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A MODIFIED PERSISTENCE-CLIMATOLOGY METHOD TO FORECAST TROPICAL CYCLONE MOVEMENT

by

CHENG Tze-shan

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CONTENTS

FIGURES

TABLES

TABLES (Cont'd)

1. INTRODUCTION

One of the objective techniques commonly used in tropical cyclone movement forecasting is that based on climatology. However, climatology is often represented in different ways in different forecast centres. In the Royal Observatory, Hong Kong (Bell 1962, WMO 1982), it is represented by the climatological modal direction of movement and mean speed computed by Chin (1958) while in the Philippines, the mean climatological displacement is used in deriving regression equations for forecasting (Amadore and de la Cruz 1980). As pointed out by Chin (1976), the performance of techniques employing the modal direction would depend on the statistical behaviour of storms in various areas. Performance is likely to be inferior in areas where the modal direction has a low frequency of occurrence. Low modal frequencies are observed over many areas in any month on climatological charts (Chin 1958, Nyomura and Miyazawa 1980). Similar problems will arise in using the mean displacement. Cheng (1982) therefore attempted to tackle the problem by representing climatology in a different way. A climatological average direction of movement was computed for each of six sectors for each area. In operational forecasting, a choice will be made depending on the observed direction of movement during the past 12 hours. This was found to produce satisfactory results for September storms in 1961 to 1980.

In the present study, another approach is adopted with a view to finding out how climatology may be applied to indicate and predict a change in the current direction of movement of a tropical cyclone. Instead of assuming that a tropical cyclone will move in the same direction and with the same speed as most of the past storms which occurred in the same locality and at the same time of the year regardless of its current and past movements, the effect of the climatological influence is supposed to deflect a storm from its present track towards a climatological average direction. The amount of deflection will depend on the current direction of movement and the season. The results of evaluating the magnitude of the deflections based on data from 1884 to 1980 are presented in this report. Verification results of movement forecasts using this approach are also presented.

2. COMPUTATION OF THE CLIMATOLOGICAL DEFLECTION

Six-hourly tropical cyclone positions for the period 1884-1980 were used in preparing the climatology for the area 5°-30°N, 105°-150°E for the purpose of the present study. Slow-moving storms (speed of movement during the past 12 hours equal to or less than 9 km/h) or storms exhibiting looping tracks (doing a closed loop within 48 hours with either the latitudinal or longitudinal width of the loop less than 2 degrees latitude) were deleted from the data set. The data were stratified in the following way :

(a) by area into 5°squares,

(b) by month but grouping January to April together, and

(c) by the past 12-hour direction of movement with

Group 1 containing all northward (350°-020°) moving storms,

Group 2 northeastward (020°-060°) storms,

Group 3 eastward (060°-110°) storms,

Group 4 southeastward and southward (110°-210°) storms,

Group 5 southwestward (210°-260°) storms,

Group 6 westward (260°-290°) storms,

Group 7 northwestward (290°-320°) storms, and

Group 8 north-northwestward (320°-350°) storms.

The boundary values of the eight direction groups have been chosen to ensure that the number of data points in each group is reasonably large and the climatology computed more representative.

By comparing the subsequent 24-hour movement with the past 12-hour movement, the angular deflection in track and the change in speed of movement were computed. As illustrated in Figure 1, the deflection vector is defined to be the vector difference between the subsequent 24-hour movement vector and the 24-hour persistence vector projected from the past 12 hour movement. For each of the 3240 stratified data sets (8 groups x 9 periods x 45 areas), the means of the angular deflections and changes in speed were calculated. The angles of the deflection vectors as measured from the north and their lengths were also averaged. The standard deviation of the deflection vectors gives an indication of the spread of the data points around the mean 24-hour position projected from persistence. The results of the above calculations are presented in Tables 1 to 36.

3. THE PROPOSED PERSISTENCE-DEFLECTION FORECASTING SCHEMES

Persistence, extrapolated from the past 12-hour movement, was combined with different proportions of the climatology computed above to arrive at a 24-hour forecast. 48-hour forecast was then made using the computed 24-hour forecast and similarly the 72-hour forecast was made using the computed 48-hour forecast. The schemes applied were described below.

(a) The weighted scalar deflection scheme (P+WSD)

Forecast direction of movement = Direction of movement during past 12 hours + scalar angular deflection x weight

Forecast speed of movement = Speed of movement during past 12 hours + climatological average change in speed x weight

Using the same weight for both the forecast direction and forecast speed of movement, the scheme was tested with weights of 1.0, 0.75, 0.5, 0.25, and 0. With a weight of 0, the method would be equivalent to simple persistence. 1.0 would be similar to pure climatology while 0.5 would be similar to but closer to persistence than $\frac{1}{2}$(P+C).

(b) The weighted vector deflection scheme (P+WVD)

The climatological deflection vector was resolved into the latitudinal and longitudinal components, and

Forecast latitudinal (longitudinal) displacement = latitudinal (longitudinal) displacement during past 12 hours x 2 + climatological latitudinal (longitudinal) deflection x weight

The same weights as the (P+WSD) scheme were tried.

4. PERFORMANCE OF THE FORECASTING SCHEMES

The performance of the proposed forecasting schemes in 24-, 48- and 72-hour forecasts was tested with best track data for 1981 to 1985.

(a) 24-hour forecasts

Tables 37 and 38 list the displacement errors of 24-hour forecasts stratified by month and by movement respectively. It can be seen that (P+WSD) performed generally better than (P+WVD) and the best scheme is (P+¼SD). However, (P+OSD), i.e. persistence, worked best in January to April, June and August. (P+½SD) performed better for northward, southeastward and southwestward moving storms; (P+¼VD) for northeastward storms and (P+¾VD) for eastward storms.

Table 39 shows displacement errors of 24-hour forecasts made with the (P+¼SD) method and stratified by area.

Results of verification of forecasts made from 1981 to 1985 with the operational objective forecast methods employed in the Royal Observatory is presented in Table 46 to compare with the performance of (P+¼SD). It shows that (P+¼SD) is superior to the others in the mean. However it must be noted that operational data were used in the Royal Observatory operational forecasts.

(b) 48-hour forecasts

Similar to the case of 24-hour forecasts, different schemes performed differently in different months and for storms moving in different directions. Tables 40 to 42 show that on the whole the (P+½SD) scheme is better than the other persistence-deflection schemes and also the objective methods listed in Table 46.

(c) 72-hour forecasts

From Tables 43 to 46, it can be seen that (P+½SD) is also the best among all the available methods.

(d) Modification of the 72-hour forecasting scheme

In view of the better performance of (P+¼SD) in 24-hour forecasts but (P+½SD) for 48- and 72-hour forecasts, a modification was introduced into the forecasting scheme. (P+¼SD) was applied for 24 hours and then replaced by (P+½SD) for the next 48 hours. However, this choice of different weights for different forecast periods did not result in reduction in forecast errors (Tables 40, 41, 43, 44 and 46).

5. SOME CASE STUDIES

The performance of the (P+½SD) method was further tested through four case studies. The 4 tropical cyclones studied were those lying within the area of responsibility of the Royal Observatory for issuing warnings for shipping. The same 4 tropical cyclones were in fact selected as target tropical cyclones during the 1981 Pre-Experiment and 1982 First Operational Experiment of the WMO/ESCAP Typhoon Operational Experiment (TOPEX) (World Meteorological Organization 1981, 1983).

In each case, 24 hour forecasts were made with ½(P+C) and (P+½SD) using best track data. The best tracks and forecast positions of the 4 tropical cyclones are shown in Fig. 2 to 5. Verification results given in Table 47 reveal the following characteristics :

(a) (P+½SD) gave smaller mean errors than ½(P+C),

(b) (P+½SD), being closer to persistence than ½(P+C), responds quicker to change in direction of movement,

(c) Comparing with (P+½SD), ½(P+C) tends to show a bias to the west for storms not moving with a large westward component, such as Roy (8113) and Cecil (8211),

(d) Although the climatology in the present project was developed for storms moving at speeds greater than 9 km/h, (P+½SD) worked satisfactorily on the rather slow moving Cecil (8211),

(e) At the time when a storm takes a sharp turn in the track, such as Roy (8113), (P+½SD) will give large forecast errors.

6. CONCLUSIONS

The present study aims at demonstrating another way of using climatology in tropical cyclone movement forecasting. A number of forecasting schemes using climatological deflections have been tested. Results of verification with 1981 to 1985 data indicated that the (P+½SD) worked most satisfactorily for 24-hour forecasts while (P+¼SD) gave smaller forecast errors compared with (P+½SD) for 48- and 72-hour forecasts. In general the persistence-deflection schemes performed better than ½(P+C).

Quick response may not always be a merit. A few case studies suggest that the (P+½SD) may be superior to the ½(P+C) because of its quick response to change of track and in its ability to forecast storms not moving along the climatological modal direction. However, as climatology is chosen with due consideration being given to the past 12-hour movement, (P+¼SD) is probably more sensitive to initial position errors than ½(P+C).

7. ACKNOWLEDGEMENT

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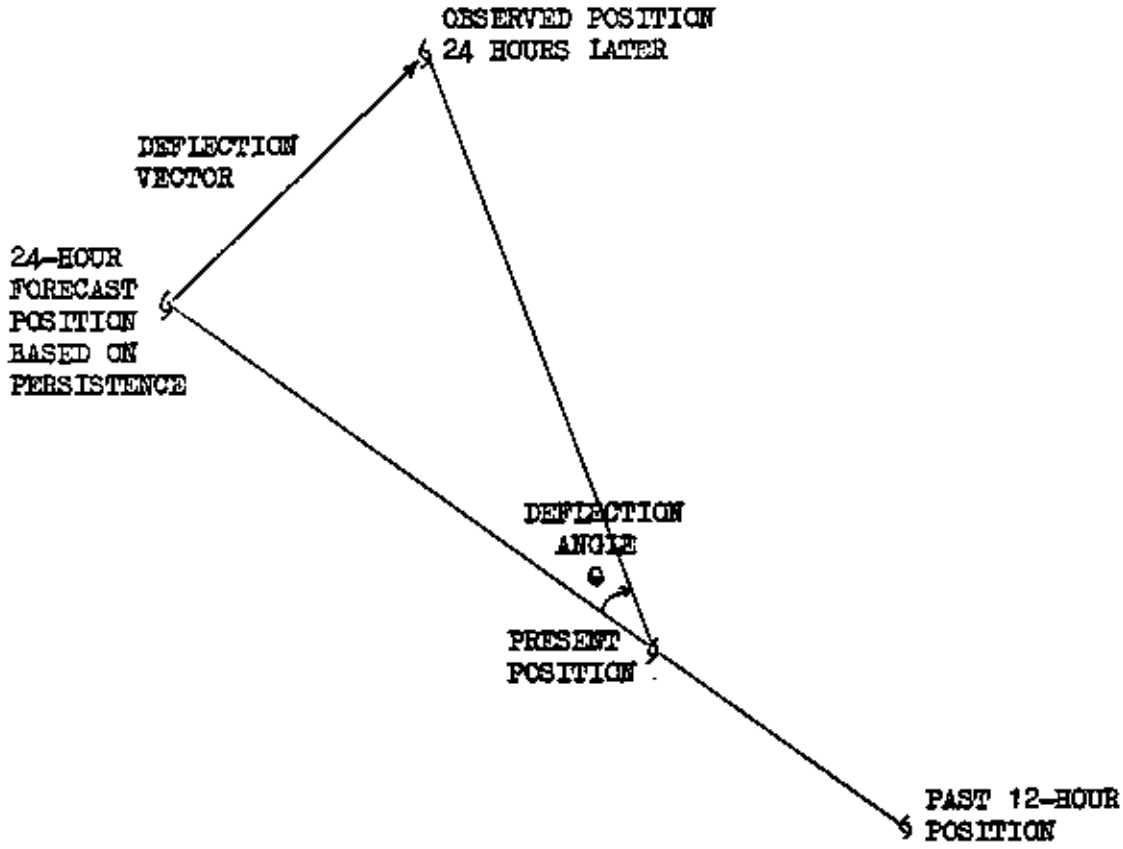

Fig. 1 Diagram illustrating the computation of the angular deflection (clockwise being positive) and the deflection vector

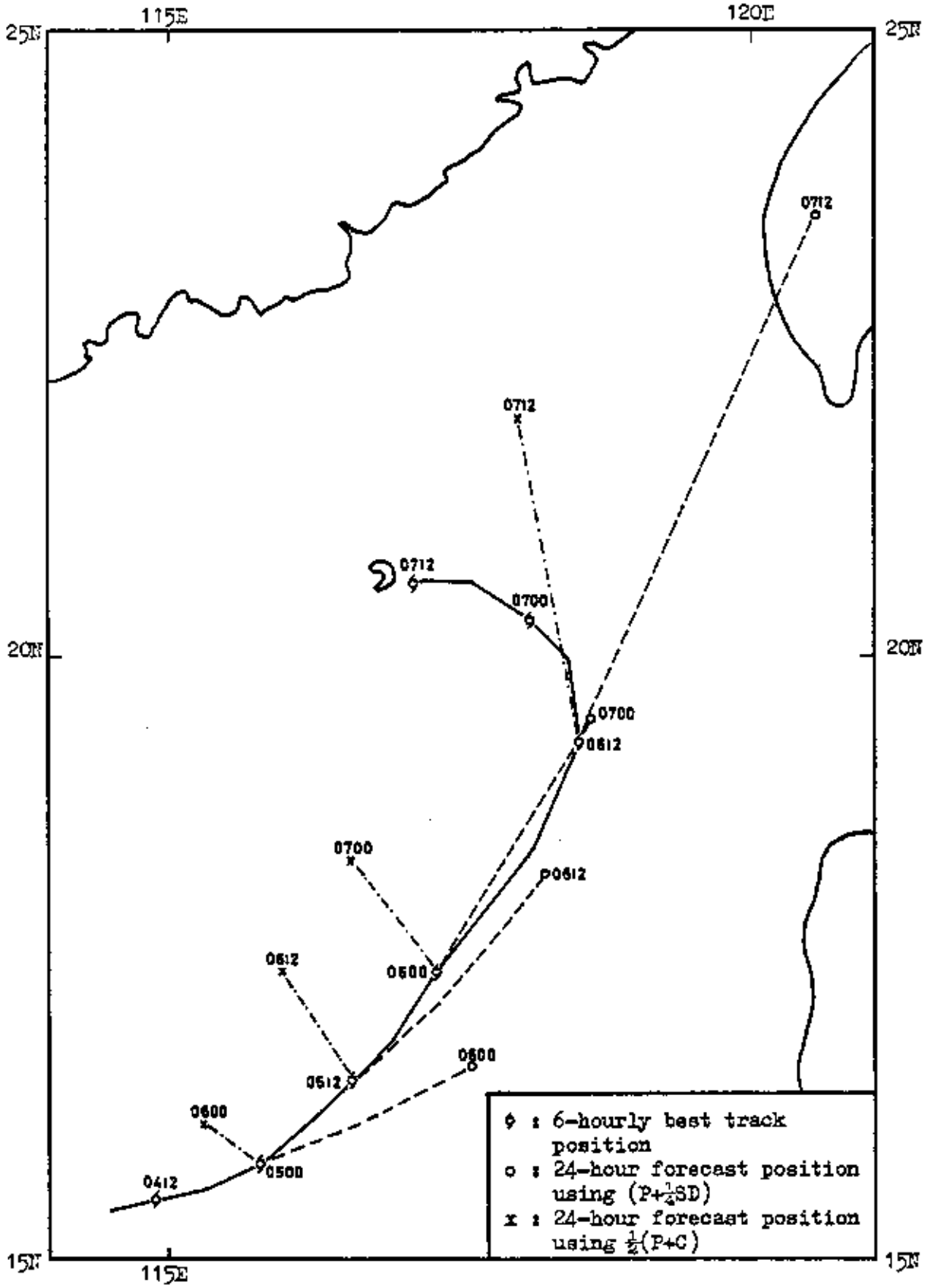

Fig. 2 Track of T.S. Roy (8113), August 1961

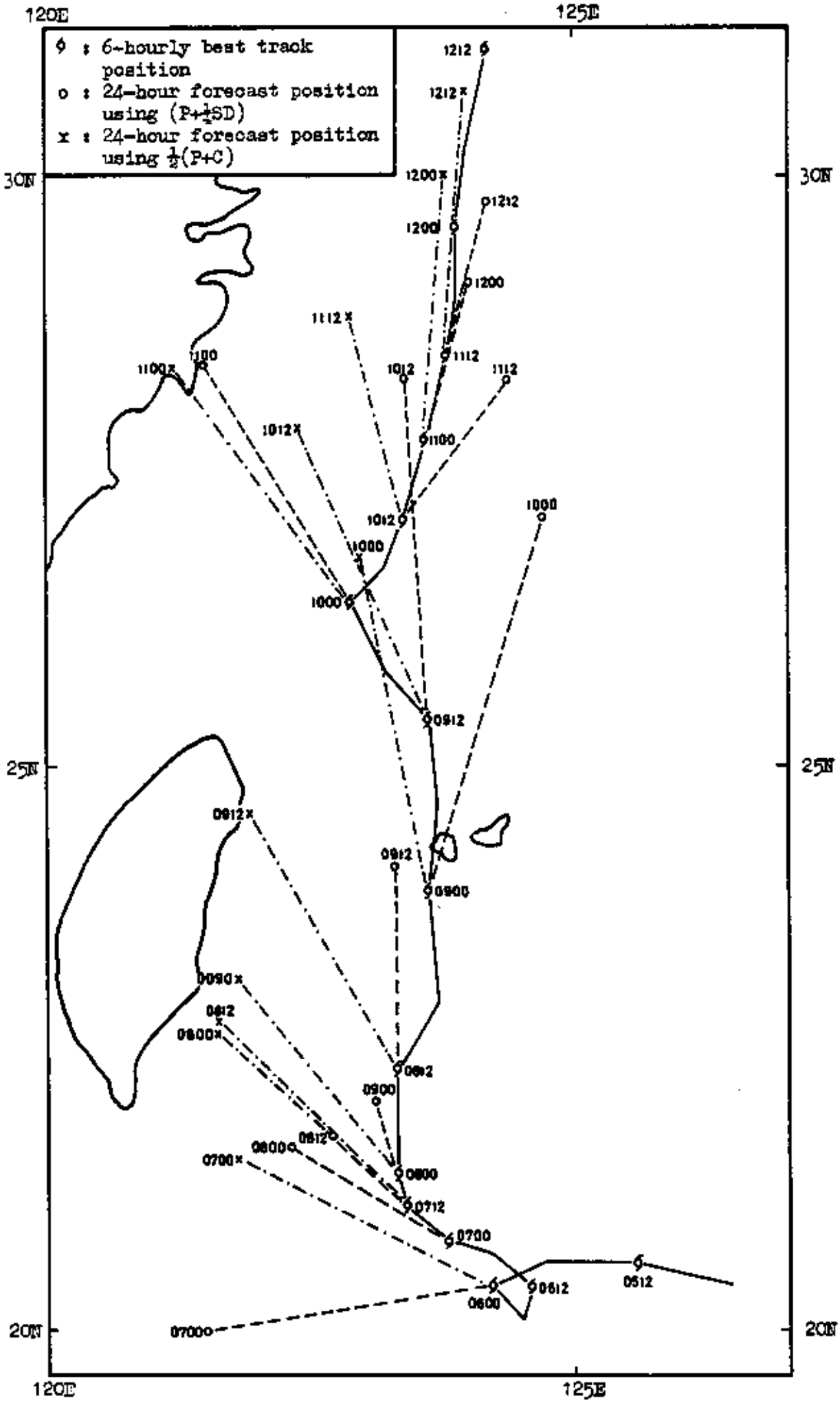

Fig. 3 Track of T. Cecil (8211), August 1982

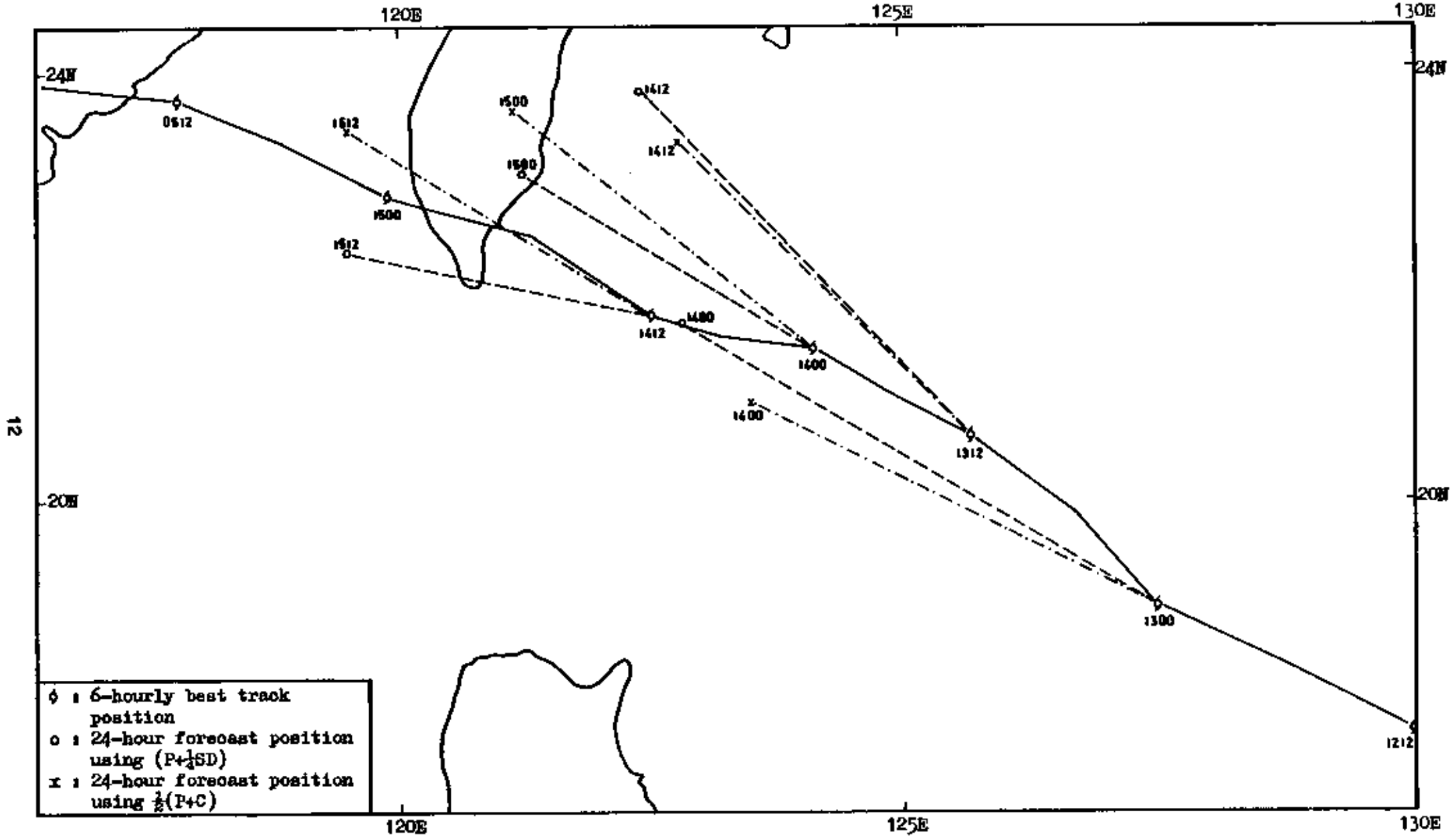

Fig. 4 Track of T. Dot (8212), August 1982

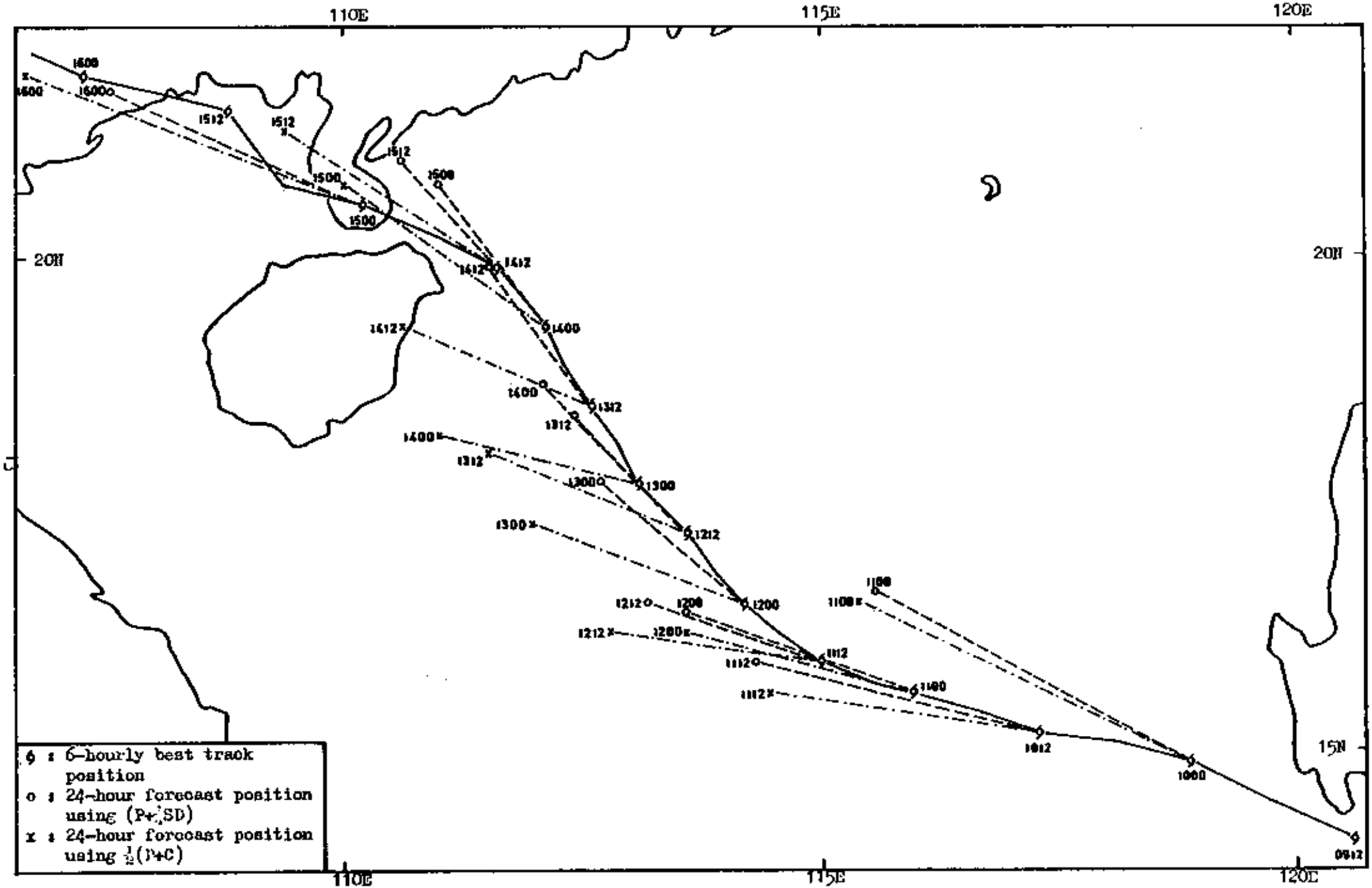

Fig. 5 Track of T. Irving (8217), September 1982

TABLE 1 CLIMATOLOGICAL DEFLECTIONS FOR JAN-APR 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			130E	
30N																	30N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1	14.0	-.6	1	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	127.0	.7	.0		
2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	2	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0		
3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	7.5	5.0	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	136.8	1.6	3.4		
4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0		
5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	5	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0		
6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	6	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0		
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	7	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0		
8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	8	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0		
25N																	25N
1	0	.0	.0	0	.0	.0	0	.0	.0	2	55.0	2.9	3	18.7	3.8	1	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	107.0	4.2	.4	75.7	1.3	.8		
2	.0	.0	.0	1	28.0	-1.5	5	57.2	5.7	8	13.4	7.5	13	7.5	3.2	2	
	.0	.0	.0	160.0	1.9	.0	126.7	2.2	1.4	91.2	2.1	-2.5	113.3	1.3	-4.2		
3	.0	.0	.0	.0	.0	.0	5	10.4	6.1	5	-3.6	-1.7	3	-5.3	-4.2	3	
	.0	.0	.0	.0	.0	.0	117.1	1.9	1.7	292.8	.4	2.6	298.4	.9	1.3		
4	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	-74.0	-7.4	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	334.0	6.6	.0	0	.0	.0		
5	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	0	.0	.0	5	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0		
6	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	0	.0	.0	6	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0		
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	0	.0	.0	7	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0		
8	.0	.0	.0	.0	.0	.0	1	60.0	.5	0	.0	.0	0	.0	.0	8	
	.0	.0	.0	.0	.0	.0	82.0	2.2	.0	.0	.0	.0	.0	.0	.0		
20N																	20N
1	0	.0	.0	3	48.7	4.3	5	53.0	6.2	2	14.0	1.7	9	28.2	2.5	1	
	.0	.0	.0	100.3	3.0	1.1	83.6	22.6	1.1	83.9	.9	.2	101.1	-5.1	1.8		
2	.0	.0	.0	29.0	7.3	2.2	20.6	9.2	.8	5.3	14	-5.1	3.2			2	
	.0	.0	.0	105.4	2.6	1.2	97.7	2.7	1.0	56.9	.8	.6	75.8	25.3	2.5		
3	.0	.0	.0	0	.0	.0	0	.0	.0	6	-3.8	1.4	4	1.2	.2	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	24.9	.4	.0	166.2	7.0	1.5		
4	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	1	7.5	.9	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	169.0	-3.3	.7		
5	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	43.5	-.7	2	-9.7	1.7	5	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	3.6	1.7	201.5				
6	.0	.0	.0	1	5.0	-.3	.0	.0	.0	2	22.0	.7	6			6	
	.0	.0	.0	26.4	.0	.0	.0	.0	.0	18.5	1.5	.7	157.1	2.4	-3.2		
7	.0	.0	.0	4	24.0	-3.2	8	45.6	-7.4	11	58.2	-5.2	10			7	
	.0	.0	.0	93.8	1.9	1.0	85.2	3.3	1.4	81.7	1.8	1.6	119.2	.7	1.3		
8	.0	.0	.0	4	22.0	1.9	2	65.0	1.6	7	23.7	1.7	5	7.2	4.4	8	
	.0	.0	.0	70.3	1.0	1.6	90.3	4.3	.4	67.2	1.6	.9	90.8	2.1	4.2		
15N																	15N
	105E			110E			115E			120E			125E			130E	

TABLE 2 CLIMATOLOGICAL DEFLECTIONS FOR JAN-APR 1884-1980. IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E			130E			135E			140E			145E			150E
30N																30N
1	1	14.0	-.6	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1
	127.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2	0	.0	.0	4	11.0	.4	0	.0	.0	0	.0	.0	0	.0	.0	2
	.0	.0	.0	116.4	.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3	2	7.5	3.0	2	.5	.5	0	.0	.0	0	.0	.0	0	.0	.0	3
	136.8	1.6	3.4	120.2	1.0	3.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	5
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	6
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	7
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	8
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
25N																25N
1	3	18.7	3.8	3	32.3	1.0	2	20.0	-.2	1	25.0	10.6	0	.0	.0	1
	75.7	1.3	.8	126.4	2.9	3.0	115.1	.8	.0	58.0	2.9	.0	.0	.0	.0	
2	13	7.5	3.2	8	14.3	1.2	10	6.3	4.6	1	6.0	12.4	1	10.0	13.2	2
	113.3	1.1	2.0	130.6	2.1	2.9	83.5	1.1	2.4	42.0	2.8	.0	48.0	3.0	.0	
3	3	-5.3	-4.2	0	.0	.0	2	12.0	6.0	0	.0	.0	0	.0	.0	3
	298.4	.9	1.3	.0	.0	.0	127.7	2.3	.4	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	5
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	6
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	0	.0	.0	0	.0	.0	0	.0	.0	1	74.0	4.7	0	.0	.0	7
	.0	.0	.0	.0	.0	.0	.0	.0	.0	64.0	3.6	.0	.0	.0	.0	
8	0	.0	.0	0	.0	.0	0	.0	.0	1	67.0	8.8	0	.0	.0	8
	.0	.0	.0	.0	.0	.0	.0	.0	.0	64.0	4.1	.0	.0	.0	.0	
20N																20N
1	9	28.2	2.3	4	23.8	4.5	8	27.6	.6	4	27.0	4.3	9	-11.3	-3.6	1
	101.1	2.1	1.8	133.6	2.4	4.1	116.4	2.3	5.1	90.3	2.4	5.8	208.1	1.0	.7	
2	19	-5.1	3.2	7	-9.7	1.2	11	18.6	5.9	5	11.6	15.5	4	-1.3	3.9	2
	75.8	.6	2.0	155.1	.9	2.3	104.2	2.1	1.9	75.0	3.2	1.4	57.4	.9	.6	
3	4	25.3	2.5	0	.0	.0	3	-3.7	-4.2	2	-16.0	1.8	4	-34.5	-5.5	3
	166.2	1.2	.2	.0	.0	.0	278.2	1.0	2.7	3.9	1.3	1.2	294.7	2.5	1.3	
4	1	7.0	1.5	0	.0	.0	1	-52.0	1.6	0	.0	.0	0	.0	.0	4
	169.0	.5	.0	.0	.0	.0	9.0	3.6	.0	.0	.0	.0	.0	.0	.0	
5	2	-3.5	.9	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	5
	201.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6	6	-9.7	-.7	2	-8.0	-3.7	0	.0	.0	0	.0	.0	0	.0	.0	6
	157.1	.7	1.2	139.4	1.1	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	10	2.4	-3.0	6	-.7	-2.5	2	43.0	11.6	1	72.0	6.5	1	36.0	-3.2	7
	119.2	.7	1.3	148.6	1.3	2.7	40.6	4.1	4.2	56.0	5.9	.0	82.0	2.1	.0	
8	5	7.2	4.4	12	27.2	2.2	3	9.0	1.3	8	17.8	4.3	2	34.5	.8	8
	90.8	2.1	4.2	99.0	2.3	3.8	48.7	.5	.2	50.3	1.1	1.7	66.9	1.7	.4	
15N																15N
	125E			130E			135E			140E			145E			150E

TABLE 5 CLIMATOLOGICAL DEFLECTIONS FOR JAN-APR 1884-1980. IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN Km/h); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			130E	
20N																	20N
1	0	.0	.0	3	48.7	4.3	5	53.0	6.2	2	14.0	1.7	9	28.2	2.3	1	
	.0	.0	.0	100.0	3.0	1.1	83.6	2.6	1.1	83.9	.9	.2	101.1	2.1	1.8		
2	.0	.0	.0	3	29.0	7.3	2	20.0	9.2	6	.8	5.3	19	-5.1	3.2	2	
	.0	.0	.0	105.4	2.6	1.2	97.7	2.7	1.0	56.9	.8	.9	75.8	.6	2.0		
3	.0	.0	.0	0	.0	.0	0	.0	.0	6	-3.8	1.4	4	25.3	2.5	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	24.9	.4	.5	166.2	1.2	.2		
4	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1	7.0	1.5	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	169.0	.5	.9		
5	.0	.0	.0	0	.0	.0	0	.0	.0	2	43.5	-.0	2	-3.5	.9	5	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	3.6	1.2	201.5	.3	.1		
6	.0	.0	.0	1	5.0	-.3	0	.0	.0	2	22.0	.7	6	-9.7	-.7	6	
	.0	.0	.0	26.0	.4	.9	.0	.0	.0	18.5	1.5	.7	157.1	.7	1.2		
7	.0	.0	.0	4	24.0	-5.2	8	45.6	-7.4	11	58.2	-5.2	10	2.4	-3.0	7	
	.0	.0	.0	93.8	1.9	1.0	85.2	3.3	1.4	81.7	1.8	1.6	119.2	.7	1.3		
8	.0	.0	.0	4	22.0	1.9	2	65.0	1.6	7	23.7	1.7	5	7.2	4.4	8	
	.0	.0	.0	70.3	1.0	1.6	90.3	4.3	.4	67.2	1.6	.9	90.8	2.1	4.2		
15N																	15N
1	0	.0	.0	0	.0	.0	1	29.0	1.0	0	.0	.0	7	47.3	9.1	1	
	.0	.0	.0	.0	.0	.0	83.0	1.7	.0	.0	.0	.0	83.1	4.2	2.4		
2	.0	.0	.0	0	.0	.0	0	.0	.0	1	9.0	.7	2	7.0	1.7	2	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	113.0	.5	.0	133.3	1.4	2.4		
3	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
4	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2	19.0	.7	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	216.0	1.0	.2		
5	.0	.0	.0	2	-17.0	9.5	5	14.0	-4.7	9	23.4	.1	5	19.0	-4.3	5	
	.0	.0	.0	220.8	2.2	.4	33.3	1.4	1.0	13.0	.9	1.6	32.3	1.7	1.5		
6	.0	.0	.0	5	5.8	-.3	32	12.1	-4.2	43	3.4	-.7	50	8.7	-1.5	6	
	.0	.0	.0	95.2	1.2	1.0	64.9	1.4	1.6	49.1	.4	1.1	63.8	1.1	2.7		
7	.0	.0	.0	16	11.5	-1.5	18	11.7	-1.3	27	6.9	-4.1	37	17.6	.1	7	
	.0	.0	.0	66.5	.6	1.1	62.3	.8	1.5	104.4	1.0	1.5	76.8	1.4	2.9		
8	.0	.0	.0	1	4.0	-1.9	4	25.3	-2.1	2	17.0	-1.0	26	24.3	-1.4	8	
	.0	.0	.0	118.0	.4	.0	93.1	1.5	.5	85.1	1.3	1.8	93.5	1.4	1.2		
10N																	10N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1	-57.0	-1.3	1	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	249.0	2.2	.0		
2	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1	-78.0	-8.2	2	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	249.0	3.9	.0		
3	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2	-48.5	-2.1	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	300.4	1.7	2.3		
4	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3	-54.0	12.8	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.5	6.5	2.5		
5	1	-6.0	2.3	0	.0	.0	0	.0	.0	3	29.3	-5.8	3	26.3	2.4	5	
	211.0	.6	.0	.0	.0	.0	.0	.0	.0	14.7	2.4	1.0	318.7	1.4	1.1		
6	.0	.0	.0	2	-12.5	-2.3	16	10.1	-3.7	27	1.3	-1.8	44	6.2	.9	6	
	.0	.0	.0	142.9	.8	1.1	62.8	1.0	.8	90.2	.4	1.5	351.1	.4	1.3		
7	1	-48.0	-1.3	0	.0	.0	1	5.0	.9	2	-41.0	-2.7	17	1.5	-5.0	7	
	171.0	2.6	.0	.0	.0	.0	342.0	.3	.0	187.1	3.2	1.6	121.2	1.2	1.6		
8	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2	7.5	-.3	8	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	83.1	.4	.8		
5N																	5N
	105E			110E			115E			120E			125E			130E	

TABLE 4 CLIMATOLOGICAL DEFLECTIONS FOR JAN-APR 1884-1960. IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E			130E			135E			140E			145E			150E
20N																20N
1	9	28.2	2.5	4	25.8	.5	8	27.6	.6	4	27.0	4.5	9	-11.3	-3.6	1
	101.1	2.1	1.8	153.6	2.9	4.1	116.4	2.3	2.1	90.3	2.4	3.8	208.1	1.0	.7	
2	19	-5.1	3.2	7	-9.7	1.2	11	18.6	5.9	5	11.6	15.5	4	-1.3	3.9	2
	75.8	.6	2.6	155.1	.9	2.3	104.2	2.1	1.9	75.0	3.2	1.4	37.4	.9	.8	
3	4	25.3	2.5	0	.0	.0	3	-3.7	-4.2	2	-16.0	1.8	4	-34.5	-5.5	3
	166.2	1.2	.2	.0	.0	.0	278.2	1.0	2.7	3.9	1.3	1.2	294.7	2.5	1.3	
4	1	7.0	1.5	0	.0	.0	1	-52.0	1.6	0	.0	.0	0	.0	.0	4
	169.0	.5	.0	.0	.0	.0	9.0	3.6	.0	.0	.0	.0	.0	.0	.0	
5	2	-3.5	.9	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	5
	201.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6	6	-9.7	.7	2	-8.0	-3.7	0	.0	.0	0	.0	.0	0	.0	.0	6
	157.1	.7	1.2	139.4	1.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	10	2.4	-3.0	6	-.7	-2.5	2	43.0	11.0	1	72.0	6.5	1	36.0	-3.2	7
	119.2	.7	1.3	148.6	1.3	2.7	40.6	4.1	4.2	56.0	5.9	.0	82.0	2.1	.0	
8	5	7.2	4.4	12	27.2	.2	3	9.0	1.3	8	17.8	4.3	2	34.5	.8	8
	90.8	2.1	4.2	99.0	2.3	3.8	48.7	.5	.2	50.3	1.1	1.7	66.9	1.7	.4	
15N																15N
1	7	47.3	9.1	7	54.7	1.6	11	33.5	1.5	4	8.5	-.4	3	-1.7	-.3	1
	85.1	4.2	2.4	117.4	2.4	1.7	107.8	2.1	1.5	157.7	.6	1.0	251.0	.1	.6	
2	2	7.0	1.7	9	22.0	.0	10	15.8	.8	5	-6.2	2.1	0	.0	.0	2
	133.3	1.4	2.4	141.7	22.1	2.4	159.7	1.3	1.5	250.9	.3	1.9	.0	.0	.0	
3	0	.0	.0	6	22.2	6.7	8	-7.9	-2.1	7	-17.6	4.3	0	.0	.0	3
	.0	.0	.0	123.7	1.4	2.2	309.3	.8	1.2	28.3	.7	2.0	.0	.0	.0	
4	2	19.0	.7	7	6.0	-5.5	0	.0	.0	0	.0	.0	0	.0	.0	4
	216.0	1.0	.2	300.0	1.0	2.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	5	19.0	-4.3	0	.0	.0	3	25.3	4.3	2	6.0	-4.4	0	.0	.0	5
	32.3	1.7	1.5	.0	.0	.0	343.9	1.8	2.7	54.6	1.2	.9	.0	.0	.0	
6	50	8.7	-1.5	43	6.3	-.3	30	14.7	.0	12	2.3	-6.0	3	-13.7	4.1	6
	63.8	1.1	2.7	53.6	.5	1.7	45.4	.9	2.4	96.7	1.5	1.5	219.6	1.6	1.1	
7	37	17.6	.1	31	7.8	-.8	51	8.7	-2.5	22	-10.5	-5.4	8	1.9	-1.9	7
	76.8	1.4	2.9	98.5	.6	2.0	101.8	.9	1.8	141.0	1.8	2.7	118.8	.5	1.0	
8	26	24.3	-1.4	6	29.7	-1.9	20	14.8	-.5	5	-6.8	-2.4	3	32.3	-4.0	8
	93.5	1.4	1.2	99.4	1.4	1.1	99.7	1.1	1.7	159.6	1.9	3.4	97.5	2.1	1.2	
10N																10N
1	1	-57.0	-1.5	0	.0	.0	2	-23.0	-5.9	0	.0	.0	0	.0	.0	1
	249.0	2.2	.0	.0	.0	.0	214.5	1.5	.5	.0	.0	.0	.0	.0	.0	
2	1	-78.0	-8.2	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2
	249.0	3.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3	2	-48.5	-2.1	7	-15.1	-2.5	2	-33.5	-5.7	2	-46.0	-2.3	0	.0	.0	3
	300.4	1.7	2.3	324.1	1.1	2.4	244.9	1.4	3.1	328.6	2.0	.7	.0	.0	.0	
4	3	-54.0	12.8	4	31.8	-.8	0	.0	.0	1	88.0	1.3	0	.0	.0	4
	3.5	6.5	2.5	307.6	1.4	.7	.0	.0	.0	311.0	4.1	.0	.0	.0	.0	
5	3	26.3	2.4	7	9.9	-2.5	10	52.6	.5	4	25.5	-1.4	1	5.0	9.1	5
	318.7	1.4	1.1	26.7	1.2	2.5	352.3	2.2	1.2	350.9	1.7	1.6	270.0	2.0	.0	
6	44	6.2	.9	76	2.7	-1.3	77	8.3	.2	53	5.4	-.5	20	5.0	1.4	6
	351.1	.4	1.3	62.9	.4	1.2	19.7	.5	1.3	32.0	.5	1.3	325.7	.4	1.3	
7	17	1.5	-5.0	29	6.7	-2.0	30	3.5	-1.5	21	-1.9	.7	3	-5.0	2.7	7
	121.2	1.2	1.6	129.7	.6	1.9	104.2	.7	1.8	166.7	.1	1.5	284.8	.6	.8	
8	2	7.5	-.3	1	-26.0	-6.1	6	-12.2	-2.4	3	-29.3	4.5	5	-11.0	.5	8
	83.1	.4	.8	191.0	2.5	.0	187.7	1.2	1.7	251.8	1.8	1.4	255.9	.5	.4	
5N																5N
	125E			130E			135E			140E			145E			150E

TABLE 5 CLIMATOLOGICAL DEFLECTIONS FOR MAY 1884-1960.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/HR); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			130E	
30N																	30N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	1
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2	0	.0	.0	0	.0	.0	3	19.7	7.9	6	14.5	2.1	5	4.0	.5	.4	2
	.0	.0	.0	.0	.0	.0	119.1	3.0	.8	134.7	1.5	1.3	121.7	.5	1.2	.4	
3	0	.0	.0	0	.0	.0	0	.0	.0	3	8.7	2.9	1	-2.5	2.8	.8	3
	.0	.0	.0	.0	.0	.0	.0	.0	.0	150.4	1.2	1.1	57.0	.7	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	5
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	6
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	7
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	8
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
25N																	25N
1	0	.0	.0	6	28.5	6.9	6	29.8	3.6	10	31.6	4.8	12	29.0	5.1	1.1	1
	.0	.0	.0	89.0	2.8	1.0	92.9	1.9	.7	94.0	2.6	1.2	92.5	2.6	1.9	.7	
2	0	.0	.0	0	.0	.0	26	13.6	4.9	31	9.8	3.4	26	6.8	4.3	1.3	2
	.0	.0	.0	.0	.0	.0	95.3	1.5	1.8	105.3	1.3	1.9	50.7	.9	1.1	.9	
3	0	.0	.0	2	-19.0	10.6	22	10.5	4.4	24	-10.6	6.6	9	11.8	8.0	1.3	3
	.0	.0	.0	45.0	2.9	.2	127.8	1.5	1.4	38.5	1.5	2.1	309.6	1.0	.0	.2	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2	144.5	-19.1	5.8	5
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	70.7	6.4	1.0	.5	
6	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	6
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	1	5.0	2.6	0	.0	.0	0	.0	.0	0	.0	.0	1	82.0	3.0	.7	7
	323.0	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	65.0	6.0	.0	.0	
8	2	11.0	-5.8	3	-15.7	-.5	4	43.0	-4.2	7	18.1	2.0	5	49.8	4.7	.2	8
	140.7	1.4	.2	240.1	.6	.5	113.7	2.1	1.2	62.6	1.4	.8	103.7	4.7	3.2	.2	
20N																	20N
1	4	19.3	-5.4	8	25.4	2.0	20	26.0	.6	21	28.1	2.2	11	8.5	2.5	.5	1
	154.0	1.4	.2	87.7	1.7	.8	117.4	1.6	1.4	99.1	1.6	1.9	68.2	.8	1.0	.7	
2	0	.0	.0	4	6.3	5.5	26	3.8	5.1	28	6.9	5.6	9	6.0	10.1	.7	2
	.0	.0	.0	81.6	1.0	.9	69.7	1.1	1.3	76.6	.8	1.3	48.7	.4	2.1	.4	
3	0	.0	.0	0	.0	.0	6	-3.0	4.7	10	.6	3.3	11	-13.1	2.1	.8	3
	.0	.0	.0	.0	.0	.0	58.4	1.1	1.9	69.3	.7	.8	7.0	.8	1.4	.4	
4	1	-24.0	6.4	3	-80.3	-7.9	0	.0	.0	0	.0	.0	0	.0	.0	.0	4
	42.0	2.4	.0	10.5	2.5	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	1	-7.0	2.0	1	45.0	8.2	0	.0	.0	0	.0	.0	1	144.0	6.6	.9	5
	210.0	.6	.0	329.0	2.8	.6	.0	.0	.0	.0	.0	.0	42.0	8.6	2.3	.9	
6	1	-10.0	2.4	10	11.0	2.7	5	43.6	-5.6	6	-3.2	-5.6	5	11.2	-1.2	.3	6
	213.0	.7	.0	5.9	.8	1.9	56.3	2.5	1.7	87.2	1.3	1.7	103.4	.8	2.2	.4	
7	2	49.0	-5.4	13	14.0	-2.7	13	15.4	-3.5	27	17.9	-1.9	6	-5.2	.5	.2	7
	70.4	2.2	.4	76.8	1.2	1.4	105.8	1.1	1.2	79.7	1.3	1.7	223.0	1.0	1.3	.6	
8	9	15.2	-1.2	25	12.8	1.1	20	32.9	-1.4	20	53.7	.3	11	2.9	-1.7	.8	8
	96.2	.8	1.2	62.0	.5	1.3	90.7	1.8	1.4	89.2	2.0	1.0	128.9	.9	1.8	.4	
15N																	15N
	105E			110E			115E			120E			125E			130E	

TABLE 6 CLIMATOLOGICAL DEFLECTIONS FOR MAY 1884-1960.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : 1/ UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E			130E			135E			140E			145E			150E	
30N																	30N
1	0	.0	.0	0	.0	.0	0	.0	.0	1	7.0	-15.7	0	.0	.0	1	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	169.0	3.5	.0	.0	.0	.0		
2	5	4.0	.4	4	16.8	4.3	0	.0	.0	3	7.3	-2.4	0	.0	.0	2	
	121.7	.5	1.2	121.3	2.3	.9	.0	.0	.0	175.6	.7	.7	.0	.0	.0		
3	1	-2.0	2.8	3	-3.3	1.6	1	-1.0	-6.6	0	.0	.0	0	.0	.0	3	
	57.0	.7	.0	19.1	.7	2.0	266.0	1.3	.0	.0	.0	.0	.0	.0	.0		
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	5	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
6	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	6	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
7	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	7	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
8	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	8	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
25N																	25N
1	12	29.0	5.1	1	-12.0	8.1	7	18.9	14.4	8	20.0	.5	0	.0	.0	1	
	92.5	2.6	1.9	334.0	1.9	.0	44.2	3.5	2.1	120.3	1.0	2.4	.0	.0	.0		
2	26	-.8	4.7	9	-.7	2.3	2	-7.5	5.6	5	9.6	.9	4	13.0	5.5	2	
	50.7	.9	1.9	107.8	.5	2.3	16.7	1.5	.4	114.6	.4	1.0	70.0	1.2	1.3		
3	9	11.8	1.1	3	-7.3	6.5	0	.0	.0	0	.0	.0	1	27.0	.4	3	
	309.6	1.0	2.3	31.7	1.7	1.4	.0	.0	.0	.0	.0	.0	163.0	1.3	.0		
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	2	144.5	-19.8	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	5	
	70.7	6.4	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
6	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	6	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
7	1	82.0	5.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	7	
	85.0	6.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
8	5	49.8	.4	0	.0	.0	9	34.7	5.7	6	45.8	-1.9	0	.0	.0	8	
	103.7	4.7	3.2	.0	.0	.0	58.5	2.8	1.7	100.2	3.2	2.6	.0	.0	.0		
20N																	20N
1	11	8.5	2.5	0	.0	.0	10	.5	1.1	9	10.1	3.5	0	.0	.0	1	
	68.2	.8	1.6	.0	.0	.0	22.8	.2	.6	44.7	1.3	1.4	.0	.0	.0		
2	9	6.0	10.7	3	-26.7	3.7	3	-26.3	7.1	9	-13.8	6.4	0	.0	.0	2	
	48.7	2.4	1.4	308.7	1.7	1.5	336.3	3.2	1.3	339.5	2.0	1.8	.0	.0	.0		
3	11	-13.1	2.0	1	-9.0	7.9	0	.0	.0	2	-1.0	8.6	0	.0	.0	3	
	7.0	.8	1.4	33.0	2.0	.0	.0	.0	.0	58.0	1.9	.6	.0	.0	.0		
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	1	144.0	.9	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	5	
	42.0	8.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
6	5	11.2	-1.5	0	.0	.0	0	.0	.0	1	71.0	-10.0	0	.0	.0	6	
	103.4	.8	2.4	.0	.0	.0	.0	.0	.0	68.0	7.2	.0	.0	.0	.0		
7	6	-5.2	.2	3	-12.7	-5.7	7	14.9	2.8	3	50.7	-3.5	5	19.6	-5.5	7	
	223.0	.3	1.6	153.7	1.7	1.1	19.0	1.0	.7	79.9	3.7	3.5	91.7	1.7	.5		
8	11	2.9	-1.7	3	30.7	.4	11	12.0	2.6	17	8.6	1.3	0	.0	.0	8	
	128.9	.9	1.8	76.0	3.2	2.0	42.9	1.2	1.7	50.2	.6	1.3	.0	.0	.0		
15N																	15N
	125E			130E			135E			140E			145E			150E	

TABLE 7 CLIMATOLOGICAL DEFLECTIONS FOR MAY 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			130E	
20N																	20N
1	4	19.3	-5.4	8	25.4	2.0	20	26.0	-.6	<1	28.1	2.2	11	8.5	2.5	1	
	154.0	1.4	.2	87.7	1.7	.8	117.4	1.6	1.4	99.1	1.6	1.9	68.2	.8	1.6		
2	0	.0	.0	4	6.3	3.5	26	3.8	5.1	28	6.9	5.6	9	6.0	10.7	2	
	.0	.0	.0	81.6	1.0	.9	69.7	1.1	1.3	76.6	.8	1.3	48.7	2.4	1.4		
3	0	.0	.0	0	.0	.0	6	-3.0	4.7	10	.6	3.3	11	-13.1	2.0	3	
	.0	.0	.0	.0	.0	.0	58.4	1.1	1.9	69.3	.7	.8	7.0	.8	1.4		
4	1	-24.0	6.4	3	-80.3	-7.9	0	.0	.0	0	.0	.0	0	.0	.0	4	
	42.0	2.4	.0	10.5	2.5	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	1	-7.0	2.0	1	43.0	8.2	0	.0	.0	0	.0	.0	1	144.0	.9	5	
	210.0	.6	.0	329.0	2.8	.0	.0	.0	.0	.0	.0	.0	42.0	8.6	.0		
6	1	-10.0	2.4	10	11.0	2.7	5	43.6	-5.0	6	-3.2	-5.6	5	11.2	-1.3	6	
	213.0	.7	.0	5.9	.8	1.9	56.5	2.5	1.7	87.2	1.3	1.7	103.4	.8	2.4		
7	2	49.0	-3.4	13	14.0	-2.7	13	15.4	-3.5	27	17.9	-1.9	6	-5.2	.2	7	
	70.4	2.2	.4	76.8	1.2	1.4	105.8	1.1	1.2	79.7	1.1	1.7	223.0	.3	1.6		
8	9	15.2	-1.2	25	12.8	1.1	20	32.9	-1.4	20	33.7	.5	11	2.9	-1.7	8	
	96.2	.8	1.2	62.0	.5	1.3	90.7	1.8	1.4	89.2	2.0	1.6	128.9	.9	1.8		
15N																	15N
1	0	.0	.0	0	.0	.0	5	41.3	-6.5	4	-2.8	.5	0	.0	.0	1	
	.0	.0	.0	.0	.0	.0	148.5	1.8	.6	295.2	.2	.8	.0	.0	.0		
2	0	.0	.0	0	.0	.0	0	.0	.0	2	.5	.7	0	.0	.0	2	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	58.0	1.2	.0	.0	.0	.0		
3	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	0	.0	.0	0	.0	.0	1	107.0	-4.5	1	79.0	-6.1	0	.0	.0	5	
	.0	.0	.0	.0	.0	.0	42.0	10.9	.0	41.0	4.1	.0	0	.0	.0		
6	0	.0	.0	8	.0	-.1	17	19.8	-.7	47	11.9	-1.7	34	12.5	-.5	6	
	.0	.0	.0	23.3	.5	.2	36.3	1.3	1.8	54.9	.7	1.2	51.1	.7	1.2		
7	6	32.5	-3.7	32	16.5	-.6	29	22.9	-.8	41	12.7	-1.9	57	5.7	-1.7	7	
	76.1	1.8	1.5	51.2	1.0	.9	59.2	1.3	1.3	83.2	.8	1.0	82.1	.5	1.1		
8	2	8.0	-1.9	7	22.6	5.0	6	55.5	-.2	8	50.0	-.9	12	11.1	.4	8	
	112.7	.5	.1	50.8	1.4	1.0	83.3	1.5	1.4	82.5	1.5	1.3	122.7	1.1	2.4		
10N																	10N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
2	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
3	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	5	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
6	0	.0	.0	3	4.3	-.8	6	9.2	-2.7	8	9.6	-1.2	14	7.3	1.2	6	
	.0	.0	.0	54.3	.3	.4	65.5	.8	.4	58.6	.7	1.1	344.6	.5	1.6		
7	0	.0	.0	4	.0	-2.2	4	1.5	.9	7	-1.0	.8	9	-12.8	.1	7	
	.0	.0	.0	115.8	.5	.5	314.8	.2	1.0	279.3	.2	.5	200.6	.9	1.8		
8	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	8	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5N																	5N
	105E			110E			115E			120E			125E			130E	

TABLE 5 CLIMATOLOGICAL DEFLECTIONS FOR MAY 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E			130E			135E			140E			145E			150E
20N																20N
1	11	8.5	2.5	0	.0	.0	10	.5	1.1	9	10.1	5.5	0	.0	.0	1
	68.2	.8	1.6	.0	.0	.0	22.8	.2	.6	44.7	1.3	1.4	.0	.0	.0	
2	9	6.0	10.7	3	-26.7	3.7	3	-26.3	7.1	9	-13.8	6.9	0	.0	.0	2
	48.7	2.4	1.4	308.7	1.7	1.5	336.3	3.2	1.3	339.5	2.0	1.6	.0	.0	.0	
3	11	-13.1	2.0	1	-9.0	7.9	0	.0	.0	2	-1.0	8.6	0	.0	.0	3
	7.0	.8	1.4	33.0	2.0	.8	.0	.0	.0	58.0	1.9	.6	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	1	144.0	.9	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	5
	42.0	8.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6	5	11.2	-1.3	0	.0	.0	0	.0	.0	1	71.0	-10.0	0	.0	.0	6
	103.4	.8	2.4	.0	.0	.0	.0	.0	.0	68.0	7.2	.0	.0	.0	.0	
7	6	-5.2	.2	3	-12.7	-5.7	7	14.9	2.8	3	50.7	-3.3	5	19.6	-5.5	7
	223.0	.3	1.6	153.7	1.7	1.1	19.0	1.0	.7	79.9	3.7	3.5	91.7	1.7	.5	
8	11	2.9	-1.7	3	30.7	.4	11	12.0	2.6	17	8.6	1.3	0	.0	.0	8
	128.9	.9	1.8	76.0	3.2	2.0	42.9	1.2	1.7	50.2	.6	1.3	.0	.0	.0	
15N																15N
1	0	.0	.0	2	-105.5	-15.1	0	.0	.0	6	-1.0	1.1	0	.0	.0	1
	.0	.0	.0	197.7	5.0	.8	.0	.0	.0	109.3	.2	1.6	.0	.0	.0	
2	0	.0	.0	1	50.0	3.4	0	.0	.0	3	-19.0	1.6	0	.0	.0	2
	.0	.0	.0	150.0	3.3	.0	.0	.0	.0	311.1	1.3	.1	.0	.0	.0	
3	0	.0	.0	4	-21.0	.9	3	-6.0	5.2	0	.0	.0	0	.0	.0	3
	.0	.0	.0	358.4	2.0	2.8	45.1	.8	2.9	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	1	.0	-4.7	3	47.0	5.8	0	.0	.0	0	.0	.0	5
	.0	.0	.0	60.0	1.0	.0	314.8	2.6	.6	.0	.0	.0	.0	.0	.0	
6	34	12.5	-.5	28	7.1	-.9	11	6.3	.3	3	26.3	1.1	0	.0	.0	6
	31.1	.7	1.2	44.4	.5	1.1	357.0	.4	1.1	27.3	.9	1.4	.0	.0	.0	
7	57	5.7	-1.7	28	6.0	-1.3	11	-4.3	-1.1	19	15.3	-.6	14	5.1	-1.4	7
	82.1	.5	1.1	94.0	.5	1.5	176.6	.5	1.9	-.0	.8	1.3	94.4	.4	.8	
8	12	11.1	.4	1	23.0	-13.6	4	-9.8	-.5	16	9.1	-.9	4	14.3	1.5	8
	122.7	1.1	2.4	132.0	3.1	.0	219.7	.7	.5	102.1	.5	1.0	38.2	.7	.4	
10N																10N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	0	.0	.0	1	55.0	-4.9	0	.0	.0	0	.0	.0	5
	0	.0	.0	0	.0	.0	360.0	2.0	.0	0	.0	.0	0	.0	.0	
6	14	7.3	1.2	11	3.1	.5	10	4.1	-2.0	7	5.9	4.1	3	32.0	.5	6
	344.6	.5	1.6	356.3	.3	.9	69.1	.5	.7	307.7	1.0	1.2	19.2	1.7	.7	
7	9	-12.8	.1	10	-3.8	-.9	8	1.9	2.6	2	9.5	-1.9	8	19.3	.2	7
	200.6	.9	1.8	157.2	.2	.8	321.8	.4	1.5	81.8	.7	.1	50.3	1.2	.5	
8	0	.0	.0	0	.0	.0	1	-16.0	8.9	0	.0	.0	2	-14.0	.0	8
	.0	.0	.0	.0	.0	.0	283.0	2.2	.0	.0	.0	.0	224.0	.7	.1	
5N																5N
	125E			130E			135E			140E			145E			150E

TABLE 9 CLIMATOLOGICAL DEFLECTIONS FOR JUN 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			130E
30N																30N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3	1.0	2.0	1
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.2	.4	.0	
2	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	8.6	-1.3	5	23.8	-.9	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	154.5	.8	2.2	198.6	.6	1.4	
3	.0	.0	.0	.0	.0	.0	1	-1.0	9.5	1	.0	1.0	3	-7.7	-3.0	3
	.0	.0	.0	.0	.0	.0	59.0	2.1	.0	69.0	.3	.0	287.9	.9	.2	
4	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	1	-15.0	15.3	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	95.0	3.4	.0	
5	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	0	.0	.0	5
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	0	.0	.0	6
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	2	37.5	-4.2	7
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	9.0	-2.1	90.3	1.6	.3	8
	.0	.0	.0	.0	.0	.0	.0	.0	.0	109.0	.8	.0	95.0	1.1	.0	
25N																25N
1	0	.0	.0	7	32.4	-.0	12	21.8	3.7	19	11.9	2.0	9	12.4	-3.9	1
	.0	.0	.0	116.5	1.3	.8	90.8	1.3	1.4	101.1	1.2	2.3	146.8	1.4	1.2	
2	.0	.0	.0	9	4.2	.7	15	-.3	7.3	18	7.7	2.7	18	-4.4	1.4	2
	.0	.0	.0	152.4	.5	1.8	50.0	1.4	2.2	83.6	.8	2.0	5.6	.4	1.4	
3	.0	.0	.0	2	-45.0	-9.1	7	-11.3	1.8	11	-7.2	3.4	3	-7.0	2.8	3
	.0	.0	.0	295.1	3.0	.7	342.2	.5	2.2	41.2	.9	1.3	18.5	1.0	.4	
4	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	.0	.0	.0	2	71.0	-5.5	0	.0	.0	0	.0	.0	0	.0	.0	5
	.0	.0	.0	37.0	2.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6	.0	.0	.0	3	48.3	-3.8	5	32.2	-.8	5	26.0	-.2	1	17.0	-11.6	6
	.0	.0	.0	65.8	1.9	1.0	93.5	1.6	1.0	58.2	1.1	2.2	84.0	2.7	.0	
7	1	-5.0	-4.2	15	-1.3	-.9	12	10.8	-1.6	7	8.3	-1.2	11	18.1	-.6	7
	137.0	1.0	.0	127.9	.5	1.5	87.3	.7	1.3	81.1	.6	1.4	68.0	1.3	1.6	
8	0	.0	.0	3	-24.3	1.2	9	9.8	-1.0	29	17.3	3.9	13	10.2	.4	8
	.0	.0	.0	250.6	1.2	1.2	114.0	.9	1.5	61.4	1.4	2.4	73.2	.6	1.3	
20N																20N
1	1	14.0	1.0	7	-7.6	-1.2	4	-17.0	1.7	4	1.5	1.5	6	12.3	2.4	1
	84.0	.9	.0	229.7	.7	1.6	284.4	.8	1.0	159.6	.5	2.4	69.9	.9	1.1	
2	0	.0	.0	4	-15.0	.7	4	-17.8	3.4	3	4.7	.1	5	8.0	-.6	2
	.0	.0	.0	300.4	.5	1.2	336.9	1.1	1.4	147.1	.6	1.5	141.0	.6	.5	
3	0	.0	.0	5	-69.7	-6.9	5	-22.8	-1.5	0	.0	.0	0	.0	.0	3
	.0	.0	.0	279.4	2.8	1.3	305.6	1.0	.5	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	1	-91.0	-4.3	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	326.0	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	3	50.0	-3.3	2	-1.5	-12.6	1	27.0	-1.4	0	.0	.0	0	.0	.0	5
	16.8	2.4	1.0	80.5	2.8	.1	11.0	1.9	.0	.0	.0	.0	.0	.0	.0	
6	0	.0	.0	19	6.5	-1.0	23	14.8	-4.7	17	8.4	1.0	9	15.7	-1.6	6
	.0	.0	.0	49.4	.4	.6	69.2	1.5	1.4	4.6	.3	1.0	45.4	1.1	1.2	
7	5	13.6	-4.9	36	4.4	-1.1	53	9.3	-5.3	77	9.2	1.0	49	8.9	-1.0	7
	99.0	1.8	1.8	78.5	.4	1.4	101.2	1.0	1.7	64.7	.5	1.5	63.0	.7	1.2	
8	1	55.0	-1.3	9	-1.1	.9	12	-9.4	.2	18	25.6	2.1	24	16.3	.4	8
	88.0	3.7	.0	177.8	.3	1.5	215.0	.7	1.8	69.3	1.5	2.0	75.6	1.1	1.3	
15N																15N
	105E			110E			115E			120E			125E			130E

TABLE 10 CLIMATOLOGICAL DEFLECTIONS FOR JUN 1884-1960.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E	130E	135E	140E	145E	150E	
30N							30N
1	3 1.0 2.0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	1
	11.2 .4 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
2	5 23.8 -.9	2 15.0 10.5	5 18.0 6.6	0 .0 .0	0 .0 .0	0 .0 .0	2
	198.6 .6 1.4	67.5 2.5 .3	110.1 2.4 .7	.0 .0 .0	.0 .0 .0	.0 .0 .0	
3	3 -7.7 -3.0	0 .0 .0	0 .0 .0	1 14.0 5.6	0 .0 .0	0 .0 .0	3
	287.9 .9 .2	.0 .0 .0	.0 .0 .0	121.0 2.1 .0	.0 .0 .0	.0 .0 .0	
4	1 -15.0 15.3	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	4
	95.0 3.4 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
5	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	5
	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
6	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	6
	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
7	2 37.5 -4.2	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	7
	90.3 1.6 .3	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
8	1 28.0 -1.7	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	8
	95.0 1.1 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
25N							25N
1	9 12.4 -3.9	15 15.5 4.8	0 .0 .0	4 21.8 6.8	0 .0 .0	0 .0 .0	1
	146.8 1.4 1.2	66.7 1.5 1.1	.0 .0 .0	66.1 2.4 1.1	.0 .0 .0	.0 .0 .0	
2	18 -4.4 1.4	14 2.9 4.6	3 6.7 6.5	0 .0 .0	0 .0 .0	0 .0 .0	2
	5.6 .4 1.4	47.8 1.0 1.6	78.8 1.5 .5	.0 .0 .0	.0 .0 .0	.0 .0 .0	
3	3 -7.0 2.6	2 -9.5 7.5	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	3
	18.5 1.0 .4	26.5 2.1 1.5	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
4	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	4
	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
5	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	5
	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
6	1 17.0-11.6	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	6
	84.0 2.7 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
7	11 18.1 -.6	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	7
	68.0 1.3 1.6	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
8	13 10.2 .4	2 61.5 9.9	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	8
	73.2 .6 1.3	75.8 6.8 1.8	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
20N							20N
1	6 12.3 2.4	4 30.5 8.7	1 22.0 -.1	0 .0 .0	0 .0 .0	0 .0 .0	1
	69.9 .9 1.1	78.0 3.2 2.4	120.0 1.2 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
2	5 8.0 -.6	4 -9.5 -1.2	5 9.4 -.1	3 -2.0 11.3	0 .0 .0	0 .0 .0	2
	141.0 .6 .5	264.5 .5 .8	141.2 .9 1.5	36.7 2.6 2.3	.0 .0 .0	.0 .0 .0	
3	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	3
	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
4	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	4
	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
5	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	0 .0 .0	5
	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
6	9 15.7 -1.6	2 17.5-11.5	3 4.7 -6.4	1 -5.0 .4	0 .0 .0	0 .0 .0	6
	45.4 1.1 1.2	82.6 2.8 .6	87.1 1.4 .6	210.0 .6 .0	.0 .0 .0	.0 .0 .0	
7	49 8.9 -1.0	33 15.8 -1.3	10 7.6 .5	0 .0 .0	0 .0 .0	0 .0 .0	7
	63.0 .7 1.2	74.0 1.1 1.7	57.1 .6 1.5	.0 .0 .0	.0 .0 .0	.0 .0 .0	
8	24 16.3 .4	9 25.6 -3.7	0 .0 .0	2 19.0 -.3	0 .0 .0	0 .0 .0	8
	75.6 1.1 1.3	103.0 1.9 1.9	.0 .0 .0	83.4 1.3 .2	.0 .0 .0	.0 .0 .0	
15N							15N
	125E	130E	135E	140E	145E	150E	

TABLE 11 CLIMATOLOGICAL DEFLECTIONS FOR JUN 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E	110E	115E	120E	125E	130E	
20N							20N
1	1 14.0 1.0 84.0 .9 .0	7 -7.6 -1.2 229.7 .7 1.6	4 -17.0 1.7 284.4 .8 1.0	4 1.5 1.5 154.6 .5 2.4	6 12.3 2.4 69.9 .9 1.1		1
2	0 .0 .0 .0 .0 .0	4 -15.0 .7 300.4 .5 1.2	4 -17.8 3.4 336.9 1.1 1.4	3 4.7 .1 147.1 .6 1.5	5 8.0 -.6 141.0 .6 .5		2
3	0 .0 .0 .0 .0 .0	3 -69.7 -6.9 279.4 2.8 1.3	5 -22.8 -1.5 305.6 1.0 .5	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		3
4	0 .0 .0 .0 .0 .0	1 -91.0 -4.3 326.0 2.8 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		4
5	3 50.0 -3.3 16.8 2.4 1.0	2 -1.5-12.0 80.5 2.8 .1	1 27.0 -1.4 11.0 1.9 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		5
6	0 .0 .0 .0 .0 .0	19 6.5 -1.0 49.4 .4 .8	25 14.8 -4.7 69.2 1.5 1.4	17 8.4 1.0 4.6 .3 1.5	9 15.7 -1.6 45.4 1.1 1.2		6
7	5 13.6 -4.9 99.0 1.8 1.8	36 4.4 -1.1 78.5 .4 1.4	53 9.3 -5.5 101.2 1.0 1.7	77 9.2 -5.5 64.7 .5 1.5	49 8.9 -1.0 63.0 .7 1.2		7
8	1 55.0 -1.3 88.0 3.7 .0	9 -1.1 .9 177.8 .3 1.5	12 -9.4 .2 215.0 .7 1.8	18 25.6 2.1 69.3 1.5 2.0	24 16.3 1.2 75.6 1.1 1.3		8
15N							15N
1	0 .0 .0 .0 .0 .0	3 -48.3 3.6 263.3 3.2 1.2	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		1
2	0 .0 .0 .0 .0 .0	1 -66.0 1.3 278.0 4.3 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		2
3	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		3
4	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		4
5	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		5
6	0 .0 .0 .0 .0 .0	14 .0 .8 14.5 1.1 .3	8 .0 .9 11 -1.2 1.5	25 13.4 .9 14.6 .9 1.1	26 13.6 -1.5 52.4 .9 1.5		6
7	0 .0 .0 .0 .0 .0	2 17.5 2.5 15.1 1.4 .8	287 .0 .3 .0 .0 .0	31 5.5 2.3 357.9 .6 1.3	48 4.4 1.3 29.5 .3 .9		7
8	1 12.0 -4.5 116.0 1.2 .0	2 -4.5 1.5 307.0 .4 .8	0 .0 .0 .0 .0 .0	4 13.5 1.1 62.0 .6 1.4	4 -3.5 4.1 300.0 .9 .9		8
10N							10N
1	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		1
2	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		2
3	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		3
4	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		4
5	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		5
6	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		6
7	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	4 -.3 3.8 289.6 .8 .7		7
8	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		8
5N							5N
	105E	110E	115E	120E	125E	130E	

TABLE 12 CLIMATOLOGICAL DEFLECTIONS FOR JUN 1884-1960.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E	130E	135E	140E	145E	150E	
20N							20N
1	6 12.3 2.4 69.9 .9 1.1	4 50.5 8.7 78.0 3.2 2.4	1 22.0 -.1 120.0 1.2 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		1
2	5 8.0 -.6 141.0 .6 .5	4 -9.5 -1.2 264.5 .5 .8	5 9.4 -.1 141.2 .9 1.5	3 -2.0 11.3 56.7 2.6 2.3	.0 .0 .0 .0 .0 .0		2
3	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0		3
4	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0		4
5	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0		5
6	9 15.7 -1.6 45.4 1.1 1.2	2 17.5-11.3 82.6 2.8 .6	3 4.7 -6.4 87.1 1.4 .6	1 -5.0 .4 210.0 .6 .0	.0 .0 .0 .0 .0 .0		6
7	49 8.9 -1.0 63.0 .7 1.2	33 15.8 -1.3 74.0 1.1 1.7	10 7.6 .5 57.1 .6 1.3	0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0		7
8	24 16.3 .4 75.6 1.1 1.3	9 25.6 -3.7 103.0 1.9 1.9	0 .0 .0 .0 .0 .0	2 19.0 -.3 83.4 1.3 .2	.0 .0 .0 .0 .0 .0		8
15N							15N
1	0 .0 .0 .0 .0 .0	3 -58.3 2.8 255.8 4.1 1.6	1 27.0 1.9 94.0 1.3 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		1
2	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0		2
3	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0		3
4	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0		4
5	.0 .0 .0 .0 .0 .0	1 15.0-10.5 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0		5
6	26 13.6 -1.2 52.4 .9 1.5	57 2.6 33 10.2 -6.0 69.2 1.6 1.7	.0 .0 .0 12 6.7 -2.9 68.5 .8 1.0	.0 .0 .0 9 2.1 -.5 56.2 .2 .4	.0 .0 .0 3 -3.0 -2.2 158.4 .5 .8		6
7	48 4.4 .2 29.5 .3 1.0	48 6.3 .8 64.1 .6 2.7	46 -.6 -.2 167.7 .2 1.9	14 2.4 2.3 296.1 .4 2.3	1 -15.0 4.1 253.0 1.3 .0		7
8	8 -3.5 4.1 300.0 .9 .9	3 -39.7 5.1 240.9 3.5 1.5	3 25.7 5.0 61.5 1.1 1.3	1 -14.0 1.0 254.0 1.2 .0	.0 .0 .0 .0 .0 .0		8
10N							10N
1	0 .0 .0 .0 .0 .0	1 -22.0 1.0 258.0 1.5 .0	.0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0	0 .0 .0 .0 .0 .0		1
2	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0		2
3	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	1 -21.0 5.2 40.0 1.8 .0		3
4	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0		4
5	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0		5
6	.0 .0 .0 .0 .0 -.9	.0 .0 .0 9.7 1.5	.0 .0 .0 -.6 2.4	.0 .0 .0 3 29.3 5.9	.0 .0 .0 .0 .0 .0		6
7	.0 .0 .0 4 -.3 3.8	.0 .0 .0 350.6 .8 1.4	.0 .0 .0 200.5 .6 1.0	.0 .0 .0 356.4 2.2 .5	.0 .0 .0 .0 .0 .0		7
8	289.6 .8 .7 0 .0 .0	217.0 .6 .6 2 -35.5 .9	2.1 .3 .8 2 -5.0 1.4	298.0 1.1 1.1 4 -34.5 4.1	315.0 .4 .0 .0 .0 .0		8
5N	.0 .0 .0	241.7 2.4 .5	284.1 .4 .1	242.8 2.4 .9	.0 .0 .0		5N
	125E	130E	135E	140E	145E	150E	

TABLE 13 CLIMATOLOGICAL DEFLECTIONS FOR JUL 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			130E
30N																30N
1	0	.0	.0	0	.0	.0	0	.0	.0	4	-23.8	-2.3	14	-9.9	-3.6	1
	.0	.0	.0	.0	.0	.0	.0	.0	.0	253.9	1.6	1.5	190.8	1.2	2.3	
2	.0	.0	.0	0	.0	.0	1	21.0	6.8	0	.0	.0	17	-9.4	-1.0	2
	.0	.0	.0	.0	.0	.0	116.0	2.6	.0	.0	.0	.0	243.0	.5	1.7	
3	.0	.0	.0	0	.0	.0	1	7.0	6.3	2	-10.5	-6.1	3	-23.0	2.7	3
	.0	.0	.0	.0	.0	.0	94.0	1.6	.0	282.9	1.6	.8	351.8	1.3	.7	
4	.0	.0	.0	0	.0	.0	0	.0	.0	2	-80.0	-4.5	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	43.3	2.7	.3	.0	.0	.0	
5	.0	.0	.0	3	-4.7	.7	8	-6.1	-.9	2	12.5	-1.8	4	-19.8	-.4	5
	.0	.0	.0	173.5	.3	.2	126.1	.5	.8	17.8	2.4	1.8	117.6	.9	1.5	
6	.0	.0	.0	2	-41.0	17.8	10	-18.6	-.4	15	-6.4	1.3	20	-6.4	-2.5	6
	.0	.0	.0	206.4	5.4	.2	169.5	1.3	1.3	210.4	.4	1.2	120.4	.8	1.7	
7	.0	.0	.0	1	57.0	-12.5	9	1.1	-.4	30	-17.0	3.1	20	-7.6	-2.8	7
	.0	.0	.0	79.0	4.4	.0	185.1	.4	2.3	227.0	1.3	1.9	148.5	.7	1.2	
8	.0	.0	.0	0	.0	.0	2	9.5	-14.5	18	-4.8	-.3	31	-6.4	-2.3	8
	.0	.0	.0	.0	.0	.0	142.7	3.1	.5	191.2	.2	1.6	185.6	.8	1.4	
25N																25N
1	1	20.0	.3	2	17.0	1.3	12	-8.3	.4	22	-16.6	-1.8	51	-4.0	-.8	1
	105.0	1.6	.0	99.6	1.2	.4	201.6	1.1	1.7	225.4	1.1	2.2	218.1	.5	1.8	
2	.0	.0	.0	4	27.8	4.9	23	11.3	.1	17	-22.2	.6	20	-13.6	.3	2
	.0	.0	.0	102.8	2.2	.9	148.5	.6	1.7	296.8	1.1	1.8	292.9	.7	2.0	
3	.0	.0	.0	1	-36.0	3.1	6	2.8	-5.6	9	-21.0	3.1	8	-24.1	8.4	3
	.0	.0	.0	344.0	1.7	.0	234.3	1.0	1.0	7.2	1.4	1.0	11.8	2.1	2.1	
4	.0	.0	.0	0	.0	.0	0	.0	.0	2	-19.5	1.5	1	128.0	-11.7	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	27.3	1.1	.4	357.0	6.2	.0	
5	4	-14.8	-.9	5	-5.6	3.0	5	60.6	-8.8	2	37.5	-5.4	5	11.2	-4.4	5
	53.6	2.1	1.0	201.6	.7	.2	61.6	2.5	1.3	40.8	1.8	.2	48.4	1.1	1.6	
6	3	-.3	-6.3	27	-4.6	-1.5	31	7.9	-1.4	28	8.2	-.3	37	11.0	-3.4	6
	84.6	1.4	.6	157.1	.5	1.4	64.9	.6	1.8	50.1	.5	1.6	63.1	1.4	1.8	
7	12	-13.4	-.6	31	-9.4	1.3	65	-1.7	1.5	101	3.6	.6	71	7.6	-1.8	7
	199.8	.5	.8	226.9	.7	1.0	223.2	.4	2.0	55.2	.1	1.7	84.8	.7	1.5	
8	1	-32.0	2.6	4	-11.5	2.4	31	3.8	1.0	17	-4.4	1.4	76	1.3	-.7	8
	249.0	1.4	.0	273.5	.8	.7	110.2	.2	2.0	253.7	.4	1.6	151.2	.2	1.4	
20N																20N
1	2	22.5	4.9	3	1.0	2.7	6	-5.7	.2	8	19.6	-4.5	14	4.0	2.7	1
	63.6	1.5	.3	353.3	.6	.8	194.6	.6	1.8	146.3	1.3	1.7	7.4	.5	1.5	
2	.0	.0	.0	5	-29.8	5.3	1	14.0	17.6	4	1.3	-6.2	4	-52.3	-2.1	2
	.0	.0	.0	314.3	2.0	2.4	61.0	3.9	.0	209.5	1.2	1.6	206.1	3.3	1.3	
3	.0	.0	.0	1	-54.0	4.6	0	.0	.0	1	-21.0	-1.7	1	-79.0	-4.0	3
	.0	.0	.0	322.0	2.8	.0	0	.0	.0	312.0	1.5	.0	300.0	5.0	.0	
4	.0	.0	.0	0	.0	.0	0	.0	.0	2	-107.5	6.4	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	40.6	5.0	2.1	.0	.0	.0	
5	1	-51.0	-5.3	8	27.5	-1.9	14	14.8	-5.0	5	66.6	1.9	2	3.5	2.5	5
	65.0	1.7	.0	30.0	1.2	3.0	20.4	1.3	1.8	357.8	4.1	1.4	290.5	.6	.9	
6	6	11.7	-4.1	9	9.9	-2.1	62	12.5	-3.4	87	8.2	-.5	79	7.9	-1.6	6
	70.5	1.1	.6	59.1	.7	1.4	59.9	1.2	1.8	55.9	.6	1.5	51.4	.7	1.2	
7	7	24.9	-3.1	74	4.0	-1.1	96	5.5	-1.8	138	1.1	-.1	153	6.2	-1.4	7
	85.8	1.9	2.0	88.1	.4	1.3	101.6	.6	1.8	140.3	.1	1.7	86.3	.6	1.6	
8	8	17.3	-2.0	25	-3.4	-.9	20	-2.3	-.8	32	1.8	-.3	55	6.1	-1.4	8
	115.8	1.2	1.5	183.6	.4	1.5	199.3	.5	1.6	168.5	.5	2.5	110.6	.6	1.5	
15N																15N
	105E			110E			115E			120E			125E			130E

TABLE 14 CLIMATOLOGICAL DEFLECTIONS FOR JUL 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E			130E			135E			140E			145E			150E	
30N																	30N
1	14	-9.9	-3.6	7	-20.4	1.1	0	.0	.0	1	43.0	.2	0	.0	.0	1	
	190.8	1.2	2.3	259.6	1.0	1.3	.0	.0	.0	125.0	4.3	.6	.0	.0	.0		
2	17	-9.4	-1.0	10	6.3	-1.1	2	-10.5	-4.9	3	-28.7	-8.5	3	-17.0	.7	2	
	243.0	.5	1.7	156.6	.4	1.3	245.9	1.1	1.2	263.9	2.5	1.4	271.2	4.4	.6		
3	3	-23.0	2.7	0	.0	.0	0	.0	.0	1	-23.0	-9.4	0	.0	.0	3	
	351.8	1.3	.7	.0	.0	.0	.0	.0	.0	272.0	2.5	.0	.0	.0	.0		
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	4	-19.8	-.4	3	7.0	4.8	0	.0	.0	0	.0	.0	0	.0	.0	5	
	117.6	.9	1.5	308.0	1.4	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0		
6	20	-6.4	-2.5	9	13.6	-4.8	14	1.3	.4	7	-2.1	3.6	1	9.0	-5.8	6	
	120.4	.8	1.7	71.5	1.3	1.4	115.3	.1	1.7	273.4	.7	1.3	51.0	1.1	.0		
7	20	-7.6	-2.8	18	-3.5	-2.4	16	.4	-3.8	10	-18.4	3.2	3	-21.7	3.1	7	
	148.5	.7	1.2	141.3	.6	1.2	136.4	.9	1.4	228.3	1.7	1.7	240.9	1.3	.2		
8	31	-6.4	-2.3	10	8.8	-4.0	5	3.2	-3.4	3	-19.0	-.1	8	-18.3	1.1	8	
	185.6	.8	1.4	135.5	1.2	1.7	131.0	.7	1.5	207.3	1.0	2.0	241.3	1.1	1.2		
25N																	25N
1	51	-4.0	-.8	21	-12.0	.8	11	5.0	.4	2	51.0	.4	2	-30.0	-2.1	1	
	218.1	.5	1.8	270.0	.5	1.4	116.1	.7	2.0	108.2	2.0	.5	242.0	1.2	.1		
2	20	-13.6	.3	13	-12.2	-2.1	8	6.3	-2.7	6	-13.2	.0	4	-28.5	-.6	2	
	292.9	.7	2.0	252.7	.7	1.0	191.3	1.0	1.7	268.2	1.5	2.7	287.1	1.0	.6		
3	8	-24.1	8.4	0	.0	.0	8	6.8	1.3	5	-20.2	.0	0	.0	.0	3	
	11.8	2.1	2.1	.0	.0	.0	146.6	.6	1.4	359.5	1.3	1.2	.0	.0	.0		
4	1	128.0	-11.7	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	337.0	6.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	5	11.2	-4.4	0	.0	.0	5	-2.4	-6.1	0	.0	.0	0	.0	.0	5	
	48.4	1.1	1.6	.0	.0	.0	56.7	2.0	1.2	.0	.0	.0	.0	.0	.0		
6	37	11.0	-3.4	31	8.3	-.7	25	4.0	-.5	19	1.6	-.5	2	-11.0	-.1	6	
	63.1	1.4	1.8	33.2	.6	.9	56.2	.5	1.8	66.1	.4	1.6	187.0	.9	1.3		
7	71	7.6	-1.8	43	7.6	-1.8	31	2.7	-1.4	30	3.8	1.6	12	-11.8	.5	7	
	64.8	.7	1.5	87.1	.6	1.6	127.4	.5	1.6	8.4	.4	1.8	217.9	.9	1.3		
8	76	1.3	-.7	36	.7	2.4	15	16.9	2.1	25	-16.4	3.0	11	-5.6	1.5	8	
	151.2	.2	1.4	316.6	.5	1.9	63.1	1.0	1.8	251.8	1.4	1.9	201.8	.4	1.0		
20N																	20N
1	14	4.0	2.7	6	.5	2.9	4	31.3	-2.4	6	-7.8	-1.0	0	.0	.0	1	
	7.4	.5	1.5	296.2	.2	2.0	155.5	2.1	2.0	210.7	1.1	1.8	.0	.0	.0		
2	4	-52.3	-2.1	5	-12.2	7.2	0	.0	.0	4	-57.3	3.7	0	.0	.0	2	
	266.1	3.3	1.3	353.8	2.0	2.4	.0	.0	.0	246.9	.3	4.2	.0	.0	.0		
3	1	-79.0	-4.0	0	.0	.0	0	.0	.0	3	-103.7	2.7	0	.0	.0	3	
	300.0	5.0	.0	.0	.0	.0	.0	.0	.0	316.6	7.0	1.5	.0	.0	.0		
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	2	3.5	2.5	2	54.0	-7.4	3	14.3	-4.0	2	-1.0	-1.5	0	.0	.0	5	
	290.5	.6	.9	40.9	3.5	1.3	18.3	1.6	1.5	4.9	.4	1.1	.0	.0	.0		
6	79	7.9	-1.6	70	15.6	-1.0	57	7.5	-.5	15	-.1	-2.9	1	-4.0	-5.6	6	
	51.4	.7	1.2	58.0	1.0	1.5	56.6	.5	1.2	75.8	.7	1.3	116.0	1.2	.0		
7	153	6.2	-1.4	93	3.0	-.1	57	-1.4	.0	51	-1.0	.3	8	5.5	3.0	7	
	86.3	.6	1.6	66.6	.2	1.6	179.2	.2	1.7	132.2	.1	1.7	338.5	.8	1.0		
8	55	6.1	-1.4	22	-.3	.8	6	.2	.3	12	1.9	1.4	10	-24.4	-1.3	8	
	110.6	.6	1.5	213.5	.2	1.6	150.2	.5	1.7	88.0	.6	2.2	223.9	2.1	1.2		
15N																	15N
	125E			130E			135E			140E			145E			150E	

TABLE 15 CLIMATOLOGICAL DEFLECTIONS FOR JUL 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER RUN: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			130E
20N																20N
1	2	22.5	4.9	5	1.0	2.7	6	-5.7	.2	8	19.6	-4.5	14	4.0	2.7	1
	63.6	1.5	.3	353.3	.6	.8	194.6	.6	1.8	146.3	1.3	1.7	7.4	.5	1.5	
2	0	.0	.0	5	-29.8	5.3	1	14.0	17.6	4	1.3	-6.2	4	-52.3	-2.1	2
	.0	.0	.0	314.3	2.0	2.4	61.6	3.9	.0	209.5	1.2	1.6	266.1	3.3	1.3	
3	0	.0	.0	1	-54.0	4.6	0	.0	.0	1	-21.0	-1.7	1	-79.0	-4.0	3
	.0	.0	.0	322.0	2.8	.0	.0	.0	.0	312.0	1.5	.6	300.0	5.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	2	-107.5	.4	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	40.6	5.0	2.1	.0	.0	.0	
5	1	-51.0	-5.3	8	27.5	-1.9	14	14.8	-5.0	5	66.6	1.9	2	3.5	2.5	5
	65.0	1.7	.0	30.0	1.2	3.0	20.4	1.3	1.6	357.8	4.1	1.4	290.5	.6	.9	
6	6	11.7	-4.1	69	4.9	-2.1	62	12.5	-3.4	87	8.2	-2.3	79	7.9	-1.6	6
	70.5	1.1	.6	59.1	.7	1.4	59.9	1.2	1.8	55.9	.6	1.5	51.4	.7	1.2	
7	7	24.9	-3.1	74	4.0	-1.1	96	5.5	-1.8	138	1.1	-1.1	153	6.2	-1.4	7
	85.8	1.9	2.0	88.1	.4	1.5	101.6	.6	1.8	140.3	.1	1.7	86.3	.6	1.6	
8	8	17.3	-2.0	25	-3.4	-.9	20	-2.3	-.8	32	1.8	-.3	55	6.1	-1.4	8
	115.8	1.2	1.5	183.6	.4	1.5	199.3	.5	1.6	168.5	.5	2.5	110.6	.6	1.5	
15N																15N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1	-48.0	8.7	1
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	278.0	3.6	.0	
2	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3	-58.0	2.4	3
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	355.7	2.4	3.4	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1	-71.0	12.5	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21.0	5.2	.0	
5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2	-136.0	-1.6	5
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	91.7	5.0	.7	
6	0	.0	.0	4	16.0	-4.4	13	11.7	-4.2	21	17.1	-2.6	31	5.9	-.6	6
	.0	.0	.0	55.1	1.7	1.1	62.6	1.3	1.4	33.6	1.6	1.9	54.2	.4	1.2	
7	0	.0	.0	3	13.0	-8.8	19	5.2	-3.3	21	5.6	-1.5	49	5.4	2.2	7
	.0	.0	.0	96.7	2.1	1.0	30.3	.3	1.4	98.0	.5	1.3	358.5	.6	1.4	
8	0	.0	.0	4	-3.5	8.0	0	.0	.0	1	28.0	2.3	6	3.7	1.4	8
	.0	.0	.0	321.9	1.7	.7	.0	.0	.0	53.0	1.7	.0	354.3	.3	.5	
10N																10N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1	77.0	-10.4	5
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	45.0	3.8	.0	
6	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	20.8	1.2	6
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	.9	1.2	
7	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	7
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	8
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5N																5N
	105E			110E			115E			120E			125E			130E

TABLE 16 CLIMATOLOGICAL DEFLECTIONS FOR JUL 1884-1960.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/HR); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E			130E			135E			140E			145E			150E	
20N																	20N
1	14	4.0	2.7	6	.5	.9	4	31.3	-2.4	6	-7.8	-1.6	0	.0	.0	.0	1
	7.4	.5	1.5	296.2	.2	2.0	135.3	2.1	2.0	210.7	1.1	1.8	.0	.0	.0	.0	
2	4	-52.3	-2.1	5	-12.2	7.2	0	.0	.0	4	-57.3	5.7	0	.0	.0	.0	2
	266.1	3.3	1.3	333.8	2.0	2.4	.0	.0	.0	246.9	.3	4.2	.0	.0	.0	.0	
3	1	-79.0	-4.0	0	.0	.0	0	.0	.0	3	-103.7	2.7	0	.0	.0	.0	3
	300.0	5.0	.0	.0	.0	.0	.0	.0	.0	316.6	7.0	1.5	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	2	3.5	2.5	2	54.0	-7.4	3	14.3	-4.0	2	-1.0	-1.5	0	.0	.0	.0	5
	290.5	.6	.9	40.9	5.5	1.5	18.3	1.6	1.5	4.9	.4	1.1	.0	.0	.0	.0	
6	79	7.9	-1.6	70	13.0	-1.5	57	7.5	-.6	15	-.1	-2.9	1	-4.0	-5.0	.0	6
	51.4	.7	1.2	38.0	1.0	1.5	36.6	.5	1.2	75.8	.7	1.3	116.0	1.2	.0	.0	
7	153	6.2	-1.4	93	3.0	-.1	57	-1.4	.0	51	-1.0	.5	8	5.5	5.0	.0	7
	86.3	.6	1.0	66.6	.2	1.0	179.2	.2	1.7	152.2	.1	1.7	358.5	.8	1.0	.0	
8	55	6.1	-1.4	22	-.3	.8	6	.2	.3	12	1.9	1.4	10	-24.4	-1.3	.0	8
	110.6	.6	1.5	213.5	.2	1.6	150.2	.5	1.7	88.0	.6	2.2	223.9	2.1	1.2	.0	
15N																	15N
1	1	-48.0	8.7	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	1
	278.0	3.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2	0	.0	.0	0	.0	.0	0	.0	.0	3	-81.7	2.7	0	.0	.0	.0	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	261.2	5.6	2.5	.0	.0	.0	.0	
3	3	-38.0	2.4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	3
	355.7	2.4	3.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	1	-71.0	12.5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	4
	21.0	5.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	2	-136.0	-1.6	1	22.0	-.5	6	31.8	2.0	3	40.0	6.2	3	75.0	.0	.5	5
	91.7	5.0	.7	2.0	2.4	1.4	342.2	2.4	1.4	325.3	2.6	1.2	351.9	3.3	1.1	.6	
6	31	5.9	-.6	48	7.0	-1.3	50	-1.1	-1.1	25	10.4	2.9	3	26.0	-.6	.9	6
	34.2	.4	1.2	30.3	1.9	1.3	81.8	.4	1.3	341.7	1.0	1.7	20.2	1.7	.9	.3	
7	49	5.4	2.2	54	1.9	1.2	45	-5.3	1.4	41	-.5	1.7	11	2.1	1.3	.7	7
	358.5	.6	1.4	337.5	.2	1.4	242.2	.6	1.2	290.9	.3	1.6	18.1	.2	1.7	.8	
8	6	3.7	1.4	2	-29.0	-5.5	1	-9.0	.6	11	-16.5	1.2	4	-13.3	7.8	.8	8
	354.3	.3	.5	216.8	3.2	.4	238.0	.6	.0	231.3	1.3	1.9	285.1	2.0	1.8	.0	
10N																	10N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	1
	.0	.0	.0	.0	.0	.0	.0	.0	.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	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	3
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	1	83.0	-.1	0	.0	.0	0	.0	.0	.0	4
	.0	.0	.0	.0	.0	.0	295.0	3.6	.0	.0	.0	.0	.0	.0	.0	.0	
5	1	77.0	-10.4	5	30.8	-1.7	0	.0	.0	0	.0	.0	0	.0	.0	.0	5
	45.0	3.8	.5	3.7	1.5	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6	4	20.8	1.2	5	14.0	.7	0	.0	.0	7	4.1	4.6	5	-2.6	2.6	.6	6
	3.4	.9	1.2	359.2	1.1	1.0	.0	.0	.0	288.2	1.0	1.8	261.8	.2	.8	.0	
7	0	.0	.0	3	-10.0	5.4	1	-1.0	1.1	3	-2.3	-4.1	2	-23.5	-2.1	.7	7
	.0	.0	.0	267.4	1.4	.3	270.0	.5	.0	119.1	1.0	1.2	185.7	1.5	.3	.0	
8	0	.0	.0	1	-19.0	3.0	4	-11.3	2.0	0	.0	.0	0	.0	.0	.0	8
	.0	.0	.0	250.0	1.5	.0	244.3	1.1	1.2	.0	.0	.0	.0	.0	.0	.0	
5N																	5N
	125E			130E			135E			140E			145E			150E	

TABLE 17 CLIMATOLOGICAL DEFLECTIONS FOR AUG 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			130E
30N																30N
1	0	.0	.0	0	.0	.0	0	.0	.0	10	8.6	-2.6	29	5.5	-1.1	1
	.0	.0	.0	.0	.0	.0	.0	.0	.0	149.6	.8	1.5	174.8	.5	1.4	
2	0	.0	.0	0	.0	.0	0	.0	.0	9	55.7	-2.4	30	8.6	-3.5	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	166.2	1.9	1.6	201.2	.9	1.4	
3	0	.0	.0	0	.0	.0	0	.0	.0	3	-13.7	2.1	18	-9.5	-2.3	3
	.0	.0	.0	.0	.0	.0	.0	.0	.0	320.3	.6	1.4	288.1	.6	1.6	
4	0	.0	.0	0	.0	.0	2	-118.5	-5.1	3	-13.7	2.9	4	-97.0	-1.4	4
	.0	.0	.0	.0	.0	.0	4.1	3.7	1.2	64.4	1.0	.5	52.5	3.0	1.4	
5	0	.0	.0	0	.0	.0	4	-58.3	-4.0	9	26.6	-2.9	14	-39.4	-6.5	5
	.0	.0	.0	.0	.0	.0	77.6	2.0	1.7	80.0	1.6	1.7	81.3	2.4	1.2	
6	0	.0	.0	0	.0	.0	11	-22.3	-4.6	33	5.5	-2.7	27	-10.7	-1.1	6
	.0	.0	.0	.0	.0	.0	112.1	1.7	2.5	103.8	.7	1.5	143.4	.6	1.5	
7	0	.0	.0	1	18.0	-12.9	23	7.1	-.8	36	-7.1	-1.7	55	.7	-1.5	7
	.0	.0	.0	114.0	2.9	.0	106.8	.6	2.1	175.4	.8	1.5	139.0	.7	1.7	
8	0	.0	.0	0	.0	.0	4	15.5	-2.5	13	-12.0	1.3	29	.6	-2.2	8
	.0	.0	.0	.0	.0	.0	168.0	1.4	2.2	243.5	.9	1.3	168.2	.9	1.8	
25N																25N
1	0	.0	.0	6	-25.0	-.9	9	-6.9	1.2	28	-2.8	.6	45	-1.6	.9	1
	.0	.0	.0	241.8	1.4	1.5	323.8	.3	1.3	201.6	.2	1.5	229.1	.4	2.1	
2	0	.0	.0	4	-2.5	-1.3	4	-2.5	1.3	15	-23.3	-4.7	25	-11.9	-.3	2
	.0	.0	.0	260.9	.5	1.1	156.7	.6	1.8	251.6	1.3	1.7	268.1	.8	1.8	
3	0	.0	.0	7	-15.1	-3.4	5	-33.0	-1.5	19	-18.8	-1.9	7	-17.9	-4.1	3
	.0	.0	.0	295.7	1.0	.6	513.2	1.3	.6	307.8	1.1	1.5	276.3	1.5	2.0	
4	0	.0	.0	0	.0	.0	4	-58.5	-2.9	0	.0	.0	2	-65.0	6.1	4
	.0	.0	.0	.0	.0	.0	26.4	2.2	1.6	.0	.0	.0	26.1	3.8	1.3	
5	3	18.3	-.2	3	5.3	.5	6	-41.6	-3.8	4	58.3	-5.5	4	-5.5	-.7	5
	352.1	.9	.5	265.5	1.2	.4	74.0	2.6	1.9	9.9	1.8	1.7	121.1	.2	.3	
6	5	-11.8	-3.5	31	-2.1	.3	44	-6.9	1.1	40	.9	.7	28	8.8	-.8	6
	112.3	.9	1.2	186.0	.3	1.8	203.1	.4	1.3	295.8	.1	1.4	55.8	.7	1.5	
7	4	.8	.1	23	-4.3	-.8	65	-6.7	-.1	109	.5	.7	99	5.2	-.4	7
	122.2	.2	1.3	158.8	.4	1.5	192.5	.6	1.7	143.4	.4	1.6	122.0	.3	1.8	
8	0	.0	.0	10	-10.6	.7	10	4.5	-1.8	67	6.3	.0	71	3.7	-1.9	8
	.0	.0	.0	226.0	.9	2.0	178.0	.6	1.7	120.4	.3	1.5	137.9	.6	1.5	
20N																20N
1	0	.0	.0	5	-41.2	4.5	4	-12.5	1.0	1	4.0	-.0	9	10.7	.5	1
	.0	.0	.0	272.6	2.2	2.0	285.8	.4	1.1	90.0	.2	.0	121.2	.8	2.1	
2	0	.0	.0	2	-15.0	5.0	8	-22.0	4.6	0	.0	.0	1	49.0	-4.6	2
	.0	.0	.0	357.0	1.1	.8	7.4	.9	1.8	.0	.0	.0	156.0	3.4	.0	
3	1	-6.0	2.9	1	-17.0	5.5	6	-21.0	1.9	1	-128.0	.4	1	-2.0	.4	3
	52.0	.7	.0	27.0	1.5	.0	346.3	1.4	1.2	276.0	4.1	.0	360.0	.2	.0	
4	0	.0	.0	1	-160.0	-5.3	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	2.0	5.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	4	68.3	-7.7	20	18.5	-5.8	6	28.3	-1.8	8	25.5	-9.0	14	13.1	-3.3	5
	45.1	2.9	2.1	46.5	1.1	1.3	11.0	1.3	1.0	49.6	2.3	1.4	25.8	1.4	2.1	
6	9	13.0	-.7	86	1.0	-.6	77	6.8	-2.5	67	4.0	-1.5	58	7.1	-.9	6
	57.5	.6	.9	61.8	.3	1.5	66.0	.7	1.1	53.7	.4	1.5	48.2	.6	1.6	
7	9	5.2	-1.0	55	-4.0	-.6	52	-.0	-1.2	88	4.2	1.1	105	7.6	.3	7
	69.7	.3	.9	165.1	.5	1.6	120.2	.3	1.5	12.7	.2	1.6	49.0	.4	1.6	
8	4	-23.8	2.4	25	-5.4	.9	5	-17.3	1.8	14	8.4	.7	39	6.3	1.8	8
	248.8	1.4	1.8	246.2	.3	1.3	257.7	.5	1.0	68.0	.6	1.5	78.2	.3	2.0	
15N																15N
	105E			110E			115E			120E			125E			130E

TABLE 18 CLIMATOLOGICAL DEFLECTIONS FOR AUG 1884-1960.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E			130E			135E			140E			145E			150E	
30N																	30N
1	24	5.5	-1.1	7	-6.9	-2.0	5	8.2	-4.5	15	31.7	-4.5	3	-20.3	-.9	1	
	174.8	.5	1.4	191.1	.7	1.2	176.3	1.5	2.3	142.9	1.8	2.1	257.1	.9	1.5		
2	30	8.6	-3.5	12	-15.1	-2.9	5	13.2	-4.4	7	28.9	-2.8	1	81.0	-5.6	2	
	201.2	.9	1.4	252.6	1.3	2.1	173.9	1.4	1.1	162.4	1.6	1.7	212.0	2.3	.0		
3	18	-9.5	-2.5	8	-1.3	-2.9	8	11.3	2.0	6	.3	-5.7	1	90.0	-7.7	3	
	288.1	.6	1.0	259.0	.7	1.9	158.7	.8	1.6	264.7	1.4	2.0	252.0	2.6	.0		
4	4	-97.0	-1.4	0	.0	.0	1	18.0	7.2	1	-9.0	1.6	2	-38.5	1.8	4	
	32.5	3.0	1.4	.0	.0	.0	162.0	2.0	.0	57.0	.5	.0	18.0	1.9	.4		
5	14	-39.4	-6.5	4	-5.8	1.0	11	18.2	.7	3	13.0	4.6	0	.0	.0	5	
	81.3	2.4	1.2	184.8	.4	1.4	343.4	.9	1.5	284.1	1.2	.9	0	.0	.0		
6	27	-10.7	-1.1	21	7.8	-4.2	12	5.4	.7	10	11.7	-.8	7	-3.9	-2.9	6	
	143.4	.6	1.3	79.4	1.0	1.5	341.7	.4	.8	28.8	.7	1.5	121.5	.7	1.0		
7	55	.7	-1.5	31	.0	-2.8	15	-2.4	-2.4	12	-5.0	-.5	0	.0	.0	7	
	139.0	.7	1.7	144.4	.9	1.8	157.4	1.0	1.8	185.7	.4	1.4	0	.0	.0		
8	29	.6	-2.2	23	-12.1	-.8	15	-22.3	-5.6	15	-24.4	4.5	2	-59.5	-9.5	8	
	168.2	.9	1.8	205.8	.7	1.6	175.3	1.9	1.9	262.8	1.8	1.2	183.4	2.5	.8		
25N																	25N
1	45	-1.6	.9	20	-14.5	2.9	22	-13.5	-.5	17	-5.1	-2.0	9	-11.1	6.3	1	
	229.1	.4	2.1	282.0	.8	2.1	241.7	.8	1.8	205.8	.6	1.5	328.2	1.6	1.6		
2	25	-11.4	-.3	13	-15.5	2.6	7	2.0	-.8	5	-14.4	6.4	4	-38.8	-.4	2	
	208.1	.8	1.8	314.4	.5	2.3	186.6	.6	2.0	347.1	1.2	3.1	276.7	2.1	1.0		
3	7	-17.9	-4.1	8	-34.8	-2.3	1	-23.0	4.9	0	.0	.0	0	.0	.0	3	
	276.3	1.5	2.0	304.5	1.8	2.7	18.0	1.5	.0	.0	.0	.0	.0	.0	.0		
4	2	-65.0	6.1	2	-40.5	-4.6	0	.0	.0	0	.0	.0	0	.0	.0	4	
	26.1	3.8	1.3	349.5	2.8	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	4	-5.5	-.7	1	52.0	-8.9	0	.0	.0	7	27.0	5.5	4	23.5	-5.4	5	
	121.1	.2	.3	58.0	2.4	.0	.0	.0	.0	319.7	1.4	1.2	22.5	1.0	.9		
6	28	8.8	-.8	21	8.0	-2.3	14	9.7	-2.5	2	39.0	1.3	5	33.0	-3.5	6	
	55.8	.7	1.5	62.1	1.1	2.5	51.7	.9	1.5	58.0	1.2	2.0	46.6	2.1	1.2		
7	99	3.2	-.4	96	3.5	-.5	51	4.3	-1.6	31	.4	1.0	7	-4.6	-1.2	7	
	122.0	.3	1.8	73.7	.3	1.7	100.4	.6	1.8	262.2	.2	1.7	191.4	.6	1.2		
8	71	3.7	-1.9	32	5.3	-.1	31	-1.2	-1.3	29	1.5	-1.4	7	21.1	5.3	8	
	137.9	.6	1.5	129.1	.6	2.1	169.0	.5	1.7	156.2	.5	1.8	49.0	2.0	1.4		
20N																	20N
1	9	10.7	.5	4	-15.5	-.4	13	-6.8	5.5	11	-1.9	-.4	9	-3.0	.6	1	
	121.2	.8	2.1	231.3	1.0	1.9	330.8	.6	2.1	194.7	.6	2.5	212.6	.6	2.2		
2	1	49.0	-4.6	3	-33.0	-3.5	3	-14.3	-1.7	1	-43.0	-1.1	1	74.0	-4.6	2	
	156.0	3.4	.0	247.8	2.0	3.1	252.2	1.0	1.1	293.0	5.9	.0	171.0	3.7	.0		
3	1	-2.0	.4	3	-28.3	7.8	4	-37.8	-5.0	0	.0	.0	3	52.0	-3.1	3	
	360.0	.2	.0	15.8	4.2	1.6	312.9	5.2	2.5	.0	.0	.0	222.0	2.0	.8		
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2	89.0	-3.4	4	
	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	270.9	3.0	.4		
5	14	13.1	-5.5	3	2.3	-5.0	1	49.0	-3.2	1	28.0	-2.1	2	61.0	-10.4	5	
	25.8	1.4	2.1	68.3	1.2	1.3	25.0	1.6	.0	5.0	1.0	.0	45.7	3.4	.4		
6	58	7.1	-.9	75	3.9	.5	61	6.1	-.2	27	4.0	.3	5	29.6	-.9	6	
	48.2	.6	1.6	6.0	.3	1.1	21.4	.5	1.2	11.3	.3	1.3	55.5	1.3	2.0		
7	105	7.6	.3	73	5.8	-.8	94	2.0	.5	58	-1.6	1.8	24	-2.3	4.5	7	
	49.0	.4	1.6	76.3	.4	1.4	339.8	.1	1.3	252.6	.3	1.9	293.4	.9	2.0		
8	39	6.3	1.8	16	-7.8	3.1	11	1.0	-2.3	18	-5.4	1.7	23	-11.3	1.8	8	
	78.2	.3	2.0	279.2	.7	1.4	149.3	.7	1.7	242.6	.6	2.0	262.9	.4	1.5		
15N																	15N
	125E			130E			135E			140E			145E			150E	

TABLE 19 CLIMATOLOGICAL DEFLECTIONS FOR AUG 1954-1960.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

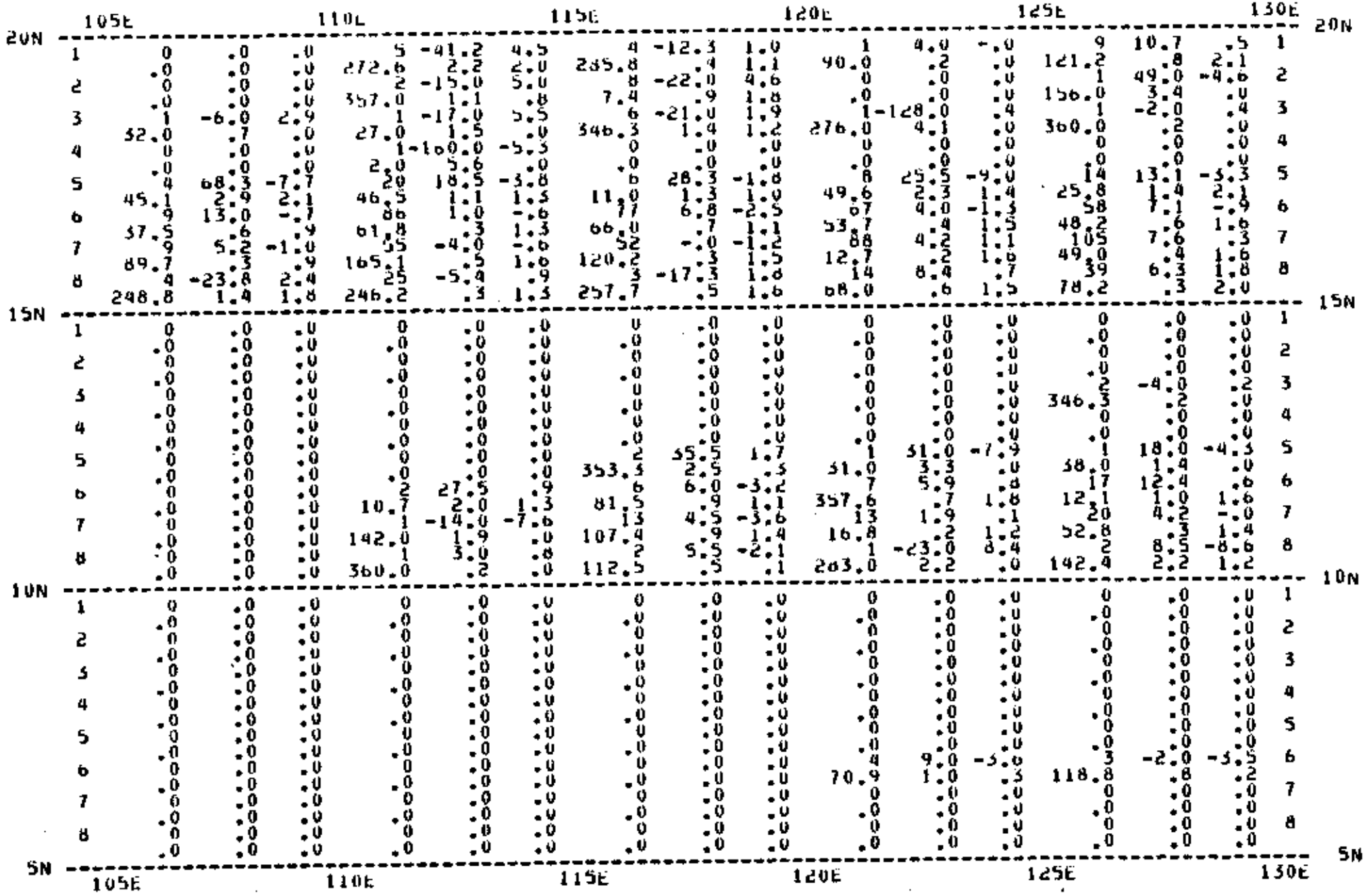

TABLE 20 CLIMATOLOGICAL DEFLECTIONS FOR AUG 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER RUN: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER RUN: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E			130E			135E			140E			145E			150E
20N																20N
1	9	10.7	.5	4	-15.5	-.4	15	-6.8	3.5	11	-1.9	-.4	9	-3.0	.6	1
	121.2	.8	2.1	251.3	1.0	1.9	350.8	.6	2.1	194.7	.6	2.3	212.6	.6	2.2	
2	1	49.0	-4.6	3	-53.0	-3.5	3	-14.3	-1.7	1	-43.0	-1.1	1	74.0	-4.6	2
	156.0	3.4	.0	247.8	2.0	3.1	252.2	1.0	1.1	293.0	5.9	.0	171.0	3.7	.0	
3	1	-2.0	.4	3	-28.3	7.8	4	-57.8	-5.0	0	.0	.0	3	52.0	-3.1	3
	360.0	.2	.0	15.8	4.2	1.8	512.9	5.2	2.3	.0	.0	.0	222.0	2.0	.8	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2	89.0	-5.4	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	270.9	3.0	.4	
5	14	13.1	-3.3	3	2.3	-5.0	1	49.0	-3.2	1	28.0	-2.1	2	61.0	-10.4	5
	25.8	1.4	2.1	68.3	1.2	1.3	25.0	1.6	.0	5.0	1.0	.0	45.7	3.4	.4	
6	58	7.1	-.9	75	3.9	.5	61	6.1	-.2	27	4.0	.3	5	29.6	.9	6
	48.2	.6	1.6	6.0	.3	1.1	21.4	.5	1.2	11.3	.3	1.3	55.5	1.3	2.0	
7	105	7.6	.3	73	3.8	-.8	94	2.0	.5	58	-1.6	1.8	24	-2.3	4.5	7
	49.0	.4	1.8	76.3	.4	1.4	359.8	.1	1.3	252.6	.3	1.9	293.4	.9	2.0	
8	39	6.3	1.8	16	-7.8	3.1	11	1.0	-2.3	18	-5.4	1.7	23	-11.3	1.8	8
	78.2	.3	2.0	279.2	.7	1.4	149.3	.7	1.7	242.6	.6	2.0	262.9	.4	1.5	
15N																15N
1	0	.0	.0	1	-20.0	-13.4	2	-39.0	-.1	4	-14.3	5.0	0	.0	.0	1
	.0	.0	.0	202.0	3.2	.0	234.1	3.0	2.9	297.9	1.0	.9	.0	.0	.0	
2	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3	2	-4.0	.2	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3
	346.3	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	1	18.0	-4.3	1	39.0	-2.6	0	.0	.0	0	.0	.0	0	.0	.0	5
	38.0	1.4	.6	12.0	5.7	.0	0	.0	.0	0	.0	.0	0	.0	.0	
6	17	12.4	.6	28	14.7	-1.0	33	2.7	.3	32	12.1	.7	0	.0	.0	6
	12.1	1.0	1.6	58.0	1.1	1.5	352.1	.2	.4	7.0	.9	1.2	0	.0	.0	
7	20	4.2	-.8	26	2.8	.9	51	-1.9	.3	39	9.1	.8	5	-.3	.7	7
	52.8	.3	1.4	357.9	.2	1.2	199.4	.2	1.1	29.0	.5	1.4	158.1	.2	1.0	
8	2	8.5	-8.6	8	-1.9	1.0	7	-.7	8.0	7	25.1	2.1	7	-11.0	2.7	8
	142.4	2.2	1.2	297.7	.2	.7	354.4	.8	2.3	63.1	1.8	1.5	256.1	1.0	1.2	
10N																10N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3	.0	.0	.0	.0	.0	.0	1	12.0	-1.8	2	12.0	-1.3	.0	.0	.0	3
	.0	.0	.0	.0	.0	.0	203.0	.9	.0	206.1	.8	.1	.0	.0	.0	
4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	.0	.0	.0	.0	.0	.0	1	99.0	-3.1	1	12.0	0	.0	.0	.0	5
	.0	.0	.0	.0	.0	.0	12.0	7.0	.0	297.0	1.6	.0	.0	.0	.0	
6	3	-2.0	-3.5	8	18.6	-2.2	9	5.3	-7.2	9	14.9	3.8	3	13.7	5.2	6
	118.8	.8	.2	36.6	1.4	.2	82.7	1.6	1.9	345.4	1.4	1.7	357.5	1.5	1.7	
7	.0	.0	.0	1	11.0	4.9	1	18.0	4.4	0	.0	.0	0	.0	.0	7
	.0	.0	.0	348.0	1.4	.0	360.0	1.8	.0	.0	.0	.0	.0	.0	.0	
8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5N																5N
	125E			130E			135E			140E			145E			150E

TABLE 21 CLIMATOLOGICAL DEFLECTIONS FOR SEP 1884-1960.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			130E	
30N																	30N
1	0	.0	.0	1	19.0	.1	1	56.0	1.7	11	12.3	.5	10	-2.2	-4.7	1	
	.0	.0	.0	112.0	1.0	.0	94.0	1.4	.0	112.4	.9	1.4	163.3	1.5	2.1		
2	.0	.0	.0	1	13.0	.2	0	.0	.0	5	4.4	-1.9	14	-8.9	-1.9	2	
	.0	.0	.0	116.0	.7	.0	.0	.0	.0	177.9	.6	1.0	240.1	.4	1.1		
3	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
4	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	.0	.0	.0	0	.0	.0	2	-10.5	-9.1	9	-6.4	-2.0	1	-1.0	5.1	5	
	.0	.0	.0	.0	.0	.0	75.8	2.4	.5	104.5	.7	2.1	252.0	.7	.0		
6	.0	.0	.0	1	14.0	.3	5	3.8	-6.8	22	-7.4	1.3	25	-2.1	.2	6	
	.0	.0	.0	360.0	.6	.0	86.1	1.5	1.0	195.1	.6	1.0	177.5	1.3	1.3		
7	.0	.0	.0	0	.0	.0	4	1.3	-3.7	15	1.4	-1.3	12	13.8	-3.3	7	
	.0	.0	.0	.0	.0	.0	101.3	1.0	1.2	120.8	.4	1.3	125.8	1.2	2.3		
8	.0	.0	.0	0	.0	.0	5	14.8	-1.6	9	4.9	-3.0	13	13.0	-.5	8	
	.0	.0	.0	.0	.0	.0	105.2	.9	1.2	140.7	1.1	1.7	121.5	.7	2.2		
25N																	25N
1	0	.0	.0	3	-2.7	1.0	8	10.4	.5	23	11.0	.9	29	9.3	1.5	1	
	.0	.0	.0	327.5	.2	1.1	139.7	.3	2.1	111.1	1.0	2.0	103.2	.6	2.2		
2	.0	.0	.0	0	.0	.0	4	2.7	.2	17	-6.2	2.2	24	-5.5	2.2	2	
	.0	.0	.0	.0	.0	.0	105.9	.5	1.8	102.4	.3	2.1	319.5	.2	.8		
3	.0	.0	.0	0	.0	.0	2	.5	.7	6	-15.0	3.0	0	.0	.0	3	
	.0	.0	.0	.0	.0	.0	65.9	1.6	.6	2.9	1.2	1.2	.0	.0	.0		
4	.0	.0	.0	1	82.0	2.5	0	.0	.0	0	.0	.0	1	111.0	-.3	4	
	.0	.0	.0	292.0	5.3	.0	.0	.0	.0	.0	.0	.0	305.0	3.5	.0		
5	1	1.0	-5.4	16	1.4	-2.0	17	-.3	-4.9	8	6.5	-5.0	10	-3.3	.5	5	
	60.0	1.2	.0	54.6	.8	1.4	68.6	1.2	1.4	64.1	.8	1.5	182.2	.2	.9		
6	3	-16.0	-3.9	32	-5.3	-3.2	46	-5.2	-2.2	38	6.1	-2.0	42	8.4	-1.5	6	
	120.3	1.5	1.6	102.2	.9	1.5	120.3	.7	1.6	71.3	.8	1.8	76.3	.6	1.4		
7	6	15.7	2.0	27	-5.2	-1.6	47	5.8	-.1	93	4.7	.8	77	11.4	-1.0	7	
	17.6	1.0	.4	141.1	.6	1.4	96.0	.4	1.8	78.4	.3	1.9	83.4	.7	1.7		
8	0	.0	.0	3	35.7	-6.0	22	12.2	1.5	74	6.0	.9	42	28.8	.1	8	
	.0	.0	.0	110.9	2.5	.6	89.9	1.0	2.2	96.2	.6	2.4	89.9	1.6	2.1		
20N																	20N
1	2	-17.5	1.5	3	-37.3	-1.0	3	.7	-5.4	11	-6.3	1.4	8	-10.3	7.0	1	
	285.9	.7	.1	248.9	1.7	1.4	195.0	.7	.4	284.4	.5	1.2	313.6	.9	2.8		
2	0	.0	.0	0	.0	.0	6	4.3	-.0	1	-44.0	-3.8	7	3.3	.2	2	
	.0	.0	.0	.0	.0	.0	125.8	.1	.7	254.0	2.9	.0	129.9	.3	1.2		
3	0	.0	.0	5	-103.2	-14.8	2	-59.5	-1.5	0	.0	.0	0	.0	.0	3	
	.0	.0	.0	279.3	6.3	1.8	307.4	1.2	.4	.0	.0	.0	.0	.0	.0		
4	0	.0	.0	4	1.0	-1.3	1	139.0	-8.8	0	.0	.0	1	119.0	.4	4	
	.0	.0	.0	19.3	.3	.3	290.0	2.6	.9	.0	.0	.0	329.0	4.9	.0		
5	4	11.8	-1.8	28	11.2	-2.5	22	12.8	.7	12	4.4	-5.9	5	27.2	-.5	5	
	15.1	.8	.9	31.6	.8	1.7	336.0	.6	1.5	51.9	1.0	1.1	13.1	1.2	1.7		
6	16	-5.0	-2.7	143	1.3	-.5	179	4.6	-1.9	142	2.3	-.1	88	8.3	-1.7	6	
	108.5	.7	1.2	59.9	.2	1.4	76.4	.5	1.0	63.7	.2	1.4	57.0	.6	1.1		
7	4	-4.3	-2.2	85	-1.1	.1	97	.9	-.5	150	-1.3	-.8	150	3.8	-.6	7	
	148.0	.6	1.2	163.9	.3	1.8	152.5	.3	1.7	157.3	.4	1.6	97.7	.3	1.7		
8	0	.0	.0	9	-28.0	-2.2	15	-3.1	-1.6	23	1.8	-.1	36	15.1	1.0	8	
	.0	.0	.0	205.8	1.4	1.4	174.0	.4	.8	104.2	.2	1.2	73.3	.8	1.7		
15N																	15N
	105E			110E			115E			120E			125E			130E	

TABLE 22 CLIMATOLOGICAL DEFLECTIONS FOR SEP 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E			130E			135E			140E			145E			150E	
30N																	30N
1	10	-2.2	-4.7	18	28.7	-4.6	9	48.0	-6.5	7	-6.9	1.2	4	14.0	-.5	1	
	163.3	1.5	2.1	165.7	1.7	2.5	164.4	2.6	4.2	171.2	.5	2.7	115.1	.4	.9		
2	14	-8.9	-1.9	15	11.9	1.3	5	17.7	-3.5	4	50.3	-3.2	1	-17.0	.3	2	
	240.1	.4	1.1	113.4	.7	1.1	180.0	1.0	.4	221.7	1.3	2.4	298.0	1.3	.0		
3	0	.0	.0	0	.0	.0	1	52.0	1.2	2	59.5	-2.9	0	.0	.0	3	
	.0	.0	.0	.0	.0	.0	168.0	1.2	.0	245.1	2.7	2.7	.0	.0	.0		
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	1	-1.0	3.1	6	23.0	-3.8	0	.0	.0	8	14.8	1.0	1	6.0	.6	5	
	252.0	.7	.0	27.3	1.6	1.0	.0	.0	.0	341.8	.8	.7	329.0	.3	.0		
6	25	-2.1	.2	13	12.8	-3.7	21	7.0	-3.9	7	5.1	-.6	0	.0	.0	6	
	177.5	.3	1.6	73.5	1.1	1.6	93.2	1.0	1.0	51.7	.3	1.1	.0	.0	.0		
7	12	13.8	-3.3	20	7.0	-.0	12	-3.1	-2.5	5	-13.0	-.3	8	6.3	-1.2	7	
	125.8	1.2	2.0	80.4	.5	1.9	157.5	1.0	1.8	196.4	.7	1.3	93.6	.6	1.1		
8	13	13.0	-.5	2	34.5	-4.4	6	15.2	-2.7	11	-23.2	-3.0	9	15.2	-3.3	8	
	121.5	.7	2.2	127.0	1.3	1.1	104.4	1.5	1.9	191.9	1.7	2.2	117.5	1.0	1.0		
25N																	25N
1	29	9.3	1.5	14	14.1	5.4	24	8.5	2.6	23	10.5	2.4	4	-38.5	1.1	1	
	103.2	.6	2.2	49.0	1.2	1.9	82.2	.6	2.3	74.7	.6	2.1	260.7	1.7	1.2		
2	24	-5.5	2.2	14	-16.1	1.3	8	-28.9	.5	10	-8.6	5.0	2	-53.0	-.1	2	
	319.5	.2	2.8	302.5	.8	2.6	270.7	3.6	0.5	7.2	1.3	1.0	274.8	2.5	2.4		
3	0	.0	.0	4	-2.8	9.5	3	10.3	-1.5	3	-9.7	-9.0	0	.0	.0	3	
	.0	.0	.0	21.2	2.1	2.4	263.9	.6	1.0	272.3	2.4	1.5	.0	.0	.0		
4	1	111.0	-.3	0	.0	.0	0	.0	.0	1	20.0	4.4	0	.0	.0	4	
	305.0	3.5	.0	0	.0	.0	0	.0	.0	257.0	1.3	.0	0	.0	.0		
5	10	-3.3	.5	0	.0	.0	4	20.5	.7	4	4.5	5.6	0	.0	.0	5	
	182.2	.2	.9	0	.0	.0	320.8	1.2	1.6	240.3	.8	1.4	0	.0	.0		
6	42	8.8	-1.5	23	5.3	-2.4	20	17.2	-1.5	10	10.5	-1.8	3	3.3	2.4	6	
	76.3	.6	1.4	82.9	.6	1.1	55.9	1.2	2.7	43.4	.9	1.5	319.6	.2	1.4		
7	17	11.4	-1.0	88	5.3	-1.2	56	11.3	-1.5	22	8.1	-.6	13	15.0	-2.0	7	
	83.4	.7	1.7	94.0	.5	1.8	75.0	.9	1.9	63.1	.9	2.0	73.2	.9	.9		
8	42	28.8	.1	47	14.7	-.3	55	11.4	.9	31	-.0	1.0	17	-.6	-.2	8	
	89.9	1.6	2.1	88.4	1.0	1.9	76.8	.8	1.9	10.8	.2	1.6	99.4	.1	1.2		
20N																	20N
1	8	-10.3	7.0	4	-3.0	8.1	5	-22.2	4.6	18	-22.0	5.5	1	52.0	-.0	1	
	313.6	.9	2.8	90.9	1.2	4.5	275.5	1.5	2.5	279.5	1.4	2.0	120.0	2.2	.0		
2	7	3.3	.2	7	-8.1	4.9	5	-57.0	7.3	0	.0	.0	3	-40.0	-4.4	2	
	129.9	.3	1.2	75.1	.6	2.7	285.7	3.1	3.3	.0	.0	.0	267.6	2.4	1.5		
3	0	.0	.0	0	.0	.0	3	-13.0	.6	0	.0	.0	0	.0	.0	3	
	.0	.0	.0	.0	.0	.0	341.6	1.1	.7	.0	.0	.0	.0	.0	.0		
4	1	119.0	.4	3	63.3	-1.9	0	.0	.0	0	.0	.0	0	.0	.0	4	
	329.0	4.9	.0	325.8	2.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	5	27.2	-.5	4	19.0	-9.7	5	53.6	-6.5	2	27.5	.3	2	50.0	3.0	5	
	13.1	1.2	1.7	57.7	2.4	1.5	46.2	2.5	1.9	8.7	2.4	2.0	355.0	3.0	.1		
6	84	8.3	-1.7	62	7.3	-1.2	42	16.2	-.9	45	6.1	.7	16	12.8	-1.0	6	
	57.0	.6	1.1	50.6	.7	1.2	41.6	1.0	2.1	11.5	.4	1.6	42.7	.8	1.2		
7	150	3.8	-.6	100	6.5	-.5	92	6.9	-.5	67	8.7	.1	21	17.2	3.1	7	
	97.7	.3	1.7	65.1	.6	1.8	66.0	.5	1.6	70.5	.6	1.8	17.1	1.0	1.9		
8	36	15.1	1.0	27	-1.6	1.6	31	-6.4	3.9	35	-7.1	.7	12	3.5	4.3	8	
	73.3	.8	1.7	154.8	.2	2.6	290.0	.7	1.8	251.6	.4	1.7	347.6	.8	1.4		
15N																	15N
	125E			130E			135E			140E			145E			150E	

TABLE 23 CLIMATOLOGICAL DEFLECTIONS FOR SEP 1884-1960.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			130E
20N																20N
1	2	-17.5	1.5	3	-57.3	-1.0	5	.7	-5.4	11	-6.3	1.4	8	-10.3	7.0	1
	285.9	.7	.1	248.9	1.7	1.4	195.0	.7	.4	284.4	.5	1.2	313.6	.9	2.8	
2	0	.0	.0	0	.0	.0	6	4.3	-.0	1	-44.0	-5.8	7	3.3	.2	2
	.0	.0	.0	.0	.0	.0	125.8	.1	.7	254.0	2.9	.0	129.9	.3	1.2	
3	0	.0	.0	5	-103.2	-14.8	2	-55.5	-1.5	0	.0	.0	0	.0	.0	3
	.0	.0	.0	279.3	6.3	1.8	307.4	1.2	.4	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	4	1.0	-1.5	1	139.0	-8.8	0	.0	.0	1	119.0	.4	4
	.0	.0	.0	19.5	.3	.3	290.0	2.6	.0	.0	.0	.0	329.0	4.9	.0	
5	4	11.8	-1.8	28	11.2	-2.5	22	12.8	.7	12	4.4	-3.9	5	27.2	-.5	5
	15.1	.8	.9	31.6	.8	1.7	356.0	.6	1.3	51.9	1.0	1.1	13.1	1.2	1.7	
6	16	-5.0	-2.7	143	1.5	-.5	179	4.6	-1.9	142	2.3	-.1	84	8.3	-1.7	6
	108.5	.7	1.2	59.9	.2	1.4	76.9	.5	1.2	63.7	.2	1.4	57.0	.6	1.1	
7	4	-4.3	-2.2	83	-1.1	.1	97	.9	-.5	150	-1.3	-.8	150	3.8	-.6	7
	148.0	.6	1.2	183.9	.3	1.6	152.5	.3	1.7	157.3	.4	1.6	97.7	.3	1.7	
8	0	.0	.0	9	-28.0	-2.2	15	-3.1	-1.6	23	1.8	-.1	36	15.1	1.0	8
	.0	.0	.0	205.8	1.4	1.4	174.0	.4	.8	104.2	.2	1.2	73.3	.8	1.7	
15N																15N
1	0	.0	.0	1	-19.0	2.1	0	.0	.0	0	.0	.0	0	.0	.0	1
	.0	.0	.0	270.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3	-21.7	-4.7	3
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	319.7	1.8	1.5	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1	-48.0	14.9	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	65.0	4.3	.0	
5	0	.0	.0	4	54.3	5.4	2	25.5	-19.5	2	4.5	-7.4	5	18.0	13.1	5
	.0	.0	.0	339.8	5.0	.6	56.5	4.8	.2	63.6	1.7	1.4	286.8	3.1	1.5	
6	2	16.5	-.5	25	7.8	1.2	32	7.6	-2.6	44	9.5	.8	59	9.6	-.9	6
	12.9	1.1	-.1	9.5	.5	1.2	55.3	.8	1.2	12.8	.5	1.4	50.2	.8	1.4	
7	1	1.0	-4.9	15	-1.8	.7	17	1.6	.8	15	1.1	-1.9	57	1.5	.6	7
	113.0	1.0	.0	149.6	.2	1.2	320.1	.2	.6	142.0	.7	1.3	326.4	.1	1.1	
8	0	.0	.0	2	-28.0	2.5	0	.0	.0	2	26.0	-2.5	11	-3.1	.8	8
	.0	.0	.0	254.0	2.2	.4	.0	.0	.0	95.4	1.6	.6	284.0	.2	.6	
10N																10N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	5
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	6
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	7
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	8
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5N																5N
	105E			110E			115E			120E			125E			130E

TABLE 24 CLIMATOLOGICAL DEFLECTIONS FOR SEP 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E			130E			135E			140E			145E			150E	
20N																	20N
1	8	-10.3	7.0	4	-5.0	8.1	5	-22.2	4.6	18	-22.0	5.5	1	32.0	-.0	1	
	313.6	.9	2.8	90.9	1.2	4.5	275.5	1.5	2.5	279.5	1.4	2.0	120.0	2.2	.0		
2	7	3.3	.2	7	-8.1	4.9	3	-57.0	7.3	0	.0	.0	3	-40.0	-4.4	2	
	129.9	.3	1.2	75.1	.6	2.7	285.7	3.1	5.3	.0	.0	.0	267.6	2.4	1.5		
3	0	.0	.0	0	.0	.0	3	-13.0	.6	0	.0	.0	0	.0	.0	3	
	.0	.0	.0	.0	.0	.0	341.6	1.1	.7	.0	.0	.0	.0	.0	.0		
4	1	119.0	.4	3	65.3	-1.9	0	.0	.0	0	.0	.0	0	.0	.0	4	
	329.0	4.9	.0	325.8	2.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	5	27.2	-.5	4	19.0	-9.7	5	33.6	-8.3	2	27.5	-.3	2	50.0	3.0	5	
	13.1	1.2	1.7	57.7	2.4	1.5	48.2	2.5	1.9	8.7	2.4	2.8	355.0	3.0	.1		
6	84	8.3	-1.7	62	7.3	-1.2	42	16.2	-.9	45	6.1	.7	16	12.8	-1.6	6	
	57.0	.6	1.1	50.6	.7	1.2	41.6	1.0	2.1	11.5	.4	1.6	42.7	.8	1.2		
7	150	3.8	-.6	100	6.5	-.5	92	6.9	-.5	67	8.7	.1	21	17.2	3.1	7	
	97.7	.3	1.7	65.1	.6	1.8	66.0	.5	1.6	70.5	.6	1.8	17.1	1.0	1.9		
8	36	15.1	1.0	27	-1.6	1.6	31	-6.4	3.9	35	-7.1	.7	12	3.5	4.3	8	
	73.3	.8	1.7	154.8	.2	2.6	290.0	.7	1.8	231.6	.4	1.7	347.6	.8	1.4		
15N																	15N
1	0	.0	.0	0	.0	.0	5	-21.7	4.0	4	-20.0	1.3	2	-52.0	-1.5	1	
	.0	.0	.0	.0	.0	.0	288.2	1.9	.7	258.7	1.3	1.2	246.0	3.5	1.1		
2	.0	.0	.0	.0	.0	.0	1	-35.0	2.7	0	.0	.0	0	.0	.0	2	
	.0	.0	.0	.0	.0	.0	287.0	3.1	.0	.0	.0	.0	.0	.0	.0		
3	3	-21.7	-4.7	2	-77.0	-14.6	0	.0	.0	1	-8.0	7.3	0	.0	.0	3	
	319.7	1.8	1.5	280.4	4.9	.6	.0	.0	.0	58.0	1.7	.0	.0	.0	.0		
4	1	-48.0	14.9	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	65.0	4.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	5	18.0	13.1	3	14.0	-.4	8	25.0	-1.4	0	.0	.0	0	.0	.0	5	
	286.8	3.1	1.5	356.7	1.0	1.0	11.8	1.3	1.0	.0	.0	.0	.0	.0	.0		
6	59	9.6	-.9	92	10.0	-.3	96	6.0	.8	45	10.1	-.1	13	10.8	1.7	6	
	30.2	.8	1.4	24.6	.7	1.4	355.1	.4	1.2	21.8	.8	1.6	352.3	.9	1.1		
7	57	1.5	.6	28	5.8	-.4	41	.5	.8	60	6.5	1.1	11	-2.2	-.5	7	
	326.4	.1	1.1	56.0	.3	1.1	125.0	.2	1.4	101.4	.1	1.8	168.9	.3	1.3		
8	11	-3.1	.8	4	-5.0	18.2	5	-7.2	3.5	14	1.6	.8	1	-34.0	4.4	8	
	284.0	.2	.6	315.1	4.0	2.1	295.6	.8	1.5	357.5	.0	1.3	255.0	2.3	.0		
10N																	10N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
6	.0	.0	.0	1	15.0	3.1	2	8.5	-2.9	1	15.0	-9.1	0	.0	.0	6	
	.0	.0	.0	351.0	1.2	.0	65.9	.9	.0	68.0	2.4	.0	.0	.0	.0		
7	.0	.0	.0	1	17.0	1.3	1	-7.0	-4.3	1	17.0	1.8	2	4.0	6.2	7	
	.0	.0	.0	15.0	1.1	.0	139.0	1.2	.0	16.0	1.0	.0	313.9	1.4	.8		
8	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	-11.0	4.4	0	.0	.0	8	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	304.2	1.1	.2	.0	.0	.0		
5N																	5N
	125E			130E			135E			140E			145E			150E	

TABLE 25 CLIMATOLOGICAL DEFLECTIONS FOR OCT 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS. THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			130E	
30N																	30N
1	0	.0	.0	0	.0	.0	1	41.0	2.6	1	45.0	-4.6	5	32.6	-.9	1	
	.0	.0	.0	.0	.0	.0	109.0	3.1	.0	151.0	3.1	.0	117.4	1.7	1.2		
2	.0	.0	.0	.0	.0	.0	5	50.3	1.4	6	16.3	7.9	6	10.7	.8	2	
	.0	.0	.0	.0	.0	.0	148.2	4.0	1.3	86.9	2.2	2.0	111.0	.6	.6		
3	.0	.0	.0	.0	.0	.0	1	40.0	4.8	1	15.0	8.2	9	-2.9	.6	3	
	.0	.0	.0	.0	.0	.0	158.0	3.8	.0	140.0	1.9	.0	14.9	.2	.8		
4	.0	.0	.0	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	.0	.0	.0	.0	.0	.0	1	-1.0	.7	0	.0	.0	0	.0	.0	5	
	.0	.0	.0	.0	.0	.0	222.0	.1	.0	.0	.0	.0	.0	.0	.0		
6	.0	.0	.0	.0	.0	.0	0	.0	.0	7	-3.3	-1.5	6	23.3	-2.9	6	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	151.8	.9	1.5	65.3	1.5	1.6		
7	.0	.0	.0	.0	.0	.0	0	.0	.0	0	.0	.0	3	33.7	-2.4	7	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	73.1	2.0	1.9		
8	.0	.0	.0	.0	.0	.0	1	75.0	1.7	2	41.5	-4.6	7	49.3	-.4	8	
	.0	.0	.0	.0	.0	.0	103.0	5.4	.0	109.9	3.1	.2	94.7	2.4	2.3		
25N																	25N
1	1	55.0	15.1	4	40.3	7.9	1	47.0	-5.7	11	23.3	-.9	26	15.6	2.9	1	
	93.0	5.0	.0	90.3	3.8	1.4	128.0	4.5	.0	117.8	1.3	.7	84.8	1.3	1.5		
2	.0	.0	.0	2	38.0	14.2	5	11.6	2.2	9	15.6	-.3	21	14.5	5.0	2	
	.0	.0	.0	105.2	4.9	.8	111.4	1.1	1.2	143.5	.4	1.4	96.2	1.6	1.9		
3	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2	-2.0	4.2	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	57.0	.8	1.7		
4	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	1	8.0	-7.7	4	-8.8	-2.0	4	-8.3	2.1	0	.0	.0	0	.0	.0	5	
	35.0	1.8	.0	118.5	.9	1.4	195.9	.7	.7	.0	.0	.0	.0	.0	.0		
6	.0	.0	.0	9	1.7	.2	27	-5.0	-2.6	16	5.8	-1.1	4	-4.1	-1.1	6	
	.0	.0	.0	119.2	1.1	1.5	121.4	.7	1.3	41.3	.5	1.1	152.3	.3	1.3		
7	.0	.0	.0	13	-2.0	-2.4	25	24.5	-2.4	15	21.5	-2.5	19	21.7	-.9	7	
	.0	.0	.0	132.9	.8	1.5	93.8	1.6	2.2	96.5	1.5	2.5	86.7	1.4	1.8		
8	.0	.0	.0	7	32.4	.6	8	26.3	-3.1	21	19.6	1.1	44	19.4	-1.1	8	
	.0	.0	.0	86.6	1.2	1.2	106.9	1.9	2.1	91.0	1.4	2.4	95.0	1.5	2.0		
20N																	20N
1	0	.0	.0	7	4.6	2.0	6	51.3	1.9	7	18.9	3.4	12	12.5	2.1	1	
	.0	.0	.0	53.6	.4	1.2	117.7	2.4	1.3	55.5	1.5	1.4	71.6	.9	.9		
2	.0	.0	.0	2	-1.0	-7.2	1	70.0	-1.7	4	14.5	-.4	2	-4.2	7.8	2	
	.0	.0	.0	208.7	1.5	.6	173.0	3.9	.0	149.9	.7	.8	30.2	1.7	1.9		
3	.0	.0	.0	0	.0	.0	0	.0	.0	5	9.6	-.3	3	61.0	-4.4	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	245.8	.5	2.2	219.4	2.9	2.4		
4	.0	.0	.0	0	.0	.0	0	.0	.0	2	-19.5	-7.3	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	323.7	1.8	.8	.0	.0	.0		
5	4	14.3	-1.8	17	11.4	.1	20	7.7	-.2	12	15.2	-1.5	6	24.8	-6.5	5	
	15.7	.8	1.1	333.7	.5	1.1	346.4	.5	1.5	11.1	1.0	1.1	24.2	2.0	1.3		
6	10	6.6	-5.3	124	1.8	-2.1	127	-1.0	-2.0	119	2.9	-1.7	92	6.2	-.8	6	
	89.0	1.2	1.4	84.9	.6	1.4	93.7	.5	1.4	92.3	.5	1.4	41.9	.4	1.2		
7	7	30.8	1.4	48	1.7	-.6	119	2.9	-2.4	122	-1.3	-1.2	62	12.7	-2.3	7	
	63.1	1.5	2.4	114.8	.3	1.5	106.4	.7	1.6	152.3	.5	1.8	89.7	1.0	1.9		
8	1	71.0	10.6	15	-17.9	-3.1	17	1.2	-.6	23	-2.5	-1.4	39	14.5	.6	8	
	89.0	5.0	.0	190.6	1.2	1.2	151.6	.7	2.1	162.9	.9	1.9	69.7	.9	1.7		
15N																	15N
	105E			110E			115E			120E			125E			130E	

TABLE 26 CLIMATOLOGICAL DEFLECTIONS FOR OCT 1884-1960.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN Km/h); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (In DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E			130E			135E			140E			145E			150E
50N																50N
1	5	32.6	-.9	2	-47.5	-6.9	4	21.3	1.1	0	.0	.0	0	.0	.0	1
	117.4	1.7	1.2	237.7	3.0	.5	103.5	1.0	1.2	.0	.0	.0	.0	.0	.0	
2	6	10.7	.8	5	22.3	-1.0	7	24.1	-.6	3	20.7	4.9	0	.0	.0	2
	111.0	.6	.6	140.4	2.2	1.8	145.7	2.4	2.2	97.3	1.9	1.8	.0	.0	.0	
3	9	-2.9	.6	4	-5.8	3.2	4	12.3	-4.5	0	.0	.0	0	.0	.0	3
	14.9	.2	.8	40.9	.8	1.8	201.1	1.5	1.1	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	.0	.0	.0	.0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	1	8.0	7.4	3	10.3	-.1	0	.0	.0	0	.0	.0	5
	.0	.0	.0	277.0	1.6	.0	342.6	.5	1.0	.0	.0	.0	.0	.0	.0	
6	6	23.3	-2.9	4	1.5	4.0	0	.0	.0	0	.0	.0	0	.0	.0	6
	65.3	1.5	1.6	267.1	.9	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	3	33.7	-2.4	0	.0	.0	1	119.0	-2.1	0	.0	.0	1	45.0	5.5	7
	73.1	2.0	1.9	.0	.0	.0	91.0	5.3	.0	.0	.0	.0	44.0	2.8	.0	
8	7	49.3	-.4	1	37.0	-2.6	2	16.0	-.6	0	.0	.0	2	19.5	2.4	8
	94.7	2.4	2.3	93.0	2.1	.0	80.0	.9	.6	.0	.0	.0	41.6	1.3	.3	
25N																25N
1	26	15.6	2.9	23	2.8	2.6	37	18.4	1.8	26	9.2	1.5	8	.5	4.2	1
	84.8	1.3	1.5	61.1	.6	1.9	94.0	1.5	1.7	71.9	.7	1.9	20.0	.9	1.0	
2	21	14.5	5.0	24	5.2	4.1	20	8.5	-1.2	6	-12.2	.0	5	9.6	.4	2
	96.2	1.6	1.9	76.2	1.1	2.0	152.7	.7	1.6	349.5	1.8	1.9	142.1	.2	.8	
3	2	-2.0	4.2	4	-4.3	.3	2	-28.5	3.7	1	-18.0	8.0	0	.0	.0	3
	37.0	.8	1.7	344.9	.6	1.4	358.5	2.9	1.4	17.0	2.5	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	2	50.0	-1.5	0	.0	.0	2	14.0	5.7	0	.0	.0	5
	.0	.0	.0	3.7	2.3	1.1	.0	.0	.0	288.9	1.4	.4	.0	.0	.0	
6	9	-4.1	-1.1	8	11.4	-1.5	7	61.7	-5.0	14	13.4	2.5	7	11.4	.1	6
	132.3	.3	1.3	57.0	.6	1.0	49.2	3.2	2.0	349.7	1.0	1.9	41.4	1.1	.2	
7	19	21.7	-.9	27	13.5	1.1	16	54.4	-2.2	10	24.3	.0	3	-6.3	1.6	7
	66.7	1.4	1.8	59.2	.9	2.3	74.3	2.3	2.0	57.2	1.2	1.3	211.7	.5	1.5	
8	44	19.4	-1.1	21	24.9	.5	26	25.1	1.9	17	27.5	.5	9	-14.2	-3.1	8
	95.0	1.5	2.0	62.4	1.7	1.4	68.1	1.8	1.7	75.9	2.0	1.7	194.9	1.2	1.4	
20N																20N
1	12	12.5	2.1	20	8.0	.2	8	2.9	1.8	10	9.0	5.2	16	-14.1	3.2	1
	71.6	.9	.9	108.0	.7	1.3	106.6	.1	2.0	56.8	.9	1.9	313.6	.7	1.9	
2	22	-4.2	7.8	17	-6.1	4.2	1	22.0	.7	6	-20.5	2.7	2	-4.5	.8	2
	30.2	1.7	1.9	12.5	1.0	1.3	113.0	1.0	.0	311.2	1.1	1.7	339.5	.3	.2	
3	3	61.0	-4.4	2	46.0	-6.4	0	.0	.0	0	.0	.0	0	.0	.0	3
	219.4	2.9	2.4	267.8	4.3	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	1	129.0	2.5	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	291.0	6.3	.0	.0	.0	.0	
5	6	24.8	-6.3	6	8.0	2.2	1	5.0	6.0	2	51.0	-1.0	0	.0	.0	5
	24.2	2.0	1.3	320.4	.8	1.0	274.0	1.3	.0	345.1	1.9	1.2	.0	.0	.0	
6	92	6.2	-.8	43	5.7	-.4	46	18.8	-.8	23	-1.3	-2.5	1	51.0	-1.3	6
	41.9	.4	1.2	39.5	.6	1.0	43.7	1.6	2.4	81.9	.8	1.9	33.0	3.0	.0	
7	62	12.7	-2.3	77	14.4	-1.0	69	10.5	-1.6	38	10.1	.4	19	13.4	-1.7	7
	89.7	1.0	1.9	73.1	1.0	2.3	79.9	1.0	1.9	65.2	.6	1.7	67.2	1.0	1.4	
8	34	14.5	.6	20	17.6	.1	41	11.0	.8	36	13.4	-.3	18	-2.3	-.5	8
	69.7	.9	1.7	91.4	1.7	3.1	70.8	.9	1.4	87.5	1.1	1.9	161.3	.3	1.3	
15N																15N
	125E			130E			135E			140E			145E			150E

TABLE 27 CLIMATOLOGICAL DEFLECTIONS FOR OCT 1884-1960. IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KN/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			130E	
20N																	20N
1	0	.0	.0	7	4.6	2.0	6	51.3	1.9	7	18.9	5.9	12	12.5	2.1	1	
	.0	.0	.0	33.6	.4	1.2	117.7	2.4	1.3	55.5	1.5	1.3	71.6	.9	.9		
2	.0	.0	.0	2	-1.0	-7.2	1	70.0	-1.7	4	14.5	-.4	22	-4.2	7.8	2	
	.0	.0	.0	208.7	1.5	.6	173.0	3.9	.0	149.9	.7	.8	50.2	1.7	1.9		
3	.0	.0	.0	0	.0	.0	0	.0	.0	5	9.6	-.5	3	61.0	-4.4	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	245.8	.5	2.2	219.4	2.9	2.4		
4	.0	.0	.0	0	.0	.0	0	.0	.0	2	-19.5	-7.3	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	323.7	1.8	.8	.0	.0	.0		
5	4	14.3	-1.8	17	11.4	.1	20	7.7	-.2	12	15.2	-1.5	6	24.8	-6.3	5	
	15.7	.8	1.1	353.7	.5	1.1	346.4	.5	1.5	11.1	1.0	1.0	24.2	2.0	1.3		
6	10	6.6	-5.3	124	1.8	-2.1	127	-1.0	-2.0	119	2.9	-1.7	92	6.2	-1.8	6	
	89.0	1.2	1.4	84.9	.6	1.4	93.7	.5	1.4	92.3	.5	1.4	41.9	.4	1.2		
7	7	30.4	1.4	48	1.7	-.6	119	2.9	-2.4	122	-1.3	-1.2	62	12.7	-2.3	7	
	63.1	1.5	2.4	114.8	.3	1.5	106.4	.7	1.6	152.3	.5	1.8	89.7	1.0	1.9		
8	1	71.0	10.6	15	-17.9	-3.1	17	1.2	-.6	23	-2.5	-1.4	39	14.5	.6	8	
	89.0	5.0	.0	190.6	1.2	1.2	151.6	.7	2.1	162.9	.9	1.9	69.7	.9	1.7		
15N																	15N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
2	.0	.0	.0	0	.0	.0	0	.0	.0	1	-13.0	5.3	0	.0	.0	2	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.0	1.4	.0	.0	.0	.0		
3	.0	.0	.0	1	-143.0	.6	2	-86.0	1.6	2	-45.0	5.5	0	.0	.0	3	
	.0	.0	.0	270.0	4.8	.6	298.1	3.0	.3	2.2	2.8	.3	.0	.0	.0		
4	.0	.0	.0	0	.0	.0	3	-38.7	-2.4	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	7.9	1.8	.9	.0	.0	.0	.0	.0	.0		
5	.0	.0	.0	10	22.8	.0	17	8.0	-3.0	7	25.1	-3.9	3	29.7	.3	5	
	.0	.0	.0	356.6	1.0	.9	30.9	1.4	1.5	12.5	1.9	1.5	357.0	2.0	1.0		
6	2	7.0	-6.1	67	1.7	-.1	85	2.2	-2.1	82	3.6	-.8	102	8.1	-1.9	6	
	94.0	1.4	.1	50.6	.1	1.2	81.8	.5	1.2	40.2	.4	1.2	48.7	.7	1.3		
7	1	11.0	.7	31	-3.9	-1.0	33	-2.8	-.2	38	-5.2	-.9	50	3.1	-1.4	7	
	18.0	.9	.0	166.3	.4	1.2	181.4	.3	1.5	178.6	.5	1.1	86.5	.5	1.8		
8	0	.0	.0	2	-15.5	-3.0	5	2.6	-4.8	3	-21.3	4.3	2	-3.5	7.7	8	
	.0	.0	.0	189.9	.9	.5	138.6	1.0	.4	247.9	2.0	1.2	313.7	1.6	1.4		
10N																	10N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
6	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	5.3	.0	10	5.9	-.9	6	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.7	.6	.0	27.7	.5	1.2		
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	1.7	-2.2	2	11.5	3.7	7	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	121.0	.5	.4	353.0	1.2	.5		
8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5N																	5N
	105E			110E			115E			120E			125E			130E	

TABLE 26 CLIMATOLOGICAL DEFLECTIONS FOR OCT 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS. THE NUMBERS GIVEN ARE : IN UPPER RUN: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER RUN: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E			130E			135E			140E			145E			150E
20N																20N
1	12	12.5	2.1	20	8.0	-.2	8	2.9	1.6	10	9.0	5.2	16	-14.1	3.2	1
	71.6	.9	.9	108.0	.7	1.3	106.6	.1	2.0	56.8	.9	1.9	313.6	.7	1.9	
2	22	-4.2	7.8	17	-6.1	4.2	1	22.0	.7	6	-20.5	2.7	2	-4.5	.8	2
	30.2	1.7	1.9	12.5	1.0	1.3	113.0	1.0	.0	311.2	1.1	1.7	359.5	.3	.2	
3	3	61.0	-4.4	2	46.0	-6.4	0	.0	.0	0	.0	.0	0	.0	.0	3
	219.4	2.9	2.4	267.8	4.3	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	1	129.0	2.5	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	291.0	6.3	.0	.0	.0	.0	
5	6	24.8	-6.3	6	8.0	2.2	1	5.0	6.0	2	51.0	-1.8	0	.0	.0	5
	24.2	2.0	1.3	320.4	.8	1.0	274.0	1.3	.0	345.1	1.9	1.2	.0	.0	.0	
6	92	6.2	-.8	43	5.7	-.4	46	18.8	-.8	23	-1.3	-2.5	1	51.0	-1.3	6
	41.9	.4	1.2	39.5	.6	1.6	43.7	1.6	2.4	81.9	.8	1.9	53.0	3.0	.0	
7	62	12.7	-2.3	77	14.4	-1.0	69	10.5	-1.6	38	10.1	.1	19	13.4	-1.7	7
	89.7	1.0	1.9	73.1	1.0	2.3	79.9	1.0	1.9	65.2	.6	1.7	67.2	1.0	1.4	
8	39	14.5	.6	20	17.6	-.1	41	11.0	.8	36	13.4	-.5	18	-2.3	-.5	8
	69.7	.9	1.7	91.4	1.7	3.1	70.8	.9	1.4	87.5	1.1	1.9	161.3	.3	1.3	
15N																15N
1	0	.0	.0	2	-41.5	-1.7	2	-12.0	-6.2	2	-33.0	1.6	1	-23.0	-.5	1
	.0	.0	.0	237.9	1.7	1.0	190.0	1.4	.5	258.8	2.3	.2	259.0	1.6	.0	
2	0	.0	.0	1	-47.0	-4.5	0	.0	.0	2	-43.5	-1.1	0	.0	.0	2
	.0	.0	.0	273.0	2.2	.0	.0	.0	.0	277.4	2.0	1.1	.0	.0	.0	
3	0	.0	.0	2	-41.5	-4.7	0	.0	.0	1	-65.0	3.2	0	.0	.0	3
	.0	.0	.0	293.0	2.1	.9	.0	.0	.0	329.0	2.8	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	3	29.7	.3	9	14.7	-2.1	6	57.2	-.8	3	16.0	-7.5	0	.0	.0	5
	357.0	2.0	1.0	19.8	1.2	1.1	7.1	2.1	1.4	50.9	3.3	3.1	.0	.0	.0	
6	102	8.1	-1.9	109	5.5	-.8	94	3.4	.1	50	4.4	-2.4	12	18.0	.3	6
	48.7	.7	1.3	47.1	.4	1.3	11.5	.2	1.0	85.3	.7	1.6	18.5	.9	.0	
7	50	3.1	-1.4	50	2.5	-1.5	36	10.1	.6	36	1.1	.2	10	-6.5	-.2	7
	86.5	.5	1.8	115.0	.5	1.8	35.7	.7	1.6	72.0	.3	1.6	154.0	1.9	1.8	
8	2	-3.5	7.7	7	6.9	-3.7	14	-8.3	4.6	1	31.0	2.3	14	-1.1	-1.4	8
	313.7	1.6	1.4	137.7	1.0	2.2	288.0	1.1	1.8	71.0	2.1	.0	169.9	.4	1.1	
10N																10N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2	20.5	-4.6	5
	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	.0	.0	
6	10	5.9	-.9	11	4.8	1.1	15	5.2	.2	16	-.4	.0	23.7	1.1	.4	6
	27.7	.5	1.2	342.2	.6	1.1	1.6	.2	.7	281.5	.2	.0	55.9	4.1	.7	
7	2	11.5	3.7	3	3.7	-1.2	4	2.8	5.0	2	-23.5	6.6	4	-5.3	4.9	7
	353.0	1.2	.3	49.6	.5	1.0	529.6	1.2	1.8	240.3	2.5	.6	279.5	.9	.9	
8	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2	12.0	.6	8
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	48.8	.9	.6	
5N																5N
	125E			130E			135E			140E			145E			150E

TABLE 29 CLIMATOLOGICAL DEFLECTIONS FOR NOV 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			130E	
30N																	30N
1	0	.0	.0	0	.0	.0	0	.0	.0	1	53.0	-.2	3	55.7	-.0	1	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	120.0	3.2	.0	126.9	5.0	6.9		
2	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	53.5	12.5	6	25.2	9.7	2	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	109.8	5.3	2.5	114.7	3.7	2.5		
3	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	3	-5.7	-1.8	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	285.7	.5	.2		
4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	5	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	6	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	7	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	8	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
25N																	25N
1	0	.0	.0	0	.0	.0	1	-41.0	-8.4	6	41.3	1.2	27	25.7	5.3	1	
	.0	.0	.0	.4	29.3	1.0	193.0	2.4	.6	93.7	3.6	1.5	87.5	2.4	.3		
2	.0	.0	.0	4	50.0	-1.5	19	19.6	14.6	29	16.7	.3				2	
	.0	.0	.0	148.6	3.5	1.0	150.9	2.3	1.0	84.0	3.8	1.9	89.8	2.3	.8		
3	.0	.0	.0	2	55.0	6.2	6	26.2	4.8	8	-9.0	-2.3	8	-1.0		3	
	.0	.0	.0	97.8	1.5	.3	143.6	.7	2.4	300.7	.3	1.2	66.2	1.7	4.9		
4	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	.0	.0	.0	.0	.0	.0	1	-123.0	11.5	0	.0	.0	0	.0	.0	5	
	.0	.0	.0	.0	.0	.0	94.0	8.2	.0	.0	.0	.0	.0	.0	.0		
6	.0	.0	.0	.0	.0	.0	3	-14.7	-1.0	0	.0	.0	0	.0	.0	6	
	.0	.0	.0	.0	.0	.0	78.1	6.6	5.0	.0	.0	.0	.0	.0	.0		
7	.0	.0	.0	1	-7.0	-5.7	1	70.0	-.0	5	-1.2	-2.7	4	57.8		7	
	.0	.0	.0	155.0	1.3	.0	63.0	6.6	.0	93.5	1.5	2.5	70.2	4.2	2.1		
8	.0	.0	.0	.0	.0	.0	7	-8.6	-4.6	12	54.3	2.4	19	34.5	2.3	8	
	.0	.0	.0	.0	.0	.0	142.9	3.6	3.2	85.3	4.5	2.3	78.7	2.5	2.0		
20N																	20N
1	0	.0	.0	3	25.0	1.4	11	55.9	-1.7	20	4.0	-1.0	24	22.3	2.4	1	
	.0	.0	.0	111.0	1.9	1.9	125.5	2.3	1.5	151.6	1.3	2.0	92.2	1.7	2.0		
2	.1	48.0	7.6	.0	.0	.0	10	23.7	2.4	14	-3.6	5.9	8	13.6	1.4	2	
	117.0	4.6	.0	.0	.0	.0	118.0	1.6	1.8	99.9	.3	2.0	116.2	1.1	.2		
3	.0	.0	.0	.0	.0	.0	2	13.5	17.7	9	-2.8	2.5	1	.0	-3.5	3	
	.0	.0	.0	.0	.0	.0	92.6	4.0	2.2	26.9	.5	1.9	270.0	.8	.0		
4	.0	.0	.0	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	.0	.0	.0	7	-4.7	2.1	19	9.3	-1.1	6	59.5	-3.2	0	.0	.0	5	
	.0	.0	.0	224.1	.4	.7	62.1	.6	1.8	56.0	3.0	3.6	.0	.0	.0		
6	.0	.0	.0	25	.5	-2.6	42	-.2	-2.7	43	13.4	-2.5	33	10.0	.6	6	
	.0	.0	.0	93.7	.7	1.4	108.1	.8	1.0	63.9	1.1	1.8	16.8	.6	1.6		
7	.4	17.8	.6	35	24.6	-1.8	53	12.4	-4.7	61	14.9	-2.7	00	16.0	-3.3	7	
	40.5	1.0	.5	64.5	1.6	.2	111.5	1.6	1.7	93.6	1.6	2.5	64.2	1.4	1.7		
8	.4	52.3	-3.3	11	18.5	-2.3	27	54.6	-3.3	38	25.1	-.7	31	17.0	-.3	8	
	110.3	4.6	2.9	98.6	1.4	1.9	112.0	2.2	2.1	98.5	2.0	3.0	85.9	1.5	2.2		
15N																	15N
	105E			110E			115E			120E			125E			130E	

TABLE 30 CLIMATOLOGICAL DEFLECTIONS FOR NOV 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

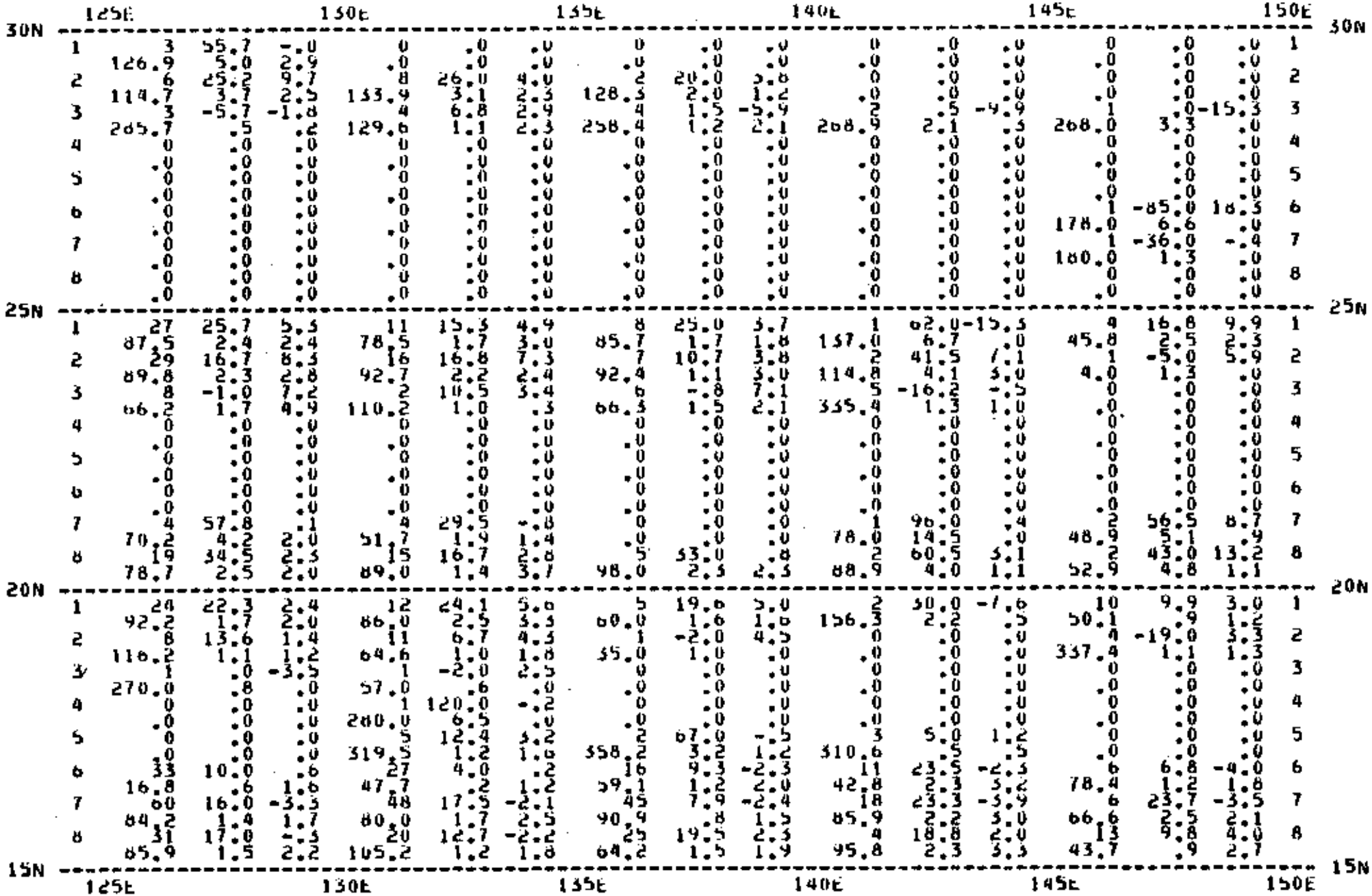

TABLE 31 CLIMATOLOGICAL DEFLECTIONS FOR NOV 1884-1960.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/HR); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			130E
20N																20N
1	0	.0	.0	3	25.0	1.4	11	55.9	-1.7	20	4.0	-1.0	24	22.3	2.4	1
	.0	.0	.0	111.0	1.9	1.9	125.3	2.3	1.5	151.6	1.3	2.8	92.2	1.7	2.0	
2	1	48.0	7.6	0	.0	.0	10	23.7	2.4	14	-3.6	3.9	8	13.6	1.4	2
	117.0	4.6	.0	.0	.0	.0	118.0	1.6	1.8	99.9	.3	2.6	116.2	1.1	1.2	
3	0	.0	.0	0	.0	.0	2	13.5	17.7	9	-2.8	2.3	1	.0	-3.5	3
	.0	.0	.0	.0	.0	.0	92.6	4.0	2.2	26.9	.5	1.9	270.0	.8	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	7	-4.7	2.1	19	9.3	-1.1	6	59.5	-3.2	0	.0	.0	5
	.0	.0	.0	224.1	.4	.7	62.1	.6	1.8	56.0	3.0	3.6	0	.0	.0	
6	0	.0	.0	25	.5	-2.6	42	-.2	-2.7	43	13.4	-2.5	33	10.0	.6	6
	.0	.0	.0	95.7	.7	1.4	108.1	.8	1.6	63.9	1.1	1.8	16.8	.6	1.6	
7	8	17.8	.6	35	24.6	-1.6	53	12.4	-4.7	61	14.9	-2.7	60	16.0	-3.3	7
	40.5	1.0	.5	84.5	1.6	2.2	111.5	1.6	1.7	93.6	1.6	2.3	84.2	1.4	1.7	
8	4	52.3	-3.3	11	18.5	-2.3	27	34.6	-3.5	38	25.1	-.7	31	17.0	-.3	8
	110.3	4.6	2.9	98.6	1.4	1.9	112.0	2.2	2.1	98.5	2.0	3.0	85.9	1.5	2.2	
15N																15N
1	0	.0	.0	3	45.7	-.5	0	.0	.0	7	20.0	1.3	3	2.7	.5	1
	.0	.0	.0	122.9	1.7	.3	.0	.0	.0	97.6	1.2	1.1	57.8	.2	1.3	
2	0	.0	.0	0	.0	.0	0	.0	.0	2	-24.0	-.2	2	-55.0	4.1	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	288.3	1.3	.6	304.6	2.1	.7	
3	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	2	56.0	-1.4	0	.0	.0	0	.0	.0	1	56.0	1.0	4
	.0	.0	.0	300.1	2.2	.6	.0	.0	.0	.0	.0	.0	314.0	3.3	.0	
5	0	.0	.0	20	-.3	-.1	25	7.7	-.5	18	32.4	-1.8	21	28.0	.1	5
	.0	.0	.0	63.7	.2	1.4	359.8	.3	1.1	19.9	2.7	3.4	2.8	2.1	.2	
6	1	5.0	4.1	43	6.0	-1.3	108	4.0	-3.1	128	10.9	-1.9	93	10.8	-1.0	6
	303.0	.9	.0	69.0	.7	2.0	91.5	.9	1.9	49.8	.9	1.6	48.0	1.0	2.5	
7	2	-1.5	-.1	36	5.1	-3.3	72	1.5	-4.4	95	6.8	-2.6	74	-.2	-2.1	7
	199.3	.2	.7	107.7	.9	1.6	122.2	1.1	1.8	92.2	.9	1.9	150.8	.6	1.7	
8	0	.0	.0	1	30.0	-6.0	4	4.0	-.4	28	-2.1	-7.9	7	3.6	-1.9	8
	.0	.0	.0	92.0	3.1	.0	113.6	.9	2.2	159.5	2.1	2.6	130.1	.6	.9	
10N																10N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	2	29.0	-5.2	5	21.4	-8.0	4	32.0	1.0	5	46.0	-2.7	4	47.5	.7	5
	33.2	1.8	.1	32.6	2.1	1.8	358.9	2.7	3.0	27.3	3.5	3.5	13.9	3.6	1.1	
6	6	6.5	-3.8	8	-5.6	-3.6	21	7.7	-5.3	31	13.4	-4.8	28	11.1	2.6	6
	80.2	.9	.5	119.7	.9	1.5	82.3	1.4	1.4	53.0	1.5	2.0	344.3	1.1	.7	
7	0	.0	.0	0	.0	.0	3	3.7	-1.5	6	2.0	-4.3	10	-4.5	.4	7
	.0	.0	.0	.0	.0	.0	80.5	.4	.3	90.0	1.1	1.4	187.1	.3	1.6	
8	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	8
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5N																5N
	105E			110E			115E			120E			125E			130E

TABLE 32 CLIMATOLOGICAL DEFLECTIONS FOR NOV 1884-1960.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E			130E			135E			140E			145E			150E	
20N																	20N
1	24	22.3	2.4	12	24.1	5.0	5	19.6	5.0	2	50.0	-7.0	10	9.9	3.0	1	
	92.2	1.7	2.0	86.0	2.5	3.3	60.0	1.6	1.6	156.3	2.2	.5	50.1	.9	1.2		
2	8	13.6	1.4	11	6.7	4.3	1	-2.0	4.5	0	.0	.0	4	-19.0	3.3	2	
	116.2	1.1	1.2	64.6	1.0	1.6	55.0	1.0	.0	.0	.0	.0	357.4	1.1	1.3		
3	1	.0	-3.5	1	-2.0	2.5	0	.0	.0	0	.0	.0	0	.0	.0	3	
	270.0	.8	.0	57.0	.6	.0	0	.0	.0	0	.0	.0	0	.0	.0		
4	0	.0	.0	1	120.0	-.2	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	280.0	6.5	.0	0	.0	.0	0	.0	.0	0	.0	.0		
5	0	.0	.0	5	12.4	5.2	7	.0	.0	3	5.0	1.5	0	.0	.0	5	
	.0	.0	.0	319.5	1.2	1.6	358.2	3.2	1.2	310.6	5.5	1.5	0	.0	.0		
6	33	10.0	.6	27	4.0	.2	16	9.3	2.5	11	2.3	.2	6	6.8	-4.0	6	
	16.8	.6	1.6	47.7	.2	1.2	59.1	1.2	.2	42.8	2.2	.3	78.4	1.2	1.8		
7	60	16.0	-3.5	48	17.5	-2.1	45	7.9	-2.4	18	2.3	.3	6	23.7	-3.5	7	
	84.2	1.4	1.7	80.0	1.7	2.5	90.9	.8	1.5	65.9	2.2	.3	66.6	2.5	2.1		
8	31	17.0	-.3	20	12.7	-2.2	25	19.5	2.3	4	18.8	2.6	13	9.8	4.0	8	
	85.9	1.5	2.2	105.2	1.2	1.8	64.2	1.5	1.9	95.8	2.3	3.3	43.7	.9	2.7		
15N																	15N
1	3	2.7	.3	2	2.0	-5.4	5	-17.2	-3.8	0	.0	.0	8	-10.4	-4.1	1	
	57.8	.2	1.3	165.5	1.2	.2	196.1	2.2	2.8	.0	.0	.0	208.1	1.2	2.2		
2	2	-55.0	4.1	1	-80.0	-6.2	1	-92.0	-6.2	0	.0	.0	1	-93.0	8.3	2	
	304.6	2.1	.7	229.0	2.8	.0	234.0	4.4	.0	0	.0	.0	206.0	8.4	.0		
3	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2	-98.5	-11.5	3	
	.0	.0	.0	.0	.0	.0	0	.0	.0	0	.0	.0	273.9	5.7	1.7		
4	1	56.0	1.0	1	66.0	3.3	0	.0	.0	0	.0	.0	0	.0	.0	4	
	314.0	3.3	.0	310.0	3.8	.0	0	.0	.0	0	.0	.0	0	.0	.0		
5	21	28.0	.1	9	27.3	-1.0	4	13.8	-1.2	2	26.5	3.1	0	.0	.0	5	
	2.8	2.1	.2	15.7	2.2	2.8	5.9	1.6	2.4	327.8	2.0	.4	0	.0	.0		
6	93	10.8	-1.0	75	8.4	-2.6	60	3.2	-1.4	46	8.7	-1.5	13	4.7	4.0	6	
	48.0	1.0	-2.5	61.5	1.1	2.1	19.6	.2	1.4	58.2	.7	1.5	310.7	.8	1.7		
7	74	-.2	-2.1	52	6.8	-2.1	56	-.3	-1.0	38	.0	-2.0	10	-.6	6.2	7	
	150.8	.6	1.7	88.0	.7	1.9	124.5	.3	1.7	155.2	.5	1.7	281.0	1.0	2.0		
8	7	3.6	-1.9	7	10.7	-3.9	12	-6.3	.6	9	-16.6	4.9	12	-2.3	1.2	8	
	130.1	.6	.9	155.6	1.2	2.1	212.6	1.0	2.3	224.0	1.0	1.0	258.4	.7	2.8		
10N																	10N
1	0	.0	.0	0	.0	.0	1	42.0	-14.3	2	-19.0	4.6	0	.0	.0	1	
	.0	.0	.0	.0	.0	.0	168.0	5.3	.0	304.0	1.4	.2	.0	.0	.0		
2	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2	
	.0	.0	.0	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0		
3	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3	
	.0	.0	.0	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0		
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0		
5	4	47.5	.7	5	59.0	.6	8	13.8	-1.0	1	24.0	-2.1	0	.0	.0	5	
	13.9	3.6	2.1	359.3	4.1	2.5	13.7	1.4	1.7	9.0	3.0	.7	0	.0	.0		
6	28	11.1	2.6	41	5.1	.8	41	5.4	-1.0	19	3.2	.7	6	2.5	4.8	6	
	344.3	1.1	2.7	52.6	.5	1.6	54.8	.5	2.0	293.4	1.3	1.4	206.8	1.0	1.6		
7	10	-4.5	.4	0	-5.1	1.7	10	-4.2	2.0	11	-9.9	2.7	1	80.0	.9	7	
	187.1	.3	1.6	257.2	.6	1.1	276.5	1.2	2.1	238.8	1.1	1.0	59.0	4.5	.0		
8	0	.0	.0	0	.0	.0	2	-24.5	2.5	2	-57.5	-2.6	0	.0	.0	8	
	.0	.0	.0	.0	.0	.0	214.7	2.8	2.4	204.4	2.6	1.1	.0	.0	.0		
5N																	5N
	125E			130E			135E			140E			145E			150E	

TABLE 33 CLIMATOLOGICAL DEFLECTIONS FOR DEC 1884-1969.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			
30N																30N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	5
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	6
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	7
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	8
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
25N																25N
1	0	.0	.0	1	39.0	2.4	0	.0	.0	1	69.0	27.7	4	25.0	4.7	1
	.0	.0	.0	97.0	2.3	.0	.0	.0	.0	97.0	8.5	.0	74.1	1.7	1.6	
2	0	.0	.0	0	.0	.0	1	9.0	-1.5	0	.0	.0	8	14.9	10.6	2
	.0	.0	.0	.0	.0	.0	180.0	.6	.0	.0	.0	.0	79.0	2.8	2.4	
3	0	.0	.0	0	.0	.0	1	15.0	.4	2	5.5	.3	0	.0	.0	3
	.0	.0	.0	.0	.0	.0	148.0	.7	.0	147.9	.4	.3	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	5
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6	0	.0	.0	4	1.5	-7.7	0	.0	.0	0	.0	.0	0	.0	.0	6
	.0	.0	.0	89.2	1.7	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	7
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8	0	.0	.0	1	-59.0	-14.0	1	-74.0	-32.4	0	.0	.0	1	24.0	.5	8
	.0	.0	.0	178.0	5.3	.0	184.0	10.4	.0	.0	.0	.0	83.0	.8	.0	
20N																20N
1	0	.0	.0	7	54.0	-.8	4	34.5	-3.7	10	33.0	5.5	4	36.8	1.8	1
	.0	.0	.0	119.6	2.8	2.6	155.0	3.8	2.2	103.1	2.8	5.1	107.4	2.8	2.1	
2	0	.0	.0	2	20.0	-1.4	2	15.0	1.4	5	28.4	-6.2	21	11.8	4.8	2
	.0	.0	.0	151.2	2.0	1.5	122.7	.8	.5	185.4	2.0	1.7	92.7	1.4	2.1	
3	0	.0	.0	0	.0	.0	1	10.0	-5.0	3	-5.7	-4.1	3	7.7	6.9	3
	.0	.0	.0	.0	.0	.0	197.0	1.6	.0	203.5	.9	.4	90.3	1.6	1.6	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	0	.0	.0	0	.0	.0	3	5.7	-6.9	0	.0	.0	5
	.0	.0	.0	.0	.0	.0	.0	.0	.0	45.3	1.9	2.8	.0	.0	.0	
6	0	.0	.0	0	.0	.0	5	23.0	-7.6	3	-22.7	-4.5	7	15.4	-3.1	6
	.0	.0	.0	.0	.0	.0	108.5	2.4	2.5	146.3	3.1	2.9	45.4	1.2	.7	
7	0	.0	.0	0	.0	.0	7	6.1	-4.9	16	31.5	-5.8	2	42.0	-5.3	7
	.0	.0	.0	.0	.0	.0	120.2	2.7	3.7	101.8	2.5	1.8	79.2	1.9	.2	
8	0	.0	.0	5	45.0	-.9	9	55.0	-5.4	6	66.5	.9	7	44.6	-1.6	8
	.0	.0	.0	98.5	2.2	1.1	116.8	3.2	4.5	105.7	5.7	5.3	95.6	3.3	2.1	
15N																15N
	105E			110E			115E			120E			125E			130E

TABLE 54 CLIMATOLOGICAL DEFLECTIONS FOR DEC 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER RUN: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER RUN: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E			130E			135E			140E			145E			150E
30N																30N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2	.0	.0	.0	6	6.5	-.7	2	12.5	-.1	0	.0	.0	0	.0	.0	2
	.0	.0	.0	159.0	.5	1.0	146.3	1.0	.4	.0	.0	.0	.0	.0	.0	
3	.0	.0	.0	1	7.0	-10.7	2	4.0	-4.1	2	4.0	2.8	0	.0	.0	3
	.0	.0	.0	221.0	2.4	.0	221.1	.9	1.5	90.0	.7	.1	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	5
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	6
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	7
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	8
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
25N																25N
1	4	25.0	4.7	5	37.8	13.2	0	.0	.0	4	59.3	6.2	0	.0	.0	1
	74.1	1.7	1.6	70.5	4.1	2.2	.0	.0	.0	120.2	4.3	2.1	.0	.0	.0	
2	8	14.9	10.0	13	13.7	3.7	4	9.3	2.6	2	41.5	11.4	0	.0	.0	2
	79.0	2.8	2.4	121.3	1.7	1.9	90.0	.7	1.4	112.6	4.3	.4	.0	.0	.0	
3	0	.0	.0	2	-1.5	17.8	4	10.3	6.7	1	2.0	.3	0	.0	.0	3
	.0	.0	.0	57.7	3.9	2.1	118.5	2.0	1.0	155.0	.2	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	5
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	6
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	7
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8	0	.0	.0	0	.0	.0	0	.0	.0	1	11.0	-7.8	0	.0	.0	8
	.0	.0	.0	.0	.0	.0	.0	.0	.0	114.0	1.7	.0	.0	.0	.0	
	1	24.0	.5	0	.0	.0	0	.0	.0	1	85.0	4.5	0	.0	.0	
	83.0	.8	.0	.0	.0	.0	.0	.0	.0	90.0	6.9	.0	.0	.0	.0	
20N																20N
1	4	36.8	1.8	9	23.1	7.6	5	44.8	7.1	0	.0	.0	0	.0	.0	1
	107.4	2.8	2.1	68.5	2.2	2.2	94.6	3.9	2.4	.0	.0	.0	.0	.0	.0	
2	21	11.8	4.8	12	15.0	11.3	2	57.0	16.2	1	24.0	15.3	0	.0	.0	2
	92.7	1.4	2.1	86.9	2.9	1.1	89.0	4.1	2.5	86.0	3.9	.0	.0	.0	.0	
3	5	7.7	6.9	0	.0	.0	2	1.5	26.1	1	1.0	15.	0	.0	.0	3
	90.3	1.6	1.8	.0	.0	.0	66.6	5.7	.9	65.0	2.9	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	5
	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	36.7	1.2	.0	.0	.0	
6	7	15.4	-5.1	1	7.0	5.8	2	40.0	-6.2	20.8	3.0	2.7	0	.0	.0	6
	45.4	1.2	.7	303.0	.9	.0	73.5	2.0	2.5	4	26.5	-2.8	.0	.0	.0	
7	2	42.0	-5.3	4	-15.8	5.2	7	47.0	-2.3	54.1	1.6	1.2	0	.0	.0	7
	79.2	1.9	-.2	217.9	1.2	2.2	74.4	3.2	1.1	5	33.6	-4.8	1	10.0	-5.5	
8	7	44.6	-1.6	6	27.0	-4.4	7	23.0	-3.9	82.1	2.9	5.5	75.0	1.6	.0	8
	95.8	3.3	2.1	105.7	1.7	.7	108.4	2.0	2.5	2	11.0	1.9	6	12.3	-6.1	
										159.7	3.1	5.8	139.6	1.4	.7	
15N																15N
	125E			130E			135E			140E			145E			150E

TABLE 35 CLIMATOLOGICAL DEFLECTIONS FOR DEC 1884-1960.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	105E			110E			115E			120E			125E			130E	
20N																	20N
1	0	.0	.0	7	54.0	-.8	4	54.5	-5.7	10	33.0	5.5	4	56.8	1.8	1	
	.0	.0	.0	119.6	2.8	2.6	155.0	3.8	2.2	103.1	2.8	5.1	107.4	2.8	2.1		
2	.0	.0	.0	2	20.0	-1.4	2	15.0	1.4	5	28.4	-6.2	21	11.8	4.8	2	
	.0	.0	.0	151.2	2.0	1.3	122.7	.8	.5	185.4	2.0	1.7	92.7	1.4	2.1		
3	.0	.0	.0	0	.0	.0	1	10.0	-5.0	3	-5.7	-4.1	3	7.7	6.9	3	
	.0	.0	.0	.0	.0	.0	197.0	1.6	.0	263.5	.9	.4	90.3	1.6	1.8		
4	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	4	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
5	.0	.0	.0	0	.0	.0	0	.0	.0	3	5.7	-8.9	0	.0	.0	5	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	45.3	1.9	2.8	.0	.0	.0		
6	.0	.0	.0	0	.0	.0	3	23.0	-7.0	3	-22.7	-4.5	7	15.4	-5.1	6	
	.0	.0	.0	.0	.0	.0	108.9	2.4	2.3	146.3	3.1	2.9	45.4	1.2	.7		
7	.0	.0	.0	0	.0	.0	7	6.1	-4.9	16	31.5	-5.8	2	42.0	-5.3	7	
	.0	.0	.0	.0	.0	.0	120.2	2.7	3.7	101.8	2.5	1.8	79.2	1.9	.2		
8	.0	.0	.0	0	.0	.0	9	55.0	-5.4	6	66.5	.9	7	44.6	-1.6	8	
	.0	.0	.0	98.5	2.2	1.1	116.8	3.2	4.5	105.7	5.7	5.5	95.8	3.3	2.1		
15N																	15N
1	0	.0	.0	1	4.0	1.5	1	-76.0	-5.9	4	29.5	-.7	2	55.0	1.2	1	
	.0	.0	.0	52.0	.4	.0	225.0	3.0	.0	108.1	1.6	1.1	102.4	2.7	1.7		
2	.0	.0	.0	0	.0	.0	1	-153.0	-5.6	1	15.0	.6	0	.0	.0	2	
	.0	.0	.0	.0	.0	.0	254.0	6.4	.0	111.0	.8	.0	.0	.0	.0		
3	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
4	.0	.0	.0	1	15.0	-11.0	3	111.3	-18.1	1	63.0	-5.1	0	.0	.0	4	
	.0	.0	.0	307.0	2.5	.0	555.7	6.4	3.9	353.0	5.3	.0	.0	.0	.0		
5	.0	.0	.0	3	-4.7	.4	17	31.6	-.5	15	8.5	-.7	10	30.3	-1.8	5	
	.0	.0	.0	173.5	-2.3	.7	42.4	2.2	4.8	43.8	.9	2.7	28.5	2.1	3.1		
6	.0	.0	.0	20	-2.3	-1.0	56	1.7	-1.0	79	3.8	-1.7	66	7.0	-.9	6	
	.0	.0	.0	124.7	.4	1.5	84.0	.6	2.0	74.4	.7	2.2	46.0	.6	2.2		
7	.0	.0	.0	8	13.1	-.9	14	4.1	-3.4	43	7.2	-4.7	67	11.0	-3.2	7	
	.0	.0	.0	85.7	5.4	4.6	102.4	2.1	3.1	118.4	1.4	2.0	95.1	1.3	2.1		
8	.0	.0	.0	8	23.3	1.0	3	12.7	2.5	4	-19.5	-2.5	6	43.0	-.0	8	
	.0	.0	.0	82.8	1.9	2.8	26.1	.7	1.5	162.8	3.1	4.5	87.0	2.8	1.4		
10N																	10N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	1	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
2	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	2	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
3	.0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	3	
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
4	.0	.0	.0	2	-24.0	-4.8	1	153.0	-2.2	1	93.0	-.6	0	.0	.0	4	
	.0	.0	.0	4.3	1.4	.8	15.0	11.0	.0	518.0	7.0	.9	3	11.7	11.7		
5	1	2.0	-.2	6	5.7	4.1	1	57.0	-1.8	1	20.0	.9	3	11.7	11.7	5	
	360.0	.1	283.1	.9	1.4	344.0	3.3	.0	349.0	2.0	.0	284.9	2.7	.7			
6	.0	.0	2	1.0	-.2	14	57.6	-2.1	20	9.5	-.2	20	3.9	2.5	6		
	.0	.0	45.0	.1	1.1	40.2	3.1	3.3	21.7	.8	1.9	322.3	.6	2.0			
7	.0	.0	0	.0	.0	1	60.0	-1.2	1	12.0	-23.1	10	5.0	-4.7	7		
	.0	.0	.0	.0	.0	58.0	2.4	.0	111.0	5.0	.0	100.1	1.1	1.9			
8	.0	.0	.0	0	.0	.0	1	12.0	-4.2	0	.0	.0	0	.0	.0	8	
	.0	.0	.0	.0	.0	.0	120.0	1.0	.0	.0	.0	.0	.0	.0	.0		
5N																	5N
	105E			110E			115E			120E			125E			130E	

TABLE 3a CLIMATOLOGICAL DEFLECTIONS FOR DEC 1884-1980.
IN EACH SQUARE AND FOR EACH OF THE 8 PREDEFINED DIRECTIONS OF MOVEMENT IN THE PAST 12 HOURS, THE NUMBERS GIVEN ARE : IN UPPER ROW: NO. OF OBS., MEAN DEFLECTION ANGLE, CHANGE IN SPEED OF MOVEMENT (IN KM/H); IN LOWER ROW: ANGLE OF DEFLECTION VECTOR, LENGTH OF DEFLECTION VECTOR (IN DEG. LAT.), STANDARD DEVIATION (IN DEG. LAT.)

	125E			130E			135E			140E			145E			150E	
20N																	20N
1	4	36.8	1.8	9	25.1	7.8	5	44.8	7.1	0	.0	.0	0	.0	.0	.0	1
	107.4	2.8	2.1	68.5	2.2	2.2	94.6	3.9	2.4	.0	.0	.0	.0	.0	.0	.0	
2	21	11.8	4.8	12	15.0	11.5	2	57.0	16.2	1	24.0	15.5	0	.0	.0	.0	2
	92.7	1.4	2.1	86.9	2.9	1.1	89.0	4.1	2.3	86.0	3.9	.0	.0	.0	.0	.0	
3	3	7.7	6.9	0	.0	.0	2	1.5	26.1	1	1.0	15.0	0	.0	.0	.0	3
	90.3	1.6	1.8	.0	.0	.0	66.6	5.7	.9	65.0	2.9	.0	.0	.0	.0	.0	
4	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	0	.0	.0	0	.0	.0	0	.0	.0	3	56.7	1.2	0	.0	.0	.0	5
	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.8	3.0	2.7	.0	.0	.0	.0	
6	7	15.4	-5.1	1	7.0	3.8	2	40.0	-6.2	4	26.5	-2.8	0	.0	.0	.0	6
	45.9	1.2	.7	303.0	.9	.0	73.5	2.6	2.5	54.1	1.6	1.2	.0	.0	.0	.0	
7	2	42.0	-5.3	4	-15.8	3.2	7	47.0	-2.5	5	53.6	-4.8	1	10.0	-5.5	7	
	79.2	1.9	.2	217.9	1.2	2.2	74.4	3.2	1.1	82.1	2.9	5.5	75.0	1.6	.0		
8	7	44.6	-1.6	6	27.0	-4.4	7	23.0	-3.9	2	11.0	1.9	6	12.3	-6.1	8	
	95.8	3.3	2.1	105.7	1.7	.7	108.4	2.0	2.5	159.7	3.1	5.8	159.6	1.8	.7		
15N																	15N
1	2	35.0	1.2	1	-66.0	-10.5	0	.0	.0	1	70.0	5.5	0	.0	.0	.0	1
	102.4	2.7	1.7	219.0	5.4	.0	.0	.0	.0	99.0	3.3	.0	.0	.0	.0	.0	
2	0	.0	.0	2	5.5	-7.0	0	.0	.0	2	-5.5	21.4	0	.0	.0	.0	2
	.0	.0	.0	251.4	5.4	3.6	.0	.0	.0	44.5	4.7	.9	.0	.0	.0	.0	
3	0	.0	.0	4	12.0	-3.1	0	.0	.0	0	.0	.0	0	.0	.0	.0	3
	.0	.0	.0	241.8	.8	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	0	.0	.0	1	79.0	-6.8	0	.0	.0	0	.0	.0	0	.0	.0	.0	4
	0	.0	.0	302.0	2.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	10	30.3	-1.8	11	6.1	-2.8	7	5.0	5.8	2	12.0	.3	0	.0	.0	.0	5
	28.5	2.1	3.1	40.4	.8	.9	278.4	1.3	1.0	345.9	1.0	.4	0	.0	.0	.0	
6	66	7.0	-.9	46	6.4	-1.8	31	.2	-1.2	26	4.1	-.2	11	6.9	-4.1	6	
	46.0	.6	2.2	58.8	.7	1.9	110.6	.3	1.9	32.2	.3	1.7	94.7	1.0	1.1		
7	67	11.0	-3.2	52	9.5	-2.8	18	.1	-8.5	23	-6.5	.5	2	12.5	3.1	7	
	95.1	1.3	2.1	94.4	.9	1.3	119.8	2.1	2.4	196.2	.5	1.8	2.5	.7	1.7		
8	6	43.0	-.0	5	8.8	-5.8	0	.0	.0	8	9.6	-2.5	2	-3.5	6.5	8	
	87.0	2.8	1.4	138.2	1.6	2.0	.0	.0	.0	156.4	1.1	2.2	314.8	1.4	.2		
10N																	10N
1	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	1
	.0	.0	.0	.0	.0	.0	.0	.0	.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	2
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	3	11.7	11.7	7	20.6	2.7	4	14.5	1.3	2	45.5	-.9	0	.0	.0	.0	5
	284.9	2.7	.7	354.4	1.7	1.5	340.5	1.2	.8	1.6	2.0	.9	.0	.0	.0	.0	
6	20	3.9	2.5	29	7.6	.9	29	6.3	.5	20	4.4	.1	8	11.8	-1.2	6	
	322.3	.6	2.0	359.7	.7	1.5	7.1	.6	1.4	9.6	.4	1.5	28.3	.9	1.9		
7	10	5.0	-4.7	16	-4.3	.9	10	-1.7	-3.0	2	-21.0	-.5	3	-17.3	5.9	7	
	100.1	1.1	1.9	231.4	.4	1.5	137.4	.7	1.1	188.1	1.1	.2	251.8	2.1	1.3		
8	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	0	.0	.0	.0	8
	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5N																	5N
	125E			130E			135E			140E			145E			150E	

Table 37. Displacement errors (in km) of 24-hour forecasts stratified by month

Scheme	Weight	Period / Result	Jan-Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
P+WSD	1	No. of data	108	37	142	250	428	317	325	216	155	1978
		Mean error	198.3	235.1	239.0	198.3	176.2	159.0	207.4	205.7	191.7	192.6
		Std. dev.	126.9	81.1	129.4	121.0	128.4	141.8	156.1	159.1	114.4	138.3
	$\frac{3}{4}$	Mean error	191.8	239.0	220.2	190.6	167.8	154.5	203.8	201.2	183.5	185.8
		Std. dev.	126.6	77.0	116.6	116.3	122.6	134.6	152.4	159.2	111.8	133.6
	$\frac{1}{2}$	Mean error	186.7	245.4	203.3	185.4	161.3	151.4	203.5	201.1	179.5	181.4
		Std. dev.	127.7	80.7	110.3	114.6	116.8	130.0	152.1	160.9	112.7	131.5
	$\frac{1}{4}$	Mean error	183.7	252.8	190.9	183.6	156.7	150.5	206.9	204.9	182.5	180.4
		Std. dev.	129.5	96.8	110.6	115.4	112.1	128.2	154.7	165.4	114.2	132.3
	0	Mean error	183.2	262.7	187.5	184.9	155.0	152.7	213.9	211.5	189.9	182.9
		Std. dev.	131.5	119.8	114.1	119.8	109.0	128.6	160.0	174.4	120.0	136.1
P+WVD	1	Mean error	201.2	265.5	236.4	196.9	182.1	163.3	201.8	217.0	211.3	196.8
		Std. dev.	130.9	121.8	130.4	125.8	121.6	139.8	149.3	155.8	118.6	136.6
	$\frac{3}{4}$	Mean error	193.3	255.9	218.4	190.1	171.0	158.6	200.0	208.8	195.7	188.5
		Std. dev.	128.9	96.2	115.1	120.1	116.3	135.1	149.1	155.5	111.8	131.9
	$\frac{1}{2}$	Mean error	187.5	251.1	202.7	186.0	162.6	155.5	201.4	205.3	187.2	183.3
		Std. dev.	128.9	85.2	107.4	117.5	112.7	132.1	150.8	158.8	109.4	130.5
	$\frac{1}{4}$	Mean error	184.6	250.7	191.5	184.7	157.8	154.2	206.7	207.0	186.3	181.9
		Std. dev.	130.3	96.4	106.3	118.1	110.5	130.7	153.3	165.0	113.1	131.9

Table 38. Displacement errors (in km) of 24-hour forecasts stratified by movement

Scheme	Weight	Result \ Movement Group	1 350–020	2 020–060	3 060–110	4 110–210	5 210–260	6 260–290	7 290–320	8 320–350	Total
P+WSD	1	No. of data	164	164	62	15	77	581	604	313	1978
		Mean error	244.0	271.3	254.5	169.1	174.6	166.7	175.5	199.4	192.6
		Std. dev.	150.9	230.1	201.1	87.4	126.4	101.9	120.8	120.3	138.3
	$\frac{3}{4}$	Mean error	239.4	260.1	244.1	158.8	163.4	160.6	170.4	190.9	185.8
		Std. dev.	149.0	222.9	185.9	72.6	120.9	97.7	116.8	117.4	133.6
	$\frac{1}{2}$	Mean error	237.9	254.1	236.7	147.8	162.6	156.4	166.5	185.0	181.4
		Std. dev.	149.2	218.0	171.8	77.5	116.6	95.9	115.2	118.8	131.5
	$\frac{1}{4}$	Mean error	238.6	252.6	234.9	155.2	169.9	155.0	164.7	182.7	180.4
		Std. dev.	153.4	217.2	162.7	76.0	116.8	96.1	115.7	123.3	132.3
	0	Mean error	241.8	256.2	239.2	170.4	182.6	157.5	165.0	185.3	182.9
		Std. dev.	161.1	220.8	166.6	91.5	123.5	97.7	118.4	129.3	136.1
P+MVD	1	Mean error	255.7	275.4	224.4	258.7	184.2	166.2	176.8	215.4	196.8
		Std. dev.	159.8	213.2	170.8	81.2	118.2	103.7	118.7	127.2	136.6
	$\frac{3}{4}$	Mean error	246.4	260.8	218.0	219.3	169.5	161.1	171.6	201.5	188.5
		Std. dev.	154.0	210.4	162.4	64.9	113.1	100.4	116.1	120.5	131.9
	$\frac{1}{2}$	Mean error	241.3	250.3	218.1	185.4	164.8	158.2	168.2	191.4	183.3
		Std. dev.	151.3	210.2	157.6	69.7	112.2	99.1	115.9	119.4	130.5
	$\frac{1}{4}$	Mean error	239.3	246.4	224.7	168.3	169.5	158.4	166.8	186.2	181.9
		Std. dev.	154.0	210.5	156.8	77.2	117.4	99.1	118.0	123.5	131.9

Table 39. Displacement errors (in km) of 24-hour forecasts made with the (P+½SD) method and stratified by area.

Latitudes	Longitudes / Results	105–110 E	110–115 E	115–120 E	120–125 E	125–130 E	130–135 E	135–140 E	140–145 E	145–150 E
30–25 N	No. of data	0	0	0	42	32	64	42	49	30
	Mean error	-	-	-	236.7	209.3	236.7	290.8	261.2	194.0
	Std. dev.	-	-	-	160.3	162.7	205.8	170.7	205.2	127.1
25–20 N	No. of data	4	22	25	89	87	104	28	32	24
	Mean error	121.3	122.7	125.3	202.7	175.2	192.9	315.8	207.4	154.8
	Std. dev.	58.0	58.1	80.4	119.5	133.3	157.6	279.6	146.2	58.5
20–15 N	No. of data	23	130	104	90	101	111	63	34	25
	Mean error	171.3	151.8	176.6	171.9	166.3	176.8	147.7	187.4	152.6
	Std. dev.	101.5	91.8	127.8	101.5	99.6	147.9	98.2	83.5	131.5
15–10 N	No. of data	2	42	58	59	82	103	57	82	41
	Mean error	281.6	168.0	122.7	148.6	163.9	181.8	156.2	152.5	210.3
	Std. dev.	138.7	82.7	79.3	92.7	98.9	93.9	81.8	125.1	129.2
10–5 N	No. of data	1	9	2	3	7	11	18	22	24
	Mean error	186.8	164.1	66.7	301.9	85.8	113.9	128.7	166.0	234.7
	Std. dev.	-	64.6	1.5	55.1	44.8	86.2	60.3	70.1	134.0

Table 40. Displacement errors (in km) of 48-hour forecasts stratified by month

Scheme	Weight	Result \ Period	Jan-Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
P+WSD	1	No. of data	89	23	85	179	326	251	245	170	115	1483
		Mean error	437.3	588.3	540.8	404.7	394.2	323.5	466.3	490.9	454.9	425.1
		Std. dev.	308.9	185.9	276.3	199.7	268.1	243.0	339.0	338.6	217.4	284.7
	$\frac{3}{4}$	No. of data	91	24	88	176	328	250	245	171	120	1493
		Mean error	418.7	653.5	505.8	398.5	376.8	316.0	472.5	490.4	444.3	417.8
		Std. dev.	309.3	182.3	246.9	192.9	257.9	232.4	348.5	358.4	224.1	285.1
	$\frac{1}{2}$	No. of data	90	22	89	173	326	250	243	171	120	1484
		Mean error	419.5	685.5	464.5	394.6	369.3	314.0	484.9	492.1	418.0	413.3
		Std. dev.	318.5	224.6	209.8	195.7	255.8	233.9	359.2	361.7	236.8	288.5
	$\frac{1}{4}$	No. of data	90	22	91	176	325	246	242	172	119	1483
		Mean error	423.6	759.0	434.1	401.8	362.2	323.9	508.6	505.2	407.7	418.6
		Std. dev.	323.1	257.5	195.3	206.2	251.6	237.5	376.5	376.9	249.2	297.7
	0	No. of data	90	25	92	175	327	246	243	172	119	1489
		Mean error	423.3	790.5	410.2	410.3	362.4	337.9	528.7	526.0	418.9	428.3
		Std. dev.	329.3	332.8	172.8	208.6	248.3	241.5	380.2	400.8	266.7	306.0
P+WVD	1	No. of data	91	27	91	183	327	250	246	170	114	1499
		Mean error	444.2	622.0	572.3	409.4	416.2	347.5	473.7	521.1	513.3	447.4
		Std. dev.	308.8	208.1	304.6	213.3	267.1	277.1	363.4	337.3	298.4	303.4
	$\frac{3}{4}$	No. of data	91	27	91	181	328	250	245	170	117	1500
		Mean error	426.6	627.1	522.7	404.6	390.3	335.2	478.6	500.8	474.9	430.8
		Std. dev.	314.7	193.4	258.7	212.4	254.0	253.9	370.8	336.1	255.5	292.6
	$\frac{1}{2}$	No. of data	91	24	89	175	328	250	245	171	118	1491
		Mean error	416.9	672.4	472.1	407.2	378.8	333.2	497.8	502.4	445.7	426.1
		Std. dev.	319.2	215.2	216.2	212.9	249.2	252.0	376.5	360.2	247.3	294.9
	$\frac{1}{4}$	No. of data	90	23	93	178	326	247	241	172	118	1488
		Mean error	424.0	765.7	448.5	405.1	370.0	337.5	523.5	515.7	424.0	429.0
		Std. dev.	327.5	261.6	187.6	199.8	248.2	248.9	389.0	382.9	259.0	302.2
CHANGING WEIGHT P+WSD	$\frac{1}{4}$ for first 24 hours and $\frac{1}{2}$ for next 24 hours	No. of data	90	22	91	176	325	246	242	172	119	1483
		Mean error	422.9	725.5	440.7	400.2	361.6	320.5	500.7	499.3	404.5	415.3
		Std. dev.	317.9	244.4	198.1	200.8	251.8	237.3	372.4	369.1	241.0	293.4

Table 41. Displacement errors (in km) of 48-hour forecasts stratified by movement

Scheme	Weight	Movement Group / Result	1 350–020	2 020–060	3 060–110	4 110–210	5 210–260	6 260–290	7 290–320	8 320–350	Total
P+WSD	1	No. of data	139	103	28	7	32	356	573	245	1483
		Mean error	535.4	601.7	448.5	404.9	418.3	386.9	365.4	482.8	425.1
		Std. dev.	342.5	430.2	268.9	526.2	223.8	231.5	226.4	303.6	284.7
	$\frac{3}{4}$	No. of data	137	104	22	8	36	390	543	253	1493
		Mean error	578.3	529.6	426.5	290.4	408.0	380.4	364.2	463.1	417.8
		Std. dev.	413.5	347.5	238.9	135.1	319.0	240.8	224.2	300.6	285.1
	$\frac{1}{2}$	No. of data	112	104	26	7	39	429	524	243	1484
		Mean error	532.7	535.5	452.2	331.9	421.3	379.5	362.2	473.3	413.3
		Std. dev.	444.2	343.8	247.4	139.3	315.8	238.0	238.1	311.6	288.5
	$\frac{1}{4}$	No. of data	104	97	31	7	52	433	518	241	1483
		Mean error	534.0	508.8	527.9	350.2	415.5	389.0	371.0	427.1	418.6
		Std. dev.	478.6	331.4	296.8	131.9	293.0	242.1	259.2	319.4	297.7
	0	No. of data	94	91	34	10	61	476	467	254	1489
		Mean error	563.6	488.1	497.2	317.7	454.9	391.5	397.4	471.5	428.3
		Std. dev.	502.3	312.1	234.0	148.3	285.1	249.1	289.6	326.5	306.0
P+WVD	1	No. of data	143	111	37	7	22	415	532	232	1499
		Mean error	593.7	667.2	556.7	583.4	488.5	387.9	376.7	495.9	447.4
		Std. dev.	369.2	436.8	329.7	405.4	251.9	233.9	246.0	309.3	303.4
	$\frac{3}{4}$	No. of data	135	104	36	8	27	435	532	223	1500
		Mean error	560.7	609.1	540.6	551.9	424.1	387.9	374.6	465.9	430.8
		Std. dev.	373.9	426.2	286.7	495.2	228.2	240.0	253.8	269.0	292.6
	$\frac{1}{2}$	No. of data	107	108	31	5	34	457	524	225	1491
		Mean error	543.5	540.0	536.0	329.6	445.1	391.0	379.6	479.5	426.1
		Std. dev.	408.7	381.8	280.3	182.2	323.6	248.2	259.7	304.5	294.9
	$\frac{1}{4}$	No. of data	102	97	35	3	46	487	488	230	1488
		Mean error	548.0	491.8	496.9	388.2	421.0	400.0	388.0	490.4	429.0
		Std. dev.	490.9	297.2	260.4	61.6	304.8	249.9	274.0	329.9	302.2
CHANGING WEIGHT P+WSD	$\frac{1}{4}$ for first 24 hours and $\frac{1}{2}$ for next 24 hours	No. of data	104	97	31	7	52	433	518	241	1483
		Mean error	536.7	508.9	518.6	342.1	401.3	387.1	367.8	470.6	415.3
		Std. dev.	479.9	329.9	286.8	129.2	288.4	238.8	253.2	311.3	293.4

Table 42. Displacement errors (in km) of 48-hour forecasts made with the (P+½SD) method and stratified by area.

Latitudes	Longitudes / Results	105–110 E	110–115 E	115–120 E	120–125 E	125–130 E	130–135 E	135–140 E	140–145 E	145–150 E
30–25 N	No. of data	0	0	5	32	35	62	37	37	14
	Mean error	–	–	530.5	474.3	487.7	519.4	600.8	579.0	524.4
	Std. dev.	–	–	182.2	414.1	343.1	466.5	326.5	349.1	160.5
25–20 N	No. of data	3	22	35	80	84	83	12	21	13
	Mean error	360.3	420.2	449.7	406.4	432.1	435.2	453.5	506.6	484.8
	Std. dev.	193.9	175.7	340.9	232.1	268.3	443.4	208.2	254.0	308.9
20–15 N	No. of data	15	107	77	59	107	56	52	25	11
	Mean error	257.9	357.9	349.1	387.3	396.2	367.1	325.2	509.1	547.8
	Std. dev.	117.1	191.5	217.5	278.1	224.4	249.2	220.8	259.7	252.8
15–10 N	No. of data	0	33	39	41	68	65	56	40	10
	Mean error	–	273.1	278.8	385.1	389.7	410.7	327.7	501.0	525.1
	Std. dev.	–	141.4	191.5	193.6	227.2	251.8	181.4	419.2	289.1
10–5 N	No. of data	0	8	3	4	6	3	9	11	4
	Mean error	–	350.3	472.3	353.7	332.1	274.8	356.4	424.8	615.4
	Std. dev.	–	165.7	93.4	54.9	123.8	80.5	89.7	220.9	215.8

Table 43. Displacement errors (in km) of 72-hour forecasts stratified by month

Scheme	Weight	Result \ Period	Jan-Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
P+WSD	1	No. of data	71	13	49	128	228	188	171	129	77	1054
		Mean error	652.7	1039.6	877.4	658.7	588.6	457.8	697.7	828.4	702.9	652.4
		Std. dev.	406.6	270.1	352.3	302.1	369.0	269.6	470.4	472.0	317.8	397.4
	$\frac{3}{4}$	No. of data	69	14	54	122	227	187	176	130	78	1057
		Mean error	615.6	1165.1	856.2	641.3	563.1	454.4	710.5	823.7	632.3	640.9
		Std. dev.	400.6	238.5	344.2	281.3	356.2	287.6	487.5	505.7	344.7	408.0
	$\frac{1}{2}$	No. of data	69	15	56	123	222	185	171	131	82	1054
		Mean error	606.2	1251.3	818.4	633.8	555.3	464.5	706.9	809.4	573.6	633.3
		Std. dev.	410.5	292.7	360.7	280.9	364.2	295.8	502.0	523.8	373.7	419.6
	$\frac{1}{4}$	No. of data	67	15	57	122	221	179	171	133	82	1047
		Mean error	590.2	1413.3	780.3	644.4	559.4	489.3	755.7	827.4	548.0	648.7
		Std. dev.	418.4	392.9	337.8	288.9	365.2	302.4	541.2	550.2	365.8	438.4
	0	No. of data	65	15	58	120	219	182	173	131	82	1045
		Mean error	580.0	1555.7	736.5	662.7	570.9	523.2	808.4	851.4	558.6	670.5
		Std. dev.	433.4	521.3	341.0	297.6	366.7	317.5	588.5	588.7	381.3	464.9
P+WVD	1	No. of data	69	18	55	128	243	191	173	128	75	1080
		Mean error	670.2	932.7	1005.2	664.0	646.1	491.4	692.4	828.0	826.3	687.0
		Std. dev.	407.4	436.2	515.0	317.6	392.9	317.1	499.4	489.1	518.4	442.4
	$\frac{3}{4}$	No. of data	71	16	57	127	241	195	175	130	78	1090
		Mean error	636.2	975.5	908.1	661.3	616.8	493.0	708.9	817.5	713.2	667.2
		Std. dev.	424.1	516.0	389.5	314.0	368.7	319.0	510.9	509.2	419.6	427.0
	$\frac{1}{2}$	No. of data	70	14	56	125	233	190	177	131	79	1075
		Mean error	600.0	1311.3	843.2	652.8	590.9	504.8	753.9	796.1	614.7	659.5
		Std. dev.	408.9	297.0	377.6	295.1	366.4	318.9	543.5	534.1	405.4	434.4
	$\frac{1}{4}$	No. of data	68	14	57	122	230	187	171	130	77	1056
		Mean error	604.0	1520.4	798.6	658.5	581.4	530.4	786.8	802.2	577.9	667.0
		Std. dev.	433.3	352.5	345.1	291.1	368.0	327.9	575.1	525.8	398.6	445.6
CHANGING WEIGHT P+WSD	$\frac{1}{4}$ for first 24 hours and $\frac{1}{8}$ for subsequent 48 hours	No. of data	68	14	58	124	220	180	169	132	86	1051
		Mean error	591.6	1272.2	787.5	638.0	547.9	475.3	741.4	818.0	572.6	638.8
		Std. dev.	412.2	395.2	356.8	280.3	363.9	299.5	541.7	530.9	377.3	430.9

Table 44. Displacement errors (in km) of 72-hour forecasts stratified by movement

Scheme	Weight	Result \ Period	1 350-020	2 020-060	3 060-110	4 110-210	5 210-260	6 260-290	7 290-320	8 320-350	Total
P+WSD	1	No. of data	108	58	23	6	8	184	468	199	1054
		Mean error	843.6	876.9	655.8	785.5	706.5	596.7	588.4	679.1	652.4
		Std. dev.	480.1	377.8	411.2	418.5	293.8	345.8	364.6	412.5	397.4
	¾	No. of data	95	61	15	3	13	222	451	197	1057
		Mean error	791.6	845.0	959.0	364.2	611.2	585.9	588.3	669.7	640.9
		Std. dev.	526.8	363.7	475.5	130.9	260.7	344.2	385.7	423.4	408.0
	½	No. of data	91	61	16	2	16	276	423	169	1054
		Mean error	729.8	795.7	905.6	378.6	548.3	594.7	587.2	686.4	633.3
		Std. dev.	487.9	407.9	410.7	108.3	309.7	345.2	413.5	478.4	419.6
	¼	No. of data	72	58	12	2	22	329	392	160	1047
		Mean error	632.6	833.8	764.9	390.9	604.3	622.1	625.6	701.0	648.7
		Std. dev.	487.6	410.2	403.7	115.8	253.4	355.7	473.5	488.6	438.4
	0	No. of data	42	58	15	4	44	363	351	168	1045
		Mean error	547.8	761.2	810.8	597.0	739.9	631.2	667.8	731.9	670.5
		Std. dev.	369.8	449.1	355.7	209.1	321.7	385.7	521.1	544.0	464.9
P+WVD	1	No. of data	91	83	26	10	15	235	438	182	1080
		Mean error	899.5	955.0	1149.4	1192.1	686.2	619.9	600.1	660.8	687.0
		Std. dev.	556.6	507.8	705.3	426.2	350.1	360.5	376.9	404.9	442.4
	¾	No. of data	93	75	19	8	15	265	459	156	1090
		Mean error	826.8	841.2	1024.5	935.0	641.2	622.4	609.8	678.6	667.2
		Std. dev.	551.4	393.9	524.3	96.8	224.2	365.9	416.5	423.4	427.0
	½	No. of data	74	61	29	3	11	300	435	162	1075
		Mean error	734.7	804.3	970.3	565.1	761.8	608.7	610.2	736.8	659.5
		Std. dev.	457.5	393.1	440.6	213.7	313.0	347.8	445.3	504.3	434.4
	¼	No. of data	71	60	16	3	24	361	395	126	1056
		Mean error	700.5	746.3	877.8	352.9	611.6	642.7	632.9	778.8	667.0
		Std. dev.	489.2	376.1	441.0	192.7	307.2	392.0	435.3	595.2	445.6
CHANGING WEIGHT P+WSD	¼ for first 24 hours and ½ for subsequent 48 hours	No. of data	89	54	14	2	21	296	413	162	1051
		Mean error	696.3	803.6	916.5	400.3	527.4	603.1	592.0	730.5	638.8
		Std. dev.	528.2	409.9	450.7	134.7	233.7	342.4	432.2	494.4	430.9

Table 45. Displacement errors (in km) of 72-hour forecasts made with the (P+$\frac{1}{2}$SD) method and stratified by area.

Latitudes	Longitudes / Results	105–110 E	110–115 E	115–120 E	120–125 E	125–130 E	130–135 E	135–140 E	140–145 E	145–150 E
30–25 N	No. of data	0	0	5	30	29	56	29	18	6
	Mean error	–	–	874.3	670.9	792.1	662.5	871.1	674.4	834.4
	Std. dev.	–	–	145.6	377.6	659.6	480.7	374.3	455.8	89.2
25–20 N	No. of data	4	16	25	60	85	59	11	24	1
	Mean error	704.8	743.7	693.1	640.0	754.0	615.1	807.7	775.9	310.2
	Std. dev.	189.8	453.5	397.0	344.5	537.6	494.7	369.6	401.5	–
20–15 N	No. of data	16	77	45	57	56	58	34	12	5
	Mean error	423.6	508.3	549.6	581.8	757.8	386.7	542.3	1041.1	980.8
	Std. dev.	317.1	287.1	344.3	400.0	470.5	217.8	315.3	475.7	395.5
15–10 N	No. of data	1	26	23	52	37	32	29	8	0
	Mean error	318.9	509.5	612.9	598.8	625.1	569.3	656.4	588.5	–
	Std. dev.	–	164.9	411.0	339.8	283.4	400.7	476.0	379.3	–
10–5 N	No. of data	0	6	2	4	1	5	8	0	2
	Mean error	–	518.0	517.9	256.8	358.9	552.0	410.9	–	966.3
	Std. dev.	–	262.5	78.9	116.5	–	164.9	131.0	–	147.1

Table 46 Comparison of forecast errors

Forecast Period	Method	1981		1982		1983		1984		1985		1981-1985	
		No. of Forecasts	Mean Error (km)	No. of Forecasts	Mean Error (km)	No. of Forecasts	Mean Error (km)	No. of Forecasts	Mean Error (km)	No. of Forecasts	Mean Error (km)	No. of Forecasts	Mean Error (km)
24-hour	Regression	106	211.1	165	198.2	101	196.3	123	255.6	132	203.7	627	212.5
	$\frac{1}{2}$(P+C)	118	222.2	150	201.9	102	192.6	127	233.4	116	183.3	613	207.3
	Persistence	126	250.0	158	175.9	114	207.4	139	222.2	127	207.4	664	211.1
	Climatology	126	294.5	158	303.7	114	248.2	126	333.4	116	253.7	640	288.8
	Veigas-Miller	132	224.1	208	207.4	118	196.3	140	233.4	136	192.6	734	210.8
	Fixed Control-Point (500 hPa)	70	274.1	106	264.8	70	233.4	70	253.7	74	292.6	390	264.1
	Variable Control-Point (700 hPa)	70	296.3	100	231.5	70	235.2	70	277.8	73	294.5	383	264.5
	Space Mean Regression	70	251.9	114	188.9	73	263.0	61	272.2	76	218.5	394	232.4
	(P+$\frac{1}{4}$SD)	399	199.6	520	159.3	312	177.2	363	181.5	384	190.3	1978	180.4
48-hour	Regression	70	407.4	132	451.9	62	368.5	88	498.2	96	403.7	448	432.2
	$\frac{1}{2}$(P+C)	73	476.0	93	487.1	66	403.7	84	464.9	62	422.3	378	454.8
	(P+$\frac{1}{2}$SD)	307	459.4	426	375.0	224	382.1	262	420.8	265	440.9	1484	413.3
	Changing weight scheme (P+$\frac{1}{4}$SD for first 24 hours and P+$\frac{1}{2}$SD for second 24 hours)	304	460.2	429	378.5	227	389.4	262	423.8	261	438.2	1483	415.3
72-hour	Regression	38	679.7	110	733.4	27	537.1	55	790.8	68	655.6	298	701.6
	$\frac{1}{2}$(P+C)	37	837.1	60	761.2	31	516.7	41	563.0	37	792.7	206	704.2
	(P+$\frac{1}{2}$SD)	220	674.4	325	607.2	153	534.2	180	700.4	176	647.8	1054	633.3
	Changing weight scheme (P+$\frac{1}{4}$SD for first 24 hours and P+$\frac{1}{2}$SD for subsequent 48 hours)	226	684.7	321	610.6	154	553.3	176	708.4	174	636.9	1051	638.8

Table 47. Verification of 24-hour forecasts made for 4 selected tropical cyclones using best track data. The mean errors and standard deviations are in km.

Name of Tropical Cyclone	No. of Forecasts	Initial Position Error		$\frac{1}{2}(P+C)$		$(P+\frac{1}{4}SD)$	
		Mean Error	Std. Dev.	Mean Error	Std. Dev.	Mean Error	Std. Dev.
T.S. Roy (8113) Aug. 1981	8	16.7	7.8	272.2	78.9	180.2	135.4
T. Cecil (8211) Aug. 1982	25	23.3	13.3	155.6	73.3	145.0	65.3
T. Dot (8212) Aug. 1982	23	24.4	17.8	150.0	43.3	175.3	73.8
T. Irving (8217) Sep. 1982	39	15.6	7.8	102.2	37.8	97.6	67.2
Total	95	20.0	12.2	146.7	78.9	135.9	83.7