 isoline is dashed. Reduced from data of Miller et al. (1970).

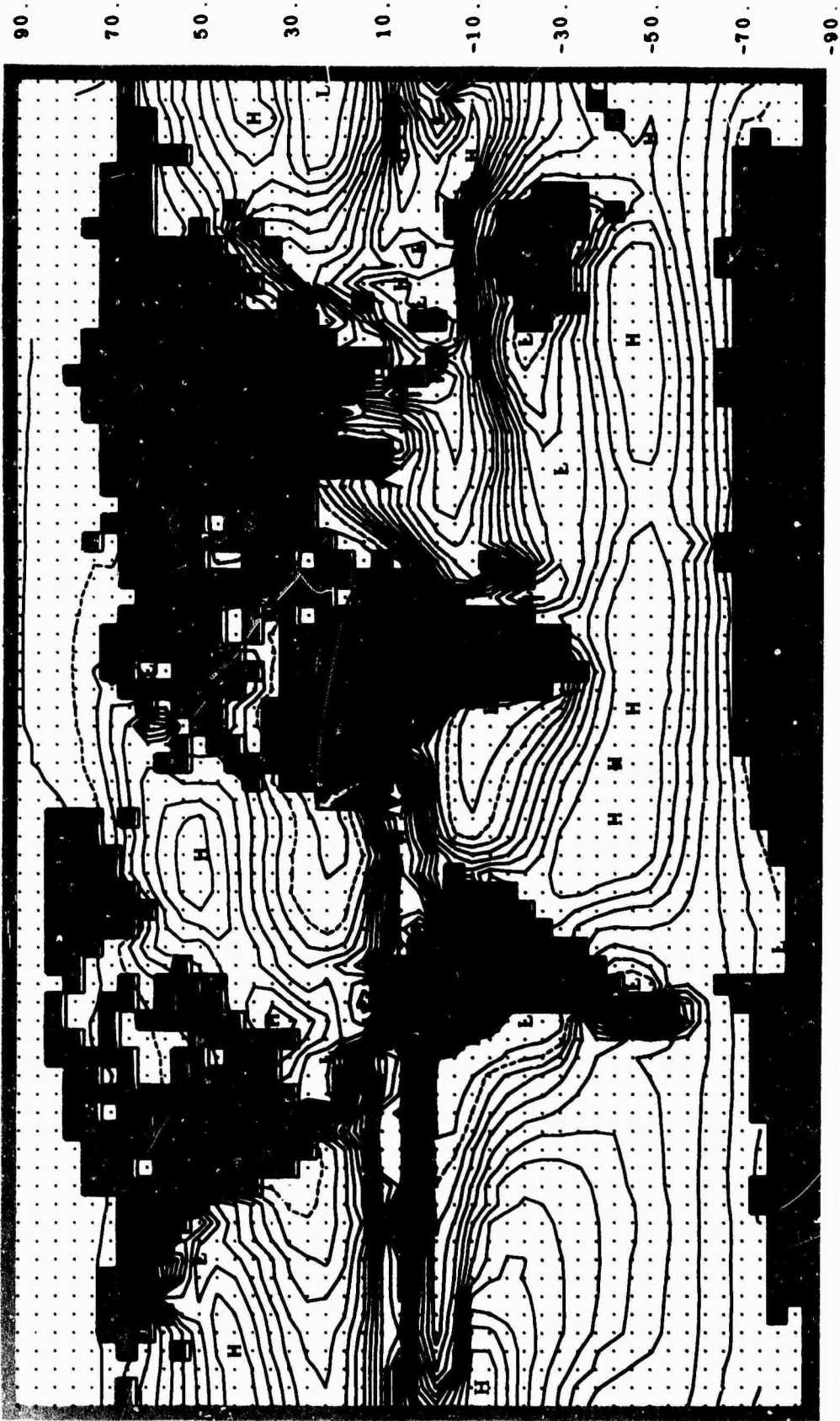


Fig. 3.6A --- Mean annual precipitation in mm/day. The analysis interval is 0.5 mm and the 1.0 mm isoline is dashed. Data from the Academy of Sciences, USSR (1964) publication.



Fig. 3.7 -- Mean January surface evaporation in mm/day. The analysis interval is 1.0 mm and the 5.0 mm isoline is dashed. Data from Budyko (1963).

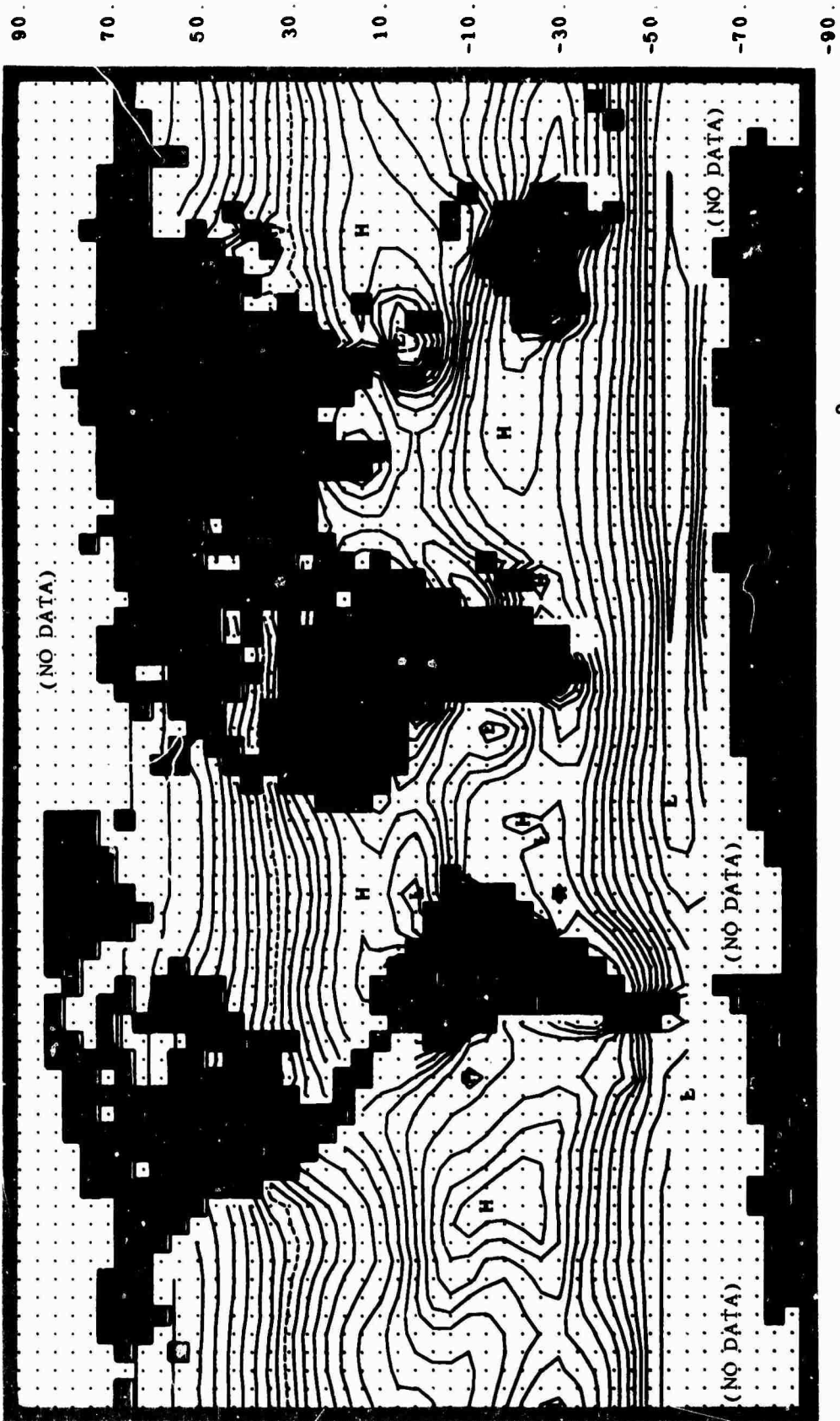


Fig. 3.8 -- Mean January solar radiation received at the surface in  $10^2$  ly/day. The ana- interval is 25 ly/day and the 250 ly/day isoline is dashed. Data from Budyko (1963).



Fig. 3.9 -- Mean January radiation balance at the surface in  $10^2$  ly/day. The analysis interval is 25 ly/day and the 250-ly/day isoline is dashed. A positive value denotes a short-wave energy surplus. Data from Budyko (1963).

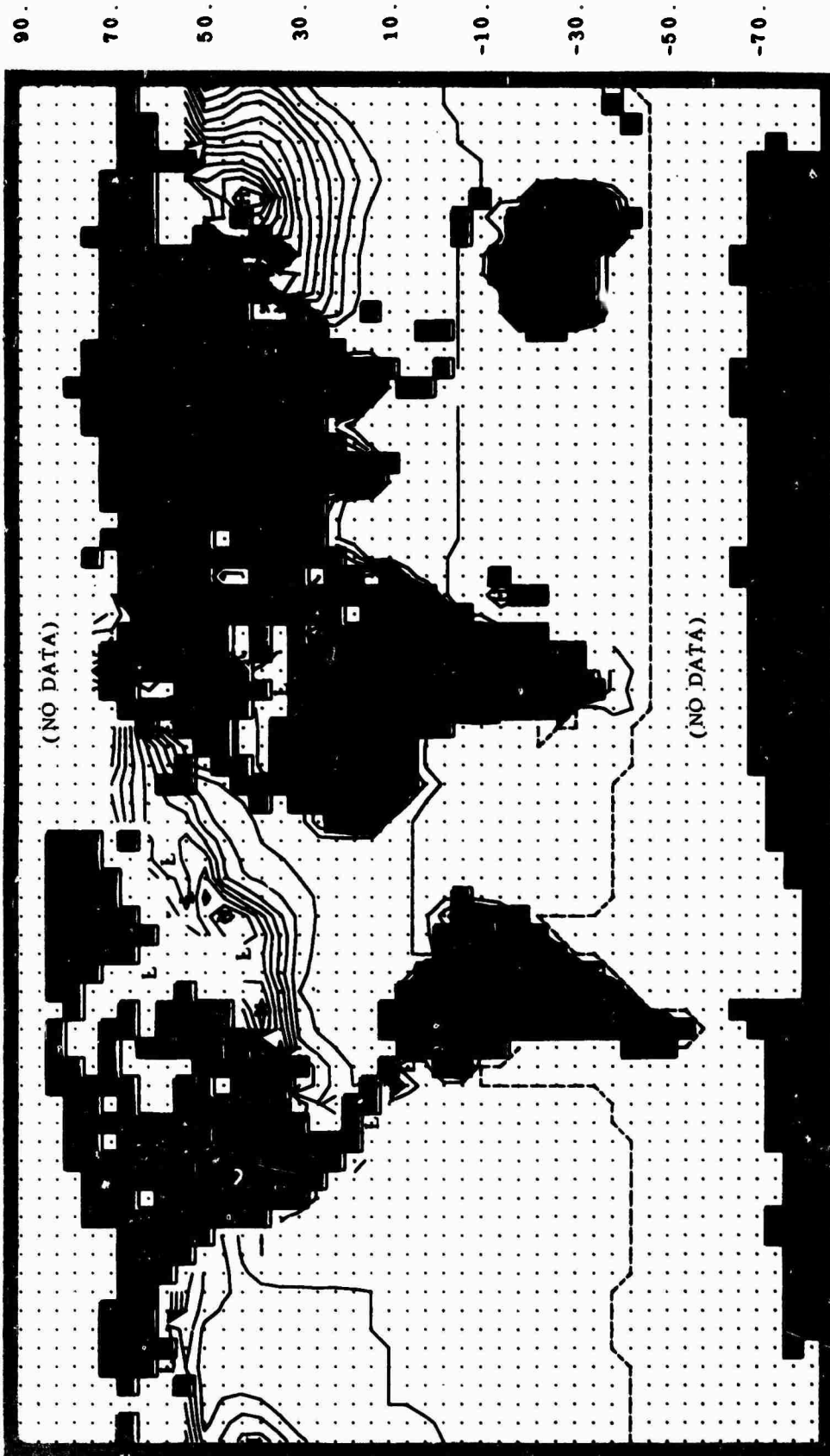


Fig. 3.10 -- Mean January sensible heat flux at the surface in 10 ly/day. The analysis interval is 20 ly/day and the 0 isoline is dashed. A positive value denotes an upward flux. Data from Budyko (1963).

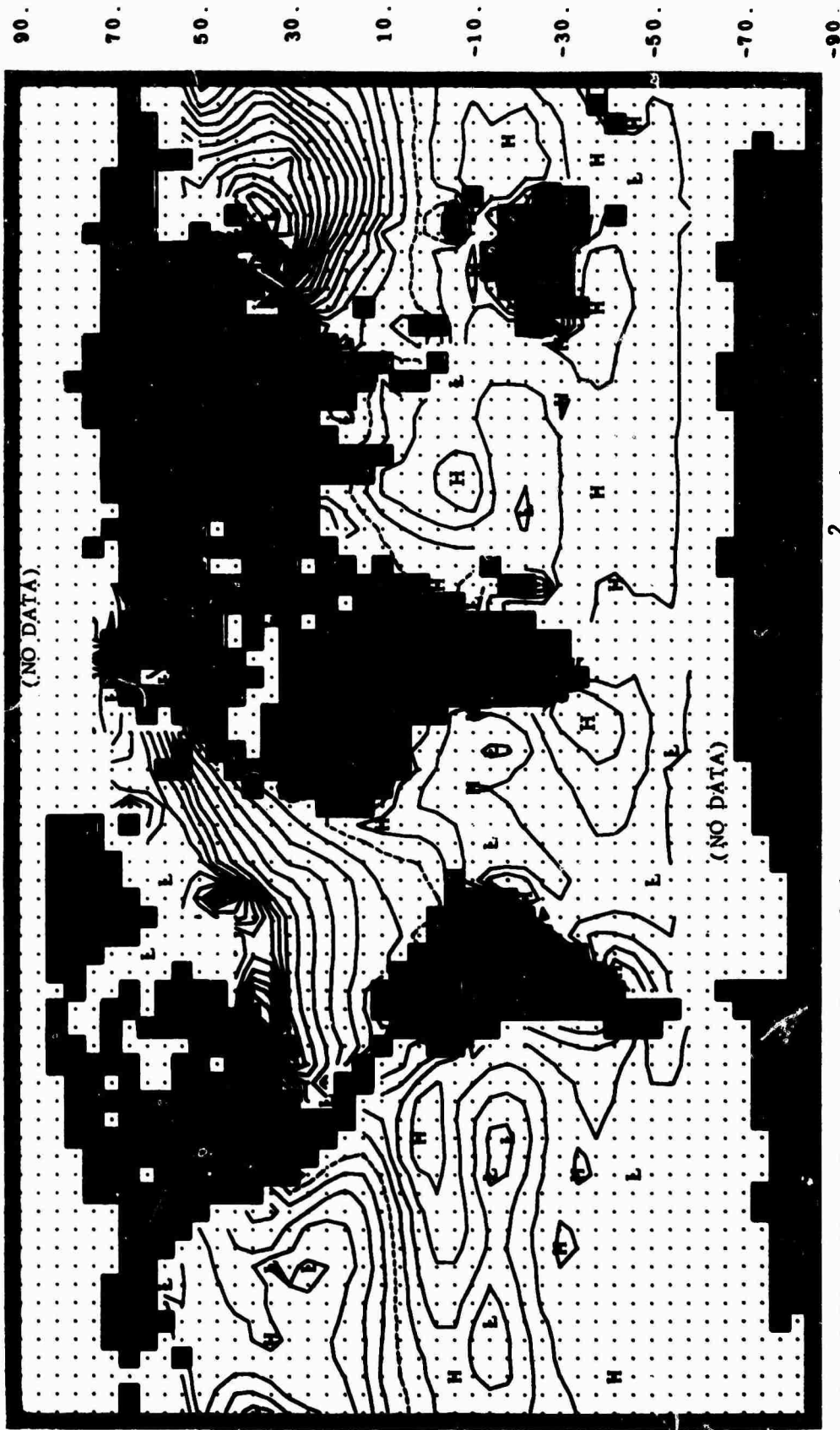


Fig. 3.11 -- Mean January total heat balance at the surface in  $10^2$  ly/day. The analysis interval is 50 ly/day and the 0 isoline is dashed. Computed from data of Budyko (1963). A positive value denotes a radiative heat surplus over the losses due to sensible heat flux and evaporation.



Fig. 3.12 -- Mean January temperature at 800 mb in deg C. The analysis interval is 5 deg C and the 0-deg C isotherm is dashed. Reduced from data of Crutcher and Meserve (1970) and Taljaard et al. (1969).

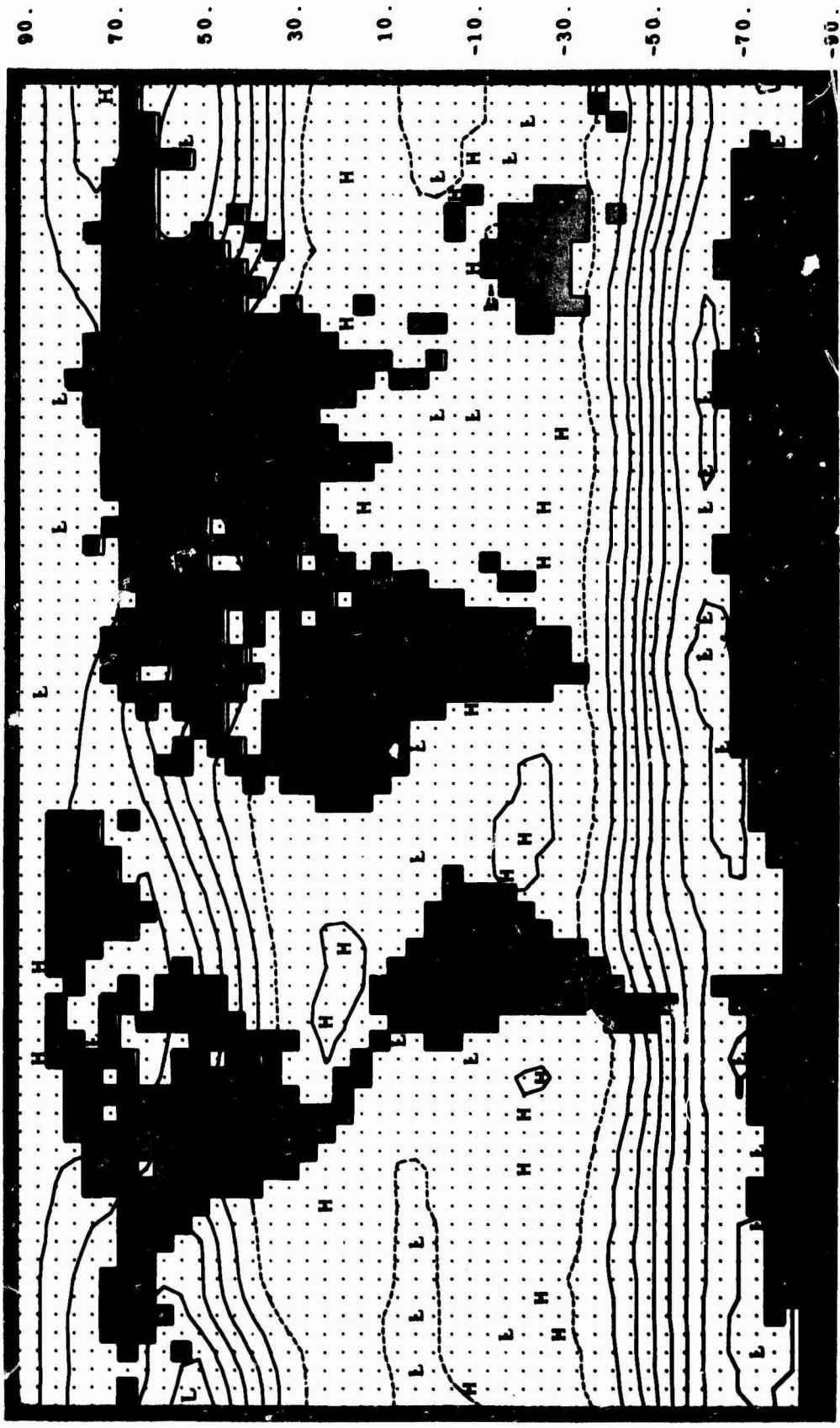


Fig. 3.13 --- Mean January geopotential height at 800 mb in 10<sup>4</sup> m. The analysis interval is 50 m and the 2000-m contour is dashed. Reduced from data of Crutcher and Meserve (1970) and Taijaard et al. (1969).



Fig. 3.14 -- Mean January relative humidity at 800 mb in percent. The analysis interval is 10 percent and the 60-percent isoline is dashed. Computed from dew-point data of Crutcher and Meserve (1970) and Taljaard et al. (1969).

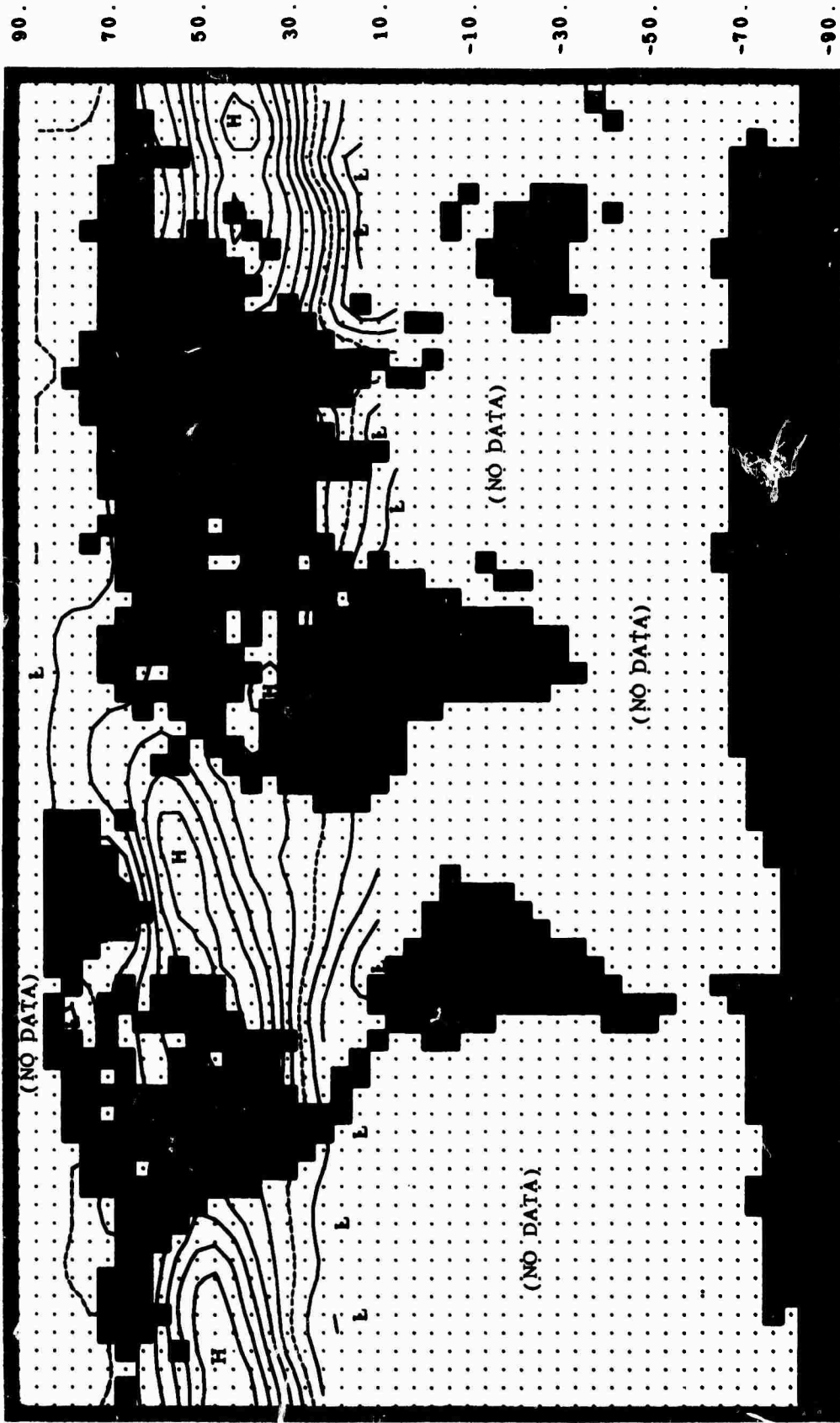


Fig. 3.15 -- Mean December-January-February zonal wind at 800 mb (northern hemisphere only) in  $\text{m sec}^{-1}$ . The analysis interval is  $2.0 \text{ m sec}^{-1}$  and the 0 isoline is dashed. A positive value denotes wind toward the east. Data from the cross-sections of Crutcher (1961).



Fig. 3.16 -- Mean December-January-February meridional wind at 800 mb (northern hemisphere only) in  $\text{m sec}^{-1}$ . The analysis interval is  $2.0 \text{ m sec}^{-1}$  and the 0 isoline is dashed. A positive value denotes wind toward the north. Data from the cross-sections of Crutcher (1961).

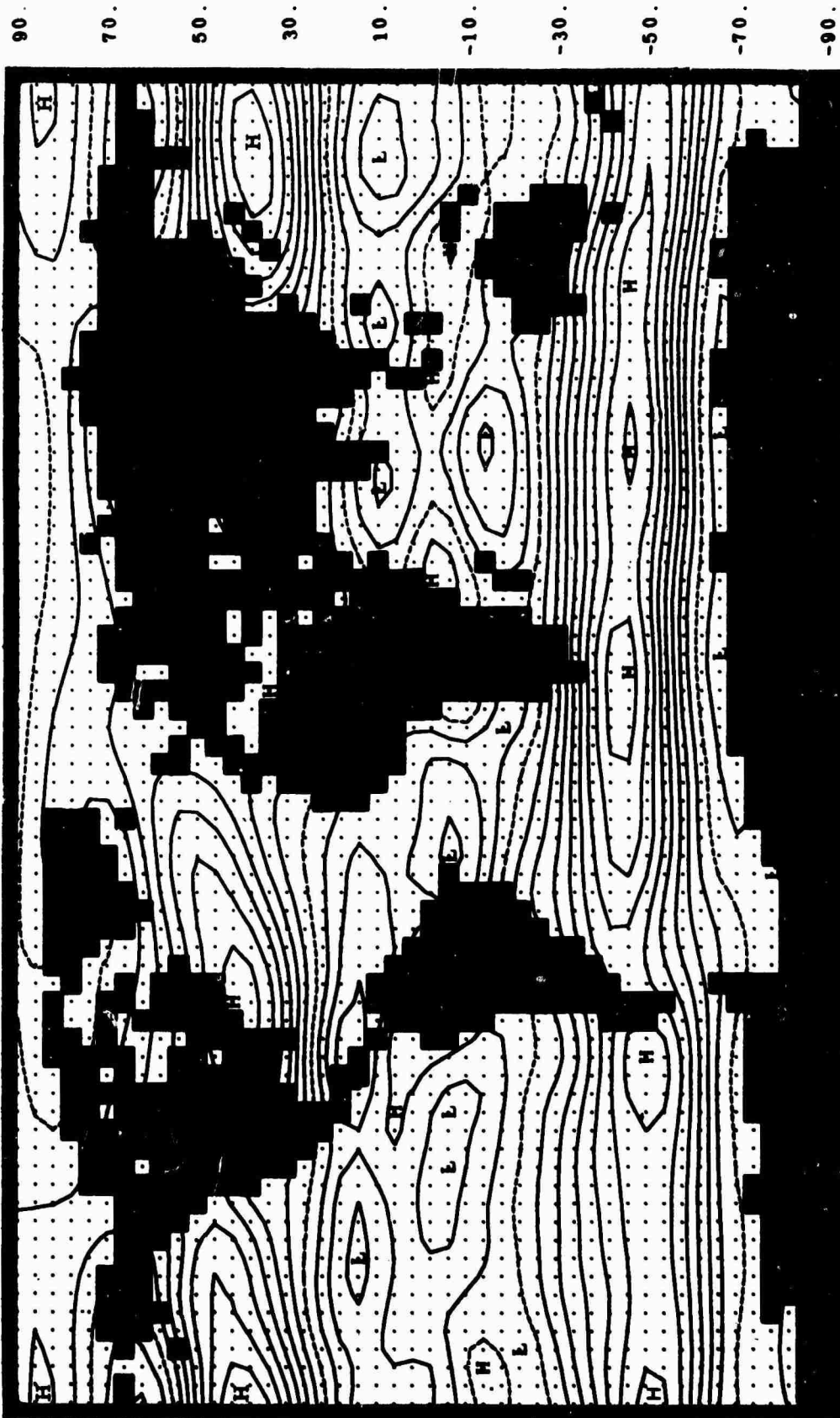


Fig. 3.17 --- Mean January zonal geostrophic wind at 800 mb in  $m\ sec^{-1}$ . The analysis interval is  $2.0\ m\ sec^{-1}$  and the 0 isoline is dashed. A positive value denotes wind toward the east. Re-duced from data of Crutcher and Meserve (1970) and Taljaard et al. (1969).



Fig. 3.18 -- Mean January meridional geostrophic wind at 800 mb in  $m\ sec^{-1}$ . The analysis interval is  $2.0\ m\ sec^{-1}$  and the 0 isoline is dashed. A positive value denotes wind toward the north. Re-duced from data of Crutcher and Meserve (1970) and Taljaard et al. (1969).

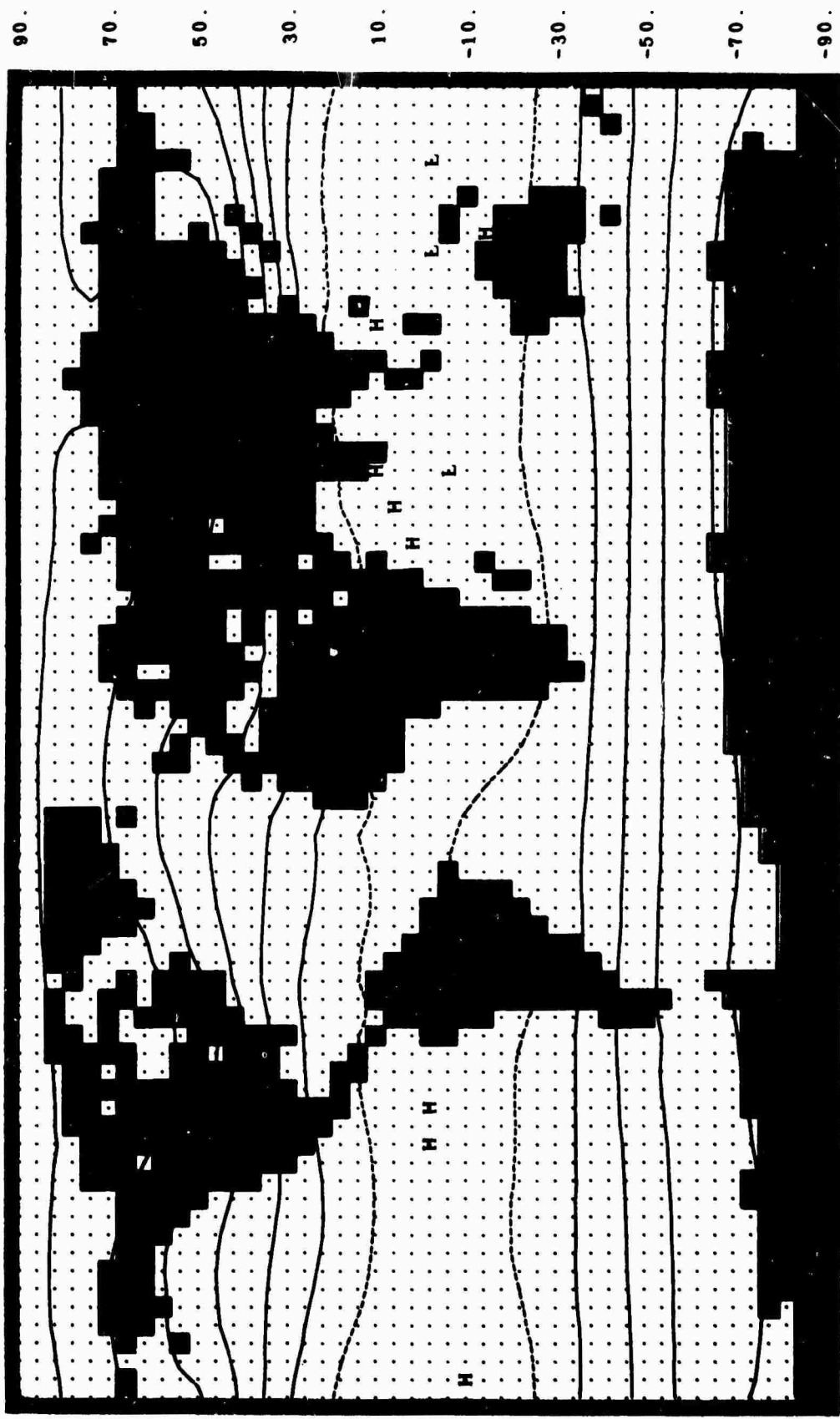


Fig. 3.19 -- Mean January temperature at 400 mb in deg C. The analysis interval is 5 deg C and the -20-deg C isotherm is dashed. Reduced from data of Crutcher and Meserve (1970) and Taljaard et al. (1969).



Fig. 3.20 -- Mean January geopotential height at 400 mb in  $10^2$  m. The analysis interval is 100 m and the 7000-m contour is dashed. Reduced from data of Crutcher and Meserve (1970) and Taljaard et al. (1969).



Fig. 3.21 -- Mean December-January-February zonal wind at 400 mb (northern hemisphere only) in  $m\ sec^{-1}$ . The analysis interval is  $5\ m\ sec^{-1}$  and the 0 isoline is dashed. A positive value denotes wind toward the east. Data from the cross-sections of Crutcher (1961).



Fig. 3.22 -- Mean December-January-February meridional wind at 400 mb (northern hemisphere only) in  $m\ sec^{-1}$ . The analysis interval is  $2.0\ m\ sec^{-1}$  and the 0 isoline is dashed. A positive value denotes wind toward the north. Data from the cross-sections of Crutcher (1961).



Fig. 3.23 -- Mean January zonal geostrophic wind at 400 mb in  $m\ sec^{-1}$ . The analysis interval is  $5\ m\ sec^{-1}$  and the 0 isoline is dashed. A positive value denotes wind toward the east. Reduced from data of Crutcher and Meserve (1970) and Taljaard et al. (1969).



Fig. 3.24 -- Mean January meridional geostrophic wind at 400 mb in  $m\ sec^{-1}$ . The analysis interval is  $2.5\ m\ sec^{-1}$  and the 0 isoline is dashed. A positive value denotes wind toward the north. Reduced from data of Crutcher and Meserve (1970) and Taljaard et al. (1969).

4. ZONALLY AVERAGED DATA

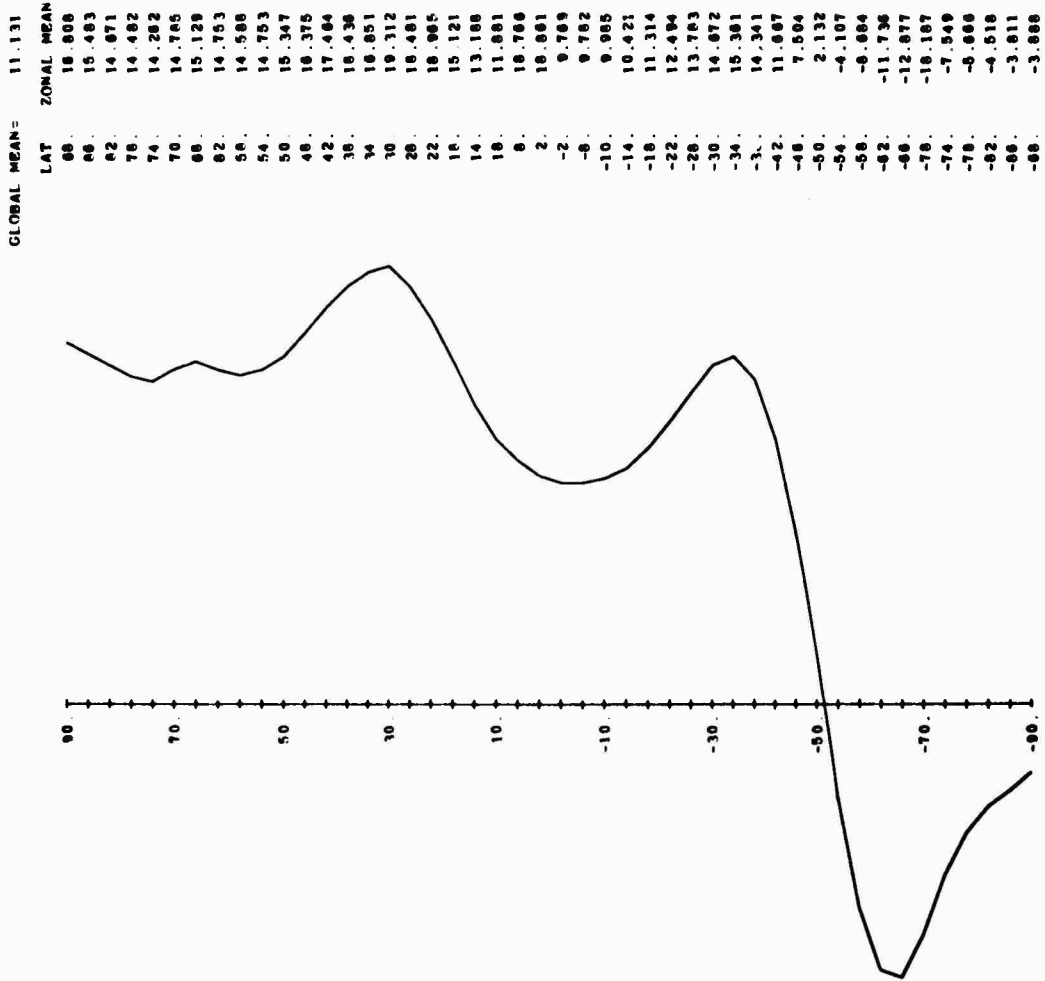


Fig. 4.1 --- Zonally averaged mean January sea-level pressure in mb (relative to 1000 mb) as found from the data of Fig. 3.1.

GLOBAL MEAN = 12.214

LAT	ZONAL MEAN
90	-35.400
86	-34.401
82	-30.067
76	-27.014
74	-24.585
70	-23.046
66	-22.690
62	-16.298
58	-13.487
54	-10.000
50	-7.517
46	-3.403
42	1.251
38	5.499
34	9.212
30	13.107
26	17.003
22	16.953
18	22.350
14	24.271
10	25.465
6	25.687
2	26.062
-2	26.216
-6	26.400
-10	26.251
-14	25.907
-16	25.620
-22	25.121
-26	24.198
-30	22.700
-34	20.231
-36	17.463
-42	14.376
-46	11.052
-50	6.004
-54	5.872
-66	3.528
-82	1.946
-86	-1.107
-70	-6.540
-74	-16.406
-78	-20.301
-82	-23.766
-86	-26.547
-90	-26.400

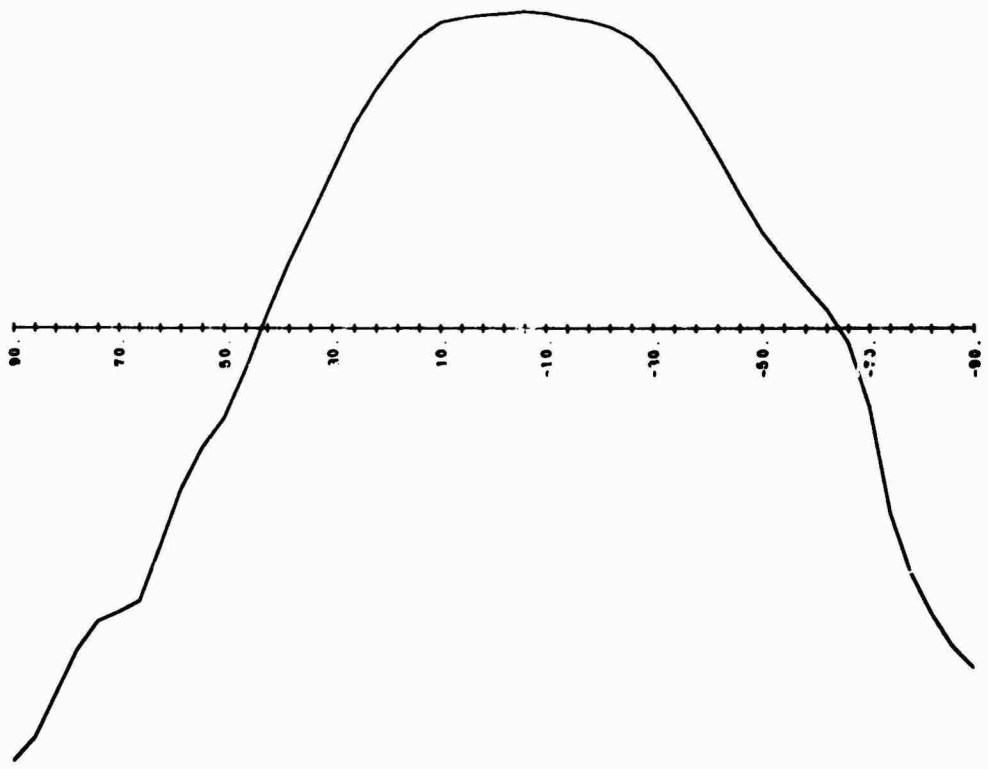


Fig. 4.2 -- Zonally averaged mean January surface air temperature in deg C, as found from the data of Fig. 3.2.

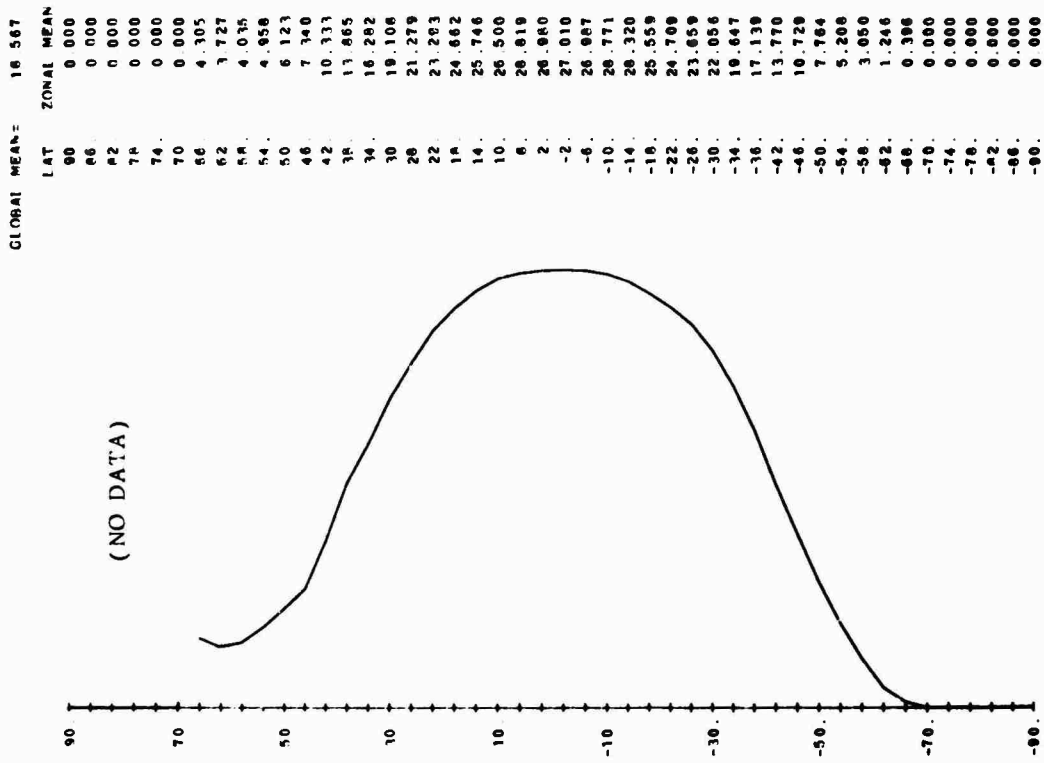


Fig. 4.3 --- Zonally averaged mean January sea-surface temperature in deg C, as found from the data of Fig. 3.3.

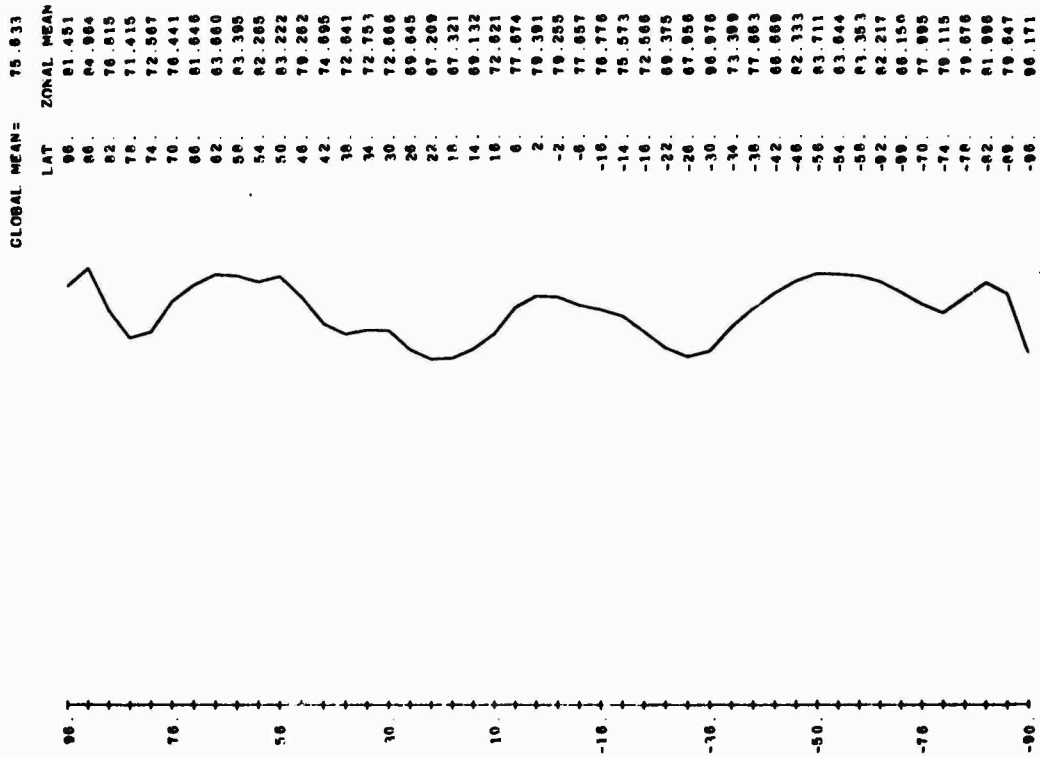


Fig. 4.4 -- Zonally averaged mean January surface relative humidity in percent, as found from the data of Fig. 3.4.

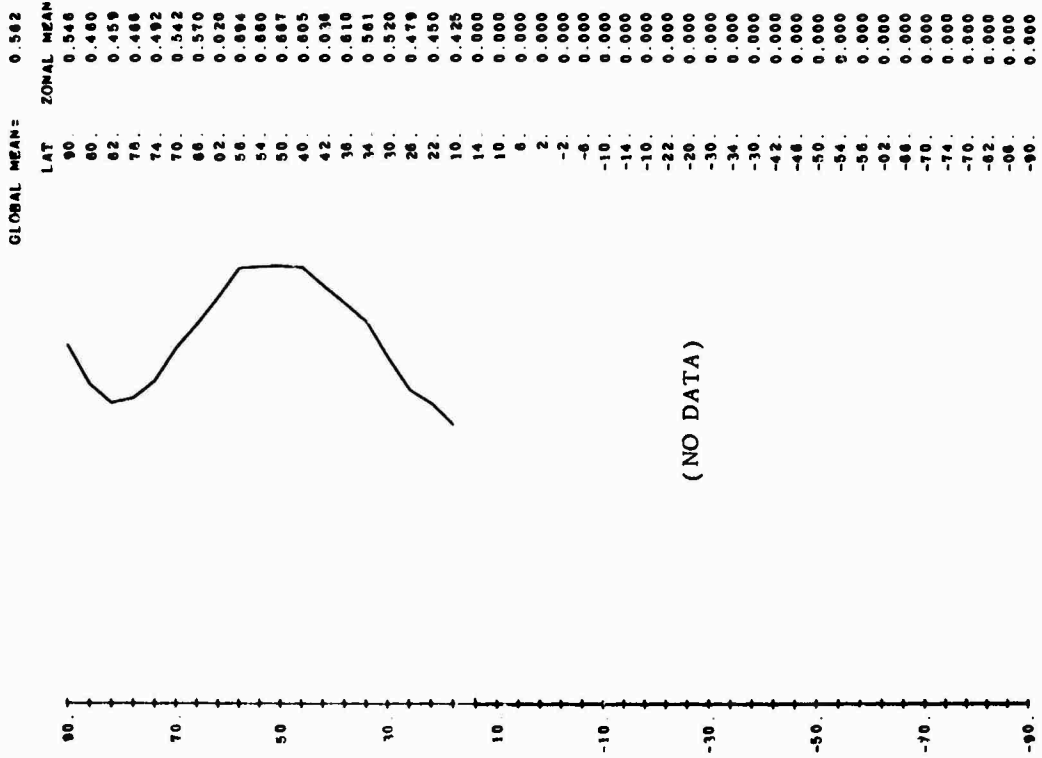


Fig. 4.5A - Zonally averaged mean January total cloud cover (northern hemisphere only) in fraction of the sky covered, as found from the data of Fig. 3.5A.

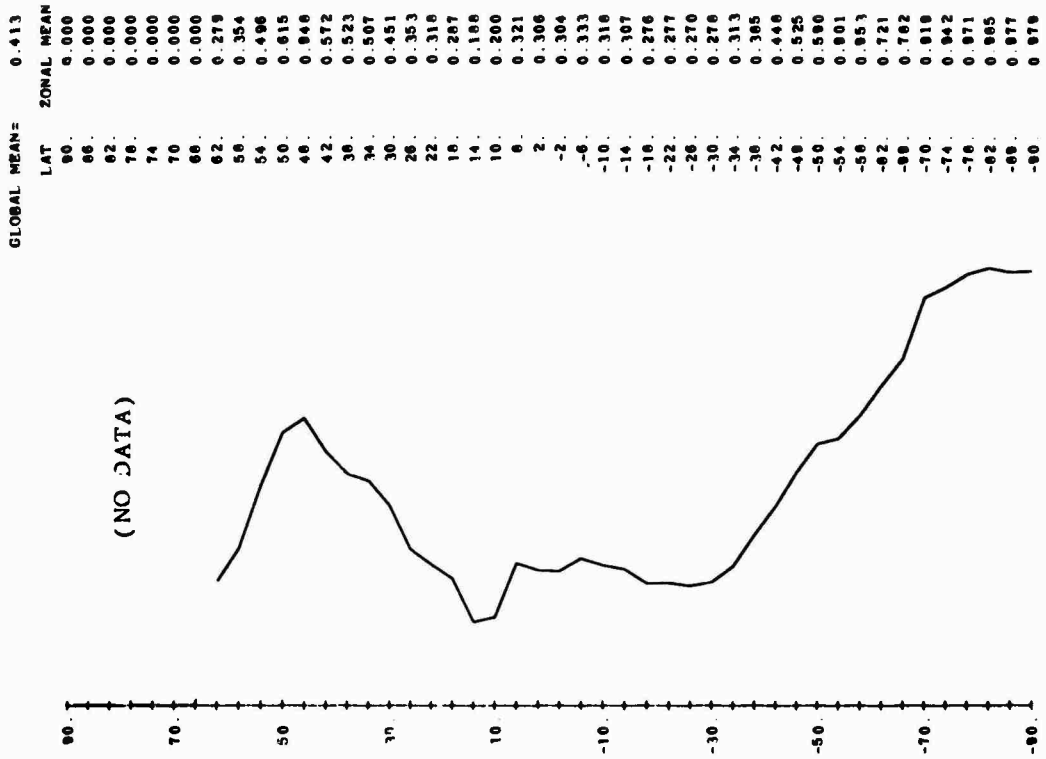


Fig. 4.5B -- Zonally averaged mean January total cloud cover in fraction of the sky covered, as found from the data of Fig. 3.5R.

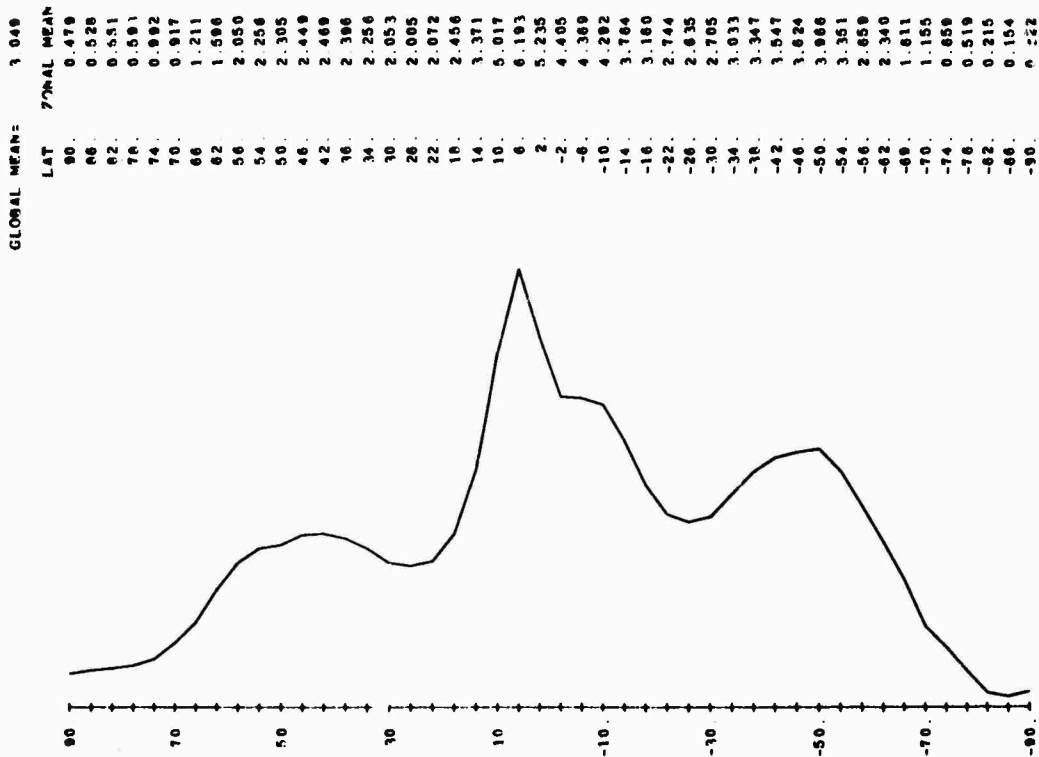


Fig. 4.6A --- Zonally averaged mean annual precipitation in mm/day as found from the data of Fig. 3.6A.

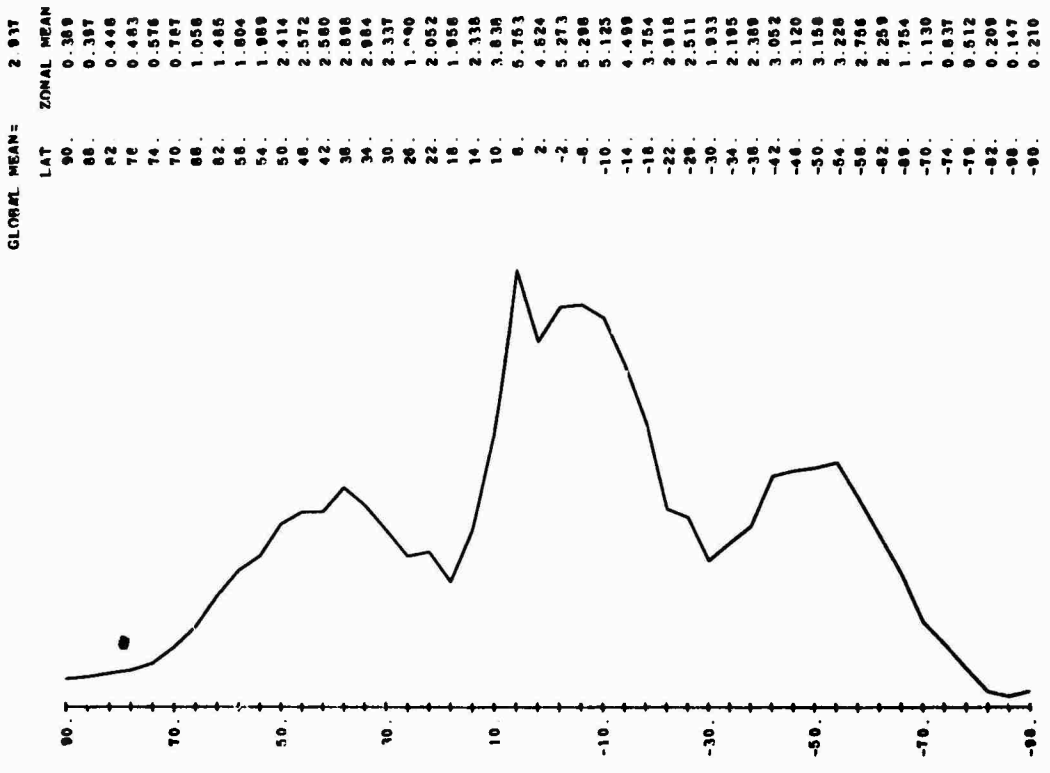


Fig. 4.6B -- Zonally averaged mean December-January-February precipitation in mm/day. No global chart available for these data.

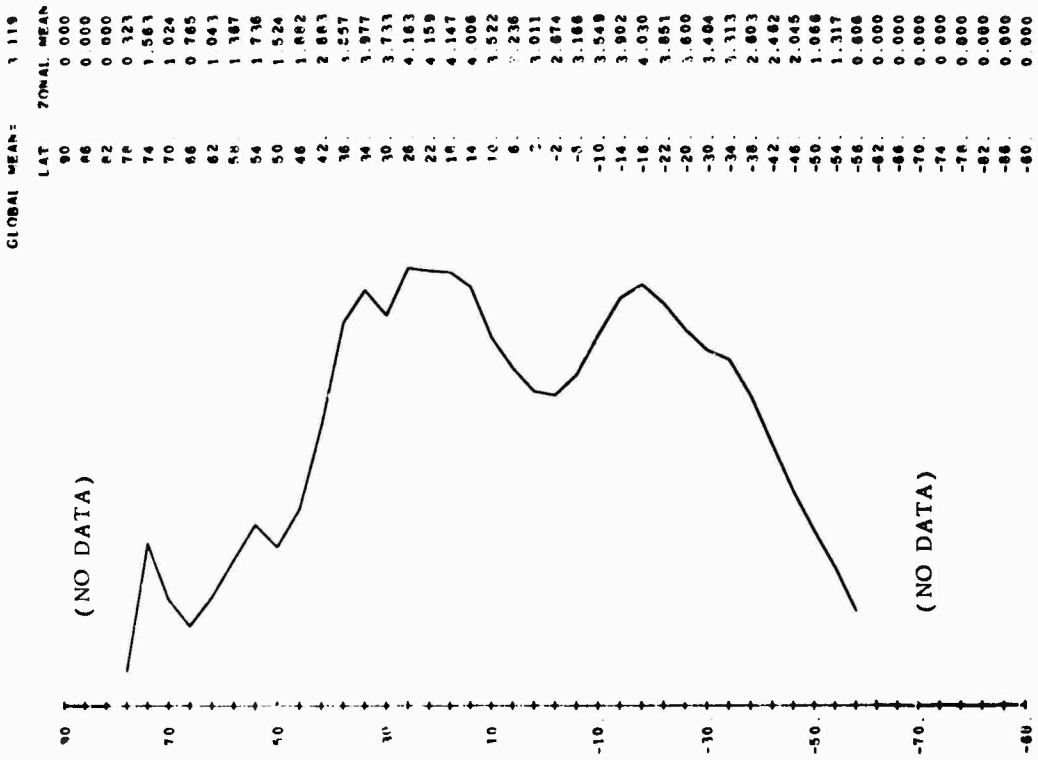


Fig. 4.7 -- Zonally averaged mean January surface evaporation in mm/day, as found from the data of Fig. 3.7.

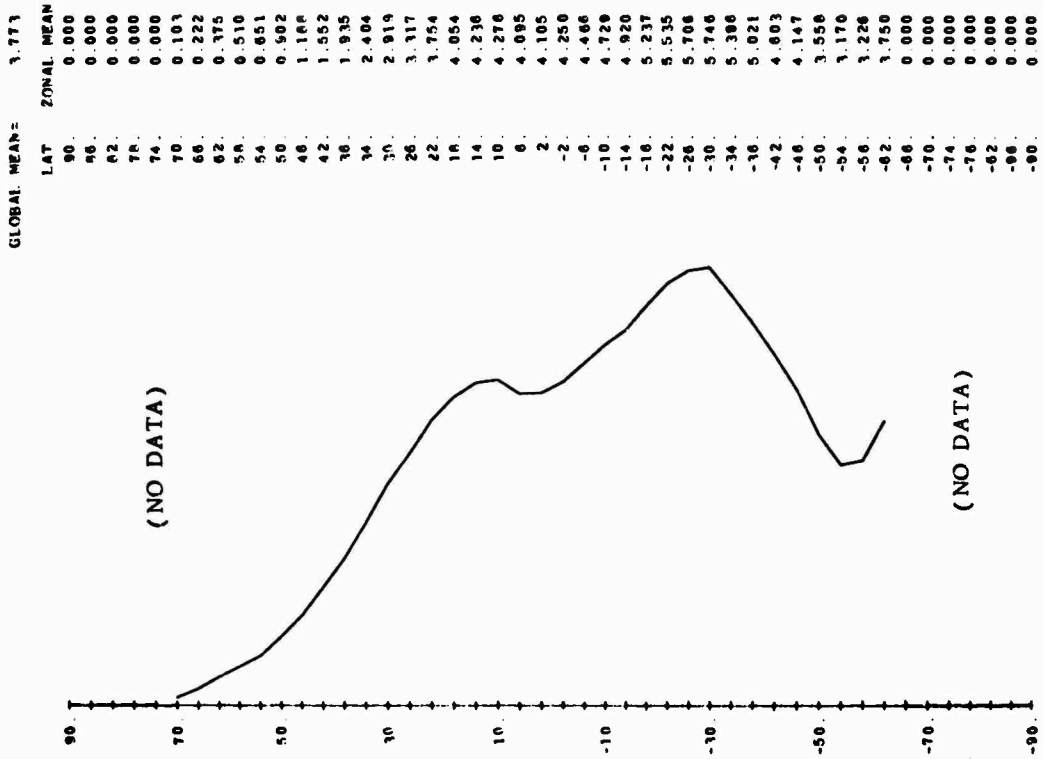


Fig. 4.8 -- Zonally averaged mean January solar radiation received at the surface in  $10^2$  ly/day, as found from the data of Fig. 3.8.

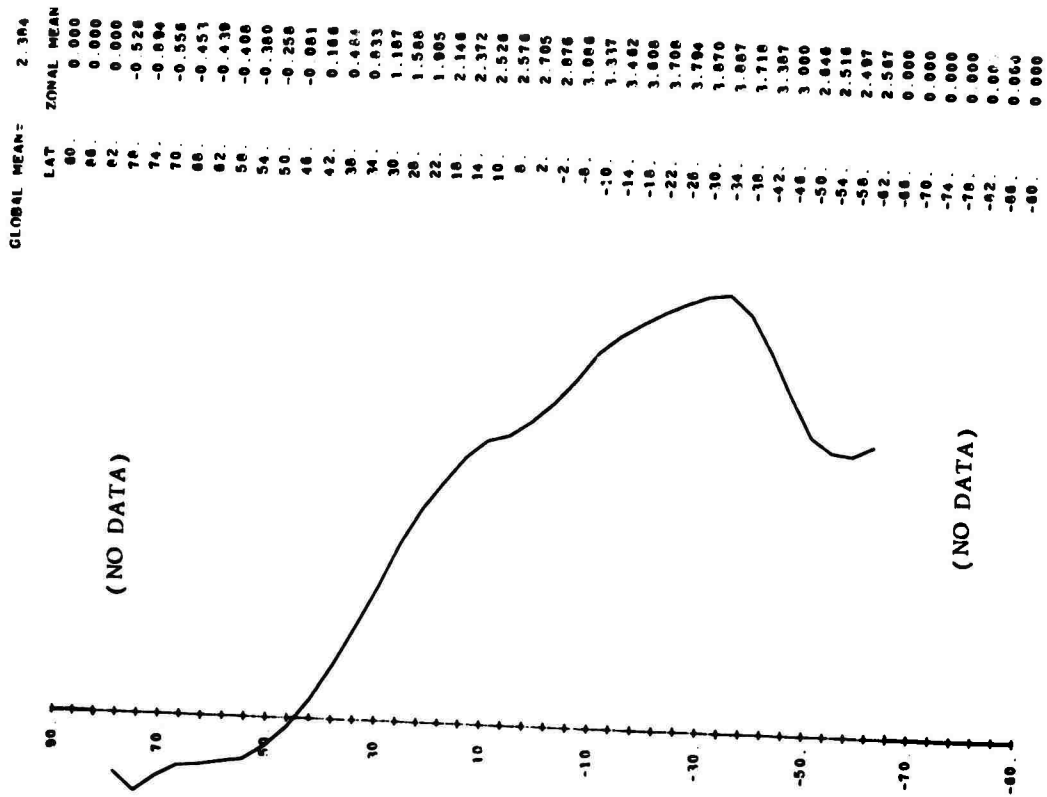


Fig. 4.9 -- Zonally averaged mean January radiation balance at the surface in 102 ly/day, as found from the data of Fig. 3.9. A positive value denotes a short-wave energy surplus.

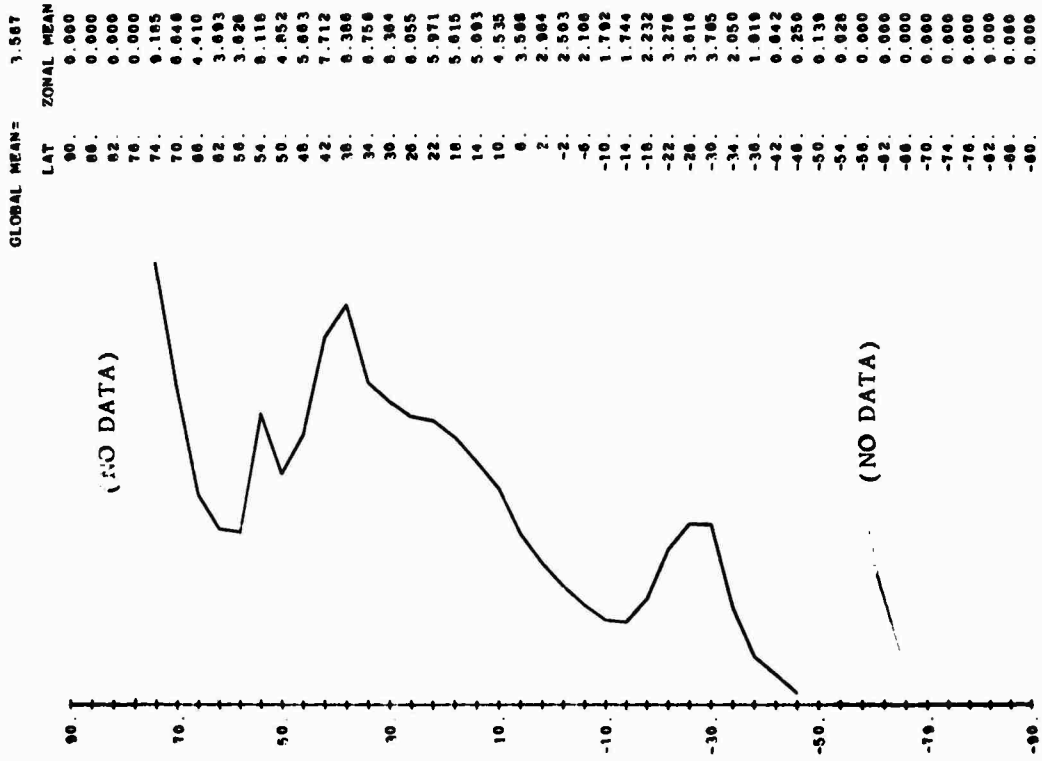


Fig. 4.10 -- Zonally averaged mean January sensible heat flux at the surface in 10 ly/day, as found from the data of Fig. 3.10. A positive value denotes an upward flux.

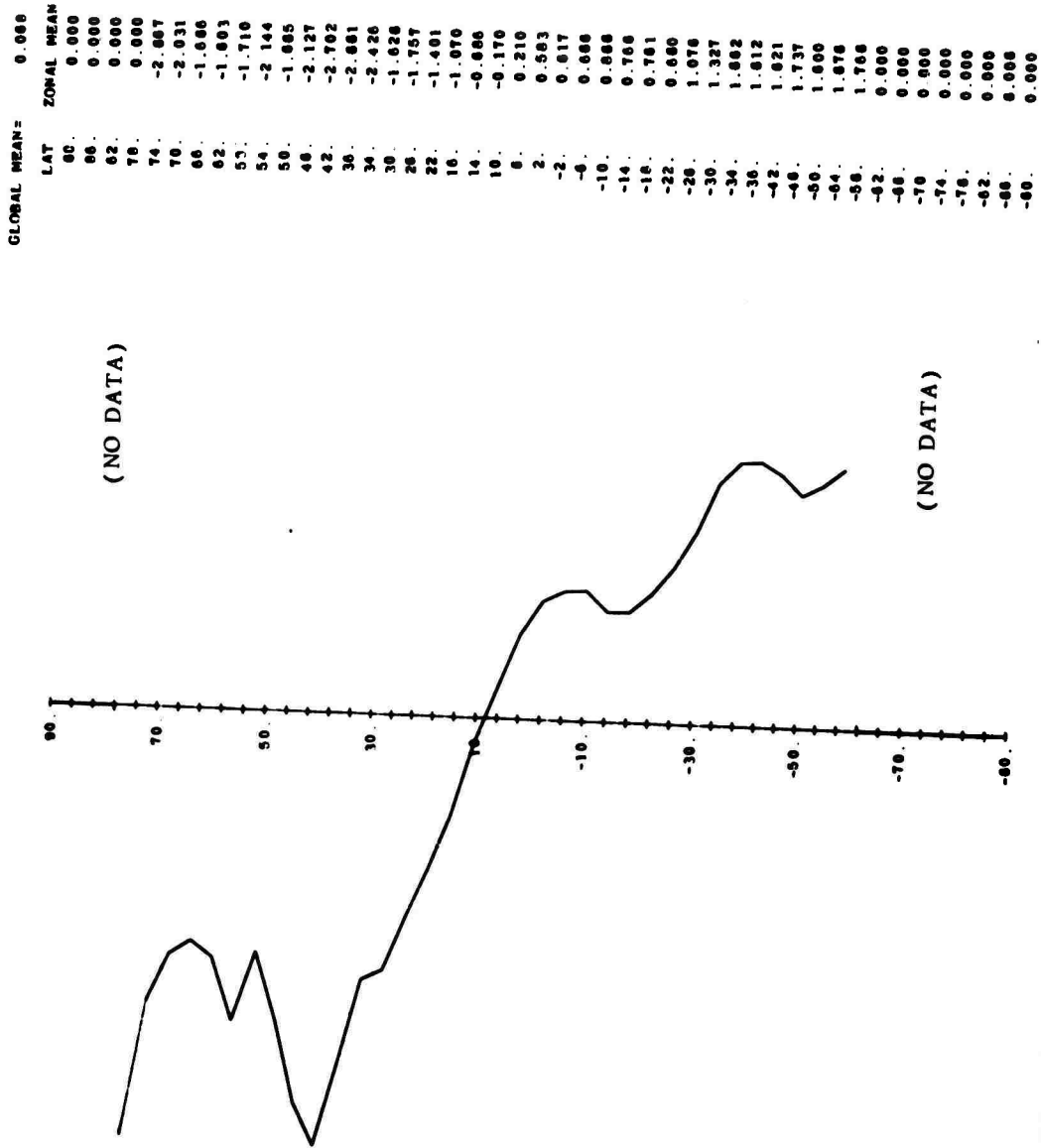


Fig. 4.11 --- Zonally averaged mean January total heat balance at the surface in  $10^2$  ly/day, as found from the data of Fig. 3.11. A positive value denotes a radiative heat surplus over the losses due to sensible heat flux and evaporation.

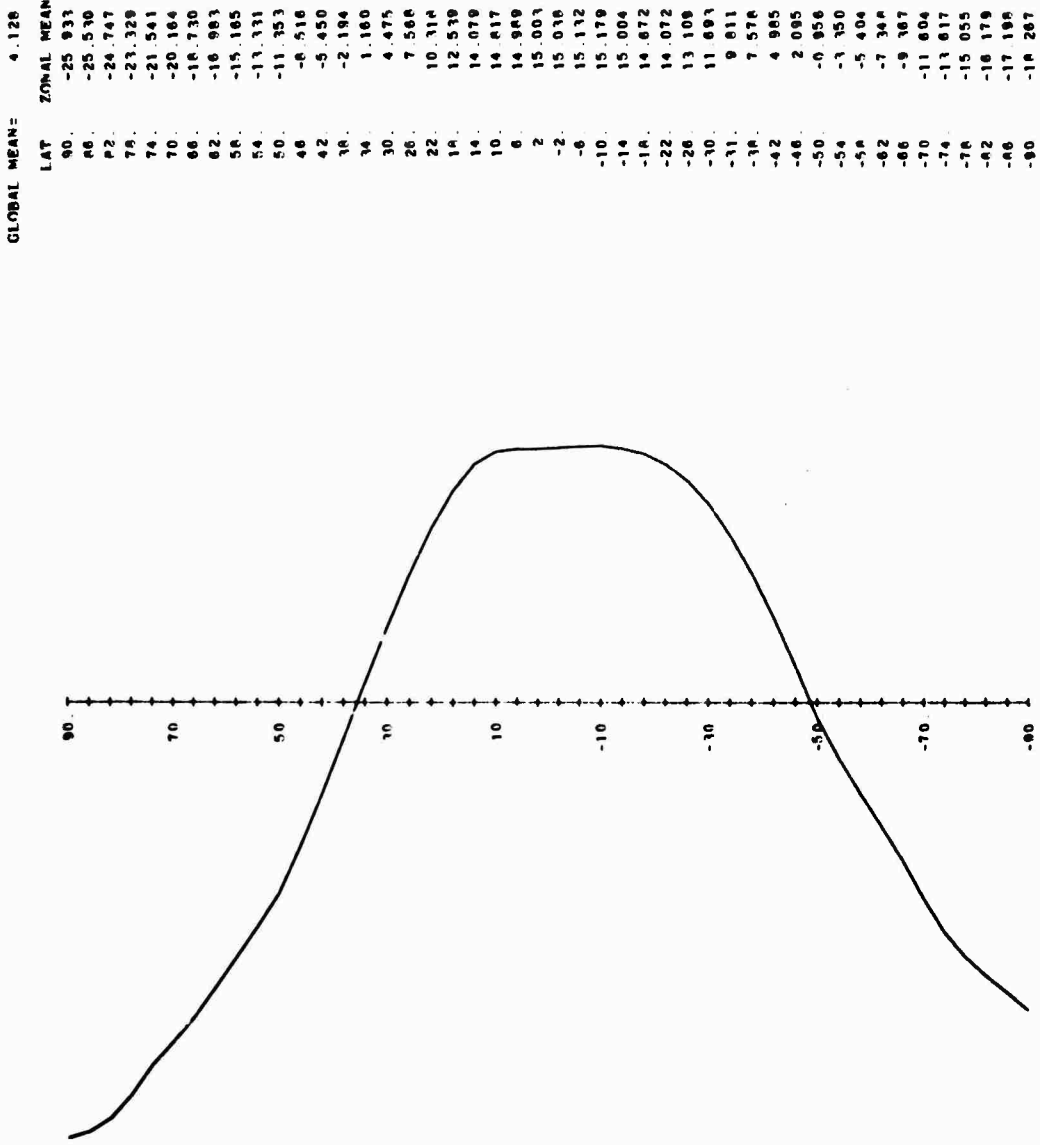


Fig. 4.12 --- Zonally averaged mean January temperature at 800 mb in deg C, as found from the data of Fig. 3.12.

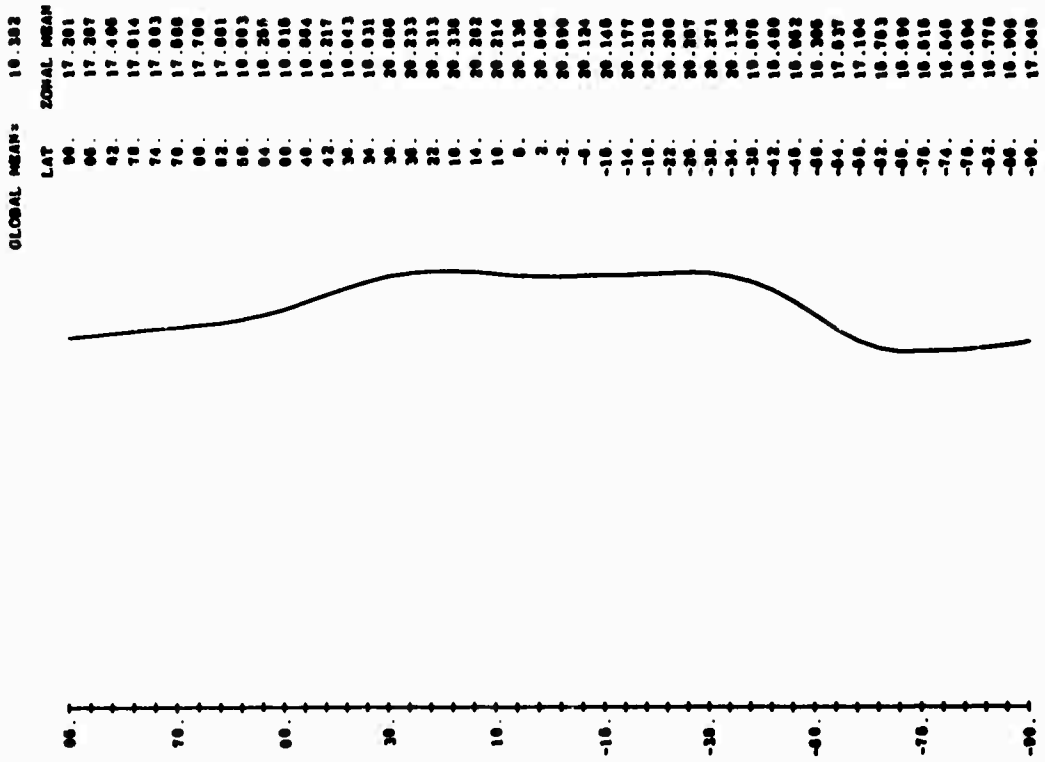


Fig. 4.13 --- Zonally averaged mean January geopotential height at 800 mb in  $10^2$  m, as found from the data of Fig. 3.13.

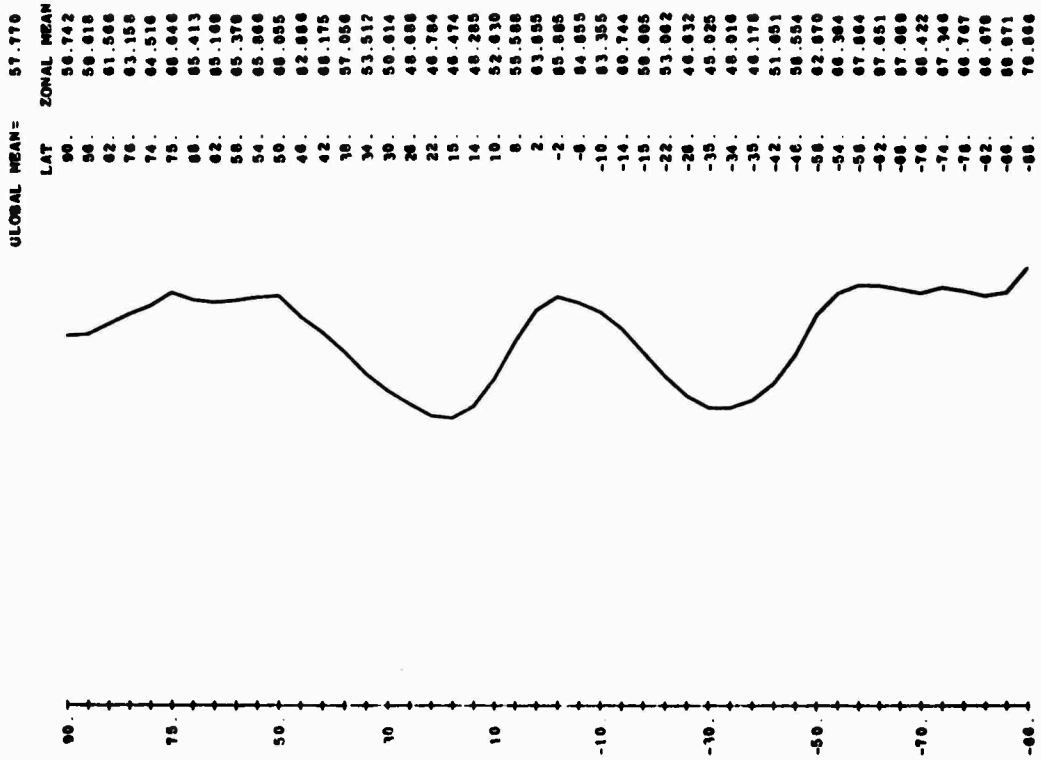


Fig. 4.14 -- Zonally averaged mean January relative humidity at 800 mb in percent, as found from the data of Fig. 3.14.

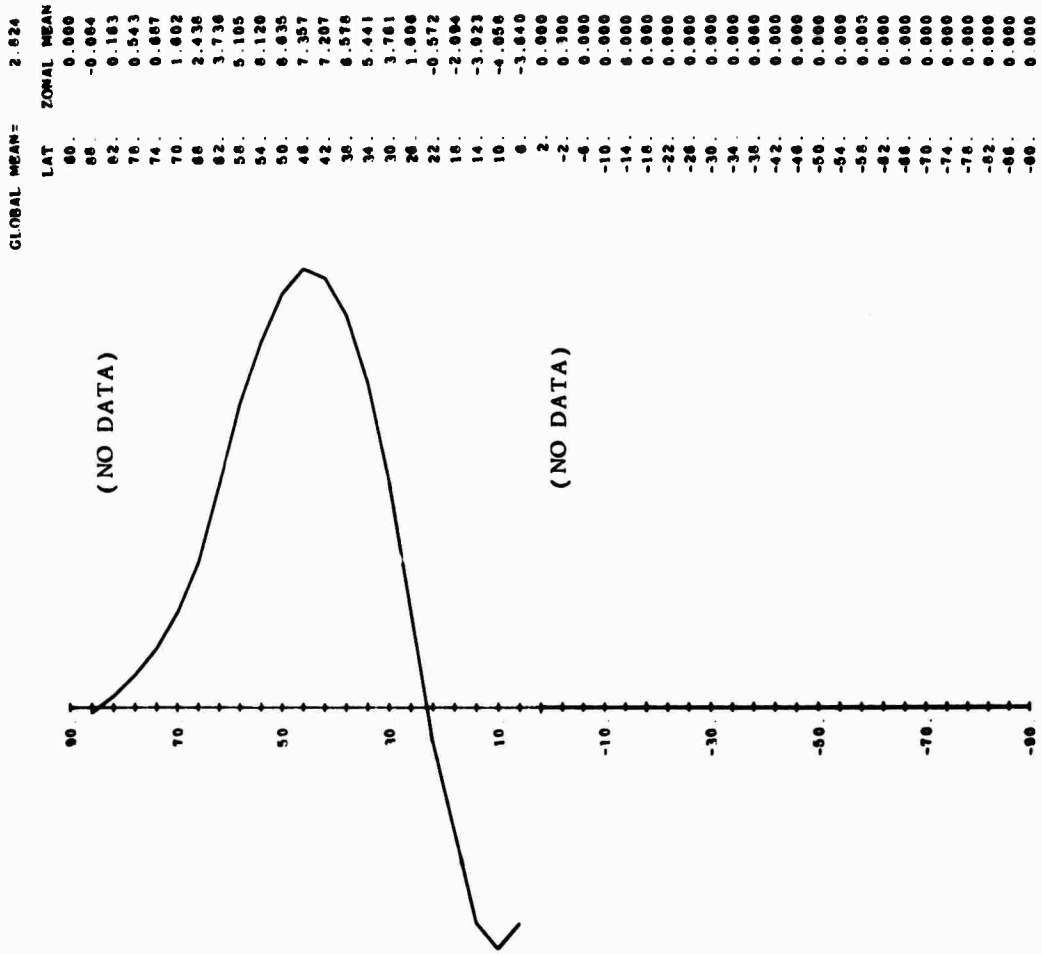


Fig. 4.15 -- Zonally averaged mean December-January-February zonal wind at 800 mb (northern hemisphere only) in m sec<sup>-1</sup>, as found from the data of Fig. 3.15. A positive value denotes wind toward the east. Values apply at latitudes 2 deg south of the indicated scale.

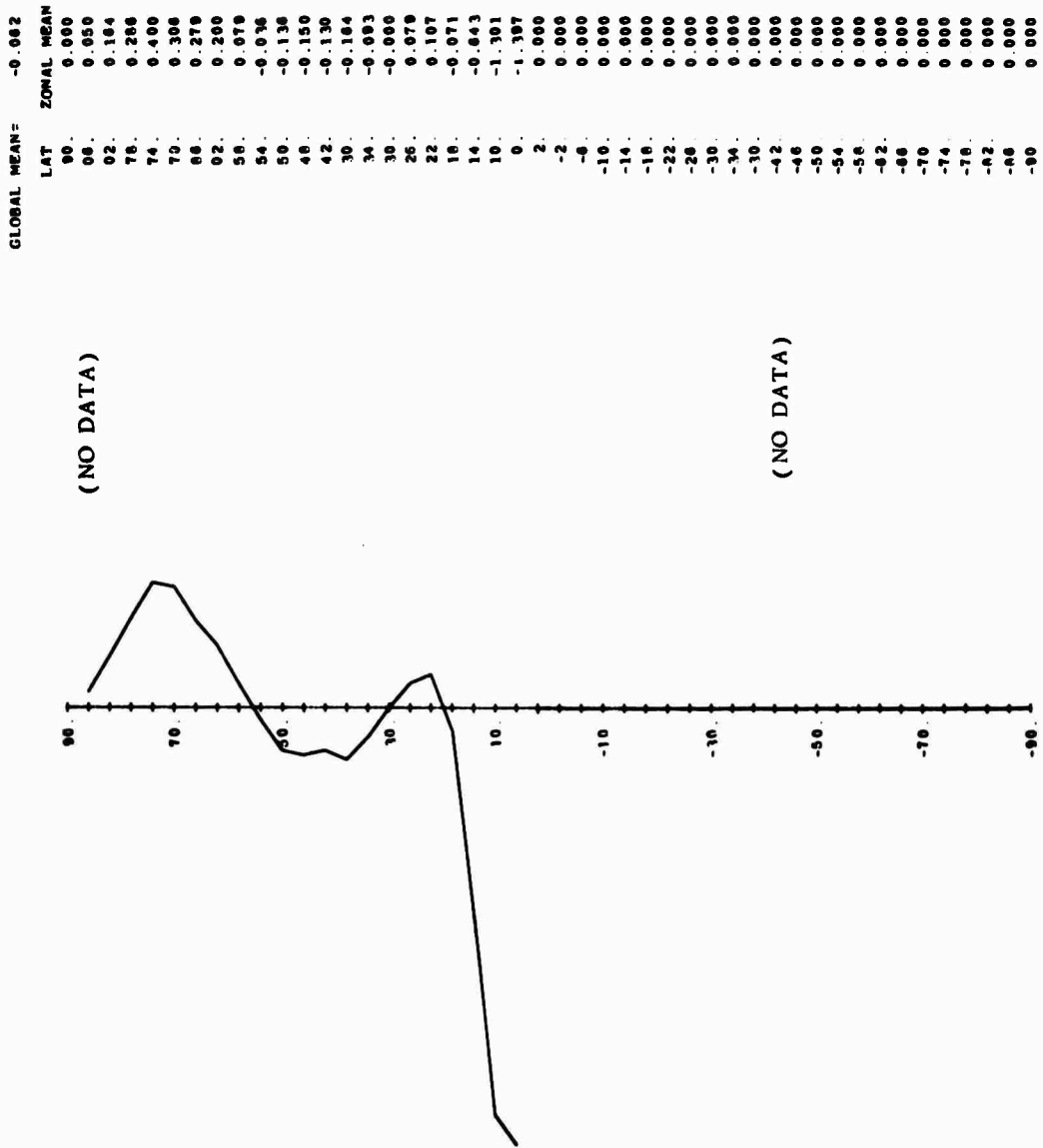


Fig. 4.16 -- Zonally averaged mean December-January-February meridional wind at 800 mb (northern hemisphere only) in  $m\ sec^{-1}$ , as found from the data of Fig. 3.16. A positive value denotes wind toward the north. Values apply at latitudes 2 deg south of the indicated scale.

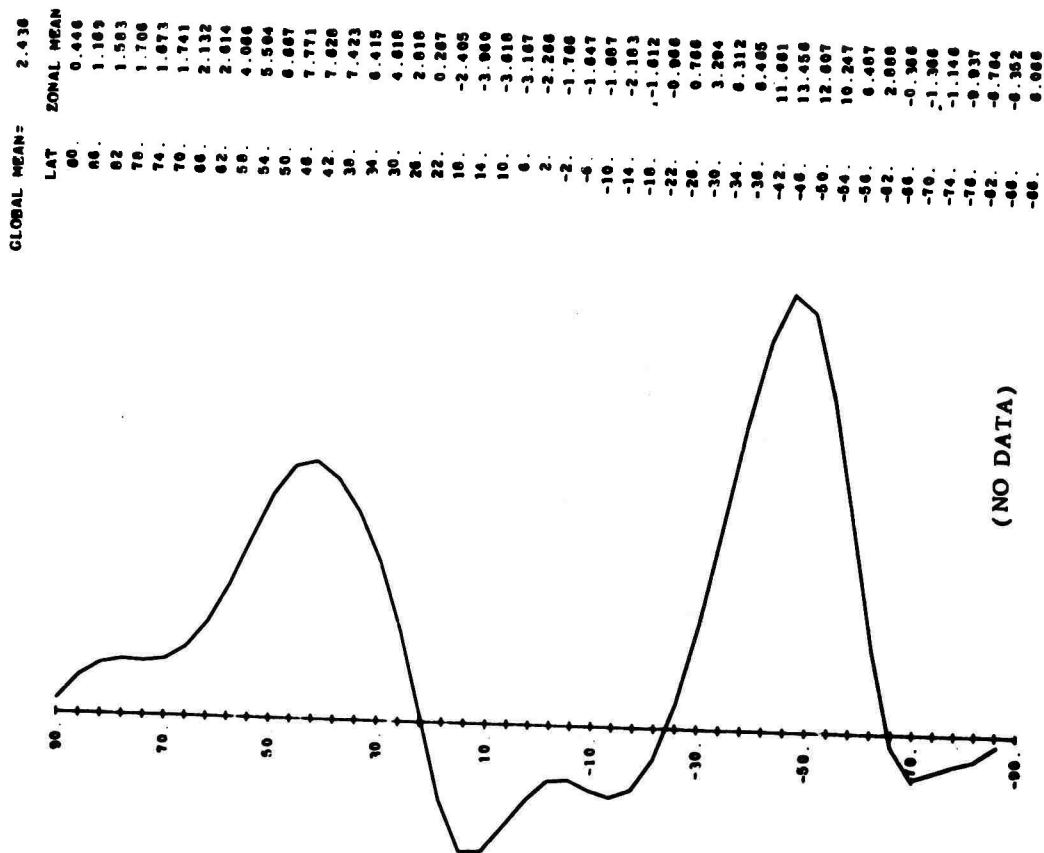


Fig. 4.17 -- Zonally averaged mean January zonal geostrophic wind at 800 mb in the m sec<sup>-1</sup>, as found from the data of Fig. 3.17. A positive value denotes wind toward the east. The value for 90 S is fictitious, and the remaining values apply at latitudes 2 deg south of the indicated scale.

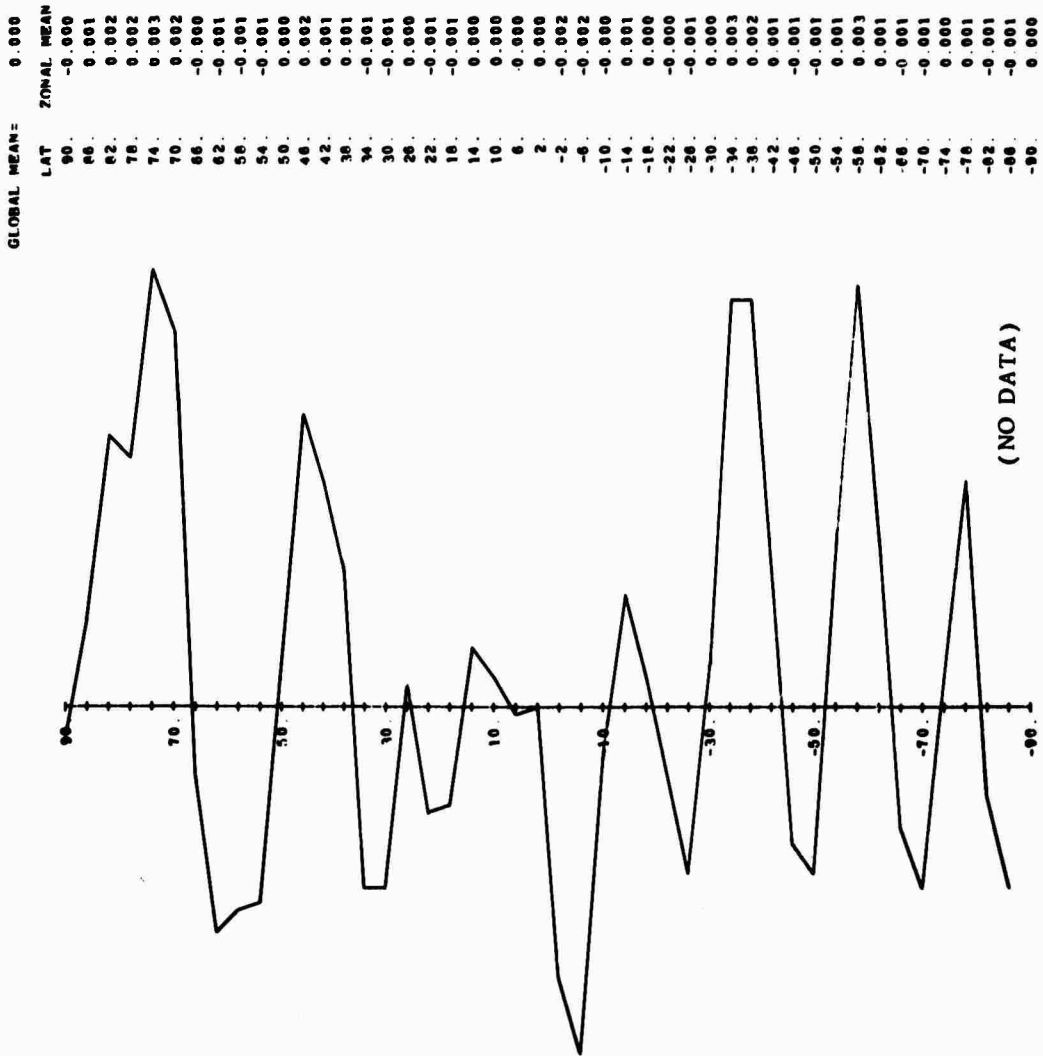


Fig. 4.18 -- Zonally averaged mean January meridional geostrophic wind at 800 mb in  $m\ sec^{-1}$ , as found from the data of Fig. 3.18. A positive value denotes wind toward the north. The value for 90 S is fictitious, and the remaining values apply at latitudes 2 deg south of the indicated scale.

LAT	EQMAL MEAN
90.	-27.012
88.	-50.050
86.	-50.543
84.	-46.027
82.	-46.028
80.	-47.076
78.	-47.013
76.	-45.074
74.	-44.017
72.	-43.746
70.	-42.417
68.	-40.010
66.	-39.138
64.	-38.051
62.	-34.283
60.	-31.155
58.	-27.071
56.	-25.055
54.	-22.158
52.	-20.023
50.	-16.554
48.	-16.728
46.	-16.337
44.	-16.261
42.	-16.337
40.	-16.340
38.	-16.333
36.	-16.400
34.	-16.096
32.	-18.016
30.	-20.703
28.	-22.173
26.	-23.022
24.	-25.037
22.	-27.011
20.	-30.134
18.	-32.467
16.	-34.076
14.	-36.428
12.	-37.030
10.	-38.062
8.	-40.307
6.	-41.456
4.	-42.462
2.	-43.310
0.	-43.000
-2.	-44.200

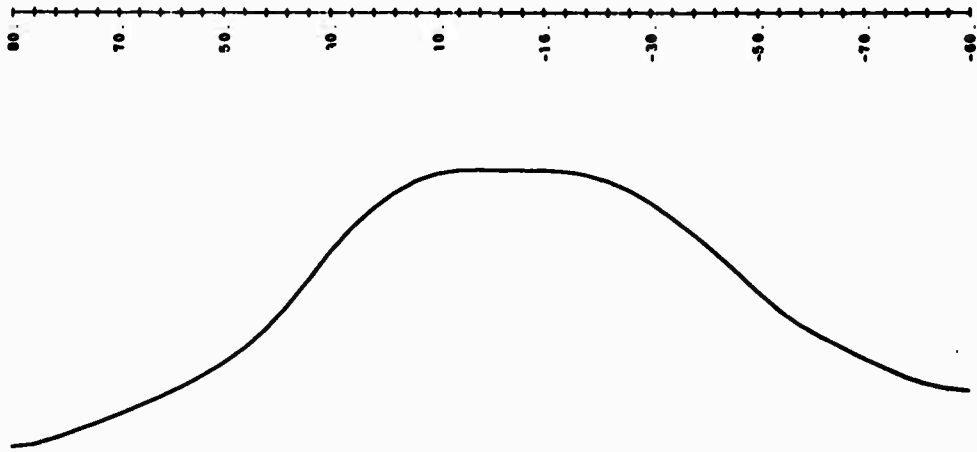


Fig. 4.19 -- Zonally averaged mean January temperature at 400 mb in deg C, as found from the data of Fig. 3.19.

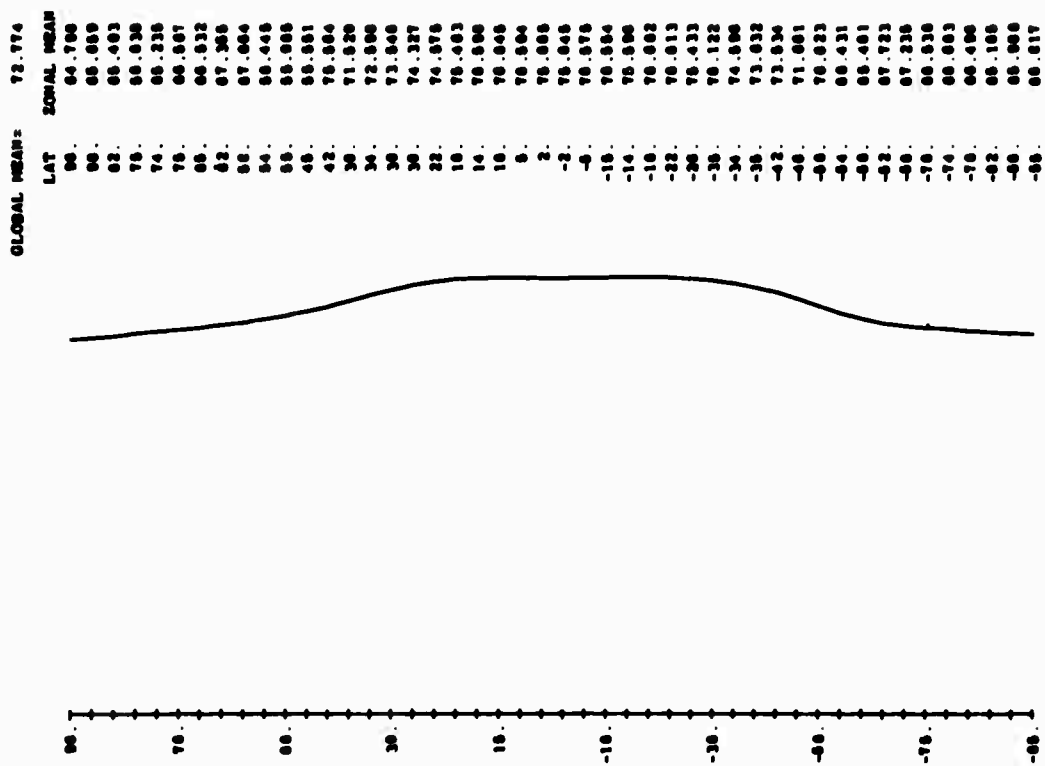


Fig. 4.20 -- Zonally averaged mean January geopotential height at 400 mb in  $10^2$  m, as found from the data of Fig. 3.20.

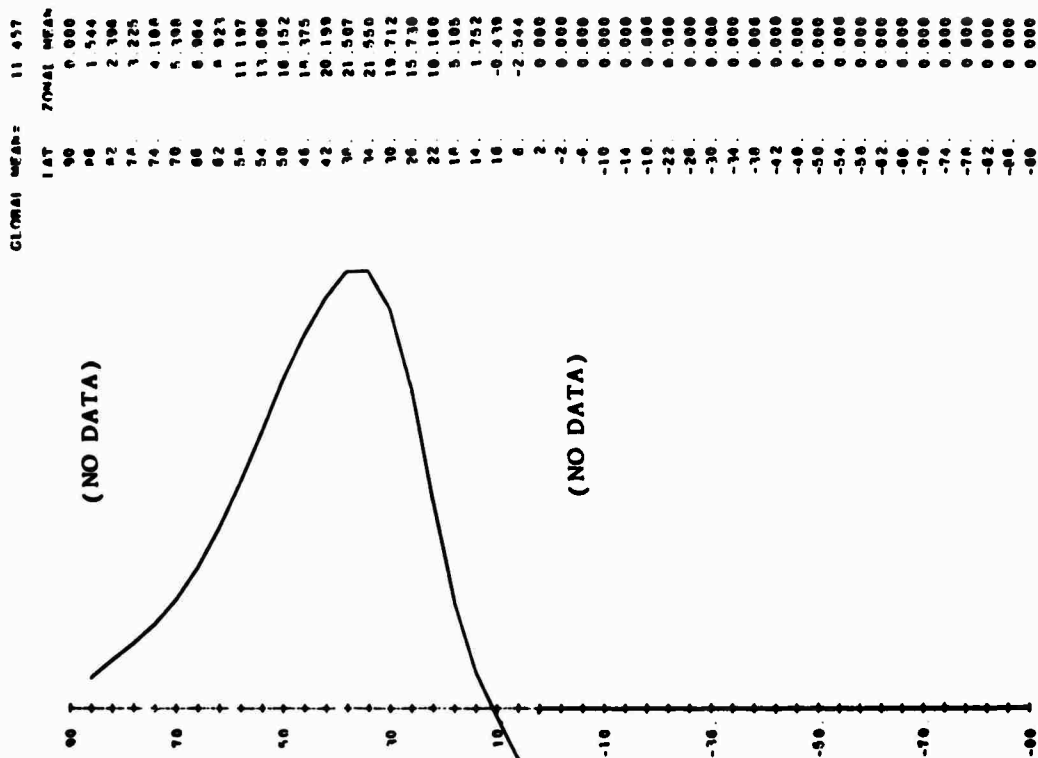


Fig. 4.21 -- Zonally averaged mean December-January-February zonal wind at 400 mb (northern hemisphere only) in  $m\ sec^{-1}$ , as found from the data of Fig. 3.21. A positive value denotes wind toward the east. Values apply at latitudes 2 deg south of the indicated scale.

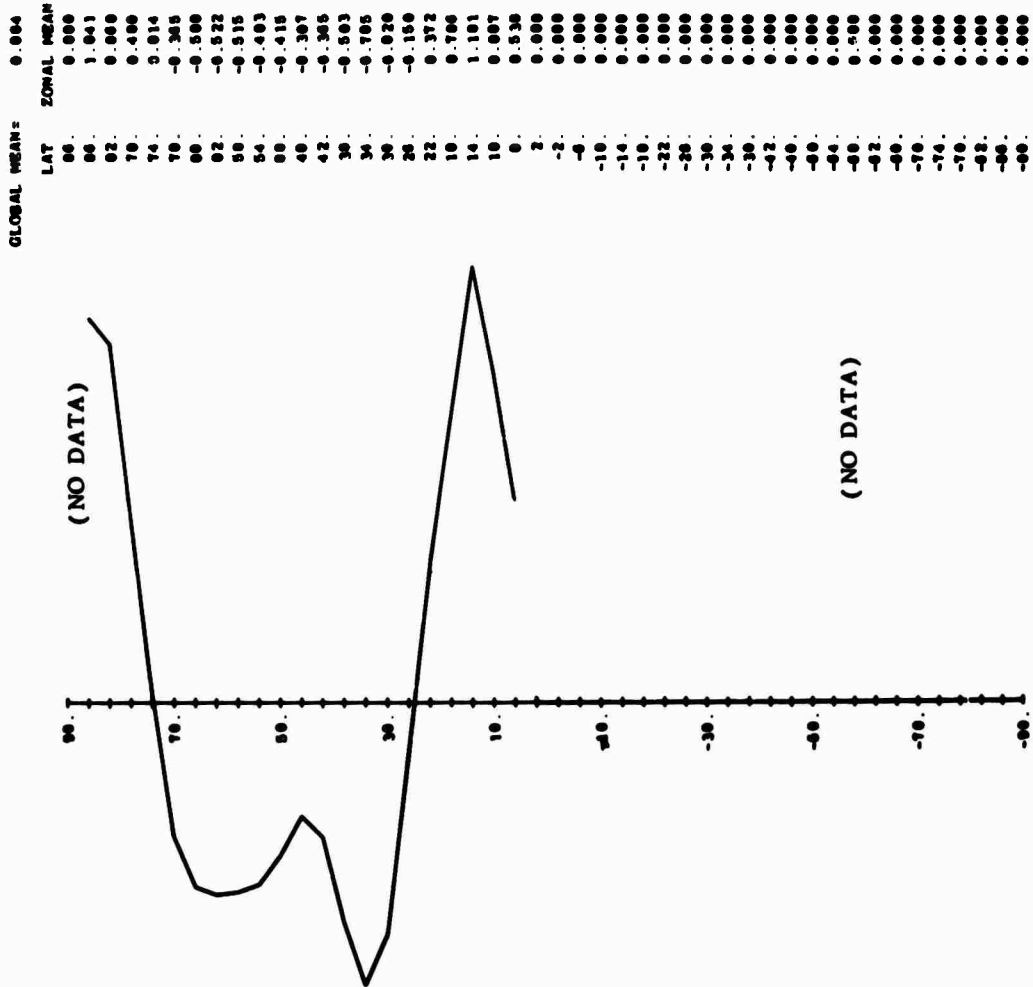


Fig. 4.22 -- Zonally averaged mean December-January-February meridional wind at 400 mb (northern hemisphere only) in  $m\ sec^{-1}$ , as found from the data of Fig. 3.22. A positive value denotes wind toward the north. Values apply at latitudes 2 deg south of the indicated scale.

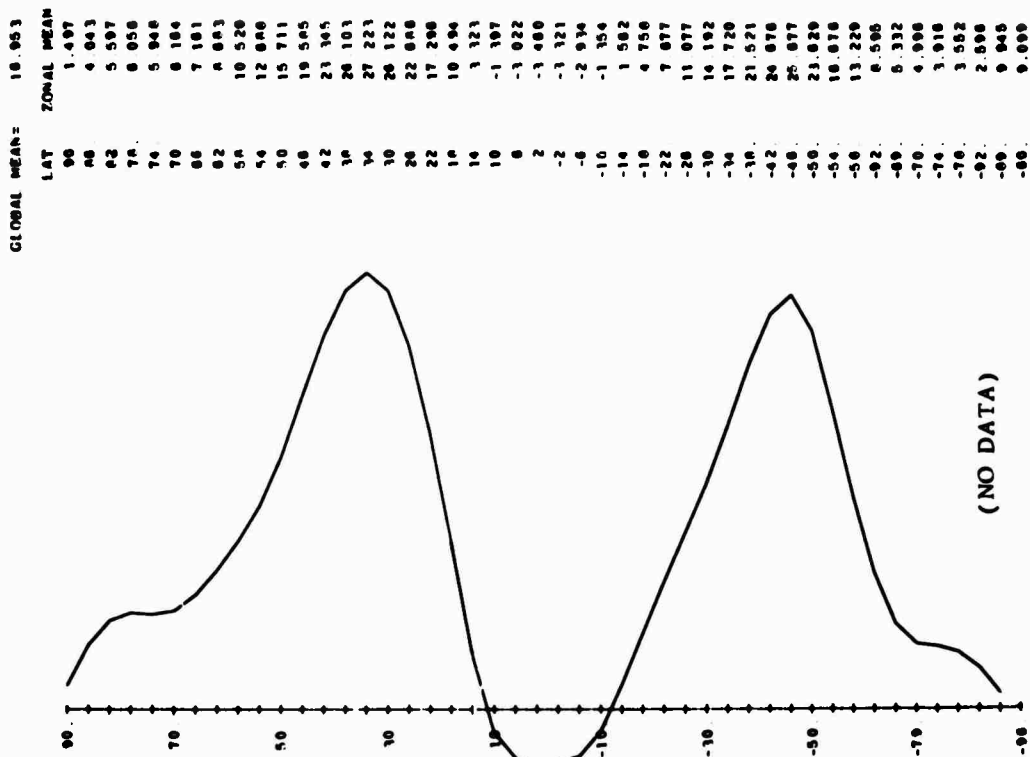


Fig. 4.23 -- Zonally averaged mean January zonal geostrophic wind at 400 mb in  $m\ sec^{-1}$ , as found from the data of Fig. 3.23. A positive value denotes wind toward the east. The value at 90 S is fictitious, and the remaining values apply at latitudes 2 deg south of the indicated scale.

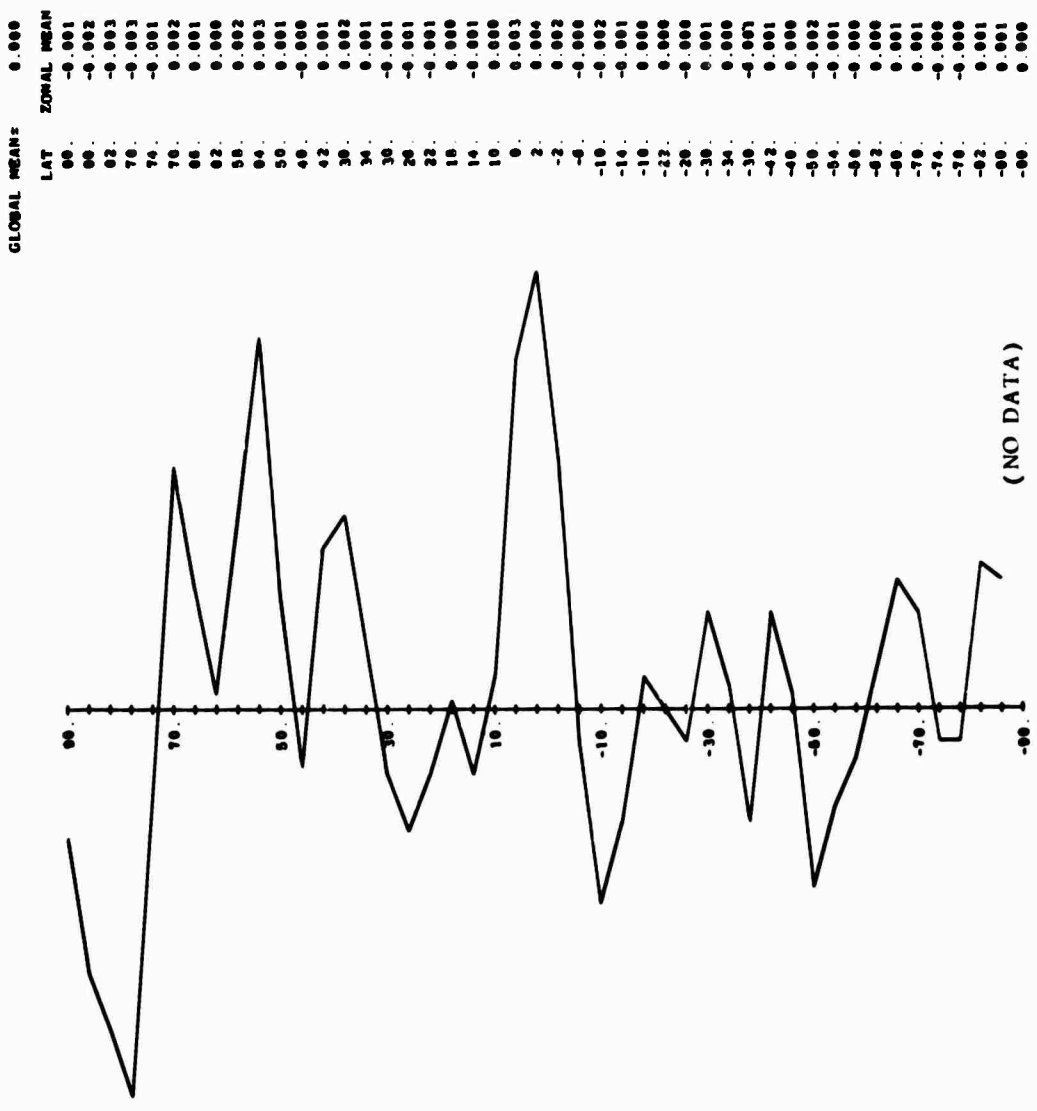


Fig. 4.24 -- Zonally averaged mean January meridional geostrophic wind at 400 mb in  $m\ sec^{-1}$ , as found from the data of Fig. 3.24. A positive value denotes wind toward the north. The value at 90 S is fictitious, and the remaining values apply at latitudes 2 deg south of the indicated scale.

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**5. GLOBAL DATA TABULATIONS**

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TABLE 5-1 JAN SEA-SURFACE TEMPERATURE (DEG C)

	0E	5E	10E	15E	20E	25E	30E	35E	40E	45E	50E	55E	60E	65E	70E	75E	80E	85E	
90N																			
86N																			
82N																			
78N																			
74N																			
70N																			
66N	6.3	5.2																	
62N	7.6	6.1																	
58N	8.1	6.4	4.7																
54N		6.0																	
50N																			
46N																			
42N	12.5	12.6					8.7	7.5											
38N	14.3	14.5	14.6	14.0															
34N			15.0	15.0	15.2	15.8													
30N																			
26N																			
22N																			
18N																			
14N																			
10N																			
6N																			
2N	27.9	28.0																	
2S	26.7	27.3																	
6S	25.5	26.6	26.7																
10S																			
14S	24.0	24.9	26.2																
18S	21.9	21.2	20.1																
22S	21.6	20.9	19.8																
26S	21.5	20.8	20.2																
30S																			
34S	19.8	19.1	18.9																
38S	15.6	14.9	15.3																
42S	11.7	11.2	10.9																
46S	8.0	8.0	8.2																
50S	5.1	5.2	5.2																
54S	1.9	1.9	2.1																
58S	0.9	1.0	1.2																
62S	0.5	0.6	0.7																
66S	0.2	0.3	0.0																
70S																			
74S																			
78S																			
82S																			
86S																			
90S																			



TABLE 5-4 JAN SURFACE RELATIVE HUMIDITY (%)

	180W	175W	170W	165W	160W	155W	150W	145W	140W	135W	130W	125W	120W	115W	110W	105W	100W	95W
90N	81.5	91.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5
86N	93.7	95.3	94.5	91.5	86.4	83.6	81.5	81.5	81.5	82.2	82.1	82.1	82.8	82.8	82.8	82.1	82.1	81.5
82N	81.5	80.2	79.0	77.3	74.0	77.9	78.0	80.3	81.7	82.5	82.0	80.0	78.3	77.8	78.3	78.0	80.4	81.1
78N	74.7	67.4	63.1	66.2	61.1	62.8	64.9	70.1	73.3	75.0	84.6	94.2	83.5	83.1	83.1	83.1	80.7	83.4
74N	78.8	66.4	58.5	65.1	54.9	57.2	57.4	61.9	64.5	77.1	90.9	94.3	87.5	87.5	85.6	80.1	86.1	87.7
70N	82.4	76.8	69.5	70.4	72.7	86.8	77.4	85.2	85.2	90.1	99.1	98.1	99.1	99.1	93.5	99.0	100.0	89.8
66N	74.0	76.6	75.1	70.5	67.7	76.2	80.4	80.2	83.3	88.0	97.6	91.0	91.2	88.5	89.3	86.0	88.5	96.4
62N	87.1	87.8	83.7	81.2	85.2	81.2	89.4	83.0	90.0	80.1	95.9	95.2	84.1	83.2	85.3	84.3	87.5	95.9
58N	95.9	94.9	88.4	84.7	90.0	81.9	88.5	94.6	90.4	81.4	91.0	90.7	86.0	86.6	84.5	84.1	87.2	86.3
54N	91.9	92.4	87.4	79.0	79.8	77.1	80.3	85.0	83.3	87.2	87.5	81.5	83.1	86.5	86.5	83.2	83.7	83.9
50N	85.9	87.8	82.3	77.2	76.7	77.8	77.4	83.7	86.8	91.9	86.2	85.3	88.8	74.2	83.6	87.5	81.6	76.6
46N	84.6	83.1	81.2	77.1	75.6	75.6	78.1	81.7	84.6	88.5	86.2	88.8	66.3	70.8	70.8	61.1	59.2	66.0
42N	79.4	79.3	78.9	75.5	74.2	75.1	78.0	81.1	84.7	89.2	85.6	71.8	69.6	75.0	69.7	65.4	69.2	66.0
38N	79.5	80.4	81.1	79.4	78.8	79.3	80.1	82.3	85.4	82.6	87.9	81.8	75.0	57.9	68.2	54.5	60.0	66.8
34N	84.0	84.3	85.4	85.8	84.2	84.7	82.7	83.3	85.0	84.1	90.4	90.2	76.3	42.6	58.2	50.0	58.6	66.1
30N	83.4	82.8	81.8	81.2	80.2	80.2	79.1	79.6	81.7	85.5	95.0	92.4	83.6	56.5	41.6	40.9	64.6	73.2
26N	79.0	78.5	77.9	77.4	75.6	73.7	73.4	74.3	76.2	82.1	87.8	92.0	88.3	80.1	67.5	45.3	68.4	74.5
22N	76.4	77.1	76.0	75.8	74.4	72.0	72.8	73.9	75.6	81.2	85.0	87.8	87.2	87.4	87.4	60.1	60.1	77.5
18N	75.5	76.7	76.0	76.4	75.8	74.1	75.4	77.0	78.2	81.7	84.2	85.3	85.0	86.1	86.1	74.6	63.2	77.9
14N	75.1	76.0	76.8	78.0	78.3	78.1	80.2	82.2	82.4	85.4	85.4	85.8	86.2	83.0	82.6	75.0	77.4	76.4
10N	73.1	74.0	75.8	78.1	79.6	80.5	83.5	85.6	86.7	87.2	87.2	87.2	86.7	83.6	77.2	76.7	78.6	78.1
6N	72.1	71.5	72.6	76.3	78.5	78.6	82.3	84.4	85.8	86.4	86.3	87.6	84.9	85.0	83.5	82.0	82.1	80.5
2N	72.9	71.7	71.3	75.3	76.8	75.3	78.8	81.3	82.2	83.0	83.3	84.6	84.0	84.5	84.2	84.2	83.6	82.2
2S	75.1	73.9	72.2	74.6	74.4	71.3	73.7	77.0	78.4	79.5	79.5	79.5	79.3	92.2	84.0	85.2	85.2	82.1
6S	77.9	76.8	74.5	74.3	72.7	69.2	69.8	73.2	76.3	76.8	76.1	74.4	72.3	73.7	76.6	80.0	81.9	80.4
10S	79.8	78.3	75.9	75.0	74.6	73.2	70.9	72.2	76.8	75.8	73.9	71.6	70.6	70.5	71.7	76.8	80.2	78.7
14S	80.1	80.2	77.4	76.8	76.7	77.6	72.6	76.6	77.2	75.5	72.1	71.6	70.3	70.9	71.0	74.1	76.6	77.1
18S	76.1	77.7	77.7	78.1	78.1	78.1	78.0	77.2	77.2	75.0	72.7	71.8	71.5	71.2	71.4	72.9	73.8	74.3
22S	72.4	74.3	76.8	78.3	78.9	79.3	79.0	78.2	77.1	75.5	74.4	73.4	73.0	71.7	72.1	72.3	71.7	71.5
26S	70.3	72.0	75.3	77.9	79.4	80.5	80.5	78.7	77.3	76.7	76.3	75.7	74.2	72.6	72.6	71.6	70.5	69.6
30S	68.3	71.4	74.7	78.1	79.6	81.1	81.1	79.6	78.6	77.7	77.7	76.2	74.8	74.3	72.8	70.0	70.4	69.4
34S	75.0	74.5	78.0	79.5	82.3	82.6	83.0	81.0	80.0	79.9	79.2	77.9	76.5	75.2	74.1	73.1	72.0	72.9
38S	80.3	80.3	81.7	82.5	84.4	84.1	84.0	83.1	82.7	82.4	82.0	81.2	80.6	80.0	77.7	77.5	76.2	77.1
42S	83.9	84.8	85.0	84.9	85.8	84.8	84.9	84.9	84.2	83.5	83.9	83.6	84.0	82.2	82.2	82.4	82.0	82.5
46S	86.1	86.7	87.1	86.3	86.6	85.1	86.0	86.2	84.7	83.8	84.7	84.7	85.6	86.5	86.0	86.5	86.9	87.5
50S	87.3	87.9	87.9	88.5	87.9	87.2	87.9	87.2	87.9	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.8
54S	89.5	89.7	89.2	88.8	88.6	89.0	88.5	88.6	87.5	87.5	87.5	86.5	86.0	87.0	87.0	86.6	86.1	86.7
58S	91.9	91.9	91.6	91.4	90.6	91.2	91.3	90.5	89.3	89.3	89.3	89.2	89.6	89.7	89.7	89.7	87.5	88.1
62S	93.1	93.1	93.1	93.0	92.6	92.6	93.0	92.2	92.6	91.4	91.4	91.8	91.5	90.7	90.7	90.0	90.3	90.7
66S	93.0	93.0	92.9	92.8	92.5	92.1	92.0	91.8	91.7	91.7	91.6	91.4	91.4	91.6	91.7	91.2	92.1	92.0
70S	92.9	92.9	92.8	92.1	90.8	88.7	88.1	87.4	86.7	86.7	86.1	85.5	85.4	84.1	84.8	86.8	88.7	88.1
74S	86.8	87.8	87.8	86.0	85.2	84.2	84.6	81.8	82.1	73.6	62.1	61.8	61.6	61.5	57.6	53.9	61.7	59.2
78S	85.4	85.5	83.1	75.6	80.7	84.2	89.5	87.2	87.2	82.4	75.4	75.3	75.1	71.1	68.6	49.4	70.6	65.7
82S	84.9	84.5	82.0	75.0	80.6	84.6	86.0	85.9	88.8	88.7	85.6	85.6	88.5	81.0	83.8	85.1	83.5	76.4
86S	80.9	80.9	80.9	80.9	80.9	80.9	75.2	80.7	80.7	80.6	74.9	74.9	80.5	74.8	80.3	74.6	80.2	74.4
90S	69.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2



TABLE 5-4 JAN SURFACE RELATIVE HUMIDITY (%)

	0E	5E	10E	15E	20E	25E	30E	35E	40E	45E	50E	55E	60E	65E	70E	75E	80E	85E
90N	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5
86N	70.7	76.0	78.0	85.0	81.8	87.0	83.8	83.8	94.0	92.6	94.7	90.4	81.5	81.5	81.5	81.5	81.5	81.5
82N	70.0	79.9	83.5	89.2	85.9	86.9	83.6	82.3	84.4	81.6	80.2	77.1	75.6	72.8	70.0	75.6	74.4	71.1
78N	72.5	78.7	82.0	86.6	85.2	81.8	76.2	73.0	68.7	69.4	67.6	63.8	62.5	61.6	62.2	69.1	74.3	74.6
74N	74.6	75.0	80.5	80.5	71.1	79.0	71.5	63.8	56.7	61.6	61.9	55.4	54.8	56.3	61.7	70.9	86.6	92.4
70N	74.8	83.2	82.6	80.6	80.9	91.0	91.1	67.0	53.3	56.8	58.6	50.3	54.0	53.9	64.2	74.2	90.4	93.6
66N	76.7	80.1	84.0	93.2	89.7	87.5	84.5	80.3	81.7	83.8	85.4	84.3	86.8	85.5	89.2	92.0	96.5	86.4
62N	83.8	79.9	83.3	96.5	92.1	84.0	82.0	86.0	90.0	86.2	93.4	92.7	90.0	86.4	87.0	94.2	97.6	83.6
58N	86.0	77.5	84.1	90.9	86.4	83.2	83.6	87.0	90.1	85.8	93.1	92.3	83.1	79.3	82.9	90.8	94.3	83.4
54N	85.6	77.0	85.6	83.7	80.0	84.2	87.9	87.5	89.9	92.9	94.5	94.5	79.7	78.3	86.5	88.0	99.0	85.7
50N	99.3	93.0	82.5	83.4	85.2	83.2	92.6	91.1	84.2	99.2	98.4	92.0	77.6	82.3	90.4	90.4	84.3	92.3
46N	86.1	82.4	84.8	73.0	80.0	80.9	88.5	83.1	80.6	86.6	98.5	96.6	80.0	82.4	90.8	90.4	86.9	66.4
42N	72.3	74.4	80.1	69.9	72.3	71.5	79.3	78.4	77.8	54.8	81.7	95.2	74.8	61.9	76.0	80.1	64.4	59.3
38N	68.7	70.9	71.8	71.9	71.2	67.5	71.9	73.4	77.8	55.0	80.3	87.0	75.1	55.4	60.3	69.8	51.5	56.1
34N	69.3	67.0	64.8	74.4	73.4	66.4	67.4	67.4	78.3	72.9	91.8	79.5	81.4	58.3	53.5	62.8	51.8	58.2
30N	57.3	54.8	65.4	68.9	67.1	56.7	63.2	60.5	72.4	64.6	85.7	87.0	83.7	48.1	71.0	59.7	62.3	79.5
26N	37.0	33.8	48.2	53.0	50.3	47.9	48.5	55.0	56.5	55.6	60.3	65.9	73.6	66.0	45.4	74.2	57.8	62.6
22N	25.3	27.3	34.9	39.2	39.0	40.1	37.9	40.4	56.4	47.8	42.0	45.2	71.2	76.0	53.3	54.5	55.6	58.7
18N	21.2	23.1	27.9	30.3	32.4	35.2	30.7	34.5	55.9	49.3	46.8	48.4	72.0	77.7	64.0	45.1	61.4	65.8
14N	22.6	22.9	24.2	25.8	28.7	34.2	27.0	34.2	51.5	59.6	68.7	72.8	73.0	74.2	68.5	51.0	74.7	79.3
10N	28.7	40.7	28.0	24.4	26.0	38.7	27.4	27.3	49.4	65.7	60.4	75.5	83.7	75.2	74.3	69.3	94.6	82.6
6N	68.1	72.4	60.1	56.7	53.3	60.9	41.7	32.0	47.5	54.5	72.0	79.1	77.5	77.2	77.0	74.8	78.2	81.0
2N	84.6	89.7	83.9	77.3	71.4	77.2	60.1	39.8	57.1	80.0	80.3	80.1	78.7	78.9	77.4	74.5	75.3	78.3
2S	82.5	84.4	87.6	82.0	77.1	83.0	74.6	54.6	69.7	75.5	82.2	80.1	79.8	78.9	77.3	76.4	75.2	77.0
6S	77.6	79.4	84.9	80.5	76.9	80.6	78.1	72.8	77.8	76.0	80.0	80.4	81.0	78.4	77.5	77.2	76.3	77.1
10S	74.1	76.9	79.4	80.7	76.1	77.2	75.6	77.0	75.9	76.8	79.2	81.2	82.2	80.7	78.3	76.8	75.9	76.3
14S	73.1	79.5	78.4	60.8	73.1	77.9	75.6	79.9	70.0	80.0	78.3	82.4	82.2	79.5	75.0	74.5	75.0	75.5
18S	72.8	77.4	80.1	53.3	61.2	69.5	70.0	76.8	73.2	80.3	79.6	77.9	73.6	75.1	74.2	72.8	73.4	73.8
22S	71.7	74.8	81.7	59.1	45.1	58.1	63.6	75.5	77.3	79.7	78.1	75.2	73.0	72.4	73.3	72.5	72.7	73.3
26S	70.3	73.6	81.0	75.4	33.2	48.3	61.8	77.4	78.5	78.8	74.8	75.6	72.6	72.4	73.2	73.2	73.2	74.3
30S	71.6	73.5	76.9	83.9	32.2	43.3	71.9	78.9	77.9	77.9	76.8	75.4	73.5	73.4	73.4	73.3	73.7	75.6
34S	78.4	79.2	81.2	79.4	66.0	68.0	74.4	77.4	79.1	79.1	77.7	76.6	76.2	76.5	76.0	76.5	78.1	78.1
38S	83.8	84.4	81.8	79.6	78.9	76.9	77.1	79.1	80.7	81.0	80.4	78.7	78.7	78.0	79.7	79.5	80.9	81.6
42S	86.9	87.8	84.1	82.6	81.4	80.7	81.1	82.4	83.3	85.9	87.2	84.0	83.2	82.7	83.2	83.4	84.3	85.5
46S	88.9	89.7	89.1	86.9	86.2	86.4	86.0	85.8	86.2	91.0	94.1	89.8	87.1	86.0	85.7	86.3	87.3	87.9
50S	93.8	92.5	91.8	90.5	89.2	88.0	88.0	87.3	86.7	86.7	86.7	85.5	82.0	80.9	82.1	82.6	85.0	85.6
54S	90.0	89.2	88.5	88.3	87.0	84.3	83.3	87.0	79.3	79.3	80.7	80.1	79.9	78.0	79.9	80.5	81.4	82.5
58S	82.5	81.5	81.3	80.6	79.4	77.2	76.5	74.9	74.0	73.1	73.7	74.5	75.4	76.4	77.5	78.0	78.3	79.1
62S	74.2	72.9	72.2	71.6	70.9	70.0	69.5	68.9	69.0	67.3	66.9	68.7	70.4	72.2	74.3	74.5	75.5	75.6
66S	71.3	67.0	65.8	65.7	64.0	63.9	63.6	63.9	65.9	63.9	62.9	63.4	64.5	66.4	69.2	70.3	70.2	72.8
70S	85.6	68.0	68.0	67.4	59.4	58.9	58.9	60.6	73.1	66.8	66.1	60.2	55.5	56.9	56.2	59.0	57.4	71.5
74S	89.5	84.7	84.7	84.5	82.1	81.9	82.4	86.4	86.4	84.7	84.6	83.1	81.6	77.8	66.0	71.2	76.1	86.2
78S	90.7	90.7	90.7	90.7	90.8	90.8	90.8	90.7	90.6	90.6	90.6	90.6	90.6	90.5	90.5	84.0	87.3	90.7
82S	87.3	90.8	90.8	90.7	90.7	90.7	90.7	90.6	90.6	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.6	90.6
86S	79.5	85.8	85.8	85.7	85.7	85.7	85.7	85.6	85.6	85.6	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5
90S	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2























TABLE 5-6A ANNUAL PRECIPITATION (MM/DAY)

	0E	5E	10E	15E	20E	25E	30E	35E	40E	45E	50E	55E	60E	65F	70E	75F	80E	85E
92N	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
96N	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5
82N	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
78N	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6
74N	1.3	1.4	1.4	1.3	1.5	1.2	1.2	1.2	1.2	1.1	1.0	0.8	0.7	0.7	0.7	0.7	0.8	0.7
70N	2.1	2.1	2.0	1.8	2.7	1.3	1.4	1.4	1.3	1.1	0.9	0.8	0.7	0.7	0.8	0.9	1.1	1.1
66N	2.8	2.6	2.0	1.7	1.7	1.4	1.4	1.2	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.3	1.4	1.3
62N	4.4	4.4	2.5	1.5	1.4	1.4	1.5	1.7	1.5	1.5	1.4	1.3	1.4	1.4	1.3	1.4	1.4	1.4
58N	2.6	4.1	2.5	1.5	1.6	1.7	1.8	1.8	1.5	1.5	1.4	1.3	1.4	1.2	1.2	1.2	1.1	1.4
54N	2.2	2.1	2.1	1.8	2.2	2.0	2.0	1.5	1.3	1.2	1.2	1.2	1.2	0.9	1.0	0.9	0.8	1.5
50N	2.1	2.3	2.2	2.2	2.7	1.7	1.4	1.4	1.1	0.7	0.7	0.7	0.7	0.6	0.7	0.8	0.7	2.1
46N	2.1	2.6	2.6	2.7	2.5	1.5	1.2	1.2	2.4	0.7	0.5	0.4	0.4	0.3	0.6	0.5	1.8	0.9
42N	1.6	1.9	1.9	2.8	2.6	1.5	1.3	1.1	1.9	1.1	0.5	0.4	0.3	0.3	1.0	0.4	0.9	0.3
38N	1.4	1.1	1.1	2.1	2.1	1.5	1.3	1.5	1.1	1.4	0.6	0.4	0.3	1.0	1.4	0.4	0.4	0.3
34N	1.1	0.6	0.6	1.0	0.9	1.1	0.9	1.7	0.5	1.1	0.7	0.6	0.5	1.2	1.2	0.7	1.6	0.7
30N	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.7	0.7	0.7	0.5	0.6	1.4	5.5	1.4
26N	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.3	0.4	0.6	0.6	0.7	2.4	3.3	4.1
22N	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.6	1.1	1.7	2.3	3.0	4.0
18N	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.6	0.4	0.2	0.1	0.2	1.0	1.9	2.8	2.3	3.0	3.7
14N	1.5	1.6	1.4	1.0	1.1	1.1	1.0	1.4	1.0	0.4	0.3	0.5	1.7	3.1	3.6	3.5	2.8	4.1
10N	3.5	3.9	3.4	2.7	2.7	2.7	2.1	2.9	2.1	0.7	0.5	1.4	3.1	4.1	4.1	6.8	2.7	4.1
6N	2.9	7.4	5.6	3.8	3.7	3.8	3.0	1.7	1.5	0.5	1.0	3.0	4.5	5.2	5.1	5.1	3.9	4.1
2N	2.3	4.7	5.8	4.0	4.9	4.3	3.8	2.2	1.0	1.8	2.9	4.7	5.5	6.0	6.0	5.6	5.3	5.4
2S	1.5	1.7	3.9	3.8	5.2	4.3	3.6	2.5	1.9	3.5	4.7	5.8	6.2	6.6	6.6	6.6	6.6	6.8
6S	0.6	0.6	1.1	3.4	4.7	3.8	2.8	2.5	3.3	5.0	5.6	6.1	6.4	6.7	6.8	7.0	7.1	7.3
10S	0.2	0.2	0.2	3.1	4.1	2.7	3.0	3.0	2.7	5.5	5.6	5.8	5.9	6.0	6.4	6.5	6.6	6.5
14S	0.4	0.2	0.2	2.8	3.0	2.7	2.5	2.8	2.7	4.4	6.6	5.0	5.0	5.0	5.2	5.7	5.8	5.7
18S	0.6	0.4	0.2	1.7	1.9	1.9	1.8	2.8	2.0	3.3	6.0	4.2	3.9	3.8	3.8	4.0	3.9	3.9
22S	1.1	0.7	0.3	0.7	1.0	1.4	1.9	2.8	1.4	2.5	4.6	5.8	3.0	2.8	2.7	2.6	2.5	2.3
26S	1.8	1.2	0.7	0.2	0.5	1.4	2.5	2.8	1.5	2.0	3.0	2.6	2.5	2.3	2.2	2.1	2.0	1.8
30S	2.5	2.0	1.1	0.2	0.4	1.3	2.7	3.0	2.1	1.7	2.1	2.2	2.4	2.1	2.0	2.0	2.0	2.0
34S	3.3	2.9	2.6	2.2	1.7	2.5	3.2	3.2	2.8	2.5	2.3	2.4	2.5	2.4	2.3	2.3	2.3	2.4
38S	4.0	3.7	3.5	3.4	3.1	3.6	3.8	3.8	3.6	3.3	3.0	2.9	2.8	2.8	2.8	2.8	2.9	3.0
42S	4.4	4.3	4.2	4.1	4.1	4.2	4.2	4.2	4.1	3.9	3.7	3.6	3.3	3.2	3.3	3.1	3.6	3.7
46S	4.4	4.4	4.4	4.4	4.4	4.3	4.3	4.3	4.2	4.2	4.2	4.1	3.8	3.6	3.6	3.9	4.1	4.1
50S	4.3	3.9	3.9	4.3	4.3	4.3	4.3	4.3	4.2	4.2	4.2	4.1	4.0	3.8	3.7	3.9	4.1	4.2
54S	3.7	3.9	3.9	4.0	4.0	4.0	4.1	4.1	4.1	4.0	4.0	3.8	3.8	3.6	3.5	3.7	3.7	3.8
58S	3.1	3.2	3.2	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.3	3.7	3.2	3.1	3.1	3.1	3.1	3.2
62S	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.5	2.4	2.9	2.5	2.5	2.5	2.4	2.4	2.4
66S	1.8	1.7	1.7	1.7	1.6	1.6	1.6	1.8	1.7	1.6	1.4	1.5	1.6	1.7	1.8	1.7	1.6	1.6
70S	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.4	0.3	0.3	0.5	0.7	0.9	0.7	0.6	0.5
74S	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.5	0.3
78S	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.2	0.2
82S	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1
86S	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
90S	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2

TABLE 5-6A ANNUAL PRECIPITATION (MM/DAY)

	90E	95E	100E	105E	110E	115E	120E	125E	130E	135E	140E	145E	150E	155E	160E	165E	170E	175E
90N	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
86N	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82N	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
78N	0.6	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
74N	0.8	0.9	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
70N	1.4	1.4	1.1	1.0	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
66N	1.4	1.3	1.2	1.0	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
62N	1.4	1.3	1.1	1.0	0.9	0.7	0.8	0.7	0.7	0.7	1.1	1.1	1.1	1.1	1.1	1.3	1.3	1.5
58N	1.4	1.3	1.2	1.1	1.0	0.9	1.0	1.0	1.0	1.0	1.3	1.4	1.5	1.6	1.8	1.8	2.2	2.2
54N	1.4	1.3	1.2	1.1	1.0	1.1	1.3	1.4	1.4	1.6	1.5	1.6	1.6	2.2	2.6	2.5	2.6	3.0
50N	0.7	0.7	0.7	0.7	0.7	1.3	1.4	1.4	1.4	2.0	1.8	2.0	2.3	2.7	3.0	3.2	3.4	3.5
46N	0.5	0.7	0.5	0.5	0.4	0.8	1.1	1.4	1.8	2.3	2.6	2.6	2.8	3.1	3.5	3.7	4.0	4.2
42N	0.3	0.4	0.3	0.4	0.7	1.2	1.4	2.1	2.4	3.0	4.4	3.6	3.5	3.6	3.9	4.3	4.5	4.6
38N	0.4	0.5	0.5	0.8	1.2	1.4	1.8	2.6	3.3	4.2	5.4	4.4	4.0	3.9	4.1	4.5	4.9	4.7
34N	1.0	1.1	1.2	1.6	1.8	2.2	3.0	4.5	5.5	5.5	5.3	4.7	4.2	3.9	4.0	4.1	4.8	4.2
30N	1.6	2.2	1.9	2.7	3.3	3.4	3.0	4.1	5.8	5.8	5.2	4.6	4.1	3.7	3.4	3.4	3.4	3.3
26N	6.9	5.4	3.1	3.8	4.4	3.7	2.8	5.8	5.9	5.3	4.9	4.4	3.9	3.0	2.8	2.8	2.8	2.8
22N	7.0	4.1	4.2	4.9	4.6	3.7	4.6	6.4	6.1	5.4	5.0	4.6	4.0	3.2	2.7	2.7	2.7	2.6
18N	5.7	4.5	5.0	5.5	4.8	4.4	6.0	7.0	6.4	5.8	5.5	5.3	4.7	4.0	3.5	3.3	3.2	3.0
14N	5.2	7.1	5.4	5.5	5.2	5.9	6.5	7.9	6.8	6.5	6.5	6.3	5.9	5.3	4.9	4.4	4.1	4.0
10N	5.5	7.2	5.5	5.5	5.3	7.4	7.7	8.2	6.8	7.7	7.7	7.3	7.1	6.8	6.3	5.5	5.3	5.3
6N	5.8	8.0	6.8	6.5	7.1	8.0	8.1	8.3	7.1	7.0	7.6	8.0	8.1	8.5	8.9	8.8	8.9	8.1
2N	6.3	8.0	7.8	7.1	8.0	8.3	7.7	7.8	7.0	6.8	7.5	7.8	7.9	8.0	7.9	7.5	7.2	6.2
2S	7.0	7.8	8.1	7.1	8.4	8.4	7.8	7.8	7.4	7.4	7.9	8.0	8.0	7.8	7.3	6.5	5.8	5.9
6S	7.4	7.4	7.5	6.7	7.8	7.9	7.9	7.7	7.5	7.5	7.8	7.9	8.2	8.3	7.4	6.7	6.7	8.1
10S	6.4	6.2	6.2	6.2	5.8	5.5	5.5	5.3	4.8	4.6	4.8	5.2	6.8	9.2	8.5	8.4	8.2	7.9
14S	5.1	4.5	3.4	2.9	2.8	3.0	3.6	3.3	2.9	2.9	3.5	3.8	4.9	6.0	6.6	7.3	7.5	7.3
18S	3.2	2.4	1.7	1.3	1.2	1.5	1.7	1.6	1.6	1.6	2.1	2.8	3.7	4.5	5.1	5.9	6.2	6.2
22S	1.7	1.4	1.1	0.8	0.6	0.8	1.0	0.9	0.9	0.9	1.1	2.0	2.9	3.6	4.1	4.8	5.1	5.1
26S	1.4	1.5	1.4	1.2	0.9	0.8	0.8	0.7	0.6	0.7	0.7	1.3	2.3	3.1	3.6	4.1	4.4	4.5
30S	2.0	2.1	2.1	2.1	2.1	1.4	0.7	0.5	0.5	0.7	0.7	0.8	1.9	3.0	3.4	3.8	4.0	4.0
34S	2.4	2.5	2.5	2.6	2.7	2.5	2.3	2.3	2.3	1.2	1.0	1.2	2.6	3.1	3.4	3.8	4.0	4.0
38S	3.1	3.2	3.3	3.5	3.6	3.6	3.6	3.6	3.6	2.7	2.3	1.7	2.7	3.0	3.4	3.5	3.3	3.0
42S	3.7	3.9	4.0	4.1	4.2	4.2	4.2	4.2	4.2	3.8	3.3	2.5	2.8	3.0	3.2	3.2	2.9	2.6
46S	4.2	4.2	4.3	4.3	4.3	4.3	4.3	4.3	4.2	4.1	3.7	3.1	2.9	3.0	3.1	2.9	2.8	2.6
50S	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.1	3.7	3.3	3.1	3.0	3.0	3.1	3.0	3.0
54S	3.8	3.9	3.9	3.9	3.8	3.7	3.6	3.5	3.3	3.2	2.9	2.8	2.7	2.7	2.7	2.7	2.8	2.8
58S	3.1	3.2	3.2	3.1	3.0	2.9	2.8	2.7	2.6	2.5	2.4	2.4	2.4	2.3	2.3	2.4	2.5	2.5
62S	2.4	2.4	2.4	2.4	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1
66S	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.4	1.5	1.5	1.5	1.6	1.7	1.8
70S	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	1.0	1.4
74S	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.7	0.9	1.2
78S	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.8
82S	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.8
86S	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.8
90S	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.8



























TABLE 5-9 JAN SURFACE RADIATION BALANCE (100LY/DAY)

	90W	85W	80W	75W	70W	65W	60W	55W	50W	45W	40W	35W	30W	25W	20W	15W	10W	5W
90N*****																		
86N*****																		
82N*****																		
78N -0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
74N*****																		
70N*****																		
66N*****																		
62N*****																		
58N*****																		
54N -0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
50N -0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1
46N -0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.0	-0.0	0.0	0.1	0.1	0.1	0.2
42N -0.1	-0.1	-0.1	-0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.3
38N 0.2	0.2	0.2	0.3	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.5
34N 0.5	0.5	0.7	0.9	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.2	1.1	1.2	1.2	1.3	1.3	1.3	0.8
30N 1.0	1.0	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.6	1.6	1.7	1.8	1.9	0.9
26N 1.7	1.8	1.9	2.0	2.0	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.2	2.2	1.0
22N 1.6	2.2	2.3	2.5	2.5	2.5	2.5	2.4	2.3	2.3	2.3	2.2	2.2	2.3	2.3	2.5	2.5	2.5	1.1
18N 1.6	2.1	2.6	2.6	2.8	2.8	2.8	2.7	2.7	2.6	2.6	2.5	2.5	2.6	2.7	2.7	2.7	2.7	1.2
14N 1.9	1.7	2.7	2.7	2.7	2.7	2.9	2.9	2.8	2.8	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	1.2
10N 2.8	1.8	2.7	1.9	1.7	1.8	2.8	2.8	2.9	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.9	1.3
6N 2.8	2.4	2.5	1.9	1.9	1.8	2.4	2.2	2.2	2.6	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.8	1.7
2N 2.9	2.6	2.4	1.8	1.8	1.8	2.3	2.0	2.4	2.6	2.7	2.6	2.6	2.6	2.7	2.8	2.8	2.8	1.9
2S 3.2	2.8	2.1	1.7	1.8	2.1	2.3	2.1	2.3	2.4	2.4	2.4	2.9	2.9	2.9	3.1	3.1	3.3	2.6
6S 3.5	3.1	2.1	2.1	1.7	1.8	2.0	2.3	2.2	2.2	2.2	2.3	3.5	3.5	3.5	3.5	3.5	3.5	3.2
10S 3.6	3.4	3.3	3.3	1.7	1.9	2.1	2.2	2.0	2.0	2.0	2.3	4.0	4.0	4.0	4.0	3.9	3.7	3.5
14S 3.6	3.5	3.5	3.5	3.5	3.5	2.3	2.4	2.2	2.0	2.6	2.6	4.1	4.1	4.1	4.1	4.0	3.9	3.5
18S 3.7	3.6	3.6	3.6	3.6	3.6	2.4	2.6	2.6	2.4	2.7	3.5	4.2	4.2	4.2	4.2	4.1	4.0	3.7
22S 3.8	3.7	3.7	3.7	3.9	3.9	2.6	2.8	2.8	2.7	3.2	4.1	4.3	4.3	4.3	4.2	4.1	4.0	3.7
26S 3.8	3.8	3.8	3.8	4.0	4.0	2.6	3.1	3.0	2.9	4.1	4.3	4.4	4.4	4.3	4.2	4.1	4.1	3.9
30S 3.9	3.8	3.8	3.8	4.3	4.3	2.7	3.3	3.0	4.0	4.3	4.5	4.3	4.3	4.2	4.2	4.1	4.1	4.1
34S 3.8	3.7	3.8	3.8	4.4	4.4	3.2	3.2	3.0	4.6	4.4	4.3	4.2	4.2	4.1	4.1	4.1	4.1	4.2
38S 3.6	3.6	3.6	3.8	4.4	4.4	2.9	4.1	4.0	4.5	4.2	4.0	3.9	3.9	3.9	4.0	4.0	4.0	4.0
42S 3.3	3.4	3.6	3.6	4.1	2.5	3.5	4.6	4.1	3.8	3.6	3.6	3.6	3.6	3.6	3.7	3.7	3.7	3.7
46S 2.9	3.0	3.1	3.1	3.4	2.2	4.5	4.3	4.0	3.7	3.4	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.7
50S 2.5	2.4	2.3	2.0	2.0	3.9	3.8	3.8	3.5	3.2	3.0	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
54S 2.3	2.2	2.2	2.0	2.0	3.2	3.3	2.9	2.8	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
58S 2.4	2.3	2.3	2.3	2.3	2.7	2.8	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
62S*****																		
66S*****																		
70S*****																		
74S*****																		
78S*****																		
82S*****																		
86S*****																		
90S*****																		

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TABLE 5-10 JAN SURFACE SENSIBLE HEAT FLUX (10LY/DAY)

	90W	85W	80W	75W	70W	65W	60W	55W	50W	45W	40W	35W	30W	25W	20W	15W	10W	5W
90N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
66N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42N	0.4	0.3	0.3	6.7	17.9	19.3	17.1	15.0	14.3	15.3	12.6	7.5	5.6	4.7	3.9	3.7	3.3	3.3
38N	1.3	2.5	2.5	14.7	12.8	11.6	10.9	8.9	9.5	9.5	8.3	6.1	4.8	4.1	3.3	3.3	3.3	3.3
34N	2.7	10.0	10.0	6.7	5.3	4.7	4.0	4.3	4.7	5.0	5.3	5.0	4.0	3.3	3.0	3.0	3.0	6.7
30N	5.9	7.3	7.3	5.3	3.7	3.6	3.5	3.5	3.6	3.7	3.7	3.7	3.5	3.1	3.0	3.0	3.0	6.7
26N	6.7	5.3	5.3	4.0	3.3	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	8.5
22N	3.9	3.9	3.8	3.2	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	10.2
18N	4.7	2.9	2.9	3.1	2.8	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	11.9
14N	0.7	10.0	2.3	3.3	3.3	3.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	13.3
10N	0.9	2.8	3.3	3.3	4.7	4.7	4.5	3.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	13.3
6N	1.4	1.4	1.4	3.3	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	8.0
2N	1.1	1.1	1.1	2.8	2.3	2.5	6.7	7.5	2.3	3.0	5.0	1.7	1.8	1.8	1.8	1.8	1.8	3.7
25	0.3	0.3	10.7	2.1	1.5	1.3	1.4	2.3	3.0	4.6	9.7	1.5	1.5	1.5	1.5	1.5	1.5	1.5
10S	0.3	0.0	0.0	2.3	2.0	1.3	0.3	0.7	1.7	3.0	8.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0
14S	0.3	0.0	0.0	0.5	2.9	2.9	2.2	1.5	1.7	3.8	5.7	0.5	0.7	0.7	0.7	0.7	0.7	0.7
18S	0.3	0.0	0.0	0.0	0.0	0.0	4.1	3.3	2.7	4.6	2.0	0.3	0.5	0.5	0.5	0.5	0.5	0.5
22S	0.3	0.0	0.0	0.0	21.5	0.0	6.7	5.3	4.3	3.0	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3
26S	0.3	0.0	0.0	0.0	0.0	0.0	11.5	10.0	7.3	4.5	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3
30S	0.3	0.0	0.0	0.0	0.0	0.0	17.3	10.0	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3
34S	0.1	0.0	0.0	0.0	0.0	0.0	18.1	2.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
38S	0.0	0.0	0.0	0.0	0.0	0.0	20.3	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42S	0.0	0.0	0.0	0.0	20.4	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46S	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50S	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54S	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
66S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TABLE 5-10 JAN SURFACE SENSIBLE HEAT FLUX (10LY/DAY)

	90E	95E	100E	105E	110E	115E	120E	125E	130E	135E	140E	145E	150E	155E	160E	165E	170E	175E
90N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
66N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22N	5.1	13.3	6.4	2.5	2.9	6.8	7.0	7.1	7.3	8.3	8.7	9.1	9.0	8.0	6.9	5.1	3.6	3.6
18N	3.0	9.2	12.7	8.5	3.2	3.8	4.0	4.3	4.3	4.9	5.3	6.1	6.6	5.7	4.7	3.7	3.2	2.9
14N	2.9	2.9	13.9	9.6	2.9	2.9	2.9	3.3	3.3	3.3	3.3	3.3	4.1	4.7	4.1	3.3	3.3	2.9
10N	2.7	2.7	2.7	2.7	2.7	2.7	2.7	3.0	3.0	3.0	3.0	3.0	3.0	3.3	3.0	3.0	3.0	2.7
6N	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.7	2.7	2.7	2.7	2.7	3.0	3.1	2.7	2.7	2.7	2.4
2N	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.1
2S	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.0
6S	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.3	2.3	2.3	1.9	1.9	1.9
10S	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.0	1.7	1.7	1.7
14S	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
18S	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
22S	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.2	1.2	1.2
26S	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.3	1.3	1.3	1.0	1.0	0.9
30S	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.0	1.0	1.0	1.0	1.0	0.7
34S	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4
38S	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
42S	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
46S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
66S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TABLE 5-11 JAN TOTAL HEAT BALANCE (100PLY/DAY)

	0E	5E	10E	15E	20E	25E	30E	35E	40E	45E	50E	55E	60E	65E	70E	75E	80E	85E	
90N*****																			
86N*****																			
82N*****																			
78N*****																			
74N*****	-4.9	-5.2	-5.2	-3.8	-4.9	-4.9	-5.3	-4.9	-5.3	-4.9	-5.3	-4.9	-5.3	-4.9	-5.3	-4.9	-5.3	-4.9	
70N*****	-5.3	-5.8	-5.9	-6.0	-5.9	-0.4	-5.9	-5.6	-5.4	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2	
66N*****	-5.1	-5.1	-5.1	-5.1	-1.5	-0.4	-4.3	-4.4	-4.3	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	
62N*****	-4.5	-4.2	-4.2	-4.2	-1.5	-1.2	-0.9	-1.9	-1.9	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	
58N*****	-3.5	-3.0	-3.0	-3.0	-0.9	-1.2	-0.9	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	
54N*****	-2.2	-1.7	-1.5	-1.4	-1.4	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	
50N*****	-1.3	-0.3	-0.4	-0.4	-0.5	-0.6	-0.6	-0.6	-0.6	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	
46N*****	-0.4	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	
42N*****																			
38N*****																			
34N*****	-0.2	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	
30N*****	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	
26N*****	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	
22N*****	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	
18N*****	-0.2	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	
14N*****	-0.2	-0.3	-0.4	-0.4	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	
10N*****	0.0	0.0	-0.1	-0.2	-0.1	-0.1	-0.2	-0.3	-0.3	-0.2	-0.4	-0.1	0.1	0.6	1.1	1.1	0.7	0.4	
6N*****	0.4	0.3	-0.0	-0.1	-0.1	-0.1	0.1	-0.0	0.0	-0.3	0.1	0.1	0.5	0.9	1.1	1.1	0.9	0.8	
2N*****	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.7	1.1	1.3	1.2	1.1	1.1	
2S*****	0.9	0.7	0.7	0.2	0.1	0.1	0.1	0.1	0.0	0.3	0.1	0.4	0.9	1.3	1.5	1.5	1.5	1.3	
6S*****	1.3	1.2	1.1	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	1.0	1.5	1.6	1.7	1.5	1.4	
10S*****	1.1	1.3	1.6	0.1	0.1	0.0	0.1	0.1	-0.4	-0.2	0.1	0.5	0.8	1.5	1.8	1.8	1.5	1.2	
14S*****	0.9	1.1	1.5	0.3	0.2	0.1	0.0	0.5	0.7	0.1	0.5	0.7	1.0	1.1	1.0	1.0	0.9	0.8	
18S*****	0.9	1.1	1.6	0.0	0.2	0.0	-0.2	1.1	1.1	-0.3	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	
22S*****	1.3	1.5	1.9	0.0	0.1	-0.0	-0.4	1.3	1.1	-0.7	0.7	0.6	0.5	0.4	0.5	0.5	0.5	0.6	
26S*****	1.9	2.0	2.3	0.8	0.1	-0.0	0.0	1.2	1.0	-0.4	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	
30S*****	2.2	2.5	2.9	3.1	0.1	0.1	0.0	1.3	1.3	1.3	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
34S*****	2.4	2.7	3.0	2.9	1.9	1.5	1.4	1.5	1.4	1.4	1.3	1.2	1.3	1.2	1.3	1.2	1.2	1.2	
38S*****	2.6	2.8	2.9	2.5	1.9	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.4	1.3	1.4	1.4	
42S*****	2.5	2.6	2.6	2.2	1.8	1.6	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.3	1.3	1.4	
46S*****	2.2	2.3	2.3	2.0	1.9	1.9	1.7	1.6	1.5	1.5	1.4	1.4	1.3	1.3	1.2	1.2	1.2	1.3	
50S*****	1.9	2.0	2.0	1.9	1.8	1.7	1.6	1.6	1.5	1.5	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	
54S*****	1.8	1.9	1.9	1.8	1.8	1.7	1.6	1.6	1.5	1.4	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	
58S*****	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	
62S*****																			
66S*****																			
70S*****																			
74S*****																			
78S*****																			
82S*****																			
86S*****																			
90S*****																			



TABLE 5-12 JAN 800MB TEMPERATURE (DFG C)

	180W	175W	170W	165W	160W	155W	150W	145W	140W	135W	130W	125W	120W	115W	110W	105W	100W	95W
90N	-25.0	-25.9	-25.9	-25.9	-25.9	-25.9	-25.9	-25.9	-25.9	-25.9	-25.9	-25.9	-25.9	-25.9	-25.9	-25.9	-25.9	-25.9
96N	-25.8	-25.9	-25.9	-25.5	-25.5	-25.4	-25.3	-25.3	-25.3	-25.3	-25.3	-25.3	-25.6	-25.6	-25.7	-25.7	-25.9	-25.8
92N	-25.6	-25.5	-25.4	-25.2	-24.9	-24.8	-24.6	-24.6	-24.6	-24.6	-24.6	-24.7	-24.9	-24.3	-24.3	-24.5	-25.7	-25.8
78N	-24.8	-24.5	-24.2	-23.8	-23.4	-23.2	-23.0	-23.1	-23.1	-23.3	-23.5	-23.9	-24.3	-23.6	-25.3	-25.6	-25.9	-25.9
74N	-23.2	-22.9	-22.4	-21.6	-20.8	-20.5	-20.4	-20.7	-21.1	-21.7	-22.4	-23.0	-23.8	-23.0	-25.7	-26.1	-26.4	-26.3
70N	-21.5	-21.6	-19.2	-17.5	-16.6	-16.9	-17.9	-19.3	-19.3	-20.7	-22.2	-22.6	-23.7	-24.9	-26.8	-26.8	-27.0	-27.2
66N	-17.6	-17.7	-15.6	-14.9	-13.8	-13.2	-13.8	-15.9	-17.7	-19.3	-20.8	-22.8	-23.4	-22.9	-23.8	-24.7	-25.2	-25.0
62N	-14.1	-14.0	-13.1	-12.0	-11.2	-10.8	-11.3	-12.4	-12.4	-15.3	-16.8	-18.2	-19.7	-20.5	-21.5	-22.6	-24.4	-24.4
58N	-12.1	-11.7	-10.8	-10.0	-9.2	-8.8	-8.4	-7.8	-8.1	-10.5	-12.4	-14.6	-16.0	-17.3	-18.8	-20.2	-21.6	-22.5
54N	-11.2	-10.6	-9.3	-8.3	-7.5	-6.8	-6.5	-6.2	-6.1	-6.4	-7.8	-10.3	-11.9	-13.4	-15.2	-17.1	-18.6	-19.8
50N	-10.0	-9.1	-8.0	-6.6	-5.4	-4.7	-4.7	-4.7	-4.5	-4.5	-5.1	-6.4	-7.9	-8.7	-10.5	-12.8	-14.4	-15.4
46N	-7.7	-6.9	-5.5	-4.1	-3.1	-2.5	-2.4	-2.5	-2.5	-2.5	-2.7	-3.5	-5.1	-6.2	-7.3	-9.2	-9.5	-10.9
42N	-4.4	-3.7	-2.4	-1.6	-0.6	-0.2	-0.1	-0.4	-0.4	-0.3	-0.2	-0.3	-1.4	-3.1	-4.6	-5.4	-6.6	-6.6
38N	-0.7	-0.1	0.7	1.1	1.8	2.1	2.1	2.0	1.8	1.9	2.2	2.7	2.1	0.5	-1.4	-0.9	-1.2	-2.4
34N	2.9	3.2	3.5	3.8	4.0	4.0	4.0	3.9	3.8	4.1	4.6	5.4	5.2	4.4	3.5	3.0	2.9	1.3
30N	5.5	5.7	5.9	6.0	6.1	6.1	5.9	5.7	5.4	5.9	7.1	7.9	8.3	8.3	7.5	6.7	5.4	4.1
26N	7.8	7.8	7.9	8.1	8.3	8.1	7.9	7.8	7.8	8.1	9.1	10.1	10.7	11.4	11.4	10.3	9.5	7.7
22N	9.8	9.7	9.7	9.9	10.0	10.0	9.9	9.6	9.8	10.3	11.2	12.1	12.9	13.4	14.0	13.4	11.9	10.2
18N	11.6	11.4	11.5	11.5	11.5	11.4	11.2	11.4	11.7	12.3	13.2	13.8	14.5	15.2	15.4	15.2	13.6	12.3
14N	13.1	12.8	12.9	12.8	12.8	12.7	12.8	12.9	13.4	13.7	14.7	15.1	15.5	15.7	15.8	15.8	15.1	14.3
10N	14.3	14.1	14.0	13.9	13.9	13.8	13.9	14.0	14.4	14.6	15.3	15.6	15.8	15.8	15.9	15.9	15.8	15.3
6N	14.9	14.7	14.6	14.5	14.5	14.4	14.6	14.7	15.0	15.4	15.4	15.7	15.9	15.9	15.9	15.8	15.8	15.7
2N	15.3	15.1	14.9	15.1	14.9	14.8	15.0	15.1	15.2	15.2	15.5	15.7	15.9	15.9	16.0	15.9	15.8	15.7
2S	15.5	15.3	15.2	15.2	15.2	15.2	15.3	15.4	15.5	15.5	15.6	15.6	15.8	15.9	15.9	15.9	15.7	15.4
6S	15.7	15.6	15.5	15.5	15.5	15.5	15.5	15.6	15.6	15.7	15.6	15.5	15.6	15.7	15.7	15.6	15.5	15.1
10S	15.9	15.8	15.7	15.6	15.6	15.5	15.5	15.5	15.5	15.5	15.4	15.4	15.4	15.5	15.5	15.3	15.1	14.8
14S	15.6	15.6	15.5	15.4	15.3	15.3	15.0	14.9	14.9	14.9	15.0	15.0	15.0	14.9	14.9	14.9	14.6	14.3
18S	14.8	14.8	14.7	14.5	14.4	14.2	14.1	14.0	14.1	14.1	14.2	14.3	14.3	14.3	14.2	14.2	14.0	13.8
22S	13.5	13.5	13.4	13.2	13.1	12.9	12.9	12.9	12.9	13.0	13.0	13.2	13.2	13.2	13.2	13.1	13.0	12.8
26S	11.8	11.8	11.7	11.7	11.7	11.6	11.6	11.6	11.6	11.6	11.7	11.8	11.8	11.8	11.8	11.7	11.6	11.4
30S	10.2	10.1	10.1	10.1	10.1	10.1	10.1	10.2	10.2	10.3	10.3	10.3	10.3	10.3	10.2	10.1	10.0	9.8
34S	8.0	8.9	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.8	8.8	8.7	8.7	8.7	8.7	8.6	8.5	8.3
38S	7.6	7.5	7.4	7.4	7.4	7.3	7.3	7.2	7.2	7.3	7.2	7.2	7.2	7.2	7.1	6.9	6.7	6.7
42S	5.9	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5	5.5	5.5	5.5	5.4	5.4	5.4	5.3	5.2	5.0
46S	3.9	3.8	3.7	3.7	3.6	3.6	3.5	3.4	3.5	3.5	3.5	3.5	3.3	3.4	3.3	3.2	3.2	3.2
50S	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.2	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2
54S	-1.3	-1.3	-1.2	-1.2	-1.2	-1.2	-1.2	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.0	-1.0	-1.0	-1.0
58S	-3.8	-3.7	-3.6	-3.6	-3.5	-3.5	-3.5	-3.4	-3.4	-3.4	-3.4	-3.4	-3.3	-3.3	-3.3	-3.2	-3.2	-3.2
62S	-6.2	-6.1	-6.0	-5.9	-5.9	-5.7	-5.7	-5.7	-5.6	-5.6	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
66S	-8.5	-8.3	-8.1	-8.0	-7.9	-7.8	-7.8	-7.7	-7.7	-7.7	-7.6	-7.7	-7.7	-7.7	-7.7	-7.7	-7.7	-7.8
70S	-10.5	-10.3	-10.0	-9.9	-9.7	-9.7	-9.7	-9.7	-9.7	-9.7	-9.7	-9.7	-9.7	-9.9	-9.9	-10.0	-10.0	-10.2
74S	-12.2	-11.8	-11.5	-11.4	-11.3	-11.2	-11.3	-11.3	-11.5	-11.5	-11.7	-11.8	-12.1	-12.4	-12.6	-13.0	-13.3	-13.8
78S	-13.5	-13.1	-13.0	-12.8	-12.8	-12.8	-12.8	-12.9	-13.1	-13.3	-13.5	-13.8	-14.1	-14.5	-14.8	-15.1	-15.3	-15.7
82S	-14.8	-14.6	-14.5	-14.4	-14.4	-14.4	-14.4	-14.5	-14.7	-14.9	-15.0	-15.3	-15.6	-15.8	-16.1	-16.2	-16.3	-16.5
86S	-16.3	-16.3	-16.2	-16.2	-16.2	-16.2	-16.1	-16.2	-16.2	-16.3	-16.5	-16.5	-16.7	-16.8	-16.9	-16.9	-17.0	-17.1
90S	-18.3	-18.3	-18.3	-18.3	-18.3	-18.3	-18.3	-18.3	-18.3	-18.3	-18.3	-18.3	-18.3	-18.3	-18.3	-18.3	-18.3	-18.3







































TABLE 5-17 JAN 800MB ZONAL GEOSTROPHIC (M/SEC)

	177.5W	172.5W	167.5W	162.5W	157.5W	152.5W	147.5W	142.5W	137.5W	132.5W	127.5W	122.5W	117.5W	112.5W	107.5W	102.5W	97.5W	92.5W
89N	3.12	3.14	3.15	3.14	3.08	2.99	2.87	2.72	2.56	2.35	2.13	1.91	1.60	1.47	1.23	0.99	0.75	0.55
90N	4.37	4.31	4.24	4.14	3.99	3.81	3.59	3.32	3.03	2.67	2.29	1.89	1.48	1.07	0.65	0.26	-0.08	-0.36
90N	4.10	4.02	3.92	3.81	3.69	3.56	3.41	3.25	3.05	2.74	2.36	1.96	1.44	1.00	0.56	0.01	-0.41	-0.74
70N	2.54	2.52	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.59	2.44	2.16	1.77	1.34	0.86	0.31	-0.07	-0.47
72N	0.29	0.31	0.28	0.26	0.32	0.54	0.90	1.38	1.88	2.26	2.45	2.45	2.28	2.00	1.63	1.24	0.85	0.50
68N	-2.60	-1.85	-1.75	-1.64	-1.44	-1.08	-0.54	0.17	1.01	1.80	2.39	2.76	2.88	2.78	2.54	2.27	1.90	1.70
64N	-3.78	-3.39	-2.99	-2.59	-2.12	-1.61	-1.04	-0.33	0.55	1.54	2.46	3.19	3.60	3.68	3.56	3.34	3.10	2.85
60N	-4.32	-3.69	-2.95	-2.12	-1.29	-0.60	-0.08	0.40	1.03	1.91	2.96	3.95	4.61	4.87	4.80	4.55	4.28	4.01
56N	-2.88	-2.14	-1.16	-0.01	1.10	1.94	2.36	2.50	2.66	3.18	4.07	5.09	5.92	6.30	6.23	5.90	5.52	5.22
52N	0.95	1.56	2.49	3.59	4.67	5.47	5.80	5.64	5.42	5.38	5.78	6.53	7.31	7.77	7.64	7.21	6.76	6.48
48N	6.34	6.55	7.01	7.59	8.16	8.63	8.84	8.68	8.23	7.72	7.41	7.48	7.84	8.15	8.17	7.93	7.71	7.75
44N	11.01	10.74	10.56	10.42	10.28	10.22	10.20	10.05	9.59	8.81	7.87	7.13	6.83	6.06	5.28	4.67	4.20	4.02
40N	13.52	12.85	12.17	11.45	10.76	10.22	9.90	9.63	9.13	8.24	6.99	5.75	4.85	4.01	3.42	2.82	2.45	2.20
36N	13.80	12.89	11.89	10.82	9.79	8.95	8.35	7.87	7.31	6.47	5.33	4.10	3.10	2.40	1.98	1.55	1.26	1.08
32N	12.18	11.17	10.03	8.93	7.68	6.74	6.03	5.42	4.87	4.28	3.61	2.91	2.37	2.00	1.63	1.26	0.96	0.78
28N	9.02	7.09	6.95	5.75	4.66	3.84	3.26	2.80	2.48	2.29	2.17	2.09	2.00	2.30	2.94	4.03	5.20	6.09
24N	5.03	4.32	3.33	2.22	1.25	0.59	0.23	0.05	0.06	0.21	0.38	0.59	0.90	1.23	1.57	1.91	2.15	2.20
20N	0.96	0.59	-0.14	-1.07	-1.94	-2.53	-2.85	-2.93	-2.76	-2.50	-2.28	-2.02	-1.59	-1.12	-0.85	-0.97	-1.48	-2.18
16N	-2.64	-2.63	-2.98	-3.63	-4.37	-5.00	-5.44	-5.63	-5.55	-5.34	-5.14	-4.88	-4.33	-3.64	-3.23	-3.47	-4.37	-5.74
12N	-4.96	-4.96	-4.46	-4.69	-5.16	-5.73	-6.27	-6.61	-6.70	-6.58	-6.38	-6.04	-5.40	-4.58	-4.35	-4.16	-4.72	-6.33
8N	-5.68	-4.91	-4.38	-4.21	-4.32	-4.63	-5.01	-5.31	-5.41	-5.30	-5.04	-4.67	-4.12	-3.43	-2.76	-2.41	-2.63	-3.16
4N	-5.49	-4.72	-4.06	-3.63	-3.41	-3.41	-3.60	-3.84	-3.94	-3.84	-3.64	-3.41	-3.10	-2.66	-2.10	-1.64	-1.54	-1.57
0	-5.00	-4.69	-4.24	-3.64	-3.11	-2.94	-3.14	-3.49	-3.73	-3.80	-3.79	-3.80	-3.73	-3.48	-3.00	-2.72	-2.48	-2.15
4S	-4.22	-4.31	-4.07	-3.43	-2.79	-2.64	-2.97	-3.48	-3.91	-4.18	-4.35	-4.53	-4.65	-4.58	-4.35	-4.16	-3.94	-3.42
8S	-2.89	-2.89	-2.53	-2.06	-1.82	-2.02	-2.54	-3.17	-3.77	-4.17	-4.35	-4.51	-4.71	-4.78	-4.72	-4.72	-4.72	-4.33
12S	-0.96	-0.50	-0.14	-0.13	-0.60	-1.74	-1.89	-2.47	-3.07	-3.44	-3.53	-3.59	-3.81	-4.00	-4.00	-4.31	-4.60	-4.54
16S	0.66	0.92	0.94	0.49	-0.32	-1.01	-1.48	-1.80	-2.16	-2.36	-2.33	-2.35	-2.57	-2.85	-3.08	-3.35	-3.70	-3.88
20S	0.47	0.48	0.26	-0.24	-0.80	-1.13	-1.13	-1.10	-1.17	-1.16	-1.01	-0.98	-1.16	-1.46	-1.71	-1.89	-2.10	-2.33
24S	-0.53	-0.57	-0.74	-0.91	-0.89	-0.64	-0.27	0.00	0.13	0.27	0.47	0.55	0.40	0.21	-0.08	-0.15	-0.22	-0.44
28S	-0.88	-0.72	-0.59	-0.29	0.24	0.87	1.39	1.67	1.79	1.89	2.03	2.10	2.02	1.81	1.63	1.55	1.42	1.12
32S	0.36	0.79	1.23	1.76	2.38	2.97	3.38	3.58	3.63	3.64	3.67	3.72	3.75	3.67	3.53	3.32	2.98	2.48
36S	2.65	3.21	3.75	4.18	4.53	4.82	5.05	5.27	5.40	5.43	5.44	5.54	5.69	5.76	5.70	5.44	5.02	4.45
40S	5.33	5.79	6.18	6.36	6.36	6.37	6.49	6.76	7.01	7.14	7.22	7.39	7.61	7.78	7.70	7.46	7.42	7.07
44S	8.23	8.35	8.18	8.36	8.14	7.99	8.02	8.24	8.52	8.74	8.90	9.05	9.25	9.43	9.53	9.62	9.73	9.80
48S	11.10	10.85	10.57	10.26	10.02	9.88	9.83	9.90	10.04	10.23	10.39	10.47	10.56	10.60	10.88	11.16	11.58	12.06
52S	12.84	12.40	11.98	11.66	11.51	11.41	11.29	11.18	11.12	11.20	11.29	11.30	11.31	11.41	11.64	12.02	12.52	13.12
56S	12.34	12.08	11.83	11.66	11.56	11.42	11.24	11.02	10.86	10.82	10.84	10.84	10.85	10.96	11.20	11.54	11.93	12.35
60S	9.73	9.78	9.79	9.79	9.72	9.54	9.32	9.10	8.93	8.83	8.79	8.77	8.81	8.92	9.10	9.31	9.51	9.70
64S	5.89	6.14	6.31	6.41	6.38	6.23	6.06	5.92	5.79	5.69	5.61	5.55	5.55	5.61	5.66	5.72	5.74	5.72
68S	2.14	2.34	2.49	2.57	2.60	2.58	2.55	2.52	2.46	2.38	2.29	2.18	2.11	2.05	1.97	1.89	1.76	1.64
72S	0.07	0.06	0.06	0.07	0.13	0.23	0.33	0.39	0.39	0.35	0.28	0.17	0.06	-0.01	-0.08	-0.31	-0.48	-0.62
76S	-0.62	-0.76	-0.87	-0.91	-0.86	-0.73	-0.59	-0.49	-0.44	-0.43	-0.45	-0.49	-0.54	-0.60	-0.67	-0.76	-0.88	-0.98
80S	-1.31	-1.48	-1.60	-1.64	-1.59	-1.50	-1.39	-1.29	-1.21	-1.14	-1.09	-1.04	-0.98	-0.94	-0.92	-0.92	-0.95	-1.00
84S	-2.11	-2.26	-2.36	-2.40	-2.39	-2.34	-2.28	-2.19	-2.10	-2.01	-1.90	-1.80	-1.68	-1.54	-1.43	-1.35	-1.27	-1.25
88S	-2.24	-2.39	-2.49	-2.57	-2.60	-2.60	-2.61	-2.60	-2.55	-2.49	-2.42	-2.33	-2.23	-2.08	-1.94	-1.82	-1.69	-1.59

TABLE 5-17 JAN 80MB ZONAL GEOSTROPHIC (M/SEC)

	87.5W	82.5W	77.5W	72.5W	67.5W	62.5W	57.5W	52.5W	47.5W	42.5W	37.5W	32.5W	27.5W	22.5W	17.5W	12.5W	7.5W	2.5W
88N	0.38	0.23	0.11	0.01	-0.06	-0.11	-0.13	-0.13	-0.12	-0.13	-0.17	-0.20	-0.23	-0.31	-0.41	-0.53	-0.66	-0.79
84N	-0.56	-0.68	-0.73	-0.65	-0.49	-0.25	0.05	0.39	0.75	1.06	1.30	1.51	1.65	1.68	1.65	1.56	1.42	1.27
80N	-1.05	-1.21	-1.24	-1.12	-0.84	-0.44	0.03	0.56	1.10	1.58	1.98	2.30	2.50	2.61	2.63	2.60	2.53	2.44
76N	-0.79	-1.02	-1.02	-1.03	-0.81	-0.47	-0.06	0.38	0.83	1.24	1.60	1.88	2.09	2.28	2.43	2.58	2.71	2.84
72N	0.18	-0.09	-0.28	-0.36	-0.35	-0.27	-0.14	-0.02	0.11	0.22	0.33	0.49	0.73	1.06	1.48	1.95	2.44	2.92
68N	1.41	1.15	0.90	0.66	0.44	0.23	0.07	-0.10	-0.29	-0.44	-0.48	-0.36	-0.03	0.51	1.21	1.97	2.72	3.38
64N	2.59	2.35	2.12	1.83	1.49	1.17	0.90	0.68	0.50	0.40	0.49	0.74	1.17	1.80	2.56	3.28	3.90	4.31
60N	3.77	3.57	3.39	3.15	2.85	2.57	2.39	2.35	2.43	2.64	2.99	3.39	3.83	4.33	4.82	5.16	5.29	5.19
56N	5.02	4.91	4.82	4.70	4.51	4.37	4.20	4.23	4.32	4.53	4.81	5.13	5.48	5.83	6.05	6.28	6.31	6.25
52N	6.47	6.45	6.52	6.54	6.50	6.53	6.55	7.17	7.72	8.30	8.81	9.11	9.10	8.83	8.32	7.57	6.65	5.72
48N	8.02	8.36	8.63	.80	8.91	9.03	9.25	9.58	9.95	10.24	10.39	10.33	9.95	9.28	8.39	7.38	6.35	5.48
44N	9.71	10.40	10.86	11.16	11.35	11.42	11.42	11.40	11.29	11.04	10.66	10.13	9.43	8.53	7.51	6.53	5.74	5.18
40N	10.91	11.82	12.40	12.75	12.93	12.85	12.53	12.05	11.40	10.60	9.73	8.83	7.92	6.98	6.05	5.31	4.89	4.77
36N	11.04	11.94	12.49	12.82	12.91	12.65	12.05	11.17	10.10	8.92	7.75	6.66	5.72	4.80	4.21	3.83	3.85	4.21
32N	9.7C	10.35	10.73	10.92	10.87	10.47	9.74	8.73	7.53	6.29	5.12	4.10	3.30	2.71	2.36	2.35	2.75	3.50
28N	6.60	6.87	7.02	7.12	7.05	6.73	6.14	5.31	4.35	3.40	2.56	1.85	1.34	1.05	0.99	1.23	1.78	2.63
24N	2.08	1.99	2.06	2.30	2.54	2.57	2.34	1.87	1.31	0.81	0.39	0.04	-0.16	-0.18	0.00	0.35	0.84	1.46
20N	-2.82	-3.14	-3.02	-2.47	-1.77	-1.30	-1.17	-1.28	-1.46	-1.61	-1.71	-1.81	-1.79	-1.55	-1.15	-0.73	-0.41	-0.14
16N	-6.53	-6.98	-6.80	-6.10	-5.20	-4.50	-4.17	-4.03	-3.92	-3.80	-3.73	-3.70	-3.51	-3.04	-2.43	-1.99	-1.85	-1.94
12N	-6.53	-7.04	-7.01	-6.73	-6.35	-6.03	-5.85	-5.66	-5.36	-5.07	-4.90	-4.77	-4.42	-3.80	-3.13	-2.74	-2.74	-3.01
8N	-3.81	-3.67	-3.94	-4.49	-5.05	-5.43	-5.62	-5.52	-5.12	-4.73	-4.49	-4.24	-3.77	-3.17	-2.61	-2.31	-2.34	-2.52
4N	-1.36	-1.09	-1.23	-1.88	-2.64	-3.27	-3.74	-3.88	-3.74	-3.63	-3.69	-3.63	-3.20	-2.81	-2.38	-2.18	-2.17	-2.16
0	-1.54	-0.85	-0.34	-0.07	-0.08	-0.44	-1.06	-1.65	-2.17	-2.85	-3.65	-4.18	-4.21	-3.88	-3.54	-3.40	-3.38	-3.17
4S	-2.57	-1.54	-0.34	0.93	1.83	1.89	1.12	-0.02	-1.27	-2.69	-4.14	-5.17	-5.52	-5.35	-5.04	-4.88	-4.78	-4.29
8S	-3.40	-2.15	-0.78	0.68	1.93	2.21	1.19	-0.52	-2.24	-3.79	-5.16	-6.12	-6.49	-6.36	-6.04	-5.73	-5.33	-4.44
12S	-3.81	-2.72	-1.71	-0.69	0.37	0.71	-0.23	-1.87	-3.29	-4.28	-5.02	-5.56	-5.81	-5.77	-5.53	-5.17	-4.66	-3.81
16S	-3.56	-2.04	-2.39	-1.83	-1.17	-0.82	-1.22	-1.94	-2.36	-2.53	-2.74	-3.06	-3.38	-3.60	-3.62	-3.46	-3.26	-3.01
20S	-2.37	-2.20	-2.03	-1.86	-1.64	-1.43	-1.29	-0.97	-0.36	0.17	0.29	-0.01	-0.49	-0.97	-1.30	-1.44	-1.58	-1.89
24S	-0.73	-0.94	-0.97	-0.93	-0.98	-0.92	-0.42	0.61	1.84	2.73	2.98	2.69	2.11	1.40	0.97	0.60	0.24	-0.33
28S	0.62	0.18	0.16	0.39	0.49	0.66	1.34	2.50	3.68	4.46	4.72	4.54	4.07	3.50	2.99	2.58	2.18	1.69
32S	1.81	1.30	1.40	1.95	2.48	3.04	3.87	4.79	5.54	6.02	6.24	6.22	6.00	5.68	5.40	5.19	4.96	4.67
36S	3.79	3.34	3.49	4.12	4.89	5.75	6.68	7.46	7.96	8.32	8.58	8.71	8.71	8.68	8.72	8.83	8.89	8.84
40S	6.66	6.39	6.48	6.85	7.41	8.19	9.10	9.86	10.39	10.84	11.25	11.57	11.78	11.96	12.20	12.50	12.79	13.03
44S	9.79	9.74	9.66	9.53	9.57	9.94	10.60	11.31	11.93	12.55	13.16	13.70	14.12	14.45	14.73	14.99	15.34	15.76
48S	12.42	12.51	12.20	11.55	10.93	10.71	10.92	11.85	12.54	13.32	14.07	14.69	15.14	15.44	15.74	15.40	15.57	15.92
52S	13.59	13.65	13.12	12.13	11.08	10.34	9.96	9.83	10.00	10.51	11.26	12.06	12.77	13.25	13.42	13.35	13.28	13.35
56S	12.68	12.64	12.04	11.05	9.94	8.95	8.16	7.62	7.42	7.55	7.99	8.56	9.10	9.47	9.62	9.57	9.42	9.22
60S	9.84	9.76	9.33	8.62	7.77	6.91	6.11	5.48	5.07	4.88	4.86	4.96	5.11	5.22	5.25	5.20	5.06	4.79
64S	5.73	5.70	5.56	5.31	4.96	4.52	4.04	3.59	3.18	2.75	2.33	1.94	1.64	1.43	1.26	1.16	1.04	0.78
68S	1.62	-0.59	-0.38	-0.08	0.25	0.52	0.68	0.69	0.49	0.09	-0.46	-0.08	-0.66	-1.11	-1.45	-1.65	-1.81	-2.03
72S	-0.66	-0.59	-0.38	-0.08	0.25	0.52	0.68	0.69	0.49	0.09	-0.46	-0.08	-0.66	-1.11	-1.45	-1.65	-1.81	-2.03
76S	-1.05	-1.05	-0.96	-0.82	-0.67	-0.54	-0.43	-0.52	-0.69	-0.93	-1.21	-1.49	-1.68	-1.84	-1.96	-2.05	-2.04	-2.00
80S	-1.06	-1.11	-1.14	-1.17	-1.22	-1.27	-1.32	-1.41	-1.53	-1.63	-1.68	-1.71	-1.68	-1.64	-1.57	-1.49	-1.44	-1.38
84S	-1.26	-1.26	-1.29	-1.34	-1.41	-1.48	-1.54	-1.56	-1.57	-1.54	-1.45	-1.34	-1.20	-1.05	-0.88	-0.70	-0.53	-0.40
88S	-1.49	-1.36	-1.25	-1.16	-1.07	-0.99	-0.88	-0.75	-0.61	-0.45	-0.28	-0.11	0.09	0.27	0.46	0.66	0.84	0.99

TABLE 5-17 JAN 800MB ZONAL GEOSTROPHIC (M/SEC)

	2.5E	7.5E	12.5E	17.5E	22.5E	27.5E	32.5E	37.5E	42.5E	47.5E	52.5E	57.5E	62.5E	67.5E	72.5E	77.5E	82.5E	87.5E
88N	-0.92	-1.03	-1.16	-1.28	-1.36	-1.44	-1.51	-1.55	-1.60	-1.61	-1.61	-1.61	-1.59	-1.57	-1.53	-1.43	-1.31	-1.19
84N	1.10	0.92	0.71	0.49	0.30	0.11	-0.08	-0.25	-0.43	-0.56	-0.68	-0.78	-0.86	-0.93	-0.99	-0.98	-0.96	-0.91
80N	2.35	2.19	1.97	1.75	1.51	1.26	1.03	0.83	0.64	0.50	0.41	0.35	0.32	0.28	0.26	0.27	0.28	0.32
76N	2.94	2.93	2.80	2.60	2.35	2.10	1.88	1.72	1.61	1.58	1.61	1.70	1.82	1.92	2.05	2.16	2.24	2.32
72N	3.29	3.45	3.41	3.26	3.04	2.80	2.65	2.60	2.64	2.78	3.00	3.28	3.59	3.88	4.19	4.45	4.61	4.71
68N	3.82	3.99	3.94	3.82	3.65	3.50	3.49	3.62	3.83	4.12	4.50	4.91	5.34	5.74	6.14	6.45	6.63	6.69
64N	4.48	4.44	4.31	4.23	4.18	4.22	4.37	4.65	4.98	5.35	5.74	6.16	6.58	6.97	7.33	7.59	7.70	7.69
60N	4.94	4.67	4.53	4.57	4.70	4.90	5.14	5.44	5.79	6.19	6.42	6.74	7.06	7.38	7.68	7.95	7.91	7.86
56N	5.11	4.73	4.67	4.87	5.13	5.43	5.64	5.90	6.14	6.34	6.50	6.65	6.85	7.10	7.34	7.49	7.50	7.44
52N	5.01	4.66	4.70	4.99	5.30	5.56	5.78	5.95	6.05	6.09	6.08	6.08	6.18	6.35	6.53	6.65	6.66	6.60
48N	4.87	4.57	4.58	4.78	5.04	5.29	5.51	5.63	5.65	5.57	5.42	5.29	5.25	5.24	5.24	5.25	5.23	5.17
44N	4.83	4.62	4.53	4.59	4.75	4.95	5.13	5.24	5.22	5.06	4.84	4.56	4.23	3.85	3.50	3.24	3.10	3.04
40N	4.82	4.85	4.84	4.84	4.86	4.91	4.96	4.98	4.92	4.73	4.45	4.01	3.37	2.61	1.86	1.26	0.91	0.79
36N	4.72	5.15	5.40	5.43	5.29	5.08	4.90	4.80	4.71	4.53	4.21	3.69	2.92	2.00	1.03	0.20	-0.37	-0.64
32N	4.43	5.26	5.77	5.85	5.56	5.12	4.74	4.55	4.47	4.34	4.09	3.68	3.11	2.41	1.62	0.85	0.19	-0.30
28N	3.65	4.56	5.15	5.29	5.08	4.66	4.27	4.10	4.09	4.06	3.96	3.85	3.73	3.53	3.24	2.85	2.34	1.84
24N	2.16	2.82	3.33	3.66	3.81	3.77	3.63	3.59	3.63	3.64	3.62	3.69	3.83	3.97	4.05	3.99	3.82	3.66
20N	0.09	0.38	0.82	1.41	2.04	2.55	2.86	3.02	3.09	3.03	2.90	2.80	2.78	2.81	2.87	2.90	3.01	3.33
16N	-2.09	-1.77	-1.77	-1.00	0.01	0.99	1.70	2.12	2.27	2.11	1.72	1.21	0.78	0.35	0.17	0.15	0.41	1.06
12N	-3.31	-3.46	-3.27	-2.63	-1.68	-0.67	0.16	0.70	0.92	0.75	0.15	-0.73	-1.65	-2.33	-2.69	-2.74	-2.45	-1.86
8N	-2.73	-2.86	-2.83	-2.52	-1.98	-1.43	-0.97	-0.62	-0.47	-0.66	-1.28	-2.22	-3.21	-3.96	-4.31	-4.29	-4.03	-3.67
4N	-2.06	-1.90	-1.70	-1.40	-1.11	-1.00	-0.92	-0.71	-0.51	-0.58	-1.05	-1.82	-2.71	-3.47	-3.87	-3.89	-3.72	-3.46
0	-2.59	-1.81	-0.99	-0.30	0.01	-0.08	-0.09	0.32	0.88	1.16	0.97	0.35	-0.53	-1.40	-1.97	-2.23	-2.26	-1.99
4S	-3.20	-1.70	-0.17	0.93	1.21	0.99	0.81	1.45	2.34	2.85	2.81	2.23	1.26	0.24	-0.52	-1.06	-1.32	-1.27
8S	-2.86	-0.73	1.36	2.56	2.39	1.47	1.09	1.71	2.55	2.83	2.44	1.56	0.37	-0.76	-1.66	-2.37	-2.78	-2.56
12S	-2.45	-0.57	1.35	2.28	1.72	0.54	0.09	0.62	1.14	0.91	0.02	-1.14	-2.33	-3.38	-4.20	-4.89	-5.36	-5.30
16S	-2.64	-1.93	-0.95	-0.44	-0.82	-1.45	-1.40	-0.80	-0.57	-1.13	-2.18	-3.24	-4.15	-4.80	-5.45	-5.93	-6.33	-6.16
20S	-2.38	-2.74	-2.71	-2.57	-2.60	-2.51	-1.97	-1.35	-1.29	-1.94	-2.90	-3.73	-4.34	-4.77	-5.04	-5.27	-5.46	-5.44
24S	-1.12	-1.97	-2.52	-2.65	-2.42	-1.87	-1.18	-0.73	-0.75	-1.24	-1.95	-2.52	-2.90	-3.10	-3.17	-3.17	-3.15	-3.07
28S	1.06	0.34	-0.28	-0.49	-0.16	0.46	0.95	1.11	1.05	0.82	0.46	0.16	-0.03	-0.12	-0.11	-0.01	0.15	0.31
32S	4.33	3.94	3.55	3.43	3.77	4.26	4.47	4.37	4.23	4.12	4.00	3.92	3.91	3.88	3.86	3.94	4.07	4.15
36S	8.75	8.63	8.46	8.45	8.72	9.03	9.00	8.68	8.37	8.15	8.00	7.98	8.07	8.12	8.11	8.11	8.15	8.11
40S	13.23	13.33	13.34	13.40	13.57	13.61	13.31	12.80	12.31	11.90	11.61	11.53	11.64	11.80	11.86	11.89	11.90	11.81
44S	16.18	16.49	16.66	16.80	16.86	16.67	16.17	15.55	14.99	14.49	14.15	14.08	14.27	14.44	14.45	14.73	14.88	14.82
48S	16.36	16.72	17.00	17.20	17.24	16.97	16.46	15.91	15.45	15.11	14.97	15.03	15.25	15.58	15.94	16.27	16.46	16.44
52S	13.49	13.63	13.78	13.92	13.93	13.71	13.36	13.02	12.80	12.78	12.96	13.29	13.67	14.10	14.55	14.93	15.10	15.04
56S	9.01	8.81	8.66	8.55	8.43	8.25	8.05	7.90	7.87	8.07	8.48	9.00	9.50	9.95	10.31	10.52	10.52	10.36
60S	4.42	4.01	3.62	3.27	2.99	2.83	2.73	2.70	2.76	3.03	3.47	3.95	4.37	4.68	4.85	4.84	4.66	4.45
64S	0.40	-0.05	-0.50	-0.94	-1.27	-1.39	-1.37	-1.28	-1.14	-0.87	-0.57	-0.33	-0.10	-0.13	-0.16	-0.31	-0.52	-0.69
68S	-2.32	-2.67	-3.02	-3.35	-3.57	-3.59	-3.42	-3.17	-2.91	-2.67	-2.56	-2.64	-2.84	-3.05	-3.22	-3.36	-3.46	-3.48
72S	-2.98	-3.17	-3.35	-3.50	-3.53	-3.41	-3.14	-2.79	-2.47	-2.26	-2.28	-2.53	-2.90	-3.21	-3.40	-3.46	-3.42	-3.30
76S	-2.26	-2.30	-2.34	-2.35	-2.26	-2.08	-1.82	-1.52	-1.26	-1.11	-1.14	-1.36	-1.64	-1.87	-1.99	-2.00	-1.91	-1.75
80S	-1.33	-1.27	-1.20	-1.12	-1.00	-0.85	-0.68	-0.48	-0.31	-0.22	-0.22	-0.31	-0.44	-0.53	-0.59	-0.59	-0.53	-0.42
84S	-0.27	-0.13	0.01	0.11	0.22	0.34	0.45	0.56	0.73	0.72	0.72	0.72	0.70	0.67	0.66	0.64	0.64	0.63
88S	1.14	1.31	1.45	1.55	1.62	1.70	1.77	1.83	1.85	1.86	1.87	1.84	1.81	1.74	1.67	1.59	1.50	1.40

TABLE 5-17 JAN 800HR ZONAL GEOSTROPHIC (M/SEC)

	92.5E	97.5E	102.5E	107.5E	112.5E	117.5E	122.5E	127.5E	132.5E	137.5E	142.5E	147.5E	152.5E	157.5E	162.5E	167.5E	172.5E	177.5E
88N	-1.03	-0.84	-0.64	-0.39	-0.12	0.16	0.44	0.74	1.04	1.35	1.66	1.94	2.10	2.42	2.63	2.80	2.94	3.05
84N	-0.78	-0.63	-0.42	-0.16	0.14	0.48	0.85	1.25	1.67	2.09	2.53	2.92	3.28	3.61	3.86	4.08	4.24	4.33
80N	0.40	0.49	0.59	0.73	0.90	1.09	1.31	1.58	1.86	2.17	2.52	2.85	3.17	3.46	3.68	3.89	4.01	4.08
76N	2.35	2.32	2.23	2.12	1.98	1.82	1.68	1.58	1.52	1.52	1.52	1.52	1.86	2.02	2.18	2.33	2.45	2.52
72N	4.68	4.50	4.17	3.72	3.16	2.54	1.91	1.33	0.80	0.36	0.05	-0.14	-0.24	-0.25	-0.18	-0.06	0.07	0.20
68N	6.58	6.27	5.75	5.02	4.12	3.13	2.11	1.11	0.18	-0.65	-1.32	-1.84	-2.20	-2.42	-2.50	-2.50	-2.39	-2.20
64N	7.54	7.19	6.60	5.76	4.75	3.62	2.43	1.23	0.08	-0.95	-1.86	-2.61	-3.21	-3.66	-4.01	-4.27	-4.40	-4.09
60N	7.74	7.43	6.87	6.10	5.17	4.09	2.95	1.76	0.59	-0.48	-1.43	-2.25	-2.98	-3.60	-4.17	-4.62	-4.81	-4.72
56N	7.36	7.15	6.72	6.13	5.41	4.57	3.66	2.68	1.66	0.75	-0.03	-0.71	-1.34	-1.94	-2.52	-3.00	-3.27	-3.26
52N	6.53	6.43	6.25	5.97	5.59	5.12	4.57	3.95	3.28	2.74	2.35	2.04	1.76	1.47	1.18	0.92	0.75	0.71
48N	5.12	5.19	5.39	5.64	5.79	5.82	5.77	5.65	5.50	5.47	5.61	5.81	6.01	6.17	6.32	6.41	6.41	6.35
44N	3.07	3.39	4.08	4.96	5.77	6.45	7.02	7.51	7.95	8.44	9.07	9.70	10.25	10.73	11.13	11.40	11.46	11.31
40N	0.90	1.46	2.53	3.91	5.30	6.61	7.83	8.95	9.94	10.67	11.82	12.68	13.35	13.88	14.27	14.47	14.40	14.07
36N	-0.55	0.08	1.28	2.83	4.53	6.25	7.94	9.56	11.00	12.22	13.29	14.16	14.77	15.15	15.36	15.36	15.07	14.55
32N	-0.40	0.06	1.01	2.30	3.87	5.57	7.33	9.12	10.73	12.04	13.03	13.75	14.36	14.83	15.16	15.36	15.07	14.55
28N	1.60	1.73	2.12	2.73	3.64	4.76	6.01	7.36	8.64	9.70	10.42	10.91	11.15	11.15	10.98	10.67	10.26	9.73
24N	3.63	3.58	3.37	3.14	3.15	3.46	3.92	4.50	5.16	5.74	6.11	6.28	6.28	6.11	5.91	5.73	5.60	5.42
20N	3.72	3.73	3.12	2.21	1.54	1.26	1.19	1.26	1.46	1.68	1.70	1.50	1.17	0.80	0.57	0.56	0.75	0.97
16N	1.75	1.86	1.13	-0.06	-1.02	-1.51	-1.68	-1.69	-1.61	-1.54	-1.78	-2.36	-3.06	-3.61	-3.95	-4.06	-3.40	-2.96
12N	-1.29	-1.21	-1.76	-2.68	-3.45	-3.77	-3.73	-3.50	-3.25	-3.18	-3.57	-4.45	-5.30	-5.90	-6.17	-6.06	-5.80	-5.43
8N	-3.39	-3.35	-3.61	-4.11	-4.61	-4.78	-4.55	-4.11	-3.72	-3.64	-4.14	-5.18	-6.21	-6.70	-6.70	-6.58	-6.48	-6.25
4N	-3.19	-3.01	-3.06	-3.40	-3.81	-3.99	-3.77	-3.34	-3.00	-3.00	-3.63	-4.83	-5.90	-6.40	-6.42	-6.23	-6.17	-6.02
0	-1.48	-1.02	-0.92	-1.21	-1.56	-1.70	-1.55	-1.25	-1.03	-1.14	-1.90	-3.30	-4.71	-5.48	-5.55	-5.34	-5.21	-5.17
4S	-2.69	-2.23	-1.77	-1.49	-1.59	-2.13	-2.95	-3.69	-4.06	-3.87	-4.27	-5.13	-6.04	-6.42	-6.24	-6.06	-5.80	-5.48
8S	-1.64	-0.53	0.18	0.42	0.57	0.88	1.22	1.54	1.94	2.20	1.73	0.31	-1.44	-2.60	-3.18	-3.10	-3.07	-3.07
12S	-4.49	-3.25	-2.17	-1.42	-0.86	-0.40	-0.16	0.06	0.64	1.44	1.74	1.09	-0.10	-1.00	-1.33	-1.36	-1.33	-1.24
16S	-5.74	-4.67	-3.55	-2.62	-2.02	-1.90	-2.23	-2.55	-2.21	-1.21	-0.17	0.28	0.16	0.00	0.09	0.29	0.42	0.48
20S	-4.98	-4.19	-3.32	-2.59	-2.30	-2.64	-3.45	-4.20	-4.27	-3.54	-2.37	-1.33	-0.71	-0.35	-0.03	0.25	0.40	0.43
24S	-2.69	-2.23	-1.77	-1.49	-1.59	-2.13	-2.95	-3.69	-4.06	-3.87	-4.27	-5.13	-6.04	-6.42	-6.24	-6.06	-5.80	-5.48
28S	0.47	0.57	0.56	0.39	0.06	-0.32	-0.65	-0.99	-1.45	-1.80	-1.69	-1.18	-0.63	-0.35	-0.43	-0.76	-1.06	-1.07
32S	4.07	3.88	3.54	3.09	2.74	2.63	2.74	2.74	2.30	1.61	1.18	1.15	1.26	1.21	0.89	0.39	-0.01	0.01
36S	7.90	7.55	7.09	6.61	6.30	6.28	6.47	6.51	6.09	5.27	4.46	3.92	3.53	3.13	2.71	2.32	2.10	2.22
40S	11.56	11.19	10.74	10.33	10.09	10.06	10.16	10.18	9.82	8.99	7.95	6.90	6.19	5.53	5.04	4.79	4.76	4.95
44S	14.59	14.23	13.83	13.52	13.36	13.30	13.31	13.33	13.10	12.42	11.39	10.24	9.43	8.63	8.18	7.97	7.98	8.08
48S	16.22	15.88	15.53	15.27	15.15	15.07	15.07	15.13	15.08	14.74	14.10	13.41	12.77	12.11	11.91	11.50	11.46	11.37
52S	14.82	14.52	14.20	13.96	13.82	13.77	13.83	13.99	14.19	14.34	14.40	14.29	14.12	13.94	13.75	13.55	13.55	13.26
56S	10.16	9.93	9.72	9.55	9.44	9.47	9.65	9.96	10.42	11.02	11.64	12.18	12.50	12.68	12.77	12.77	12.71	12.57
60S	4.30	4.20	4.14	4.12	4.14	4.29	4.57	4.98	5.56	6.29	7.07	7.75	8.24	8.62	8.97	9.25	9.46	9.63
64S	-0.77	-0.74	-0.64	-0.49	-0.29	-0.04	0.25	0.60	1.05	1.63	2.24	2.77	3.25	3.74	4.24	4.77	5.20	5.57
68S	-3.44	-3.29	-3.07	-2.82	-2.53	-2.28	-2.08	-1.92	-1.76	-1.51	-1.22	-0.89	-0.48	-0.00	0.56	1.11	1.56	1.89
72S	-3.13	-2.93	-2.69	-2.46	-2.23	-2.08	-2.00	-2.02	-2.02	-1.98	-1.87	-1.66	-1.36	-0.98	-0.56	-0.22	0.06	0.06
76S	-1.55	-1.37	-1.21	-1.08	-0.97	-0.91	-0.91	-0.95	-1.02	-1.02	-0.95	-0.84	-0.60	-0.28	-0.23	-0.27	-0.32	-0.47
80S	-0.30	-0.20	-0.16	-0.13	-0.17	-0.17	-0.21	-0.31	-0.41	-0.46	-0.49	-0.52	-0.56	-0.54	-0.56	-0.74	-0.91	-1.12
84S	0.61	0.59	0.52	0.44	0.35	0.19	0.03	-0.13	-0.29	-0.44	-0.60	-0.76	-0.94	-1.11	-1.30	-1.52	-1.73	-1.93
88S	1.26	1.12	0.95	0.79	0.62	0.41	0.20	-0.02	-0.23	-0.44	-0.66	-0.87	-1.10	-1.30	-1.52	-1.74	-1.92	-2.08

TABLE 5-18 JAN 800MB MERIDIONAL GFSTROPHIC (M/SEC)

	177.5W	172.5W	167.5W	162.5W	157.5W	152.5W	147.5W	142.5W	137.5W	132.5W	127.5W	122.5W	117.5W	112.5W	107.5W	102.5W	97.5W	92.5W
88N	0.79	0.48	0.18	-0.15	-0.47	-0.78	-1.04	-1.29	-1.49	-1.65	-1.91	-1.94	-2.03	-2.08	-2.11	-2.12	-2.06	-1.99
84N	0.57	0.33	-0.47	-0.93	-1.38	-1.83	-2.21	-2.54	-2.82	-3.02	-3.17	-3.27	-3.20	-3.22	-3.00	-2.80	-2.54	-2.12
80N	0.24	-0.33	-0.86	-1.34	-1.76	-2.19	-2.61	-3.00	-3.38	-3.72	-4.01	-4.20	-4.28	-4.23	-4.05	-3.73	-3.23	-2.57
76N	0.07	-0.51	-0.98	-1.34	-1.61	-1.89	-2.20	-2.58	-3.08	-3.62	-4.14	-4.56	-4.81	-4.87	-4.72	-4.30	-3.84	-3.07
72N	0.04	-0.55	-0.94	-1.11	-1.11	-1.07	-1.11	-1.38	-1.96	-2.75	-3.59	-4.33	-4.82	-5.04	-5.00	-4.72	-4.21	-3.45
68N	0.25	-0.40	-0.77	-0.79	-0.50	-0.07	0.27	0.27	0.27	-1.24	-2.44	-3.57	-4.33	-4.84	-4.93	-4.74	-4.31	-3.64
64N	0.75	0.10	-0.27	-0.73	0.20	0.86	1.50	1.80	1.50	0.55	-0.88	-2.42	-3.67	-4.84	-4.73	-4.43	-4.28	-3.70
60N	1.41	0.98	0.71	0.79	1.16	1.71	2.32	2.82	2.87	2.21	0.80	-1.04	-2.70	-4.02	-4.60	-4.61	-4.29	-3.77
56N	2.15	2.11	2.10	2.23	2.40	2.50	2.72	3.18	3.59	3.44	2.35	0.41	-1.70	-3.58	-4.54	-4.74	-4.42	-3.88
52N	3.78	3.24	3.59	3.84	3.73	3.21	2.79	2.97	3.59	4.01	3.49	1.73	-0.81	-3.20	-4.70	-5.09	-4.74	-4.05
48N	3.06	3.89	4.54	4.92	4.66	3.72	2.76	2.51	3.04	3.77	3.78	2.43	-0.10	-2.80	-4.88	-5.40	-5.00	-4.02
44N	2.89	3.88	4.67	5.10	4.88	3.90	2.75	2.15	2.33	2.91	3.13	2.22	0.07	-2.63	-4.74	-5.42	-4.71	-3.65
40N	2.42	3.43	4.24	4.67	4.53	3.72	2.65	1.89	1.64	1.82	1.94	1.32	0.25	-2.36	-4.45	-5.24	-4.54	-3.29
36N	1.75	2.68	3.46	3.91	3.85	3.25	2.37	1.54	0.96	0.74	0.59	0.10	-0.84	-2.03	-2.05	-2.92	-1.91	-0.74
32N	0.95	1.80	2.56	3.02	3.04	2.60	1.89	1.07	0.34	-0.12	-0.47	-0.93	-1.40	-1.65	-1.61	-1.01	0.52	0.81
28N	0.15	0.90	1.63	2.14	2.30	2.06	1.46	0.65	-0.06	-0.50	-0.97	-1.35	-1.63	-1.35	-0.61	0.45	1.47	1.91
24N	-0.49	0.06	0.69	1.32	1.74	1.77	1.32	0.54	-0.11	-0.47	-0.82	-1.32	-1.50	-1.17	-0.15	1.13	2.17	2.41
20N	-0.91	-0.63	-0.16	0.55	1.27	1.62	1.37	0.68	0.06	-0.33	-0.75	-1.26	-1.47	-1.02	0.01	1.27	2.27	2.45
16N	-1.07	-1.09	-0.82	-0.11	0.81	1.45	1.41	0.83	0.26	-0.18	-0.72	-1.18	-1.23	-0.75	0.09	1.05	1.87	2.25
12N	-0.89	-1.15	-1.12	-0.56	0.33	1.05	1.16	0.76	0.34	-0.05	-0.55	-0.90	-0.74	-0.24	0.24	0.66	1.07	1.72
8N	-0.41	-0.74	-0.97	-0.68	0.02	0.65	0.78	0.55	0.33	0.10	-0.30	-0.50	-0.15	0.38	0.60	0.54	0.50	0.58
4N	-0.21	-0.49	-0.70	-0.50	0.01	0.40	0.45	0.33	0.21	-0.00	-0.32	-0.36	0.04	0.45	0.57	0.43	0.29	0.33
0	-0.56	-0.73	-0.56	-0.13	0.15	0.11	0.01	0.02	-0.11	-0.51	-0.76	-0.56	-0.21	-0.14	-0.09	-0.07	0.05	0.09
4S	-0.98	-1.04	-0.38	0.32	0.33	-0.20	-0.47	0.37	-0.58	-1.11	-1.25	-0.86	-0.50	-0.84	-0.09	-0.62	-0.13	-0.00
8S	-1.05	-1.01	-0.04	0.77	0.48	-0.44	-0.91	-0.90	-1.14	-1.55	-1.54	-1.12	-0.80	-1.13	-0.90	-0.18	0.34	0.34
12S	-0.75	-0.65	0.24	0.84	0.28	-0.82	-1.35	-1.43	-1.61	-1.75	-1.58	-1.26	-1.00	-1.16	-1.31	-1.05	0.77	0.77
16S	-0.45	-0.38	0.19	0.40	-0.32	-1.28	-1.63	-1.69	-1.79	-1.71	-1.48	-1.30	-1.20	-1.24	-1.39	-1.25	-0.46	0.85
20S	-0.33	-0.35	-0.09	-0.14	-0.80	-1.40	-1.53	-1.60	-1.67	-1.46	-1.23	-1.22	-1.26	-1.30	-1.40	-1.31	-0.63	0.68
24S	-0.31	-0.43	-0.33	-0.40	-0.81	-1.11	-1.13	-1.28	-1.37	-1.11	-0.93	-1.08	-1.27	-1.34	-1.33	-1.19	-0.67	0.40
28S	-0.22	-0.42	-0.32	-0.20	-0.36	-0.54	-0.66	-0.95	-1.08	-0.82	-0.69	-0.97	-1.31	-1.40	-1.26	-1.04	-0.66	0.08
32S	0.09	-0.10	0.04	0.30	0.25	0.01	-0.31	-0.74	-0.95	-0.72	-0.57	-0.88	-1.32	-1.45	-1.20	-1.11	-0.89	-0.40
36S	0.57	0.45	0.54	0.74	0.66	0.34	-0.06	-0.56	-0.87	-0.73	-0.51	-0.71	-1.16	-1.41	-1.41	-1.36	-1.04	-1.04
40S	1.07	1.00	0.95	0.93	0.75	0.45	0.16	-0.29	-0.69	-0.66	-0.40	-0.48	-0.91	-1.30	-1.49	-1.45	-1.76	-1.57
44S	1.41	1.34	1.10	0.85	0.58	0.40	0.32	0.03	-0.40	-0.46	-0.40	-0.25	-0.60	-1.15	-1.44	-1.65	-1.83	-1.77
48S	1.38	1.29	0.91	0.55	0.32	0.30	0.38	0.25	-0.10	-0.27	-0.06	-0.10	-0.52	-1.00	-1.25	-1.35	-1.49	-1.48
52S	0.89	0.82	0.49	0.22	0.14	0.20	0.30	0.24	0.03	-0.06	0.03	-0.06	-0.45	-0.84	-0.84	-0.84	-0.81	-0.81
56S	0.38	0.33	0.12	0.01	0.01	0.04	0.06	0.02	-0.06	-0.03	0.04	-0.07	-0.30	-0.64	-0.56	-0.29	-0.13	-0.16
60S	0.36	0.25	0.05	-0.10	-0.20	-0.29	-0.33	-0.32	-0.24	-0.09	0.01	-0.07	-0.27	-0.30	-0.21	0.15	0.33	0.24
64S	0.82	0.62	0.75	-0.13	-0.47	-0.70	-0.76	-0.66	-0.47	-0.24	-0.09	-0.10	-0.17	-0.10	0.01	0.34	0.51	0.60
68S	1.55	1.20	0.61	-0.07	-0.63	-0.99	-1.07	-0.93	-0.69	-0.45	-0.30	-0.27	-0.25	-0.10	-0.01	0.25	0.42	0.36
72S	2.01	1.52	0.81	0.05	-0.59	-0.97	-1.11	-1.03	-0.87	-0.70	-0.63	-0.63	-0.62	-0.54	-0.37	-0.11	0.11	0.19
76S	2.01	1.47	0.81	0.14	-0.40	-0.77	-0.98	-1.04	-1.02	-0.98	-1.00	-1.08	-1.12	-1.08	-0.90	-0.63	-0.33	-0.09
80S	1.85	1.37	0.82	0.28	-0.16	-0.51	-0.81	-1.02	-1.15	-1.22	-1.30	-1.44	-1.54	-1.53	-1.40	-1.13	-0.81	-0.69
84S	1.71	1.34	0.91	0.50	0.16	-0.18	-0.54	-0.86	-1.08	-1.23	-1.36	-1.54	-1.68	-1.74	-1.70	-1.51	-1.24	-1.01
88S	1.60	1.34	1.06	0.79	0.53	0.27	-0.02	-0.32	-0.55	-0.75	-0.93	-1.12	-1.31	-1.46	-1.56	-1.50	-1.24	-1.01

TABLE 5-18 JAN 8008B MERIDIONAL GEOSTROPHIC (M/SEC)

	87.5M	82.5M	77.5M	72.5M	67.5M	62.5M	57.5M	52.5M	47.5M	42.5M	37.5M	32.5M	27.5M	22.5M	17.5M	12.5M	7.5M	2.5M
88N	-1.90	-1.80	-1.70	-1.59	-1.49	-1.40	-1.32	-1.26	-1.24	-1.21	-1.21	-1.24	-1.24	-1.24	-1.34	-1.33	-1.31	-1.26
84N	-1.69	-1.21	-0.72	-0.26	0.14	0.48	0.73	0.83	0.82	0.69	0.44	0.11	-0.26	-0.63	-0.96	-1.24	-1.46	-1.60
80N	-1.83	-0.99	0.78	1.54	2.18	2.79	2.72	2.40	2.40	1.87	1.87	1.87	0.52	-0.15	-0.74	-1.20	-1.54	-1.79
76N	-2.14	-1.06	0.14	1.32	2.38	3.26	3.83	4.05	3.91	3.44	2.72	1.87	1.04	0.25	-0.42	-0.91	-1.25	-1.53
72N	-2.48	-1.34	-0.02	1.31	2.49	3.47	4.07	4.26	4.08	3.57	2.87	2.11	1.42	0.80	0.30	-0.06	-0.34	-0.65
68N	-2.74	-1.66	-0.42	0.83	1.94	2.85	3.41	3.56	3.38	2.99	2.56	2.19	1.49	1.73	1.56	1.37	1.06	0.57
64N	-2.91	-1.93	-0.65	0.20	1.16	1.97	2.49	2.67	2.58	2.40	2.35	2.45	2.65	2.83	2.90	2.71	2.20	1.38
60N	-3.04	-2.12	-1.18	-0.32	0.51	1.30	1.91	2.22	2.28	2.33	2.54	2.90	3.22	3.65	3.72	3.35	2.52	1.37
56N	-3.12	-2.20	-1.36	-0.65	0.08	0.95	1.76	2.28	2.54	2.77	3.06	3.37	3.60	3.92	3.81	3.14	1.99	0.67
52N	-3.13	-2.15	-1.37	-0.79	-0.09	0.90	1.97	2.75	3.18	3.46	3.66	3.69	3.67	3.60	3.19	2.21	0.86	-0.43
48N	-2.90	-1.89	-1.19	-0.70	-0.03	1.06	2.32	3.26	3.72	3.92	3.91	3.58	3.16	2.77	2.10	0.97	-0.38	-1.45
44N	-2.74	-1.33	-0.82	-0.46	0.14	1.22	2.51	3.42	3.80	3.86	3.61	3.02	2.32	1.60	0.91	-0.16	-1.31	-2.12
40N	-1.24	-0.61	-0.35	-0.18	0.26	1.19	2.35	3.12	3.37	3.28	2.91	2.22	1.40	0.63	-0.15	-1.00	-1.85	-2.43
36N	-0.07	0.13	0.12	0.08	0.27	0.92	1.83	2.41	2.52	2.34	1.93	1.28	0.48	-0.20	-0.93	-1.68	-1.98	-2.32
32N	0.98	0.78	0.52	0.27	0.15	0.45	1.05	1.45	1.44	1.20	0.85	0.33	-0.33	-0.97	-1.40	-1.50	-1.70	-1.90
28N	1.66	1.19	0.78	0.33	-0.06	-0.05	0.31	0.55	0.48	0.24	-0.03	-0.41	-0.92	-1.38	-1.56	-1.42	-1.17	-1.01
24N	1.94	1.38	0.97	0.46	-0.11	-0.31	-0.15	-0.06	-0.18	-0.34	-0.54	-0.86	-1.27	-1.59	-1.57	-1.17	-0.66	-0.32
20N	1.95	1.36	0.96	0.46	-0.23	-0.41	-0.55	-0.65	-0.68	-0.65	-0.82	-1.16	-1.49	-1.66	-1.51	-0.99	-0.36	0.06
16N	1.73	1.69	1.82	2.07	2.47	2.84	3.07	2.84	2.54	-0.71	-1.03	-1.36	-1.57	-1.55	-1.33	-0.88	-0.31	0.11
12N	1.23	1.69	2.44	2.55	1.64	0.53	-0.12	-0.40	-0.54	-0.71	-1.03	-1.36	-1.57	-1.55	-1.33	-0.88	-0.31	0.11
8N	0.87	1.51	2.28	2.40	1.56	0.50	-0.07	-0.18	-0.22	-0.47	-0.90	-1.14	-0.91	-0.57	-0.51	-0.54	-0.50	-0.27
4N	0.63	1.20	1.81	1.87	1.15	0.28	-0.16	-0.24	-0.29	-0.47	-0.69	-0.75	-0.44	-0.17	-0.24	-0.44	-0.52	-0.34
0	0.22	0.77	1.53	1.75	1.15	0.32	-0.27	-0.72	-1.02	-0.91	-0.55	-0.28	-0.08	0.08	-0.04	-0.37	-0.44	-0.73
4S	0.04	0.62	1.61	2.07	1.47	0.35	-0.65	-1.12	-1.68	-1.68	-1.40	-0.01	0.20	0.26	0.12	-0.20	-0.21	-0.19
8S	0.66	1.31	2.42	3.07	2.14	0.11	-1.73	-2.99	-3.51	-2.81	-1.40	-0.27	0.44	0.44	0.32	0.07	0.30	1.15
12S	1.60	2.31	3.40	4.14	2.84	-0.24	-3.01	-4.43	-4.67	-3.74	-2.12	-0.70	0.70	0.60	0.55	0.41	0.92	2.23
16S	2.01	2.76	3.72	4.49	3.16	-0.34	-3.53	-4.92	-4.87	-3.81	-2.25	-0.88	0.05	0.56	0.65	0.61	1.18	2.50
20S	1.94	2.67	3.49	4.24	3.08	-0.23	-3.19	-4.29	-4.07	-3.21	-2.09	-1.06	-0.27	0.27	0.49	0.52	0.98	2.14
24S	1.53	2.26	3.03	3.68	2.69	-0.04	-2.28	-2.90	-2.70	-2.34	-1.36	-1.30	-0.74	-0.21	0.14	0.24	0.54	1.31
28S	0.99	1.81	2.70	3.24	2.28	0.19	-1.20	-1.37	-1.32	-1.53	-1.67	-1.54	-1.10	-0.72	-0.32	-0.13	0.08	0.57
32S	0.40	1.48	2.75	3.34	2.37	0.67	-0.26	-0.32	-0.48	-1.03	-1.51	-1.63	-1.44	-1.04	-0.64	-0.43	-0.23	0.16
36S	-0.23	1.25	3.04	3.87	3.00	1.47	0.60	0.32	-0.07	-0.73	-1.29	-1.54	-1.47	-1.04	-0.64	-0.44	-0.32	-0.20
40S	-0.73	1.08	3.27	4.38	3.72	2.36	1.47	0.95	0.35	-0.35	-0.96	-1.34	-1.34	-0.90	-0.39	-0.20	-0.15	0.09
44S	-0.94	0.96	3.28	4.53	4.15	3.12	2.32	1.68	0.96	0.22	-0.44	-0.94	-1.02	-0.59	-0.07	0.15	0.24	0.48
48S	-0.79	0.88	2.92	4.11	4.06	3.52	3.01	2.44	1.77	1.05	0.34	-0.26	-0.49	-0.23	0.15	0.40	0.68	1.05
52S	-0.40	0.72	2.10	3.01	3.25	3.21	3.09	2.80	2.44	2.01	1.42	0.73	0.27	0.18	0.22	0.38	0.83	1.40
56S	-0.08	0.35	0.98	1.49	1.84	2.14	2.39	2.53	2.69	2.78	2.47	1.78	1.11	0.64	0.29	0.25	0.64	1.26
60S	0.01	-0.10	-0.08	0.04	0.33	0.79	1.32	1.90	2.59	3.12	3.67	2.44	1.64	0.96	0.30	0.14	0.37	0.84
64S	0.04	-0.40	-0.76	-0.94	-0.80	-0.34	0.34	1.21	2.18	2.89	2.95	2.40	1.62	0.83	0.36	0.05	0.34	0.31
68S	0.06	-0.39	-0.83	-1.11	-0.76	-0.11	0.74	1.58	2.10	2.68	2.68	1.56	0.90	0.37	-0.02	-0.25	-0.31	-0.25
72S	0.13	-0.06	-0.30	-0.45	-0.47	-0.29	0.09	0.55	0.91	1.00	0.74	0.22	-0.20	-0.63	-0.80	-0.87	-0.88	-0.82
76S	0.09	0.18	0.23	0.26	0.29	0.33	0.36	0.36	0.24	-0.03	-0.46	-0.96	-1.35	-1.56	-1.61	-1.50	-1.50	-1.37
80S	-0.74	-0.02	0.17	0.29	0.33	0.28	0.12	-0.14	-0.45	-0.82	-1.24	-1.65	-1.94	-2.10	-2.14	-2.11	-1.98	-1.80
84S	-0.85	-0.68	-0.53	-0.44	-0.43	-0.52	-0.70	-0.96	-1.23	-1.48	-1.75	-2.00	-2.18	-2.28	-2.33	-2.31	-2.17	-2.00
88S	-1.60	-1.63	-1.65	-1.67	-1.71	-1.78	-1.87	-2.00	-2.09	-2.16	-2.23	-2.27	-2.30	-2.28	-2.23	-2.15	-2.07	-1.87

TABLE 5-18 JAN 800MB MERIDIONAL GEOSTROPHIC (M/SEC)

	2.5F	7.5E	12.5E	17.5E	22.5E	27.5E	32.5F	37.5E	42.5E	47.5E	52.5F	57.5E	62.5E	67.5E	72.5F	77.5E	82.5F	87.5E
84N	-1.17	-1.07	-0.94	-0.77	-0.62	-0.46	-0.29	-0.17	0.06	0.24	0.42	0.60	0.78	0.96	1.17	1.39	1.61	1.83
80N	-1.67	-1.69	-1.64	-1.54	-1.46	-1.36	-1.22	-1.06	-0.99	-0.71	-0.55	-0.37	-0.16	0.06	0.31	0.57	0.81	1.04
76N	-1.96	-2.05	-2.08	-2.07	-2.03	-1.94	-1.79	-1.59	-1.38	-1.18	-1.00	-0.80	-0.58	-0.36	-0.08	0.20	0.72	1.16
72N	-1.07	-2.02	-2.21	-2.35	-2.39	-2.29	-2.08	-1.77	-1.46	-1.18	-0.92	-0.68	-0.44	-0.22	0.02	0.32	0.64	0.97
68N	-0.17	-1.59	-1.96	-2.52	-2.68	-2.43	-2.13	-1.66	-1.19	-0.78	-0.42	-0.11	0.37	0.53	0.70	0.82	0.88	0.77
64N	0.25	-0.96	-1.95	-2.40	-2.51	-2.12	-1.41	-0.62	0.00	0.65	1.07	1.40	1.64	1.77	1.89	1.94	1.91	0.77
60N	0.04	-1.14	-1.94	-2.27	-2.14	-1.65	-0.87	-0.01	0.70	1.22	1.60	1.89	2.11	2.20	2.01	1.56	1.02	0.41
56N	-0.56	-1.41	-1.81	-1.86	-1.65	-1.18	-0.41	0.46	1.10	1.53	1.85	2.14	2.38	2.47	2.10	1.50	0.95	0.29
52N	-1.28	-1.58	-1.52	-1.36	-1.18	-0.40	-0.09	0.73	1.26	1.57	1.87	2.21	2.52	2.65	2.33	1.61	0.91	0.23
48N	-1.87	-1.48	-1.28	-0.97	-0.81	-0.49	0.05	0.85	1.25	1.45	1.75	2.15	2.55	2.72	2.30	1.63	0.96	0.15
44N	-2.29	-1.88	-1.27	-0.80	-0.53	-0.18	0.37	0.90	1.17	1.28	1.57	1.93	2.33	2.50	2.21	1.52	0.77	0.05
40N	-2.50	-2.05	-1.35	-0.77	-0.39	0.00	0.50	0.91	1.06	1.08	1.21	1.49	1.78	1.80	1.68	1.20	0.61	0.01
36N	-2.36	-1.98	-1.36	-0.83	-0.45	-0.05	0.47	0.88	0.96	0.88	0.84	0.90	0.99	0.90	0.87	0.63	0.30	-0.23
32N	-1.78	-1.56	-1.21	-0.94	-0.75	-0.36	0.27	0.81	0.91	0.70	0.45	0.30	0.18	0.07	-0.04	-0.13	-0.22	-0.22
28N	-0.96	-0.94	-0.97	-1.12	-1.21	-0.96	-0.52	0.78	0.97	0.64	0.25	0.00	-0.20	-0.41	-0.60	-0.74	-0.63	-0.63
24N	-0.25	-0.39	-0.71	-1.18	-1.54	-1.26	-0.22	0.86	1.13	0.71	0.28	0.08	-0.13	-0.41	-0.71	-1.06	-1.29	-0.98
20N	0.15	-0.01	-0.36	-0.94	-1.49	-1.35	-0.19	1.06	1.33	0.79	0.32	0.16	-0.03	-0.36	-0.75	-1.23	-1.48	-0.98
16N	0.25	0.23	0.09	-0.38	-1.03	-1.04	0.10	1.39	1.53	0.74	0.13	-0.03	-0.20	-0.51	-0.91	-1.36	-1.41	-0.60
12N	0.11	0.30	0.51	0.35	-0.23	-0.35	0.65	1.77	1.63	0.49	-0.39	-0.65	-0.73	-0.90	-1.14	-1.37	-1.11	-0.03
8N	-0.07	0.25	0.73	0.85	0.40	0.26	1.13	2.05	1.64	0.16	-1.03	-1.43	-1.42	-1.33	-1.23	-1.23	-0.77	0.33
4N	-0.14	0.14	0.59	0.84	0.58	0.41	0.94	1.63	1.39	0.29	-0.72	-1.20	-1.20	-1.02	-0.92	-0.92	-0.47	0.31
0	-0.02	0.08	0.28	0.52	0.50	0.26	0.17	0.43	0.83	0.99	0.79	0.33	-0.14	-0.40	-0.39	-0.20	0.04	0.12
4S	0.51	0.45	0.27	0.22	0.17	-0.17	-0.66	-0.62	0.41	1.76	2.31	1.81	0.96	0.33	0.12	0.28	0.60	-0.07
8S	1.88	1.89	1.27	0.36	-0.51	-0.96	-0.98	-0.57	0.60	2.07	2.59	1.92	0.91	0.21	-0.06	0.14	0.44	0.23
12S	3.45	3.70	2.69	0.61	-1.39	-1.85	-0.92	0.09	0.96	1.75	1.81	0.97	0.05	-0.51	-0.70	-0.41	0.23	0.65
16S	4.00	4.48	3.34	0.63	-1.94	-2.22	-0.69	0.48	0.86	1.07	0.89	0.12	-0.64	-1.03	-1.12	-0.90	0.01	0.86
20S	3.43	4.08	3.22	0.01	-1.38	-1.90	-0.19	0.77	0.56	0.28	0.04	-0.53	-1.04	-1.24	-1.24	-0.94	-0.14	0.94
24S	2.29	3.02	2.62	0.58	-1.31	-1.15	0.41	0.94	0.20	-0.43	-0.65	-0.96	-1.25	-1.28	-1.24	-0.87	-0.13	1.00
28S	1.26	1.95	1.90	0.56	-0.77	-0.43	0.81	0.96	-0.03	-0.82	-1.04	-1.12	-1.30	-1.21	-1.00	-0.49	0.02	1.09
32S	0.71	1.31	1.41	0.59	-0.24	0.05	0.87	0.81	-0.13	-0.90	-1.14	-1.20	-1.24	-1.14	-0.90	-0.52	0.18	1.09
36S	0.50	1.02	1.17	0.69	0.18	0.31	0.70	0.48	-0.30	-0.94	-1.13	-1.11	-1.10	-1.07	-0.98	-0.44	0.22	0.96
40S	0.51	0.92	1.06	0.80	0.42	0.32	0.34	0.00	-0.70	-1.20	-1.24	-1.03	-0.97	-0.96	-0.85	-0.43	0.18	0.77
44S	0.81	1.06	1.13	0.91	0.45	0.03	-0.23	-0.64	-1.27	-1.65	-1.47	-0.90	-0.71	-0.74	-0.72	-0.35	0.16	0.57
48S	1.35	1.45	1.42	1.09	0.31	-0.49	-0.96	-1.36	-1.89	-2.13	-1.69	-0.92	-0.44	-0.43	-0.30	-0.10	0.22	0.41
52S	1.74	1.81	1.76	1.30	0.21	-0.95	-1.57	-1.89	-2.26	-2.27	-1.57	-0.61	-0.02	0.00	0.14	0.24	0.34	0.25
56S	1.66	1.82	1.82	1.32	0.10	-1.25	-1.96	-2.20	-2.33	-2.00	-1.01	0.09	0.70	0.78	0.44	0.52	0.31	0.02
60S	1.21	1.43	1.47	0.99	-0.22	-1.56	-2.30	-2.47	-2.29	-1.55	-0.25	0.95	1.40	1.38	0.84	0.47	0.05	-0.31
64S	0.57	0.77	0.78	0.34	-0.70	-1.87	-2.56	-2.64	-2.18	-1.10	0.40	1.64	2.07	1.71	0.86	0.21	-0.35	-0.67
68S	-0.11	0.00	-0.03	-0.41	-1.19	-2.06	-2.61	-2.59	-1.96	-0.75	0.72	1.83	2.14	1.66	0.77	-0.09	-0.45	-0.80
72S	-0.75	-0.71	-0.95	-0.91	-2.21	-1.91	-2.20	-1.43	-1.52	-0.55	0.56	1.36	1.48	1.22	0.53	-0.14	-0.58	-0.74
76S	-1.28	-1.21	-1.16	-1.21	-1.36	-1.53	-1.59	-1.04	-1.04	-0.47	0.15	0.62	0.80	0.67	0.34	-0.16	-0.18	-0.24
80S	-1.68	-1.55	-1.43	-1.34	-1.29	-1.23	-1.14	-0.95	-0.69	-0.41	-0.11	0.13	0.30	0.36	0.35	0.32	0.33	0.19
84S	-1.86	-1.72	-1.54	-1.36	-1.19	-1.02	-0.82	-0.60	-0.41	-0.23	-0.08	0.07	0.25	0.40	0.54	0.72	0.98	1.03
88S	-1.71	-1.54	-1.34	-1.13	-0.93	-0.73	-0.50	-0.27	-0.07	0.12	0.20	0.46	0.64	0.64	1.04	1.24	1.42	1.59

TABLE 5-18 JAN 800MB MERIDIONAL GEOSTROPHIC (M/SEC)

	92.5E	97.5E	102.5E	107.5E	112.5E	117.5E	122.5E	127.5E	132.5E	137.5E	142.5E	147.5E	152.5E	157.5E	162.5E	167.5E	172.5E	177.5E
80N	2.03	2.24	2.44	2.63	2.76	2.86	2.97	3.01	2.99	2.90	2.78	2.63	2.44	2.23	2.01	1.73	1.47	1.08
84N	1.84	2.27	2.70	3.10	3.42	3.71	4.00	4.18	4.19	4.10	3.96	3.72	3.36	3.00	2.59	2.11	1.55	1.01
80N	1.62	2.11	2.62	3.10	3.51	3.90	4.28	4.52	4.55	4.43	4.18	3.98	3.70	3.30	2.76	2.16	1.49	0.84
76N	1.33	1.71	2.09	2.47	2.84	3.22	3.61	3.90	4.06	4.14	4.14	3.98	3.67	3.21	2.68	2.07	1.37	0.70
72N	0.94	1.03	1.11	1.21	1.41	1.70	2.06	2.40	2.70	2.97	3.17	3.26	3.16	2.84	2.40	2.00	1.38	0.70
68N	0.45	0.12	-0.21	-0.45	-0.50	-0.37	-0.07	0.33	0.79	1.27	1.73	2.13	2.35	2.37	2.23	1.94	1.51	0.94
64N	-0.05	-0.80	-2.07	-2.37	-2.44	-2.23	-1.79	-1.20	-0.54	0.15	0.81	1.37	1.82	1.60	1.47	1.47	1.59	1.29
60N	-0.44	-1.54	-2.60	-3.38	-3.90	-4.15	-3.62	-2.96	-2.18	-1.31	-0.46	0.21	0.60	-0.60	0.81	1.10	1.48	1.64
56N	-0.69	-2.02	-3.34	-4.32	-4.99	-5.41	-5.05	-3.67	-3.49	-2.51	-1.56	-0.62	-0.02	-0.44	-0.14	0.41	1.22	1.89
52N	-0.82	-2.28	-3.76	-4.88	-5.66	-6.18	-6.35	-6.07	-5.36	-4.33	-3.24	-2.23	-1.51	-1.15	-0.81	-0.51	0.95	2.02
48N	-0.86	-2.23	-3.68	-4.69	-5.78	-6.37	-6.66	-6.48	-5.69	-4.50	-3.27	-2.26	-1.57	-1.21	-0.88	-0.51	0.93	2.00
44N	-0.79	-1.82	-3.01	-4.23	-5.27	-5.97	-6.37	-6.28	-5.43	-4.05	-2.69	-1.70	-1.10	-0.70	-0.51	-0.01	0.79	1.81
40N	-0.55	-1.11	-1.90	-3.03	-4.10	-5.02	-5.57	-5.74	-4.76	-3.26	-1.83	-0.92	-0.49	-0.30	-0.12	0.14	0.67	1.44
36N	-0.18	-0.18	-0.52	-1.49	-2.70	-3.63	-4.42	-4.62	-3.72	-2.28	-0.88	-0.11	0.08	0.20	0.10	0.17	0.60	0.92
32N	0.14	0.73	0.83	0.07	-1.09	-2.03	-2.68	-2.90	-1.75	0.00	0.57	0.00	0.26	0.09	-0.04	-0.04	-0.05	0.27
28N	0.19	1.29	1.75	1.19	0.14	-0.72	-1.32	-1.67	-0.34	0.72	1.07	1.07	0.75	0.27	-0.09	-0.41	-0.59	-0.61
24N	0.12	1.44	2.02	1.57	0.67	-0.08	-0.63	-0.95	-0.67	0.27	1.23	1.41	0.84	0.16	-0.33	-0.74	-0.98	-0.98
20N	0.26	1.44	1.78	1.30	0.58	-0.04	-0.55	-0.80	-0.41	0.60	1.53	1.56	0.77	-0.05	-0.54	-0.87	-1.10	-1.09
16N	0.67	1.42	1.22	0.60	0.09	-0.30	-0.71	-0.89	-0.37	0.75	1.62	1.44	0.47	-0.37	-0.71	-0.84	-0.96	-1.07
12N	1.12	1.30	0.54	-0.23	-0.45	-0.48	-0.72	-0.80	-0.28	0.74	1.32	0.91	-0.07	-0.73	-0.73	-0.72	-0.70	-0.73
8N	1.30	1.13	0.04	-0.81	-0.80	-0.47	-0.45	-0.49	-0.06	0.58	0.67	0.05	-0.71	-0.87	-0.80	-0.63	-0.53	-0.38
4N	0.91	0.73	-0.10	-0.72	-0.70	-0.38	-0.26	-0.23	0.04	0.32	0.73	-0.26	-0.64	-0.69	-0.64	-0.45	-0.39	-0.23
0	0.04	-0.03	-0.04	-0.07	-0.15	-0.23	-0.29	-0.20	-0.05	-0.01	0.02	0.23	0.37	0.10	-0.12	-0.12	-0.12	-0.28
4S	-0.64	-0.61	0.10	0.63	0.46	-0.05	-0.32	-0.24	-0.34	-0.26	-0.55	1.11	1.11	0.77	0.23	0.18	0.16	-0.35
8S	-0.32	-0.32	0.40	0.97	0.79	0.21	-0.15	-0.00	-0.58	-0.30	-0.33	0.57	0.60	0.60	0.26	0.28	0.30	-0.29
12S	0.61	0.60	0.97	1.28	1.09	0.53	0.12	0.30	0.67	-0.37	-1.55	-1.53	-0.50	-0.03	0.07	0.26	0.33	-0.14
16S	1.27	1.42	1.66	1.78	1.39	0.59	0.04	0.63	1.04	0.37	-1.15	-1.66	-0.85	-0.24	0.08	0.32	0.35	-0.03
20S	1.68	1.98	2.17	2.07	1.33	0.16	-0.52	0.13	1.37	1.18	-0.19	-0.98	-0.63	-0.03	0.27	0.47	0.37	0.01
24S	1.89	2.27	2.38	2.05	0.96	-0.50	-1.22	-0.67	1.70	1.80	0.80	-0.03	-0.03	0.28	0.50	0.56	0.35	0.23
28S	1.93	2.28	2.26	1.73	0.50	-0.97	-1.63	-0.83	0.79	1.68	1.33	0.69	0.46	0.44	0.40	0.37	0.29	0.09
32S	1.77	1.98	1.82	1.25	0.20	-0.98	-1.53	-0.99	0.23	1.15	1.25	0.93	0.63	0.34	0.07	-0.09	0.07	0.23
36S	1.45	1.50	1.25	0.77	0.03	-0.77	-1.25	-1.08	-0.39	0.32	0.69	0.66	0.41	0.03	-0.18	-0.48	-0.07	0.46
40S	1.09	1.04	0.74	0.34	-0.13	-0.66	-1.08	-1.20	-0.73	-0.47	-0.25	-0.08	-0.20	-0.68	-0.75	-0.65	-0.02	0.74
44S	0.75	0.61	0.30	0.02	-0.27	-0.65	-1.00	-1.29	-1.59	-1.71	-1.65	-1.16	-1.00	-1.15	-1.13	-0.72	0.10	0.97
48S	0.40	0.16	-0.10	-0.22	-0.39	-0.69	-0.95	-1.32	-2.02	-2.62	-2.61	-2.28	-2.04	-1.88	-1.62	-0.83	0.08	0.93
52S	0.04	-0.28	-0.50	-0.49	-0.55	-0.75	-0.83	-1.23	-2.09	-2.90	-3.04	-2.77	-2.55	-2.34	-1.90	-1.13	-0.21	0.53
56S	-0.31	-0.66	-0.87	-0.81	-0.73	-0.72	-0.65	-0.84	-1.57	-2.30	-2.53	-2.44	-2.45	-2.42	-2.11	-1.39	-0.51	0.13
60S	-0.63	-0.95	-1.11	-0.99	-0.76	-0.49	-0.17	-0.60	-1.19	-1.89	-1.51	-1.74	-2.02	-2.17	-1.84	-1.24	-0.44	0.16
64S	-0.87	-1.05	-1.09	-0.89	-0.54	-0.08	0.44	0.71	0.47	-0.02	-0.48	-0.95	-1.40	-1.67	-1.30	-0.63	0.16	0.70
68S	-0.95	-0.93	-0.78	-0.49	-0.07	0.51	1.00	1.44	1.25	0.82	0.30	-0.22	-0.63	-0.83	-0.75	0.43	1.14	1.55
72S	-0.70	-0.53	-0.26	0.10	0.93	1.34	1.59	1.54	1.24	0.85	0.54	0.20	0.20	0.52	0.83	1.50	1.97	2.17
76S	-0.14	0.08	0.38	0.74	1.09	1.38	1.64	1.80	1.79	1.65	1.51	1.44	1.44	1.41	1.88	2.14	2.34	2.30
80S	0.55	0.78	1.06	1.37	1.64	1.89	2.12	2.26	2.29	2.31	2.33	2.33	2.37	2.44	2.52	2.61	2.61	2.70
84S	1.22	1.44	1.67	1.91	2.12	2.33	2.55	2.69	2.80	2.80	2.88	2.92	2.90	2.84	2.77	2.67	2.37	2.05
88S	1.76	1.94	2.11	2.26	2.37	2.48	2.61	2.70	2.75	2.75	2.78	2.76	2.70	2.64	2.44	2.26	2.05	1.84





TABLE 5-19 JAN 4-COMP TEMPERATURE (DEG C)

	0F	5E	10E	15E	20E	24E	30E	35E	40E	45E	50E	54E	60E	64E	70E	74E	80E	84E
90N	-50.8	-50.8	-50.8	-50.8	-50.8	-50.8	-50.8	-50.8	-50.8	-50.8	-50.8	-50.8	-50.8	-50.8	-50.8	-50.8	-50.8	-50.8
90N	-50.1	-50.2	-50.3	-50.3	-50.4	-50.4	-50.4	-50.6	-50.6	-50.6	-50.6	-50.7	-50.7	-50.7	-50.7	-50.7	-50.7	-50.8
92N	-49.8	-49.9	-49.9	-49.9	-49.9	-49.9	-49.9	-49.9	-49.9	-49.9	-49.9	-49.9	-49.9	-49.9	-49.9	-49.9	-49.9	-50.2
94N	-47.4	-47.5	-47.6	-47.7	-47.8	-48.0	-48.1	-48.3	-48.4	-48.6	-48.7	-48.9	-49.0	-49.1	-49.1	-49.3	-49.5	-49.9
96N	-46.2	-46.3	-46.4	-46.6	-46.7	-46.9	-47.1	-47.3	-47.5	-47.5	-47.6	-47.8	-48.0	-48.1	-48.3	-48.5	-49.2	-49.6
73N	-44.7	-44.9	-45.1	-45.4	-45.6	-45.9	-46.3	-46.3	-46.3	-46.3	-46.6	-46.9	-47.2	-47.5	-47.8	-48.1	-49.5	-49.8
66N	-43.0	-43.3	-43.6	-43.9	-44.2	-44.4	-44.6	-44.8	-45.3	-45.4	-45.5	-46.3	-46.6	-46.6	-46.9	-47.2	-47.6	-47.6
62N	-41.5	-41.8	-42.2	-42.7	-43.0	-43.2	-43.5	-44.2	-44.5	-44.5	-45.0	-45.4	-45.4	-45.7	-45.8	-46.1	-46.6	-46.6
58N	-40.0	-40.3	-40.9	-41.6	-41.6	-41.6	-42.3	-43.0	-43.4	-43.4	-43.7	-44.0	-44.0	-44.4	-44.4	-45.0	-45.7	-45.7
54N	-38.6	-39.3	-40.1	-40.6	-40.4	-40.4	-41.2	-41.8	-42.1	-42.1	-42.1	-42.7	-43.0	-43.2	-43.2	-43.9	-44.7	-44.6
50N	-37.4	-38.2	-39.0	-39.8	-39.8	-39.6	-40.0	-40.3	-40.4	-40.4	-40.5	-40.6	-40.6	-40.7	-41.0	-42.4	-43.7	-43.7
46N	-36.7	-37.2	-37.7	-38.0	-38.1	-38.0	-38.5	-38.7	-38.7	-38.8	-38.8	-38.8	-38.8	-38.8	-39.6	-41.2	-41.6	-41.6
42N	-35.6	-36.0	-36.9	-38.0	-37.7	-38.1	-38.8	-39.3	-39.7	-39.7	-39.6	-39.6	-39.6	-39.6	-40.4	-42.4	-43.2	-43.2
39N	-34.1	-34.6	-35.4	-36.2	-35.8	-36.7	-37.1	-37.5	-37.5	-37.5	-37.5	-37.5	-37.5	-37.5	-38.2	-40.2	-40.8	-40.8
34N	-32.2	-32.7	-33.4	-33.7	-33.3	-34.2	-33.8	-34.7	-34.1	-34.2	-34.2	-34.2	-34.2	-34.2	-35.0	-37.0	-37.2	-37.2
30N	-29.8	-30.1	-30.8	-30.9	-29.8	-30.4	-30.1	-30.6	-31.0	-31.0	-30.9	-30.9	-30.9	-30.9	-31.7	-33.7	-34.0	-34.0
26N	-26.5	-26.7	-27.4	-27.7	-27.2	-27.3	-27.3	-27.7	-28.0	-28.0	-27.9	-27.9	-27.9	-27.9	-28.7	-30.7	-31.0	-31.0
22N	-23.8	-23.9	-24.4	-24.5	-24.3	-24.4	-24.5	-24.7	-25.0	-25.1	-24.6	-24.6	-24.6	-24.6	-25.4	-27.4	-27.7	-27.7
19N	-21.5	-21.4	-21.7	-21.8	-21.8	-21.9	-22.0	-22.2	-22.4	-22.6	-22.2	-22.2	-22.2	-22.2	-23.0	-25.0	-25.3	-25.3
14N	-19.8	-19.5	-19.6	-19.8	-19.9	-20.2	-20.2	-20.2	-20.2	-20.3	-20.2	-20.2	-20.2	-20.2	-21.0	-23.0	-23.3	-23.3
10N	-19.0	-19.0	-19.1	-19.1	-19.2	-19.5	-19.6	-19.8	-19.8	-19.7	-19.7	-19.7	-19.7	-19.7	-20.5	-22.5	-22.8	-22.8
6N	-18.7	-18.4	-18.7	-18.9	-19.0	-19.4	-19.7	-19.8	-19.8	-19.7	-19.7	-19.7	-19.7	-19.7	-20.5	-22.5	-22.8	-22.8
2N	-18.4	-18.4	-18.5	-18.7	-19.1	-19.3	-19.9	-19.0	-18.1	-18.0	-17.9	-17.8	-17.8	-17.8	-18.6	-20.6	-20.9	-20.9
25	-18.2	-18.2	-18.4	-18.7	-19.1	-19.4	-19.6	-19.3	-18.3	-18.1	-18.0	-18.0	-18.0	-18.0	-18.8	-20.8	-21.1	-21.1
65	-18.2	-18.1	-18.3	-18.7	-18.8	-18.8	-18.7	-18.5	-18.6	-18.4	-18.3	-18.3	-18.3	-18.2	-19.0	-21.0	-21.3	-21.3
105	-18.4	-18.1	-17.9	-18.1	-18.1	-18.1	-19.1	-18.3	-18.3	-18.3	-18.2	-18.2	-18.2	-18.2	-19.0	-21.0	-21.3	-21.3
145	-18.7	-18.4	-18.4	-17.9	-17.8	-17.9	-17.7	-17.8	-17.8	-17.8	-18.0	-18.0	-18.0	-18.0	-18.8	-20.8	-21.1	-21.1
185	-19.2	-18.6	-18.5	-18.7	-19.1	-19.3	-19.9	-19.0	-18.1	-18.0	-18.2	-18.2	-18.2	-18.2	-19.0	-21.0	-21.3	-21.3
225	-19.9	-19.5	-19.1	-18.7	-18.4	-18.4	-18.0	-18.2	-18.4	-18.6	-18.8	-19.1	-19.1	-19.1	-19.9	-21.9	-22.2	-22.2
265	-20.7	-20.4	-20.0	-19.7	-19.4	-19.4	-19.1	-19.2	-19.4	-19.6	-19.7	-19.9	-19.9	-19.9	-20.7	-22.7	-23.0	-23.0
305	-21.7	-21.4	-21.1	-20.9	-20.7	-20.7	-20.7	-20.8	-20.8	-20.9	-21.0	-21.1	-21.1	-21.1	-21.9	-23.9	-24.2	-24.2
345	-23.3	-23.1	-22.9	-22.7	-22.7	-22.6	-22.5	-22.6	-22.6	-22.6	-22.5	-22.5	-22.5	-22.5	-23.3	-25.3	-25.6	-25.6
385	-25.3	-25.2	-25.1	-25.0	-24.9	-24.7	-24.7	-24.6	-24.6	-24.6	-24.5	-24.6	-24.6	-24.6	-25.4	-27.4	-27.7	-27.7
425	-27.7	-27.6	-27.6	-27.5	-27.4	-27.2	-27.2	-27.1	-27.1	-27.1	-27.0	-27.1	-27.0	-27.0	-27.8	-29.8	-30.1	-30.1
465	-30.7	-30.2	-30.2	-30.1	-30.0	-30.0	-29.9	-29.9	-29.9	-29.8	-29.7	-29.8	-29.8	-29.8	-30.6	-32.6	-32.9	-32.9
505	-32.8	-32.8	-32.8	-32.7	-32.6	-32.5	-32.5	-32.5	-32.5	-32.5	-32.4	-32.4	-32.4	-32.4	-33.2	-35.2	-35.5	-35.5
545	-34.9	-34.9	-35.0	-35.0	-35.0	-34.9	-34.9	-34.9	-34.9	-34.9	-34.9	-34.9	-34.9	-34.9	-35.7	-37.7	-38.0	-38.0
585	-36.5	-36.7	-36.7	-36.7	-36.7	-36.7	-36.7	-36.8	-36.9	-36.9	-36.9	-36.9	-36.9	-36.9	-37.7	-39.7	-40.0	-40.0
625	-37.7	-37.9	-37.9	-38.0	-38.0	-38.2	-38.2	-38.3	-38.5	-38.5	-38.4	-38.4	-38.4	-38.4	-39.2	-41.2	-41.5	-41.5
665	-38.7	-38.9	-38.9	-39.0	-39.2	-39.6	-39.7	-39.8	-40.0	-40.0	-40.0	-40.0	-40.0	-40.0	-40.8	-42.8	-43.1	-43.1
705	-39.9	-40.1	-40.2	-40.3	-40.5	-40.8	-41.0	-41.3	-41.4	-41.6	-41.8	-41.9	-42.1	-42.1	-42.9	-44.9	-45.2	-45.2
745	-41.3	-41.5	-41.7	-41.9	-42.2	-42.4	-42.5	-42.6	-42.5	-42.6	-42.6	-42.6	-42.6	-42.6	-43.4	-45.4	-45.7	-45.7
785	-42.6	-42.8	-42.9	-43.0	-43.2	-43.3	-43.4	-43.5	-43.6	-43.8	-43.8	-43.8	-43.8	-43.8	-44.6	-46.6	-46.9	-46.9
825	-43.6	-43.7	-43.8	-43.9	-44.1	-44.1	-44.1	-44.3	-44.4	-44.5	-44.6	-44.6	-44.6	-44.6	-45.4	-47.4	-47.7	-47.7
865	-44.2	-44.3	-44.4	-44.4	-44.5	-44.5	-44.6	-44.6	-44.6	-44.7	-44.7	-44.7	-44.7	-44.7	-45.5	-47.5	-47.8	-47.8
905	-44.2	-44.2	-44.2	-44.2	-44.2	-44.2	-44.2	-44.2	-44.2	-44.2	-44.2	-44.2	-44.2	-44.2	-45.0	-47.0	-47.3	-47.3























TABLE 5-22 (DJF) 400MB MERIDIONAL WIND (M/SEC)-M/HEM

	7.5E	12.5E	17.5E	22.5E	27.5E	32.5E	37.5E	42.5E	47.5E	52.5E	57.5E	62.5E	67.5E	72.5E	77.5E	82.5E	87.5E
80M																	
84N	4.25	3.99	3.54	2.90	2.57	2.51	2.38	2.19	1.93	1.42	0.64	0.26	0.13	-0.11	-0.26	-0.26	-0.26
80M	4.89	4.38	3.73	2.96	2.57	2.32	1.80	1.35	0.97	0.58	0.19	-0.04	-0.14	-0.39	-0.64	-0.77	-0.77
76N	3.28	3.66	3.28	2.64	2.25	2.12	1.67	0.90	-0.26	-0.51	-0.51	-0.48	-0.71	-0.90	-1.16	-1.29	-1.29
72N	3.28	2.64	1.87	0.97	0.58	0.71	0.45	-0.19	-1.09	-1.35	-1.48	-1.48	-1.45	-1.45	-1.47	-1.47	-1.47
68M	1.67	3.90	0.13	-0.64	-0.90	-0.71	-1.42	-1.42	-1.42	-1.93	-2.19	-2.24	-2.12	-2.24	-2.77	-2.64	-2.64
64N	-1.03	-1.54	-1.74	-1.61	-1.48	-1.35	-1.42	-1.67	-1.87	-1.99	-2.12	-2.32	-2.32	-2.57	-3.00	-3.41	-3.41
60M	-3.99	-4.25	-3.99	-3.22	-2.64	-2.25	-2.06	-1.99	-1.87	-1.74	-1.61	-1.61	-1.74	-2.74	-3.15	-3.86	-4.38
56M	-6.18	-5.60	-4.44	-3.54	-2.90	-2.38	-1.99	-1.54	-1.03	-0.86	-0.97	-1.16	-1.42	-2.12	-3.29	-4.18	-4.83
52M	-7.21	-6.69	-5.86	-4.70	-3.73	-2.96	-1.99	-1.42	-0.71	-0.06	-0.00	-0.87	-1.35	-2.18	-3.47	-4.38	-4.89
48M	-7.21	-6.18	-5.15	-4.12	-3.35	-2.83	-2.06	-1.03	0.45	0.51	-0.00	-0.30	-0.64	-1.42	-2.70	-3.80	-4.70
44M	-6.56	-5.28	-4.18	-3.28	-2.64	-2.25	-1.74	-1.00	-0.26	0.77	0.32	0.26	0.77	0.39	-0.90	-2.45	-4.25
40M	-5.67	-4.05	-3.22	-2.96	-2.51	-1.87	-1.42	-1.16	-0.39	0.90	1.35	0.97	1.16	1.74	0.48	-1.49	-3.74
36M	-4.38	-2.83	-2.06	-1.93	-1.67	-1.42	-1.16	-0.45	0.71	1.35	1.48	1.48	1.67	1.67	0.80	-0.39	-2.19
32M	-2.90	-1.48	-0.77	-0.77	-0.97	-1.35	-1.29	-0.77	0.64	1.15	1.42	1.48	1.48	1.04	-0.19	-1.39	-1.39
28M	-0.71	0.45	0.77	0.26	-0.39	-1.16	-0.39	0.13	0.39	0.45	0.32	0.32	0.45	0.32	-0.04	-0.13	0.13
24M	0.97	1.87	2.06	1.54	0.77	-0.26	-0.58	-0.19	-0.13	-0.39	-0.51	-0.51	-0.51	-0.64	-0.80	-0.32	1.09
20M	1.67	2.45	2.70	2.45	1.80	0.77	0.19	0.06	-0.2	-0.97	-1.16	-0.90	-0.94	-0.97	-1.00	-0.45	1.22
16M	2.12	2.77	3.02	2.90	2.45	1.67	0.97	0.32	-0.45	-1.35	-1.74	-1.61	-1.35	-0.97	-0.49	-0.19	0.45
12M	2.06	2.57	2.83	2.70	2.45	1.67	0.30	-0.64	-1.42	-1.74	-1.61	-1.28	-0.77	-0.39	-0.13	0.06	0.19
8M	1.61	2.25	2.51	2.38	2.30	2.51	1.87	0.45	-0.51	-1.03	-1.29	-1.00	-0.71	-0.39	-0.13	0.19	0.58
4M																	
C																	
45S																	
85S																	
125S																	
165S																	
205S																	
245S																	
285S																	
325S																	
365S																	
40S																	
44S																	
48S																	
52S																	
56S																	
60S																	
64S																	
68S																	
72S																	
76S																	
80S																	
84S																	
88S																	



TABLE 5-23 JAN 600MP ZONAL GEOSTROPHIC (M/SEC)

	177.5W	172.5W	167.5W	162.5W	157.5W	152.5W	147.5W	142.5W	137.5W	132.5W	127.5W	122.5W	117.5W	112.5W	107.5W	102.5W	97.5W	92.5W
63N	3.22	3.39	3.49	3.56	3.63	3.65	3.65	3.65	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64
64N	7.40	7.40	7.32	7.17	6.94	6.70	6.35	5.95	5.47	4.93	4.31	3.71	3.11	2.51	2.01	1.54	1.24	2.59
65N	9.10	9.12	9.08	8.95	8.76	8.49	8.09	7.61	7.02	6.33	5.51	4.63	3.70	2.74	1.81	1.08	0.31	-0.14
66N	8.60	8.83	3.97	9.04	9.05	8.97	8.79	8.52	8.12	7.56	6.85	5.98	4.97	3.83	2.66	1.52	0.57	-0.28
67N	6.67	7.17	7.56	7.90	8.22	8.47	8.70	8.81	8.81	8.63	8.25	7.66	6.84	5.81	4.62	3.26	2.14	1.09
68N	4.04	4.83	5.50	6.15	6.86	7.59	8.28	8.86	9.29	9.53	9.57	9.36	8.91	8.22	7.30	6.23	5.09	4.20
69N	1.50	2.48	3.47	4.54	5.74	6.97	8.10	9.07	9.85	10.49	10.91	11.06	10.90	10.70	10.21	9.53	8.69	7.78
70N	-0.13	1.06	2.40	3.95	5.62	7.20	8.57	9.74	10.79	11.76	12.53	13.00	13.25	13.30	13.15	12.78	12.20	11.50
71N	0.43	1.74	3.32	5.14	6.97	8.58	9.91	11.08	12.24	13.43	14.45	15.18	15.67	15.95	15.96	15.73	15.32	14.82
72N	4.54	5.68	7.10	8.69	10.09	11.24	12.23	13.24	14.34	15.49	16.54	17.37	17.98	18.33	18.30	18.21	17.96	17.76
73N	13.28	13.52	13.95	14.39	14.63	14.84	15.25	15.92	16.68	17.41	18.07	18.66	19.20	19.50	19.84	20.05	20.30	20.98
74N	23.97	22.69	21.52	20.32	19.13	18.27	17.95	18.02	18.14	18.18	18.24	18.45	18.84	19.44	20.22	21.32	22.78	24.53
75N	32.18	29.51	26.97	24.49	22.28	20.62	19.55	18.82	18.17	17.61	17.29	17.35	17.83	18.77	20.25	23.34	24.90	27.62
76N	35.95	32.58	29.33	26.27	23.68	21.63	19.95	18.47	17.22	16.37	16.06	16.33	17.12	18.50	20.56	23.28	26.40	29.60
77N	35.00	31.85	28.69	25.77	23.32	21.25	19.31	17.51	16.12	15.42	15.47	16.18	17.41	19.15	21.40	24.05	26.80	29.17
78N	30.52	28.34	25.89	23.57	21.56	19.77	18.11	16.68	15.73	15.46	15.85	16.79	18.14	19.82	21.68	23.60	25.00	25.98
79N	24.00	23.15	21.84	20.48	19.17	17.91	16.86	16.14	15.79	15.82	16.18	16.87	17.84	18.95	20.00	20.65	20.70	20.21
80N	16.33	16.87	17.00	16.89	16.51	15.94	15.49	15.34	15.34	15.35	15.38	15.57	15.54	16.34	16.54	16.23	15.22	13.70
81N	8.41	10.05	11.49	12.56	13.09	13.18	13.21	13.41	13.56	13.43	13.09	12.78	12.62	12.44	12.06	11.24	9.82	7.95
82N	1.64	3.55	5.40	6.89	7.83	8.32	8.63	8.91	9.41	9.31	8.83	8.30	7.80	7.56	7.15	6.46	5.36	3.96
83N	-1.97	-0.55	0.75	1.77	2.57	3.25	3.88	4.56	5.17	5.30	4.88	4.32	3.80	3.81	3.76	3.49	2.92	2.27
84N	-3.37	-2.50	-1.83	-1.34	-0.76	-0.20	0.80	1.73	2.57	2.83	2.44	1.87	1.58	1.63	1.80	1.72	1.40	1.21
85N	-4.48	-3.96	-3.60	-3.30	-2.84	-2.19	-1.32	-0.28	0.59	0.60	0.36	-0.20	-0.44	-0.35	-0.21	-0.31	-0.54	-0.50
86N	-4.60	-4.27	-4.02	-3.78	-3.39	-2.84	-2.07	-1.09	-0.34	-0.27	-0.78	-1.37	-1.61	-1.56	-1.50	-1.63	-1.77	-1.62
87N	-2.55	-2.19	-1.92	-1.69	-1.35	-0.88	-0.35	0.24	0.59	0.02	0.02	-0.64	-1.01	-1.01	-0.92	-0.96	-0.78	-0.55
88N	2.31	2.56	2.70	2.71	2.79	2.93	3.03	3.09	3.15	3.01	2.51	1.83	1.32	1.15	1.27	1.43	1.49	1.60
89N	7.51	7.41	7.20	6.96	6.53	6.25	5.95	5.67	5.54	5.44	5.10	4.53	3.84	3.56	3.43	3.37	3.24	3.08
90N	10.60	10.21	9.81	9.34	8.84	8.42	8.02	7.67	7.50	7.44	7.24	6.83	6.30	5.81	5.47	5.20	4.93	4.71
91N	11.78	11.30	10.93	10.60	10.25	9.93	9.66	9.44	9.34	9.32	9.25	9.06	8.71	8.31	7.90	7.58	7.37	7.30
92N	11.83	11.49	11.32	11.30	11.25	11.17	11.14	11.16	11.24	11.36	11.48	11.58	11.58	11.30	11.12	10.92	10.88	11.00
93N	11.52	11.45	11.55	11.84	12.09	12.27	12.49	12.79	13.15	13.51	13.87	14.25	14.54	14.61	14.52	14.42	14.44	14.53
94N	11.66	11.83	12.17	12.69	13.17	13.58	14.00	14.51	15.05	15.55	16.04	16.52	16.91	17.00	17.08	16.95	16.87	16.79
95N	13.22	13.49	13.91	14.48	15.05	15.56	16.04	16.52	16.99	17.42	17.84	18.24	18.55	18.74	18.78	18.68	18.51	18.34
96N	16.51	16.68	16.96	17.32	17.71	18.09	18.40	18.64	18.84	19.04	19.26	19.48	19.67	19.86	20.02	20.08	19.97	19.83
97N	20.99	20.90	20.80	20.69	20.61	20.60	20.57	20.47	20.34	20.27	20.27	20.30	20.42	20.67	20.90	21.25	21.30	21.26
98N	23.86	23.52	23.06	22.54	22.05	21.69	21.39	21.06	20.73	20.47	20.30	20.22	20.30	20.57	20.92	21.22	21.34	21.34
99N	22.78	22.37	21.84	21.27	20.75	20.35	20.02	19.64	19.29	18.95	18.69	18.58	18.62	18.80	19.02	19.10	19.25	19.22
100N	18.60	18.31	17.94	17.57	17.25	17.00	16.75	16.46	16.17	15.86	15.60	15.49	15.47	15.53	15.60	15.64	15.66	15.64
101N	13.21	13.13	13.00	12.85	12.72	12.59	12.46	12.29	12.09	11.90	11.70	11.59	11.52	11.48	11.43	11.42	11.45	11.49
102N	8.64	8.67	8.64	8.58	8.50	8.39	8.30	8.22	8.14	8.06	7.96	7.87	7.75	7.61	7.51	7.50	7.58	7.68
103N	6.20	6.19	6.13	6.03	5.90	5.77	5.69	5.66	5.66	5.66	5.64	5.59	5.47	5.31	5.20	5.10	5.25	5.33
104N	4.88	4.86	4.81	4.72	4.63	4.57	4.55	4.60	4.66	4.74	4.80	4.82	4.77	4.68	4.61	4.59	4.57	4.58
105N	3.28	3.35	3.40	3.43	3.47	3.55	3.66	3.80	3.95	4.10	4.25	4.35	4.40	4.40	4.40	4.30	4.37	4.28
106N	1.36	1.50	1.65	1.80	1.95	2.12	2.30	2.51	2.73	2.91	3.08	3.23	3.35	3.44	3.50	3.48	3.48	3.47
107N	-0.51	-0.41	-0.28	-0.14	-0.02	0.13	0.27	0.43	0.61	0.75	0.88	1.03	1.18	1.30	1.30	1.47	1.55	1.62

TABLE 2-23 JAN 400MB ZONAL GEOSTROPHIC (M/SEC)

	87.5W	82.5W	77.5W	72.5W	67.5W	62.5W	57.5W	52.5W	47.5W	42.5W	37.5W	32.5W	27.5W	22.5W	17.5W	12.5W	7.5W	2.5W
88N	2.58	2.63	2.72	2.82	2.93	3.07	3.21	3.32	3.43	3.51	3.55	3.55	3.49	3.41	3.27	3.10	2.88	2.62
84N	1.05	1.21	1.52	1.95	2.49	3.13	3.81	4.46	5.10	5.69	6.20	6.63	6.95	7.17	7.27	7.27	7.18	7.02
80N	-0.34	-0.25	0.11	0.69	1.46	2.39	3.40	4.39	5.34	6.22	7.00	7.69	8.24	8.65	8.92	9.07	9.12	9.07
76N	-0.78	-0.90	-0.70	-0.23	0.52	1.46	2.51	3.55	4.56	5.51	6.39	7.18	7.85	8.40	8.82	9.12	9.30	9.37
72N	0.28	-0.18	-0.32	-0.19	0.25	0.92	1.73	2.59	3.47	4.34	5.21	6.06	6.84	7.53	8.15	8.52	8.96	9.18
68N	3.04	2.28	1.74	1.42	1.38	1.59	2.04	2.66	3.40	4.21	5.08	5.99	6.88	7.69	8.43	9.03	9.48	9.77
64N	6.86	5.97	5.14	4.50	4.08	3.96	4.18	4.70	5.42	6.26	7.17	8.06	8.91	9.64	10.22	10.70	11.02	11.13
60N	10.72	9.84	8.97	8.28	7.86	7.76	8.02	8.60	9.38	10.23	11.07	11.78	12.31	12.64	12.77	12.60	12.71	12.35
56N	14.23	13.56	12.52	12.42	12.63	13.09	13.74	14.46	15.13	15.65	15.92	15.92	15.89	15.58	15.07	14.46	13.74	12.79
52N	17.57	17.30	17.38	17.74	18.25	18.76	19.22	19.54	19.66	19.51	19.05	18.29	17.28	16.10	14.82	13.46	12.08	10.84
48N	21.65	22.36	23.01	23.55	24.03	24.32	24.32	24.01	23.39	22.48	21.33	19.93	18.47	16.97	15.41	13.76	12.15	10.84
44N	26.35	28.02	29.30	30.03	30.17	29.72	28.75	27.31	25.51	23.43	21.22	19.11	17.22	15.60	14.11	12.63	11.40	10.75
40N	30.16	32.29	33.74	34.34	33.98	32.77	30.87	28.48	25.80	22.97	20.23	17.82	15.87	14.42	13.35	12.54	12.22	12.59
36N	31.91	33.76	34.84	35.03	34.19	32.42	29.97	27.13	24.15	21.26	18.65	16.44	14.70	13.60	13.19	13.42	14.32	15.84
32N	30.85	31.79	32.09	31.70	30.48	28.51	26.04	23.40	20.85	18.59	16.72	15.14	13.83	13.13	13.41	14.71	16.81	19.33
28N	26.39	26.34	25.96	25.18	23.89	22.21	20.33	18.51	16.94	15.71	14.83	14.10	13.45	13.24	14.02	15.89	18.45	21.23
24N	19.46	18.75	18.10	17.35	16.43	15.45	14.53	13.77	13.25	13.01	13.01	13.19	13.45	13.95	15.01	16.69	18.64	20.61
20N	12.19	11.06	10.31	9.77	9.40	9.21	9.18	9.30	9.61	10.12	10.83	11.82	13.05	14.33	15.50	16.50	17.20	17.72
16N	6.14	4.77	3.87	3.42	3.43	3.79	4.31	4.94	5.75	6.75	7.91	9.41	11.20	13.01	14.05	14.28	13.74	12.80
12N	2.53	1.25	0.16	-0.48	-0.51	-0.12	0.39	0.98	1.81	2.86	4.02	5.42	7.09	9.06	10.78	12.78	14.89	16.29
8N	1.63	0.74	-0.41	-1.31	-1.56	-1.45	-1.35	-1.17	-0.73	-0.01	0.84	1.79	2.76	3.41	3.51	3.16	2.45	1.33
4N	1.12	0.64	-0.37	-1.33	-1.78	-1.96	-2.16	-2.32	-2.20	-1.72	-0.96	-0.17	0.42	0.57	0.25	-0.30	-0.83	-1.48
0	-0.34	-0.55	-1.30	-2.22	-2.92	-3.38	-3.72	-3.94	-3.92	-3.41	-2.44	-1.46	-0.90	-1.05	-1.02	-3.04	-3.83	-4.21
4S	-1.36	-1.46	-2.03	-2.91	-3.83	-4.56	-4.98	-5.20	-5.17	-4.57	-3.33	-2.20	-1.58	-1.01	-3.22	-4.86	-5.96	-6.23
8S	-0.32	-0.50	-1.19	-2.19	-3.25	-4.17	-4.81	-5.11	-5.01	-4.37	-3.30	-2.24	-1.69	-2.09	-3.41	-5.10	-6.23	-6.61
12S	1.62	1.25	0.40	-0.58	-1.39	-2.06	-2.61	-2.83	-2.68	-2.29	-1.78	-1.31	-1.10	-1.48	-2.41	-3.40	-4.07	-4.52
16S	2.90	2.45	1.72	1.14	0.98	1.06	1.15	1.29	1.39	1.28	0.98	0.67	0.39	0.00	-0.36	-0.48	-0.51	-0.74
20S	4.53	4.18	3.73	3.63	4.10	4.91	5.69	6.17	6.15	5.54	4.58	3.65	2.94	2.49	2.48	2.90	3.30	3.32
24S	7.26	7.08	6.93	7.22	8.09	9.30	10.43	11.03	10.82	9.88	8.67	7.45	6.53	6.04	6.14	6.68	7.15	7.33
28S	11.05	10.95	11.00	11.55	12.57	13.73	14.67	14.98	14.51	13.52	12.45	11.50	10.71	10.33	10.47	10.86	11.09	11.23
32S	14.51	14.46	14.73	15.52	16.56	17.43	17.88	17.77	17.21	16.53	16.00	15.58	15.23	15.17	15.41	15.67	16.71	15.79
36S	16.71	16.83	17.40	18.44	19.51	20.22	20.44	20.31	20.09	20.00	20.09	20.20	20.36	20.66	21.03	21.20	21.39	21.57
40S	18.37	18.66	19.44	20.54	21.56	22.24	22.59	22.84	23.23	23.79	24.40	24.92	25.43	25.99	26.46	26.78	27.06	27.41
44S	19.91	20.36	21.12	21.95	22.66	23.20	23.69	24.33	25.21	26.22	27.18	27.94	28.64	29.33	29.89	30.31	30.77	31.26
48S	21.39	21.73	22.13	22.36	22.45	22.54	22.84	23.44	24.33	25.37	26.37	27.20	27.97	28.72	29.30	29.95	30.52	31.01
52S	21.39	21.43	21.31	20.89	20.32	19.84	19.63	19.70	20.97	20.66	21.33	21.99	22.69	23.41	24.10	24.70	25.27	25.57
56S	19.15	18.96	18.51	17.76	16.88	16.09	15.48	15.04	14.80	14.78	14.91	15.20	15.61	16.09	16.56	16.95	17.25	17.30
60S	15.55	15.13	14.86	14.14	13.34	12.58	11.90	11.27	10.70	10.22	9.87	9.72	9.70	9.74	9.81	9.87	9.88	9.82
64S	11.48	11.36	11.68	10.61	10.10	9.60	9.07	8.51	7.88	7.20	6.57	6.06	5.63	5.26	4.95	4.70	4.49	4.28
68S	7.77	7.78	7.72	7.54	7.33	7.11	6.82	6.46	5.99	5.41	4.79	4.18	3.58	3.02	2.53	2.13	1.81	1.53
72S	5.42	5.46	5.48	5.44	5.38	5.32	5.22	5.07	4.96	4.58	4.22	3.81	3.48	3.06	2.58	2.24	1.93	1.67
76S	4.58	4.56	4.55	4.51	4.47	4.45	4.43	4.42	4.39	4.34	4.25	4.08	3.74	3.56	3.37	3.17	2.99	2.99
80S	4.22	4.15	4.10	4.06	4.00	3.97	3.96	3.96	3.97	3.99	4.00	3.95	3.80	3.87	3.82	3.75	3.68	3.62
84S	3.41	3.34	3.30	3.27	3.21	3.17	3.14	3.13	3.11	3.12	3.14	3.13	3.15	3.17	3.16	3.15	3.17	3.20
88S	1.67	1.70	1.74	1.78	1.81	1.84	1.87	1.89	1.92	1.94	1.97	1.98	2.00	2.04	2.05	2.04	2.04	2.08

TABLE 5-23 JAN 400M8 ZONAL GEOSTROPHIC (M/SEC)

	2.5E	7.5E	12.5E	17.5E	22.5E	27.5E	32.5E	37.5E	42.5E	47.5E	52.5E	57.5E	62.5E	67.5E	72.5E	77.5E	82.5E	87.5E
RRN	2.34	2.02	1.70	1.37	1.01	0.62	0.23	-0.16	-0.55	-0.91	-1.28	-1.63	-1.93	-2.19	-2.41	-2.58	-2.68	-2.71
84N	6.79	6.48	6.12	5.73	5.30	4.81	4.32	3.81	3.27	2.73	2.20	1.66	1.15	0.70	0.28	-0.08	-0.35	-0.50
80N	9.92	8.70	8.95	8.07	7.71	7.34	6.99	6.66	6.29	5.93	5.58	5.21	4.84	4.46	4.07	3.68	3.32	2.98
76N	9.34	9.20	8.95	8.67	8.38	8.12	7.94	7.84	7.77	7.76	7.78	7.80	7.82	7.72	7.54	7.31	6.98	6.52
72N	9.27	9.19	8.93	8.61	8.26	7.96	7.81	7.84	8.01	8.32	8.71	9.14	9.55	9.83	9.97	10.00	9.82	9.37
68N	9.88	9.77	9.47	9.07	8.61	8.24	8.06	8.12	8.40	8.88	9.49	10.16	10.80	11.28	11.60	11.80	11.76	11.39
64N	11.00	10.70	10.34	9.95	9.57	9.31	9.23	9.37	9.72	10.25	10.93	11.65	12.28	12.73	13.00	13.16	13.13	12.80
60N	11.76	11.14	10.69	10.44	10.35	10.38	10.55	10.85	11.27	11.80	12.44	13.10	13.60	13.90	14.04	14.06	13.94	13.60
56N	11.72	10.80	10.27	10.21	10.48	10.90	11.37	11.84	12.31	12.80	13.31	13.81	14.16	14.35	14.42	14.36	14.16	13.87
52N	10.77	9.74	9.21	9.30	9.86	10.61	11.32	11.93	12.45	12.85	13.18	13.48	13.75	13.99	14.19	14.23	14.15	14.05
48N	9.85	9.16	8.82	8.95	9.52	10.30	11.04	11.68	12.20	12.51	12.68	12.84	13.12	13.57	14.06	14.41	14.67	14.96
44N	10.60	10.63	10.69	10.83	11.16	11.64	12.14	12.62	12.99	13.17	13.20	13.27	13.54	14.08	14.71	15.31	15.91	16.56
40N	13.46	14.32	14.86	15.07	15.13	15.20	15.32	15.48	15.60	15.60	15.49	15.43	15.54	15.86	16.30	16.87	17.57	18.35
36N	17.65	19.24	20.25	20.61	20.50	20.21	19.97	19.81	19.68	19.53	19.34	19.13	18.97	18.84	18.88	18.18	19.75	20.51
32N	21.85	23.94	25.32	25.87	25.72	25.27	24.85	24.53	24.30	24.11	23.93	23.64	23.23	22.73	22.34	22.34	22.73	23.44
28N	23.88	26.11	27.75	28.62	28.73	28.44	28.10	27.82	27.60	27.41	27.23	26.95	26.52	25.94	25.43	25.33	25.68	26.42
24N	22.57	24.47	26.21	27.55	28.28	28.48	28.42	28.21	27.90	27.55	27.19	26.83	26.43	25.96	25.58	25.51	25.83	26.48
20N	18.40	19.51	21.07	22.78	24.18	25.03	25.35	25.21	24.71	24.00	23.22	22.51	21.89	21.43	21.15	21.05	21.13	21.40
16N	12.11	12.23	13.27	14.95	16.71	18.07	18.76	18.72	18.07	16.99	15.70	14.45	13.46	12.86	12.29	11.97	11.76	11.76
12N	4.89	4.24	4.57	5.64	7.04	8.30	9.02	9.04	8.39	7.19	5.65	4.13	2.96	2.29	1.90	1.30	0.73	0.26
8N	0.02	-0.86	-0.98	-0.57	0.06	0.68	1.01	0.85	0.12	-1.10	-2.53	-3.80	-4.65	-5.12	-5.50	-6.16	-6.93	-7.31
4N	-2.34	-3.00	-3.10	-2.72	-2.28	-2.03	-2.08	-2.46	-3.21	-4.23	-5.31	-6.14	-6.50	-6.82	-7.12	-7.74	-8.42	-8.58
0	-4.51	-4.75	-4.52	-3.71	-2.70	-2.36	-2.51	-2.94	-3.39	-3.88	-4.45	-5.00	-5.35	-5.51	-5.71	-6.14	-6.59	-6.59
4S	-6.15	-5.98	-5.37	-4.09	-2.61	-1.81	-1.89	-2.30	-2.57	-2.77	-3.09	-3.55	-3.91	-4.04	-4.11	-4.34	-4.56	-4.44
8S	-6.59	-6.30	-5.51	-4.11	-2.48	-1.41	-1.24	-1.67	-2.40	-3.28	-4.17	-4.83	-5.13	-5.11	-5.06	-5.18	-5.32	-5.13
12S	-4.84	-4.90	-4.57	-3.87	-2.87	-1.91	-1.36	-1.48	-2.38	-3.77	-5.09	-5.81	-5.94	-5.78	-5.63	-5.67	-5.74	-5.47
16S	-1.22	-1.71	-2.21	-2.63	-2.70	-2.23	-1.48	-1.03	-1.27	-2.04	-2.81	-3.17	-3.17	-3.04	-2.91	-2.95	-2.77	-2.42
20S	3.02	2.49	1.64	0.56	-0.30	-0.40	0.13	0.75	1.06	1.08	1.05	1.05	1.04	1.01	1.00	1.06	1.21	1.56
24S	7.37	7.24	6.69	5.67	4.61	4.04	4.03	4.31	4.66	5.02	5.34	5.43	5.28	5.05	4.89	4.87	4.98	5.25
28S	11.59	12.05	12.18	11.78	11.07	10.35	9.81	9.45	9.26	9.29	9.35	9.17	8.70	8.45	8.21	8.12	8.18	8.36
32S	16.28	17.05	17.67	17.89	17.72	17.24	16.57	15.77	14.97	14.35	13.85	13.31	12.77	12.40	12.16	12.05	12.08	12.18
36S	22.05	22.72	23.36	23.81	24.00	23.91	23.48	22.71	21.75	20.79	19.97	19.30	18.70	18.46	18.21	18.01	17.91	17.82
40S	27.82	28.22	28.62	28.99	29.29	29.42	29.27	28.81	28.10	27.27	26.50	25.99	25.71	25.52	25.27	24.96	24.64	24.30
44S	31.56	31.66	31.77	31.95	32.14	32.25	32.24	32.07	31.75	31.28	30.86	30.70	30.77	30.82	30.72	30.47	30.10	29.67
48S	31.18	31.07	30.98	30.99	30.94	30.83	30.71	30.61	30.51	30.39	30.38	30.61	31.02	31.42	31.68	31.80	31.64	31.64
52S	25.60	25.41	25.24	25.09	24.81	24.45	24.13	23.90	23.80	23.86	24.11	24.59	25.24	25.94	26.62	27.26	27.77	28.06
56S	17.32	17.13	16.94	16.68	16.31	15.88	15.53	15.28	15.22	15.40	15.79	16.37	17.07	17.81	18.61	19.43	20.09	20.46
60S	9.69	9.54	9.37	9.14	8.85	8.58	8.42	8.39	8.54	8.90	9.39	9.94	10.48	10.98	11.50	12.01	12.35	12.43
64S	4.08	3.96	3.87	3.78	3.70	3.72	3.86	4.13	4.55	5.06	5.55	5.94	6.17	6.25	6.30	6.29	6.16	5.97
68S	1.31	1.18	1.14	1.21	1.36	1.60	1.97	2.43	2.96	3.47	3.82	3.94	3.83	3.54	3.20	2.91	2.43	2.15
72S	1.47	1.34	1.31	1.41	1.61	1.88	2.23	2.61	2.98	3.26	3.36	3.24	2.94	2.54	2.14	1.77	1.54	1.51
76S	2.85	2.78	2.79	2.85	2.98	3.17	3.36	3.53	3.65	3.66	3.58	3.38	3.08	2.77	2.32	2.28	2.41	2.41
80S	3.57	3.57	3.64	3.70	3.81	3.92	4.00	4.04	4.01	3.92	3.80	3.63	3.41	3.20	3.02	2.92	2.87	2.89
84S	3.22	3.27	3.34	3.40	3.47	3.54	3.56	3.55	3.48	3.40	3.31	3.19	3.05	2.91	2.78	2.67	2.52	2.38
88S	2.08	2.08	2.07	2.06	2.04	2.01	1.98	1.92	1.82	1.74	1.66	1.55	1.42	1.29	1.18	1.06	0.89	0.72

TABLE 5-23 JAN 400MB ZONAL GEOSTROPHIC (M/SEC)

	92.5E	97.5E	102.5E	107.5E	112.5E	117.5E	122.5E	127.5E	132.5E	137.5E	142.5E	147.5E	152.5E	157.5E	162.5E	167.5E	172.5E	177.5E
88N	-2.64	-2.52	-2.33	-2.05	-1.70	-1.31	-0.89	-0.43	0.02	0.47	0.90	1.30	1.67	2.01	2.31	2.58	2.81	3.03
84N	-0.52	-0.42	-0.17	0.24	0.78	1.41	2.10	2.84	3.58	4.29	4.94	5.52	6.03	6.45	6.78	7.04	7.23	7.35
80N	2.71	2.54	2.51	2.63	2.90	3.29	3.78	4.35	4.98	5.61	6.24	6.85	7.41	7.90	8.31	8.62	8.85	9.01
76N	5.99	5.44	4.91	4.44	4.08	3.84	3.72	3.76	3.93	4.25	4.69	5.25	5.88	6.51	7.09	7.58	7.99	8.32
72N	8.67	7.78	6.74	5.61	4.51	3.45	2.51	1.78	1.18	0.69	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68N	10.66	9.60	8.20	6.73	5.12	3.46	1.87	0.50	-0.49	-1.07	-1.28	-1.05	-0.45	0.33	1.16	1.89	2.57	3.32
64N	12.10	11.05	9.48	8.10	6.37	4.53	2.70	1.09	-0.16	-1.10	-1.73	-1.96	-1.78	-1.38	-0.95	-0.59	-0.13	0.59
60N	12.98	12.06	10.87	9.47	7.88	6.15	4.60	2.84	1.52	0.39	-0.57	-1.25	-1.62	-1.81	-1.95	-2.03	-1.81	-1.13
56N	13.44	12.81	11.94	10.86	9.56	8.11	6.61	5.22	3.92	2.82	1.76	0.81	-0.00	-1.24	-1.52	-1.52	-1.33	-0.64
52N	13.96	13.78	13.35	12.65	11.73	10.66	9.50	8.32	7.22	6.28	5.45	4.60	3.75	2.99	2.53	2.44	2.88	3.61
48N	15.31	15.64	15.78	15.65	15.31	14.86	14.29	13.64	13.10	12.86	12.83	12.72	12.51	12.34	12.42	12.67	12.96	13.15
44N	17.28	18.07	18.89	19.65	20.31	20.92	21.45	21.93	22.58	23.57	24.72	25.67	26.37	26.88	27.16	27.07	26.47	25.35
40N	19.26	20.43	21.96	23.76	25.70	27.67	29.60	31.50	33.52	35.64	37.59	39.09	40.08	40.51	40.28	39.26	37.45	34.97
36N	21.49	22.98	25.09	27.77	30.78	33.90	37.01	40.04	42.90	45.34	47.16	48.26	48.60	48.16	46.95	45.04	42.49	39.37
32N	24.52	26.22	28.61	31.59	34.91	38.37	41.81	45.02	47.58	49.10	49.66	49.45	48.50	46.89	44.97	42.81	40.55	37.96
28N	27.56	29.17	31.20	33.55	36.08	38.70	41.22	43.30	44.36	44.14	43.08	41.61	39.70	37.76	35.92	34.55	33.42	32.18
24N	27.40	28.45	29.56	30.71	31.95	33.24	34.31	34.76	34.20	32.67	30.77	28.93	27.17	25.62	24.60	24.20	24.17	24.22
20N	21.80	22.10	22.23	22.35	22.61	22.93	22.93	22.29	20.95	19.15	17.36	15.86	14.61	13.76	13.50	13.78	14.45	15.39
16N	11.66	11.43	10.98	10.55	10.33	10.15	9.65	8.69	7.45	6.16	5.03	4.12	3.48	3.23	3.40	4.18	5.25	6.72
12N	0.10	-0.02	-0.33	-0.71	-1.01	-1.31	-1.78	-2.40	-3.02	-3.55	-4.00	-4.37	-4.53	-4.39	-3.87	-2.95	-1.67	-0.13
8N	-7.08	-6.63	-6.46	-6.62	-6.90	-7.15	-7.35	-7.55	-7.74	-7.92	-8.13	-8.26	-8.18	-7.89	-7.87	-6.21	-4.87	-3.38
4N	-8.03	-7.26	-6.86	-6.89	-7.04	-7.13	-7.16	-7.25	-7.48	-7.84	-8.25	-8.44	-8.38	-8.15	-7.67	-6.76	-5.54	-4.37
0	-6.02	-5.31	-4.86	-4.69	-4.58	-4.46	-4.45	-4.65	-5.10	-5.77	-6.49	-6.89	-6.95	-6.92	-6.75	-6.29	-5.66	-5.05
4S	-3.92	-3.32	-2.86	-2.50	-2.15	-1.9	-2.06	-2.47	-3.01	-3.68	-4.35	-4.80	-5.00	-5.16	-5.26	-5.18	-5.03	-4.87
8S	-4.53	-3.84	-3.26	-2.79	-2.44	-2.24	-2.44	-3.06	-3.76	-4.51	-5.22	-5.78	-6.10	-6.39	-6.58	-6.41	-6.17	-5.94
12S	-4.72	-3.83	-3.18	-2.81	-2.80	-3.32	-4.23	-4.77	-5.13	-5.36	-5.56	-5.61	-5.50	-5.25	-4.87	-4.35	-3.68	-2.92
16S	-1.62	-0.69	-0.10	0.02	-0.36	-1.27	-2.26	-2.43	-1.04	1.65	4.31	5.90	6.45	6.57	6.78	7.16	7.48	7.57
20S	2.27	3.09	3.57	3.61	3.19	2.37	1.62	1.77	3.31	5.82	8.24	9.82	10.59	11.02	11.10	11.23	11.24	11.00
24S	5.76	6.38	6.81	7.01	6.94	6.61	6.32	6.62	7.66	9.14	10.56	11.65	12.44	12.86	12.95	12.86	12.67	12.29
28S	8.67	9.07	9.50	10.39	10.66	10.78	10.95	11.15	11.33	11.58	12.03	12.57	12.88	12.83	12.62	12.41	12.17	11.57
32S	12.31	12.48	12.74	13.16	13.72	14.18	14.37	14.24	13.74	13.01	12.45	12.30	12.35	12.30	12.05	11.79	11.62	11.57
36S	17.69	17.53	17.39	17.41	17.62	17.84	17.86	17.48	16.60	15.43	14.40	13.69	13.14	12.61	12.14	11.78	11.57	11.54
40S	23.88	23.38	22.83	22.41	22.21	22.15	22.05	21.56	20.51	19.12	17.79	16.64	15.56	14.65	14.01	13.55	13.22	13.10
44S	29.16	28.49	27.74	27.05	26.57	26.37	26.24	25.76	24.73	23.35	21.97	20.64	19.32	18.25	17.58	17.09	16.71	16.50
48S	31.36	30.85	30.20	29.52	28.97	28.73	28.65	28.32	27.56	26.51	25.44	24.38	23.28	22.39	21.67	21.32	21.32	21.12
52S	28.12	27.92	27.53	27.04	26.58	26.36	26.37	26.34	26.14	25.81	25.44	25.04	24.62	24.31	24.23	24.25	24.23	24.10
56S	20.56	20.49	20.30	20.05	19.81	19.74	19.91	20.23	20.61	21.00	21.33	21.60	21.91	22.26	22.61	22.91	23.07	23.02
60S	12.33	12.23	12.20	12.22	12.31	12.51	12.89	13.44	14.11	14.83	15.49	16.12	16.81	17.50	18.06	18.46	18.70	18.74
64S	5.68	5.59	5.75	6.06	6.48	6.96	7.48	8.06	8.70	9.36	9.99	10.64	11.33	11.90	12.52	12.90	13.13	13.22
68S	2.02	2.14	2.50	3.05	3.66	4.23	4.74	5.16	5.54	5.94	6.35	6.79	7.24	7.65	8.00	8.25	8.45	8.58
72S	1.66	1.99	2.42	2.93	3.42	3.81	4.11	4.43	4.60	4.83	5.08	5.27	5.44	5.54	5.74	5.80	6.05	6.16
76S	2.63	2.90	3.16	3.39	3.57	3.66	3.72	3.74	3.74	3.70	3.92	4.22	4.37	4.52	4.66	4.77	4.84	4.84
80S	2.95	2.98	2.97	2.94	2.86	2.74	2.64	2.57	2.50	2.49	2.51	2.57	2.66	2.75	2.86	2.90	3.10	3.19
84S	2.27	2.12	1.93	1.73	1.53	1.34	1.17	1.04	0.93	0.87	0.81	0.79	0.82	0.84	0.91	1.03	1.13	1.24
88S	0.57	0.40	0.23	0.06	-0.10	-0.25	-0.37	-0.49	-0.58	-0.65	-0.72	-0.76	-0.79	-0.82	-0.78	-0.72	-0.67	-0.60

TABLE 5-24 JAN 400MB MERIDIONAL GEOSTROPHIC (M/SEC)

	177.5W	172.5W	167.5W	162.5W	157.5W	152.5W	147.5W	142.5W	137.5W	132.5W	127.5W	122.5W	117.5W	112.5W	107.5W	102.5W	97.5W	92.5W
99N	2.78	2.12	1.88	1.63	1.37	1.12	0.88	0.66	0.49	0.32	0.16	0.06	-0.09	-0.05	-0.09	-0.08	0.01	0.04
84N	1.02	0.46	-0.05	-0.55	-1.05	-1.52	-1.96	-2.33	-2.58	-2.77	-2.88	-2.84	-2.64	-2.34	-1.96	-1.40	-0.64	0.08
80N	0.47	-0.19	-0.85	-1.52	-2.21	-2.91	-3.59	-4.22	-4.74	-5.16	-5.47	-5.56	-5.30	-4.90	-4.36	-3.66	-2.07	-0.67
76N	0.68	-0.02	-0.75	-1.51	-2.31	-3.15	-4.04	-4.92	-5.72	-6.46	-7.11	-7.52	-7.63	-7.44	-6.74	-5.57	-3.92	-1.98
72N	1.48	0.75	-0.01	-0.80	-1.61	-2.49	-3.47	-4.44	-5.35	-6.19	-6.83	-7.26	-7.40	-7.17	-6.78	-5.70	-3.92	-1.98
68N	2.64	1.88	1.10	0.39	-0.30	-1.10	-2.09	-3.22	-4.48	-5.76	-7.06	-8.31	-9.32	-10.01	-10.61	-10.25	-7.61	-5.31
64N	3.95	3.21	2.51	2.00	1.55	0.85	-0.21	-1.51	-2.93	-4.43	-6.02	-7.58	-8.90	-9.84	-10.31	-9.95	-6.64	-6.54
60N	5.31	4.74	4.25	4.07	3.81	3.05	1.79	0.30	-1.24	-2.89	-4.75	-6.59	-8.13	-9.30	-10.05	-10.04	-9.11	-7.32
56N	6.70	6.45	6.33	6.44	6.17	5.14	3.59	2.00	0.48	-1.22	-3.31	-5.45	-7.20	-8.56	-9.61	-9.95	-9.28	-7.79
52N	8.02	8.17	8.44	8.69	8.19	6.76	4.99	3.45	2.10	0.44	-1.83	-4.25	-6.20	-7.52	-8.02	-8.00	-6.39	-8.04
48N	8.70	9.14	9.62	9.79	9.04	7.44	5.82	4.50	3.30	1.64	-0.74	-3.30	-5.50	-7.44	-8.07	-8.00	-6.13	-7.66
44N	7.96	8.56	9.08	9.13	8.40	7.21	6.04	5.00	3.80	2.03	-0.36	-2.82	-4.95	-6.88	-8.44	-8.87	-7.89	-6.15
40N	5.74	6.50	7.10	7.19	6.81	6.24	5.63	4.83	3.58	1.78	-0.45	-2.62	-4.40	-5.97	-7.07	-6.99	-5.60	-3.70
36N	2.57	3.54	4.30	4.63	4.76	4.80	4.59	3.96	2.81	1.21	-0.65	-2.35	-3.67	-4.66	-5.07	-4.34	-2.67	-0.95
32N	-0.75	-0.33	1.32	2.06	2.69	3.10	3.06	2.58	1.78	0.70	-0.56	-1.76	-2.63	-3.04	-2.78	-1.57	0.26	1.75
28N	-3.27	-2.41	-1.28	-0.84	0.88	1.49	1.57	1.35	1.07	0.65	-0.03	-0.81	-1.34	-1.60	-0.82	0.54	2.21	3.27
24N	-4.74	-4.33	-3.27	-1.86	-0.55	0.27	0.61	0.76	1.42	1.30	0.62	0.04	-0.10	-0.16	-0.36	1.40	2.82	3.53
20N	-5.38	-5.42	-4.49	-2.95	-1.51	-0.51	0.17	0.68	1.05	1.22	1.02	0.67	0.40	0.51	0.80	1.52	2.44	2.96
16N	-5.20	-5.53	-4.72	-3.25	-1.91	-0.85	0.10	0.85	1.24	1.29	1.09	0.82	0.70	0.65	0.97	1.47	1.47	1.86
12N	-4.05	-4.39	-3.71	-2.56	-1.63	-0.76	0.27	1.09	1.32	1.11	0.79	0.57	0.40	0.41	0.26	0.19	0.30	0.56
8N	-2.69	-3.01	-2.50	-1.67	-1.05	-0.35	0.69	1.51	1.52	0.82	0.35	0.17	0.25	0.25	0.0	-0.32	-0.44	-0.28
4N	-1.49	-1.76	-1.47	-0.99	-0.62	-0.10	0.76	1.42	1.30	0.62	0.04	-0.08	0.08	0.15	-0.08	-0.42	-0.57	-0.44
0	-0.09	-0.08	-0.06	-0.14	-0.29	-0.20	0.14	0.36	0.74	-0.01	-0.16	-0.21	-0.18	-0.18	-0.27	-0.36	-0.40	-0.31
4S	1.16	1.47	1.29	0.69	0.05	-0.30	-0.50	-0.75	-0.88	-0.70	-0.42	-0.37	-0.46	-0.52	-0.45	-0.25	-0.11	-0.24
8S	1.91	2.38	2.07	1.30	0.55	-0.02	-0.50	-1.00	-1.33	-1.22	-0.89	-0.72	-0.71	-0.64	-0.44	-0.12	0.17	0.31
12S	2.20	2.64	2.25	1.52	0.88	0.29	-0.26	-0.80	-1.31	-1.54	-1.43	-1.21	-0.95	-0.61	-0.30	0.02	0.35	0.52
16S	2.12	2.48	2.02	1.28	0.71	0.16	-0.39	-0.84	-1.28	-1.64	-1.74	-1.60	-1.21	-0.66	-0.25	0.03	0.39	0.43
20S	1.65	1.95	1.47	0.75	0.26	-0.18	-0.63	-0.93	-1.19	-1.53	-1.81	-1.83	-1.44	-0.84	-0.38	-0.14	0.08	0.23
24S	0.99	1.31	0.91	0.27	-0.15	-0.46	-0.79	-0.97	-1.08	-1.36	-1.74	-1.90	-1.64	-1.10	-0.63	-0.34	-0.11	0.10
28S	0.47	0.82	0.59	0.06	-0.33	-0.59	-0.83	-0.94	-0.97	-1.19	-1.57	-1.80	-1.69	-1.32	-0.87	-0.52	-0.12	0.14
32S	0.22	0.65	0.60	0.19	-0.23	-0.51	-0.66	-0.68	-0.70	-0.90	-1.21	-1.43	-1.47	-1.32	-0.97	-0.53	-0.03	0.20
36S	0.28	0.78	0.91	0.60	0.12	-0.18	-0.24	-0.17	-0.19	-0.40	-0.69	-0.91	-1.10	-1.18	-1.01	-0.56	-0.03	0.13
40S	0.43	1.08	1.42	1.18	0.65	0.31	0.29	0.39	0.35	0.11	-0.20	-0.47	-0.78	-1.06	-1.06	-0.69	-0.19	-0.03
44S	0.58	1.40	1.91	1.75	1.19	0.79	0.74	0.78	0.71	0.47	0.15	-0.18	-0.53	-0.89	-1.02	-0.80	-0.40	-0.16
48S	0.62	1.53	2.11	2.01	1.47	1.03	0.88	0.84	0.77	0.60	0.29	-0.05	-0.32	-0.59	-0.76	-0.72	-0.48	-0.16
52S	0.38	1.21	1.71	1.62	1.17	0.80	0.62	0.54	0.51	0.43	0.20	-0.02	-0.10	-0.16	-0.32	-0.47	-0.43	-0.11
56S	-0.10	0.54	0.90	0.83	0.53	0.29	0.14	0.04	0.02	0.02	-0.04	-0.04	0.13	0.23	0.05	-0.27	-0.41	-0.17
60S	-0.56	-0.08	0.20	0.19	0.01	-0.16	-0.32	-0.49	-0.54	-0.48	-0.35	-0.10	0.25	0.43	0.22	-0.19	-0.43	-0.29
64S	-0.84	-0.45	-0.19	-0.16	-0.27	-0.45	-0.70	-0.95	-1.06	-0.96	-0.69	-0.23	0.25	0.45	0.23	-0.18	-0.42	-0.33
68S	-0.89	-0.59	-0.36	-0.31	-0.47	-0.68	-1.03	-1.34	-1.47	-1.37	-1.01	-0.46	0.06	0.20	0.15	-0.13	-0.27	-0.19
72S	-0.96	-0.79	-0.67	-0.66	-0.80	-1.09	-1.45	-1.71	-1.80	-1.70	-1.36	-0.84	-0.32	-0.03	-0.01	-0.05	-0.02	0.09
76S	-1.25	-1.25	-1.27	-1.33	-1.46	-1.69	-2.09	-2.32	-2.10	-1.98	-1.70	-1.27	-0.80	-0.45	0.25	-0.08	0.11	0.29
80S	-1.56	-1.81	-1.91	-1.91	-2.01	-2.16	-2.28	-2.32	-2.27	-2.13	-1.89	-1.56	-1.17	-0.82	-0.53	-0.26	-0.01	0.20
84S	-1.56	-1.75	-1.89	-2.01	-2.09	-2.18	-2.24	-2.21	-2.14	-2.03	-1.87	-1.64	-1.36	-1.09	-0.84	-0.61	-0.39	-0.20
88S	-0.99	-1.14	-1.26	-1.37	-1.46	-1.55	-1.61	-1.67	-1.63	-1.61	-1.59	-1.51	-1.43	-1.35	-1.24	-1.14	-1.05	-0.95

TABLE 5-24 JAN 400MB MERIDIONAL GEOSTROPHIC (M/SEC)

	87.5W	82.5W	77.5W	72.5W	67.5W	62.5W	57.5W	52.5W	47.5W	42.5W	37.5W	32.5W	27.5W	22.5W	17.5W	12.5W	7.5W	2.5W
88N	0.01	0.00	0.02	-0.01	-0.09	-0.20	-0.34	-0.52	-0.73	-0.95	-1.23	-1.53	-1.82	-2.12	-2.41	-2.72	-3.01	3.24
84N	0.71	1.36	1.99	2.47	2.81	3.02	3.09	2.96	2.68	2.29	1.77	1.16	0.49	-0.20	-0.81	-1.67	-2.39	-2.99
80N	0.73	2.15	3.46	4.55	5.36	5.89	6.11	5.96	5.55	4.95	4.17	3.27	2.29	1.26	0.22	-0.81	-1.75	-2.57
76N	0.09	2.21	4.19	5.85	7.11	7.81	8.23	8.05	7.52	6.78	5.85	4.77	3.60	2.36	1.13	-0.04	-1.11	-2.07
72N	-1.12	1.53	4.03	6.20	7.86	8.91	9.31	9.14	8.59	7.84	6.93	5.87	4.66	3.35	2.03	0.77	-0.40	-1.48
68N	-2.60	0.25	3.00	5.48	7.46	8.80	9.44	9.46	8.97	8.48	7.74	6.84	5.72	4.41	3.04	1.70	0.40	-0.86
64N	-3.96	-1.23	1.49	4.07	6.30	8.02	9.10	9.51	9.43	9.08	8.51	7.72	6.66	5.32	3.88	2.47	1.02	-0.51
60N	-5.06	-2.60	0.02	2.67	5.17	7.32	8.88	9.70	9.92	9.73	9.19	8.31	7.13	5.66	4.12	2.64	1.03	-0.81
56N	-5.88	-3.66	-1.07	1.76	4.56	7.08	9.00	10.08	10.45	10.27	9.58	8.42	6.93	5.25	3.61	2.08	0.26	-1.84
52N	-6.33	-4.22	-1.54	1.57	4.67	7.40	9.43	10.51	10.78	10.42	9.47	7.84	5.97	4.05	2.33	0.72	-1.24	-3.42
48N	-5.94	-3.88	-1.17	2.02	5.13	7.74	9.53	10.32	10.28	9.61	8.27	6.39	4.34	2.30	0.47	-1.19	-3.05	-5.00
44N	-4.38	-2.52	-0.14	2.63	5.25	7.36	8.67	9.03	8.59	7.61	6.13	4.28	2.40	0.45	-1.44	-3.03	-4.51	-5.89
40N	-2.05	-0.62	1.06	2.99	4.78	6.17	6.90	6.82	6.04	4.88	3.49	1.98	0.52	-1.11	-2.88	-4.26	-5.16	-5.83
36N	0.41	1.23	2.08	3.03	3.85	4.40	4.54	4.09	3.14	2.01	0.87	-0.20	-1.13	-2.24	-3.50	-4.55	-4.80	-4.93
32N	2.40	2.51	2.60	2.68	2.59	2.39	2.04	1.35	-0.43	-2.06	-2.62	-3.29	-3.51	-3.17	-2.70	-2.03	-1.06	-0.54
28N	3.34	2.71	2.49	1.97	1.24	0.56	-0.01	-0.70	-1.43	-2.00	-2.62	-3.29	-3.51	-3.17	-2.70	-2.03	-1.06	-0.54
24N	3.34	2.75	2.11	1.25	0.16	-0.71	-1.26	-1.82	-2.36	-2.69	-3.20	-3.92	-4.03	-3.09	-1.68	-0.19	1.22	1.79
20N	2.85	2.44	1.05	0.86	-0.40	-1.32	-1.81	-2.30	-2.71	-2.89	-3.27	-3.91	-3.91	-2.64	-0.75	1.11	2.69	3.32
16N	2.00	1.96	1.64	0.76	-0.47	-1.38	-1.85	-2.29	-2.60	-2.66	-2.86	-3.29	-3.14	-1.85	-0.05	1.62	3.06	3.75
12N	0.87	1.14	1.17	0.64	-0.28	-1.04	-1.48	-1.94	-2.19	-2.16	-2.10	-2.10	-0.86	-0.89	0.20	1.31	2.30	2.91
8N	0.00	0.21	0.35	0.23	-0.24	-0.80	-1.19	-1.38	-1.35	-1.15	-1.05	-1.06	-0.86	-0.32	0.28	0.80	1.38	1.76
4N	-0.21	-0.10	-0.05	-0.08	-0.29	-0.57	-0.79	-0.83	-0.63	-0.24	-0.30	-0.44	-0.45	-0.30	-0.08	0.25	0.70	0.96
0	-0.01	0.30	0.28	-0.06	-0.24	-0.08	0.10	0.25	0.54	0.78	0.62	0.21	-0.17	-0.52	-0.79	-0.68	-0.16	0.20
4S	0.32	0.81	0.65	-0.10	-0.37	0.21	0.89	1.32	1.75	1.99	1.65	0.90	0.03	-0.87	-1.81	-1.84	-1.08	-0.44
8S	0.58	0.86	0.38	-0.70	-1.06	-0.20	0.94	1.82	2.61	3.07	2.74	1.71	-0.16	-1.76	-3.22	-3.19	-1.90	-0.81
12S	0.58	0.43	-0.37	-1.53	-1.85	-0.88	0.52	1.81	2.99	3.67	3.41	2.23	0.15	-2.50	-4.36	-4.16	-2.47	-1.05
16S	0.34	-0.07	-0.94	-1.88	-1.97	-0.98	0.32	1.73	2.91	3.50	3.19	2.06	-0.02	-2.72	-4.48	-4.16	-2.54	-1.27
20S	0.08	-0.45	-1.19	-1.69	-1.42	-0.44	0.70	1.68	2.41	2.63	2.24	1.34	-0.36	-2.58	-3.86	-3.39	-2.12	-1.29
24S	-0.08	-0.65	-1.14	-1.11	-0.46	0.52	1.31	1.66	1.66	1.38	0.94	0.33	-0.86	-2.37	-3.00	-2.41	-1.53	-1.11
28S	-0.14	-0.71	-0.88	-0.35	0.63	1.52	1.96	1.56	0.92	0.16	-0.26	-0.66	-1.47	-2.24	-2.37	-1.72	-1.12	-0.91
32S	-0.19	-0.67	-0.46	0.48	1.57	2.27	2.15	1.19	0.08	-0.61	-0.92	-1.20	-1.70	-2.06	-1.97	-1.43	-1.00	-0.51
36S	-0.25	-0.44	0.23	1.45	2.37	2.57	2.57	0.75	-0.32	-0.82	-0.98	-1.18	-1.52	-1.66	-1.47	-1.25	-0.93	-0.21
40S	-0.20	0.06	1.21	2.57	3.20	2.93	1.99	0.76	-0.13	-0.44	-0.55	-0.77	-1.03	-1.13	-1.05	-0.99	-0.69	0.16
44S	0.01	0.74	2.24	3.64	4.01	3.47	2.46	1.40	0.74	0.49	0.25	-0.09	-0.34	-0.50	-0.50	-0.61	-0.73	0.60
48S	0.33	1.39	3.02	4.31	4.52	3.96	3.16	2.44	2.04	1.77	1.30	0.80	0.51	0.27	-0.00	-0.04	0.38	1.04
52S	0.53	1.63	3.07	4.11	4.26	3.89	3.41	3.13	3.07	2.91	2.35	1.76	1.48	1.21	0.82	0.71	1.03	1.38
56S	0.44	1.36	2.42	3.15	3.29	3.14	3.01	3.05	3.33	3.44	3.06	2.59	2.30	2.13	1.67	1.42	1.53	1.56
60S	0.19	0.87	1.58	2.04	2.16	2.15	2.20	2.44	2.91	3.26	3.17	2.95	2.89	2.67	2.18	1.83	1.75	1.58
64S	0.03	0.86	1.13	1.71	1.75	1.75	1.35	1.59	2.03	2.45	2.67	2.68	2.75	2.50	2.17	1.81	1.66	1.42
68S	0.05	0.30	0.49	0.61	0.63	0.63	0.65	0.75	0.99	1.31	1.58	1.79	1.80	1.80	1.64	1.42	1.30	1.10
72S	0.26	0.41	0.48	0.48	0.42	0.33	0.25	0.23	0.27	0.41	0.60	0.78	0.91	0.95	0.89	0.83	0.76	0.60
76S	0.43	0.53	0.56	0.52	0.42	0.32	0.21	0.12	0.06	0.08	0.14	0.20	0.24	0.25	0.26	0.24	0.16	0.02
80S	0.36	0.45	0.50	0.50	0.48	0.42	0.32	0.21	0.10	0.05	0.03	-0.01	-0.07	-0.10	-0.12	-0.10	-0.31	-0.42
84S	-0.03	0.09	0.17	0.22	0.27	0.28	0.21	0.12	0.05	0.01	-0.03	-0.10	-0.18	-0.23	-0.27	-0.36	-0.45	-0.69
88S	-0.84	-0.75	-0.67	-0.59	-0.52	-0.45	-0.43	-0.41	-0.37	-0.33	-0.29	-0.25	-0.21	-0.17	-0.14	-0.12	-0.07	-0.00

TABLE 5-24 JAN 400MB MERIDIONAL GEOSTROPHIC (M/SEC)

	2.5E	7.5E	12.5E	17.5E	22.5E	27.5E	32.5E	37.5E	42.5E	47.5E	52.5E	57.5E	62.5E	67.5E	72.5E	77.5E	82.5E	87.5E
88N	-3.43	-3.62	-3.76	-3.88	-3.97	-4.03	-4.04	-3.94	-3.74	-3.50	-3.23	-2.90	-2.47	-2.02	-1.53	-0.91	-0.16	87.5E
84N	-3.54	-4.05	-4.50	-4.90	-5.25	-5.60	-5.87	-5.94	-5.81	-5.61	-5.33	-5.01	-4.45	-3.81	-3.07	-2.01	-0.69	0.53
80N	-3.30	-3.95	-4.50	-4.95	-5.33	-5.70	-6.00	-6.14	-6.11	-6.02	-5.92	-5.67	-5.22	-4.67	-4.00	-3.00	-1.72	-0.43
76N	-2.91	-3.62	-4.19	-4.60	-4.89	-5.11	-5.24	-5.26	-5.21	-5.15	-5.13	-5.03	-4.70	-4.51	-4.13	-3.52	-2.68	1.70
72N	-2.47	-3.30	-3.96	-4.41	-4.59	-4.54	-4.34	-4.05	-3.78	-3.59	-3.51	-3.49	-3.48	-3.51	-3.52	-3.43	-3.23	-2.92
68N	-2.08	-3.16	-4.05	-4.61	-4.72	-4.39	-3.78	-3.07	-2.45	-1.99	-1.73	-1.72	-1.91	-2.21	-2.53	-2.88	-3.30	-3.69
64N	-1.99	-3.28	-4.31	-4.93	-4.95	-4.37	-3.39	-2.33	-1.40	-0.65	-0.21	-0.22	-0.63	-1.17	-1.60	-2.33	-3.21	-4.20
60N	-2.45	-3.69	-4.55	-5.00	-4.87	-4.09	-2.89	-1.62	-0.49	0.45	0.99	0.88	0.22	-0.56	-1.24	-2.05	-3.24	-4.66
56N	-3.50	-4.41	-4.73	-4.72	-4.33	-3.45	-2.22	-0.92	0.27	1.30	1.86	1.60	0.71	-0.20	-1.10	-2.03	-3.40	-5.02
52N	-4.93	-5.30	-4.86	-4.15	-3.40	-2.47	-1.35	-0.19	0.91	1.88	2.38	2.01	0.90	-0.20	-1.04	-2.13	-3.55	-5.17
48N	-6.17	-6.05	-4.96	-3.57	-2.40	-1.42	-0.43	0.53	1.44	2.21	2.58	2.25	1.36	0.34	-0.71	-1.96	-3.40	-4.90
44N	-6.63	-6.30	-4.98	-3.22	-1.73	-0.65	0.29	1.16	1.85	2.38	2.64	2.46	1.80	1.06	-0.02	-1.39	-2.84	-4.24
40N	-6.20	-5.95	-4.82	-3.11	-1.51	-0.32	0.67	1.51	2.08	2.45	2.66	2.63	2.30	1.68	0.69	-0.67	-2.11	-3.64
36N	-5.02	-5.09	-4.47	-3.12	-1.66	-0.42	0.67	1.56	2.10	2.41	2.62	2.65	2.43	1.95	1.11	-0.09	-1.43	-2.69
32N	-3.26	-3.45	-3.93	-3.20	-2.06	-0.84	0.40	1.41	2.03	2.36	2.52	2.51	2.24	1.70	1.12	0.20	-0.91	-2.02
28N	-1.14	-2.37	-3.20	-3.20	-2.50	-1.33	0.09	1.29	2.03	2.41	2.52	2.37	1.93	1.30	0.89	0.33	-0.45	-1.29
24N	0.91	-0.79	-2.22	-2.86	-2.68	-1.65	-0.10	1.23	2.03	2.48	2.62	2.35	1.72	1.07	0.72	0.50	0.04	-0.54
20N	2.45	0.68	-0.95	-2.03	-2.36	-1.64	-0.16	1.13	1.88	2.35	2.56	2.28	1.56	0.88	0.66	0.67	0.40	-0.04
16N	3.14	1.73	0.35	-0.81	-1.52	-1.20	-0.05	0.98	1.52	1.89	2.12	1.91	1.28	0.71	0.61	0.68	0.46	0.05
12N	2.67	1.96	1.26	0.45	-0.32	-0.39	0.24	0.77	0.90	0.98	1.09	0.97	0.64	0.30	0.30	0.37	0.12	-1.18
8N	1.72	1.62	1.58	1.17	0.50	0.25	0.45	0.47	0.11	-0.15	-0.12	-0.06	-0.01	0.03	0.01	-0.19	-0.39	-0.31
4N	0.90	0.96	1.20	1.10	0.63	0.38	0.51	0.54	0.19	-0.21	-0.37	-0.34	-0.22	-0.42	-0.14	-0.35	-0.43	-0.19
0	0.09	-0.01	0.28	0.59	0.50	0.29	0.56	1.17	1.45	1.13	0.51	0.53	-0.14	-0.08	0.07	0.16	0.12	-0.21
4S	-0.52	-0.79	-0.40	0.36	0.56	0.27	0.55	1.72	2.68	2.50	1.49	0.50	0.01	0.02	0.36	0.76	0.78	0.23
8S	-0.68	-0.74	0.06	1.23	1.38	0.59	0.45	1.58	2.69	2.56	1.54	0.55	0.09	0.17	0.45	0.91	1.06	0.53
12S	-0.67	-0.36	0.88	2.35	2.42	1.19	0.48	1.03	1.68	1.44	0.73	0.23	0.14	0.27	0.45	0.76	1.05	0.89
16S	-0.90	-0.54	0.76	2.36	2.69	1.68	0.83	0.84	0.88	0.46	0.05	0.01	0.21	0.41	0.50	0.70	1.08	1.25
20S	-1.15	-1.00	-0.02	1.47	2.19	1.80	1.25	1.05	0.71	0.15	-0.14	-0.03	0.21	0.39	0.49	0.67	1.12	1.54
24S	-1.18	-1.34	-0.88	0.28	1.27	1.53	1.44	1.37	0.93	0.36	0.02	-0.02	0.06	0.22	0.40	0.62	1.11	1.71
28S	-0.84	-1.20	-1.28	-0.59	0.36	0.95	1.18	1.26	1.07	0.64	0.19	-0.12	-0.21	-0.24	0.24	0.54	1.07	1.76
32S	-0.23	-0.55	-0.28	-0.78	-0.16	0.29	0.49	0.62	0.61	0.37	-0.08	-0.49	-0.57	-0.30	0.09	0.40	1.06	1.78
36S	0.40	0.20	-0.36	-0.48	-0.23	-0.13	-0.24	-0.32	-0.35	-0.37	-0.79	-1.05	-0.96	-0.56	-0.09	0.40	1.01	1.72
40S	0.89	0.73	0.13	-0.08	-0.02	-0.21	-0.67	-1.08	-1.28	-1.40	-1.53	-1.52	-1.23	-0.70	-0.34	0.14	0.76	1.42
44S	1.19	0.96	0.39	0.22	0.23	-0.13	-0.82	-1.48	-1.91	-2.09	-2.04	-1.72	-1.26	-0.91	-0.64	-0.27	0.31	2.89
48S	1.30	0.93	0.44	0.34	0.32	-0.11	-0.87	-1.60	-2.17	-2.43	-2.18	-1.54	-0.96	-0.77	-0.77	-0.58	-0.08	0.60
52S	1.27	0.76	0.31	0.19	0.05	-0.45	-1.17	-1.82	-2.32	-2.65	-1.92	-0.97	-0.25	-0.08	-0.19	-0.16	0.19	0.66
56S	1.17	0.54	0.04	-0.24	-0.55	-1.12	-1.75	-2.24	-2.48	-2.25	-1.36	-0.13	0.80	1.14	1.00	1.01	1.06	0.91
60S	1.04	0.32	-0.29	-0.76	-1.21	-1.74	-2.22	-2.49	-2.40	-1.79	-0.61	0.80	1.86	2.34	2.33	2.06	1.69	1.99
64S	0.87	0.16	-0.54	-1.15	-1.63	-2.02	-2.27	-2.29	-1.91	-1.02	0.27	1.63	2.63	3.00	3.01	2.47	1.60	0.78
68S	0.64	0.01	-0.67	-1.24	-1.63	-1.81	-1.79	-1.55	-0.97	-0.03	1.10	2.15	2.86	3.11	2.85	2.12	1.16	0.23
72S	0.26	-0.20	-0.69	-1.06	-1.24	-1.21	-0.99	-0.58	0.03	0.78	1.53	2.13	2.47	2.51	2.10	1.55	0.81	0.21
76S	-0.20	-0.46	-0.71	-0.84	-0.82	-0.66	-0.37	0.05	0.54	1.03	1.44	1.72	1.86	1.88	1.73	1.44	1.14	0.96
80S	-0.50	-0.60	-0.68	-0.52	-0.52	-0.32	-0.07	0.24	0.58	0.89	1.30	1.30	1.44	1.64	1.61	1.64	1.71	1.99
84S	-0.45	-0.42	-0.38	-0.26	-0.12	0.05	0.20	0.35	0.55	0.75	0.94	1.09	1.23	1.38	1.56	1.74	1.97	2.13
88S	0.10	0.21	0.30	0.42	0.54	0.66	0.74	0.82	0.87	1.03	1.14	1.23	1.32	1.42	1.50	1.61	1.71	1.77

TABLE 5-24 JAN 400MB MERIDIONAL GEOSTROPHIC (M/SEC)

	92.5E	97.5E	102.5E	107.5E	112.5E	117.5E	122.5E	127.5E	132.5E	137.5E	142.5E	147.5E	152.5E	157.5E	162.5E	167.5E	172.5E	177.5E
88N	1.11	1.71	2.29	2.79	3.21	3.58	3.92	4.11	4.16	4.14	4.07	3.95	3.77	3.58	3.38	3.15	2.90	2.65
84N	1.60	2.75	3.92	4.89	5.63	6.26	6.74	6.88	6.72	6.38	5.93	5.38	4.76	4.10	3.47	2.85	2.21	1.66
80N	0.88	2.35	3.87	5.22	6.28	7.16	7.77	7.96	7.78	7.36	6.79	6.07	5.25	4.36	3.40	2.71	1.92	1.17
76N	-0.31	0.82	2.37	3.85	5.11	6.18	6.98	7.40	7.47	7.31	6.95	6.38	5.65	4.86	3.99	2.90	2.17	1.40
72N	-2.31	1.38	-0.17	1.16	2.42	3.59	4.63	5.47	6.08	6.51	6.73	6.67	6.31	5.64	4.75	3.81	2.97	2.20
68N	-3.83	-3.60	-2.96	-2.04	-1.02	1.34	2.65	3.94	5.14	6.15	6.82	6.85	6.06	5.02	4.03	3.01	2.07	1.31
64N	-5.04	-5.47	-5.38	-4.91	-4.24	-3.30	-1.94	-0.25	1.59	3.38	5.06	5.49	7.29	7.16	6.32	5.36	4.77	4.43
60N	-5.99	-6.91	-7.24	-7.14	-6.80	-6.05	-4.64	-2.68	-0.54	1.52	3.57	5.49	6.75	6.82	6.00	5.23	5.15	5.47
56N	-6.62	-7.87	-8.53	-8.71	-8.66	-8.11	-6.70	-4.60	-2.33	-0.20	1.94	4.08	5.57	5.81	5.15	4.77	5.37	6.34
52N	-6.85	-8.32	-9.27	-9.73	-9.94	-9.56	-8.22	-6.13	-3.79	1.61	0.46	2.53	4.08	4.54	4.29	4.49	5.76	7.27
48N	-6.54	-8.19	-9.44	-10.20	-10.64	-10.41	-9.21	-7.18	-4.68	-2.27	-0.22	1.66	3.00	3.93	4.00	4.73	6.25	7.83
44N	-5.79	-7.52	-8.95	-9.94	-10.52	-10.39	-9.32	-7.27	-4.44	-1.65	0.43	2.09	3.52	4.28	4.43	4.84	5.95	7.16
40N	-4.87	-6.44	-7.76	-8.72	-9.29	-9.20	-8.20	-6.05	-2.88	0.17	2.13	3.40	4.47	4.70	4.33	3.99	4.32	5.71
36N	-3.90	-5.03	-5.89	-6.54	-6.96	-6.85	-5.88	-3.64	-0.35	2.57	4.10	4.78	5.17	4.72	3.38	2.17	1.72	1.90
32N	-2.88	-3.36	-3.56	-3.75	-3.92	-3.73	-2.78	-0.64	0.87	1.28	1.93	2.34	2.34	1.76	0.42	-0.54	-3.51	-4.33
28N	-1.76	-1.67	-1.38	-1.26	-1.24	-0.98	-0.12	1.61	3.78	5.17	5.24	4.58	3.68	1.06	-0.07	-1.00	-1.08	-1.30
24N	-0.74	-0.42	0.02	0.23	0.35	0.61	1.24	2.36	3.64	4.33	4.11	3.32	2.16	0.61	-1.09	-2.53	-3.64	-4.45
20N	-0.18	0.12	0.53	0.85	1.10	1.32	1.60	2.12	2.79	3.19	3.04	2.14	1.22	-0.14	-1.54	-2.76	-3.77	-4.69
16N	-0.13	0.02	0.41	0.93	1.37	1.48	1.38	1.48	1.89	2.31	2.34	1.76	0.74	-0.42	-1.59	-2.54	-3.51	-4.33
12N	-0.33	-0.29	0.05	0.72	1.29	1.29	0.94	0.87	1.28	1.80	1.93	1.44	0.58	-0.31	-1.21	-2.06	-2.69	-3.28
8N	-0.16	-0.17	-0.05	0.49	1.06	1.03	0.63	0.56	0.99	1.51	1.66	1.28	0.63	0.01	-0.50	-1.08	-1.57	-1.99
4N	0.05	0.04	0.02	0.29	0.65	0.68	0.47	0.39	0.51	0.73	0.91	0.87	0.56	0.09	-0.56	-1.09	-1.57	-1.91
0	-0.15	-0.12	0.02	0.05	0.01	0.11	0.27	0.13	-0.41	-0.80	-0.56	-0.01	0.15	-0.31	-0.98	-1.14	-0.74	-0.26
4S	-0.34	-0.28	0.07	-0.06	-0.51	-0.47	-0.05	-0.25	-1.35	-2.29	-2.03	-0.95	-0.35	-0.83	-1.70	-1.00	-0.88	0.32
8S	-0.09	-0.01	0.37	0.14	-0.55	-0.82	-0.60	-0.79	-1.87	-2.89	-2.72	-1.57	-0.81	-1.22	-1.90	-1.04	-0.83	0.71
12S	0.52	0.58	0.80	0.42	-0.50	-1.22	-1.26	-1.07	-1.37	-1.98	-2.09	-1.49	-1.03	-1.34	-1.81	-1.50	-0.49	0.99
16S	1.14	1.14	1.06	0.38	-0.85	-1.85	-1.75	-0.73	0.12	0.06	-0.49	-0.77	-0.88	-1.21	-1.46	-1.12	-0.18	1.05
20S	1.65	1.55	1.14	0.15	-1.31	-2.38	-1.95	-0.05	1.83	2.20	1.24	0.18	-0.45	-0.91	-1.11	-0.87	-0.16	0.75
24S	2.00	1.84	1.20	0.03	-1.54	-2.60	-1.86	0.65	3.09	3.66	2.48	1.06	0.12	-0.56	-0.91	-0.76	-0.34	0.26
28S	2.20	2.06	1.40	0.25	-1.31	-2.38	-1.57	1.03	3.47	4.02	2.92	1.62	0.64	-0.27	-0.86	-0.95	-0.57	-0.16
32S	2.27	2.20	1.68	0.73	-0.73	-1.89	-1.35	0.85	2.91	3.39	2.64	1.74	0.83	-0.24	-0.97	-0.94	-0.66	-0.29
36S	2.15	2.08	1.72	1.01	-0.31	-1.53	-1.35	0.26	1.82	2.24	1.87	1.33	0.40	-0.58	-1.26	-1.16	-0.69	-0.23
40S	1.73	1.60	1.33	0.81	-0.29	-1.43	-1.52	-0.49	0.55	0.85	0.71	0.36	-0.36	-1.25	-1.70	-1.44	-0.83	-0.20
44S	1.06	0.84	0.59	0.26	-0.54	-1.47	-1.76	-1.34	-0.86	-0.72	-0.77	-1.04	-1.62	-2.17	-2.29	-1.90	-1.11	-0.25
48S	0.40	0.00	-0.31	-0.48	-0.94	-1.61	-2.02	-2.17	-2.25	-2.29	-2.33	-2.61	-3.05	-3.20	-2.97	-2.37	-1.44	-0.38
52S	0.16	-0.54	-1.05	-1.22	-1.44	-1.81	-2.18	-2.63	-3.06	-3.24	-3.32	-3.66	-4.02	-3.86	-3.25	-2.53	-1.67	-0.62
56S	0.22	-0.78	-1.53	-1.83	-1.92	-1.95	-2.05	-2.42	-2.91	-3.18	-3.34	-3.73	-4.05	-3.76	-3.07	-2.42	-1.73	-0.91
60S	0.11	-1.00	-1.80	-2.14	-2.09	-1.80	-1.55	-1.68	-2.09	-2.43	-2.70	-3.09	-3.34	-3.08	-2.55	-2.12	-1.68	-1.13
64S	-0.26	-1.19	-1.76	-1.93	-1.71	-1.21	-0.74	-0.69	-1.01	-1.42	-1.78	-2.13	-2.31	-2.18	-1.65	-1.28	-0.88	-0.25
68S	-0.55	-1.08	-1.23	-1.09	-0.71	-0.18	0.23	0.27	-0.05	-0.52	-0.95	-1.26	-1.41	-1.44	-1.05	-0.78	-0.57	-0.13
72S	-0.15	-0.24	-0.07	0.25	0.61	0.92	1.03	0.88	0.50	0.02	-0.40	-0.70	-0.89	-1.03	-1.16	-1.29	-1.28	-1.14
76S	0.93	1.06	1.29	1.50	1.66	1.71	1.56	1.24	0.82	0.39	0.03	-0.27	-0.54	-0.77	-0.96	-1.15	-1.27	-1.14
80S	1.90	2.02	2.14	2.19	2.17	2.09	1.87	1.53	1.13	0.77	0.46	0.16	-0.16	-0.46	-0.72	-1.00	-1.26	-1.43
84S	2.23	2.27	2.28	2.23	2.14	2.03	1.86	1.58	1.28	1.00	0.75	0.47	0.16	-0.13	-0.42	-0.75	-1.09	-1.35
88S	1.79	1.76	1.70	1.63	1.54	1.44	1.34	1.18	0.99	0.83	0.67	0.47	0.25	0.06	-0.13	-0.36	-0.61	-0.81

REFERENCES

- Academy of Sciences, USSR, *Physical Geographic Atlas of the World*, Department of Geodesy and Cartography of the State Geodetic Commission, Moscow, 1964.
- Arakawa, A., "Numerical simulation of large-scale atmospheric motion," *Numerical Solution of Field Problems in Continuum Physics*. (Proceedings of a Symposium in Applied Mathematics, Durham, N.C., 1968), American Mathematical Society, Providence, R.I., pp. 24-40, 1970.
- Budyko, M. I., *Atlas of the Heat Balance of the Earth*, Gidrometeorizdat, Moscow, 69 pp. 1963.
- Crutcher, H. L., *Meridional Cross-sections, Upper Winds over the Northern Hemisphere*, Technical Paper No. 41, National Weather Records Center, U.S. Weather Bureau, Asheville, N.C., 1961.
- Crutcher, H. L., and J. M. Meserve, *Selected Level Heights, Temperatures and Dew Points for the Northern Hemisphere*, NAVAIR 50-1C-52, Naval Weather Service Command, Washington, D.C., 1970.
- Environmental Technical Applications Center, *Northern Hemisphere Cloud Cover*, Project #6168, Department of the Air Force, Washington, D.C., 1971.
- Gates, W. L., E. S. Batten, A. B. Kahle, and A. B. Nelson, *A Documentation of the Mintz-Arakawa Two-Level Atmospheric General Circulation Model*, Report, The Rand Corporation, Santa Monica, California, 1971 (in preparation).
- Jacobs, W. C., "The seasonal apportionment of precipitation over the ocean," *Yearbook of the Association of Pacific Coast Geographers*, Vol. 30, pp. 63-78, 1968.
- Kendrew, W. G., *The Climates of the Continents*, Oxford, Clarendon Press, 1963.
- Miller, D. B., "Automated production of global cloud climatology based on satellite data," (Pre-publication copy), *Proceedings of 3rd Technical Exchange Conference*, Annapolis, Maryland, September 1970.
- Miller, D. B., A. L. Booth, R. E. Miller, "Automated method of estimating total cloud amount from mesoscale satellite data," *Extended Abstracts of the Symposium on Tropical Meteorology*, University of Hawaii, 1970.
- Mintz, Y., "Very long-term global integration of the primitive equations of atmospheric motion: an experiment in climate simulation," *Meteorological Monographs*, Vol. 8, No. 30, pp. 20-36, 1968.

Schutz, C., *Monsoonal Influences on Wind, Rain, and Cloud Throughout Southeast Asia: A Study Covering the Peninsula and the Archipelago*, RM-5418-PR, The Rand Corporation, Santa Monica, California, 1967.

Scientific Service Technical Note No. 1, *Relation Between Geographical Coordinates and GWC Grid Coordinates*, Headquarters 3rd Weather Wing, Offutt Air Force Base, Omaha, Nebraska, 1967.

Taljaard, J. J., H. Van Loon, H. L. Crutcher, and R. L. Jenne, *Climate of the Upper Air: Southern Hemisphere, Vol. 1. Temperatures, Dew Points and Heights at Selected Pressure Levels*, NAVAIR 50-1C-55. A joint production of NCAR, ESSA-NWRC, and DoD, 1969.

Washington, W. M., and L. G. Thiel, *Digitized Global Monthly Mean Ocean Surface Temperatures*, NCAR-TN-54, National Center for Atmospheric Research, Boulder, Colorado, 1970.