

DUPLICATE ALSO

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METEOROLOGICAL OFFICE



THE  
OBSERVATORIES'  
YEAR BOOK  
1966

Comprising the geophysical results obtained from  
autographic records and eye observations at the  
Lerwick, Eskdalemuir and Kew Observatories

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## PREFACE

The *Observatories' Year Book* was published for the years 1922 to 1937 in continuation of Part III Section II and Part IV of the *British Meteorological and Magnetic Year Book* for the period 1908 to 1921. Further publication was resumed eventually after a long interruption because of the 1939-45 war but in an abridged form as outlined in the next paragraph.

The General Introduction to the Meteorological Tables and the parts of the Sectional Introductions which dealt with site, instruments, procedure and tabulations included in the volume for 1938 served as the standards of reference up to 1956; only important departures from these standards were mentioned explicitly in subsequent Year Books. The space devoted to the discussion of observations was reduced and the monthly tables of individual hourly values of meteorological elements were discontinued, but summaries of the daily mean values (or totals), monthly means (or totals) of the hourly values and some maximum and minimum values were given. The diary of cloud, weather and visibility, and, after 1939, the aerological and seismological tables were also discontinued, but no major changes were made in the tables of atmospheric electricity and geomagnetism.

Another major review of the contents of the *Observatories' Year Book* was then carried out and a number of important changes made, commencing with the volume for 1957. The meteorological data for Kew and Eskdalemuir were omitted; a punched card system of recording such data centrally, at the Meteorological Office, Bracknell, has been adopted. It was also decided to omit all mention of the seismological work at Kew. Full details of the seismological measurements are given in the *Meteorological Office Seismological Bulletin*, distribution of which was resumed in 1947 after a break of seven years, and are also communicated to the *International Seismological Summary*. There were also some changes in the geomagnetism and atmospheric electricity tables; further changes in these tables were introduced in the 1964 volume. Full details of all the tables are given in the Introduction to the *Observatories' Year Book* 1965.

It may be of assistance to those who make use of the data in this volume to know the full range of the other work now carried out at the three observatories and this is detailed below. Requests for information about this other work should be addressed, unless otherwise stated below, to the Director-General, Meteorological Office, London Road, Bracknell, Berkshire, England.

### *Lerwick Observatory*

Full hourly synoptic observations of the weather. Continuous recording and hourly tabulations of pressure, wind, rainfall, sunshine, temperature, humidity, total and diffuse solar radiation on a horizontal surface, daylight illumination on a horizontal surface and of radiation balance. Daily measurements of smoke pollution in the air. Observations, when applicable, of noctilucent cloud.

Routine radiosonde and radar-wind upper air measurements (twice and four times daily respectively). Daily measurements (up to 18 December) of the total amount of ozone. Chemical sampling of the air and rain-water. Sampling for radioactivity of particulate matter in the air near the surface and sampling for radioactivity of rain-water.

There is a Radio and Space Research Station Unit, attached to Lerwick Observatory, which makes some measurements in connexion with its work on radio wave propagation, as well as solar proton measurements, using a neutron monitor, and magnetic micropulsation measurements, using a fluxgate magnetometer. Requests for information about this work should be addressed to the Director, Radio and Space Research Station, Ditton Park, Slough, Buckinghamshire, England.

PREFACE (*contd*)*Eskdalemuir Observatory*

Full hourly synoptic observations of the weather and, when applicable, of aurora and noctilucent cloud. Continuous recording and hourly tabulations of pressure, wind, rainfall, sunshine, temperature, humidity, total and diffuse solar radiation on a horizontal surface, daylight illumination on a horizontal surface and radiation balance. Daily measurements of evaporation, smoke pollution in the air, and soil temperatures (at depths of 30 and 122 cm). Chemical sampling of the air and rain-water. Sampling for radioactivity of particulate matter in the air near the surface and sampling for radioactivity of rain-water. Records from a set of the American world wide standard seismographs - 3 components on both short and long period instruments.

*Kew Observatory*

Three-hourly synoptic observations of the weather, 06-21 GMT. Continuous recording and hourly tabulations of pressure, wind, rainfall, sunshine, temperature, humidity, total and diffuse radiation on a horizontal surface, solar radiation at normal incidence, total and diffuse daylight illumination on a horizontal surface and radiation balance. Continuous recording and three-hourly tabulations (00-21 GMT) of soil temperatures at surface and depths of 5, 10, 20 and 30 cm together with daily measurements at depths of 50, 100 and 122 cm. Daily measurements of evaporation. Daily and hourly tabulations of smoke, and daily tabulations of sulphur dioxide concentrations in the air. Records from a short period vertical seismograph. From May daily measurements of the average ionisation due to  $\beta$  and  $\gamma$  rays from the earth's surface.



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## INTRODUCTION

A full Introduction was given in the *Observatories' Year Book* 1965 and reference should be made to that Introduction and to the 15 Figures published in that *Year Book*. Only two changes are required to bring this material up-to-date for 1966 and reference is made below to the pages of the *Observatories' Year Book* 1965.

Page 19. In the second paragraph, second line for "sulphur" read "polytetrafluoroethylene".

Page 23. Substitute for the present third paragraph "During 1965 ..... metre." the following:

"During 1966 the highest measurement of pollution at Kew was 584 microgrammes per cubic metre, this value occurring between 22 and 23 hours GMT on 14 December. For the second successive year since continuous recording began (1 January 1921) the maximum hourly value was below 1,000 microgrammes per cubic metre. The continued fall in smoke pollution values reflects the gradual extension of clean air zones over London."



LERWICK

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

1 LERWICK (H)													14,000γ (0·14 CGS unit) +													JANUARY 1966		
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 15,000γ+	
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	
1 q	664	664	665	667	670	672	677	676	670	668	669	669	669	669	670	672	671	672	671	670	670	671	672	672	671	670	1082	
2	669	664	667	676	682	681	677	676	671	671	672	675	675	676	673	669	666	664	670	672	671	662	677	668	665	671	1114	
3	665	674	660	667	667	671	670	670	670	668	669	669	669	669	669	670	669	664	663	657	667	663	666	666	664	667	1007	
4	665	664	665	665	669	672	672	675	672	668	668	674	674	673	676	676	677	680	670	667	671	687	644	657	660	669	1067	
5	658	659	658	661	664	665	665	665	664	663	662	658	658	656	659	662	665	666	668	667	666	665	663	662	661	663	902	
6	663	661	661	663	664	667	668	668	668	668	666	663	663	664	666	668	668	671	672	672	671	668	666	667	658	666	991	
7	662	662	662	660	665	671	670	668	669	668	668	661	661	662	666	669	675	675	674	674	667	655	651	660	660	666	974	
8	658	652	653	652	660	666	670	672	667	667	667	665	665	664	667	666	659	662	668	667	667	666	663	662	663	663	923	
9	681	664	661	663	664	668	669	669	668	667	662	659	659	661	668	670	670	665	651	658	666	658	681	657	654	665	954	
10	662	658	661	660	664	667	669	664	661	664	666	662	662	664	667	669	669	667	655	658	661	667	660	660	664	663	919	
11	671	665	660	662	662	666	667	667	666	665	662	663	663	667	671	673	670	669	671	672	671	669	669	666	669	667	1013	
12 q	664	665	662	662	664	668	669	667	666	662	661	663	663	664	669	669	669	670	670	671	671	673	672	670	667	667	1008	
13 q	667	666	667	669	670	671	673	675	673	671	666	664	664	664	668	671	671	671	671	673	673	669	668	670	668	670	1069	
14	667	670	667	667	669	670	671	673	675	672	669	669	669	673	676	678	669	665	669	670	669	668	667	662	668	670	1073	
15	657	662	662	663	667	670	673	673	672	669	665	664	664	666	667	667	666	671	673	672	670	666	667	667	668	667	1017	
16 q	668	668	669	670	671	672	672	671	668	665	667	668	668	669	669	667	667	667	669	670	671	670	670	670	669	669	1057	
17	668	667	665	665	670	673	675	674	670	666	663	663	663	662	663	665	667	671	675	675	677	677	675	675	674	670	1075	
18	674	676	676	676	676	679	680	680	679	679	677	680	680	681	681	677	673	668	652	646	641	655	664	666	668	671	1104	
19	667	664	665	666	668	673	675	673	673	669	661	659	662	665	667	668	668	670	671	671	672	674	674	675	669	1050		
20 d	673	671	678	676	671	681	683	672	675	669	661	662	662	664	668	659	659	661	648	651	655	652	655	663	659	665	966	
21 d	672	645	652	656	659	663	665	668	672	667	667	668	668	658	656	641	655	661	656	657	650	652	657	668	652	659	817	
22 d	651	649	654	656	660	668	663	684	677	670	658	646	646	657	657	643	657	650	646	655	657	671	683	639	647	658	798	
23 d	638	638	641	660	666	669	659	659	664	659	644	649	649	647	639	645	656	662	664	657	650	656	657	662	668	655	709	
24 d	663	660	660	664	669	665	671	671	665	645	642	645	645	653	663	669	666	639	644	655	659	660	659	668	659	659	814	
25	658	660	664	666	665	669	668	661	660	663	662	664	664	664	655	650	646	655	667	658	653	664	666	666	667	661	871	
26	664	664	666	668	667	669	665	667	661	654	654	658	658	644	652	663	666	655	666	662	651	655	660	668	671	661	870	
27	663	660	658	655	659	665	670	666	665	661	657	656	656	655	657	663	663	663	664	665	666	667	666	666	665	662	895	
28	665	664	665	665	666	668	669	669	669	668	666	658	658	659	664	666	668	671	677	676	676	680	683	674	669	669	1055	
29	670	671	670	674	674	671	672	673	672	667	660	657	657	656	658	657	656	660	658	662	666	668	667	666	667	665	972	
30	668	667	668	668	669	669	670	670	669	668	668	668	668	667	666	659	651	649	652	660	667	669	666	665	665	665	958	
31 q	665	665	665	666	666	666	666	663	662	661	662	663	663	663	666	667	667	666	667	670	671	668	666	666	666	666	973	
Mean	665	663	663	665	667	670	670	670	669	666	663	663	663	663	665	665	665	665	664	665	665	666	666	665	665	665	973	
Sum 20,000γ+	600	539	547	608	677	765	783	779	733	642	561	542	553	611	607	619	598	591	610	612	643	654	622	601			Grand Total 495,097	

**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

2	LERWICK (D)													9° +													JANUARY 1966	
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 400·0' +	
1 q	19·9	20·1	20·2	19·6	19·7	20·6	19·6	19·7	19·8	20·2	20·6	21·3	23·3	21·6	21·4	20·4	20·2	20·2	19·9	19·7	20·0	19·6	19·6	19·9	20·2	85·7		
2	20·3	20·2	26·0	19·3	18·2	19·3	19·4	19·6	20·0	20·6	21·5	22·3	24·2	23·7	23·2	23·3	20·2	19·7	20·2	20·8	13·0	15·0	19·1	18·5	20·3	87·6		
3	19·0	21·5	18·0	18·5	17·9	18·7	20·1	20·1	19·9	20·5	21·1	21·6	22·4	23·0	22·1	21·5	22·1	21·1	18·6	19·4	19·6	18·4	17·8	19·0	20·1	81·9		
4	19·2	19·8	19·7	20·7	20·5	19·3	20·0	20·1	20·4	21·1	21·6	21·9	22·1	22·4	23·0	24·6	23·3	26·0	24·3	24·0	4·3	14·3	16·3	18·3	20·3	87·2		
5	17·2	18·4	18·4	19·0	19·2	19·4	19·2	18·7	18·7	18·7	19·6	20·1	20·3	20·3	20·1	19·8	19·4	19·2	19·0	18·8	18·7	16·8	17·3	18·1	18·9	54·4		
6	19·9	18·8	19·0	19·0	18·7	18·7	18·8	18·9	18·7	18·5	18·9	19·7	20·8	21·1	20·6	20·2	19·9	19·6	19·2	19·1	18·7	18·7	16·2	17·6	19·1	59·3		
7	17·3	19·0	18·9	19·8	18·8	18·4	18·4	18·4	19·0	18·7	20·6	21·8	21·3	20·6	20·4	20·9	20·7	21·0	20·6	21·8	20·1	17·4	13·7	16·5	19·3	64·1		
8	12·6	18·6	18·2	17·8	17·8	17·1	17·2	17·9	18·3	18·7	19·5	19·4	20·8	21·8	22·6	22·4	21·8	21·4	19·9	19·3	18·3	16·1	17·1	15·4	18·7	50·0		
9	13·5	15·6	18·0	19·1	19·3	19·1	19·1	19·2	19·3	19·7	20·1	20·6	21·5	22·3	21·7	20·9	22·1	23·7	21·5	19·9	17·8	15·8	14·7	16·1	19·2	60·6		
10	17·4	18·2	18·8	17·3	19·0	17·2	18·1	18·6	18·7	19·3	20·5	20·9	21·0	21·7	20·3	19·7	20·6	20·9	20·9	20·0	13·0	16·9	17·2	16·7	18·9	52·9		
11	18·4	18·9	19·2	18·7	17·5	18·9	18·9	18·7	19·2	19·8	20·0	20·9	21·5	21·8	20·8	20·5	20·3	20·0	19·7	19·4	19·0	17·7	17·7	17·9	19·4	65·4		
12 q	18·2	17·8	18·2	17·2	18·3	19·4	19·3	19·1	19·3	20·0	20·7	21·0	21·4	21·1	20·6	20·1	20·3	20·2	20·4	19·9	19·8	19·6	19·3	19·1	19·6	70·3		
13 q	18·7	19·7	20·3	19·4	19·2	19·5	20·1	19·5	19·5	19·8	20·5	21·1	22·0	22·0	21·6	20·8	20·9	20·4	20·1	20·1	18·8	19·0	18·9	18·8	20·0	80·7		
14	18·5	18·4	18·0	18·3	18·6	19·0	19·3	19·6	20·1	20·5	20·7	21·5	22·6	23·4	24·0	22·5	21·4	20·8	20·2	19·6	18·8	17·6	16·3	13·2	19·7	72·9		
15	15·6	16·9	18·7	19·3	19·5	20·2	20·0	19·6	19·3	19·5	21·3	21·6	22·0	22·8	22·4	20·1	21·3	20·7	20·5	20·1	19·3	19·2	18·2	19·3	19·9	77·4		
16 q	19·8	20·0	20·2	20·4	19·7	20·0	19·6	19·6	19·6	20·5	21·6	21·7	21·3	21·3	20·9	20·2	20·3	20·2	19·9	19·4	19·2	18·9	19·2	19·1	20·1	82·6		
17	19·2	19·3	19·6	19·8	19·9	18·5	19·0	19·5	19·5	19·2	19·6	20·5	21·4	21·9	21·7	21·0	20·5	20·3	20·0	19·9	19·9	19·7	19·6	19·8	20·0	79·3		
18	20·1	20·2	20·4	20·7	20·8	20·8	20·6	20·4	20·0	20·4	21·0	21·4	22·0	23·5	23·6	24·0	24·6	26·4	24·8	21·9	18·4	18·6	19·1	19·0	21·4	112·7		
19	19·6	20·1	20·5	20·2	20·5	20·9	20·3	20·3	20·4	20·4	20·9	21·5	22·7	23·2	23·5	22·0	21·3	21·3	20·8	20·5	20·0	19·5	19·3	19·4	20·8	99·1		
20 d	19·5	19·8	20·6	19·6	20·2	18·8	18·3	18·7	20·0	20·3	21·4	22·8	24·9	25·8	26·4	26·2	29·7	25·0	24·4	21·3	8·0	18·9	18·3	17·7	21·1	106·6		
21 d	16·6	13·0	17·5	17·6	16·7	16·9	19·6	20·2	20·5	20·5	20·7	24·0	23·2	26·3	23·2	23·5	24·7	21·4	2·2	8·3	15·7	17·6	17·9	14·6	18·4	42·4		
22 d	14·7	19·3	18·1	20·2	18·1	19·5	25·2	28·3	24·1	22·2	21·5	20·5	22·0	25·9	15·7	22·8	24·7	21·2	21·1	17·7	3·6	7·6	12·5	13·1	19·1	59·6		
23 d	14·5	19·0	20·5	17·3	18·3	20·0	21·3	22·4	21·4	21·0	20·5	23·0	22·3	23·3	21·7	19·6	20·7	19·8	19·3	12·8	16·7	17·3	16·8	14·6	19·4	65·1		
24 d	16·4	17·5	18·3	18·2	18·4	20·4	22·0	21·3	21·4	21·3	23·9	23·8	22·3	22·4	22·0	21·7	17·2	7·8	19·7	19·5	16·2	17·1	12·2	17·2	19·1	58·9		
25	18·8	18·7	20·9	18·4	19·2	18·9	20·2	20·7	20·1	20·3	20·7	21·3	22·5	23·1	21·1	22·3	17·5	21·1	19·0	17·0	17·3	18·1	18·3	18·5	19·7	74·0		
26	19·7	19·8	20·2	20·0	19·8	19·3	21·0	22·3	21·3	20·7	22·0	22·3	23·1	22·1	22·2	22·0	10·7	14·9	12·5	15·0	12·3	16·8	16·3	17·8	18·9	54·1		
27	17·8	19·2	21·0	21·4	20·1	19·5	19·7	19·4	19·1	18·9	19·8	20·5	20·8	21·4	21·2	20·4	19·7	19·6	19·9	19·8	19·5	19·1	19·1	19·0	19·8	75·9		
28	19·1	19·3	19·3	19·5	19·6	19·5	19·3	18·9	18·5	18·4	19·3	20·2	20·8	22·0	22·1	21·4	21·1	21·1	21·5	21·1	20·4	20·8	19·6	19·3	20·1	82·1		
29	18·9	19·0	18·7	19·3	20·0	19·9	19·7	18·9	19·1	19·3	19·9	21·5	21·7	22·0	22·0	22·1	21·3	19·5	18·7	19·7	19·1	18·9	18·5	18·4	19·8	76·2		
30	19·1	18·7	18·9	19·0	18·9	18·7	18·5	18·5	18·3	18·3	18·8	19·7	20·5	22·1	22·2	21·5	20·9	21·6	20·2	19·6	19·5	19·0	18·6	18·7	19·6	69·8		
31 q	18·5	18·4	18·7	19·2	19·3	19·2	19·1	19·1	19·2	19·8	20·3	20·8	21·3	21·9	21·7	20·9	20·5	20·2	20·2	19·8	19·4	18·7	17·5	18·3	19·7	72·0		
Mean	18·0	18·8	19·5	19·1	19·1	19·2	19·7	19·9	19·8	19·9	20·6	21·3	21·9	22·5	21·8	21·6	21·0	20·5	19·7	19·2	16·9	17·7	17·5	17·7	19·7			
Sum 500·0' +	58·0	83·2	103·0	93·8	91·7	95·6	110·9	116·2	112·7	117·1	139·1	161·3	180·3	197·8	176·0	169·3	149·9	136·3	109·2	95·2	24·4	48·7	42·2	48·9		Grand Total 14660·8		

GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

5

3 LERWICK (Z)		47,000γ (0.47 CGS unit) +																						JANUARY 1966			
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 9000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 q	418	417	416	416	415	413	412	413	415	416	417	417	417	415	416	416	416	416	418	419	418	418	418	418	418	416	989
2	416	416	400	402	405	407	408	410	413	412	413	412	412	412	415	416	419	421	420	418	420	429	417	418	420	414	939
3	420	400	407	407	410	409	410	411	413	414	416	418	418	416	416	418	419	420	422	428	423	426	427	429	427	417	1006
4	424	421	419	416	412	411	411	410	411	412	413	413	413	415	414	416	416	415	422	429	459	451	424	429	422	420	1085
5	408	408	420	420	419	417	417	416	416	416	417	419	419	423	424	423	422	420	418	417	417	417	417	418	418	418	1027
6	416	417	419	419	418	416	414	414	413	413	413	415	415	417	417	418	420	418	417	416	415	416	419	418	423	417	1001
7	419	419	419	420	415	412	412	412	411	411	411	415	415	416	417	419	420	419	419	418	424	442	444	436	433	420	1083
8	417	425	427	430	423	418	414	411	412	409	411	413	413	414	416	421	427	427	425	426	424	425	429	430	429	421	1103
9	415	417	419	418	419	419	418	416	415	412	411	410	410	412	413	418	422	426	439	444	435	438	418	392	414	419	1060
10	420	424	423	421	415	420	420	421	422	420	418	417	417	416	416	417	420	423	430	430	432	429	426	422	418	422	1120
11	406	404	413	417	420	420	419	419	419	416	416	414	414	412	413	415	419	421	421	421	421	421	420	418	414	417	999
12 q	414	412	411	414	416	417	418	419	419	417	415	415	415	413	412	414	416	418	419	419	419	419	419	418	417	416	990
13 q	415	413	410	410	411	414	415	415	415	415	415	412	412	412	411	413	415	416	417	418	419	422	422	420	419	415	964
14	417	414	412	413	412	413	413	413	413	413	413	413	413	410	409	410	415	418	418	419	420	421	422	423	415	415	959
15	415	410	409	409	408	408	410	413	413	415	415	416	417	416	415	418	422	415	414	415	417	421	421	421	419	415	959
16 q	417	416	414	413	412	412	412	413	415	416	416	415	415	415	414	414	415	415	414	414	414	415	416	416	417	415	950
17	417	416	415	414	411	411	410	411	414	415	415	413	413	415	415	417	416	414	413	412	412	412	413	413	414	414	928
18	415	413	412	411	411	409	409	409	409	406	406	405	405	406	409	413	416	419	431	446	470	449	431	424	420	419	1049
19	418	419	418	418	417	414	412	413	411	412	413	414	414	415	417	420	421	421	418	417	415	415	414	414	414	416	980
20 d	415	416	411	409	411	407	406	409	406	408	409	409	409	409	419	436	440	450	493	473	472	465	432	421	417	427	1243
21 d	389	393	395	402	403	401	408	411	412	407	409	408	408	415	424	452	458	443	467	465	450	433	427	413	392	420	1077
22 d	410	411	420	425	425	420	410	392	400	406	413	419	419	420	424	490	452	450	453	441	441	426	395	391	389	422	1123
23 d	387	386	376	403	411	410	413	416	414	414	420	422	422	423	433	438	446	433	428	433	439	429	428	419	411	418	1032
24 d	411	411	416	419	416	416	411	415	416	416	424	422	418	415	418	425	433	451	459	436	428	430	426	419	418	423	1153
25	415	417	411	412	417	415	415	419	419	419	419	417	417	419	424	433	445	448	429	434	441	430	424	419	415	423	1154
26	416	418	418	419	419	416	413	410	415	420	422	421	421	426	429	426	433	449	441	434	440	442	427	407	391	423	1152
27	407	410	411	415	415	418	418	421	422	423	424	423	423	423	420	422	423	423	424	424	423	423	422	421	420	420	1075
28	419	419	419	419	419	420	421	421	419	418	418	419	419	417	414	416	418	419	418	419	420	420	418	421	421	419	1052
29	418	416	416	413	413	414	415	416	414	414	416	417	417	417	416	419	425	425	432	433	427	423	422	420	419	419	1060
30	417	417	416	416	416	417	417	417	416	416	415	413	413	411	414	421	425	430	427	425	422	422	421	421	421	419	1053
31 q	420	419	418	417	417	417	418	419	419	419	421	422	422	420	420	420	419	420	419	418	418	420	422	422	420	419	1064
Mean	414	413	413	415	415	414	413	414	414	414	415	415	415	416	417	423	425	426	429	428	429	427	422	418	416	419	
Sum 12,000γ+	831	814	810	857	851	831	819	825	843	848	871	875	885	934	1114	1173	1203	1283	1260	1296	1249	1081	971	905			Grand Total 311,429

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH HOUSE

4 LERWICK		JANUARY 1966								
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magnetograph house °C
1 q	0100 0010	2	0000 0000	0	0100 0010	2	0000 0000	0	0	11.8
2	3101 1133	13	1101 1122	9	3101 1133	13	2100 0011	5	1	13.0
3	3100 1111	8	2000 1111	6	3100 1011	7	2000 0000	3	1	13.6
4	0111 0253	13	0111 0243	12	0110 0152	10	0000 0142	7	1	8.6
5	1000 0002	3	1000 0001	2	1000 0002	3	2000 0000	2	1	6.8
6	1000 0002	3	0000 0002	2	1000 0002	3	0000 0001	1	0	7.3
7	1100 0123	8	0100 0123	7	1100 0113	7	0000 0022	4	1	9.5
8	3111 1111	10	1110 1101	6	3111 1111	10	1100 0000	2	1	9.2
9	3000 0224	11	3000 0224	11	3000 0124	10	1000 0213	7	1	13.5
10	1211 1132	12	1111 0122	9	1211 1031	10	0100 0011	3	1	14.6
11	1000 0101	3	1000 0101	3	1000 0001	2	1000 0000	1	0	15.0
12 q	1000 0000	1	1000 0000	1	1000 0000	1	0000 0000	0	0	14.1
13 q	1000 0010	2	0000 0000	0	1000 0010	2	0000 0000	0	0	14.2
14	0000 0102	3	0000 0102	3	0000 0002	2	0000 0001	1	0	14.3
15	2100 1101	6	1100 1100	4	2100 1101	6	0000 0100	1	1	14.2
16 q	0000 0000	0	0000 0000	0	0000 0000	0	0000 0000	0	0	13.9
17	0100 0000	1	0100 0000	1	0100 0000	1	0000 0000	0	0	14.0
18	0000 1221	6	0000 1221	6	0000 1220	5	0000 0121	4	1	14.2
19	0001 1100	3	0001 1100	3	0000 0000	0	0000 0000	0	0	14.0
20 d	1121 2342	16	1121 2222	13	0111 2342	14	0000 2332	10	1	13.7
21 d	3122 3353	22	3112 3233	18	2122 3353	21	2010 3333	15	2	13.7
22 d	3232 4344	25	2222 3334	21	3232 4243	23	2021 4321	15	2	13.0
23 d	3112 1232	15	2112 1122	12	3112 1232	15	2200 2211	10	1	12.6
24 d	2211 2322	15	1111 2322	13	2211 1322	14	0001 0321	7	1	12.9
25	2111 2321	13	1111 2321	12	2111 2321	13	1100 1211	7	1	14.1
26	0112 2333	15	0011 2333	13	0112 1333	14	0000 1223	8	1	13.0
27	2110 0000	4	1110 0000	3	2100 0000	3	0000 0000	0	1	13.3
28	0001 1113	7	0001 1113	7	0000 0011	2	0000 0001	1	1	12.9
29	0001 1210	5	0001 1110	4	0000 0210	3	0000 0110	2	1	13.5
30	0000 1110	3	0000 1110	3	0000 1100	2	0000 0000	0	0	14.0
31 q	0000 0011	2	0000 0010	1	0000 0001	1	0000 0000	0	0	14.2
Mean									0.71	12.8

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

1 LERWICK (H)													14,000γ (0.14 CGS unit) +													FEBRUARY 1966	
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 15,000γ+	
	0-1																										
1 q	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	
2	670	674	674	669	670	673	677	677	673	674	671	665	662	666	670	673	673	673	672	671	671	672	674	672	672	1117	
3	675	672	674	675	675	675	676	676	675	673	673	675	663	669	668	670	670	672	668	672	672	673	677	675	673	1153	
4	672	672	673	673	675	673	670	671	675	676	673	666	664	663	649	663	672	673	661	669	662	671	659	660	668	1035	
5 d	665	669	664	670	670	671	677	672	661	657	657	655	659	658	660	658	671	672	668	668	683	669	658	655	665	967	
	662	654	665	661	654	657	673	671	669	654	648	655	647	660	669	672	662	663	665	665	675	664	663	659	662	887	
6	660	660	661	659	664	664	660	658	665	661	655	654	652	657	662	667	669	669	668	670	671	674	668	661	663	909	
7	657	666	661	662	664	664	667	669	671	672	667	666	665	665	668	671	671	669	670	671	671	667	666	668	667	1008	
8	668	668	668	665	667	668	668	669	671	671	668	667	665	667	660	661	659	662	669	669	669	667	669	669	667	1004	
9 q	667	665	665	666	671	670	671	671	670	668	666	667	666	671	675	674	672	672	672	676	675	673	668	668	670	1079	
10	666	673	668	669	672	672	672	673	668	670	665	668	669	672	680	680	682	675	671	662	666	672	665	665	671	1095	
11	658	658	660	667	672	672	675	675	675	668	665	661	660	669	664	668	675	673	671	672	671	661	647	663	667	1000	
12	654	655	661	661	666	671	669	666	661	658	653	655	655	660	665	668	669	670	671	672	671	670	669	666	664	936	
13	665	664	660	665	667	669	672	675	672	665	662	659	661	667	670	670	666	665	672	671	667	669	671	669	667	1013	
14 q	668	667	667	670	671	671	670	669	667	664	662	662	664	667	672	672	668	661	665	669	670	671	670	670	668	1027	
15	669	669	671	671	672	673	672	671	669	665	666	670	670	668	666	670	671	675	676	675	667	665	664	672	670	1077	
16	672	677	673	668	671	680	675	671	670	661	653	651	651	659	665	668	671	672	672	672	669	670	676	673	668	1040	
17	673	673	672	673	675	679	681	681	679	676	670	668	668	667	659	666	669	669	668	666	674	669	670	675	672	1120	
18	671	668	669	672	676	678	679	677	676	668	661	659	659	664	669	668	670	671	674	676	676	675	676	675	671	1107	
19 d	677	674	672	675	678	680	676	676	682	675	661	660	661	662	667	671	699	684	677	701	680	645	647	652	672	1132	
20 d	659	657	661	659	662	658	656	671	665	638	636	635	633	638	650	664	664	666	666	666	663	665	667	666	657	765	
21	665	662	662	663	663	664	665	665	661	655	655	655	655	659	663	665	664	667	668	668	668	668	670	668	663	918	
22	671	669	671	672	673	673	673	673	672	665	666	662	661	648	655	671	668	660	667	642	636	636	627	669	662	880	
23 d	665	666	667	662	614	651	660	622	628	617	638	650	655	654	666	657	656	671	661	666	679	647	649	660	653	661	
24 d	658	660	657	663	677	662	662	654	667	658	649	645	641	654	661	663	666	661	670	687	667	665	666	662	661	875	
25	664	658	666	670	653	669	670	672	670	665	658	654	652	653	664	670	671	665	670	672	672	674	681	667	666	980	
26 q	669	667	667	669	670	671	671	671	668	664	661	659	657	661	662	664	666	667	669	671	668	671	671	670	667	1004	
27	670	669	669	670	672	669	673	672	668	661	654	656	658	659	664	667	669	670	672	673	674	673	673	672	668	1027	
28 q	673	671	672	672	674	674	674	673	669	664	661	658	658	664	669	671	673	674	674	676	675	676	675	676	671	1096	
Mean	667	666	667	667	667	670	671	669	669	663	660	659	659	661	665	668	670	669	670	671	670	667	665	667	667		
Sum 18,000γ+	663	657	670	691	688	751	784	741	717	563	474	457	441	521	612	702	756	741	748	789	762	671	634	679		Grand Total 447,912	

**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

2 LERWICK (D)		9° +												FEBRUARY 1966													
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 400.0'+
1 q	18.8	19.7	18.6	17.3	17.9	18.7	19.3	19.3	19.7	19.6	19.6	20.6	22.0	22.6	21.9	21.2	21.0	20.6	20.3	20.0	19.7	18.8	18.4	18.9	19.8	74.5	
2	19.2	19.5	19.6	19.8	19.8	19.2	19.1	19.1	19.2	20.0	20.4	20.8	22.1	23.3	22.7	21.5	21.6	21.0	18.9	20.2	20.0	19.1	18.8	18.5	20.1	83.4	
3	19.2	19.3	19.5	19.6	19.9	19.1	19.1	21.1	21.4	20.3	20.5	20.9	21.7	23.8	23.7	22.0	21.0	21.9	17.9	14.8	12.2	9.6	15.2	18.0	19.2	61.7	
4	17.9	19.5	18.1	17.9	17.9	19.1	17.9	18.8	19.0	21.3	21.7	21.5	21.5	23.9	22.6	21.0	20.0	21.3	20.6	18.4	9.4	15.0	15.7	19.4	19.1	59.4	
5 d	16.1	15.3	20.2	18.0	15.9	17.4	16.3	19.1	20.3	20.1	22.6	25.4	25.3	25.0	24.4	26.3	28.1	26.7	24.6	22.7	11.5	10.1	14.3	12.1	19.9	77.8	
6	16.2	14.9	18.1	20.9	19.7	16.4	16.9	17.0	18.0	19.9	20.4	20.9	23.2	22.5	22.6	21.2	19.9	20.0	20.0	16.8	16.3	15.9	15.6	15.8	18.7	49.1	
7	17.5	16.8	15.6	17.8	17.6	18.7	18.2	18.5	19.6	19.8	19.7	19.8	20.9	21.4	20.8	20.2	19.5	18.9	19.1	19.0	17.8	18.1	18.5	19.3	18.9	53.1	
8	18.9	18.7	18.3	18.7	18.6	18.1	18.4	18.7	18.8	19.0	19.2	19.7	21.5	23.2	22.5	21.7	24.3	22.5	20.7	19.8	18.7	17.8	18.1	18.7	19.8	74.6	
9 q	18.5	17.7	17.9	18.6	17.8	17.9	17.9	18.6	18.8	19.6	19.8	20.8	21.8	22.5	21.9	21.0	20.8	20.6	20.0	20.1	19.8	19.3	18.7	18.0	19.5	68.4	
10	17.7	14.9	15.2	14.9	15.9	17.3	17.8	18.7	18.5	19.3	19.6	20.7	21.2	21.8	22.5	21.6	22.0	23.3	23.3	21.9	19.4	13.3	14.7	17.4	18.9	52.9	
11	21.9	20.1	20.6	14.1	15.7	17.7	18.7	18.6	19.6	21.4	21.5	23.0	22.5	26.3	25.4	20.7	22.3	22.3	20.6	20.5	19.9	16.9	13.1	5.5	19.5	68.9	
12	8.2	15.7	17.8	18.9	20.4	18.5	19.4	18.7	19.6	21.3	20.9	21.7	21.5	21.4	20.7	20.0	19.9	19.7	19.7	19.8	19.7	18.9	18.6	18.7	19.2	59.7	
13	18.4	18.6	18.8	18.4	16.1	16.8	16.8	17.2	17.7	18.8	20.6	22.4	23.5	24.0	22.4	20.7	19.1	18.6	19.5	18.6	17.9	18.6	18.8	18.9	19.2	61.2	
14 q	18.8	19.4	19.3	19.4	18.6	18.1	18.0	17.7	17.5	18.0	19.6	20.8	22.2	22.2	21.6	20.5	19.7	18.7	19.3	19.5	19.5	19.4	19.4	19.4	19.4	66.6	
15	18.6	19.5	19.5	19.4	19.4	18.9	18.4	17.8	17.6	18.0	19.4	21.4	23.2	23.7	22.3	20.6	19.8	19.6	19.9	20.3	19.5	15.6	16.8	17.9	19.5	67.1	
16	19.8	21.4	18.4	17.7	17.0	16.1	16.6	17.7	18.0	18.6	20.6	21.6	22.7	22.5	21.8	20.5	20.4	19.9	19.6	19.6	18.6	18.6	18.4	18.9	19.4	65.0	
17	18.7	19.7	19.6	19.4	19.1	18.9	18.7	18.3	17.3	17.4	19.0	20.6	21.8	22.8	22.3	21.4	21.2	20.9	20.8	20.0	12.8	15.3	17.4	17.7	19.2	61.1	
18	19.0	19.4	19.9	20.0	20.1	19.5	18.6	18.7	18.7	19.1	19.8	21.1	21.7	21.4	20.1	19.1	18.9	19.4	19.5	19.5	19.3	18.8	19.4	19.6	70.5		
19 d	20.6	19.8	20.0	20.3	19.3	18.6	18.8	19.2	18.8	18.8	18.9	20.9	23.5	24.3	26.2	28.6	35.0	26.8	23.8	14.4	3.8	14.2	14.9	14.3	20.2	83.8	
20 d	17.2	21.2	12.6	14.3	16.5	20.9	21.4	23.5	21.1	20.3	20.8	23.9	24.1	23.0	21.9	22.4	20.6	18.6	17.9	19.0	18.1	18.5	17.7	17.7	19.7	73.2	
21	18.3	18.4	18.4	18.4	18.1	18.4	18.3	18.6	18.3	17.5	18.6	20.7	21.5	21.8	20.9	19.4	18.7	18.9	18.8	18.6	18.5	18.0	18.3	18.5	18.9	53.9	
22	18.9	18.5	18.5	18.4	18.4	18.1	18.2	18.2	18.5	18.4	20.1	22.8	26.3	25.5	21.4	19.7	24.2	15.9	6.2	8.6	8.8	7.8	12.5	15.5	17.5	19.4	
23 d	18.3	22.6	19.0	19.2	27.2	32.1	19.4	22.6	23.7	23.9	18.4	21.6	21.9	22.7	23.0	22.6	16.9	19.3	18.8	16.2	4.7	11.9	17.5	12.9	19.9	76.4	
24 d	18.6	18.8	18.6	19.7	16.0	18.7	22.9	22.6	20.0	20.4	20.8	21.8	19.6	22.1	22.3	20.1	18.2	17.2	17.5	0.9	14.3	17.1	19.4	21.2	18.7	48.8	
25	20.4	19.6	19.9	15.5	17.3	18.4	19.5	20.1	19.5	20.3	20.7	22.8	23.7	23.7	22.8	20.5	20.6	18.5	20.5	20.1	19.2	18.3	18.9	17.2	19.9	78.0	
26 q	17.8	18.5	18.9	18.6	18.5	18.5	18.8	18.8	18.2	18.9	19.7	20.9	20.9	21.1	20.3	19.4	19.1	19.2	19.6	19.5	17.9	17.7	18.2	18.4	19.1	57.4	
27	18.9	18.9	19.1	18.0	18.4	18.8	19.7	19.8	19.8	19.5	20.8	22.1	23.4	22.4	21.1	19.5	18.6	19.0	19.3	19.5	19.3	19.0	18.9	18.4	19.7	72.2	
28 q	18.2	18.3	18.7	17.8	17.6	17.9	18.0	17.9	17.5	17.5	18.3	19.3	20.3	21.0	20.9	20.1	20.0	19.9	20.1	20.2	19.9	19.3	19.4	19.3	19.1	57.4	
Mean	18.2	18.7	18.5	18.3	18.4	18.8	18.6	19.1	19.1	19.5	20.1	21.5	22.3	22.9	22.3	21.2	21.1	20.3	19.5	18.2	16.3	16.5	17.3	17.3	19.3		
Sum 400.0'+	110.6	124.7	118.7	111.0	114.7	126.8	121.1	134.9	134.7	147.0	162.0	200.5	225.5	241.9	223.0	193.5	191.4	169.2	146.8	108.5	56.7	61.4	85.0	85.9		Grand Total 12995.5	



GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

7

3 LERWICK (Z)												47,000 $\gamma$ (0.47 CGS unit) +												FEBRUARY 1966											
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 9000 $\gamma$ +								
	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$								
1 q	419	414	407	411	412	411	411	412	414	414	414	415	416	416	418	419	418	417	417	417	418	419	420	420	420	416	975								
2	418	418	417	416	415	414	413	413	413	413	413	413	411	412	418	420	418	419	419	423	421	420	421	419	419	417	1003								
3	420	419	418	416	416	415	417	414	412	411	411	413	415	416	419	430	426	421	420	436	447	456	423	421	425	422	1126								
4	424	407	409	413	416	416	413	413	416	411	415	419	419	422	426	428	435	429	425	424	425	421	401	404	389	417	1001								
5 d	385	405	402	413	414	413	401	403	404	408	416	414	414	422	429	429	436	454	459	463	463	451	435	426	421	424	1166								
6	417	416	417	412	398	402	410	415	415	411	410	412	412	419	428	432	430	430	429	426	424	421	415	413	417	417	1019								
7	419	416	420	420	421	419	416	416	413	412	413	415	415	417	418	424	426	426	426	424	422	419	420	416	418	419	1056								
8	417	418	421	422	422	422	422	420	418	417	416	416	416	412	415	425	431	432	432	430	430	428	426	423	421	422	1136								
9 q	419	419	419	416	418	420	421	421	420	418	417	415	415	414	414	417	421	422	423	423	422	420	421	424	422	419	1066								
10	424	421	422	421	419	418	418	418	419	415	416	413	413	412	412	412	416	421	426	433	448	448	448	433	425	423	1158								
11	412	399	397	401	408	413	417	417	416	416	416	415	415	415	416	430	429	423	424	424	424	424	430	435	403	417	1004								
12	390	398	407	413	410	406	413	417	421	418	417	413	413	412	413	414	417	419	421	421	421	422	422	422	421	415	948								
13	415	411	408	398	402	409	411	412	413	414	416	416	416	416	415	413	420	425	427	421	423	425	422	421	421	416	974								
14 q	420	418	419	416	416	416	416	417	418	416	416	418	418	418	417	416	418	420	423	421	419	419	420	420	420	418	1037								
15	420	419	419	418	416	416	416	416	418	419	418	415	412	413	416	417	418	419	419	417	418	424	428	424	419	418	1038								
16	418	407	407	408	408	407	410	412	415	420	419	418	418	419	419	422	421	420	418	418	419	421	420	416	414	416	976								
17	414	417	418	418	417	415	414	413	413	413	411	410	410	411	418	425	423	422	422	422	424	424	418	416	412	417	1007								
18	413	416	417	416	416	414	413	413	412	414	415	417	417	418	418	420	422	422	421	418	417	417	417	418	417	1001									
19 d	412	415	419	418	416	416	417	414	412	412	413	410	409	409	414	423	440	491	547	488	513	483	430	415	378	434	1405								
20 d	387	364	373	400	407	406	395	399	406	420	424	426	432	451	450	445	443	439	434	427	428	424	423	423	418	1026									
21	424	426	425	425	426	426	424	423	423	423	420	419	421	421	422	425	429	429	428	426	424	422	422	420	420	424	1172								
22	420	423	423	424	424	424	422	420	420	420	421	417	417	423	433	433	459	459	470	468	446	446	427	392	359	358	1195								
23 d	396	401	413	415	355	291	332	380	386	409	421	425	427	427	433	440	451	462	445	446	444	394	391	381	381	405	719								
24 d	407	403	410	407	398	410	412	414	422	420	422	427	442	442	433	431	437	446	448	440	429	408	410	417	405	421	1098								
25	390	390	375	394	406	411	412	414	416	412	411	414	414	422	424	426	431	436	442	435	427	426	422	406	400	414	942								
26 q	407	413	416	418	419	420	420	419	419	417	415	414	414	417	419	421	423	425	426	424	424	427	424	421	419	419	1067								
27	417	416	417	417	418	420	415	415	415	415	414	414	414	416	418	423	425	425	424	424	423	422	422	421	419	419	1055								
28 q	418	418	417	418	417	418	418	419	420	422	420	421	421	420	419	418	415	417	419	421	421	422	421	420	418	419	1057								
Mean	412	411	412	414	412	410	411	414	415	415	416	416	416	418	421	425	428	432	433	430	431	426	420	416	412	419									
Sum 11,000 $\gamma$ +	542	507	532	584	530	488	519	581	610	628	645	652	713	795	909	980	1085	1137	1045	1063	938	765	653	526			Grand Total 281,427								

GEOMAGNETIC CHARACTER FIGURES ( $K$ ,  $K_H$ ,  $K_D$ ,  $K_Z$ , AND  $C$ ) AND TEMPERATURE IN MAGNETOGRAPH HOUSE

4 LERWICK						FEBRUARY 1966				
	3-h range indices $K$	Sum of indices	3-h range indices $K_H$	Sum of indices	3-h range indices $K_D$	Sum of indices	3-h range indices $K_Z$	Sum of indices	Geomagnetic character of day, C (0-2)	Temperature in magnetograph house $^{\circ}C$
1 q	1100 1000	3	1000 1000	2	1100 0000	2	1000 0000	1	0	14.2
2	0000 1111	4	0000 1111	4	0000 1010	2	0000 0000	0	0	14.2
3	0011 2243	13	0011 2233	12	0010 1143	10	0000 1131	6	1	13.9
4	2211 2233	16	1111 1233	13	2211 2233	16	2000 0122	7	1	14.2
5 d	3222 2243	20	2212 2222	15	3222 1243	19	2111 1222	12	1	14.3
6	2211 1022	11	1111 1011	7	2211 1022	11	0200 0000	2	1	14.0
7	2100 0122	8	1000 0111	4	2100 0022	7	0000 0000	0	1	14.1
8	0000 1111	4	0000 1111	4	0000 1110	3	0000 0000	0	0	14.2
9 q	1000 0001	2	0000 0001	1	1000 0001	2	0000 0000	0	0	13.7
10	1111 1123	11	1011 1112	8	1111 1023	10	0000 0022	4	1	13.7
11	2211 2223	15	1011 2222	11	2211 2103	12	1100 1102	6	1	13.1
12	3111 0000	6	2101 0000	4	3111 0000	6	2100 0000	3	1	12.8
13	1110 1100	5	1110 1100	5	1100 0000	2	1100 0000	2	1	12.0
14 q	0000 0100	1	0000 0100	1	0000 0000	0	0000 0000	0	0	12.0
15	0000 1012	4	0000 1011	3	0000 1012	4	0000 0000	0	1	12.7
16	1110 0002	5	1110 0002	5	1100 0001	3	1000 0001	2	1	13.0
17	0000 1032	6	0000 1022	5	0000 0032	5	0000 0010	1	1	13.1
18	1000 0000	1	0000 0000	0	1000 0000	1	0000 0000	0	0	13.2
19 d	1111 1343	15	1011 1332	12	1101 1343	14	0000 1443	12	2	13.8
20 d	3332 2221	18	2232 2211	15	3332 2221	18	3121 2000	9	1	13.1
21	0011 1101	5	0011 1101	5	0011 0000	2	0000 0000	0	0	13.3
22	0001 3434	15	0001 3333	13	0001 3434	15	0000 3223	10	1	14.3
23 d	2433 2343	24	1433 2333	22	2423 1343	22	2442 1232	20	2	14.0
24 d	2222 2243	19	2222 2132	16	2222 1243	18	1101 1121	8	1	14.2
25	3111 2322	15	1111 2212	11	3110 1321	12	2200 0102	7	1	14.3
26 q	1000 1010	3	0000 1010	2	1000 0010	2	1000 0000	1	0	14.1
27	0101 1000	3	0101 1000	3	0001 0000	1	0000 0000	0	0	14.6
28 q	1001 0000	2	0001 0000	1	1000 0000	1	0000 0000	0	0	14.3
Mean									0.71	13.7

$q$  denotes an international quiet day and  $d$  an international disturbed day.

$K_H$  For horizontal component.  $K_D$  For declination.  $K_Z$  For vertical component. (See Introduction).

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

1 LERWICK (H)		14,000γ (0.14 CGS unit) +																						MARCH 1966		
	Hour GMT 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 14,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 q	675	673	673	671	671	677	678	675	668	657	649	642	652	661	670	673	672	674	673	673	674	677	676	676	669	2060
2 q	676	675	676	675	674	675	674	673	668	663	661	664	668	669	672	673	672	668	669	676	676	674	674	673	672	2118
3	671	672	674	671	672	676	679	681	680	666	649	658	672	670	672	672	674	672	673	671	667	671	656	654	670	2073
4	658	668	667	669	668	670	671	668	663	660	661	659	660	664	669	672	668	667	673	679	668	661	666	668	667	1997
5	669	665	664	668	668	670	672	675	670	662	653	650	651	658	666	674	673	672	673	671	671	669	666	666	667	1996
6	671	666	666	668	674	673	674	671	666	656	649	653	657	661	664	665	669	667	672	675	673	669	668	674	667	2001
7 q	671	668	669	674	675	674	673	674	668	657	650	648	652	662	666	673	672	672	674	675	675	675	672	671	668	2040
8	671	672	671	673	674	678	677	677	675	665	659	657	657	664	670	674	673	673	672	675	678	678	678	678	672	2119
9	677	677	676	676	678	678	679	676	671	663	654	654	653	655	663	669	671	675	680	683	676	661	668	654	669	2067
10	626	665	664	666	667	670	672	673	663	655	651	643	650	656	649	659	671	675	678	680	677	677	688	672	664	1947
11	675	664	671	670	672	674	673	671	667	658	651	649	653	661	668	672	674	674	679	671	667	676	677	667	668	2034
12	664	670	673	674	675	676	675	674	669	653	647	645	652	656	660	667	668	673	678	679	679	679	679	679	669	2044
13	680	677	679	674	676	676	675	676	669	664	659	660	666	676	685	686	684	694	671	672	645	626	567	418	656	1755
14 d	416	516	551	608	594	529	460	518	540	569	618	670	675	671	713	703	675	645	645	656	657	659	660	667	609	615
15	654	658	654	654	658	665	669	662	649	638	628	633	634	649	653	654	659	665	661	661	664	683	665	661	655	1731
16	652	663	663	661	670	670	667	662	656	644	633	629	645	643	653	655	659	666	668	670	667	655	659	659	657	1769
17	664	662	661	665	668	670	669	666	659	648	642	641	645	656	653	654	668	673	683	677	671	674	673	654	662	1896
18	662	657	661	666	668	669	669	667	663	658	649	640	643	654	661	666	666	667	671	676	677	676	676	681	664	1943
19 d	682	682	684	688	683	681	683	678	668	654	650	644	628	639	646	667	669	675	658	677	661	672	692	664	668	2025
20	654	645	633	664	667	670	667	664	654	649	638	637	639	653	651	661	657	671	672	675	674	670	672	681	659	1818
21	670	662	657	661	672	668	673	673	662	651	644	645	650	657	668	670	669	669	670	677	676	677	677	678	666	1976
22	669	667	672	675	675	679	679	673	665	655	646	643	651	659	665	679	681	676	680	678	679	673	669	674	669	2062
23 d	673	675	675	680	670	687	689	668	625	568	570	634	690	692	726	869	962	958	759	611	680	681	672	657	699	2771
24 q	643	638	639	640	642	645	648	646	643	638	635	633	635	642	650	655	654	655	657	659	660	660	659	662	647	1538
25	661	667	667	668	670	671	674	672	660	649	641	642	648	654	659	659	674	677	668	687	684	671	674	671	665	1968
26 d	674	674	673	674	677	676	678	676	670	660	654	669	641	628	645	664	668	659	660	661	667	672	673	672	665	1965
27	668	660	657	656	660	661	659	637	643	650	646	638	633	651	662	672	668	664	667	672	675	675	676	679	660	1829
28 d	673	666	663	667	667	665	652	653	649	623	607	595	615	623	648	686	685	673	725	586	586	615	657	659	647	1538
29	653	662	646	600	625	667	662	653	644	644	643	639	637	653	660	664	669	671	672	672	675	674	675	671	655	1731
30	672	667	661	660	657	659	662	661	657	653	646	641	640	656	662	673	677	669	674	675	674	678	668	667	663	1909
31 q	663	667	669	668	669	667	665	662	655	649	645	641	643	655	660	665	669	672	674	676	676	678	676	677	664	1941
Mean	658	661	662	664	666	667	664	663	657	648	643	645	649	656	665	676	680	679	675	669	669	669	668	661	663	
Sum 19,000γ+	1387	1500	1509	1584	1636	1666	1597	1555	1359	1079	928	996	1135	1348	1609	1945	2070	2061	1929	1726	1729	1736	1708	1484		Grand Total 493,276

**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

2 LERWICK (D)		9° +																				MARCH 1966					
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 200.0° +
1 q	19.1	19.0	18.7	18.4	18.1	17.4	17.5	17.6	16.7	17.3	19.5	21.1	22.1	22.2	22.1	21.0	20.1	20.1	19.5	20.3	20.3	20.0	19.5	19.3	19.5	266.9	
2 q	18.8	19.0	18.7	17.7	18.2	18.2	18.2	18.1	17.9	18.8	21.1	23.0	23.5	22.9	22.1	21.4	20.9	21.4	21.4	20.8	20.2	19.5	18.5	18.3	19.9	278.6	
3	19.1	22.1	18.5	17.4	17.5	17.3	17.8	18.2	18.3	19.4	23.1	23.0	23.2	22.9	22.2	20.9	20.6	21.0	21.0	21.9	21.3	17.6	15.0	9.4	19.5	268.7	
4	18.2	16.7	16.1	15.4	15.8	16.5	16.5	17.1	17.7	18.8	21.0	23.7	24.6	23.5	22.8	22.9	22.5	23.3	21.8	21.3	21.0	11.4	12.8	15.8	19.1	257.2	
5	18.2	17.2	16.9	16.1	15.6	17.4	17.0	17.5	17.5	18.3	19.5	21.7	23.8	24.3	22.8	21.0	19.5	19.3	19.1	19.1	18.3	16.7	17.4	18.2	18.9	252.4	
6	19.2	18.3	18.4	18.2	18.3	18.3	18.0	18.0	17.4	18.4	20.3	22.3	24.7	25.5	24.8	22.2	21.2	19.7	19.5	18.6	18.5	17.5	18.3	19.1	19.8	274.7	
7 q	17.6	22.0	19.3	17.3	16.5	17.0	17.4	17.3	16.5	16.6	18.7	21.5	24.1	25.5	23.4	22.2	21.0	20.2	19.1	19.2	19.2	19.2	19.3	19.0	19.5	269.1	
8	18.4	18.4	18.4	17.3	17.6	18.5	18.2	17.3	16.6	17.1	18.9	20.5	22.3	23.0	22.1	21.1	20.1	20.0	18.9	18.8	19.3	19.3	19.2	19.1	19.2	260.4	
9	19.2	19.3	19.4	19.3	19.2	18.9	18.5	17.6	16.5	16.5	18.1	21.4	24.3	25.2	25.2	23.7	22.0	20.8	20.8	20.6	20.8	17.4	9.6	10.3	19.4	264.6	
10	12.1	14.7	17.3	17.2	18.1	18.3	17.8	17.3	17.1	17.4	20.3	21.6	24.6	26.9	26.6	24.0	21.7	20.7	20.3	20.3	18.5	18.3	15.2	16.5	19.3	262.8	
11	18.1	19.9	20.7	17.2	17.4	17.9	17.9	17.2	16.3	16.6	18.1	20.4	22.3	23.3	23.2	22.1	20.9	20.1	20.0	18.3	18.8	19.1	18.4	11.7	19.0	255.9	
12	14.7	17.6	18.1	18.3	18.4	18.4	18.2	17.0	16.4	18.2	20.3	23.4	25.7	25.2	25.1	22.9	20.3	19.4	19.5	19.5	19.9	19.8	19.5	19.5	19.8	275.3	
13	19.1	18.6	18.3	18.3	18.4	18.1	17.9	17.2	16.5	17.3	18.6	20.9	23.3	24.5	25.5	25.7	24.6	23.5	26.5	24.0	20.1	10.9	-20.9	-21.2	16.9	205.7	
14 d	-16.8	-32.9	-23.5	-40.0	2.7	30.6	19.7	21.7	26.4	24.4	22.0	22.6	25.6	25.9	16.9	20.7	21.4	18.5	19.3	19.0	18.5	19.3	18.3	16.6	12.4	96.9	
15	15.9	19.0	17.2	20.0	18.4	16.6	16.5	15.9	16.3	18.2	21.1	24.2	24.6	26.1	26.1	23.1	21.2	20.2	19.6	19.7	20.3	16.3	16.4	18.3	19.6	271.2	
16	23.7	18.7	17.3	19.0	20.8	18.2	17.6	16.6	16.4	17.5	20.1	22.4	25.0	24.8	24.5	22.0	19.9	19.3	19.2	19.2	19.4	17.4	18.0	17.9	19.8	274.9	
17	18.5	18.4	18.5	17.7	17.2	16.4	16.3	15.5	14.6	15.7	18.5	22.1	25.0	25.8	24.0	21.8	21.1	20.7	21.3	22.5	21.0	18.4	16.4	21.6	19.5	269.0	
18	16.7	16.4	17.7	18.2	18.3	17.9	17.2	16.3	15.4	16.4	18.2	20.2	23.0	24.6	23.4	22.0	20.0	19.2	19.1	20.0	20.2	20.2	19.9	19.7	19.2	260.2	
19 d	19.2	18.9	18.5	17.6	15.9	16.2	16.7	17.4	18.3	20.8	22.0	26.8	28.0	28.8	26.9	23.9	20.2	19.0	7.9	3.3	17.8	19.0	7.3	16.1	18.6	246.3	
20	13.2	21.1	23.8	18.5	16.7	17.2	17.1	16.3	15.8	16.4	18.2	22.0	24.0	26.7	25.3	23.3	19.8	19.4	19.1	16.1	16.4	18.2	19.9	18.5	19.3	263.0	
21	18.1	17.6	15.9	19.4	16.3	17.4	18.8	17.2	15.8	15.6	17.3	20.2	23.2	23.9	23.5	21.1	19.5	19.0	19.3	19.0	19.5	17.8	18.2	15.8	18.7	249.4	
22	13.5	17.2	17.4	17.8	18.4	19.0	18.2	16.1	15.2	15.9	17.5	21.0	23.9	25.1	25.1	24.8	24.2	23.1	21.7	20.8	19.0	15.8	14.4	18.0	19.3	263.1	
23 d	18.2	18.7	19.2	19.2	19.2	19.3	21.6	21.9	18.2	24.4	24.0	27.2	30.9	26.6	27.2	31.5	38.6	34.3	7.1	11.5	21.5	13.2	16.9	17.7	22.0	328.1	
24 q	18.2	17.5	16.8	16.6	16.2	16.5	17.3	17.2	17.3	18.3	19.1	23.1	22.7	23.0	22.0	20.2	18.9	18.2	17.7	17.5	17.5	17.7	17.8	18.1	18.5	243.4	
25	18.1	18.2	17.9	17.9	17.4	17.3	16.8	14.9	13.7	14.4	16.2	20.6	24.0	26.4	25.8	23.8	22.9	22.9	21.5	22.4	19.7	19.4	18.7	18.3	19.5	269.2	
26 d	18.3	17.9	17.9	18.1	18.4	20.1	18.5	15.4	15.0	16.4	18.5	24.4	28.2	29.2	26.1	23.5	21.3	18.7	11.2	14.6	19.3	19.6	19.9	18.6	19.5	269.1	
27	17.4	17.9	18.2	19.7	17.4	18.4	18.9	19.2	20.7	18.5	16.7	19.8	22.7	25.1	26.1	25.4	20.5	21.5	20.2	19.4	19.1	18.6	18.4	17.3	18.4	19.9	277.1
28 d	17.1	15.4	15.2	14.9	15.8	16.2	16.4	21.6	18.9	19.0	20.9	22.3	25.3	29.7	31.3	17.9	24.5	21.7	21.4	16.1	8.5	3.2	12.9	17.6	18.5	243.8	
29	20.6	21.7	12.8	16.9	16.6	15.4	20.3	21.1	17.4	14.7	16.6	20.8	25.3	23.5	23.6	22.0	20.7	19.9	18.9	18.1	18.0	18.6	18.2	18.0	19.0	256.9	
30	17.9	17.9	16.1	15.0	14.9	17.0	16.9	16.0	16.0	16.8	17.9	19.1	22.3	26.9	25.0	23.7	20.4	20.3	19.6	19.9	18.9	18.2	17.0	17.5	18.8	251.2	
31 q	18.1	19.1	16.1	15.6	15.2	15.3	15.3	15.9	16.6	17.5	19.6	21.5	23.7	24.6	23.7	22.1	20.5	19.1	18.8	18.8	18.9	18.7	18.7	18.8	18.8	252.2	
Mean	16.7	16.8	16.5	15.8	16.9	18.0	17.8	17.6	17.0	17.7	19.5	22.1	24.4	25.3	24.3	22.5	21.7	20.7	19.0	18.7	19.0	17.3	15.7	16.1	19.1		
Sum 400.0° +	117.7	121.5	111.8	90.2	124.9	157.7	151.3	145.1	127.2	149.6	205.2	285.7	355.5	382.6	353.7	298.8	272.0	243.2	189.5	180.3	189.2	136.1	88.0	100.5		Grand Total 14177.3	

GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

9

3	LERWICK (Z)													47,000γ (0.47 CGS unit) +													MARCH 1966	
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 9000γ+	
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	
1 q	419	419	418	418	418	414	415	415	417	417	418	418	419	417	416	418	420	419	419	422	423	422	421	421	421	419	1047	
2 q	420	418	417	416	416	415	415	416	416	416	414	411	409	410	413	415	418	420	423	423	420	421	422	422	421	417	1011	
3	420	412	405	412	414	413	412	411	412	411	412	413	414	411	412	414	419	419	418	418	424	428	435	431	394	413	416	974
4	401	376	408	415	416	415	415	415	415	415	414	411	412	413	416	418	422	429	427	427	426	430	439	424	421	417	1005	
5	421	423	421	419	421	417	415	412	413	415	417	417	418	420	420	423	425	424	422	420	420	421	421	423	423	420	1074	
6	415	419	423	423	421	419	417	417	416	417	417	417	417	420	427	430	429	430	428	424	424	426	426	425	419	422	1129	
7 q	416	414	410	414	418	418	417	414	413	412	409	411	411	414	418	422	426	428	426	424	422	421	418	418	418	418	1021	
8	418	417	416	417	418	417	417	415	411	410	408	407	407	409	412	416	420	422	424	427	422	417	415	414	414	416	983	
9	415	417	418	420	420	420	419	418	417	417	414	411	405	405	409	414	421	424	423	421	419	424	436	423	400	417	1013	
10	363	369	407	418	421	422	422	422	422	422	417	411	410	410	415	429	427	427	429	427	426	427	422	400	394	414	937	
11	395	398	387	388	404	414	417	419	418	417	414	409	409	408	409	412	417	419	421	421	429	431	423	403	402	411	875	
12	395	404	412	415	417	418	419	419	417	417	416	413	412	411	415	420	428	431	429	425	423	421	420	418	417	417	1015	
13	416	417	415	419	418	419	420	420	420	420	417	414	411	409	411	415	424	429	436	471	497	507	458	307	215	416	985	
14 d	280	234	262	164	112	159	219	349	402	431	480	544	521	489	506	517	519	492	456	444	441	434	434	421	388	310		
15	419	416	417	419	409	418	424	430	434	434	430	424	421	421	419	423	434	439	442	447	443	440	421	421	427	427	1251	
16	418	411	421	421	410	410	418	422	423	425	428	432	431	431	432	431	432	431	430	428	427	431	441	438	435	426	1226	
17	429	428	423	422	421	421	421	422	422	424	422	420	419	419	420	427	425	423	421	423	432	444	443	435	395	424	1182	
18	395	414	419	421	423	423	423	424	420	417	420	422	422	422	422	422	425	428	427	425	423	422	422	423	424	423	421	1107
19 d	425	425	421	414	418	418	415	417	418	421	418	421	421	428	433	435	441	446	445	478	455	435	423	400	379	426	1229	
20	391	406	361	388	409	416	419	420	422	419	415	413	414	414	422	432	440	446	439	435	431	425	425	421	410	417	1019	
21	403	397	404	403	403	413	412	416	419	421	422	420	421	421	424	425	431	431	430	427	423	425	424	423	394	417	1011	
22	407	418	422	422	422	418	418	421	419	420	419	417	417	414	416	420	424	429	431	432	433	433	423	422	419	422	1119	
23 d	421	422	423	413	412	397	396	403	418	431	420	426	459	475	486	573	593	632	466	347	465	479	494	470	455	1921		
24 q	456	449	446	445	442	439	439	439	439	439	437	437	437	437	436	436	439	440	439	436	435	433	431	431	430	439	1530	
25	430	429	431	431	431	431	430	431	431	431	426	420	415	416	421	429	431	430	430	431	426	431	434	428	428	428	1271	
26 d	425	426	427	427	426	420	418	420	419	416	413	404	419	419	426	429	428	436	446	464	452	435	429	425	425	427	1255	
27	425	418	408	400	414	424	427	431	432	422	420	425	429	429	433	439	456	450	440	433	430	431	428	426	410	427	1251	
28 d	396	387	402	413	422	426	430	413	416	420	433	441	452	464	470	504	475	512	556	486	246	317	395	417	429	1293		
29	403	345	345	351	331	382	401	410	423	429	431	431	431	431	428	431	427	429	431	432	434	432	432	430	431	410	850	
30	423	417	410	411	413	419	423	427	427	427	427	428	427	425	425	429	431	441	443	437	435	434	429	429	431	427	1241	
31 q	432	421	421	425	424	424	424	423	421	422	421	420	418	418	425	426	426	429	429	429	429	430	428	430	430	425	1196	
Mean	409	405	407	406	405	409	412	417	420	420	421	421	422	424	426	431	438	440	441	438	431	427	426	419	411	421		
Sum 12,000γ+	692	566	620	584	564	679	777	931	1012	1038	1045	1090	1135	1198	1349	1583	1631	1682	1589	1363	1236	1216	998	753		Grand Total 313,331		

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH HOUSE

4 LERWICK										MARCH 1966	
	3-h range indices K <sup>a</sup>	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magnetograph house °C	
1 q	0102 2005	5	0102 2000	5	0001 0000	1	0000 0000	0	0	14.0	
2 q	1000 0111	4	0000 0111	3	1000 0000	1	0000 0000	0	0	14.3	
3	2102 2113	12	1102 2113	11	2101 1013	9	1100 0013	6	1	14.7	
4	3101 1113	11	2100 1113	9	3101 1103	10	3000 0102	6	1	14.4	
5	1110 1122	9	1010 1111	6	0100 0022	5	0000 0000	0	1	14.6	
6	1000 1111	5	1000 1111	5	1000 0111	4	0000 0000	0	0	14.7	
7 q	2000 1000	3	1000 1000	2	2000 0000	2	1000 0000	1	0	14.9	
8	0011 1110	5	0011 1110	5	0011 0010	3	0000 0000	0	0	14.9	
9	0001 1113	7	0001 1113	7	0000 0013	4	0000 0003	3	1	14.2	
10	4111 2212	14	4111 2212	14	3111 1102	10	3000 1002	6	1	14.0	
11	2100 0113	8	1000 0112	5	2100 0013	7	2200 0002	6	1	14.3	
12	2011 1100	6	1001 1100	4	2011 1000	5	2000 0000	2	1	14.0	
13	1010 1236	14	1010 1236	14	0000 0235	10	0000 0146	11	2	14.1	
14 d	6655 4421	33	6555 4421	32	5642 4311	26	5465 3321	29	2	13.8	
15	2101 1223	12	1101 1223	11	2100 1112	8	1101 0102	6	1	14.3	
16	3211 1111	11	1101 1111	7	3210 1001	8	2100 0001	4	1	14.2	
17	1010 1123	9	1010 1123	9	1010 1013	7	0000 0023	5	1	14.7	
18	1100 1011	5	1100 1011	5	1000 0000	1	2000 0000	2	0	14.7	
19 d	1212 3244	19	1112 3234	17	1212 2144	17	0100 1143	10	1	14.9	
20	4212 2222	17	3212 2212	15	4202 1121	13	3300 1111	10	1	14.7	
21	2210 2113	12	2200 2112	10	2210 1113	11	1100 0002	4	1	15.0	
22	2110 1112	9	1110 1111	7	2110 0012	7	2000 0000	2	1	14.6	
23 d	2245 4783	35	2245 4783	35	1123 4573	26	0223 4673	27	2	14.5	
24 q	1000 0102	4	1000 0102	4	0000 0000	0	1000 0000	1	0	14.1	
25	2102 2332	15	2002 2332	14	1101 1211	8	0000 1111	4	1	14.2	
26 d	1123 4321	17	1113 4321	16	0122 2221	12	0001 2220	7	1	14.0	
27	2221 3212	15	2121 3211	13	2210 1202	10	2200 1202	9	1	14.4	
28 d	2133 4474	28	2023 4474	26	2132 3464	25	1122 2375	23	2	14.0	
29	3421 2101	14	2411 2101	12	3321 1000	10	4420 0000	10	1	14.0	
30	1101 2212	10	1101 2212	10	1100 2111	7	1100 0001	3	1	13.7	
31 q	1001 1000	3	1001 1000	3	1000 0000	1	1000 0000	1	0	14.0	
Mean									0.87	14.4	

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

GEOMAGNETIC FORCE: HORIZONTAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

1	LERWICK (H)													14,000γ (0.14 CGS unit) +													APRIL 1966												
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 15,000γ+												
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ													
1 d	675	675	675	673	673	674	674	670	664	653	649	647	662	679	682	715	719	765	718	715	686	662	622	610	677		1237												
2 d	656	646	602	642	662	641	635	653	652	644	638	636	643	645	654	661	671	674	681	674	667	670	668	669	653		684												
3	662	664	661	658	667	673	672	671	662	653	647	645	645	654	666	661	667	676	681	678	675	678	677	662	665		955												
4	676	663	669	673	662	674	671	664	654	645	643	643	644	650	656	665	683	677	684	685	678	679	679	678	666		995												
5	675	675	674	677	678	678	677	667	667	650	642	639	643	651	657	666	675	681	682	682	680	682	677	679	669		1064												
6	674	678	674	672	674	680	678	675	664	657	643	635	639	654	650	666	671	683	688	682	679	674	675	677	668		1042												
7	652	673	654	656	660	671	671	668	665	654	650	644	645	650	661	667	677	682	686	682	688	673	673	674	666		976												
8	679	663	657	654	659	674	682	679	664	642	631	627	630	647	661	669	668	683	686	691	683	680	693	679	666		981												
9	677	674	677	679	676	676	672	671	664	657	644	637	638	640	660	668	676	682	682	682	681	679	679	681	669		1052												
10	682	680	676	677	676	676	675	669	661	651	646	642	644	650	659	668	673	696	680	675	679	682	684	685	670		1086												
11 q	682	682	679	678	678	679	681	676	667	652	636	632	636	646	660	668	675	681	683	682	682	683	683	682	670		1083												
12	681	681	679	680	680	680	681	675	664	653	647	645	649	659	667	673	685	687	688	687	686	686	686	688	674		1187												
13 d	688	681	681	677	682	696	691	684	674	660	648	645	636	632	677	679	702	720	697	674	655	642	627	647	671		1095												
14	645	654	661	662	667	669	673	669	661	657	647	652	654	648	662	666	665	679	687	685	684	679	676	672	666		974												
15	673	682	678	678	679	679	676	672	667	657	646	643	639	640	649	658	669	678	682	685	684	680	679	678	669		1051												
16	678	678	677	677	678	682	682	677	668	657	649	642	641	650	665	673	674	683	684	688	692	693	690	690	674		1168												
17	685	685	684	683	682	682	682	679	672	650	647	646	646	650	653	667	673	678	681	682	685	685	683	679	672		1139												
18	679	678	677	679	678	678	679	674	665	653	646	641	643	644	656	663	675	679	684	685	684	686	685	684	671		1095												
19 q	685	683	683	682	680	677	674	670	663	653	645	642	643	651	663	674	677	685	687	689	689	687	688	690	673		1160												
20	689	689	690	689	690	691	688	675	657	649	644	651	637	648	668	691	689	685	687	681	683	683	682	675	675		1211												
21	679	678	672	674	676	674	677	674	662	647	640	650	644	656	665	678	681	681	686	687	694	691	695	694	673		1155												
22 d	697	688	684	688	688	683	689	687	664	650	644	642	641	661	663	662	686	695	698	688	689	687	683	682	677		1239												
23	688	689	688	678	648	679	677	654	653	640	632	628	633	643	658	710	678	707	689	686	688	685	683	689	671		1103												
24	690	683	679	675	679	680	674	667	655	643	638	639	651	666	673	685	685	685	696	707	684	682	684	685	674		1185												
25 q	683	680	683	683	683	683	680	674	667	655	646	643	646	653	661	678	688	692	696	693	689	686	685	682	675		1209												
26 q	680	682	683	683	685	685	683	677	666	650	637	634	640	656	667	678	686	688	692	695	687	687	684	685	675		1190												
27 q	683	682	682	683	683	682	677	672	661	647	640	642	649	659	670	678	684	690	696	696	695	695	696	693	676		1235												
28	694	695	693	693	691	685	675	675	668	658	648	651	649	659	664	673	681	692	700	691	690	685	682	683	678		1275												
29	682	682	678	681	682	680	679	670	657	653	647	646	646	656	672	671	677	695	701	700	689	679	677	671	674		1171												
30 d	672	679	680	680	686	685	681	664	658	653	647	644	647	665	678	686	699	688	680	688	688	674	678	674	674		1174												
Mean	678	677	674	675	676	678	677	672	663	651	644	642	643	652	663	674	680	689	689	687	684	681	678	677	671														
Sum 19,000γ+	1342	1322	1230	1264	1281	1346	1306	1162	886	543	307	253	303	562	897	1217	1409	1667	1662	1615	1513	1414	1353	1317		Grand Total 483,171													

GEOMAGNETIC DECLINATION (WEST)  
Mean values for periods of sixty minutes ending at exact hours, GMT

2 LERWICK (D)													9° +													APRIL 1966	
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 300°0' +
1 d	18.1	17.8	17.5	17.3	16.9	16.9	16.9	15.9	15.1	16.2	18.6	22.1	27.0	32.9	33.9	33.7	30.9	33.5	22.2	22.7	22.2	-2.1	4.3	4.2	19.8	174.7	
2 d	9.9	11.5	11.4	5.1	9.4	13.6	17.9	17.0	16.0	17.0	18.6	20.1	21.7	21.9	21.8	21.3	20.6	19.6	19.2	17.8	16.3	17.5	18.7	17.8	16.7	101.7	
3	17.0	17.2	17.8	20.6	16.8	16.5	16.2	15.8	14.9	15.1	16.8	20.1	21.6	23.1	23.9	22.5	21.6	20.4	19.8	18.7	17.6	12.2	7.9	12.5	17.8	126.6	
4	14.5	13.4	16.4	16.0	17.7	17.2	14.3	13.8	14.0	15.4	16.0	19.8	22.7	24.8	25.3	23.6	23.6	21.9	20.6	20.6	17.5	20.3	14.1	15.7	18.3	139.2	
5	16.7	15.1	16.0	16.2	16.7	17.6	17.0	16.5	14.1	14.0	15.8	17.8	21.5	23.6	23.3	21.9	21.4	20.0	19.1	18.5	16.9	13.0	15.1	16.5	17.7	124.3	
6	17.8	19.5	17.1	15.1	14.8	15.3	16.6	14.7	14.0	14.4	16.2	20.8	25.6	29.8	28.2	26.1	22.9	20.7	19.3	18.0	17.5	17.3	17.6	17.7	19.0	157.0	
7	15.7	3.4	6.5	10.9	12.1	13.9	14.3	14.1	14.3	14.8	15.9	18.6	21.9	24.2	24.5	23.3	21.8	20.5	19.0	17.8	15.1	14.9	17.3	17.8	16.4	92.6	
8	16.0	14.4	13.1	14.9	15.2	17.9	17.2	16.0	14.8	15.5	17.3	20.3	24.0	26.5	26.4	25.5	23.8	22.5	20.8	20.8	18.7	16.1	10.6	15.8	18.5	144.1	
9	17.0	16.7	17.2	17.6	17.2	16.8	15.8	15.2	14.9	15.2	16.8	19.1	23.8	25.7	25.7	24.2	20.7	20.3	19.6	19.3	18.9	18.7	18.6	18.3	18.9	153.3	
10	18.7	19.7	17.8	16.8	16.7	16.6	16.2	14.8	14.3	15.0	16.8	20.6	24.2	26.3	25.0	23.4	22.1	21.7	16.0	18.7	19.8	19.8	19.7	18.9	19.1	159.6	
11 q	18.5	18.7	17.8	17.7	17.0	17.2	16.8	15.0	14.8	14.7	15.9	18.8	22.6	24.3	23.6	22.6	21.5	20.0	19.1	19.5	19.7	19.6	18.9	19.0	18.9	153.3	
12	18.8	18.7	18.1	17.6	17.0	16.9	16.0	14.7	15.1	16.6	17.9	21.5	25.2	26.3	25.4	22.9	21.0	20.0	19.8	19.8	19.7	19.6	19.1	18.6	19.4	166.3	
13 d	18.5	17.2	17.2	16.9	17.8	16.9	15.2	14.0	14.6	16.8	18.7	22.8	26.9	27.8	30.2	28.2	27.3	26.3	25.3	16.2	14.2	14.1	9.3	8.3	19.2	160.7	
14	8.8	9.5	9.6	13.3	13.9	12.9	12.2	12.2	14.0	16.9	20.6	24.4	27.8	30.3	30.9	29.5	26.4	23.6	21.6	19.8	19.7	15.9	16.2	19.7	18.7	149.7	
15	16.6	15.4	16.0	16.9	16.8	16.9	18.8	17.1	16.8	16.9	18.1	20.0	22.4	24.3	23.6	21.9	20.7	19.5	19.0	18.8	18.9	19.0	19.1	18.9	18.9	152.4	
16	18.8	13.1	17.9	17.8	17.6	16.8	15.2	13.9	13.3	14.6	15.9	19.4	23.5	26.3	26.5	25.2	23.2	20.9	20.4	20.0	20.5	20.3	18.1	17.1	19.2	161.3	
17	18.4	18.5	18.4	17.7	16.8	16.2	16.4	15.9	15.1	16.2	17.7	19.7	23.7	25.8	24.9	23.4	21.4	20.1	18.8	18.5	18.6	18.9	19.0	18.9	19.1	159.0	
18	19.2	18.6	19.8	17.7	17.1	16.7	16.1	15.1	14.8	15.8	17.5	19.4	22.4	24.3	24.3	23.1	21.5	19.9	19.6	19.3	19.1	19.0	18.9	18.7	19.1	157.9	
19 q	19.0	19.0	18.6	18.0	17.7	16.8	15.1	15.4	15.8	15.9	17.3	19.6	23.3	25.4	25.3	24.3	22.8	21.5	20.4	19.4	19.2	19.2	19.4	18.9	19.5	167.3	
20	18.9	18.6	18.4	17.9	17.7	16.3	15.7	14.6	15.8	17.5	19.7	24.8	27.4	30.4	28.3	28.5	24.3	20.8	18.6	18.7	18.9	18.6	16.6	16.0	20.1	183.0	
21	19.9	22.3	20.4	17.7	15.8	14.6	13.4	12.0	12.2	14.2	15.9	19.5	22.7	25.3	24.9	23.5	22.5	20.8	20.8	20.3	21.5	21.0	20.6	18.9	19.2	160.7	
22 d	18.6	14.0	17.1	15.9	16.0	19.2	19.0	17.7	18.6	18.8	20.8	24.9	26.6	29.0	29.3	27.5	25.3	19.9	20.8	19.4	18.9	17.7	18.3	19.3	20.5	192.6	
23	19.7	18.0	17.8	15.5	19.9	18.6	16.9	14.8	13.0	15.3	18.5	21.1	24.7	25.3	24.3	24.2	20.6	19.8	19.8	19.8	19.6	19.5	18.7	18.6	19.3	164.0	
24	18.5	19.6	18.1	17.7	17.2	15.6	14.0	12.1	13.1	15.6	18.6	21.9	24.3	26.2	24.7	22.6	20.5	19.7	17.7	17.8	17.3	19.7	19.7	19.7	18.7	147.9	
25 q	19.2	19.0	18.0	16.9	16.6	15.6	14.3	14.1	14.1	15.5	17.8	22.5	24.8	24.7	23.6	22.8	21.3	19.7	19.1	18.7	17.7	18.8	19.7	19.5	18.9	154.0	
26 q	19.0	18.2	17.9	17.7	16.5	15.0	13.9	13.1	13.9	15.5	18.5	21.6	24.2	24.7	23.7	22.3	20.5	19.8	19.8	19.4	18.8	18.7	18.9	19.4	18.8	151.0	
27 q	18.5	17.8	17.7	16.9	16.1	15.0	13.9	13.5	13.8	15.4	17.8	20.5	22.5	23.4	23.2	21.6	21.0	21.4	21.4	21.1	20.9	20.5	20.5	19.8	18.9	154.2	
28	19.7	18.9	17.9	17.6	16.6	14.8	14.0	14.7	14.3	15.9	19.6	22.2	22.2	22.3	22.4	22.9	22.9	22.7	18.9	20.0	20.4	19.7	18.8	18.8	19.1	158.3	
29	18.9	18.4	18.8	18.6	16.7	16.7	16.6	15.1	15.0	15.1	17.7	20.9	23.7	25.8	25.2	23.6	21.8	21.6	20.9	17.8	14.8	17.9	16.0	13.9	18.8	151.5	
30 d	13.9	14.8	12.9	10.1	11.9	12.1	11.1	11.0	13.1	15.9	21.2	25.2	27.1	28.6	28.0	27.4	25.6	21.5	19.5	19.3	18.2	14.0	16.5	17.9	18.2	136.8	
Mean	17.4	16.7	16.6	16.2	16.2	16.1	15.6	14.7	14.6	15.7	17.8	21.0	24.1	26.0	25.7	24.5	22.7	21.3	19.9	19.1	18.6	17.3	16.9	17.2	18.8		
Sum 400°0' +	122.8	102.0	99.2	86.6	86.2	83.1	67.0	39.8	37.6	11.7	134.5	230.0	322.0	379.3	370.3	333.5	281.5	240.6	196.9	172.5	157.1	119.4	106.3	115.1		Grand Total 13555.0	

GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

3 LERWICK (Z)													47,000γ (0.47 CGS unit) +													APRIL 1966									
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 9,000γ+								
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ								
1 d	431	430	429	428	427	425	424	423	423	425	423	418	415	427	460	471	512	571	544	521	482	395	326	305	439	1535									
2 d	357	376	327	338	374	396	394	407	418	425	432	436	432	432	433	434	433	432	433	438	443	433	433	427	412	883									
3	425	420	422	414	413	418	423	425	429	430	430	424	422	423	430	440	435	430	428	430	433	430	414	407	425	1195									
4	402	415	421	423	420	410	415	420	420	421	422	420	420	420	425	424	428	435	432	429	433	419	423	422	422	1119									
5	417	419	426	427	425	423	423	421	421	423	421	419	415	418	422	425	428	428	429	428	429	420	419	417	423	1143									
6	418	414	400	405	417	419	419	420	421	419	422	420	415	420	429	430	432	430	433	436	432	431	426	421	422	1129									
7	394	359	360	363	388	401	411	415	415	413	414	416	416	418	422	431	438	442	442	439	427	424	422	418	412	888									
8	406	390	368	365	365	379	401	413	418	423	422	418	415	417	420	426	428	428	432	431	437	433	422	411	411	868									
9	414	420	422	424	425	424	423	421	419	417	417	417	414	415	420	428	433	433	432	428	427	426	424	421	423	1144									
10	420	417	418	420	423	425	428	428	425	424	418	414	417	423	428	432	436	438	461	452	436	428	425	421	427	1257									
11 q	422	422	424	425	425	424	425	426	428	424	421	419	417	415	420	422	423	426	429	428	426	425	424	424	423	1164									
12	424	423	424	422	422	422	422	422	420	419	416	409	409	431	415	420	423	425	425	425	424	424	423	422	421	1111									
13 d	416	419	419	420	414	403	406	407	409	412	415	414	421	435	448	479	489	503	535	509	472	451	434	410	439	1540									
14	398	384	390	401	407	411	413	418	421	420	420	419	420	421	426	434	442	440	442	446	438	436	433	426	421	1106									
15	378	385	407	416	417	416	417	418	418	418	420	421	421	423	427	428	428	430	429	426	425	425	425	426	419	1044									
16	426	425	426	425	424	421	423	424	425	424	421	417	414	415	415	422	428	426	425	423	420	420	421	421	422	1131									
17	422	423	424	422	422	420	418	418	416	420	420	416	413	415	419	423	428	427	428	427	425	423	422	424	421	1115									
18	425	425	424	420	423	420	418	418	420	420	419	417	414	413	414	418	420	422	422	420	420	420	422	422	420	1076									
19 q	422	423	423	425	425	425	423	418	415	415	416	413	412	412	413	418	421	422	422	421	420	420	420	420	419	1064									
20	421	422	423	423	422	421	420	423	420	416	413	410	416	419	432	446	465	469	454	440	429	424	419	416	428	1263									
21	414	404	389	394	405	414	417	415	415	414	412	412	409	414	419	423	427	428	427	424	420	422	420	424	415	962									
22 d	397	400	420	424	422	417	404	401	406	408	407	407	411	422	441	445	462	468	443	436	431	427	426	425	423	1150									
23	421	420	421	422	411	392	396	406	411	414	415	414	417	419	420	424	442	437	430	428	426	425	424	419	419	1054									
24	411	408	408	422	423	426	426	424	423	423	420	417	417	420	420	420	426	430	432	432	432	425	423	420	422	1128									
25 q	415	420	422	425	427	429	428	425	421	419	417	414	411	414	416	421	428	433	434	435	432	429	425	424	423	1164									
26 q	424	424	424	425	426	426	426	425	424	420	415	412	410	408	413	419	422	426	425	427	431	427	425	421	422	1125									
27 q	421	422	424	423	425	425	424	423	419	417	414	410	408	409	410	413	417	420	422	423	423	422	421	422	419	1057									
28	418	417	418	418	418	420	421	416	415	412	411	410	410	410	410	412	417	425	436	435	428	426	424	421	419	1048									
29	422	420	420	416	416	416	414	414	409	408	414	419	421	421	426	435	435	425	426	433	436	429	425	419	422	1119									
30 d	411	400	390	388	395	407	414	418	413	411	409	409	416	424	442	469	486	490	473	444	440	439	420	419	426	1227									
Mean	413	411	410	412	415	416	417	418	419	419	418	416	416	419	425	431	438	441	441	437	433	426	420	417	422										
Sum 12,000γ+	392	346	313	363	446	475	516	552	557	554	536	481	468	573	735	932	1132	1239	1225	1114	977	778	610	495		Grand Total 303,809									

GEOMAGNETIC CHARACTER FIGURES ( $K$ ,  $K_H$ ,  $K_D$ ,  $K_Z$ , AND  $C$ ) AND TEMPERATURE IN MAGNETOGRAPH HOUSE

4 LERWICK									APRIL 1966	
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magnetograph house °C
1 d	0001 3445	17	0001 3445	17	0000 3325	13	0000 3545	17	2	14.0
2 d	3321 1021	13	3321 1011	12	3320 0021	11	4420 0000	10	1	14.1
3	1200 1113	9	1200 1113	9	1200 0103	7	0100 0102	4	1	13.9
4	2210 1223	13	2200 1212	10	2110 1023	10	2110 0102	7	1	13.3
5	1110 1123	10	1010 1112	7	1110 0023	8	1000 0011	3	1	13.6
6	2111 2211	11	2101 2211	10	1110 1011	6	1100 0000	2	1	13.8
7	4200 1122	12	3200 1120	9	4100 0022	9	3310 0000	7	1	14.3
8	2211 2113	13	2211 2112	12	2211 1013	11	3220 0002	9	1	14.3
9	1101 2210	8	1001 2210	7	1100 0100	3	1000 0000	1	1	14.2
10	1101 1230	9	1001 1220	7	1101 0030	6	0000 0020	2	1	14.0
11 q	0000 1000	1	0000 1000	1	0000 0000	0	0000 0000	0	0	13.9
12	0011 0101	4	0011 0101	4	0011 0000	2	0000 0000	0	0	14.2
13 d	1212 4342	19	1212 4342	19	1111 2332	14	0100 2343	13	1	14.2
14	2102 2213	13	2102 2211	11	1100 1213	9	1100 0101	4	1	14.0
15	3010 0000	4	1000 0000	1	3010 0000	4	3000 0000	3	0	14.0
16	0000 1101	3	0000 1101	3	0000 0001	1	0000 0000	0	0	14.1
17	0010 1101	4	0000 1101	3	0010 0001	2	0000 0000	0	0	13.5
18	1100 1100	4	0000 1100	2	1100 0000	2	0000 0000	0	0	13.9
19 q	0000 1100	2	0000 1100	2	0000 0000	0	0000 0000	0	0	13.8
20	0012 2211	9	0012 2211	9	0011 1211	7	0000 1220	5	1	14.0
21	2101 1111	8	0001 1111	5	2100 0011	5	2200 0000	4	1	14.0
22 d	2221 3311	15	2121 3311	14	2221 1201	11	3010 2220	10	1	14.0
23	1320 1211	11	1320 1211	11	1220 0100	6	0220 0200	6	1	14.2
24	1111 1121	9	1101 1121	8	1011 0021	6	1000 0000	1	1	14.2
25 q	1000 0110	3	1000 0110	3	1000 0010	2	0000 0000	0	0	14.6
26 q	0000 1111	4	0000 1111	4	0000 0001	1	0000 0000	0	0	15.0
27 q	0000 0000	0	0000 0000	0	0000 0000	0	0000 0000	0	0	15.0
28	0111 0110	5	0011 0110	4	0110 0010	3	0000 0000	0	1	15.2
29	1100 1121	7	0000 1121	5	1100 1021	6	0000 0100	1	1	15.2
30 d	1211 2212	12	1111 2212	11	1211 1212	11	2200 2232	13	1	15.0
Mean									0.70	14.2

$q$  denotes an international quiet day and  $d$  an international disturbed day.

$K_H$  For horizontal component.  $K_D$  For declination.  $K_Z$  For vertical component. (See Introduction).

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

1 LERWICK (H)													14,000γ (0.14 CGS unit) +													MAY 1966	
	Hour GMT 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 15,000γ+	
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	
1	669	663	667	666	666	651	665	668	656	642	642	639	647	656	665	663	683	684	697	698	686	679	684	679	667	1015	
2 d	679	689	674	675	676	676	663	661	647	639	643	652	637	664	664	677	694	721	710	699	693	682	670	671	673	1156	
3	673	673	673	672	670	668	666	658	652	645	642	645	655	666	676	684	691	695	694	695	686	670	677	674	671	1100	
4 d	673	668	652	654	667	670	670	655	652	646	633	621	637	654	673	677	685	694	706	697	685	663	660	683	666	975	
5	673	669	674	674	676	676	667	670	665	650	645	649	654	663	664	670	686	692	704	700	689	682	681	680	673	1153	
6	678	674	671	672	658	670	662	658	654	648	644	648	654	655	670	679	679	690	692	688	689	683	682	684	670	1082	
7	681	676	678	677	675	674	671	667	660	652	648	649	656	660	670	678	682	685	691	696	696	693	679	681	674	1175	
8	679	678	678	677	681	678	675	670	660	650	652	653	659	667	670	703	691	697	711	704	693	677	671	675	677	1249	
9	678	681	677	678	681	676	671	681	672	659	647	645	644	653	656	667	685	695	699	695	689	684	680	679	674	1172	
10 q	678	679	680	680	680	681	679	673	661	653	644	646	650	656	668	676	685	694	694	697	695	694	692	687	676	1222	
11 d	685	684	683	685	689	689	690	683	673	667	656	654	669	657	648	677	684	691	698	712	716	706	692	695	683	1383	
12	693	688	686	681	683	692	691	692	682	669	657	654	658	672	677	677	689	699	701	700	693	689	689	682	683	1394	
13	682	685	687	687	687	689	688	681	660	644	649	654	654	656	661	669	693	702	699	692	687	685	685	684	677	1260	
14 q	685	684	683	684	685	684	677	671	661	655	652	652	654	653	664	675	685	692	698	702	696	692	690	688	678	1262	
15 q	684	684	683	683	685	685	680	671	662	659	655	654	654	656	660	673	682	688	698	703	696	693	690	687	678	1265	
16	686	684	682	681	684	683	678	668	660	652	649	655	666	684	688	679	683	689	702	709	706	687	683	685	680	1323	
17	684	677	670	679	684	681	673	665	653	642	644	646	661	667	668	673	695	699	711	710	702	697	688	683	677	1252	
18	681	685	680	680	685	680	680	676	665	654	650	656	666	670	669	684	690	703	700	698	696	690	687	685	680	1310	
19	689	682	678	680	678	674	671	666	662	656	655	653	648	655	665	672	680	694	705	713	701	698	689	687	677	1251	
20	681	686	681	680	679	680	679	671	667	663	658	649	651	668	674	681	700	698	725	722	711	691	686	689	682	1370	
21	691	689	687	687	684	682	677	672	663	655	650	638	643	658	663	681	699	700	698	694	693	693	689	689	678	1275	
22	685	688	688	688	688	692	688	680	670	660	656	653	656	663	674	684	686	697	709	705	698	692	691	690	683	1381	
23 q	685	684	685	686	689	692	691	684	672	661	648	644	649	661	673	686	694	703	704	699	695	694	692	690	682	1361	
24 q	689	688	689	692	692	691	690	683	673	661	653	648	653	660	670	684	699	710	713	709	698	692	691	690	684	1418	
25	686	691	691	692	693	692	685	678	670	655	644	642	651	671	686	699	709	705	700	694	690	692	695	705	684	1416	
26 d	703	700	698	704	704	701	691	684	672	634	569	602	622	649	739	805	953	953	834	610	519	491	375	494	671	1106	
27	607	644	650	649	649	645	642	643	635	628	622	621	626	638	644	657	663	665	665	666	667	667	670	666	647	529	
28	644	663	668	670	664	659	647	640	632	625	623	626	638	661	660	666	676	676	677	683	681	674	686	672	659	811	
29	667	665	667	673	673	667	661	651	638	634	633	633	644	643	647	662	671	687	696	692	691	677	675	672	663	919	
30	667	667	672	672	675	670	662	651	640	633	635	648	650	664	666	676	696	694	713	708	712	687	670	651	670	1079	
31 d	634	669	671	664	621	681	671	632	599	604	596	610	654	670	720	780	817	770	761	707	666	617	633	541	666	988	
Mean	676	679	677	678	677	678	674	668	658	648	642	643	650	660	671	684	700	705	707	697	688	678	672	671	674		
Sum 19,000γ+	1969	2037	2003	2022	2001	2029	1901	1703	1388	1095	894	939	1160	1470	1792	2214	2705	2862	2905	2597	2315	2011	1822	1818		Grand Total 501,652	

**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

2 LERWICK (D)													9° +													MAY 1966	
	Hour GMT																									Mean	Sum
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24		300-0°+	
1	18.2	20.4	16.3	15.2	13.2	13.7	15.5	13.2	13.5	16.0	18.6	21.8	24.0	24.7	24.2	22.9	23.0	22.2	21.7	20.5	18.5	17.7	18.1	18.3	18.8	151.4	
2 d	18.0	15.8	15.4	13.6	11.2	10.0	11.8	13.8	15.8	21.3	22.4	25.2	24.7	26.0	24.8	23.4	22.8	20.9	19.6	19.0	12.0	12.9	12.9	13.6	17.8	126.9	
3	14.7	15.1	15.5	17.0	16.1	13.6	12.3	12.6	13.1	15.8	18.6	21.3	23.7	25.6	26.1	25.8	24.6	21.7	19.9	19.9	18.6	17.7	17.5	11.1	18.2	137.9	
4 d	14.9	5.1	10.4	16.8	15.2	14.1	13.8	14.3	15.1	17.6	20.3	23.4	25.2	25.2	25.0	22.7	21.4	20.3	16.1	17.6	16.8	13.8	16.4	17.1	17.4	118.6	
5	14.2	14.1	15.6	15.8	15.3	14.5	15.2	14.4	13.8	15.8	18.6	23.2	25.3	25.0	24.0	23.3	22.7	21.4	15.8	16.4	16.6	17.0	15.8	15.8	17.9	129.6	
6	17.5	20.3	18.7	16.5	15.8	18.8	13.4	13.2	13.8	14.8	17.6	18.4	21.4	22.6	23.1	22.9	21.4	20.4	20.0	18.7	17.8	17.7	15.8	17.0	18.2	137.6	
7	18.5	18.5	17.6	16.7	16.2	15.8	15.0	13.9	14.4	16.0	18.9	21.3	23.5	25.1	25.4	25.2	23.3	22.2	21.1	20.3	19.3	14.2	14.9	15.9	18.9	153.2	
8	15.2	15.9	16.4	15.9	16.7	16.1	14.9	14.1	14.6	15.8	18.3	22.1	25.2	26.9	26.2	26.9	25.3	23.5	23.5	22.8	19.6	12.6	15.6	16.7	19.2	160.8	
9	17.4	16.6	16.4	15.9	15.2	15.3	16.9	17.4	15.6	15.4	18.3	21.8	24.9	25.8	24.8	23.3	22.3	21.2	20.4	19.7	19.6	18.6	18.5	18.6	19.2	159.9	
10 q	18.4	18.5	17.7	17.1	16.4	15.7	14.7	13.7	13.2	13.9	16.5	20.1	22.9	23.5	23.9	23.2	22.2	21.3	20.3	20.2	19.7	19.6	19.6	19.4	18.8	151.7	
11 d	18.8	18.5	18.0	17.0	15.8	15.5	15.1	14.8	14.0	14.6	16.9	20.8	25.9	27.5	24.5	24.1	22.7	21.5	20.5	20.4	21.9	18.4	10.0	11.1	18.7	148.3	
12	14.7	16.0	16.5	15.7	15.9	15.3	14.7	13.8	14.2	15.1	17.7	20.4	22.9	24.0	23.4	21.9	21.3	21.4	21.4	21.3	17.7	19.6	20.0	19.6	18.5	144.5	
13	22.5	18.8	17.9	17.4	16.9	16.0	15.1	13.8	13.8	16.5	17.7	19.9	22.6	24.6	24.3	22.6	21.6	21.5	20.9	20.3	20.4	20.4	19.6	18.9	19.3	164.0	
14 q	18.7	18.1	17.4	16.4	16.0	15.3	15.6	15.1	15.2	15.9	17.3	19.4	21.4	22.2	22.4	22.5	22.2	21.4	20.9	20.8	20.5	19.6	19.9	19.4	18.9	153.6	
15 q	18.7	18.1	17.7	16.4	15.5	14.5	13.8	14.0	15.8	17.6	18.7	19.8	21.0	21.4	21.8	21.6	21.1	20.6	20.5	20.3	19.5	19.9	20.6	20.3	18.7	149.2	
16	19.4	18.5	17.4	16.3	14.6	13.5	12.5	12.3	13.6	15.8	18.6	21.7	23.0	23.8	23.5	22.6	21.4	21.3	21.2	21.4	16.7	17.3	19.3	18.6	18.5	144.3	
17	17.4	15.2	16.8	18.0	12.7	12.9	12.6	13.7	14.4	16.4	20.1	23.3	26.1	26.9	25.7	24.2	23.3	20.3	19.6	19.8	19.6	17.2	17.7	18.7	18.9	152.6	
18	21.4	16.4	14.7	14.8	14.2	14.2	13.7	12.3	13.3	15.7	18.1	21.3	24.4	25.1	23.6	22.0	20.3	19.6	19.0	19.0	19.6	17.6	18.5	19.1	19.1	138.1	
19	18.2	16.5	16.4	15.0	14.0	13.6	12.8	12.9	14.2	16.9	20.6	23.6	24.7	25.3	25.1	23.2	21.4	20.5	19.6	19.5	20.5	17.6	17.6	17.3	18.6	147.0	
20	17.2	17.3	16.7	15.2	13.7	12.9	12.7	11.8	12.3	14.6	18.5	23.1	25.2	26.6	26.0	23.8	23.5	21.9	22.4	22.3	18.4	11.4	15.7	18.5	18.4	141.7	
21	18.6	17.5	18.7	17.5	16.3	14.9	14.6	13.0	12.7	13.8	17.2	21.5	24.4	25.6	25.3	25.0	23.1	20.9	19.8	19.2	19.1	18.7	18.3	18.3	18.9	154.0	
22	17.7	17.5	16.7	15.7	16.1	16.3	16.7	15.0	13.7	14.1	16.1	20.2	23.6	25.1	25.1	24.0	22.1	20.6	19.5	18.7	18.9	19.5	19.6	18.3	18.8	150.8	
23 q	18.3	18.0	18.0	17.4	16.0	15.1	14.9	14.4	14.0	15.9	17.7	21.2	25.1	27.1	27.0	24.5	21.7	19.5	18.6	18.0	18.4	18.4	18.4	18.3	19.0	155.9	
24 q	18.3	18.0	17.7	16.9	15.7	14.8	14.6	13.8	12.2	13.9	17.5	20.2	23.2	25.2	26.1	24.9	22.3	20.6	19.4	18.7	19.1	18.3	18.8	19.3	18.7	149.5	
25	18.9	19.0	18.7	17.6	15.2	13.3	12.6	12.6	13.5	15.6	18.2	21.6	24.0	25.1	25.1	24.1	23.1	20.5	20.5	20.5	20.5	20.3	20.5	20.7	19.2	161.7	
26 d	18.5	17.4	16.4	15.5	13.0	12.0	12.5	13.7	10.9	11.5	13.5	22.5	25.9	27.8	31.5	33.0	39.9	37.5	28.3	11.2	13.7	9.2	3.1	8.8	18.6	147.3	
27	13.9	13.2	14.0	12.8	12.0	10.1	9.4	9.6	12.0	15.6	18.6	20.6	22.0	22.0	20.4	18.6	17.4	16.8	16.8	18.7	17.5	18.5	18.5	17.7	16.0	84.8	
28	16.9	16.3	16.7	15.9	15.7	14.8	14.8	14.4	13.3	15.8	19.2	22.2	24.1	24.0	22.4	21.3	20.1	18.5	18.6	19.5	19.6	19.5	19.5	17.9	18.4	141.4	
29	18.2	17.4	16.0	14.5	13.5	12.5	13.6	14.8	15.5	16.4	17.6	19.6	22.2	22.6	22.3	21.2	19.7	18.6	18.4	17.5	16.4	18.5	18.6	18.4	17.7	124.0	
30	17.0	16.4	15.7	14.1	13.3	12.8	11.9	10.4	11.8	14.8	17.7	20.1	22.0	23.3	21.7	20.5	20.8	19.8	20.4	17.3	18.4	15.6	15.7	17.0	17.0	108.5	
31 d	15.5	13.0	12.7	14.6	19.2	9.1	5.3	13.8	17.7	21.3	24.0	26.3	27.1	27.0	25.4	31.8	30.9	28.9	29.1	19.2	9.8	5.5	2.7	9.3	18.3	139.2	
Mean	17.6	16.7	16.5	16.0	15.1	14.1	13.7	13.6	13.9	15.8	18.4	21.5	23.9	24.9	24.5	23.8	22.9	21.5	20.5	19.3	18.2	16.9	16.7	17.1	18.5		
Sum 400.0°+	145.8	117.4	110.8	95.2	66.6	37.0	23.0	20.6	31.4	90.2	169.6	267.9	341.7	372.6	360.1	337.0	308.9	267.3	233.8	196.9	164.7	122.8	117.7	129.0	Grand Total 13728.0		

GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

13

3 LERWICK (Z)		47,000γ (0.47 CGS unit) +																						MAY 1966			
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 9000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	423	411	400	399	401	409	399	411	415	421	421	421	423	424	432	436	436	437	430	432	441	439	427	424	421	421	1112
2 d	413	387	389	404	408	409	408	403	405	403	402	409	422	428	438	439	445	440	438	441	440	418	405	414	417	417	1008
3	416	419	420	420	420	422	423	422	419	418	418	416	416	420	425	429	433	438	440	438	436	433	427	410	424	424	1178
4 d	383	348	351	365	368	381	392	404	405	408	412	418	418	420	425	436	444	447	447	440	435	429	414	383	407	773	
5	394	402	404	418	425	429	431	429	430	426	422	418	415	419	421	424	429	435	442	443	438	433	418	417	423	1162	
6	419	415	393	379	384	387	403	413	413	410	409	408	411	416	420	427	434	436	435	433	430	424	420	422	414	941	
7	419	419	422	426	428	428	426	422	419	415	413	410	411	418	424	429	435	439	435	433	431	426	420	419	424	1167	
8	417	420	422	423	425	426	426	426	422	418	411	408	407	411	413	417	437	438	436	445	448	442	426	424	425	1188	
9	421	419	420	422	420	420	419	420	422	421	419	419	421	421	425	427	427	430	432	433	432	430	428	426	424	1174	
10 q	426	425	426	428	428	429	431	431	428	423	418	411	410	413	416	419	422	423	426	427	426	425	425	425	423	1161	
11 d	425	425	425	426	426	425	425	425	421	417	414	410	410	417	420	418	424	428	427	424	431	426	403	392	420	1084	
12	401	404	412	421	421	419	423	422	421	418	421	424	423	420	425	431	431	424	426	430	436	432	426	419	422	1130	
13	395	396	414	418	419	419	423	424	428	425	415	415	420	419	417	421	427	433	432	432	431	428	426	426	421	1103	
14 q	425	425	426	426	425	425	426	426	427	424	423	418	414	413	414	417	420	421	422	425	427	428	427	426	423	1150	
15 q	427	427	426	427	427	427	425	426	426	420	413	409	403	405	412	418	420	422	422	422	424	428	426	426	425	421	1106
16	427	426	428	427	426	424	426	426	421	414	412	411	415	417	422	427	431	427	425	423	426	428	420	420	423	1149	
17	416	416	414	396	400	409	414	418	418	415	406	398	401	410	419	427	428	438	442	443	437	416	392	405	416	978	
18	397	392	404	408	406	411	417	421	422	423	420	412	409	413	419	421	424	425	430	429	425	426	423	423	417	1000	
19	418	419	425	427	428	425	421	419	417	415	418	420	415	414	421	430	432	431	433	433	423	423	421	421	423	1149	
20	423	420	421	422	422	422	422	419	413	407	409	408	408	405	417	427	432	442	437	438	439	435	424	419	422	1131	
21	421	422	424	426	427	429	427	424	421	417	414	415	410	413	423	424	425	430	432	430	427	424	424	422	423	1151	
22	423	425	426	428	426	422	424	423	420	418	415	412	413	418	423	432	434	433	431	429	427	424	421	419	424	1166	
23 q	422	423	425	426	425	424	426	426	426	422	419	415	415	417	418	416	419	425	430	431	427	423	421	420	423	1141	
24 q	421	422	424	426	427	427	425	423	421	415	412	411	411	404	411	415	422	427	431	431	431	428	423	420	421	1108	
25	420	419	421	421	422	423	424	422	420	414	408	403	403	404	411	419	426	437	442	441	435	429	424	419	421	1107	
26 d	418	420	421	420	420	420	420	419	412	423	449	447	512	493	499	521	527	536	514	405	408	459	517	373	452	1853	
27	418	427	447	403	409	455	456	451	448	446	441	435	434	433	438	443	448	444	441	441	441	438	436	437	438	1510	
28	437	435	432	433	436	432	432	434	437	432	429	429	434	440	449	446	446	445	442	438	438	439	425	425	436	1465	
29	430	433	433	436	438	439	436	437	437	434	433	430	428	436	434	432	433	433	437	444	446	441	438	435	436	1453	
30	435	436	434	435	435	436	437	440	438	431	426	423	425	421	420	422	428	438	440	447	441	446	431	409	432	1374	
31 d	347	353	383	398	307	300	364	396	410	410	428	429	437	460	487	491	541	540	710	617	596	576	560	483	459	2023	
Mean	415	414	417	417	415	418	421	423	422	419	418	416	419	422	427	432	437	440	445	439	438	435	430	419	425		
Sum 12,000γ+	877	830	912	934	879	951	1052	1102	1076	996	966	906	996	1069	1244	1383	1562	1642	1807	1620	1577	1494	1318	1002		Grand Total 316,195	

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH HOUSE

4 LERWICK		MAY 1966								
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magnetograph house °C
1	2211 1221	12	1211 1221	11	2210 0101	7	2120 0011	7	1	15.3
2 d	2222 2332	18	2112 2332	16	2221 1232	15	2110 0212	9	1	15.2
3	0100 1112	6	0000 1112	5	0100 0012	4	0000 0002	2	1	15.4
4 d	3212 2222	16	3212 2222	16	3111 0122	11	3220 0013	11	1	15.0
5	1011 1121	8	1011 1121	8	1010 0021	5	2100 0001	4	1	14.9
6	2221 1111	11	1211 1111	9	2221 1001	9	2120 0000	5	1	15.0
7	1001 0102	5	1001 0101	4	0000 0002	2	0000 0000	0	0	14.7
8	0001 2222	9	0001 2221	8	0000 0122	5	0000 0100	1	1	14.9
9	1111 1100	6	0111 1100	5	1010 0000	2	0000 0000	0	0	14.6
10 q	0001 0110	3	0001 0110	3	0000 0000	0	0000 0000	0	0	15.1
11 d	0001 3123	10	0001 3122	9	0000 1013	5	0000 1023	6	1	14.5
12	2111 1221	11	0111 1221	9	2111 0021	8	1000 0000	1	1	14.9
13	2111 1310	10	1111 1310	9	2111 0000	5	2000 0100	3	1	15.1
14 q	0010 0010	2	0000 0010	1	0010 0000	1	0000 0000	0	0	15.0
15 q	0000 1000	1	0000 1000	1	0000 0000	0	0000 0000	0	0	15.0
16	0000 2121	6	0000 2111	5	0000 0021	3	0000 0000	0	1	15.5
17	2211 1222	13	2101 1211	9	2210 0122	10	0100 0002	3	1	15.5
18	2101 1111	8	1101 1110	6	2100 0001	4	2000 0000	2	1	15.4
19	1000 0021	4	1000 0021	4	0000 0020	2	0000 0000	0	0	15.0
20	1012 2233	14	1012 2231	12	0010 0123	7	0000 0011	2	1	15.2
21	1001 1200	5	1001 1200	5	1000 0000	1	0000 0000	0	0	15.3
22	0001 2211	7	0001 2211	7	0000 1101	3	0000 0100	1	1	15.2
23 q	0000 0010	1	0000 0010	1	0000 0000	0	0000 0000	0	0	15.4
24 q	0000 0010	1	0000 0010	1	0000 0000	0	0000 0000	0	0	15.0
25	0001 1102	5	0001 1102	5	0000 0001	1	0000 0000	0	0	15.0
26 d	1135 5677	35	1135 5677	35	0134 4566	29	0013 4456	23	2	15.0
27	4110 1001	8	4110 1001	8	2110 0000	4	3000 0000	3	1	15.0
28	0010 2112	7	0010 2112	7	0010 0001	2	0000 1001	2	1	15.0
29	0101 1120	6	0101 1120	6	0000 0020	2	0000 0000	0	1	15.0
30	1011 2223	12	1011 2223	12	0010 1122	7	0000 0013	4	1	15.1
31 d	3442 4556	33	3442 4556	33	3332 2444	25	3442 3454	29	2	15.6
Mean									0.74	15.1

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

1 LERWICK (H)		14,000γ (0.14 CGS unit) +																							JUNE 1966		
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 15,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 d	651	676	661	660	641	636	644	645	631	628	630	631	634	639	649	664	673	678	680	681	681	678	678	674	656	743	
2 d	674	674	673	676	676	674	673	662	646	636	625	621	645	667	681	707	667	681	706	706	697	688	679	682	671	1116	
3	677	676	674	676	673	674	675	671	663	659	650	645	653	663	677	688	714	711	699	707	694	681	681	683	678	1264	
4	677	676	671	661	673	678	676	672	661	648	636	635	646	665	682	688	703	694	694	695	693	687	689	685	674	1185	
5	673	681	688	694	692	683	675	667	655	642	638	635	650	666	681	687	694	705	707	700	696	694	692	689	679	1284	
6	690	685	678	687	694	694	688	679	669	663	657	647	656	665	669	680	686	698	707	699	697	693	689	688	682	1358	
7	689	689	684	681	691	695	692	684	669	660	639	651	668	672	686	686	701	704	693	684	682	682	674	677	681	1343	
8	691	689	684	682	684	687	687	683	672	656	646	639	654	648	661	670	679	694	702	703	700	693	690	689	678	1283	
9 q	685	684	684	688	690	691	689	684	672	657	645	643	645	655	664	672	686	698	707	708	702	695	694	686	680	1324	
10 q	682	683	682	681	681	681	680	673	664	657	649	647	653	661	667	673	677	688	703	707	705	699	696	693	678	1282	
11 q	689	688	685	683	683	683	682	675	663	647	641	641	645	659	669	687	702	711	716	717	705	703	697	695	682	1366	
12	696	691	689	687	680	676	674	673	670	660	654	661	641	664	675	680	691	705	705	703	711	692	677	675	680	1330	
13	679	679	681	679	677	675	665	661	652	652	653	648	654	658	672	681	688	691	700	699	695	687	684	682	675	1192	
14	673	670	673	678	682	681	674	663	652	651	658	668	666	663	670	676	687	700	709	714	707	697	686	683	678	1281	
15	672	677	679	681	682	677	671	661	654	652	654	665	676	684	683	685	688	694	699	709	703	694	685	680	679	1305	
16	682	678	688	688	687	682	671	665	663	660	654	658	668	669	684	687	698	701	703	706	700	693	687	688	682	1360	
17	685	683	684	677	680	679	679	674	666	653	643	642	656	675	675	680	685	693	709	713	705	697	690	686	680	1309	
18 q	681	682	679	679	683	688	685	675	661	642	635	639	652	681	685	698	708	708	706	702	699	695	693	693	681	1349	
19	690	688	688	693	693	689	680	670	664	657	651	651	664	691	670	695	719	725	728	710	714	698	687	689	688	1504	
20	689	692	693	693	693	686	669	666	658	645	646	644	648	663	677	682	682	704	718	715	703	694	689	686	681	1335	
21	685	685	681	681	685	687	681	675	666	654	649	644	642	652	666	675	685	701	704	700	695	689	687	686	677	1255	
22 q	683	681	680	683	683	681	677	668	657	653	648	647	654	657	661	674	685	696	703	709	703	697	694	691	678	1265	
23 d	682	686	692	693	696	695	691	683	672	653	635	634	648	661	694	689	719	758	762	734	702	687	691	693	690	1550	
24 d	688	689	691	695	696	698	696	689	678	656	647	647	658	674	691	702	719	734	767	741	724	682	678	668	692	1608	
25 d	664	648	609	664	664	668	660	660	660	644	618	616	648	671	677	697	713	733	731	715	693	683	680	666	670	1082	
26	675	676	675	677	675	670	670	666	651	650	640	652	675	690	682	713	689	696	709	721	708	683	683	680	679	1306	
27	677	676	677	679	676	673	669	665	659	653	653	657	662	675	680	693	701	696	696	699	693	692	687	683	678	1271	
28	682	681	683	686	683	684	680	676	667	659	653	650	657	670	681	692	700	723	712	716	709	693	682	680	683	1399	
29	675	677	675	680	680	676	666	661	660	657	662	660	663	673	688	683	690	704	706	703	694	693	693	694	680	1313	
30	677	679	678	677	683	682	679	674	665	654	648	650	650	663	674	670	677	697	710	716	710	697	686	673	678	1269	
Mean	680	681	679	681	682	681	677	671	661	652	645	646	654	667	676	685	693	704	710	708	701	691	687	684	679		
Sum 19,000γ+	1413	1419	1359	1439	1456	1423	1298	1120	840	558	357	368	631	994	1281	1554	1806	2121	2291	2232	2020	1736	1598	1517		Grand Total 448,831	

**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

2 LERWICK (D)		9° +																							JUNE 1966		
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 300.0° +
1 d	9.7	7.0	10.0	11.5	11.0	11.8	12.9	13.8	15.3	16.6	19.3	22.2	21.8	24.0	22.5	21.0	19.1	17.4	17.2	17.2	18.0	18.4	19.1	18.6	16.5	95.4	
2 d	18.0	17.6	16.8	15.5	13.4	12.0	11.8	12.4	12.4	12.8	17.5	22.3	25.7	27.9	27.0	26.8	23.0	21.0	20.0	16.6	20.8	20.7	20.0	20.3	18.8	152.3	
3	18.2	16.5	16.5	16.6	16.6	16.9	14.7	13.0	13.4	14.0	16.1	21.5	25.0	26.0	26.1	25.2	25.2	24.8	20.6	16.4	18.5	19.5	19.6	20.4	19.2	161.3	
4	19.4	19.4	17.9	19.7	15.9	12.8	12.5	12.8	13.8	14.5	16.7	21.0	24.3	24.8	24.9	23.5	22.4	20.8	20.1	20.3	19.6	18.2	18.5	16.7	18.0	150.5	
5	15.6	13.3	11.9	12.7	13.3	13.8	13.2	13.5	12.7	13.8	16.7	22.3	26.9	29.7	28.9	28.3	25.0	22.5	21.9	21.0	20.3	19.4	19.4	18.8	19.0	154.9	
6	18.5	19.4	21.0	16.5	14.4	13.0	12.4	11.2	11.1	13.1	16.3	20.1	23.2	25.1	25.7	24.3	23.6	21.7	20.4	20.2	19.9	19.6	18.5	17.9	18.6	147.1	
7	17.4	17.0	17.1	21.4	16.7	14.9	13.3	12.9	11.4	12.2	17.1	19.7	22.2	24.6	24.7	23.4	23.0	22.1	20.5	19.2	18.2	19.1	18.7	19.0	18.6	145.8	
8	18.9	19.3	18.0	16.5	15.2	13.5	11.7	11.2	10.8	11.9	14.1	18.1	23.2	25.0	25.9	25.1	23.9	21.9	20.3	19.6	19.3	19.3	18.9	18.8	18.3	140.4	
9 q	19.0	18.5	18.2	17.0	16.1	15.0	14.4	13.4	13.2	15.7	18.9	21.3	23.0	23.9	23.9	23.1	21.8	20.0	18.6	18.8	20.3	19.3	16.8	19.5	18.7	149.7	
10 q	19.4	18.2	17.5	16.6	14.7	13.0	11.7	11.7	12.7	16.0	19.5	22.5	24.3	24.9	24.2	22.7	21.8	21.3	21.9	21.5	21.4	20.4	19.5	18.6	19.0	156.0	
11 q	19.6	17.9	17.1	15.6	13.5	11.7	12.0	11.6	12.3	14.9	18.3	21.9	25.2	24.9	23.8	23.2	22.7	21.7	20.7	21.6	21.8	21.7	21.0	19.5	18.9	154.2	
12	18.6	16.9	15.3	14.2	14.5	12.4	12.3	13.1	14.2	16.1	17.8	22.3	24.5	24.6	23.5	22.3	20.9	20.0	20.0	20.0	20.8	19.0	18.5	18.7	18.4	140.5	
13	19.1	17.7	16.1	16.3	15.8	13.3	13.3	14.8	15.8	16.4	17.9	22.3	24.2	24.6	23.3	21.8	20.8	20.2	19.9	19.7	18.8	18.4	19.6	18.5	18.7	148.6	
14	17.1	18.0	16.6	12.9	10.9	9.6	9.0	10.0	14.5	17.6	21.4	23.7	23.6	22.1	21.4	20.9	20.0	20.4	19.2	18.9	18.9	18.4	17.8	14.2	17.4	117.1	
15	15.4	15.4	14.2	13.8	13.8	12.9	12.8	12.9	13.6	16.2	19.3	22.0	23.8	24.5	24.3	23.8	24.4	24.0	22.6	22.4	19.3	17.8	16.8	12.5	18.3	138.5	
16	14.0	16.2	13.7	12.9	13.5	12.8	12.8	14.0	15.3	16.9	18.5	22.9	23.3	22.7	22.7	21.5	20.1	19.8	19.9	19.2	17.6	18.9	19.2	19.6	17.8	128.0	
17	16.1	15.9	15.7	15.2	14.0	13.2	12.3	12.2	13.3	15.5	18.7	22.5	24.5	24.5	23.7	22.4	21.8	20.7	20.5	19.8	20.7	21.5	18.7	18.8	18.4	142.2	
18 q	19.1	18.0	17.7	16.7	17.0	17.0	14.7	13.3	12.0	12.0	15.5	19.6	23.2	25.0	26.3	26.5	26.1	24.1	21.6	19.7	19.4	19.8	19.9	20.6	19.5	167.7	
19	20.4	19.9	17.9	16.7	15.1	13.9	12.1	12.7	14.9	17.2	19.9	22.9	25.4	27.7	25.3	28.6	28.6	25.7	24.7	21.5	21.2	19.1	18.4	18.9	20.4	188.7	
20	19.5	19.1	19.6	17.0	13.9	12.3	11.4	11.5	12.3	14.2	16.9	20.8	23.5	24.5	24.3	23.9	23.0	21.8	21.4	19.5	19.2	19.7	19.9	19.6	18.7	148.8	
21	19.9	19.7	20.2	19.0	15.9	12.2	10.6	9.5	10.2	13.0	16.4	19.4	22.3	23.3	24.2	23.7	22.1	20.5	19.4	18.6	18.8	18.9	18.5	18.8	18.1	135.1	
22 q	18.4	18.4	17.7	17.1	16.6	15.3	14.1	12.2	12.1	13.6	16.3	19.2	22.3	23.3	23.4	22.1	21.2	20.5	20.3	20.2	19.6	19.3	18.4	17.4	18.3	139.0	
23 d	18.3	17.5	14.8	13.9	12.2	11.3	9.8	8.2	8.1	12.3	15.5	20.3	23.4	25.6	25.8	25.7	26.5	27.7	26.0	20.7	14.6	12.0	19.3	20.2	17.9	129.7	
24 d	19.7	18.3	16.9	15.5	14.4	12.1	10.0	9.8	10.0	11.1	13.6	17.3	20.8	24.7	27.4	28.6	29.0	28.1	27.8	23.9	18.4	15.6	7.4	16.1	18.2	136.5	
25 d	18.0	18.0	21.5	20.3	17.7	15.8	12.4	13.7	11.0	12.3	14.5	17.3	19.8	23.0	24.1	25.3	22.7	21.3	23.2	22.2	22.1	21.0	11.9	15.4	18.5	144.5	
26	16.4	16.1	15.6	15.2	14.1	13.6	12.7	13.1	13.9	13.7	15.4	19.2	22.0	22.7	23.9	26.0	24.8	23.0	22.2	20.8	19.2	20.6	18.2	16.4	18.3	138.8	
27	17.2	16.3	15.5	14.9	14.3	13.7	12.6	12.3	12.9	14.1	14.9	16.3	18.4	20.8	21.8	21.4	22.1	20.2	20.7	19.4	19.4	18.2	18.2	17.9	17.2	113.2	
28	17.0	16.1	15.4	14.1	13.0	12.3	11.7	11.4	12.0	14.5	18.5	22.4	24.1	24.7	24.2	25.1	24.4	23.9	23.1	21.5	21.0	19.4	20.4	19.5	19.2	18.6	145.8
29	16.0	14.7	14.9	13.1	13.0	13.6	13.9	14.4	15.2	16.7	19.4	21.5	22.4	23.0	23.8	24.1	23.9	23.3	22.0	18.6	20.4	20.2	19.1	15.7	18.5	142.9	
30	15.0	15.2	16.0	14.5	10.9	10.1	10.4	12.1	12.7	14.1	16.4	19.6	22.9	23.1	22.4	20.9	20.5	20.4	19.4	19.4	18.3	17.6	16.5	16.6	16.9	105.0	
Mean	17.6	17.1	16.6	15.8	14.4	13.1	12.3	12.3	12.8	14.5	17.4	20.9	23.4	24.5	24.4	24.1	23.1	22.0	21.1	19.9	19.5	19.1	18.2	18.1	18.4		
Sum 300.0° +	228.9	211.5	197.3	172.9	131.4	93.5	68.1	67.4	83.1	136.5	221.4	328.0	401.0	436.5	433.2	421.5	392.3	358.8	331.6	297.6	284.6	272.1	245.8	243.2		Grand Total 13258.2	



GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

15

3 LERWICK (Z)		47,000γ (0.47 CGS unit) +																						JUNE 1966		
	Hour GMT 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 9000γ+
1 d	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
2 d	267	326	373	408	421	411	403	415	409	437	429	423	420	426	432	432	432	432	431	432	430	433	433	434	412	889
3	437	439	438	438	439	436	439	439	433	431	435	439	432	430	438	448	471	457	452	462	447	439	434	426	441	1579
4	429	438	439	437	436	432	431	431	432	427	427	426	422	425	426	432	430	442	456	457	449	443	431	423	434	1421
5	426	429	434	432	427	433	434	434	432	428	427	422	421	423	429	434	435	443	441	437	435	434	426	426	431	1342
6	426	418	421	422	427	427	429	430	426	421	419	420	415	413	418	425	429	433	433	435	430	429	428	428	425	1202
7	429	427	417	405	401	405	411	418	420	416	410	409	410	414	419	429	432	432	432	434	431	430	427	424	420	1082
8	422	425	426	415	395	400	414	418	421	420	425	423	416	425	433	440	442	448	445	445	439	434	432	428	426	1231
9	428	426	429	431	432	430	429	429	431	429	430	426	421	429	431	433	436	435	438	438	437	435	433	430	431	1346
9 q	429	429	430	432	434	436	439	441	439	437	431	428	425	424	424	429	431	434	439	445	441	437	431	429	433	1394
10 q	429	431	431	429	428	428	428	431	429	424	421	421	419	418	418	420	422	424	425	428	430	431	428	426	426	1219
11 q	425	425	428	428	430	430	428	428	424	421	420	415	414	415	420	424	427	434	440	439	437	431	430	428	427	1241
12	426	425	425	427	426	421	418	415	412	411	409	409	421	422	438	439	432	425	427	429	429	432	431	426	424	1175
13	421	417	424	423	419	418	421	421	421	422	418	417	416	423	425	427	429	431	432	432	434	436	432	430	425	1189
14	429	425	416	421	423	424	424	425	425	421	418	415	419	425	422	421	425	426	431	435	437	436	434	426	425	1203
15	424	421	422	424	422	422	424	424	424	421	417	411	415	415	416	422	426	430	431	431	430	435	433	421	405	1139
16	400	415	409	415	418	420	420	416	413	416	420	419	421	425	434	440	443	445	443	439	438	434	431	419	425	1193
17	416	425	428	428	424	424	424	426	427	426	426	421	417	415	421	425	428	428	431	437	437	434	431	431	426	1230
18 q	430	431	433	433	430	430	430	427	427	427	427	421	419	421	424	427	427	427	430	430	429	428	428	428	428	1263
19	429	430	432	433	433	432	427	425	420	417	415	411	411	412	422	419	430	439	436	434	430	435	433	430	426	1235
20	430	430	430	432	433	434	437	430	423	418	417	414	412	418	428	443	454	455	447	446	439	434	430	427	432	1361
21	426	426	426	425	424	429	429	427	426	422	420	420	420	418	419	426	433	431	430	432	432	430	427	423	426	1221
22 q	423	425	428	426	430	430	428	426	420	413	414	416	417	423	426	432	432	435	437	442	442	436	430	426	427	1257
23 d	422	410	410	410	413	417	420	423	423	420	411	403	405	416	425	443	459	476	483	486	469	460	448	433	433	1385
24 d	432	433	433	435	436	436	434	432	429	427	422	414	407	410	411	419	422	423	432	460	476	460	436	401	430	1320
25 d	347	362	282	314	376	400	417	426	434	436	438	436	425	427	439	442	452	462	462	462	455	446	442	436	417	1018
26	429	430	432	431	431	432	433	439	438	430	427	417	412	419	431	427	439	433	433	440	438	433	424	429	430	1327
27	429	430	430	429	433	433	433	431	430	427	423	422	426	426	429	429	426	429	426	429	429	430	430	429	429	1285
28	430	429	429	427	426	424	420	422	422	424	429	423	416	413	415	423	426	430	442	443	440	439	439	436	428	1267
29	430	432	430	429	428	426	429	429	426	426	426	429	430	427	429	433	429	430	435	442	439	436	432	417	430	1319
30	422	424	415	403	405	410	416	419	420	424	426	426	429	425	430	436	435	433	432	433	436	436	425	401	423	1161
Mean	418	421	420	421	423	424	426	427	425	424	422	420	418	421	426	431	435	437	438	441	439	436	431	425	427	
Sum 12,000γ+	542	633	600	642	700	730	769	797	753	715	671	597	553	623	778	923	1038	1103	1149	1230	1171	1084	937	756		Grand Total 307,494

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH HOUSE

4 LERWICK		JUNE 1966								
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magneto- graph house °C
1 d	6221 0010	12	6221 0010	12	5120 0000	8	5220 0000	9	2	16.0
2 d	1012 3321	13	1002 3321	12	0011 1121	7	0001 1211	6	1	15.3
3	1011 1321	10	1001 1321	9	0010 0221	6	1000 0211	5	1	15.7
4	1200 1201	7	1200 1200	6	0200 0001	3	0100 0000	1	1	15.4
5	2111 2110	9	1111 2110	8	2110 0000	4	1000 0000	1	1	15.5
6	2100 2101	7	1100 2101	6	2100 0000	3	1010 1000	3	1	15.9
7	1211 2211	11	1200 2211	9	0211 0110	6	0311 1110	8	1	15.7
8	0112 2100	7	0001 2100	4	0112 0000	4	0000 1000	1	1	16.1
9 q	0000 1111	4	0000 1100	2	0000 0011	2	0000 0000	0	0	15.9
10 q	1010 0100	3	0000 0100	1	1010 0000	2	0000 0000	0	0	15.9
11 q	0000 0020	2	0000 0020	2	0000 0010	1	0000 0000	0	0	16.0
12	0212 3112	12	0112 3112	11	0210 1001	5	0000 1100	2	1	16.9
13	1110 0101	5	1000 0100	2	1110 0001	4	1000 0000	1	1	17.8
14	1010 0012	5	0000 0012	3	1010 0012	5	1000 0000	1	1	19.3
15	1111 1022	9	1001 1011	5	1110 0022	7	0000 0002	2	1	18.3
16	2111 1222	12	2001 1220	8	2110 0012	7	2000 0002	4	1	19.0
17	0100 1111	5	0000 1110	3	0100 0011	3	2000 0010	3	1	18.3
18 q	0100 0010	2	0000 0010	1	0100 0000	1	0000 0000	0	0	18.3
19	0000 3221	8	0000 3221	8	0000 2111	5	0000 2110	4	1	18.3
20	1111 2320	11	0111 2320	10	1110 0110	5	0000 1110	3	1	17.8
21	1111 2100	7	1001 2100	5	1110 0000	3	0000 0100	1	1	15.6
22 q	0110 1001	4	0000 1000	1	0110 0001	3	0000 0000	0	0	15.3
23 d	2113 3443	21	1003 3442	17	2111 1333	15	1102 1222	11	1	15.2
24 d	0011 2334	14	0001 2332	11	0011 1134	11	0001 1134	10	1	15.4
25 d	4322 2323	21	4212 2322	18	3321 1213	16	4421 1111	15	2	15.6
26	1101 3311	11	1001 3310	9	0101 1101	5	0001 2111	6	1	15.6
27	0000 1111	4	0000 1111	4	0000 0001	1	0000 0000	0	0	15.7
28	0000 0321	6	0000 0311	5	0000 0121	4	0000 0110	2	1	15.3
29	1111 2122	11	0001 2122	8	1110 0022	7	0000 1111	4	1	15.3
30	2110 1112	9	1000 1112	6	2110 0012	7	1100 0003	5	1	15.6
Mean									0.87	16.4

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

GEOMAGNETIC FORCE: HORIZONTAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

1 LERWICK (H)												14,000γ (0.14 CGS unit) +												JULY 1966			
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 15,000γ+
1	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
2	670	678	675	679	675	668	669	672	662	643	645	646	646	659	682	692	692	701	702	708	703	699	692	691	685	679	1288
3	683	679	681	683	682	678	675	668	665	659	652	653	653	665	678	692	699	702	710	708	701	694	692	696	689	683	1384
4	683	685	679	676	671	680	676	666	656	643	649	649	649	659	668	679	689	697	695	705	708	698	694	689	685	678	1279
5	685	685	685	684	683	682	681	675	665	656	660	649	649	670	656	685	718	701	738	702	705	708	695	688	660	684	1416
6	674	672	687	690	679	684	681	672	652	645	648	648	656	662	674	677	684	685	695	701	707	702	697	694	691	680	1309
7	688	687	684	687	688	688	681	677	665	651	635	635	635	648	652	675	687	694	697	698	698	695	691	690	688	678	1279
8	685	683	681	685	686	684	678	668	658	644	639	641	641	645	654	664	675	681	695	701	704	701	704	704	702	678	1262
9	703	696	706	711	711	702	668	668	653	645	659	661	661	665	684	683	717	718	740	739	722	717	711	671	633	691	1583
10	556	615	597	518	486	556	511	535	591	648	661	638	638	645	658	678	707	727	730	721	706	685	674	674	669	633	186
11	655	637	653	654	588	540	571	620	654	648	634	615	615	640	672	680	674	677	691	702	693	690	697	677	673	651	635
12	670	655	656	659	661	667	661	667	663	654	647	647	647	654	664	677	683	696	695	693	689	690	692	693	691	672	1124
13	650	656	666	644	614	666	657	649	622	612	614	614	614	642	654	681	682	682	679	682	685	688	685	682	678	658	784
14	683	679	677	676	679	675	669	663	659	649	644	645	645	648	656	674	672	682	686	692	697	697	693	685	680	673	1160
15	682	681	681	685	686	681	676	669	663	657	650	645	645	654	666	671	681	686	698	707	701	699	693	690	689	679	1291
16	686	685	687	689	692	688	679	670	660	663	662	661	656	659	666	680	707	705	709	701	718	719	698	699	698	687	1477
17	695	695	692	688	687	687	676	662	655	646	643	649	649	664	679	692	692	699	716	712	707	707	701	695	682	684	1421
18	689	683	669	663	689	687	679	671	654	643	638	649	649	668	688	689	703	702	705	713	715	708	691	685	683	682	1364
19	683	683	685	687	679	671	666	668	659	646	636	639	639	652	656	676	691	702	706	710	704	695	689	686	685	677	1254
20	685	686	689	690	686	685	679	669	659	657	655	654	654	666	679	692	698	683	695	706	710	695	692	691	692	683	1393
21	690	685	684	690	691	689	683	684	677	665	653	655	655	661	664	665	678	701	711	705	710	698	692	694	689	684	1414
22	689	681	645	681	652	687	688	687	675	655	645	639	639	652	672	672	685	728	730	744	727	698	688	678	678	682	1376
23	657	632	660	674	673	667	671	667	658	647	639	645	645	651	669	681	691	697	714	697	712	711	689	682	678	673	1162
24	677	684	684	681	685	684	688	660	657	649	652	663	663	671	681	690	697	714	693	697	703	695	687	685	687	682	1364
25	682	689	684	674	671	676	668	668	667	656	656	658	658	662	684	691	685	697	695	694	695	694	690	690	684	680	1310
26	683	684	684	685	685	681	675	669	663	661	660	662	662	668	669	674	677	688	697	701	700	704	693	688	688	681	1339
27	681	681	687	685	694	692	682	673	665	656	654	659	659	658	659	658	675	685	705	720	720	705	695	686	678	681	1353
28	683	679	679	681	683	683	689	688	679	669	658	653	653	666	699	680	646	696	691	699	702	699	693	690	693	682	1378
29	682	676	672	692	703	689	676	664	666	655	655	646	646	672	677	668	683	689	715	709	709	709	696	685	684	682	1372
30	676	675	691	689	692	694	689	679	671	659	653	656	656	660	669	677	685	693	699	705	710	713	698	693	688	684	1414
31	686	686	686	689	682	675	676	667	652	656	649	646	646	656	665	679	690	697	701	698	698	693	696	689	689	679	1301
Mean	687	686	682	685	686	683	679	667	651	643	632	639	639	653	669	689	670	693	712	713	706	693	692	700	689	679	1299
Sum 20,000γ+	978	958	968	954	819	869	697	582	399	179	76	62	62	395	763	1061	1313	1598	1845	1883	1865	1699	1490	1340	1178		Grand Total 503,971

GEOMAGNETIC DECLINATION (WEST)  
Mean values for periods of sixty minutes ending at exact hours, GMT

2 LERWICK (D)													9° +												JULY 1966				
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 300.0° +		
1	12.2	12.5	13.6	13.5	12.8	11.9	11.8	11.9	12.6	15.5	19.2	23.1	23.1	24.9	26.6	25.4	23.4	22.5	22.2	21.6	19.4	19.3	19.3	18.6	18.0	18.0	131.8		
2	16.1	15.5	14.6	13.7	12.8	11.8	11.9	12.7	13.8	14.7	17.4	21.2	21.2	24.4	26.7	26.7	24.3	22.4	20.3	19.3	18.4	19.2	19.4	15.6	12.5	17.7	125.4		
3	14.7	16.8	16.4	13.8	14.5	13.9	11.7	11.6	11.6	14.8	17.4	21.0	21.0	23.4	24.2	24.9	23.9	22.1	21.0	20.3	19.4	18.1	16.5	17.2	17.1	17.8	126.3		
4	16.6	16.4	15.8	15.2	15.5	14.0	12.6	12.2	13.5	15.8	19.3	25.1	25.1	30.2	30.5	29.6	29.7	25.0	23.3	21.2	21.1	21.4	17.5	12.8	13.0	19.5	167.3		
5	12.8	14.6	15.2	15.0	17.8	16.0	13.8	12.0	12.7	13.8	16.4	20.3	20.3	23.8	24.0	23.2	22.1	21.0	19.4	19.4	21.0	20.5	20.5	18.6	18.6	18.0	132.5		
6	18.2	19.3	19.2	15.8	14.3	12.6	12.9	12.8	13.0	14.4	16.7	20.2	20.2	22.2	22.5	23.0	22.5	21.6	21.2	20.3	19.4	19.3	19.2	18.3	17.8	18.2	136.7		
7 q	19.4	18.4	17.2	14.0	12.3	11.8	11.6	11.5	11.6	12.8	16.4	18.5	18.5	20.3	20.6	22.4	23.0	22.4	21.2	20.0	19.9	18.2	20.0	19.8	18.1	17.6	121.4		
8 d	17.6	15.8	14.7	15.4	12.9	8.2	8.3	14.0	17.4	18.7	19.6	21.6	21.6	24.7	24.7	25.0	26.0	25.7	25.0	24.0	22.0	20.9	9.9	2.6	-1.3	17.2	113.4		
9 d	5.6	8.1	-4.8	14.7	11.6	14.4	13.0	26.6	20.5	17.5	16.7	20.1	20.1	23.7	24.1	24.2	23.0	17.9	18.8	21.2	20.3	20.4	19.7	18.3	17.4	17.2	113.0		
10 d	8.1	4.5	8.1	10.4	13.2	21.3	23.7	16.7	14.4	12.7	14.1	17.3	17.3	21.9	23.3	23.7	24.3	24.0	23.3	21.1	19.2	19.4	16.6	19.2	17.6	17.4	118.1		
11	16.1	15.3	17.6	14.5	10.1	11.2	12.2	10.8	10.0	10.3	12.1	15.8	15.8	19.2	20.1	19.8	19.8	21.0	21.0	20.5	20.1	20.3	19.5	18.9	14.6	16.3	90.8		
12 d	7.4	10.0	7.5	8.4	12.2	15.8	19.3	16.4	14.3	16.1	20.7	21.9	21.9	23.7	23.7	24.3	24.5	22.3	20.3	19.5	19.0	19.2	18.4	17.8	17.5	17.5	120.2		
13 q	16.4	14.9	15.6	14.8	13.6	11.9	11.9	11.6	11.7	12.9	14.7	17.2	17.2	19.3	20.5	21.7	21.2	20.2	20.2	19.8	19.4	18.9	18.4	18.0	17.6	16.8	102.4		
14 q	16.6	16.3	15.9	15.7	14.5	13.1	11.7	11.7	12.6	15.1	18.4	22.0	22.0	24.9	23.8	23.0	23.0	21.3	21.0	20.2	19.3	19.4	19.5	19.3	18.4	18.2	136.7		
15	17.4	16.4	15.5	14.6	12.8	11.0	11.0	11.2	11.1	12.9	16.4	18.4	18.4	20.3	21.2	22.3	25.0	24.7	24.2	22.2	22.4	20.4	17.5	19.3	18.1	17.8	126.3		
16	17.5	17.8	17.9	17.6	16.0	14.4	12.8	14.0	13.9	14.7	17.3	19.4	19.4	22.5	24.5	23.9	21.8	20.7	22.0	19.8	18.5	19.6	20.0	19.2	17.5	18.5	143.3		
17	10.2	11.0	17.2	20.2	11.7	13.2	13.9	12.7	13.9	16.1	18.5	21.1	21.1	23.9	25.7	24.8	22.1	19.7	19.1	17.6	18.2	19.4	15.4	18.5	18.5	17.6	122.6		
18 q	18.2	16.7	15.5	15.5	14.7	13.8	14.5	13.3	13.6	13.7	15.4	18.7	18.7	21.7	23.3	24.0	22.3	20.9	18.5	19.3	19.4	19.4	19.4	18.5	17.5	17.8	127.8		
19	16.6	15.8	15.8	15.4	15.5	14.7	11.9	11.9	13.2	14.5	17.5	21.2	21.2	23.8	24.8	24.1	22.3	20.3	20.4	19.4	19.2	19.3	19.2	19.4	18.6	18.1	134.8		
20	16.6	16.7	15.9	14.7	13.9	12.9	13.7	11.4	11.0	12.7	15.2	18.5	18.5	22.1	24.9	25.0	24.8	23.4	21.1	19.4	19.4	18.6	19.4	18.4	18.2	17.8	127.9		
21 d	14.7	17.3	24.7	19.3	10.1	10.0	8.5	9.1	10.9	12.7	14.7	18.5	18.5	23.1	26.0	24.9	24.7	24.7	18.3	22.0	20.0	19.2	19.3	18.4	14.9	17.7	126.0		
22	15.6	12.5	12.5	14.6	13.5	12.1	10.4	9.2	10.9	13.7	16.3	20.2	20.2	23.5	25.1	24.8	23.2	21.7	21.2	18.7	18.4	14.7	16.5	14.5	14.7	16.6	98.5		
23	12.9	11.8	12.6	12.7	10.0	9.1	9.5	11.1	10.0	13.7	16.3	19.4	19.4	23.0	25.4	24.9	24.3	23.1	20.0	19.9	20.1	18.8	17.8	16.8	16.4	16.7	99.6		
24	15.7	12.7	12.0	13.1	14.1	11.1	10.9	12.0	12.2	15.2	17.0	19.4	19.4	22.0	23.2	23.2	23.2	22.1	20.4	19.8	19.4	18.6	16.6	17.5	17.8	17.1	110.3		
25 q	16.7	16.6	16.7	16.4	15.4	14.0	12.4	11.6	13.3	15.5	16.7	18.4	18.4	21.1	22.2	24.0	23.3	22.9	22.1	20.4	19.5	18.4	17.6	18.4	17.5	18.0	131.1		
26	16.4	17.2	17.6	14.1	14.7	14.7	12.9	10.0	11.9	11.8	13.8	16.7	16.7	21.2	24.0	24.9	24.7	23.0	21.0	18.8	18.4	18.3	17.4	19.1	19.4	17.6	122.0		
27	18.4	13.7	12.3	12.8	12.9	13.8	11.4	11.8	11.8	12.7	15.2	19.3	19.3	24.4	30.0	30.9	27.7	28.3	25.1	20.7	19.3	18.6	17.4	16.8	17.0	18.4	142.3		
28	16.6	16.1	19.4	20.5	15.8	14.5	17.1	17.5	18.2	18.8	18.7	21.1	21.1	23.4	24.8	25.2	24.9	23.2	19.6	19.6	20.3	20.4	19.4	17.5	18.3	19.6	170.9		
29	17.5	23.0	13.9	10.9	11.6	10.2	9.9	10.0	12.0	13.7	17.3	20.5	20.5	22.3	23.8	24.3	22.0	20.4	19.1	18.8	18.9	18.9	19.2	18.4	17.6	17.2	113.2		
30	16.8	16.6	16.0	16.7	15.4	15.6	12.7	10.1	10.0	12.7	15.7	18.7	18.7	22.0	25.6	26.0	24.1	21.9	21.0	20.3	19.4	19.2	18.1	17.6	18.1	17.9	130.3		
31	17.7	16.5	17.4	16.5	13.7	10.5	9.0	9.0	11.2	13.4	16.9	21.1	21.1	24.0	26.8	27.5	26.4	22.3	20.3	19.4	18.6	19.4	19.5	14.5	14.8	17.8	126.4		
Mean	15.3	15.1	14.8	14.9	13.5	13.0	12.5	12.5	12.9	14.3	16.7	19.9	19.9	22.9	24.4	24.5	23.8	22.3	21.0	20.1	19.6	19.2	18.3	17.3	16.5	17.7			
Sum 300.0° +	173.3	166.8	159.5	160.5	119.9	103.5	88.9	88.4	98.8	143.6	218.0	315.9	315.9	410.9	455.7	460.6	437.5	392.7	351.6	324.5	307.3	295.7	266.1	237.8	211.8		Grand Total 13189.3		

GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

3 LERWICK (Z)													47,000γ (0.47 CGS unit) +													JULY 1966	
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 9000γ+	
	0-1																										
1	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	
2	389	410	416	420	424	426	419	419	416	416	417	413	413	422	427	434	442	437	437	443	439	433	429	423	423	1164	
1	423	429	429	430	430	429	429	430	429	429	427	421	415	408	407	414	423	435	439	438	439	435	427	415	410	425	1211
3	413	420	423	426	427	418	422	425	421	417	415	417	419	418	417	420	426	433	429	433	436	435	430	427	424	1167	
4	425	425	426	429	429	429	427	424	423	415	405	405	403	412	415	423	452	458	479	458	442	439	392	386	426	1221	
5	386	409	413	420	428	426	429	432	433	425	416	411	413	413	423	430	443	448	445	441	438	435	431	428	426	1216	
6	428	429	424	430	430	432	431	431	432	433	430	427	423	426	427	432	436	436	436	433	433	433	430	428	430	1330	
7 q	426	424	425	427	431	430	427	426	426	427	425	419	416	415	417	420	423	427	428	428	429	426	425	421	425	1188	
8 d	423	422	420	417	410	416	423	416	410	412	412	422	423	426	432	429	442	456	461	457	448	429	363	308	420	1077	
9 d	245	218	235	218	277	311	360	379	400	453	459	472	475	453	446	460	475	466	465	467	458	450	443	424	396	509	
10 d	362	344	371	390	364	301	320	357	400	426	442	472	455	433	445	447	436	433	443	458	453	438	426	419	410	835	
11	426	420	389	392	404	418	420	430	435	442	442	433	425	423	423	426	426	429	430	433	433	431	430	410	424	1170	
12 d	360	333	357	362	327	324	344	364	399	428	440	441	439	438	433	436	431	435	436	434	433	436	438	438	404	706	
13 q	434	433	432	428	428	433	433	432	429	428	432	433	431	429	428	426	426	427	426	427	429	432	434	434	430	1324	
14 q	432	431	430	431	430	429	428	429	429	426	423	417	407	408	413	427	435	432	432	436	435	434	434	435	428	1263	
15	434	435	435	433	430	428	428	431	430	425	421	419	419	421	423	419	427	432	432	428	435	446	436	432	429	1299	
16	433	434	432	432	429	423	426	431	429	420	419	420	419	419	432	440	435	428	436	443	442	440	430	413	429	1305	
17	401	403	412	369	377	398	404	413	420	422	423	419	420	425	431	430	441	447	453	451	445	446	438	437	422	1125	
18 q	436	437	437	437	434	435	429	428	429	429	428	425	424	425	431	436	437	447	447	445	441	436	434	434	434	1421	
19	434	435	437	438	436	434	437	437	433	429	428	426	427	431	434	446	460	453	446	443	442	438	435	432	437	1491	
20	428	427	432	435	436	433	426	421	421	418	418	414	416	423	426	430	433	443	448	447	446	439	426	395	428	1281	
21 d	401	389	347	335	362	401	423	430	430	430	428	422	418	424	437	439	440	461	458	462	460	446	417	415	420	1075	
22	384	299	361	411	428	437	435	438	441	439	434	429	426	426	431	434	439	440	447	445	447	442	434	431	424	1178	
23	425	421	423	426	421	423	425	425	425	422	420	422	427	427	426	426	432	442	442	441	442	441	436	429	429	1289	
24	424	403	404	409	411	419	424	424	422	424	423	424	422	421	427	428	427	429	431	432	434	435	432	431	423	1160	
25 q	428	429	428	428	429	429	430	431	428	417	413	414	419	424	427	429	429	431	435	437	437	440	436	433	428	1281	
26	431	427	412	409	411	417	423	430	430	430	428	424	424	424	422	424	427	434	436	443	443	434	429	430	427	1242	
27	414	418	422	423	423	423	421	418	415	417	419	418	417	421	439	446	430	436	436	436	436	436	433	433	426	1230	
28	432	431	419	361	330	363	384	396	407	417	426	428	426	443	452	459	461	451	454	447	446	443	435	426	422	1137	
29	422	404	383	411	421	423	424	428	429	425	423	422	422	425	425	429	430	429	429	426	429	432	430	432	423	1153	
30	432	432	432	432	434	428	428	429	427	421	423	416	416	421	424	429	435	438	435	432	432	429	430	430	429	1285	
31	430	432	432	431	431	432	430	429	427	419	416	416	416	421	426	435	445	446	449	448	444	435	414	405	430	1309	
Mean	412	407	408	408	409	412	417	420	423	425	425	424	423	424	428	433	437	440	442	442	440	437	427	420	424		
Sum 12,000γ+	761	603	638	640	682	768	910	1032	1125	1179	1169	1155	1108	1144	1273	1412	1556	1643	1699	1693	1642	1536	1245	1029		Grand Total 315,642	

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH HOUSE

4 LERWICK										JULY 1966	
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magnetograph house °C.	
1	2011 1110	7	1001 1110	5	2010 0010	4	3100 0100	5	1	16.0	
2	1000 0212	6	0000 0211	4	1000 0002	3	0000 0000	0	1	15.5	
3	2111 1110	8	0101 1110	5	2110 0010	5	0100 0100	2	1	15.3	
4	0002 3433	15	0002 3433	15	0001 1212	7	0000 1333	10	1	15.7	
5	2210 1120	9	2110 1020	7	2210 0110	7	3100 0000	4	1	15.8	
6	1100 1010	4	0000 1010	2	1100 0000	2	0000 0000	0	0	15.6	
7 q	1000 0001	2	0000 0001	1	1000 0001	2	0000 0000	0	0	15.3	
8 d	1332 2335	22	1132 2335	20	1331 1124	16	0121 0225	13	1	15.6	
9 d	5553 3331	28	5553 3331	28	5441 1211	19	4543 2212	24	2	16.0	
10 d	3543 3222	24	3543 3222	24	3442 1112	18	3443 3312	21	2	15.6	
11	2210 1113	11	1110 1112	8	2210 0103	9	2210 0003	8	1	15.5	
12 d	3432 3121	19	3432 3120	18	3321 1111	13	3331 1000	11	1	15.5	
13 q	1110 1000	4	0000 1000	1	1110 0000	3	0000 0000	0	0	15.7	
14 q	0000 1120	4	0000 0120	3	0000 1000	1	0000 0100	1	0	15.8	
15	0000 1222	7	0000 1222	7	0000 0122	5	0000 0012	3	1	15.3	
16	1111 1223	12	1011 1221	9	1111 0113	9	0000 1202	5	1	15.1	
17	3322 1222	17	3322 1211	15	3321 1122	15	2310 0111	9	1	15.3	
18 q	0111 1120	7	0101 1120	6	0111 0110	5	0000 0000	0	1	15.7	
19	0111 2220	9	0110 2220	8	0111 0100	4	0000 0210	3	1	15.3	
20	1121 1212	11	1021 1212	10	1121 1102	9	0011 0002	4	1	16.0	
21 d	3321 2332	19	3311 2331	17	3321 1312	16	4410 2213	17	1	15.9	
22	3111 1221	12	3101 1221	11	2111 0121	9	4300 0000	7	1	16.0	
23	1112 2310	11	1102 2310	10	1110 1110	6	0000 0100	1	1	16.1	
24	2211 2101	10	2101 2101	8	2210 0001	6	2100 1100	5	1	16.0	
25 q	0000 1111	4	0000 1111	4	0000 0011	2	0000 0000	0	0	15.7	
26	1111 1223	12	1001 1222	9	1110 0023	8	1000 0110	3	1	15.2	
27	2121 3310	13	1021 3310	11	2121 3200	11	2000 2200	6	1	15.1	
28	2211 2221	13	2211 2221	13	2211 1101	9	3321 2211	15	1	15.2	
29	3100 0110	6	2000 0110	4	3100 0000	4	3200 0010	6	1	15.2	
30	0110 1011	5	0110 1011	5	0110 0001	3	0100 0000	1	0	15.2	
31	1001 1212	8	0001 1212	7	1000 0102	4	0000 0102	3	1	15.3	
Mean									0.87	15.6	

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

GEOMAGNETIC FORCE: HORIZONTAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

1	LERWICK (H)												14,000γ (0.14 CGS unit) +												AUGUST 1966	
	Hour GMT 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 15,000γ+
1	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
2 q	694	690	695	693	679	681	678	671	662	652	646	642	649	665	676	693	702	714	711	707	701	692	688	688	682	1369
3	679	682	682	686	686	681	673	665	659	652	646	642	651	665	678	688	693	695	695	694	691	688	688	691	677	1250
4	695	698	695	695	695	686	676	672	668	658	645	648	661	691	715	703	682	688	690	684	683	682	682	681	682	1373
5	682	682	685	688	683	679	678	676	664	654	645	645	664	672	679	678	685	693	695	701	698	692	688	671	678	1277
6	674	681	681	681	677	673	674	663	636	655	657	649	658	680	701	726	707	694	697	688	687	688	684	678	679	1289
7	678	687	687	678	683	684	678	671	661	654	639	639	644	658	683	686	695	695	697	691	697	685	681	682	676	1233
8	693	674	680	680	678	681	677	672	664	647	642	647	658	671	678	684	691	696	690	697	696	691	690	687	678	1264
9	681	679	682	686	687	686	681	674	662	645	647	648	660	679	683	694	695	699	709	711	698	694	696	694	682	1370
10	689	677	686	689	688	680	672	676	672	661	657	651	656	668	675	696	707	693	703	712	701	686	686	690	682	1371
11	690	689	680	688	683	692	693	689	680	667	647	650	651	666	675	699	689	688	697	701	696	696	692	686	683	1384
12	686	684	686	680	667	685	679	670	664	667	659	650	666	676	683	668	703	722	719	703	695	693	653	646	679	1304
13	659	669	677	690	695	691	683	658	647	660	670	655	647	669	675	688	694	706	706	696	694	699	697	686	680	1311
14	687	683	677	682	683	672	674	671	663	656	655	654	653	662	673	680	686	702	699	689	688	684	687	688	677	1248
15	685	672	677	679	687	695	677	666	656	647	647	650	663	667	675	677	680	685	696	707	699	695	693	689	678	1264
16	688	686	686	685	687	684	674	670	663	650	643	648	656	660	664	676	689	692	696	700	699	696	700	692	679	1284
16 q	689	681	682	690	687	684	679	670	662	652	649	656	664	676	684	687	687	686	691	694	693	692	693	693	680	1321
17 q	692	687	686	686	688	684	682	673	660	643	637	643	659	676	693	693	693	700	704	694	695	690	690	690	681	1338
18	689	689	689	689	690	690	686	676	664	647	636	649	651	676	694	690	700	717	725	706	692	694	693	689	684	1421
19 d	686	688	687	672	665	667	673	669	656	641	613	617	629	680	689	698	715	737	710	685	683	682	682	682	675	1206
20	682	676	668	676	681	674	664	648	649	646	640	640	653	665	676	680	692	698	691	692	689	689	685	701	673	1155
21	679	674	677	677	676	677	672	665	658	652	647	651	664	674	682	680	685	691	691	690	690	688	685	688	676	1213
22 q	685	680	678	678	681	680	675	666	655	648	651	654	660	669	681	692	701	680	691	695	694	698	685	687	678	1264
23 d	683	697	689	685	688	697	688	681	671	641	644	636	643	658	671	697	692	731	707	702	697	688	671	668	680	1325
24 d	674	642	677	684	682	675	668	661	655	650	662	676	650	666	680	681	689	688	696	701	694	694	679	685	675	1209
25	677	670	677	684	680	677	673	664	655	643	644	644	663	673	674	698	701	704	704	703	703	700	690	680	678	1281
26	683	679	674	664	685	681	668	662	657	651	657	658	664	671	680	687	693	703	697	701	696	687	686	683	678	1267
27	680	687	683	682	674	674	666	659	651	640	648	658	675	677	692	700	701	696	701	697	691	687	689	688	679	1296
28 q	684	682	683	682	680	677	674	665	656	648	648	650	660	673	683	702	704	698	700	697	687	690	690	691	679	1304
29	681	677	681	683	683	681	674	664	656	648	644	646	664	696	706	701	712	700	700	710	711	710	706	647	683	1381
30 d	586	494	494	553	627	658	667	657	650	636	625	650	649	693	694	684	740	864	989	854	670	331	596	661	655	722
31 d	627	628	664	664	658	654	654	650	641	642	644	644	653	660	670	674	678	689	690	684	679	674	674	691	662	886
Mean	679	673	676	678	680	680	675	667	659	650	646	648	656	672	683	690	696	705	709	703	693	679	684	683	678	
Sum 20,000γ+	1037	864	945	1029	1083	1080	930	694	417	153	34	90	338	832	1162	1380	1581	1844	1987	1786	1487	1055	1199	1173		Grand Total 504,180

GEOMAGNETIC DECLINATION (WEST)  
Mean values for periods of sixty minutes ending at exact hours, GMT

2 LERWICK (D)													9° +													AUGUST 1966	
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 300.0°+
1	15.1	14.5	14.7	15.2	15.4	13.8	13.0	11.3	12.4	14.8	17.5	20.2	23.2	26.0	26.7	25.0	23.0	21.1	20.7	20.3	20.7	19.4	19.4	17.4	18.4	140.8	
2	15.1	15.1	14.8	14.7	13.5	11.9	11.8	11.2	11.4	12.7	16.4	19.3	21.4	22.9	23.3	23.1	21.3	19.5	18.4	17.7	17.7	17.9	18.2	17.9	17.0	107.2	
3	17.9	17.5	15.9	14.6	12.8	11.7	10.0	9.1	11.0	13.3	17.6	22.0	25.9	29.5	29.8	29.2	22.4	19.7	19.4	18.7	18.5	17.7	17.9	17.2	18.3	139.3	
4	16.7	16.7	16.4	15.4	13.9	12.3	10.1	10.2	11.9	14.0	18.1	20.8	24.3	25.3	25.8	24.0	22.7	21.0	19.4	19.1	18.9	16.4	14.3	14.3	17.6	122.0	
5	16.4	16.4	16.4	14.9	12.6	12.9	11.5	9.9	12.7	14.9	17.4	21.8	23.1	26.0	26.0	25.2	19.7	20.1	20.2	20.3	19.9	19.8	18.3	16.4	18.0	132.8	
6	18.0	17.6	11.8	11.0	9.9	9.5	11.7	11.5	12.1	14.2	17.9	20.5	23.5	26.6	26.0	24.0	21.5	21.1	20.2	18.9	15.2	18.0	17.5	17.9	17.3	116.1	
7	14.3	13.6	16.7	12.7	14.1	12.8	10.3	10.3	11.1	13.8	15.6	18.2	22.2	24.1	24.3	23.2	21.4	20.7	19.5	19.2	19.4	18.4	18.3	15.7	17.1	109.9	
8	16.8	15.6	15.6	15.5	14.6	13.7	12.6	11.2	11.1	14.0	17.3	21.3	24.1	27.0	26.6	24.7	22.3	21.1	20.4	19.9	18.4	18.7	18.3	14.4	18.1	135.2	
9	12.2	9.6	12.0	14.2	13.6	11.8	11.4	10.6	10.1	12.8	16.3	19.5	21.5	23.8	24.1	23.7	22.8	21.0	20.2	15.7	7.5	13.8	17.5	18.4	16.0	84.1	
10	14.8	16.6	23.0	18.3	17.5	14.4	12.8	11.8	11.9	12.3	14.8	18.5	22.0	23.3	22.0	23.4	21.0	20.7	20.5	20.0	19.4	18.5	15.9	18.1	18.0	132.5	
11	16.6	16.0	15.6	16.5	19.4	16.6	17.1	17.2	19.6	15.1	16.6	19.4	22.0	24.7	24.2	23.2	21.2	19.3	19.3	19.5	16.7	10.7	9.1	9.1	17.7	124.7	
12	13.7	15.6	11.2	10.1	12.7	13.7	14.7	16.6	18.3	19.2	16.7	20.4	21.3	22.1	22.3	21.2	20.4	19.4	13.8	19.1	19.4	19.1	16.8	16.0	17.2	113.8	
13	17.4	16.7	20.2	15.6	13.0	13.0	12.7	11.8	12.7	13.2	14.7	16.3	19.4	20.3	19.4	18.2	16.7	16.5	16.2	17.8	18.3	18.3	18.3	16.5	16.5	95.0	
14	14.0	13.7	19.7	19.7	15.7	15.6	16.7	16.7	14.1	15.8	18.9	21.7	23.4	24.9	23.3	20.9	19.3	18.0	18.1	18.3	16.6	18.4	18.7	18.6	18.4	140.8	
15	18.3	18.4	16.7	15.4	13.5	12.1	11.8	13.6	14.0	16.7	19.4	23.0	25.9	26.9	25.0	21.9	19.4	18.3	18.5	18.9	18.8	18.3	16.5	18.0	18.3	139.3	
16 q	18.5	22.8	19.3	15.6	11.9	11.9	12.4	13.7	15.3	17.0	19.8	24.0	26.6	26.6	24.0	21.1	19.4	19.3	19.2	19.0	19.1	18.7	18.6	18.0	18.8	151.8	
17 q	18.5	17.7	17.2	16.4	14.0	11.9	10.3	9.9	10.2	13.7	16.5	20.3	23.3	24.5	23.2	20.1	17.5	14.9	13.6	16.5	18.8	19.3	18.8	18.3	16.9	105.4	
18	17.7	17.5	16.5	15.4	13.8	11.9	9.9	8.7	9.9	13.3	18.3	23.3	26.8	27.1	27.7	25.6	22.7	20.0	16.7	15.4	16.7	18.4	17.9	17.4	17.9	128.6	
19 d	17.1	15.9	11.8	12.6	10.1	9.8	7.8	8.9	10.2	13.8	19.1	24.4	17.7	28.2	27.0	24.7	23.0	18.4	16.5	17.7	19.2	18.6	18.0	13.5	16.8	104.0	
20	15.3	14.7	17.5	14.3	13.4	12.3	10.3	15.3	14.0	16.3	18.0	21.1	24.0	25.0	24.0	22.0	20.5	19.2	17.7	16.7	18.3	17.5	16.7	13.6	17.4	117.7	
21	13.2	15.1	15.5	16.1	13.1	11.7	11.4	12.3	13.4	15.8	18.8	22.5	24.7	24.7	23.4	20.9	19.2	17.9	18.2	16.7	18.3	18.9	18.3	16.9	17.4	117.0	
22 q	15.6	16.3	15.5	14.6	14.6	13.8	12.1	12.7	14.0	15.7	18.2	21.6	25.1	25.5	24.7	22.8	21.0	18.4	19.1	19.2	19.1	19.7	19.1	18.3	18.2	136.7	
23 d	16.1	14.2	14.4	10.6	13.8	11.2	10.8	10.0	9.3	13.8	18.0	23.5	26.0	25.8	26.0	25.1	21.2	19.5	15.9	15.9	9.8	9.9	15.5	15.4	16.3	91.7	
24 d	11.8	20.2	15.4	12.8	12.7	11.7	10.0	11.0	14.7	17.5	19.4	23.3	26.7	27.5	26.8	23.3	19.2	16.6	17.9	18.4	13.4	12.8	16.3	13.6	17.2	113.0	
25	16.4	18.6	20.9	13.8	12.7	11.7	11.8	11.5	12.7	15.4	20.0	23.4	24.0	25.6	24.1	21.1	19.8	19.2	16.5	17.4	16.6	15.6	14.6	15.5	17.5	118.9	
26	16.4	18.8	17.4	15.4	12.7	11.8	12.4	13.9	13.9	14.6	17.4	20.6	23.4	22.4	21.9	20.4	19.6	18.6	18.4	19.1	18.8	18.5	16.7	15.7	17.5	118.8	
27	15.8	17.3	15.6	13.7	12.9	12.7	12.4	11.9	12.9	15.4	18.4	21.2	24.4	23.9	23.3	22.0	20.5	18.6	19.4	17.9	18.1	17.6	16.9	16.0	17.5	118.8	
28 q	16.0	16.5	15.7	15.4	14.7	13.7	12.0	12.3	12.7	15.4	18.5	21.6	23.9	24.7	24.2	25.2	21.1	19.4	18.1	16.6	17.2	18.3	17.2	14.7	17.7	125.1	
29	15.7	15.0	15.1	14.7	14.0	12.8	11.8	11.3	12.0	14.6	18.5	22.0	24.5	26.0	26.2	24.8	24.9	22.1	19.8	20.6	20.0	14.6	-1.8	-0.3	16.6	99.4	
30 d	0.8	-9.5	3.1	3.6	7.5	5.6	4.4	6.3	9.2	12.8	16.7	23.1	27.5	33.4	34.9	30.9	33.1	42.6	22.2	27.6	-12.3	-8.6	3.6	6.6	13.5	25.1	
31 d	13.5	14.5	11.9	11.2	11.9	11.8	11.9	12.1	12.3	10.0	17.8	20.5	22.3	23.5	22.9	20.6	19.1	20.3	19.8	19.8	18.6	17.4	16.9	13.0	16.4	93.6	
Mean	15.3	15.5	15.6	14.2	13.4	12.3	11.6	11.8	12.6	14.6	17.7	21.3	23.7	25.4	24.9	23.3	21.2	20.1	18.5	18.6	16.6	16.5	16.1	15.3	17.3		
Sum 300.0°+	175.7	179.2	183.5	140.0	116.0	82.1	59.9	66.3	91.1	151.9	248.6	359.3	434.1	487.8	473.1	421.5	356.9	322.5	273.8	277.9	215.1	210.6	198.3	173.9		Grand Total 12899.1	

GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

19

3 LERWICK (Z)													47,000γ (0.47 CGS unit) +													AUGUST 1966	
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 9000γ+
1	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
2 q	407	418	422	427	429	419	420	422	420	415	412	412	414	420	425	427	432	436	439	436	435	435	435	432	415	424	1169
3	421	428	432	433	434	435	433	431	429	425	422	419	418	419	421	422	429	433	433	433	431	428	428	428	428	428	428
4	426	427	429	431	432	431	428	428	424	420	421	418	411	422	438	464	480	463	445	438	434	432	430	430	433	433	1402
5	432	433	433	435	438	437	435	432	429	424	424	421	426	444	459	474	459	443	437	434	440	438	427	419	436	436	1473
6	409	416	426	431	433	428	427	428	429	418	420	425	424	431	436	455	475	456	445	440	435	433	429	431	433	433	1380
7	427	409	393	403	405	407	414	420	426	428	427	423	417	414	421	437	444	442	442	441	440	439	434	430	424	424	1183
8	411	410	401	410	424	430	433	433	432	430	427	425	422	425	426	429	434	440	438	437	434	437	433	428	421	421	1249
9	428	428	429	431	431	434	436	438	437	438	432	427	424	425	428	428	431	433	436	440	444	439	429	410	431	431	1356
10	399	396	407	419	427	433	432	429	429	428	429	425	422	425	428	433	442	446	438	445	440	427	431	427	427	427	1257
11	422	422	415	391	401	406	415	419	420	421	424	428	432	438	453	451	464	455	440	439	439	436	433	421	429	429	1285
12	421	428	428	425	414	402	409	418	424	424	425	432	434	442	450	469	469	472	463	463	459	434	405	387	433	433	1397
13	371	360	379	381	406	411	420	427	430	426	428	433	443	443	443	442	444	450	462	448	440	437	417	424	424	424	1165
14	428	429	412	408	419	428	424	425	425	428	431	431	431	431	434	436	437	442	451	447	440	437	434	427	431	431	1335
15	416	406	399	381	375	370	384	394	403	408	416	421	428	433	438	441	442	439	435	440	437	435	436	417	417	417	1012
16 q	436	434	433	435	434	432	431	428	428	428	429	430	432	437	443	442	441	440	437	434	435	437	428	430	434	434	1414
17 q	434	428	415	419	426	429	430	428	430	432	428	425	428	431	438	441	444	444	438	436	434	433	431	427	431	431	1349
18	428	430	434	438	438	441	442	441	437	434	437	434	430	430	434	444	447	445	448	443	436	432	431	431	437	437	1485
19 d	433	433	434	437	439	440	440	455	435	436	435	431	429	421	433	442	446	459	473	481	464	444	435	432	442	442	1607
20	430	409	403	380	385	420	434	437	436	436	444	450	456	434	442	446	470	510	507	484	455	440	437	429	441	441	1574
21	429	433	425	428	440	444	445	441	437	432	432	432	432	433	436	441	446	446	446	449	445	440	438	413	437	437	1500
22 q	408	421	430	435	437	443	444	442	438	437	430	423	421	427	433	440	444	447	450	451	446	441	439	433	436	436	1460
23 d	432	432	433	437	440	442	444	444	440	438	434	434	428	425	432	435	442	449	441	439	440	438	443	434	437	437	1496
24 d	407	403	423	424	428	425	431	431	429	434	429	429	437	436	440	446	459	480	502	477	451	432	420	367	435	435	1440
25	391	339	363	419	431	432	441	442	438	430	419	420	428	424	439	445	450	456	452	448	454	434	428	419	427	427	1242
26	430	421	409	417	432	439	441	438	436	437	431	431	433	433	435	439	444	449	452	450	441	413	416	428	433	433	1395
27	434	428	410	416	419	428	434	434	431	429	422	425	430	431	432	434	438	439	442	442	441	441	429	433	431	431	1342
28 q	437	430	431	434	438	434	437	437	431	425	421	424	425	431	434	434	444	447	446	444	442	439	436	433	435	435	1434
29	433	437	438	438	439	440	438	438	436	431	431	426	430	429	434	440	446	447	445	444	441	437	436	431	437	437	1485
30 d	432	437	439	440	439	439	439	438	434	431	431	430	429	428	438	438	443	450	447	439	440	439	396	348	432	432	1364
31 d	267	185	192	236	300	353	385	413	426	436	438	436	430	424	438	455	441	490	611	565	383	271	345	370	387	290	290
Mean	344	412	462	462	456	456	455	459	459	454	451	449	451	452	460	465	463	457	453	446	445	443	443	425	447	447	1722
Sum 12,000γ+	823	722	779	901	1089	1208	1321	1390	1358	1313	1280	1269	1296	1341	1546	1740	1890	2005	2097	1948	1644	1343	1228	996			Grand Total 320,527

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH HOUSE

4 LERWICK										AUGUST 1966	
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magnetograph house °C	
1	2110 1112	9	2100 1111	7	2010 0002	5	2100 0002	5	1	15.5	
2 q	1000 0000	1	0000 0000	0	1000 0000	1	1000 0000	1	0	15.3	
3	0112 3310	11	0012 3310	10	0111 1200	6	0001 2210	6	1	15.2	
4	0012 2313	12	0012 2313	12	0011 1102	6	0001 3312	10	1	15.9	
5	2122 3311	15	2022 3311	14	0121 2201	9	1001 0210	5	1	15.6	
6	3211 1221	13	1001 1221	8	3211 1121	12	3110 0100	6	1	15.9	
7	2100 1001	5	2000 1001	4	2100 0001	4	2200 0000	4	0	15.6	
8	1011 1112	8	0001 1111	5	1010 0112	6	0000 0003	3	1	15.9	
9	2110 1333	14	1110 1321	10	2110 0133	11	1100 0021	5	1	15.7	
10	3212 3312	17	2102 3312	14	3211 1102	11	2211 2212	13	1	16.0	
11	0221 3323	16	0221 3323	16	0211 1223	12	1221 1203	12	1	15.9	
12	3222 2232	18	2222 2222	16	3212 1131	14	3321 1122	15	2	15.7	
13	2210 0211	9	1110 0210	6	2200 0111	7	2200 0011	6	1	15.7	
14	3221 1120	12	2221 1120	11	3221 0010	9	2330 0000	8	1	15.1	
15	0010 1111	5	0000 1111	4	0010 0001	2	0000 0001	1	0	15.3	
16 q	2110 1101	7	1000 1100	3	2110 1001	6	2100 0000	3	0	15.6	
17 q	1100 2120	7	1000 2120	6	1100 1120	6	0000 0010	1	0	15.3	
18	0013 3330	13	0002 3330	11	0013 1220	9	0000 1221	6	1	16.0	
19 d	3223 4342	23	1213 4341	19	3223 2332	20	2302 2331	16	1	15.9	
20	2121 1112	11	2110 1112	9	2121 1112	11	1210 0002	6	0	15.8	
21	2111 1211	10	1000 1211	6	2111 1111	9	2000 0000	2	0	15.3	
22 q	1101 1211	8	0000 1211	5	1101 1110	6	0000 0101	2	0	15.9	
23 d	3222 3333	21	3112 3333	19	1222 2233	17	3111 2334	18	1	15.2	
24 d	3123 3223	19	3113 3223	18	3121 2223	16	4201 1112	12	1	15.3	
25	2111 2222	13	2101 2222	12	2111 1122	11	2110 0122	9	1	15.7	
26	2211 1112	11	1201 1111	8	2211 0002	8	2110 0001	5	0	15.6	
27	1111 1211	9	1111 1211	9	1111 1100	6	0000 0100	1	0	15.8	
28 q	0010 1212	7	0000 1211	5	0010 0212	6	0000 0100	1	0	15.6	
29	0001 4224	13	0001 4224	13	0001 2114	9	0000 2114	8	1	15.7	
30 d	6524 4688	43	6514 4688	42	6322 3365	30	5542 3576	37	2	15.8	
31 d	5221 4332	22	5221 4332	22	4121 2212	15	5110 1112	12	1	16.0	
								Mean	0.71	15.6	

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

1	LERWICK (H)													14,000γ (0.14 CGS unit) +													SEPTEMBER 1966					
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 11,000γ+						
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ						
1 d	659	655	656	659	664	660	645	638	629	605	612	538	668	658	668	687	704	730	750	703	672	655	651	666	664	4932						
2	662	669	663	666	668	662	648	638	629	632	632	547	666	688	695	715	699	692	718	712	694	684	681	672	672	5132						
3 d	675	679	679	681	681	668	666	655	626	591	597	515	661	654	724	956	1013	1019	995	641	472	164	-420	50	610	3642						
4 d	-530	-440	-302	203	216	306	389	436	519	606	648	677	774	745	669	663	721	754	711	669	652	651	657	653	460	47						
5	645	640	640	648	651	651	643	636	626	615	611	619	656	675	650	700	684	658	658	658	659	661	672	671	651	4627						
6 d	666	665	633	588	615	644	645	648	638	606	606	613	632	655	655	672	665	669	671	676	671	672	674	675	648	4554						
7	672	659	659	668	666	658	658	661	650	636	636	644	648	656	678	698	692	672	681	678	677	661	675	678	665	4961						
8 d	675	674	665	588	668	679	642	628	614	619	587	608	681	683	681	738	734	724	700	671	641	605	645	627	662	4877						
9	656	665	656	655	664	655	625	620	621	615	610	620	629	663	661	680	696	686	676	676	679	668	672	652	654	4700						
10	646	661	634	640	646	670	661	657	644	633	621	624	644	657	669	684	671	679	689	680	682	689	675	674	660	4830						
11 q	672	671	671	668	667	662	651	651	641	637	637	644	648	655	663	663	670	673	677	679	677	677	677	677	663	4908						
12 q	671	671	671	670	670	667	662	651	641	637	630	645	651	664	677	681	684	686	677	683	683	683	676	675	667	5006						
13 q	679	677	677	671	671	668	663	653	647	650	656	658	667	671	680	674	671	680	685	682	680	681	682	681	671	5104						
14	680	680	680	679	676	673	668	656	650	651	651	661	669	674	682	699	693	699	703	683	682	692	697	670	677	5248						
15	615	660	674	647	658	670	657	651	643	636	648	654	664	666	680	680	677	677	693	699	674	664	657	644	662	4888						
16	647	654	657	671	675	671	663	654	647	644	647	654	651	664	667	674	680	680	682	680	678	682	684	686	666	4992						
17	673	662	657	657	671	671	670	660	657	649	641	641	651	665	671	674	676	680	681	682	681	680	679	676	667	5005						
18 q	675	676	677	677	674	673	670	660	647	638	646	657	661	664	670	674	680	684	687	691	689	684	684	684	672	5122						
19	680	676	682	682	687	685	683	676	667	656	647	643	650	662	663	672	672	680	690	690	683	687	683	670	674	5166						
20	675	678	673	666	678	685	686	683	654	642	640	633	636	664	657	676	674	711	698	685	679	672	669	663	670	5077						
21	670	675	668	671	688	675	674	669	657	645	637	639	649	645	669	674	678	678	681	679	679	678	676	675	668	5029						
22 q	675	665	672	674	675	672	671	662	653	649	649	652	668	676	679	673	679	678	672	679	679	677	678	679	670	5086						
23	678	676	671	672	674	671	667	663	655	661	658	664	669	681	688	681	723	717	785	777	713	681	675	676	687	5476						
24	672	672	674	675	675	671	673	671	661	644	639	645	656	664	668	670	674	676	678	681	680	680	676	674	669	5049						
25	677	665	670	677	668	681	672	664	661	651	651	654	660	661	668	670	673	677	678	687	681	680	678	677	670	5081						
26	672	665	661	667	674	672	668	667	667	645	648	657	651	650	698	697	701	685	687	701	701	675	674	676	673	5159						
27	671	643	644	670	664	666	674	671	658	647	657	654	661	667	671	674	672	680	691	682	678	678	683	678	668	5034						
28	681	673	663	596	661	670	663	663	658	648	645	648	658	671	677	657	687	678	674	674	674	680	694	670	665	4963						
29	660	668	674	667	661	672	672	652	644	641	647	653	658	671	672	683	683	683	684	674	687	671	674	677	668	5028						
30	674	673	674	674	678	671	679	665	638	647	650	651	651	659	663	675	684	674	675	677	678	680	664	663	667	5017						
Mean	627	630	632	644	653	657	654	649	641	636	639	644	660	668	674	691	697	699	701	684	672	653	638	650	658							
Sum 18,000γ+	823	907	973	1327	1584	1699	1608	1459	1242	1076	1184	1312	1788	2028	2213	2714	2910	2959	3027	2529	2155	1592	1142	1489		Grand Total 473,740						

**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

2 LERWICK (D)		9° +																						SEPTEMBER 1966				
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 100.0° +	
1 d	14.8	13.6	13.4	14.1	13.4	13.9	14.2	17.6	19.5	19.3	20.6	21.0	23.7	24.3	20.4	20.4	19.9	20.5	8.8	7.5	12.2	11.8	9.2	16.6	16.3	290.7		
2	17.2	20.3	15.6	11.9	12.2	11.7	7.4	9.5	10.9	13.9	18.9	22.1	24.9	26.4	24.1	23.3	22.2	21.3	23.6	16.0	18.9	18.5	17.3	16.1	17.7	324.2		
3 d	15.5	15.6	14.1	13.9	12.3	10.9	8.9	6.7	8.3	8.6	14.9	21.3	25.4	28.6	30.1	25.5	30.0	25.1	31.5	31.5	23.3	-29.0	-96.8	-9.4	11.1	166.8		
4 d	-48.5	-41.6	-65.8	-23.2	4.4	21.6	9.2	20.2	18.2	16.4	15.6	20.4	19.2	18.3	20.6	18.0	17.5	12.0	12.9	12.9	15.3	8.9	13.8	14.8	5.5	31.1		
5	16.5	14.1	12.6	11.4	11.2	12.0	11.9	11.1	12.0	14.7	17.2	21.5	25.6	24.2	20.7	23.1	22.0	17.5	16.9	16.8	16.6	15.9	17.0	16.4	16.6	298.9		
6 d	15.5	14.7	17.9	18.9	19.3	10.2	11.2	12.1	13.0	15.3	16.5	21.3	24.0	26.7	25.1	14.8	18.2	17.7	17.6	17.2	16.4	12.6	15.8	17.6	17.1	309.6		
7	16.5	16.0	19.3	16.0	11.7	10.4	11.4	10.7	11.4	12.8	17.1	22.2	25.0	23.8	22.3	23.4	17.8	18.7	18.4	16.8	14.8	19.4	15.2	18.0	17.0	309.1		
8 d	17.3	16.6	16.7	21.0	11.1	11.2	13.6	19.5	22.1	21.5	23.4	26.0	19.0	24.6	25.5	14.3	19.6	19.5	15.3	17.1	14.8	29.8	18.5	18.5	19.0	356.5		
9	20.8	14.5	12.9	13.6	10.8	12.3	13.9	13.9	14.8	16.9	18.1	22.7	23.2	23.4	20.8	18.7	10.1	16.2	17.1	16.2	15.9	16.9	14.1	20.4	16.6	298.2		
10	25.5	15.0	10.0	11.1	13.1	14.8	13.1	11.3	12.5	16.7	20.1	24.8	26.4	25.2	21.3	17.6	18.5	14.3	11.1	14.6	15.7	12.9	14.1	13.9	16.4	293.6		
11 q	17.6	16.4	14.3	13.6	14.1	12.2	13.2	12.8	12.9	14.6	17.2	19.6	21.2	21.2	19.7	17.7	16.4	16.1	16.6	16.8	16.8	16.5	15.4	15.2	16.2	288.1		
12 q	16.3	16.2	15.5	14.9	15.4	14.5	13.7	13.6	15.6	17.9	18.5	21.6	23.4	22.4	21.1	17.9	15.6	15.7	16.5	16.7	17.5	14.6	13.0	14.8	16.8	302.9		
13 q	15.2	15.8	13.9	11.9	12.0	12.6	12.7	12.7	13.7	16.4	19.2	20.8	20.5	20.0	19.3	17.4	15.6	15.9	16.7	16.9	17.8	17.6	17.1	16.1	16.2	287.8		
14	16.5	16.6	15.9	15.1	15.0	14.6	14.1	13.6	14.6	16.7	19.5	21.4	22.8	21.5	20.3	20.2	18.9	18.4	20.9	21.2	18.8	15.5	12.9	19.2	17.7	324.2		
15	32.1	12.9	11.4	11.5	12.0	8.9	10.2	10.3	11.1	14.6	19.5	22.5	24.9	23.6	22.3	20.0	18.5	17.2	17.6	17.1	11.5	9.4	7.8	9.5	15.7	276.4		
16	6.6	10.9	16.0	13.8	12.8	13.0	13.0	12.9	14.0	15.9	18.9	23.1	23.7	24.6	21.1	19.6	19.6	17.8	16.9	14.2	16.0	16.7	15.9	15.0	16.3	292.0		
17	16.1	19.5	19.5	17.4	11.1	10.4	12.0	13.3	15.1	16.0	18.9	21.2	22.7	24.1	22.2	20.7	19.3	18.5	18.1	17.9	17.3	17.0	16.8	16.1	17.5	321.2		
18 q	15.7	15.9	15.8	15.9	15.9	15.7	14.9	13.7	12.7	14.6	17.8	22.2	23.9	22.7	21.9	20.5	19.4	18.2	17.4	17.0	17.4	16.1	16.0	16.0	17.4	317.3		
19	14.7	13.8	14.9	11.2	10.2	11.9	13.9	12.8	12.2	13.7	16.1	19.7	24.4	25.1	24.0	21.3	18.5	17.5	17.4	16.4	10.3	14.9	15.0	12.4	15.9	282.3		
20	11.4	12.3	12.7	10.2	13.0	12.4	12.9	12.1	12.1	14.8	18.4	25.1	28.8	28.8	25.1	23.0	20.9	11.8	12.1	15.7	14.3	15.3	17.6	21.8	16.8	302.6		
21	19.2	14.9	11.6	14.9	11.2	12.2	12.5	12.3	12.2	13.6	16.7	18.9	24.7	25.2	22.0	26.0	19.4	18.0	17.8	17.3	17.2	18.2	17.3	16.6	17.1	309.9		
22 q	14.9	16.7	14.3	13.8	13.1	13.9	13.7	13.9	14.2	15.8	18.4	20.4	21.5	21.3	20.1	17.8	16.9	18.6	17.6	18.5	14.2	16.1	17.6	17.1	16.7	300.4		
23	17.0	16.9	16.7	15.8	14.2	14.2	14.2	14.2	14.9	17.5	20.4	23.4	24.9	25.9	27.4	27.1	28.2	27.9	27.1	23.3	22.1	20.8	18.5	18.4	20.5	391.1		
24	16.9	14.8	14.8	14.6	13.9	14.0	14.0	14.0	15.1	18.4	19.6	19.5	19.6	21.6	21.6	21.4	21.3	20.6	20.1	20.0	18.6	18.1	18.1	17.7	17.8	328.3		
25	16.9	10.5	5.7	3.0	8.5	11.2	13.4	13.4	14.9	16.6	19.0	20.7	21.3	20.7	19.7	18.6	17.7	17.7	17.9	18.6	18.3	16.9	14.6	16.0	15.5	271.8		
26	14.2	2.8	3.4	10.8	12.1	13.0	14.2	13.9	14.7	16.0	20.5	24.6	24.2	18.6	22.3	16.7	13.2	16.0	16.8	12.1	3.6	8.4	8.4	7.2	13.7	227.7		
27	9.1	8.3	5.6	1.9	3.4	8.6	7.9	7.8	10.2	10.2	12.9	16.1	17.8	24.2	24.0	20.3	17.5	18.0	19.4	19.6	20.4	16.1	13.6	13.3	13.6	226.2		
28	14.5	13.0	11.1	17.5	8.9	9.0	13.5	13.3	13.3	15.8	17.6	20.2	21.3	24.9	26.9	23.5	19.6	15.4	17.8	17.5	17.2	17.2	11.1	12.9	16.4	293.0		
29	15.8	16.8	14.0	9.0	14.9	12.8	14.0	14.1	15.8	15.9	16.8	18.5	19.7	20.9	18.2	18.0	17.0	12.3	8.6	15.4	12.8	14.8	16.3	16.3	15.2	265.8		
30	12.4	15.6	16.1	14.7	13.1	20.7	19.4	17.0	17.6	16.2	18.0	20.4	23.8	24.4	22.2	20.2	12.9	17.5	17.4	17.2	16.6	6.4	14.3	12.7	17.1	309.8		
Mean	14.1	12.7	11.0	12.0	12.1	12.8	12.7	13.1	14.0	15.6	18.2	21.4	23.1	23.6	22.4	20.2	18.7	17.7	17.5	17.2	16.1	14.1	11.2	14.9	16.1			
Sum 300.0° +	124.2	79.4	29.9	60.2	64.3	84.8	82.3	94.3	119.6	167.3	246.3	343.2	391.5	407.2	372.3	307.0	262.2	231.9	223.9	216.0	182.6	124.4	35.5	147.2		Grand Total 11597.5		

GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

21

3 LERWICK (Z)													47,000γ (0.47 CGS unit) +													SEPTEMBER 1966									
	Hour	GMT																						Mean	Sum										
		0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24										
		γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ							
1	d	134	442	443	444	441	442	447	446	446	451	452	433	438	450	469	470	482	497	476	440	436	417	367	416	445	2679								
2		126	396	415	440	446	452	456	456	455	447	442	435	435	437	450	452	474	467	460	489	469	451	443	443	447	2736								
3	d	440	441	442	444	446	446	441	435	435	437	435	448	431	446	479	600	627	625	575	510	388	260	294	-37	437	2488								
4	d	260	179	3	-293	213	91	226	311	380	431	473	489	518	535	496	478	482	533	518	507	462	428	422	433	357	575								
5		444	439	444	453	459	464	467	467	467	465	457	449	454	481	483	468	485	480	463	459	455	452	447	449	460	3051								
6	d	451	448	429	378	360	396	409	430	439	449	456	449	448	454	474	504	475	459	456	452	456	454	447	439	442	2612								
7		429	431	429	428	436	445	450	449	450	452	448	446	450	466	471	486	527	508	487	484	440	386	421	428	452	2847								
8	d	437	445	442	364	378	404	425	418	422	437	464	477	534	513	500	554	567	568	546	507	488	366	370	328	456	2954								
9		370	416	432	431	432	433	437	452	458	465	471	471	463	463	480	480	501	486	474	466	456	422	402	410	449	2771								
10		333	361	372	378	394	398	424	436	444	447	452	456	450	451	466	481	477	469	460	455	448	432	430	402	430	2316								
11	q	394	422	436	443	445	447	450	447	447	448	449	446	447	448	451	452	452	448	446	446	448	446	446	445	444	2649								
12	q	446	448	449	449	448	449	450	450	449	444	448	444	444	447	450	460	464	456	452	449	447	446	444	443	449	2776								
13	q	443	444	438	442	441	443	444	444	441	437	438	440	440	440	448	454	451	448	448	447	446	445	444	443	444	2649								
14		445	447	448	449	449	448	447	444	438	431	426	428	433	440	444	443	445	447	450	455	451	445	429	433	442	2615								
15		362	412	434	432	423	435	440	439	433	430	430	434	437	443	450	453	455	455	450	451	450	432	398	368	431	2346								
16		381	420	432	441	449	452	451	449	445	443	442	440	443	444	451	451	451	456	455	466	461	453	441	420	443	2637								
17		433	433	403	389	416	434	438	440	437	441	441	439	436	439	446	454	453	450	449	448	446	445	444	444	437	2498								
18	q	444	445	446	447	448	450	451	450	450	443	433	429	429	433	437	441	445	447	447	447	446	447	446	442	443	2643								
19		441	441	439	436	434	441	442	442	444	442	436	432	430	434	439	444	447	449	447	448	451	442	438	393	439	2532								
20		359	396	404	413	421	430	436	441	447	448	441	438	451	471	489	482	466	470	467	464	464	449	434	418	442	2599								
21		414	433	431	408	405	425	437	443	446	445	442	439	442	453	450	448	442	442	446	448	448	448	448	444	439	2527								
22	q	443	444	440	444	442	445	445	447	447	444	443	439	435	440	445	452	456	456	461	456	458	452	447	447	447	2728								
23		444	444	444	438	437	440	442	444	444	444	432	428	430	434	442	447	459	518	574	547	528	496	476	460	461	3076								
24		457	456	451	448	446	446	444	444	444	447	447	442	442	445	447	447	444	444	444	445	447	447	449	452	447	2725								
25		439	445	438	435	428	408	425	435	440	441	439	436	436	441	442	443	444	443	442	442	448	456	459	453	440	2558								
26		435	411	429	442	443	442	443	444	441	444	440	433	441	441	454	501	507	485	486	490	392	401	440	442	447	2727								
27		433	423	397	398	417	414	420	430	437	443	442	444	448	449	454	464	467	457	453	461	464	465	459	452	441	2591								
28		442	448	430	349	313	379	420	438	444	446	447	444	445	451	471	483	486	493	461	450	445	444	428	430	437	2487								
29		439	450	453	447	414	418	432	438	440	442	444	447	448	452	461	456	457	472	472	475	437	439	441	442	447	2716								
30		443	445	442	447	441	412	405	418	433	437	440	444	445	453	460	474	492	473	466	458	450	434	392	397	442	2601								
Mean		419	423	418	402	419	421	431	438	441	444	445	444	447	453	460	471	476	477	471	465	451	433	428	413	441									
Sum 12,000γ+		561	705	535	64	565	629	944	1127	1243	1309	1346	1319	1423	1594	1799	2122	2280	2301	2131	1962	1525	1000	846	379		Grand Total 317,709								

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH HOUSE

4 LERWICK										SEPTEMBER 1966	
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magneto- graph house °C	
1 d	1113 3343	19	1113 3343	19	0112 2243	15	1001 2344	15	1	15.9	
2	2221 2431	17	2101 2431	14	2221 1131	13	3100 1231	11	1	15.8	
3 d	2223 5699	38	2223 5699	38	1123 2468	27	0012 4579	28	2	16.0	
4 d	9764 5443	42	9764 5442	41	9752 3333	35	9874 4332	40	2	15.5	
5	1113 3411	15	1003 3411	13	1112 2211	11	1000 3210	7	1	15.4	
6 d	3333 3313	22	3333 3311	20	2332 2303	18	3331 3300	16	1	15.6	
7	2211 3342	18	1211 3332	16	2211 2342	17	1110 1344	15	1	15.5	
8 d	3423 4444	28	3423 4343	26	3321 3434	23	2412 4345	25	2	15.3	
9	3222 3424	22	3222 3413	20	3211 2424	19	4011 1214	14	1	15.3	
10	4322 2334	23	3312 2333	20	4322 2334	23	3311 1113	14	1	15.3	
11 q	2111 1001	7	2011 1000	5	2111 1001	7	3000 0000	3	0	15.2	
12 q	0002 2212	9	0002 1201	6	0001 2112	7	0001 0100	2	0	15.2	
13 q	2101 1110	7	0000 1110	3	2101 1110	7	1000 0100	2	0	15.8	
14	0001 1335	13	0001 1334	12	0000 1225	10	0000 0112	4	1	15.9	
15	5322 2243	23	4312 2232	19	5222 2143	21	4100 0024	11	1	15.1	
16	3112 2222	15	2102 2221	12	3112 2122	14	4100 0012	8	1	15.8	
17	2221 1100	9	1211 1100	7	2221 1100	9	3300 1100	8	1	15.2	
18 q	0011 1011	5	0001 1001	3	0010 0011	3	0000 0000	0	0	15.3	
19	2221 2232	16	2211 2232	15	2220 1121	11	0100 0014	6	1	15.2	
20	2222 3433	21	2222 3322	18	2222 3433	21	3200 3313	15	1	15.2	
21	3311 2111	13	2301 2110	10	3211 2101	11	3200 1000	6	1	15.6	
22 q	1101 1133	11	1001 1110	5	1100 1133	10	0000 0001	1	0	15.8	
23	0123 3352	19	0102 3351	15	0123 2232	15	0001 1443	13	2	15.2	
24	2111 2321	13	1111 2321	12	2111 1111	9	0000 0110	2	0	15.4	
25	4321 0112	14	2221 0112	11	4320 0012	12	2220 0011	8	0	15.7	
26	4222 3342	22	2112 3342	18	4222 2342	21	3000 2354	17	1	15.2	
27	3313 3223	20	3113 3223	18	2312 2223	17	2211 1211	11	1	15.5	
28	3412 3304	20	3402 3304	19	1411 2303	15	3420 2323	19	1	14.9	
29	3321 1441	19	2221 1231	14	3321 1441	19	2300 1220	10	1	14.7	
30	1322 2314	18	0221 2314	15	1322 2314	18	1320 1204	13	1	15.3	
Mean									0.90	15.4	

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

GEOMAGNETIC FORCE: HORIZONTAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

1	LERWICK (H)												14,000γ (0.14 CGS unit) +												OCTOBER 1966		
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 15,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	658	668	668	672	671	676	668	668	659	650	650	649	644	647	657	669	677	680	678	682	678	680	679	678	678	669	1058
2 q	678	677	677	677	675	674	675	668	664	651	645	644	644	647	657	669	674	677	677	678	681	681	681	684	680	670	1091
3	679	678	678	678	680	678	680	685	681	673	661	651	651	648	654	664	673	678	684	688	690	691	688	687	685	676	1232
4 d	686	680	677	678	676	686	681	676	681	683	672	658	654	654	671	670	670	672	705	714	724	730	750	642	457	673	1161
5 d	625	580	626	570	666	684	661	651	647	596	585	625	625	650	658	672	681	695	684	693	680	680	661	648	668	649	586
6 d	661	656	660	652	667	609	663	663	669	647	648	657	657	656	671	675	674	669	669	670	670	670	670	673	670	662	889
7	673	673	666	667	672	675	673	672	666	653	643	643	643	648	657	664	677	677	673	670	670	674	676	693	667	668	1022
8	667	671	670	670	670	673	674	674	659	645	646	646	646	650	653	659	660	670	673	677	680	680	680	678	680	667	1005
9	680	678	677	677	673	676	686	672	660	649	647	647	647	663	666	662	664	676	673	675	679	679	682	683	680	671	1104
10	675	676	677	677	677	678	675	673	667	661	657	654	654	657	660	662	667	673	677	681	683	683	680	680	680	672	1130
11 q	679	679	679	679	679	679	679	675	669	660	655	657	657	659	662	666	670	675	680	685	679	678	678	678	673	679	1158
12	685	685	676	682	686	691	684	677	675	669	665	655	655	662	660	666	679	677	685	689	684	684	689	692	673	678	1270
13	685	677	679	680	680	680	680	675	672	666	661	666	666	659	660	665	672	679	676	684	685	688	681	682	698	676	1230
14	679	682	679	680	678	681	677	672	680	651	642	649	649	659	668	676	679	683	685	686	685	685	685	682	682	675	1205
15	682	682	680	687	683	682	681	678	672	658	659	655	655	668	676	678	685	694	697	687	690	702	688	680	663	679	1307
16 d	671	683	687	688	682	707	695	632	625	631	639	616	616	631	648	667	659	644	647	650	656	662	665	668	668	659	821
17	682	670	671	670	668	671	668	664	658	651	641	635	635	638	645	659	671	681	674	679	681	681	681	681	677	667	997
18	688	673	673	671	675	675	674	671	664	654	645	646	646	648	655	658	665	675	678	682	685	683	681	680	681	670	1080
19	678	677	677	679	678	678	677	673	669	664	656	655	655	658	661	667	673	678	684	674	682	684	684	684	687	674	1177
20	687	682	679	678	677	678	684	684	683	674	664	658	658	658	660	664	673	678	681	683	684	681	681	684	681	677	1236
21 q	680	680	678	679	679	680	680	680	676	667	657	658	658	662	660	666	668	676	680	682	683	684	684	685	685	675	1209
22 q	683	682	680	680	680	680	683	683	680	671	664	659	659	657	660	666	671	677	680	683	687	687	684	683	680	677	1240
23 q	679	674	677	679	680	681	681	681	679	673	666	663	663	663	664	669	678	684	689	694	696	695	688	689	689	680	1311
24	691	690	688	687	688	687	690	693	694	686	679	674	674	670	681	695	678	670	676	683	684	689	679	687	674	684	1413
25	668	672	676	671	676	681	672	677	671	652	648	641	641	645	654	657	665	673	679	680	689	664	677	682	678	669	1048
26	686	680	679	681	682	682	679	676	672	662	653	655	655	660	669	670	652	653	674	669	672	675	676	675	679	671	1111
27	669	669	672	672	674	676	674	671	669	662	673	655	655	656	663	672	675	677	679	679	679	680	685	672	666	672	1119
28	678	675	668	674	677	678	679	677	669	660	654	655	655	663	669	673	677	680	682	683	685	676	680	679	679	674	1170
29	678	679	678	677	679	682	678	675	669	660	654	652	652	661	669	679	680	682	679	679	681	679	682	682	682	675	1196
30	686	686	683	686	686	686	687	682	675	669	664	668	668	678	689	693	693	688	678	655	665	659	657	656	671	677	1240
31 d	669	646	644	662	671	635	671	675	673	661	656	645	645	640	666	666	654	710	686	660	644	647	631	648	657	659	817
Mean	676	673	673	673	677	677	677	673	669	658	653	651	651	656	663	669	672	677	679	680	681	681	680	677	670	671	
Sum 20,000γ+	965	860	879	860	985	974	1004	878	749	398	235	187	187	323	553	738	834	1001	1062	1074	1111	1111	1083	995	774		Grand Total 499,633

GEOMAGNETIC DECLINATION (WEST)  
Mean values for periods of sixty minutes ending at exact hours, GMT

2	LERWICK (D)												9° +												OCTOBER 1966		
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 300·0' +
1	14·9	13·9	10·4	9·1	11·3	12·7	14·6	14·1	14·9	14·9	17·4	18·9	20·8	20·7	19·7	18·7	17·7	17·3	16·9	17·2	17·5	16·3	15·8	15·7	15·9	81·4	
2 q	15·6	15·4	15·2	15·3	15·6	14·4	13·0	13·1	14·3	16·5	19·5	22·0	21·6	21·0	20·4	18·3	16·9	16·7	16·7	16·4	16·0	15·8	15·3	15·0	16·7	100·0	
3	15·6	15·6	15·6	15·6	15·3	14·7	15·3	15·2	13·0	13·1	15·0	17·0	18·7	20·5	20·8	19·8	18·6	18·2	18·3	18·2	18·0	17·5	14·5	11·6	16·5	95·7	
4 d	13·9	12·9	14·8	11·3	12·5	14·3	13·6	13·9	14·5	16·2	19·3	22·5	23·5	25·1	25·8	22·1	21·9	22·7	22·6	24·1	19·6	15·8	10·2	2·5	17·3	115·6	
5 d	2·0	-4·4	5·6	11·6	14·0	11·6	17·2	17·1	14·5	21·4	24·2	22·6	22·5	21·6	22·5	18·6	7·8	13·0	9·1	11·4	3·8	12·9	13·2	13·7	13·6	27·5	
6 d	14·7	16·9	15·9	20·0	23·3	28·1	20·4	15·7	14·9	16·1	18·5	19·6	22·0	20·5	21·6	19·3	15·9	15·0	14·9	14·2	11·5	13·3	18·5	16·5	17·8	127·3	
7	15·5	14·8	16·5	16·1	15·6	14·5	14·8	14·0	13·9	14·8	16·9	19·0	20·8	21·5	20·9	19·5	14·4	9·5	14·2	17·4	17·4	16·2	11·6	6·5	15·7	76·3	
8	12·9	14·7	15·0	14·9	14·9	14·9	14·8	14·8	16·0	18·9	20·6	20·5	21·3	21·2	20·0	18·4	16·9	16·0	16·2	16·7	16·8	14·8	15·0	16·2	16·8	102·4	
9	16·5	17·6	15·6	13·2	14·9	16·8	16·9	17·7	17·8	18·2	18·2	21·4	22·3	21·1	21·3	20·5	16·1	16·9	16·8	17·4	16·8	15·9	16·8	9·6	17·3	116·3	
10	14·8	14·4	14·9	14·8	14·9	14·8	14·5	14·2	14·2	15·8	17·6	19·7	20·5	20·0	18·6	18·2	17·1	16·6	16·7	13·9	13·9	14·9	15·9	15·9	16·1	86·8	
11 q	15·9	15·9	15·8	15·6	15·6	14·9	14·7	13·8	13·1	14·1	16·0	18·5	19·2	19·1	18·9	18·4	17·7	16·9	16·8	15·8	16·3	16·0	14·9	15·0	16·2	88·9	
12	17·9	18·1	12·4	13·0	14·1	14·4	14·8	13·6	14·0	14·8	17·8	21·5	20·5	19·6	19·6	19·6	18·7	18·7	18·6	12·1	17·0	16·8	14·1	12·1	16·4	93·8	
13	15·3	14·7	14·7	14·2	14·5	14·2	13·9	13·9	13·9	14·2	16·5	21·1	21·0	22·7	20·0	19·9	19·0	14·6	17·5	17·5	13·6	15·4	15·1	15·6	16·4	93·0	
14	15·2	14·2	13·7	11·5	13·6	14·2	13·9	13·6	13·7	14·8	17·3	20·5	22·4	23·5	21·7	19·8	18·6	18·4	17·9	17·5	17·5	16·4	15·6	15·6	16·7	101·1	
15	16·0	15·2	16·0	14·8	12·6	13·0	13·5	13·0	13·0	13·4	16·7	19·6	23·3	22·0	20·7	19·9	19·7	20·2	18·6	17·2	9·2	4·4	0·2	8·7	15·0	60·9	
16 d	12·2	12·5	13·6	16·3	19·9	15·9	15·6	20·6	24·4	24·0	21·4	25·3	29·6	31·8	28·0	32·5	24·5	21·0	11·5	13·8	13·7	11·9	14·6	15·7	19·6	170·3	
17	14·7	14·9	14·7	14·0	15·8	15·0	14·1	13·0	12·4	13·0	16·0	19·0	16·0	16·6	16·5	20·2	19·0	19·6	21·5	20·6	19·2	16·9	15·9	14·2	16·4	92·8	
18	6·5	10·3	14·0	14·4	14·7	14·3	14·2	14·1	13·9	15·0	16·6	19·1	20·4	21·3	20·0	19·6	18·7	18·2	17·9	17·2	16·9	16·6	15·1	13·5	15·9	82·5	
19	14·2	14·8	13·9	14·6	14·0	13·0	13·2	13·7	13·2	14·0	14·9	17·0	18·5	18·9	19·3	18·9	18·0	18·2	17·5	18·5	17·7	16·6	15·7	14·0	15·9	82·3	
20	14·5	14·4	13·9	13·2	13·7	14·9	15·0	14·8	14·6	15·0	16·7	18·2	19·5	20·5	19·8	19·6	19·3	17·2	16·5	17·9	16·9	15·6	15·5	15·1	16·3	92·3	
21 q	15·9	15·4	14·8	15·0	15·2	14·9	14·9	14·5	14·0	13·9	14·9	17·6	20·5	21·1	21·4	20·7	19·5	18·6	18·4	17·8	17·4	16·6	16·2	15·8	16·9	105·0	
22 q	15·6	15·2	15·1	15·2	15·2	15·1	14·8	14·2	13·7	13·9	15·0	17·4	18·7	19·7	20·2	19·6	19·0	18·5	17·9	18·0	17·6	17·0	14·0	13·2	16·4	93·6	
23 q	10·0	12·1	14·6	14·8	15·0	14·9	14·8	14·7	14·0	14·2	15·7	17·8	19·4	20·2	20·9	20·8	20·0	19·5	19·0	18·4	18·3	17·9	15·6	14·8	16·6	97·4	
24	15·7	15·7	15·6	15·1	15·8	15·0	15·1	14·4	14·4	13·8	15·9	19·5	20·8	24·9	27·1	29·9	26·6	23·0	20·7	18·6	15·8	7·9	4·0	2·8	17·0	108·1	
25	9·3	14·1	16·8	15·0	12·3	11·5	13·8	19·5	15·9	15·6	15·4	23·1	24·9	24·9	21·6	21·4	19·6	17·9	15·0	9·0	12·6	12·9	14·5	18·5	16·5	95·1	
26	15·7	13·6	14·6	14·0	18·9	15·6	13·7	13·7	12·9	13·1	16·5	18·0	19·9	22·5	25·4	18·2	20·5	13·6	19·6	17·4	12·4	13·7	15·2	16·8	16·5	95·5	
27	13·9	16·7	15·8	16·0	15·9	15·6	15·2	14·9	14·6	14·9	17·0	18·7	19·8	20·1	20·0	19·3	18·4	13·3	15·6	17·3	15·8	15·7	14·2	16·3	16·5	95·0	
28	14·5	14·2	16·8	15·6	15·1	14·9	14·9	14·4	13·8	14·2	16·3	18·8	19·9	19·9	18·9	17·6	17·0	17·3	16·9	15·2	15·6	15·5	15·3	15·6	16·2	88·2	
29	15·9	16·8	16·5	15·4	15·5	14·0	14·4	13·6	13·1	13·8	16·2	19·6	21·2	20·3	19·7	18·1	17·0	16·8	16·1	15·8	15·0	15·6	15·9	15·6	16·3	91·9	
30	16·0	14·4	14·6	15·4	15·8	16·2	16·2	15·1	13·9	13·8	16·1	19·5	22·0	23·6	23·3	20·6	17·9	11·1	12·9	14·0	9·4	4·7	-3·6	13·6	14·9	56·5	
31 d	13·3	17·3	18·5	13·0	14·7	23·1	20·9	15·8	16·1	15·7	19·4	22·3	22·3	25·1	28·6	20·4	22·5	14·9	6·3	2·5	-6·7	-2·3	1·2	10·0	14·8	54·9	
Mean	14·0	14·3	14·7	14·5	15·2	15·2	15·1	14·8	14·5	15·3	17·3	19·9	21·1	21·7	21·4	20·3	18·5	17·1	16·6	16·1	14·6	14·0	13·1	13·4	16·4		
Sum 400·0' +	34·6	42·3	55·9	48·0	70·2	71·4	66·7	58·7	50·6	74·9	135·5	215·3	253·8	271·5	263·2	228·4	174·5	129·4	115·1	99·0	52·5	35·2	6·0	15·7		Grand Total 12168·4	



GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

23

3 LERWICK (Z)		47,000γ (0.47 CGS unit) +																				OCTOBER 1966					
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 10,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	400	387	400	420	432	433	441	442	443	447	446	445	448	445	444	447	450	450	450	450	447	446	444	444	438	501	
2 q	444	445	447	447	446	446	445	445	442	441	438	434	434	433	436	442	447	447	445	444	443	441	439	439	442	610	
3	440	442	444	445	446	445	443	437	434	432	431	432	432	433	436	441	442	444	444	444	443	445	447	432	440	554	
4 d	435	435	431	423	430	426	430	428	429	433	437	437	443	444	453	451	450	444	444	451	488	514	482	385	443	623	
5 d	302	275	328	313	333	393	422	435	445	447	468	464	449	453	459	505	546	531	495	442	419	435	431	416	425	206	
6 d	438	422	420	414	384	372	365	409	425	443	454	469	481	500	495	490	492	488	481	469	463	453	424	409	444	660	
7	432	440	441	436	437	442	447	450	451	447	447	447	450	452	460	472	501	502	480	465	456	452	427	405	452	839	
8	420	431	437	441	444	445	445	445	448	452	451	456	458	454	450	450	451	453	453	450	451	450	449	444	447	728	
9	443	438	423	423	430	430	431	435	441	445	445	444	451	455	461	463	476	470	463	455	454	450	449	437	446	712	
10	441	444	445	445	445	445	445	445	444	444	444	445	445	447	449	450	450	450	449	449	449	446	447	445	447	446	711
11 q	448	447	447	447	444	444	443	443	444	442	439	442	445	444	443	443	442	442	442	446	447	446	446	444	444	660	
12	433	423	435	436	435	434	436	438	437	437	437	435	438	440	445	445	447	449	444	446	456	445	441	427	435	439	537
13	421	433	441	442	442	440	438	438	440	436	431	430	439	439	445	445	447	449	453	445	443	442	442	441	425	439	548
14	431	440	444	445	450	446	445	445	446	449	448	444	444	444	448	450	450	448	446	444	444	441	441	443	443	445	675
15	444	445	445	436	438	438	439	437	437	437	429	425	423	429	435	439	441	443	453	466	438	429	411	384	435	441	
16 d	401	420	423	422	415	411	419	435	434	435	446	459	474	529	537	527	505	507	511	477	456	440	437	433	456	953	
17	413	434	444	447	448	447	451	451	451	449	446	443	442	443	444	448	450	455	456	456	454	451	449	448	447	720	
18	434	437	444	448	448	448	449	448	446	445	444	445	446	446	446	446	446	446	446	447	447	448	448	447	446	695	
19	444	445	444	443	443	444	444	444	445	443	444	443	442	442	441	442	443	447	454	448	446	446	444	437	444	658	
20	434	434	437	440	441	440	438	438	438	442	442	439	442	442	442	443	444	446	448	447	447	450	451	448	448	442	619
21 q	445	444	443	442	441	441	441	440	442	441	438	437	437	440	441	440	440	442	443	444	444	443	443	443	441	595	
22 q	443	442	442	441	440	440	440	439	440	440	440	439	440	441	441	440	440	440	440	440	442	444	445	443	441	582	
23 q	437	441	441	441	440	439	439	439	437	441	442	442	440	439	440	439	437	436	436	437	440	448	450	448	440	569	
24	445	443	442	439	437	436	434	432	432	431	432	434	435	439	443	461	470	462	453	451	453	469	422	405	442	600	
25	426	421	390	396	425	430	432	425	432	445	446	447	446	463	458	453	452	452	457	450	467	459	440	359	436	471	
26	360	421	436	436	417	399	419	427	433	439	442	443	445	450	467	490	488	482	463	457	453	451	452	445	442	615	
27	442	439	443	448	448	447	445	444	445	446	445	450	452	452	453	455	453	454	449	447	448	446	439	433	447	723	
28	413	434	441	443	444	444	445	445	445	448	447	448	451	454	454	452	449	448	447	445	447	446	442	444	445	676	
29	446	446	446	447	447	447	446	446	447	449	447	448	449	451	453	452	451	452	450	447	445	443	443	445	448	743	
30	440	437	443	443	444	443	443	443	446	444	440	437	434	436	439	445	453	484	478	477	471	427	412	423	445	682	
31 d	430	392	307	381	409	391	409	430	438	443	446	454	466	473	508	540	548	542	452	440	444	418	396	405	440	562	
Mean	427	428	429	431	433	433	436	439	441	442	443	444	446	451	454	458	461	461	455	451	449	447	439	429	443		
Sum 13,000γ+	225	277	294	370	423	426	509	598	657	713	731	760	825	969	1070	1211	1305	1303	1116	984	930	862	615	295		Grand Total 329,468	

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH HOUSE

4 LERWICK		OCTOBER 1966									
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magnetograph house °C	
1	2110 1011	7	2110 1000	5	2110 1011	7	2200 0000	4	1	15.1	
2 q	0000 1101	3	0000 1100	2	0000 0001	1	0000 0000	0	0	15.6	
3	0010 0002	3	0000 0002	2	0010 0002	3	0000 0002	2	0	15.2	
4 d	2211 2357	23	1110 2357	20	2211 2245	19	1100 1236	14	2	15.1	
5 d	5534 2453	31	5524 2343	28	4432 1452	25	4432 1443	25	2	15.0	
6 d	2443 3222	22	1423 2211	16	2442 3222	21	2443 2113	20	1	13.9	
7	1110 1323	12	0000 1213	7	1110 1323	12	2100 0323	11	1	14.9	
8	2010 1112	8	1010 1100	4	2010 0012	6	2000 1000	3	0	15.4	
9	2111 2312	13	0111 2201	8	2111 1312	12	1100 1111	6	1	15.2	
10	0011 1031	7	0000 0020	2	0011 1031	7	0000 0000	0	1	15.4	
11 q	0000 0011	2	0000 0010	1	0000 0011	2	0000 0000	0	0	15.5	
12	2111 1133	13	1011 1123	10	2111 1033	12	2000 0122	7	1	15.7	
13	1011 1223	11	1001 1113	8	1011 1222	10	2000 0012	5	1	15.8	
14	1210 1001	6	0000 1000	1	1210 1001	6	2000 0000	2	0	15.6	
15	1112 2343	17	0002 2343	14	1112 1143	14	0001 1142	9	1	16.0	
16 d	3343 3333	25	3343 3310	20	2333 3333	23	1113 4330	16	2	16.1	
17	2110 1201	8	2000 0200	4	2110 1101	7	3100 0000	4	1	15.7	
18	3001 1001	6	2001 1001	5	3001 0001	5	2000 0000	2	1	15.6	
19	0011 0111	5	0000 0111	3	0011 0011	4	0000 0011	2	0	15.5	
20	0100 0111	4	0000 0011	2	0100 0111	4	0000 0000	0	0	15.5	
21 q	0001 1000	2	0000 1000	1	0001 0000	1	0000 0000	0	0	15.6	
22 q	0000 0002	2	0000 0001	1	0000 0002	2	0000 0000	0	0	16.0	
23 q	2000 0011	4	0000 0010	1	2000 0001	3	0000 0000	0	0	16.3	
24	0012 2323	13	0012 2312	11	0012 2323	13	0001 1224	10	1	16.0	
25	3123 2143	19	2122 2133	16	3123 2143	19	3311 2135	19	2	15.0	
26	3311 2322	17	1201 2311	11	3311 2322	17	4321 2221	17	2	15.8	
27	2000 1221	8	1000 1111	5	2000 0221	7	1001 0103	6	1	15.7	
28	2011 0021	7	1000 0020	3	2011 0011	6	3000 0000	3	1	14.8	
29	1010 1111	6	0000 1100	2	1010 0011	4	0000 0000	0	0	15.1	
30	1010 1324	12	0000 1323	9	1010 1324	12	1000 0424	11	1	15.9	
31 d	4323 3454	28	3322 3443	24	4323 3454	28	5331 4422	24	2	15.4	
									Mean	0.84	15.5

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

1 LERWICK (H)		14,000γ (0.14 CGS unit) +																						NOVEMBER 1966				
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 15,000γ+	
		γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	
1 d		634	644	650	661	661	667	650	650	673	639	639	631	646	651	658	699	679	693	654	663	670	687	684	661	660	844	
2		633	651	673	672	678	678	678	676	673	667	661	657	654	667	670	673	678	678	697	674	673	680	681	674	671	1096	
3 d		677	670	674	673	683	681	667	684	682	667	644	646	660	661	671	669	684	676	681	693	686	689	684	683	674	1185	
4		683	674	676	676	670	680	686	684	678	665	662	660	661	667	668	671	676	677	674	675	667	672	680	682	673	1164	
5		681	681	681	681	678	684	680	672	667	661	657	659	660	662	667	670	670	667	669	673	687	680	682	684	673	1153	
6		680	679	678	680	673	680	687	686	677	662	652	648	652	663	673	679	680	677	666	660	662	664	669	670	671	1097	
7		676	677	677	679	676	679	683	685	677	664	659	657	660	666	670	676	679	681	684	687	681	681	679	685	676	1218	
8		675	669	667	668	676	682	683	686	681	673	665	663	663	670	679	675	681	689	683	681	686	687	687	684	677	1253	
9 q		683	683	680	686	688	689	687	687	681	671	667	666	669	674	680	683	687	687	689	690	692	691	690	690	683	1390	
10		690	687	690	693	695	696	684	687	687	679	671	669	663	673	673	678	677	682	686	681	680	674	679	680	681	1354	
11		690	682	682	685	674	687	687	680	678	671	652	655	667	670	674	677	683	686	687	689	688	687	686	686	679	1303	
12		683	681	679	682	680	681	685	686	683	670	661	666	664	667	674	682	687	683	682	666	680	683	683	682	678	1270	
13		680	682	681	685	683	685	689	687	680	670	650	671	674	674	676	678	683	686	677	680	684	694	684	686	682	1317	
14 q		681	680	680	682	684	686	685	683	681	676	672	670	670	671	677	681	687	690	690	690	690	688	687	686	682	1367	
15		681	680	683	684	685	686	687	687	687	680	672	669	672	677	677	679	680	682	683	676	675	677	682	681	680	1322	
16		675	676	679	679	688	695	692	686	672	669	667	666	663	668	673	673	679	685	686	689	686	683	681	683	679	1293	
17		683	680	672	684	699	693	696	696	688	682	676	672	676	683	687	691	694	706	692	669	663	667	675	681	684	1405	
18		681	681	682	684	686	686	685	694	681	675	672	674	678	684	692	695	692	693	682	678	685	671	676	659	682	1366	
19		668	672	679	693	684	685	682	676	663	670	663	660	662	662	670	673	679	682	688	686	681	682	683	680	676	1223	
20		673	683	679	676	676	677	678	682	682	677	675	675	678	677	680	683	687	689	682	679	682	683	679	687	680	1319	
21		679	678	676	679	680	683	686	686	675	679	676	676	676	677	680	683	686	688	689	689	686	677	676	689	681	1349	
22 q		680	675	679	682	685	684	684	685	682	678	676	676	675	676	679	682	686	687	689	689	689	687	686	686	682	1377	
23 q		683	685	685	688	689	691	692	689	686	683	683	683	679	682	683	686	689	690	690	690	690	689	686	689	687	1481	
24		686	686	683	676	700	696	689	687	686	679	673	673	664	674	677	686	688	689	689	688	686	685	685	682	684	1407	
25 q		681	681	682	686	687	689	687	686	683	683	683	682	684	688	693	694	697	694	699	697	695	692	691	689	688	1523	
26		698	682	676	683	683	690	695	693	689	695	885	685	680	675	676	684	678	686	685	686	685	685	685	682	685	1441	
27		682	682	682	684	689	695	694	692	690	681	675	673	676	679	682	685	686	689	683	677	684	686	686	683	684	1415	
28 d		682	682	681	689	693	698	696	692	687	684	669	672	670	670	668	665	677	665	670	686	665	686	673	648	678	1268	
29 d		649	660	682	683	688	679	678	684	679	663	659	662	661	659	662	660	663	669	672	679	678	679	676	674	671	1098	
30 d		676	682	679	675	682	690	693	657	649	650	646	649	649	653	668	666	666	674	674	661	665	678	659	666	667	1007	
Mean		677	677	678	681	683	686	685	683	679	672	665	665	667	671	675	679	682	684	682	681	681	682	681	680	678		
Sum 19,000γ+		1303	1305	1347	1429	1493	1572	1545	1505	1377	1163	962	965	1006	1120	1257	1376	1458	1520	1472	1421	1421	1464	1436	1388		Grand Total 488,305	

**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

2	LERWICK (D)													9° +												NOVEMBER 1966	
	Hour 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 300.0° +	
1 d	16.6	18.1	18.0	15.6	18.4	18.6	21.5	21.4	17.7	16.8	17.9	18.1	21.1	22.6	22.9	26.2	16.9	10.7	10.2	15.0	14.8	9.3	13.9	11.6	17.2	113.9	
2	16.5	17.9	14.1	14.6	15.0	14.8	15.6	15.7	14.5	15.1	17.5	20.3	19.6	20.2	19.4	19.3	18.2	14.9	3.6	13.7	15.1	13.8	14.5	14.0	15.7	77.9	
3 d	11.7	15.6	13.4	16.6	16.6	16.1	20.4	19.1	15.4	17.4	17.0	18.3	19.5	19.4	16.7	18.5	10.9	15.9	13.4	11.8	11.8	11.1	12.9	14.1	15.6	73.6	
4	14.8	14.7	15.1	14.8	16.9	18.4	18.3	15.9	16.0	14.8	16.6	19.3	20.4	21.1	20.1	19.2	18.4	17.3	16.8	10.7	5.8	12.8	14.8	15.0	16.2	88.0	
5	14.8	17.4	16.3	15.4	16.5	16.7	17.4	18.2	18.5	17.9	18.5	19.6	21.4	21.2	21.6	20.2	19.3	13.6	16.6	12.1	11.7	14.4	14.9	14.4	17.0	108.6	
6	13.5	15.5	15.8	15.8	16.2	16.5	16.6	15.6	14.7	15.5	17.2	20.2	21.3	22.2	20.5	20.3	19.4	21.3	22.1	16.6	12.6	11.4	10.9	10.8	16.8	102.5	
7	12.9	15.3	16.3	13.2	14.3	13.8	13.6	13.7	13.8	14.2	16.2	18.6	19.8	20.2	18.7	17.6	16.9	16.8	16.6	16.5	15.2	12.5	14.1	16.2	15.7	77.0	
8	11.0	7.5	10.4	11.4	13.3	12.8	13.6	13.6	13.6	13.9	16.3	18.4	19.4	20.1	20.2	19.3	18.3	18.1	18.4	15.5	17.0	16.0	15.7	15.6	13.4	69.4	
9 q	15.2	15.0	15.8	15.4	15.6	15.0	14.9	14.9	14.4	13.8	15.7	17.2	17.9	18.5	18.2	18.3	18.1	17.6	17.2	16.9	16.6	16.3	16.0	16.0	16.3	90.5	
10	16.2	16.4	16.8	17.3	16.6	16.4	19.5	16.4	16.0	15.7	17.6	21.5	19.6	20.8	19.9	18.7	18.2	17.3	16.9	17.6	14.1	13.0	11.9	13.8	17.0	108.2	
11	16.2	15.7	15.8	14.9	18.3	16.8	15.1	14.9	14.2	15.7	17.5	17.9	19.3	20.7	19.6	18.1	17.6	17.5	16.6	16.1	15.8	15.7	15.7	15.7	16.7	101.4	
12	15.8	14.9	16.1	12.7	11.7	14.6	14.9	14.7	13.8	14.2	14.5	17.7	19.5	20.2	20.2	19.3	19.2	21.3	22.8	17.3	15.1	14.7	14.6	14.6	16.4	94.4	
13	14.8	15.5	16.6	15.7	15.7	15.5	15.3	15.2	14.6	14.8	15.5	16.2	19.1	20.5	19.4	18.8	18.3	18.5	18.2	15.7	15.8	13.0	10.9	13.2	16.1	86.8	
14 q	14.7	15.5	16.6	16.6	16.5	16.0	15.7	15.5	14.9	14.8	16.1	18.0	19.5	19.5	19.2	18.5	17.9	17.6	16.7	16.5	15.8	15.7	15.7	14.5	16.6	98.0	
15	12.0	13.3	14.9	16.0	15.7	15.8	15.8	15.6	15.7	16.0	16.8	19.5	20.4	21.4	20.3	18.6	19.0	18.1	16.7	15.3	13.1	13.2	13.4	10.2	16.1	86.8	
16	12.0	13.8	13.9	13.1	12.7	12.8	16.2	17.5	17.6	18.4	17.1	18.4	19.4	19.5	19.4	18.3	17.6	17.6	16.8	16.6	16.2	15.0	14.7	12.9	16.1	87.5	
17	14.0	14.1	16.3	16.6	15.7	15.7	16.9	15.7	15.2	15.5	16.2	17.6	18.9	19.4	19.7	19.1	18.9	20.5	20.3	14.4	12.7	14.7	15.7	16.1	16.7	99.9	
18	16.7	16.2	16.1	15.8	15.5	15.4	15.1	14.9	14.6	14.8	16.0	17.5	18.9	19.5	20.6	22.5	25.7	26.8	14.0	19.3	16.9	1.4	-1.3	8.0	15.9	80.9	
19	11.7	14.8	8.5	10.0	11.3	15.6	16.3	16.5	17.6	18.1	17.6	19.2	19.4	19.2	19.7	18.5	17.6	17.7	18.2	17.6	16.6	15.7	15.7	15.2	16.2	88.3	
20	18.3	13.9	11.3	14.5	15.0	15.4	15.9	15.2	15.4	15.8	17.1	18.3	20.2	18.7	19.6	18.5	19.1	19.1	20.3	18.8	15.1	11.9	11.7	13.6	16.4	92.7	
21	14.2	13.8	12.9	14.9	14.8	15.1	14.8	15.4	15.5	14.8	17.5	17.6	18.6	18.3	18.3	17.9	17.6	17.6	17.3	17.2	17.6	15.5	11.0	13.7	15.9	81.9	
22 q	12.7	14.3	15.2	15.0	16.2	15.8	15.5	15.2	14.9	15.4	16.6	18.2	18.5	18.5	18.3	17.7	17.6	17.5	16.9	16.4	16.0	15.7	15.7	15.5	16.2	89.3	
23 q	14.8	16.4	16.0	16.6	16.2	16.3	16.0	15.7	15.7	16.4	17.0	17.6	18.5	18.5	18.5	17.6	17.3	16.7	16.4	16.2	15.9	15.8	15.0	13.8	16.5	94.9	
24	14.6	15.1	13.9	15.8	16.2	16.7	17.3	18.5	17.7	19.0	18.1	18.4	20.3	19.2	16.9	17.4	17.2	16.8	16.9	16.8	15.7	15.1	15.4	15.4	16.8	103.6	
25 q	14.8	14.8	14.9	15.5	15.8	15.7	15.6	15.7	15.7	16.2	17.0	17.6	18.5	19.3	19.2	19.1	19.1	19.1	18.8	18.3	16.4	16.2	15.8	15.2	16.8	104.3	
26	9.4	9.6	7.3	14.3	15.9	14.9	14.8	15.7	15.7	16.6	17.4	18.6	19.3	20.6	20.5	22.2	18.9	20.2	18.6	17.2	16.4	14.9	14.1	14.8	17.2	87.9	
27	14.9	15.6	15.9	16.4	16.4	16.6	16.5	16.2	16.0	16.2	17.6	18.6	19.9	20.1	20.3	22.2	20.5	20.5	23.4	18.0	15.2	14.4	14.9	14.9	17.5	121.2	
28 d	15.6	16.6	18.6	16.9	16.5	16.4	16.7	17.1	15.7	16.5	16.4	18.9	20.8	22.0	21.4	20.5	19.6	10.4	9.9	10.1	12.2	8.5	11.2	7.0	15.6	75.5	
29 d	-3.8	10.9	14.6	17.1	16.6	19.0	19.9	18.0	16.6	16.6	17.6	16.4	18.7	20.4	20.3	14.9	14.2	13.0	16.4	14.9	14.8	13.0	12.3	14.0	15.3	66.4	
30 d	14.9	15.7	17.0	18.2	17.6	15.7	16.7	20.3	28.6	24.1	19.3	18.5	21.9	20.5	18.1	8.9	20.1	20.1	17.1	7.5	13.4	2.7	2.6	12.8	16.3	92.3	
Mean	13.7	14.8	14.8	15.2	15.7	15.8	16.4	16.3	16.0	16.1	17.0	18.4	19.7	20.1	19.6	18.9	18.3	17.7	16.8	15.5	14.7	13.1	13.1	13.7	16.3		
Sum 300.0° +	111.5	143.9	144.4	156.7	169.7	174.9	192.4	188.0	180.5	184.0	209.4	252.2	289.6	302.3	287.7	266.2	247.6	230.1	204.1	166.6	141.4	93.4	94.4	112.6		Grand Total 11743.6	

GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

25

3 LERWICK (Z)		47,000γ (0.47 CGS unit) +																				NOVEMBER 1966					
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 10,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 d	387	393	413	415	427	427	436	434	440	460	464	483	511	499	474	483	541	531	500	479	466	447	408	415	456	456	933
2	394	370	397	431	440	443	446	447	449	448	445	479	465	458	457	460	462	466	450	449	449	447	426	402	441	441	580
3 d	409	423	430	437	434	437	433	421	433	447	455	456	449	461	471	475	478	463	458	443	439	427	422	415	442	442	616
4	410	420	429	435	440	433	430	439	441	445	441	438	440	442	446	449	451	455	460	462	443	441	445	441	441	441	576
5	440	438	435	440	442	434	435	443	446	447	448	448	450	456	461	468	470	480	473	469	451	451	446	434	450	450	805
6	439	439	442	441	442	436	436	443	449	454	453	451	448	448	450	453	454	463	492	506	498	479	469	458	456	456	943
7	450	445	443	443	446	446	447	447	450	452	454	456	450	450	451	452	452	450	449	449	453	458	454	416	448	448	763
8	367	394	399	411	412	422	433	438	443	446	447	451	451	450	451	452	449	446	451	458	451	449	450	450	436	471	471
9 q	450	447	447	443	444	444	443	443	446	449	449	450	449	449	451	449	447	446	444	443	444	444	446	447	446	446	714
10	447	447	445	442	440	439	439	435	439	443	445	449	454	452	452	453	452	450	448	452	457	466	459	452	448	448	757
11	442	444	448	447	444	430	435	441	444	445	450	450	450	451	452	452	450	447	444	444	444	442	443	445	445	445	684
12	448	449	434	428	438	443	443	444	448	449	449	449	449	449	454	453	453	452	455	479	514	480	462	454	454	453	881
13	455	454	454	451	451	450	446	446	449	449	449	452	448	449	453	457	457	455	463	463	455	448	444	446	452	850	850
14 q	449	451	453	452	452	452	449	447	446	444	442	442	444	446	449	450	450	460	449	448	447	444	444	446	448	448	746
15	449	449	448	450	450	449	448	447	447	447	448	447	447	445	446	451	454	457	456	458	460	460	456	447	437	450	806
16	438	436	432	433	431	431	433	436	441	440	439	440	442	444	444	449	449	449	448	448	449	449	449	447	442	442	597
17	443	439	439	425	426	434	435	439	444	445	444	442	439	439	441	442	444	443	467	506	490	466	451	442	447	447	725
18	441	443	444	445	446	447	447	448	449	449	449	445	442	443	444	446	447	469	520	492	475	482	445	438	454	896	
19	441	419	421	413	424	430	438	445	452	450	451	449	449	455	459	456	455	458	454	455	459	458	453	439	445	445	683
20	406	389	417	432	439	439	444	444	446	446	446	442	441	442	444	446	446	447	459	466	468	466	462	435	442	442	612
21	449	451	449	444	437	433	436	439	444	445	446	444	444	445	445	446	446	446	446	448	451	459	461	449	446	446	703
22 q	442	445	444	444	444	445	445	445	445	445	444	445	445	445	446	447	448	446	445	446	446	448	448	448	446	446	694
23 q	448	443	444	444	444	443	442	441	443	442	442	442	443	446	446	447	447	444	444	444	443	444	444	445	444	444	655
24	442	441	441	440	424	428	432	435	438	441	442	443	444	447	449	449	446	444	442	443	445	446	446	448	441	441	596
25 q	449	450	449	446	445	443	441	442	442	442	441	441	441	441	442	442	443	443	442	441	441	442	443	441	441	443	632
26	438	441	425	434	441	440	437	437	437	436	430	434	434	439	444	446	447	455	454	454	454	450	448	448	443	443	620
27	446	446	445	445	442	438	437	437	437	437	438	440	441	441	444	448	448	450	455	460	478	471	459	450	448	448	744
28 d	444	441	437	429	429	432	432	433	438	437	442	443	444	446	458	479	478	515	496	479	404	412	434	418	446	446	700
29 d	403	382	416	433	436	439	435	442	442	446	449	453	459	465	473	483	481	478	463	460	455	452	448	444	447	447	737
30 d	439	435	441	439	434	431	436	449	439	436	448	458	468	470	476	508	478	468	468	486	473	416	402	424	451	451	822
Mean	433	432	435	437	438	438	439	441	443	445	447	449	450	451	453	457	458	459	461	463	463	455	450	445	439	447	
Sum 12,000γ+	1005	964	1061	1112	1143	1137	1168	1229	1305	1356	1399	1460	1488	1533	1589	1697	1728	1770	1826	1884	1665	1511	1340	1171			Grand Total 321,541

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH HOUSE

4 LERWICK		NOVEMBER 1966								
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magneto-graph house °C
1 d	4333 3433	26	4233 3433	25	3333 2433	24	3211 3433	20	2	14.5
2	3111 3332	17	3111 3132	15	3111 1331	14	3101 1123	12	1	14.4
3 d	2232 2422	19	1122 2322	15	2231 2422	18	2122 2221	14	1	14.2
4	2220 0142	13	2110 0022	8	2220 0142	13	2110 0021	7	1	14.3
5	2111 1332	14	1101 1221	9	2111 1332	14	1110 1221	9	1	14.2
6	2211 1231	13	0210 1221	9	2011 1131	10	0000 0222	6	1	14.3
7	2110 0013	8	0010 0012	4	2100 0012	6	0000 0014	5	1	14.8
8	2211 1120	10	2210 1110	8	2201 0020	7	3110 0110	7	1	15.0
9 q	1000 0000	1	0000 0000	0	1000 0000	1	0000 0000	0	0	14.3
10	0122 2121	11	0111 2111	8	0022 1021	8	0011 0122	7	1	15.0
11	1212 1000	7	1112 0000	5	1211 1000	6	1211 0100	6	0	14.0
12	1211 1131	11	1101 1130	8	1211 0130	9	2200 0131	9	1	14.2
13	1012 1022	9	0002 0012	5	1011 1022	8	0000 0012	3	1	14.3
14 q	1010 0001	3	0000 0000	0	1010 0001	3	0000 0000	0	0	14.3
15	2011 1111	8	0000 0011	2	2011 1111	8	0000 0001	1	0	14.2
16	2111 0001	6	1111 0000	4	2111 0001	6	0000 0000	0	0	14.8
17	2220 0232	13	2220 0232	13	2220 0231	12	1100 0132	8	1	14.7
18	0001 2434	14	0001 2323	11	0001 1434	13	0000 0333	9	1	14.6
19	3311 2111	13	2211 1111	10	3311 2111	13	2220 1112	11	1	15.0
20	3111 1123	13	2000 0113	7	3111 1022	11	3100 0012	7	1	15.0
21	1111 0013	8	0110 0012	5	1111 0003	7	1100 0002	4	1	13.9
22 q	1101 0000	3	1000 0000	1	1101 0000	3	1000 0000	1	0	14.3
23 q	1000 0001	2	0000 0001	1	1000 0001	2	0000 0000	0	0	14.1
24	1210 1011	7	0210 0010	4	1210 1011	7	0210 0110	5	1	14.4
25 q	0000 1111	4	0000 1101	3	0000 0011	2	0000 0001	1	0	13.7
26	3211 1210	11	3211 1110	10	2211 1210	10	2101 1100	6	1	14.4
27	1110 0231	9	0100 0020	3	1010 0231	8	0000 0021	3	1	14.4
28 d	2011 2453	18	0011 2353	15	2011 1453	17	1111 1353	16	2	14.0
29 d	4221 1311	15	3221 1110	11	4221 1311	15	3111 1210	10	1	13.7
30 d	2233 3434	24	1232 2223	17	2133 3434	23	1123 2323	17	2	14.2
Mean									0.83	14.4

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

1 LERWICK (H)		14,000γ (0.14 CGS unit) +																								DECEMBER 1966	
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 15,000γ+
1	γ	669	671	681	685	663	671	679	672	668	666	662	665	663	657	665	669	675	677	680	669	687	668	672	678	671	1112
2	γ	674	681	678	678	682	685	684	685	679	678	678	678	678	681	684	678	680	680	678	679	679	679	678	683	680	1317
3 q	γ	684	682	682	685	687	689	691	689	687	682	673	672	674	678	682	684	686	689	688	688	689	688	683	689	684	1421
4	γ	685	691	688	689	694	701	702	672	685	683	690	685	674	675	675	668	680	678	678	675	677	670	667	671	681	1353
5 d	γ	668	672	675	670	672	671	685	681	671	671	680	678	675	677	681	685	685	675	658	661	655	671	671	671	673	1159
6	γ	671	679	667	667	669	668	669	670	671	671	669	670	674	678	678	683	681	684	678	681	680	684	681	681	675	1204
7	γ	681	681	678	678	677	679	681	680	677	675	675	675	679	681	681	681	684	686	688	686	688	684	688	684	681	1340
8	γ	683	682	681	683	684	684	684	685	683	679	678	678	679	680	680	685	689	691	691	691	689	687	682	688	684	1416
9 q	γ	679	678	661	681	682	684	685	684	684	681	678	675	677	678	681	686	688	690	691	691	691	688	687	687	683	1387
10	γ	687	685	686	687	687	689	685	686	688	678	678	682	684	684	687	691	694	694	695	695	689	686	691	691	687	1499
11 q	γ	688	685	683	685	689	692	691	687	681	679	678	679	683	688	690	690	689	688	686	688	688	689	689	688	686	1473
12 q	γ	686	685	686	688	689	690	690	688	688	685	682	680	682	687	691	694	695	692	692	691	691	690	691	689	688	1522
13 d	γ	691	694	694	687	693	713	697	692	698	691	681	675	680	682	693	693	688	690	679	678	680	682	685	687	688	1523
14 d	γ	680	680	680	675	671	681	680	682	680	686	685	682	692	692	715	1035	1030	1022	807	737	649	629	626	656	727	2452
15	γ	589	602	629	642	649	652	655	658	659	659	653	659	655	662	669	677	667	648	655	661	661	660	666	665	652	652
16	γ	670	670	670	668	673	674	672	673	673	666	661	658	660	667	669	672	679	684	687	681	675	669	669	678	672	1118
17	γ	673	668	668	667	677	680	681	684	683	679	673	669	670	677	676	670	671	668	671	674	675	667	687	668	674	1176
18	γ	672	676	674	673	675	676	677	683	681	675	674	673	676	677	679	681	683	683	684	683	681	680	683	680	678	1279
19	γ	679	683	679	677	677	676	675	677	677	675	673	673	676	677	681	683	684	684	684	684	680	680	674	678	679	1286
20	γ	681	680	677	677	677	680	683	680	679	680	677	674	677	677	678	677	680	686	686	689	660	660	669	671	677	1255
21	γ	676	681	678	680	680	669	681	680	677	671	661	664	671	674	680	674	674	671	678	678	671	679	674	677	675	1199
22	γ	677	673	673	677	678	693	689	684	684	684	684	683	678	682	680	681	680	678	676	678	666	648	665	660	677	1251
23	γ	668	673	669	671	677	680	682	686	683	677	671	666	666	671	675	681	674	677	679	678	680	691	678	684	677	1237
24	γ	674	670	680	677	683	591	684	675	663	667	664	671	672	674	677	679	680	683	678	675	680	677	675	677	676	1226
25	γ	678	674	680	685	688	687	681	690	690	678	660	663	670	663	666	676	676	676	671	680	683	680	678	693	678	1268
26 d	γ	673	659	661	670	683	690	694	686	676	673	659	665	670	667	677	656	660	677	694	670	667	691	697	654	674	1169
27 d	γ	651	633	658	672	676	654	673	683	667	659	650	651	659	670	683	674	679	687	684	673	670	687	651	670	667	1014
28	γ	661	674	677	677	681	686	680	673	664	669	663	663	669	668	666	675	681	668	670	698	670	677	680	679	674	1183
29	γ	676	677	678	683	687	685	685	683	678	676	675	674	676	673	677	681	684	684	680	683	683	681	689	680	680	1328
30	γ	682	681	681	684	685	691	693	693	689	680	672	670	667	667	671	671	671	674	680	680	680	684	687	687	680	1320
31 q	γ	684	681	681	684	685	687	687	687	685	680	680	677	678	683	682	678	680	687	690	692	692	692	688	684	684	1424
Mean	γ	674	674	675	677	679	682	683	682	679	676	672	672	674	676	680	691	692	692	685	683	677	677	677	678	680	
Sum 20,000γ+		890	901	933	1002	1066	1143	1181	1135	1057	948	843	827	884	947	1069	1408	1446	1449	1234	1169	1004	998	1001	1028		Grand Total 505,563

702 at 0-1h 1 January 1967.

**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

2 LERWICK (D)		9° +																								DECEMBER 1966	
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 300.0°+
1	14.8	17.3	18.4	10.8	14.5	18.1	17.6	16.0	13.7	16.6	16.2	18.9	19.3	18.4	16.4	18.6	18.9	17.2	13.1	12.8	10.9	10.5	13.6	14.7	15.7	77.3	
2	16.7	16.5	14.7	16.6	16.9	16.0	15.0	15.6	15.5	16.3	17.3	17.9	18.1	18.1	18.2	17.9	17.5	17.5	14.8	15.7	15.6	14.4	10.9	12.6	16.1	86.3	
3 q	13.4	15.7	16.6	16.7	16.7	16.7	16.6	16.5	16.0	16.4	16.6	17.7	18.9	18.9	18.5	18.2	17.7	17.4	17.4	16.8	16.3	15.7	15.1	12.9	16.6	99.4	
4	14.9	16.4	15.9	16.6	16.7	17.5	17.6	22.2	25.3	23.1	20.9	19.4	19.9	21.3	21.3	21.3	19.9	19.8	17.6	15.9	14.8	10.6	12.0	16.6	18.2	137.5	
5 d	11.5	15.8	11.1	13.5	11.5	16.1	15.2	17.9	15.0	16.8	16.8	17.5	18.5	18.2	18.4	17.5	18.4	16.2	-6.8	4.0	6.5	10.1	11.5	12.1	13.5	23.3	
6	13.0	13.3	13.8	17.4	14.9	14.5	14.8	14.8	14.8	16.3	16.6	17.5	17.8	18.3	17.8	17.3	17.6	17.5	18.4	17.5	15.8	13.6	15.6	15.5	16.0	84.4	
7	15.6	15.2	15.7	15.7	15.8	14.8	15.4	15.4	15.7	16.7	18.0	18.6	18.7	18.4	17.9	17.6	17.2	16.8	16.2	16.2	14.9	14.2	13.9	15.7	16.3	90.3	
8	16.0	16.0	15.3	15.6	15.0	15.1	15.2	15.0	15.5	16.4	18.2	19.1	19.4	18.4	18.4	17.5	16.8	16.6	15.9	15.8	15.9	15.7	14.9	12.8	16.3	90.5	
9 q	13.8	14.8	15.8	15.4	15.1	15.8	15.8	16.1	15.9	16.6	17.3	17.5	18.7	18.6	18.6	17.6	17.7	17.3	16.9	16.5	16.1	16.0	15.7	15.0	16.4	94.6	
10	16.0	16.5	16.2	15.8	15.8	15.0	15.9	15.5	16.1	16.4	16.9	17.8	18.9	19.2	19.0	18.4	17.9	17.8	17.6	16.6	15.8	16.0	16.6	16.6	16.8	104.3	
11 q	16.6	15.9	15.9	15.8	15.9	15.7	15.5	15.5	15.4	16.1	16.9	18.2	18.8	18.9	18.5	17.7	17.6	17.0	16.5	16.5	16.5	15.7	15.6	16.2	16.6	98.9	
12 q	15.8	15.8	15.8	15.8	15.9	16.0	16.0	15.7	15.7	15.5	15.7	17.0	18.7	19.3	18.5	17.7	17.6	17.6	17.6	16.7	16.1	15.6	14.9	14.9	16.5	95.9	
13 d	16.0	16.2	15.8	15.4	14.1	15.8	17.6	26.3	21.2	18.5	16.9	18.5	20.2	24.2	26.9	25.8	26.8	18.8	17.4	16.0	14.1	14.0	13.8	13.0	18.5	143.3	
14 d	16.0	16.3	15.9	15.6	10.8	11.0	12.2	13.8	13.9	14.7	16.7	19.1	20.2	21.0	26.8	34.1	21.4	20.2	22.1	1.2	10.3	8.2	5.3	10.9	15.7	77.7	
15	15.5	6.3	11.2	13.6	13.7	14.6	14.8	15.5	13.8	14.1	15.4	16.9	16.5	17.7	17.6	17.5	15.9	3.6	12.8	15.8	12.5	12.6	13.0	14.8	14.0	35.7	
16	16.3	18.7	15.3	16.3	16.2	15.9	16.4	16.2	16.5	15.6	15.6	15.6	17.5	17.6	17.3	16.3	15.8	15.9	17.1	17.2	16.2	13.5	13.1	11.0	15.9	82.5	
17	13.1	14.3	15.7	16.9	16.2	15.7	15.8	15.9	15.7	16.2	18.0	19.7	20.3	21.3	21.0	18.6	20.2	19.2	17.7	17.1	15.2	2.9	7.5	12.5	16.1	86.7	
18	13.8	14.7	14.7	14.6	14.5	15.1	13.4	14.1	15.7	15.7	16.6	17.4	18.5	18.3	18.3	17.4	17.6	17.6	18.4	18.5	18.0	16.0	15.7	14.9	16.2	89.5	
19	14.0	14.1	13.7	14.9	14.6	15.0	15.4	15.4	15.4	16.0	16.9	17.7	17.8	17.8	17.6	17.3	17.5	16.5	16.7	16.5	14.9	11.2	12.8	13.9	15.6	73.6	
20	15.4	14.9	14.9	15.0	14.9	14.8	14.9	15.1	13.3	15.5	16.3	17.8	18.6	19.5	18.4	17.3	16.2	17.6	18.4	9.0	7.1	13.7	13.4	14.1	15.3	68.1	
21	12.9	9.9	13.8	14.7	14.7	17.3	17.4	15.7	15.7	16.4	16.0	17.4	17.8	18.8	20.2	16.6	18.2	21.3	20.4	18.7	15.4	9.6	9.3	12.2	15.9	80.9	
22	13.6	14.1	14.8	15.8	15.8	14.9	14.5	15.0	15.2	16.7	17.3	20.0	18.6	19.7	20.5	19.9	19.7	17.1	16.8	5.5	8.2	4.5	7.4	8.5	14.7	53.6	
23	13.3	14.6	14.9	15.6	15.8	15.6	15.9	15.7	15.9	15.7	16.7	17.5	18.2	17.7	17.8	18.3	16.8	17.6	13.5	17.4	15.9	12.3	14.7	14.3	15.9	81.7	
24	13.3	13.6	14.7	14.7	13.6	13.2	17.6	19.2	19.5	18.4	16.5	15.7	17.4	17.8	18.2	17.6	17.1	16.7	16.3	13.8	11.1	13.5	13.7	14.8	15.9	78.0	
25	17.6	20.3	17.3	15.2	15.2	15.9	17.6	17.4	18.0	18.7	18.5	18.2	20.6	21.5	20.2	18.2	16.4	16.5	11.7	13.8	15.7	14.3	13.1	-1.4	16.3	90.5	
26 d	4.3	8.4	8.1	16.6	16.6	17.4	18.6	21.5	19.9	19.5	16.1	17.3	18.3	18.4	18.7	14.9	17.5	19.4	9.5	11.5	12.2	0.3	8.2	5.6	14.1	38.8	
27 d	2.9	8.7	16.8	14.6	17.6	20.0	23.1	20.8	19.3	18.3	17.5	19.0	18.8	11.8	19.2	19.7	17.9	6.4	0.8	10.9	7.2	16.3	16.8	10.1	14.8	56.3	
28	14.7	15.5	16.0	16.1	16.5	16.6	16.0	17.2	16.8	15.8	16.5	18.4	15.9	19.4	9.5	16.0	17.4	17.6	14.1	6.6	13.0	14.0	13.9	14.9	15.3	68.4	
29	14.0	15.9	15.8	17.6	16.6	16.6	16.2	16.1	15.8	14.6	15.3	16.4	17.6	17.6	17.6	17.5	16.8	16.9	15.9	15.5	14.9	13.8	13.6	13.6	15.9	82.2	
30	16.0	16.5	16.7	16.6	16.5	15.6	15.5	15.6	15.9	15.7	15.7	17.6	18.7	19.5	20.3	18.7	10.5	18.3	16.9	15.6	14.8	12.9	13.0	14.8	16.2	87.9	
31 q	15.5	15.7	16.5	16.1	16.1	15.9	16.1	16.0	15.8	16.5	17.6	18.8	18.5	18.5	18.5	17.6	17.5	16.7	16.4	15.7	15.5	15.4	14.8	16.7	100.2		
Mean	14.1	14.8	15.1	15.5	15.3	15.7	16.1	16.7	16.5	16.6	16.9	17.9	18.6	18.8	18.9	18.6	17.9	16.9	15.1	14.1	13.8	12.5	13.0	13.0	15.9		
Sum 300.0°+	136.3	157.9	167.8	181.6	174.7	188.2	199.6	218.7	209.9	215.2	223.5	256.1	275.7	284.1	286.1	277.5	253.9	223.4	168.4	138.0	127.6	87.2	104.0	102.9		Grand Total 11858.3	

**GEOMAGNETIC FORCE: VERTICAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

3 LERWICK (2)													47,000γ (0.47 CGS unit) +															DECEMBER 1966	
	Hour GMT 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 10,000γ+			
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ			
1	433	424	404	419	426	410	426	440	451	450	451	451	451	461	469	467	461	462	463	471	447	443	447	440	444	667			
2	435	422	430	440	443	446	447	446	444	442	439	439	441	444	446	454	454	454	461	461	459	454	449	437	445	687			
3 q	437	438	440	442	442	445	445	445	445	444	445	443	440	443	444	446	446	446	446	448	447	447	447	443	444	654			
4	440	433	435	437	437	437	437	442	421	422	424	431	439	443	446	453	454	470	477	491	485	460	440	431	445	685			
5 d	434	427	422	434	439	437	437	440	443	443	445	445	446	446	450	450	451	466	492	487	478	484	476	468	452	840			
6	449	436	429	434	446	451	452	452	455	454	454	454	454	455	457	454	453	453	456	457	459	459	457	454	451	834			
7	453	451	450	447	446	446	448	449	449	446	447	448	450	450	451	451	451	448	448	447	451	452	451	450	449	780			
8	450	450	448	446	446	444	444	444	443	444	444	444	443	449	449	448	448	447	446	447	448	448	454	444	447	718			
9 q	441	447	448	447	446	446	446	443	444	444	444	446	447	447	448	448	447	446	446	445	444	446	447	449	446	700			
10	450	449	448	447	446	444	444	443	440	440	442	442	443	444	446	448	448	446	444	444	445	449	451	447	446	693			
11 q	447	449	448	447	445	443	441	442	442	442	442	442	442	446	448	448	448	448	448	445	446	444	445	445	445	683			
12 q	446	447	446	446	445	443	440	438	437	438	437	436	436	438	441	444	444	444	444	443	444	444	444	446	442	611			
13 d	445	443	439	441	426	412	422	418	413	424	429	434	434	438	443	460	478	468	462	456	454	450	447	447	441	583			
14 d	446	447	447	448	447	446	448	444	443	440	440	437	437	446	525	583	592	529	522	450	412	446	420	315	459	1010			
15	293	297	358	407	425	437	448	450	450	452	452	451	456	458	460	461	469	491	475	462	462	459	445	433	435	451			
16	422	431	444	449	451	452	455	454	454	455	454	457	456	456	456	456	457	454	454	457	466	471	464	452	453	877			
17	449	451	451	452	452	455	454	453	452	458	448	446	443	445	451	460	464	467	471	471	470	479	445	447	455	926			
18	451	451	452	452	450	448	449	448	448	451	450	448	446	448	451	452	453	453	454	459	460	461	458	457	452	850			
19	455	451	451	450	451	452	452	452	453	451	450	450	450	449	450	451	452	453	453	454	458	461	460	457	453	866			
20	454	453	452	451	451	451	450	451	451	452	453	451	451	450	450	454	454	452	453	458	453	454	455	454	452	858			
21	431	423	433	438	441	445	434	445	450	453	455	456	454	454	455	462	465	466	465	479	488	473	465	460	454	890			
22	455	454	452	451	452	445	444	446	446	446	447	448	451	452	454	453	456	457	459	462	456	457	439	443	451	825			
23	443	448	448	451	449	449	449	448	448	450	451	455	453	452	452	452	452	457	460	460	464	457	460	446	452	854			
24	437	431	434	444	446	444	440	439	451	452	454	463	461	459	459	456	456	456	457	461	456	453	453	448	450	810			
25	443	439	435	443	443	443	443	442	443	448	450	455	455	462	467	468	470	469	473	462	457	458	455	434	452	857			
26 d	414	397	397	430	438	438	437	435	439	441	457	468	472	478	477	532	532	517	486	461	472	428	350	365	448	761			
27 d	386	384	374	409	427	418	419	435	441	455	462	471	479	511	485	475	484	504	481	481	469	402	394	420	444	666			
28	426	420	440	449	451	450	449	449	449	451	456	456	467	477	496	476	467	476	480	458	462	457	445	417	456	934			
29	434	444	447	448	449	450	449	449	448	449	448	447	450	451	455	458	457	457	460	458	455	454	447	446	450	810			
30	446	448	450	451	451	450	448	448	447	446	448	450	452	455	461	470	457	470	462	459	457	453	449	446	453	874			
31 q	446	446	447	448	450	450	450	449	449	447	446	446	446	447	451	455	455	455	454	454	453	450	450	450	450	794			
Mean	435	433	435	442	444	443	443	444	445	446	447	449	450	453	458	463	464	464	463	460	457	453	445	438	449				
Sum 13,000γ+	491	431	499	698	757	727	743	777	791	829	864	914	946	1056	1195	1345	1373	1379	1352	1249	1181	1055	805	591		Grand Total 334,048			

441 at 0-1h 1 January 1966.

**GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH HOUSE**

4 LERWICK									DECEMBER 1966		
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magneto- graph house °C	
1	3321 2142	18	2211 1131	12	3321 2142	18	3220 1132	14	1	13.8	
2	2100 1013	8	1000 1001	3	2100 0013	7	2110 0001	5	1	14.7	
3 q	2000 0002	4	0000 0002	2	2000 0002	4	0000 0000	0	0	14.0	
4	2133 2233	19	1132 2122	14	2023 2233	17	1021 1233	13	1	14.0	
5 d	3222 1353	21	2222 0331	15	3221 1253	19	2111 0222	11	1	13.4	
6	2120 0012	8	2110 0001	5	2120 0012	8	2200 0000	4	1	13.3	
7	0000 0011	2	0000 0001	1	0000 0011	2	0000 0000	0	0	14.0	
8	0000 0002	2	0000 0002	2	0000 0002	2	0000 0002	2	1	14.4	
9 q	2000 0000	2	0000 0000	0	2000 0000	2	1000 0000	1	0	13.9	
10	0000 0011	2	0000 0011	2	0000 0010	1	0000 0000	0	0	14.2	
11 q	0000 0000	0	0000 0000	0	0000 0000	0	0000 0000	0	0	13.9	
12 q	0000 0000	0	0000 0000	0	0000 0000	0	0000 0000	0	0	14.0	
13 d	1231 3412	17	1221 2411	14	1231 3312	16	0221 1210	9	1	14.3	
14 d	1212 5765	29	1211 5765	28	1212 4655	26	0010 5655	22	2	13.9	
15	4212 2432	20	4212 2311	16	4212 1432	19	5310 1222	16	2	13.5	
16	1112 2122	12	1110 2122	10	1002 1012	7	2000 0012	5	1	14.6	
17	2200 1214	12	1200 1103	8	2000 0214	9	1000 1113	7	1	14.0	
18	1111 0011	6	0010 0011	3	1101 0010	4	0000 0000	0	0	14.2	
19	0010 0022	5	0000 0012	3	0010 0022	5	0000 0011	2	0	14.6	
20	0000 1132	7	0000 1132	7	0000 1132	7	0000 0022	4	1	13.5	
21	2221 1332	16	1211 1222	12	2221 0332	15	2110 0121	8	1	13.9	
22	2212 2243	18	0211 1133	12	2212 2243	18	0000 0012	3	1	14.1	
23	2111 1222	12	1110 1212	9	2011 1122	10	2001 0112	7	1	13.8	
24	1222 0021	10	1222 0021	10	1122 0021	9	1122 0010	7	1	14.1	
25	2112 2124	15	1112 2123	13	2112 2124	15	1001 1023	8	1	14.0	
26 d	3223 3344	24	3222 3344	23	3123 2344	22	3212 2334	20	2	13.0	
27 d	4333 4534	29	3323 3334	24	4333 4534	29	3322 3323	21	2	14.2	
28	2012 3243	17	2012 2232	14	2011 3243	16	3000 2123	11	1	14.6	
29	1101 1012	7	0000 1002	3	1101 0012	6	2000 0001	3	0	14.7	
30	0000 1302	6	0000 1201	4	0000 0302	5	0000 1200	3	1	14.1	
31 q	1000 1001	3	0000 1001	2	1000 0000	1	0000 0000	0	0	13.2	
									Mean	0.81	14.0

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

MEAN MONTHLY AND ANNUAL VALUES OF GEOMAGNETIC ELEMENTS  
For all,  $a$ , quiet,  $q$ , and disturbed,  $d$ , days for  $H$ ,  $D$  and  $Z$  and for all days for  $X$ ,  $-Y$ ,  $I$  and  $F$

5 LERWICK		1966											
	Horizontal ( $H$ ) component			Declination ( $D$ ) (west)			Vertical ( $Z$ ) component			North component ( $X$ ) all days	West component ( $-Y$ ) all days	Inclination ( $I$ ) (north) all days	Total force ( $F$ ) all days
	$a$	$q$	$d$	$a$	$q$	$d$	$a$	$q$	$d$				
	$14,000\gamma +$			$9^{\circ} +$			$47,000\gamma +$						
Jan.	$\gamma$ 665	$\gamma$ 668	$\gamma$ 659	$\gamma$ 19.7	$\gamma$ 19.9	$\gamma$ 19.4	$\gamma$ 419	$\gamma$ 416	$\gamma$ 422	$\gamma$ 14471	$\gamma$ 2377	$\gamma$ 72 48.9	$\gamma$ 49635
Feb.	667	669	661	19.3	19.4	19.7	419	418	420	14473	2376	72 48.8	49635
Mar.	663	664	658	19.1	19.3	18.2	421	423	425	14470	2374	72 49.1	49636
Apr.	671	674	670	18.8	19.0	18.9	422	421	428	14478	2374	72 48.6	49640
May	674	679	672	18.5	18.8	18.2	425	422	431	14481	2373	72 48.4	49643
June	679	680	676	18.4	18.9	18.0	427	428	427	14486	2374	72 48.1	49647
July	677	678	663	17.7	17.7	17.4	424	429	410	14485	2371	72 48.2	49644
Aug.	678	679	670	17.3	17.7	16.1	431	434	427	14485	2369	72 48.3	49650
Sept.	658	669	609	16.1	16.6	13.8	441	445	428	14467	2361	72 49.8	49654
Oct.	672	675	661	16.4	16.5	16.6	443	442	442	14480	2364	72 49.0	49660
Nov.	678	684	670	16.3	16.5	16.0	447	445	448	14486	2365	72 48.6	49665
Dec.	680	685	686	15.9	16.6	15.3	449	445	449	14488	2364	72 48.6	49668
Year	672	675	663	17.8	18.1	17.3	431	431	430	14479	2370	72 48.7	49648

## ALL DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

6 LERWICK

1966

	Hour GMT																							
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
HORIZONTAL COMPONENT																								
	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$
Jan	-0.9	-3.0	-2.6	-0.7	+1.6	+4.3	+5.0	+4.8	+3.4	+0.4	-2.1	-2.9	-2.4	-0.6	-0.7	-0.4	-0.9	-1.3	-0.6	-0.6	+0.5	+0.8	-0.2	-0.9
Feb.	-0.1	-0.2	+0.3	+0.9	+0.9	+3.2	+4.3	+2.8	+2.0	-3.6	-6.7	-7.4	-7.9	-5.1	-1.8	+1.4	+3.3	+2.8	+3.1	+4.4	+3.6	+0.3	-1.1	+0.6
Mar.	-5.4	-1.7	-1.4	+1.0	+2.7	+3.6	+1.4	+0.1	-6.3	-15.3	-20.2	-18.0	-13.5	-6.6	+1.8	+12.6	+16.7	+16.4	+12.1	+5.6	+5.7	+5.9	+5.0	-2.2
Apr.	+7.0	+6.4	+3.2	+4.4	+4.9	+7.2	+5.8	+1.0	-8.2	-19.6	-27.5	-29.3	-27.7	-18.9	-7.9	+2.8	+9.2	+17.9	+17.6	+16.1	+12.7	+9.5	+7.3	+6.1
May	+2.2	+4.3	+3.3	+3.8	+3.2	+4.2	-0.1	-6.5	-16.5	-26.1	-32.5	-31.1	-23.9	-14.0	-3.5	+10.0	+25.9	+31.0	+32.3	+22.4	+13.4	+3.5	-2.5	-2.8
June	+1.5	+1.6	-0.3	+2.4	+3.0	+1.8	-2.3	-8.2	-17.6	-27.1	-33.7	-33.3	-24.5	-12.5	-2.9	+6.2	+14.6	+25.0	+30.8	+28.8	+21.8	+12.2	+7.7	+5.0
July	-0.7	-1.3	-1.0	-1.4	-5.8	-4.2	-9.8	-13.4	-19.4	-26.5	-29.8	-30.1	-19.5	-7.6	+2.0	+10.2	+19.3	+27.3	+28.5	+28.0	+22.6	+15.8	+11.0	+5.8
Aug.	+1.0	-4.7	-2.1	+0.8	+2.4	+2.3	-2.4	-10.2	-19.1	-27.5	-31.4	-29.5	-21.6	-5.6	+4.9	+12.0	+18.6	+26.9	+31.6	+25.2	+15.4	+1.5	+6.2	+5.3
Sept.	-30.5	-27.8	-25.6	-13.7	-5.2	-1.4	-4.3	-9.4	-16.6	-22.0	-18.5	-14.3	+1.7	+9.6	+15.8	+32.6	+39.0	+40.6	+43.0	+26.3	+13.8	-4.8	-19.9	-8.4
Oct.	+4.7	+1.4	+1.9	+1.4	+5.3	+5.1	+5.9	+2.0	-2.3	-13.5	-18.9	-20.3	-16.0	-8.5	-2.6	+0.6	+5.9	+7.9	+8.2	+9.5	+9.4	+8.6	+5.7	-1.4
Nov.	-1.4	-1.4	0.0	+2.8	+4.9	+7.5	+6.6	+5.3	+1.0	-6.1	-12.8	-12.6	-11.3	-7.5	-3.0	+1.0	+3.7	+5.8	+4.2	+2.5	+2.5	+3.9	+3.0	+1.4
Dec.	-5.6	-5.4	-4.2	-2.0	0.0	+2.4	+3.8	+2.3	-0.2	-3.9	-7.1	-7.7	-5.8	-3.9	+0.1	+11.1	+12.3	+12.3	+5.5	+3.4	-2.0	-2.2	-2.0	-1.2
Year	-2.3	-2.7	-2.4	0.0	+1.5	+3.0	+1.2	-2.5	-8.3	-15.9	-20.1	-19.7	-14.4	-6.8	+0.2	+8.3	+14.0	+17.7	+18.0	+14.3	+9.9	+4.6	+1.7	+0.6
Winter	-2.0	-2.5	-1.6	+0.3	+1.9	+4.3	+4.9	+3.8	+1.5	-3.3	-7.2	-7.7	-6.9	-4.3	-1.3	+3.3	+4.6	+4.9	+3.1	+2.4	+1.1	+0.7	-0.1	0.0
Equinox	-6.1	-5.4	-5.5	-1.7	+1.9	+3.6	+2.2	-1.6	-8.3	-17.6	-21.3	-20.5	-13.9	-6.1	+1.8	+12.1	+17.7	+20.7	+20.2	+14.4	+10.4	+4.8	-0.5	-1.5
Summer	+1.0	0.0	0.0	+1.4	+0.7	+1.0	-3.7	-9.6	-18.1	-26.8	-31.9	-31.0	-22.4	-9.9	+0.1	+9.6	+19.6	+27.5	+30.8	+26.1	+18.3	+8.3	+5.6	+3.3
DECLINATION																								
	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$
Jan.	-1.70	-0.90	-0.25	-0.56	-0.62	-0.49	0.00	+0.17	+0.06	+0.20	+0.92	+1.62	+2.25	+2.80	+2.11	+1.88	+1.25	+0.83	-0.06	-0.51	-2.78	-2.01	-2.21	-2.00
Feb.	-1.10	-0.60	-0.81	-1.09	-0.96	-0.52	-0.73	-0.24	-0.24	+0.20	+0.73	+2.11	+3.00	+3.59	+2.91	+1.86	+1.78	+1.00	+0.19	-1.18	-3.03	-2.86	-2.02	-1.99
Mar.	-2.36	-2.23	-2.55	-3.24	-2.13	-1.06	-1.28	-1.47	-2.05	-1.32	+0.46	+3.07	+5.31	+6.20	+5.25	+3.49	+2.62	+1.70	-0.04	-0.33	-0.05	-1.76	-3.32	-2.91
Apr.	-1.40	-2.10	-2.18	-2.61	-2.62	-2.72	-3.26	-4.17	-4.23	-3.11	-1.01	+2.18	+5.24	+7.15	+6.86	+5.62	+3.89	+2.53	+1.07	+0.25	-0.25	-1.52	-1.95	-1.66
May	-0.84	-1.76	-1.98	-2.48	-3.40	-4.35	-4.80	-4.89	-4.53	-2.64	-0.08	+3.10	+5.47	+6.47	+6.07	+5.32	+4.42	+3.07	+2.00	+0.80	-0.23	-1.60	-1.75	-1.39
June	-0.78	-1.37	-1.83	-2.66	-4.03	-5.30	-6.14	-6.17	-5.64	-3.87	-1.03	+2.51	+4.96	+6.13	+6.03	+5.63	+4.67	+3.54	+2.64	+1.50	+1.08	+0.65	-0.22	-0.30
July	-2.46	-2.67	-2.91	-2.87	-4.18	-4.71	-5.18	-5.20	-4.87	-3.42	-1.02	+2.15	+5.20	+6.65	+6.81	+6.06	+4.62	+3.29	+2.42	+1.87	+1.49	+0.53	-0.38	-1.22
Aug.	-1.99	-1.88	-1.73	-3.15	-3.92	-5.01	-5.73	-5.52	-4.71	-2.76	+0.36	+3.93	+6.34	+8.07	+7.61	+5.93	+3.85	+2.74	+1.17	+1.30	-0.71	-0.87	-1.27	-2.05
Sept.	-1.97	-3.45	-5.11	-4.10	-3.97	-3.28	-3.36	-2.97	-2.12	-0.53	+2.10	+5.34	+6.94	+7.46	+6.30	+4.12	+2.64	+1.62	+1.35	+1.09	-0.02	-1.95	-4.93	-1.20
Oct.	-2.33	-2.09	-1.65	-1.90	-1.19	-1.15	-1.30	-1.56	-1.82	-1.03	+0.91	+3.50	+4.73	+5.31	+5.03	+3.91	+2.18	+0.72	+0.26	-0.25	-1.76	-2.32	-3.25	-2.95
Nov.	-2.59	-1.51	-1.50	-1.09	-0.65	-0.48	+0.10	-0.04	-0.29	-0.18	+0.67	+2.10	+3.34	+3.77	+3.28	+2.56	+1.94	+1.36	+0.49	-0.76	-1.60	-3.20	-3.16	-2.56
Dec.	-1.87	-1.17	-0.85	-0.39	-0.63	-0.19	+0.18	+0.79	+0.51	+0.68	+0.95	+2.01	+2.63	+2.90	+2.97	+2.69	+1.93	+0.94	-0.83	-1.80	-2.15	-3.45	-2.91	-2.94
Year	-1.78	-1.81	-1.95	-2.18	-2.36	-2.44	-2.63	-2.61	-2.49	-1.48	+0.33	+2.80	+4.62	+5.54	+5.10	+4.09	+2.98	+1.95	+0.89	+0.17	-0.83	-1.70	-2.28	-1.93
Winter	-1.81	-1.05	-0.85	-0.78	-0.71	-0.42	-0.11	+0.17	+0.01	+0.23	+0.82	+1.96	+2.81	+3.27	+2.82	+2.25	+1.73	+1.03	-0.05	-1.06	-2.39	-2.88	-2.57	-2.37
Equinox	-2.01	-2.47	-2.87	-2.96	-2.48	-2.05	-2.30	-2.54	-2.55	-1.50	+0.61	+3.52	+5.55	+6.53	+5.86	+4.29	+2.83	+1.64	+0.66	+0.19	-0.52	-1.89	-3.36	-2.18
Summer	-1.52	-1.92	-2.11	-2.79	-3.88	-4.84	-5.46	-5.45	-4.94	-3.17	-0.44	+2.92	+5.49	+6.83	+6.63	+5.73	+4.39	+3.16	+2.06	+1.37	+0.41	-0.32	-0.91	-1.24
VERTICAL COMPONENT																								
	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$
Jan.	-4.7	-5.2	-5.4	-3.8	-4.1	-4.7	-5.1	-4.8	-4.3	-4.1	-3.4	-3.2	-3.0	-1.4	+4.4	+6.4	+7.3	+9.9	+9.1	+10.4	+8.8	+3.4	-0.2	-2.3
Feb.	-6.6	-7.8	-6.9	-5.1	-7.0	-8.5	-7.4	-5.2	-4.2	-3.5	-2.9	-2.6	-0.5	+2.5	+6.5	+9.1	+12.8	+14.7	+11.4	+12.0	+7.6	+1.4	-2.6	-7.2
Mar.	-11.8	-15.7	-14.1	-15.2	-15.9	-12.1	-9.0	-4.0	-1.5	-0.5	-0.4	+1.2	+2.5	+4.6	+9.4	+17.1	+18.5	+20.3	+17.2	+10.0	+5.8	+5.2	-1.9	-9.7
Apr.	-8.9	-10.4	-11.6	-9.8	-7.1	-6.1	-4.8	-3.5	-3.4	-3.4	-4.1	-5.9	-6.4	-2.8	+2.5	+9.2	+15.7	+19.4	+18.8	+15.2	+10.6	+4.0	-1.7	-5.5
Mayq	-9.6	-11.1	-8.5	-7.8	-9.5	-7.2	-4.0	-2.4	-3.2	-5.8	-6.7	-8.6	-5.8	-3.4	+2.2	+6.7	+12.5	+15.1	+20.4	+14.4	+13.0	+10.3	+4.6	-5.6
June	-9.0	-6.0	-7.0	-5.7	-3.8	-2.7	-1.5	-0.5	-1.9	-3.3	-4.7	-7.1	-8.7	-6.3	-1.1	+3.7	+7.5	+9.8	+11.2	+13.9	+12.0	+9.0	+4.1	-1.9
July	-12.7	-17.7	-16.6	-16.5	-15.2	-12.3	-7.8	-3.8	-0.9	+0.9	+0.5	+0.2	-1.5	-0.2	+3.9	+8.4	+13.0	+15.9	+17.6	+17.5	+15.8	+12.4	+3.0	-3.9
Aug.	-17.2	-20.4	-18.6	-14.7	-8.6	-4.7	-1.1	+1.1	+0.1	-1.3	-2.4	-2.9	-1.9	-0.4	+6.2	+12.4	+17.3	+21.0	+23.9	+19.0	+9.3	-0.4	-4.1	-11.6
Sept.	-22.6	-17.7	-23.5	-39.1	-22.5	-20.2	-9.8	-3.6	+0.1	+2.4	+3.6	+2.8	+6.1	+11.9	+18.7	+29.5	+34.7	+35.5	+29.7	+24.2	+9.5	-7.9	-13.1	-28.7
Oct.	-16.2	-14.6	-14.0	-11.5	-9.9	-9.7	-7.0	-4.3	-2.3	-0.6	+0.1	+1.0	+3.2	+7.7	+11.1	+15.5	+18.7	+18.6	+12.5	+8.3	+6.6	+4.3	-3.6	-13.9
Nov.	-13.1	-14.5	-11.2	-9.5	-8.5	-8.6	-7.7	-5.6	-3.1	-1.4	0.0	+2.1	+3.0	+4.5	+6.4	+10.0	+11.0	+12.5	+14.3	+16.2	+8.9	+3.8	-1.9	-7.6
Dec.	-13.8	-15.7	-13.5	-7.0	-5																			

## DIURNAL INEQUALITIES OF THE GEOMAGNETIC ELEMENTS

## INTERNATIONAL QUIET DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

7 LERWICK

1966

	Hour GMT												12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12												
HORIZONTAL COMPONENT																								
Jan.	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$
Feb.	-2.7	-2.6	-2.7	-1.4	0.0	+1.5	+3.2	+2.2	-0.5	-2.8	-3.3	-2.8	-2.5	+0.2	+0.9	+0.8	+1.0	+1.3	+2.6	+3.0	+1.9	+1.4	+1.3	0.0
Mar.	+0.1	-0.6	-0.3	-0.2	+1.8	+2.5	+3.2	+2.8	+0.1	-2.6	-5.1	-7.2	-7.9	-3.6	+0.3	+1.4	+1.0	+0.1	+1.2	+3.4	+2.5	+3.0	+1.9	+2.2
Apr.	+1.4	+0.1	+1.0	+1.5	+2.1	+3.4	+3.5	+1.9	-3.8	-11.3	-16.2	-18.5	-14.2	-6.3	-0.6	+3.7	+3.7	+4.0	+5.3	+7.7	+8.0	+8.7	+7.2	+7.7
May	+8.6	+7.9	+8.0	+7.8	+7.8	+7.3	+5.0	-0.2	-9.2	-22.5	-33.2	-35.4	-31.2	-20.9	-9.8	+1.2	+8.0	+13.3	+16.8	+17.0	+14.4	+13.7	+13.2	+12.4
June	+4.8	+4.4	+4.6	+5.6	+6.8	+7.2	+4.0	-3.0	-13.6	-21.6	-29.0	-30.6	-27.4	-22.2	-12.4	-0.6	+9.6	+18.0	+22.0	+22.6	+16.6	+13.6	+11.6	+9.0
July	+4.1	+3.7	+2.2	+2.9	+4.1	+4.9	+2.7	-4.9	-16.4	-28.7	-36.3	-36.5	-30.1	-17.3	-10.6	+0.9	+11.7	+20.3	+27.1	+28.7	+23.0	+17.9	+14.9	+11.7
Aug.	+5.6	+4.5	+4.0	+6.1	+5.4	+0.9	-4.8	-10.1	-17.2	-26.1	-31.8	-31.1	-24.2	-17.3	-5.8	+1.7	+10.2	+18.9	+24.6	+23.7	+21.6	+16.9	+13.0	+11.3
Sept.	+6.8	+3.5	+3.2	+5.4	+5.4	+2.3	-2.4	-11.2	-20.6	-30.3	-32.8	-30.0	-20.2	-7.1	+4.8	+13.4	+16.6	+12.9	+17.2	+15.8	+13.0	+12.7	+10.2	+11.4
Oct.	+5.9	+3.4	+5.1	+3.4	+2.9	-0.2	-5.1	-13.2	-22.7	-26.4	-24.9	-17.4	-9.5	-2.6	+5.3	+4.4	+8.3	+11.6	+11.1	+14.2	+13.1	+11.8	+10.9	+10.6
Nov.	+4.7	+3.4	+3.1	+3.7	+3.5	+3.8	+4.5	+2.3	-1.5	-10.6	-17.7	-18.9	-17.5	-14.4	-7.9	-2.9	+2.7	+6.2	+9.3	+10.1	+9.9	+8.0	+8.7	+7.5
Dec.	-2.9	-3.7	-3.2	+0.5	+2.1	+3.3	+2.5	+1.5	-1.8	-6.3	-8.3	-9.1	-9.1	-6.3	-2.0	+0.7	+4.7	+5.1	+6.9	+6.7	+6.8	+4.9	+3.5	+3.5
	-1.0	-3.1	-6.6	-0.6	+1.2	+3.1	+3.6	+1.8	-0.2	-3.9	-7.0	-8.6	-6.4	-2.5	0.0	+1.2	+2.4	+3.9	+4.2	+4.8	+5.0	+4.1	+2.4	+2.2
Year	+2.9	+1.7	+1.5	+2.9	+3.6	+3.3	+1.7	-2.5	-8.9	-16.1	-20.5	-20.5	-16.7	-10.0	-3.1	+2.2	+6.7	+9.6	+12.4	+13.1	+11.3	+9.7	+8.2	+7.5
Winter	-1.6	-2.5	-3.2	-0.4	+1.3	+2.6	+3.1	+2.1	-0.6	-3.9	-5.9	-6.9	-6.5	-3.1	-0.2	+1.0	+2.3	+2.6	+3.7	+4.5	+4.1	+3.3	+2.3	+2.0
Equinox	+5.1	+3.7	+4.3	+4.1	+4.1	+3.6	+2.0	-2.3	-9.3	-17.7	-23.0	-22.5	-18.1	-11.1	-3.3	+1.6	+5.7	+8.8	+10.6	+12.3	+11.3	+10.5	+10.0	+9.5
Summer	+5.3	+4.0	+3.5	+5.0	+5.4	+3.8	-0.1	-7.3	-16.9	-26.7	-32.5	-32.1	-25.5	-16.0	-6.0	+3.9	+12.0	+17.5	+22.7	+22.7	+18.5	+15.3	+12.4	+10.9
DECLINATION																								
Jan.	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$
Feb.	-0.91	-0.72	-0.41	-0.77	-0.69	-0.18	-0.39	-0.53	-0.45	+0.14	+0.81	+1.25	+1.65	+1.66	+1.31	+0.55	+0.51	+0.32	+0.17	-0.15	-0.49	-0.76	-1.03	-0.89
Mar.	-0.95	-0.65	-0.69	-1.03	-1.29	-1.14	-0.97	-0.91	-1.03	-0.65	+0.03	+1.11	+2.07	+2.51	+1.95	+1.07	+0.75	+0.44	+0.49	+0.49	-0.01	-0.47	-0.55	-0.57
Apr.	-0.89	+0.07	-1.34	-2.13	-2.41	-2.37	-2.11	-2.03	-2.26	-1.59	+0.39	+2.39	+3.97	+4.39	+3.40	+2.13	+1.03	+0.55	+0.05	+0.07	-0.04	-0.23	-0.49	-0.55
May	-0.16	-0.46	-0.99	-1.58	-2.22	-3.08	-4.20	-4.78	-4.51	-3.58	-1.54	+1.60	+4.48	+5.50	+4.89	+3.72	+2.42	+1.48	+0.96	+0.62	+0.27	+0.36	+0.48	+0.32
June	-0.35	-0.70	-1.13	-1.99	-2.91	-3.76	-4.11	-4.63	-4.75	-3.40	-1.29	+1.31	+3.89	+5.04	+5.42	+4.51	+3.07	+1.84	+1.11	+0.77	+0.61	+0.32	+0.63	+0.51
July	+0.21	-0.69	-1.24	-2.29	-3.31	-4.95	-5.79	-6.71	-6.42	-3.75	-0.37	+2.73	+5.07	+5.77	+5.48	+4.55	+3.43	+2.13	+1.35	+1.41	+1.70	+1.23	+0.23	+0.23
Aug.	-0.20	-1.08	-1.49	-2.38	-3.56	-4.74	-5.24	-5.72	-5.11	-3.66	-1.34	+1.30	+3.80	+4.42	+5.35	+4.90	+3.88	+2.94	+2.28	+1.84	+1.19	+1.32	+1.14	+0.16
Sept.	-0.98	-0.04	-1.21	-2.38	-3.98	-5.08	-6.00	-5.76	-4.99	-2.82	+0.16	+3.64	+6.34	+7.12	+6.17	+4.74	+2.34	+0.58	-0.04	+0.08	+0.67	+1.06	+0.66	-0.28
Oct.	-0.70	-0.43	-1.88	-2.62	-2.54	-2.85	-3.00	-3.30	-2.82	-0.77	+1.58	+4.28	+5.46	+4.89	+3.78	+1.62	+0.14	+0.27	+0.32	+0.54	+0.10	-0.45	-0.82	-0.80
Nov.	-1.94	-1.74	-1.44	-1.36	-1.22	-1.71	-2.10	-2.48	-2.72	-2.06	-0.32	+2.12	+3.34	+3.68	+3.82	+3.02	+2.08	+1.49	+1.22	+0.74	+0.58	+0.12	-1.34	-1.78
Dec.	-2.04	-1.27	-0.78	-0.65	-0.42	-0.71	-0.94	-1.07	-1.36	-1.15	0.00	+1.25	+2.10	+2.39	+2.20	+1.77	+1.52	+1.23	+0.72	+0.39	-0.34	-0.53	-0.84	-1.47
	-1.56	-0.99	-0.46	-0.61	-0.64	-0.55	-0.58	-0.61	-0.82	-0.35	+0.24	+1.27	+2.14	+2.27	+1.94	+1.37	+1.06	+0.79	+0.44	+0.01	-0.44	-0.87	-1.24	-1.81
Year	-0.87	-0.73	-1.09	-1.65	-2.10	-2.59	-2.95	-3.21	-3.10	-1.97	-0.14	+2.02	+3.69	+4.14	+3.81	+2.83	+1.85	+1.17	+0.76	+0.57	+0.32	+0.09	-0.26	-0.58
Winter	-1.37	-0.91	-0.59	-0.77	-0.76	-0.65	-0.72	-0.78	-0.91	-0.50	+0.27	+1.22	+1.99	+2.21	+1.85	+1.19	+0.96	+0.69	+0.45	+0.19	-0.32	-0.66	-0.91	-1.19
Equinox	-0.92	-0.64	-1.41	-1.92	-2.10	-2.50	-2.85	-3.15	-3.08	-2.00	+0.03	+2.60	+4.31	+4.61	+3.97	+2.62	+1.42	+0.95	+0.64	+0.49	+0.23	-0.05	-0.54	-0.70
Summer	-0.33	-0.63	-1.27	-2.26	-3.44	-4.63	-5.29	-5.71	-5.32	-3.41	-0.71	+2.25	+4.77	+5.59	+5.60	+4.67	+3.18	+1.87	+1.17	+1.03	+1.04	+0.98	+0.67	+0.15
VERTICAL COMPONENT																								
Jan.	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$
Feb.	+0.5	-0.9	-2.5	-2.3	-2.1	-1.8	-1.3	-0.5	+0.3	+0.3	+0.5	-0.1	-1.3	-1.7	-0.9	-0.1	+0.7	+0.6	+1.1	+1.5	+2.5	+3.1	+2.5	+1.9
Mar.	-1.8	-1.9	-2.8	-2.5	-2.0	-1.3	-1.2	-0.7	-0.2	-0.9	-1.8	-1.5	-1.4	-0.9	-0.2	+0.7	+1.8	+3.3	+2.8	+2.5	+3.0	+2.9	+2.6	+1.5
Apr.	+5.2	+0.9	-1.0	+0.2	+0.2	-1.3	-1.4	-2.0	-2.2	-2.3	-4.2	-4.2	-4.2	-3.1	-0.2	+2.4	+3.2	+3.9	+3.4	+2.4	+2.0	+0.7	+1.0	+0.6
May	-0.6	+0.7	+2.0	+3.1	+4.2	+4.3	+3.8	+1.9	0.0	-2.5	-4.8	-7.9	-9.8	-9.9	-7.0	-2.9	+0.8	+3.9	+5.0	+5.3	+5.0	+3.1	+1.6	+0.7
June	+2.0	+2.2	+3.1	+4.4	+4.2	+3.8	+4.6	+4.2	+2.1	-2.8	-6.0	-10.6	-11.2	-10.4	-6.9	-4.8	-1.2	+1.4	+4.0	+5.4	+5.5	+3.8	+2.2	+1.0
July	-0.9	+0.1	+1.8	+1.5	+2.3	+2.7	+2.5	+2.5	-0.4	-3.7	-5.5	-7.9	-9.3	-7.9	-5.8	-1.7	-0.3	+2.7	+5.5	+8.7	+7.8	+4.7	+1.3	-0.7
Aug.	+2.2	+1.9	+1.4	+1.2	+1.4	+2.3	+0.4	+0.2	-0.8	-3.5	-4.8	-7.4	-9.6	-8.7	-5.8	-1.4	+1.0	+3.9	+4.6	+5.6	+5.2	+4.7	+3.6	+2.4
Sept.	-4.4	-3.0	-3.6	-1.0	+1.4	+3.4	+3.4	+2.4	+0.4	-2.0	-3.6	-6.4	-7.2	-7.2	-2.2	+2.4	+7.6	+9.6	+7.0	+5.0	+2.4	-0.4	-0.2	-3.8
Oct.	-11.4	-4.7	-3.6	-0.4	-0.6	+1.5	+2.6	+2.2	+1.4	-2.1	-3.2	-5.8	-6.4	-3.7	+0.8	+6.4	+8.2	+5.7	+5.4	+3.6	+3.6	+1.9	0.0	-1.4
Nov.	+1.6	+2.0	+2.2	+1.8	+0.4	+0.2	-0.2	-0.6	-0.8	-0.8	-2.4	-3.0	-2.6	-2.4	-1.6	-1.0	-0.6	-0.4	-0.6	+0.4	+1.4	+2.6	+2.8	+1.6
Dec.	+2.2	+1.9	+2.0	+0.5	+0.3	-0.2	-1.5	-1.3	-1.2	-1.3	-1.6	-1.1	-0.4	+0.5	+1.8	+2.1	+0.7	0.0	-0.5	-1.1	-0.4	-0.7	-0.6	-0.1
	-2.0	+0.1	+0.4	+0.7	+0.2	+0.1	-1.6	-1.7	-2.0	-2.3	-2.6	-2.7	-3.2	-1.1	+1.0	+2.9	+2.6	+2.5	+2.2	+1.7	+1.4	+0.9	+1.2	+1.3
Year	-0.6	-0.1	-0.1	+0.6	+0.8	+1.1	+0.8	+0.5	-0.3	-2.0	-3.3	-4.9	-5.5	-4.7	-2.3	+0.4	+2.0	+3.1	+3.3	+3.4	+3.3	+2.3	+1.5	+0.4
Winter	-0.3	-0.2	-0.7	-0.9	-0.9	-0.8	-1.4	-1.1	-0.8	-1.1	-1.4	-1.3	-1.6	-0.8	+0.4	+1.4	+1.5	+1.6	+1.4	+1.1	+1.6	+1.5	+1.4	+1.1
Equinox	-1.3	-0.3	-0.1	+1.2	+1.1	+1.2	+1.2	+0.4	-0.4	-1.9	-3.7	-5.2	-5.7	-4.8	-2.0	+1.2	+2.9	+3.3	+3.3	+2.9	+3.0	+2.1	+1.3	+0.4
Summer	-0.3	+0.3	+0.7	+1.5	+2.3	+3.1	+2.7	+2.3	+0.3	-3.0	-5.0	-8.1	-9.3	-8.5	-5.2	-1.4	+1.8	+4.4	+5.3	+6.2	+5.2	+3.2	+1.7	-0.3



## INTERNATIONAL DISTURBED DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

8 LERWICK

1966

	Hour GMT																							
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
HORIZONTAL COMPONENT																								
Jan.	+0.2	-6.6	-2.2	+3.2	+5.8	+10.0	+9.0	+11.6	+11.4	+2.8	-4.8	-5.2	-3.4	-2.6	-7.8	-0.6	-4.6	-7.6	-4.2	-5.0	-1.0	+3.0	+0.8	-2.2
Feb.	+3.2	+1.2	+3.4	+3.0	-4.0	+0.6	+4.4	-2.2	+1.2	-12.6	-14.6	-12.0	-13.6	-7.4	+1.6	+4.4	+8.4	+8.0	+6.8	+16.0	+11.8	-3.8	-2.6	-1.2
Mar.	-34.0	-15.0	-8.5	+5.8	+0.6	-10.0	-25.2	-19.0	-27.3	-42.8	-37.8	-15.2	-7.8	-7.0	+17.9	+60.2	+74.2	+64.4	+31.8	-19.4	-7.5	+2.2	+13.2	+6.2
Apr.	+7.3	+3.6	-5.9	+1.8	+8.0	+5.5	+3.8	+1.4	-7.9	-18.2	-25.1	-27.4	-24.5	-13.8	+0.5	+10.4	+25.2	+38.1	+24.6	+17.6	+6.7	-3.2	-14.7	-13.8
May	+3.1	+10.2	+3.9	+4.7	-0.4	+11.7	+5.3	-8.8	-23.1	-33.7	-52.4	-43.9	-27.9	-13.0	+17.1	+51.5	+94.8	+94.1	+70.1	+13.2	-15.9	-39.9	-65.8	-54.9
June	-4.0	-1.3	-10.6	+1.8	-1.2	-1.7	-3.0	-8.0	-18.4	-32.5	-44.8	-46.0	-29.2	-13.5	+2.6	+16.0	+22.4	+40.9	+53.4	+39.6	+23.6	+7.7	+5.4	+0.8
July	-12.4	-6.1	-9.6	-21.4	-52.9	-32.8	-44.0	-31.3	-24.0	-21.4	-20.5	-29.6	-14.2	+4.9	+15.8	+30.0	+43.3	+51.0	+54.6	+43.5	+32.6	+28.0	+13.3	+3.2
Aug.	-18.3	-39.8	-27.4	-17.9	-5.6	+0.6	+0.5	-6.0	-15.0	-27.5	-32.0	-25.0	-24.7	+1.8	+11.2	+17.3	+33.2	+72.2	+88.9	+55.6	+15.0	-55.7	-9.2	+7.8
Sept.	-179.8	-162.1	-142.6	-65.0	-39.9	-17.4	-11.4	-7.7	-3.6	-3.4	+1.3	+21.4	+74.4	+70.3	+70.6	+134.4	+158.7	+170.4	+156.6	+63.3	+12.8	-59.4	-167.3	-74.6
Oct.	+1.8	-11.6	-1.9	-10.6	+11.8	+2.6	+12.6	-0.2	-1.3	-19.2	-23.4	-21.2	-14.4	+2.2	+9.3	+7.0	+17.4	+17.6	+16.8	+14.2	+17.1	+14.8	-4.8	-36.6
Nov.	-6.4	-2.4	+3.1	+6.2	+11.4	+13.0	+6.8	+3.4	+3.9	-9.4	-18.6	-18.0	-12.8	-11.2	-4.7	+1.8	+3.8	+5.4	+0.2	+6.4	+2.7	+13.8	+5.2	-3.6
Dec.	-13.4	-18.3	-12.4	-11.2	-7.0	-4.1	-0.2	-1.2	-7.6	-9.9	-15.0	-15.8	-10.8	-8.3	+3.8	+62.6	+62.4	+64.3	+18.4	-2.2	-21.8	-13.9	-20.0	-18.4
Year	-21.1	-20.7	-17.6	-8.3	-6.1	-1.8	-3.5	-5.7	-9.3	-19.0	-24.0	-19.8	-9.1	+0.2	+11.5	+32.9	+44.9	+51.6	+43.2	+20.2	+6.3	-8.9	-20.5	-15.6
Winter	-4.1	-6.5	-2.0	+0.3	+1.5	+4.9	+5.0	+2.9	+2.2	-7.3	-13.3	-12.7	-10.1	-7.4	-1.8	+17.1	+17.5	+17.5	+5.3	+3.8	-2.1	-0.2	-4.1	-6.3
Equinox	-51.2	-46.3	-39.7	-17.0	-4.9	-4.8	-5.1	-6.4	-10.0	-20.9	-21.3	-10.6	+6.9	+12.9	+24.6	+53.0	+68.9	+72.6	+57.5	+18.9	+7.3	-11.4	-43.4	-29.7
Summer	-7.9	-9.3	-10.9	-8.2	-15.0	-5.5	-10.3	-13.5	-20.1	-28.8	-37.4	-36.1	-24.0	-4.9	+11.7	+28.7	+48.4	+64.5	+66.7	+38.0	+13.8	-15.0	-14.1	-10.8
DECLINATION																								
Jan.	-3.10	-1.72	-0.43	-0.86	-1.10	-0.32	+1.84	+2.74	+2.05	+1.62	+2.16	+3.38	+3.84	+5.30	+2.37	+3.32	+3.96	-0.40	-2.10	-3.52	-7.39	-3.74	-3.90	-4.00
Feb.	-1.50	-0.13	-1.59	-1.36	-0.69	+1.87	+0.10	+1.73	+1.11	+1.04	+0.63	+3.05	+3.22	+3.75	+3.89	+4.34	+4.09	+2.05	+0.86	-5.03	-9.19	-5.30	-2.91	-4.03
Mar.	-7.00	-10.60	-8.75	-12.24	-3.80	+2.28	+0.38	+1.40	+1.15	+2.80	+3.28	+6.46	+9.40	+9.84	+7.47	+5.26	+7.00	+4.24	-4.82	-5.30	-1.09	-3.34	-3.14	-0.88
Apr.	-3.09	-3.82	-3.67	-5.83	-4.49	-3.14	-2.87	-3.77	-3.41	-1.94	+0.69	+4.13	+6.97	+9.16	+9.75	+8.73	+7.05	+5.28	+2.51	+0.19	-0.93	-6.64	-5.47	-5.39
May	-1.03	-4.21	-3.59	-2.67	-3.29	-6.02	-6.47	-4.09	-3.47	-0.91	+1.25	+5.47	+7.59	+8.53	+8.07	+8.83	+9.37	+7.66	+4.55	-0.69	-3.33	-6.21	-9.15	-6.19
June	-1.25	-2.30	-1.99	-2.65	-4.24	-5.39	-6.61	-6.40	-6.63	-4.97	-1.90	+1.89	+4.31	+7.06	+7.37	+7.49	+6.08	+5.11	+4.85	+2.14	+0.79	-0.45	-2.44	+0.13
July	-6.74	-6.29	-7.38	-3.78	-5.42	-3.49	-2.86	-0.86	-1.92	-1.89	-0.26	+2.46	+6.00	+6.93	+7.00	+7.08	+5.50	+3.71	+4.14	+2.68	+2.39	-0.64	-2.16	-4.20
Aug.	-4.20	-5.00	-4.75	-5.90	-4.86	-6.04	-7.08	-6.40	-4.93	-2.48	+2.14	+6.90	+7.98	+11.62	+11.45	+8.86	+7.06	+7.42	+2.40	+3.82	-6.33	-6.04	-2.00	-3.64
Sept.	-10.87	-10.01	-14.53	-4.85	-1.69	-0.22	-2.37	+1.43	+2.43	+2.43	+4.41	+8.21	+8.47	+10.71	+10.55	+4.81	+7.25	+5.18	+3.43	+3.45	+2.61	-6.97	-21.69	-2.17
Oct.	-5.41	-5.59	-2.95	-2.19	+0.25	+1.97	+0.91	-0.01	+0.25	+2.05	+3.93	+5.83	+7.35	+8.19	+8.67	+5.95	+1.89	+0.69	-3.75	-3.43	-8.25	-6.81	-5.09	-4.95
Nov.	-5.02	-0.63	+0.30	+0.87	+1.13	+1.14	+3.03	+3.17	+2.78	+2.27	+1.62	+2.03	+4.38	+4.97	+3.86	+1.79	+0.33	-2.00	-2.61	-4.15	-2.62	-7.09	-5.44	-4.11
Dec.	-5.19	-2.25	-1.78	-0.19	-1.21	+0.73	+2.01	+4.73	+2.54	+2.23	+1.47	+2.95	+3.87	+3.39	+6.68	+7.07	+5.43	+0.87	-6.73	-6.61	-5.26	-5.55	-4.21	-4.99
Year	-4.53	-4.38	-4.26	-3.47	-2.45	-1.39	-1.67	-0.53	-0.67	+0.20	+1.62	+4.40	+6.11	+7.45	+7.26	+6.13	+5.42	+3.32	+0.23	-1.37	-3.22	-4.87	-5.63	-3.70
Winter	-3.70	-1.18	-0.87	-0.39	-0.47	+0.85	+1.75	+3.09	+2.12	+1.79	+1.47	+2.85	+3.83	+4.35	+4.20	+4.13	+3.45	+0.13	-2.65	-4.83	-6.11	-5.42	-4.11	-4.28
Equinox	-6.59	-7.51	-7.47	-6.28	-2.43	+0.22	-0.99	+0.24	+0.11	+1.33	+3.08	+6.16	+8.05	+9.47	+9.11	+6.19	+5.80	+3.85	-0.66	-1.27	-1.91	-5.81	-8.85	-3.35
Summer	-3.31	-4.45	-4.43	-3.75	-4.45	-5.23	-5.75	-4.44	-4.24	-2.51	+0.31	+4.18	+6.47	+8.53	+8.47	+8.07	+7.00	+5.97	+3.99	+1.99	-1.62	-3.33	-3.94	-3.47
VERTICAL COMPONENT																								
Jan.	-19.5	-18.5	-18.3	-10.3	-8.7	-11.1	-12.3	-13.3	-12.3	-10.1	-7.3	-6.7	-5.5	+1.7	+26.3	+23.9	+23.5	+38.1	+27.7	+24.1	+14.7	-0.3	-9.3	-16.5
Feb.	-22.7	-22.5	-16.8	-9.5	-22.1	-32.9	-28.7	-18.1	-14.2	-6.3	-0.9	+0.3	+6.3	+11.9	+14.4	+21.7	+39.1	+47.5	+34.1	+35.1	+12.6	-2.1	-7.7	-18.5
Mar.	-35.6	-46.3	-38.1	-58.8	-67.1	-61.1	-49.4	-24.7	-10.5	-1.2	+7.7	+22.1	+30.8	+32.3	+40.1	+67.6	+68.7	+80.3	+59.0	+11.7	-20.7	-8.6	+4.5	-2.7
Apr.	-25.4	-22.8	-30.8	-28.2	-21.4	-18.1	-19.4	-16.6	-14.0	-11.6	-10.6	-11.0	-8.8	+0.2	+17.0	+31.8	+48.6	+65.1	+57.8	+41.8	+25.8	+1.2	-20.0	-30.6
May	-34.0	-44.5	-37.4	-28.6	-45.4	-44.1	-29.4	-21.8	-20.6	-18.9	-10.2	-8.6	+8.6	+12.5	+22.6	+29.8	+45.0	+47.1	+76.0	+34.2	+30.8	+30.5	+28.6	-22.2
June	-45.6	-32.6	-39.4	-25.6	-9.6	-6.5	-4.0	+0.4	-1.0	+3.6	+0.4	-3.6	-8.8	-4.8	+2.4	+10.2	+20.6	+23.5	+25.4	+33.8	+28.8	+21.0	+12.0	-0.6
July	-51.8	-68.8	-64.1	-65.6	-62.0	-59.4	-36.0	-20.8	-2.3	+19.8	+26.2	+35.8	+32.0	+24.8	+28.5	+32.2	+34.8	+40.2	+42.6	+45.6	+40.3	+29.8	+7.4	-9.2
Aug.	-59.4	-77.7	-58.6	-43.0	-27.3	-10.0	+2.0	+9.1	+10.4	+10.8	+8.9	+9.6	+13.2	+6.7	+16.6	+24.2	+29.3	+51.4	+77.8	+56.7	+10.4	-23.2	-12.7	-25.2
Sept.	-23.1	-36.6	-75.8	-160.1	-60.0	-71.8	-37.9	-19.6	-3.2	+13.5	+28.4	+31.6	+46.3	+52.0	+56.0	+93.7	+99.0	+108.8	+86.7	+55.6	+18.4	-42.5	-47.6	-111.8
Oct.	-40.5	-52.9	-59.9	-51.1	-47.5	-43.1	-32.7	-14.3	-7.5	-1.5	+8.5	+14.9	+20.9	+38.1	+48.7	+60.9	+66.5	+60.7	+34.9	+14.1	+12.3	+10.3	-7.7	-32.1
Nov.	-32.0	-33.6	-21.0	-17.8	-16.4	-15.2	-14.0	-12.6	-10.0	-3.2	+3.2	+10.2	+17.8	+19.8	+22.0	+37.2	+42.8	+42.6	+28.6	+21.0	-1.0	-17.6	-25.6	-25.2
Dec.	-23.8	-29.3	-33.0	-16.4	-13.5	-18.6	-16.2	-14.5	-13.0	-8.2	-2.3	+2.2	+4.8	+14.9	+27.2	+51.2	+58.5	+48.0	+39.8	+18.1	+8.2	-6.8	-31.5	-45.8
Year	-34.5	-40.5	-41.1	-42.9	-33.4	-32.7	-23.2	-13.9	-8.2	-1.1	+4.3	+8.1	+13.1	+17.5	+26.8	+40.4	+48.0	+54.4	+49.2	+32.7	+15.1	-0.7	-9.1	-28.4
Winter	-24.5	-26.0	-22.3	-13.5	-15.2	-19.5	-17.8	-14.6	-12.4	-6.9	-1.8	+1.5	+5.9	+12.1	+22.5	+33.5	+41.0	+44.1	+32.5	+24.6	+8.6	-6.7	-18.5	-26.5
Equinox	-31.1	-39.7	-51.1	-74.5	-49.0	-48.5	-34.9	-18.8	-8.8	-0.2	+8.5	+14.4	+22.3	+30.7	+40.5	+63.5	+70.7	+78.7	+59.6	+30.8	+8.9	-9.9	-17.7	-44.3
Summer	-47.7	-55.9	-49.9	-40.7	-36.1	-30.0	-16.9	-8.3	-3.4	+3.8	+6.3	+8.3	+11.3	+9.8	+17.5	+24.1	+32.4	+40.5	+55.5	+42.6	+27.6	+14.5	+8.8	-14.3

"Winter" comprises the four months, January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

RANGE OF MEAN DIURNAL INEQUALITIES FOR THE  
MONTHS SEASONS AND YEAR

The ranges are derived from the diurnal inequalities  
printed in Tables 6-8

AVERAGE DEPARTURE OF DIURNAL INEQUALITIES FROM DAILY MEAN

Arithmetical average of diurnal inequalities in  
Tables 6-8 taken regardless of sign

9 LERWICK 1966										10 LERWICK 1966									
	All days			Quiet days			Disturbed days				All days			Quiet days			Disturbed days		
	H	D	Z	H	D	Z	H	D	Z		H	D	Z	H	D	Z	H	D	Z
	$\gamma$	'	$\gamma$	$\gamma$	'	$\gamma$	$\gamma$	'	$\gamma$		$\gamma$	'	$\gamma$	$\gamma$	'	$\gamma$	$\gamma$	'	$\gamma$
Jan.	8.0	5.58	15.8	6.5	2.69	5.6	19.4	12.69	57.6	Jan.	1.7	1.17	5.0	1.8	0.70	1.3	4.8	2.71	15.0
Feb.	12.3	6.62	23.2	11.3	3.80	6.1	30.6	13.53	80.4	Feb.	2.8	1.45	6.5	2.3	0.91	1.8	6.2	2.64	18.6
Mar.	36.9	9.52	36.2	27.2	6.80	9.4	117.0	22.08	147.4	Mar.	7.5	2.34	9.3	5.9	1.54	2.2	23.0	5.08	35.4
Apr.	47.2	11.38	31.0	52.4	10.28	15.2	65.5	16.39	95.9	Apr.	11.6	2.90	7.9	13.5	2.26	3.8	12.9	4.54	24.1
May	64.8	11.36	31.5	53.2	10.16	16.7	160.6	18.52	121.4	May	13.3	3.06	8.3	13.4	2.42	4.5	31.6	5.11	30.5
June	64.5	12.30	22.9	65.2	12.48	18.0	99.4	14.12	79.4	June	13.5	0.78	5.9	15.1	2.96	3.7	17.9	3.93	15.2
July	58.6	12.01	35.3	56.4	11.07	15.2	107.5	14.46	114.4	July	14.2	3.42	9.1	14.0	2.88	3.5	26.7	3.99	36.7
Aug.	63.0	13.80	44.3	50.0	13.12	16.8	144.6	18.70	155.5	Aug.	12.8	3.44	9.2	12.9	2.80	3.7	25.3	5.80	28.1
Sept.	73.5	12.57	74.6	40.6	8.76	19.6	350.2	32.40	268.9	Sept.	18.5	3.25	17.4	10.2	1.91	3.6	77.9	6.28	57.5
Oct.	29.8	8.56	34.9	29.0	6.54	5.8	54.2	16.92	126.4	Oct.	7.0	2.21	9.0	7.6	1.85	1.4	12.1	3.99	32.6
Nov.	20.3	6.97	30.7	16.0	4.43	3.8	32.4	12.06	76.4	Nov.	4.7	1.63	7.7	4.4	1.13	1.0	7.3	2.81	20.4
Dec.	20.0	6.42	30.5	13.6	4.08	6.1	86.1	13.80	104.3	Dec.	4.4	1.60	7.9	3.3	0.96	1.6	17.6	3.66	22.7
Year	38.1	8.17	30.4	33.6	7.35	8.9	75.6	13.08	97.3	Year	7.9	2.37	8.1	8.2	1.77	2.0	17.6	3.51	25.8
Winter	12.6	6.15	23.8	11.4	3.58	3.2	30.8	10.46	70.6	Winter	3.1	1.42	6.6	2.9	0.92	1.1	6.5	2.83	18.9
Equinox	42.0	9.89	42.4	35.3	7.76	9.0	123.8	18.32	153.2	Equinox	9.2	2.64	10.3	8.9	1.82	2.1	26.9	4.45	35.7
Summer	62.7	12.29	32.1	55.2	11.30	15.5	104.1	14.28	111.4	Summer	12.8	3.25	7.9	13.6	2.75	3.4	22.7	4.58	25.3

NON-CYCLIC CHANGE

11 LERWICK 1966									
	All days			Quiet days			Disturbed days		
	H	D	Z	H	D	Z	H	D	Z
	$\gamma$	'	$\gamma$	$\gamma$	'	$\gamma$	$\gamma$	'	$\gamma$
Jan.	+0.1	-0.04	0.0	+8.2	+0.12	+0.1	-3.1	-0.29	+0.4
Feb.	+0.3	+0.02	0.0	+2.3	+0.39	+3.3	-2.6	-0.34	+12.2
Mar.	0.0	-0.02	+0.4	+3.5	+0.13	-6.3	+35.0	+6.27	+31.3
Apr.	-0.1	-0.01	-0.3	+2.5	+0.11	+0.7	-12.6	-1.23	-0.2
May	-2.4	-0.28	-1.5	+2.0	+0.49	-0.2	-38.9	-4.51	-13.2
June	+2.5	+0.16	+0.6	+3.7	+0.19	-0.7	+13.5	+1.56	+12.2
July	+0.6	+0.02	+0.4	+5.2	-0.28	-1.3	-8.5	+0.75	+10.6
Aug.	-0.5	-0.03	+0.8	+1.4	+0.31	-0.9	+9.8	+1.72	+24.8
Sept.	-0.5	0.00	-1.0	+3.5	+0.26	+9.1	-13.1	+1.19	-22.2
Oct.	-0.5	-0.02	-0.1	+2.7	-0.01	-2.7	-26.1	+1.57	-4.8
Nov.	+0.7	+0.02	+1.1	+4.7	-0.36	-2.9	-1.2	+0.18	-0.4
Dec.	+0.7	+0.03	+0.5	+2.0	+0.30	+1.9	-16.7	+1.44	-23.3
Year	+0.1	-0.01	+0.1	+3.5	+0.14	0.0	-5.4	+0.69	+2.3
Winter	+0.5	+0.01	+0.4	+4.3	+0.11	+0.6	-5.9	+0.25	-2.8
Equinox	-0.3	-0.01	-0.3	+3.1	+0.12	+0.2	-4.2	+1.95	+1.0
Summer	+0.1	-0.03	+0.1	+3.1	+0.18	-0.8	-6.0	-0.12	+8.6

AVERAGE RANGE OF DIURNAL INEQUALITY 1932-53  
WITH 1966 AS PERCENTAGE OF THIS

12 LERWICK					1966					
		All days			International quiet days			International disturbed days		
		H	D	Z	H	D	Z	H	D	Z
Year	1932-53	49.4	9.36	53.3	37.4	8.68	10.3	131.6	14.22	131.1
	1966(%)	77	87	57	90	85	86	57	92	74
Winter	1932-53	24.4	7.87	41.1	15.1	4.65	7.7	85.0	13.84	116.6
	1966(%)	52	78	58	75	77	42	36	76	61
Equinox	1932-53	59.2	10.94	68.8	42.3	9.54	12.9	193.4	18.89	168.9
	1966(%)	71	90	62	83	81	70	64	97	91
Summer	1932-53	72.6	12.72	53.0	57.5	12.77	17.0	156.9	15.61	134.0
	1966(%)	86	97	61	96	88	91	66	91	83

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

RATIO OF RANGE OF INEQUALITY AT LERWICK TO THAT AT ESKDALEMUIR

13 LERWICK											1966		
Type of day	Ele-ment	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
q	H	0.98	1.18	1.15	1.24	1.28	1.16	1.29	1.09	1.03	1.00	0.98	1.14
d	H	0.58	1.25	2.06	2.00	1.75	1.26	1.36	1.98	2.66	1.09	0.82	2.56
q	D	1.07	1.00	1.04	1.03	1.05	1.06	1.04	1.07	1.02	0.97	1.11	1.06
d	D	1.32	1.24	1.28	1.14	1.25	1.08	1.17	1.12	1.29	1.13	1.15	1.20
q	Z	1.56	0.92	0.64	0.74	0.70	0.77	0.69	0.76	1.13	0.44	0.66	0.77
d	Z	2.09	2.13	1.78	1.74	1.93	1.80	1.85	2.25	1.40	2.14	2.07	1.67

## 14 LERWICK

1966

## (a) Disturbances without sudden commencement

All times GMT

Serial Number	From		To		Range ( $\gamma$ )			Notes
	Date	Hour	Date	Hour	H	D	Z	
1a	13 Mar.	17	14 Mar.	19	467	377	482	H from DRPVM Did not register on La Cour
2a	23 Mar.	08	23 Mar.	24	934	444	523	
3a	28 Mar.	09	29 Mar.	05	639	276	472	
4a	3 Sept.	09	4 Sept.	23	(2400)	1314	1398	
5a	4 Oct.	20	5 Oct.	21	623	223	305	
6a	14 Dec.	13	15 Dec.	03	743	336	448	

## (b) Disturbances with sudden commencement (ssc)

All times GMT

Serial Number	Date	Time of sudden commencement	End of disturbance		With initial reversed stroke			Magnitude of main stroke ( $\gamma$ )			Range of following disturbance ( $\gamma$ )		
			Date	Hour	H	D	Z	H	D	Z	H	D	Z
1b	1 Apr.	12 38	2 Apr.	07	Yes	Yes	Yes	$\gamma$ +28	$\gamma$ -17	$\gamma$ +6	244	241	332
2b	25 May	23 27	27 May	03	No	No	No	+25	-4	-8	928	295	340
3b	31 May	03 42	1 June	07	No	Yes	No	+11	-15	-2	621	184	403
4b	15 July	15 00	-	-	Yes	No	Yes	+17	-5	-3	small		
5b	29 Aug.	13 15	30 Aug.	06	Yes	Yes	Yes	+53	-32	+12	316	295	325
6b	30 Aug.	11 13	31 Aug.	03	Yes	Yes	Yes	+69	†	-25	1078	351	530
7b	23 Sept.	08 56	23 Sept.	24	Yes	Yes	No	(+8)	(+24)	(+3)‡	262	85	173
8b	15 Oct.	09 55	16 Oct.	23	Yes	Yes	Yes	(+17)	(+20)	(-5)§	185	165	139
9b	17 Nov.	17 21	-	-	Yes	Yes	Yes	+16	-6	+6	small		

In the case of an ssc\*, that is, an ssc preceded, on at least one component, by one or more small oscillations, timing of the sudden commencement has been made from the main stroke.

† Three consecutive sudden commencements -8, +21, -18.

‡ At time of changing chart.

§ From fluxgate magnetometer, no La Cour records.

## (c) Disturbances due to solar flare (sfe)

All times GMT

Serial Number	Date	Commence-ment	Max.	End	Movement ( $\gamma$ )			K	K†	Notes
					H	D	Z			
1c	20 Mar.	09 55	09 59	10 11	-25	+12	+5	2	1	Solar flare ended 1345 SEA. Complete SWF. SEA. Complete SWF. SEA. Severe SWF. SEA. Severe SWF.
2c	30 Mar.	12 48	12 53	13 08	-17	-16	+9	2	2	
3c	28 Aug.	15 26	15 35	15 47	-7	-21	+9	2	2	
4c	18 Sept.	14 54	15 01	15 12	-3	-4	+3	1	1	
5c	21 Sept.	09 33	09 36	09 47	-10	+2	+1	1	1	

SEA = Sudden enhancement of atmospherics.

SWF = Short wave fade out.

## AURORAL LOG

15 LERWICK

1966

	GMT	17	18	19	20	21	22	23	24	01	02	03	04	05	06	07	Notes
Jan.	2/3	X	X	X	O	X	X	X	X	X	O	O	X	X	X	X	
	3/4	O	O	O	O	O	O	X	O	X	O	X	O	O	O	X	
	4/5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	5/6	X	X	X	X	X	X	X	O	O	O	O	X	X	X	X	
	6/7	X	X	X	X	X	X	X	O	X	X	X	X	X	X	X	
	12/13		X	X	X	X	X	X	X	L	X	X	X	X	X	X	HB(1)
	13/14		X	X	X	X	X	O	X	X	X	X	X	X	X	X	
	14/15		X	X	X	X	X	X	X	X	X	X	X	X	O	O	
	15/16		X	X	X	X	X	X	X	O	O	O	O	X	X	O	
	20/21		X	X	L	L	X	O	X	X	X	X	X	X	X		HA,N(1)
	24/25		X	X	O	O	O	O	O	O	O	O	O	O	O		
	30/31		X	X	X	X	X	X	X	O	O	X	X	O	X		
Feb.	4/5		X	X	X	X	X	X	X	X	X	X	O	O	O		
	6/7		X	O	O	O	O	O	O	O	O	X	X	X	X		
	7/8			O	O	O	X	X	O	O	O	X	O	X	X		
	8/9			X	O	X	X	X	X	X	X	X	X	X	X		
	9/10			O	O	O	O	L	X	X	X	X	X	X	X		N(1)
	10/11			O	X	X	L	X	X	X	X	X	X	X	X		HA,N(1-3)
	11/12			X	X	X	X	X	X	O	L	O	O	O	O		HN(1)
	12/13			X	X	O	O	X	X	O	X	X	X	X	X		
	13/14			O	O	O	O	O	O	O	O	O	X	X	O		
	14/15			O	O	O	O	O	X	O	O	O	O	O	O	X	
	15/16			O	X	O	O	X	X	X	X	X	X	O	O		
	16/17			X	X	X	X	O	X	X	X	O	X	O			
	17/18			X	X	X	X	X	X	X	O	X	O	O			
	18/19			O	O	O	O	O	O	O	O	O	O	O			
	25/26			X	X	X	X	X	O	O	O	X	X	X			
	27/28			X	X	O	X	X	X	X	X	X	X	X			
	28/1			X	X	X	X	X	X	X	X	O	O	O			

"In order to save space all nights during which the sky was overcast throughout have been omitted from the table; otherwise a symbol is given for each hourly observation during the hours of darkness according to the following code;"

L = aurora is observed

O = observing conditions are good and aurora is clearly absent

X = observing conditions made a decision about the presence of aurora impossible

? = aurora is suspected but observing conditions are not good enough for a firm decision.

## AURORAL LOG

35

15 LERWICK (contd)

1966

	GMT	17	18	19	20	21	22	23	24	01	02	03	04	05	06	07	Notes
Mar.	2/3				O	O	X	O	O	X	X	X	X				
	4/5				O	X	X	X	X	X	X	X	X				
	8/9				O	O	O	O	O	O	O	O	O				
	10/11				X	X	O	X	X	X	X	X	X				
	12/13				O	O	O	O	O	O	O	O	X				
	13/14				O	L	L	L	L	L	L	L	L				HA, RB, HN(1-2)
	17/18				X	L	X	L	L	L	L	O	O				HA, HB, HN(1)
	21/22				O	O	O	L	O	X	X	X	X				N(1)
	22/23				O	O	X	O	X	X	X	X	X				
	23/24					L	L	L	L	X	X	L	X				HA, HN(1-2)
	24/25					X	X	X	X	X	O	X	X				
	25/26					X	X	X	O	X	O	O	X				
	27/28					O	O	O	O	X	X	X	X				
	30/31					X	X	X	X	O	O	X	O				
Apr.	GMT	17	18	19	20	21	22	23	24	01	02	03	04	05	06	07	
	1/2					X	X	X	X	X	X	O	X				
	2/3					O	O	O	O	X	X	X	X				
	3/4					X	X	X	X	O	O	O	O				
	8/9					O	L	O	O	O	O	O	O				HN, RB, HA(1-2)
	9/10						O	O	O	O	O	O	O				
	10/11						O	O	O	O	O	O	O				
	11/12						X	X	O	O	O	X	X				
	12/13							O	O	O	X	X	X				
	15/16							O	O	O	O	O					
	16/17							O	O	O	O	O					
	17/18							O	X	X	X						
	21/22							O	O	X	X						

When aurora was observed a brief note has been added describing the structure, form and brightness according to the following code:-

Structure. H = homogeneous  
S = striated  
R = rayed

Form. A = arc  
B = band  
P = patch  
V = veil  
R = rays  
N = not identifiable

Brightness 1 = comparable with Milky Way  
Index. 2 = comparable with moonlit cirrus cloud  
3 = comparable with brightly moonlit cirrus cloud or moonlit cumulus cloud  
4 = much brighter than 3

Complete definitions of these terms are given in the International Auroral Atlas (1963).

## AURORAL LOG

15 LERWICK (contd)

1966

	GMT	17	18	19	20	21	22	23	24	01	02	03	04	05	06	07	Notes
Aug.	29/30					X	X	X	O	L	L	O					N,R,B(1-3)
	GMT	17	18	19	20	21	22	23	24	01	02	03	04	05	06	07	Notes
Sept.	3/4					L	L	L	X	X	X	X					RB,C(2-4)
	4/5					X	O	X	X	X	X	X					
	5/6					X	X	X	X	X	X	X					
	7/8					O	X	X	X	X	O	X					
	12/13					X	X	O	O	O	O	O					
	13/14					O	X	X	X	X	X	X					
	14/15					O	L	X	X	X	X	X					N(1)
	15/16					L	X	X	X	X	X	X					N(1)
	17/18					O	O	O	O	O	X	X					
	21/22				X	X	X	X	X	X	X	X	X				
	22/23				X	X	X	X	O	O	X	X	X				
	23/24				O	O	X	X	X	X	O	X	X				
	26/27				X	X	X	X	X	X	X	X	O				
	27/28				X	X	X	X	X	X	X	X	O				
	GMT	17	18	19	20	21	22	23	24	01	02	03	04	05	06	07	Notes
Oct.	2/3			X	X	X	X	X	X	X	X	X	X	X			
	3/4			X	X	X	X	X	X	X	X	X	X	X			
	4/5		X	X	X	L	X	X	L	L	X	X	X	X	X		RB,RA,HV(1-3)
	5/6		X	X	X	X	X	X	X	X	X	X	X	X	X		
	6/7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	7/8	X	O	O	O	O	O	X	X	X	X	X	X	X	X	X	
	8/9	X	X	X	X	X	X	X	X	X	X	X	X	O	O	O	
	9/10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	11/12	X	X	X	X	X	X	X	O	O	O	O	O	O	X	X	
	12/13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	15/16	X	X	X	X	L	L	L	X	X	X	O	O	X	X	X	RA,HB,N(1-2)
	16/17	X	X	X	L	L	L	X	X	X	X	X	X	X	X	X	N(1)
	21/22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	22/23	X	X	X	X	X	X	X	X	X	X	O	X	X	X	X	
	23/24	X	X	X	X	X	X	X	X	X	X	O	X	X	X	X	
	24/25	X	X	X	X	X	X	X	O	O	X	X	X	X	X	X	
	25/26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	26/27	X	X	O	X	X	X	X	X	X	X	X	X	X	X	X	
	27/28	X	X	X	X	O	O	O	X	X	O	O	O	O	X	X	
	28/29	X	X	X	X	X	X	O	X	X	O	O	X	X	X	X	
	29/30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	31/1	X	X	X	L	O	O	X	X	X	X	X	X	X	X	X	N(1)

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## AURORAL LOG

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15 LERWICK (contd.)

1966

	GMT	17	18	19	20	21	22	23	24	01	02	03	04	05	06	07	Notes
Nov.	1/2	O	O	X	X	X	X	X	X	X	X	X	X	X	X	X	
	3/4	O	O	X	X	X	X	X	X	X	X	X	X	X	X	X	
	4/5	X	X	X	X	X	O	X	O	O	O	O	O	X	X	X	HB, HA(1)
	6/7	O	X	X	X	L	L	L	X	X	X	X	O	X	X	X	
	7/8	X	X	X	L	L	X	X	X	X	X	X	X	X	X	X	
	8/9	O	O	O	O	O	O	O	O	X	X	X	O	X	O	O	
	9/10	O	O	O	X	O	X	X	X	O	X	X	O	O	X	X	
	10/11	O	O	O	L	L	L	L	X	O	O	O	O	O	O	O	N(1)
	11/12	X	X	X	X	X	X	X	X	X	X	X	X	O	X	X	
	12/13	X	X	O	O	O	O	O	O	O	X	X	X	X	X	X	
	13/14	O	O	O	O	O	O	X	X	O	X	X	O	O	X	X	
	14/15	O	O	O	O	O	X	X	O	X	X	X	X	X	X	X	
	15/16	O	L	X	X	O	X	O	O	O	O	O	O	O	O	O	HB(1)
	16/17	X	X	X	O	O	O	O	X	X	X	L	O	O	X	X	N(1)
	17/18	O	O	X	L	L	X	X	X	O	O	O	O	O	X	X	HA(1)
	18/19	O	L	L	O	X	X	O	L	X	X	X	X	X	O	O	N(1)
	19/20	X	X	X	X	L	X	O	O	O	O	X	O	O	X	X	N(1)
	20/21	X	X	X	X	X	X	X	O	O	X	X	X	X	X	X	
	22/23	O	O	O	O	O	O	O	O	X	X	X	X	X	X	X	
	23/24	X	X	X	X	X	X	X	X	X	X	X	O	O	O	O	
	24/25	O	O	O	X	X	X	X	X	X	X	X	X	X	X	X	
	25/26	O	O	O	O	O	X	X	O	X	X	X	X	X	O	X	
	27/28	X	X	X	X	X	X	X	X	X	X	X	X	X	O	O	
	28/29	X	X	X	X	O	X	X	X	X	X	X	X	X	X	X	
	30/1	X	X	X	X	X	X	X	X	O	O	X	X	O	X	O	
Dec.	GMT	17	18	19	20	21	22	23	24	01	02	03	04	05	06	07	Notes
	2/3	X	X	X	X	X	X	X	X	O	O	O	O	O	X	X	
	3/4	X	X	O	X	X	X	O	X	X	X	X	X	X	X	X	
	4/5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	5/6	X	X	X	X	L	X	X	X	X	L	X	X	X	X	O	N(1)
	6/7	X	O	O	X	X	O	X	X	X	X	X	X	X	O	X	
	8/9	X	X	X	X	O	O	O	X	X	X	X	X	X	X	X	N(1) 2330h
	9/10	X	O	X	X	O	O	O	O	O	X	X	X	X	O	X	
	10/11	O	O	O	O	O	X	X	X	O	O	O	O	O	X	X	
	11/12	O	O	O	X	X	X	O	O	X	X	X	O	X	X	O	
	12/13	X	X	X	X	O	X	X	X	X	X	X	O	O	X	X	
	13/14	X	O	O	O	O	O	O	O	X	O	O	O	O	O	O	
	14/15	L	L	L	L	L	L	L	X	X	X	X	X	X	X	X	R, HB, RA, RB(1-3)
	16/17	X	X	O	O	X	X	X	X	X	X	X	X	X	X	X	
	17/18	X	X	X	X	X	X	X	X	X	X	O	X	X	X	X	
	18/19	O	O	X	O	X	X	X	X	O	O	O	O	O	O	O	
	19/20	X	X	X	X	X	X	X	X	X	O	X	X	O	X	X	
	20/21	X	X	X	X	X	X	X	X	X	X	O	X	X	X	X	
	23/24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	24/25	X	X	X	X	X	X	X	O	X	X	O	X	X	X	O	
	28/29	X	X	X	X	O	X	O	X	X	X	X	X	X	X	X	
	29/30	O	X	X	X	X	O	O	O	O	O	O	X	X	X	X	
	30/31	O	O	O	O	X	O	X	X	X	X	X	X	X	X	X	
	31/1	X	X	X	X	O	X	O	X	O	O	X	X	X	X	X	

When aurora was observed a brief note has been added describing the structure, form and brightness according to the following code:-

Structure. H = homogeneous  
S = striated  
R = rayed

Form. A = arc  
B = band  
P = patch  
V = veil  
R = rays  
N = not identifiable

Brightness Index. 1 = comparable with Milky Way  
2 = comparable with moonlit cirrus cloud  
3 = comparable with brightly moonlit cirrus cloud or moonlit cumulus cloud  
4 = much brighter than 3

Complete definitions of these terms are given in the International Auroral Atlas (1963).

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1966

1960														
DATE	$\Phi_1$	FORMS	TIME	$\Phi_2$	DATE	$\Phi_1$	FORMS	TIME	$\Phi_2$	DATE	$\Phi_1$	FORMS	TIME	$\Phi_2$
JANUARY					MAY					OCTOBER				
1-2	61	N	0300		12-13	61	N	2250-2350		4-5	55	HA, R	1935-0300	61
20-21	60	HA	1930-2100	67	25-26	59	N	2300		15-16	58	HA, RA, P	2005-2345	
					30-31	58	N	2130-0005		16-17	61	HA	1950-0015	
										17-18	61	N	2350-0100	
										22-23	61	N	2350-0100 and 0250	
										24-25	61	N	2200	
FEBRUARY					JULY					25-26	61	N	0450	
3-4	59	HA, RA	2040	65						27-28	61	N	2350	
9-10	63	N	2300		8-9	54	HB	2210-2230	59	31-1	63	N	2000	
10-11	60	N, RA	2110-2235	67										
11-12	63	N	0150											
23-24	58	N	0030											
24-25	61	N	2250											
					AUGUST									
					13-14	61	N	0100-0300		6-7	61	HA, HB	1850-2315	
MARCH					19-20	60	N	2250-2400		7-8	63	N	2005-2020	
9-10	61	RA	1940-2115	64	23-24	57	RA	2250-0200	66	10-11	63	N	2010-0045	
13-14	53	HA, RA	2000-0500	63	24-25	58	N	2100-2358		11-12	63	R, P	0315-0345	
17-18	58	N, HA	2050-0250	66	25-26	58	N	2015-2315		12-13	61	N	1900-1950 and 0001-0030	
21-22	60	N	2250		29-30	59	RA, RB	0050-0250		14-15	63	N	2345-0030	
22-23	60	N	2150-2300							16-17	63	N	0250	
23-24	54	HA, P, R	2025-0253	64						17-18	58	HA	1715-0100	
28-29	54	HA, HB	2000-0250	59						18-19	59	HA, HB	1810-0300	
					SEPTEMBER					19-20	63	N	2050-0130	
										28-29	58	N	1815-0015	

The above table was compiled in the Balfour Stewart Auroral Laboratory of the University of Edinburgh from all data available for the sector between geomagnetic longitudes 70° and 90°E., using mainly observations made at British Meteorological Office stations and by British voluntary observers on land and in ships and aircraft, but including also data from Iceland, Faroe, Ireland and France. Acknowledgment is made to the authorities in these countries responsible for the organization and collection of observations.

In the table,  $\Phi_1$  is the lowest geomagnetic latitude from which aurora was seen in the longitudes considered.

On any night, if more than a glow on the northern horizon was seen from the British Isles, the other forms reported are listed and the period of time (GMT) during which the display was observed from the British Isles is stated.

The standard abbreviations used are those defined in the International Auroral Atlas, (1963). The system of reporting defined therein came into operation on 1 January 1964.

N denotes an aurora, the form of which is not identifiable because of adverse observing conditions. It includes the glow on the horizon, since this is the upper part of a display, the identifiable portion of which is below the horizon.

HA = homogeneous arc; RA = rayed arc; HB = homogeneous band; RB = rayed band; R = isolated rays; P = patch of diffuse luminosity. The two types of pulsing of auroral forms described as pulsation and flaming are designated by the symbols  $p_1$  and  $p_2$  respectively.

Under  $\Phi_2$  is given the lowest geomagnetic latitude in which aurora was situated overhead in the longitudes considered. The absence of direct visual observations  $\Phi_2$  is deduced from measurements of elevation made in other latitudes, assuming a height of 100 km for the lower edges of arcs and bands.

Because of varying observing conditions, these data are in some cases incomplete; aurora may have been overhead in latitudes lower than those listed and other forms may have occurred. Fuller details may be obtained from the laboratory on request.





POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

The potential gradient is reckoned as positive when the potential increases upwards. The small <sup>+</sup> denotes a non-fair weather hour (see Introduction). No entry is made for hours with hydrometeors and dashes are inserted for hours of defective record. The number of hours or days used in computing each mean is shown in round brackets. The mean for 0a days (see Introduction) and the figure in round brackets, which is the number of days used in computing this mean, are entered in square brackets.

POTENTIAL GRADIENT (close to the ground, over an open level surface)  
Mean values for hours without hydrometeors and for fair weather hours

The potential gradient is reckoned as positive when the potential increases upwards. The small + denotes a non-fair weather hour (see Introduction). No entry is made for hours with hydrometers and dashes are inserted for hours of defective record. The number of hours or days used in computing each mean is shown in round brackets. The mean for 0a days (see Introduction) and the figure in round brackets, which is the number of days used in computing this mean, are entered in square brackets.

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

The potential gradient is reckoned as positive when the potential increases upwards. The small <sup>†</sup>denotes a non-fair weather hour (see Introduction). No entry is made for hours with hydrometers and dashes are inserted for hours of defective record. The number of hours or days used in computing each mean is shown in round brackets. The mean for 0a days (see Introduction) and the figure in round brackets, which is the number of days used in computing this mean, are entered in square brackets.

17 LERWICK		Factor 2.56																						JULY 1966			
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	
		volts per metre																									
1					180 <sup>+</sup>						190 <sup>+</sup>	90 <sup>+</sup>															
2											135 <sup>+</sup>	125 <sup>+</sup>	105 <sup>+</sup>	100 <sup>+</sup>	110 <sup>+</sup>	100 <sup>+</sup>	105 <sup>+</sup>	105 <sup>+</sup>	135 <sup>+</sup>	110 <sup>+</sup>		140 <sup>+</sup>	140 <sup>+</sup>	110 <sup>+</sup>	100 <sup>+</sup>	103 (15)	
3 Oa		110 <sup>+</sup>	90 <sup>+</sup>	90 <sup>+</sup>	95 <sup>+</sup>	110 <sup>+</sup>	125 <sup>+</sup>	140 <sup>+</sup>	110 <sup>+</sup>	260 <sup>+</sup>	135 <sup>+</sup>	90 <sup>+</sup>	95 <sup>+</sup>	95	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	205	215	205	145	145	160 <sup>+</sup>	125	130	125	145 <sup>+</sup>
4		75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	60 <sup>+</sup>	75 <sup>+</sup>					135 <sup>+</sup>	135 <sup>+</sup>	145 <sup>+</sup>	200 <sup>+</sup>	225 <sup>+</sup>	170 <sup>+</sup>		205	215	205	145	145	160 <sup>+</sup>			145 <sup>+</sup>	
5 Oa		125 <sup>+</sup>	105 <sup>+</sup>	100 <sup>+</sup>	125 <sup>+</sup>	90 <sup>+</sup>	85 <sup>+</sup>	90 <sup>+</sup>					125 <sup>+</sup>		140 <sup>+</sup>			100 <sup>+</sup>	110	100	110	125	130	125		95	
6		85	85	95	100	100	120	110	110 <sup>+</sup>	120 <sup>+</sup>	120 <sup>+</sup>	105 <sup>+</sup>	125 <sup>+</sup>	130 <sup>+</sup>	100	130	140	135	125	135	165						
7 Oa			110	95	145	150	150	160	180	215	225	165	175 <sup>+</sup>	170 <sup>+</sup>	170	205	205	190	185	190 <sup>+</sup>	215 <sup>+</sup>	215 <sup>+</sup>	225				
8																											
9			135 <sup>+</sup>	115 <sup>+</sup>	125 <sup>+</sup>	150 <sup>+</sup>	150 <sup>+</sup>	170	140	140	115	100	200	195 <sup>+</sup>				190 <sup>+</sup>	180 <sup>+</sup>	175 <sup>+</sup>	160 <sup>+</sup>	150	135 <sup>+</sup>	130 <sup>+</sup>	110		
10		95	100	100 <sup>+</sup>		120 <sup>+</sup>	125 <sup>+</sup>	150	120									130	120	115 <sup>+</sup>	130 <sup>+</sup>	125	105	105	100		
11 Oa		95	100	100	90	95	100	100 <sup>+</sup>	95 <sup>+</sup>	95 <sup>+</sup>	95 <sup>+</sup>	95 <sup>+</sup>		100 <sup>+</sup>	95 <sup>+</sup>	95 <sup>+</sup>		125 <sup>+</sup>	125 <sup>+</sup>	140 <sup>+</sup>	125	135	125	105	95	106 (22)	
12		90	70	95															180 <sup>+</sup>								
13								205 <sup>+</sup>	260	270	185 <sup>+</sup>										145	155	135				
14				125 <sup>+</sup>	115	125	125	115 <sup>+</sup>																			
15																	110 <sup>+</sup>	135 <sup>+</sup>				160	160	150	135		
16		75	100			75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	95		90 <sup>+</sup>	90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	105 <sup>+</sup>	100 <sup>+</sup>	90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>		135 <sup>+</sup>	130 <sup>+</sup>	120		
17 Oa		115	100	95	90	95	95	95 <sup>+</sup>	90 <sup>+</sup>	80 <sup>+</sup>	90 <sup>+</sup>		95 <sup>+</sup>	105 <sup>+</sup>	115 <sup>+</sup>	120 <sup>+</sup>	95 <sup>+</sup>	115	135	125	125	140	140	130	115	109 (23)	
18 Oa		100	115	125	115	170	190	215	210	215	215	215	180	145	170	260	240	225	250	320	330	180	190	185	225	199 (24)	
19 Oa		200	200	180	145 <sup>+</sup>	115 <sup>+</sup>	160 <sup>+</sup>	290	250	160	215	205	270	250 <sup>+</sup>	280 <sup>+</sup>	340 <sup>+</sup>	385 <sup>+</sup>									228 (16)	
20								260 <sup>+</sup>	190 <sup>+</sup>			85 <sup>+</sup>	120	125	135	155	155	150	155	155	115 <sup>+</sup>	135 <sup>+</sup>	135 <sup>+</sup>	170 <sup>+</sup>	250 <sup>+</sup>		
21		270 <sup>+</sup>	205 <sup>+</sup>	215 <sup>+</sup>	180 <sup>+</sup>	180 <sup>+</sup>	190 <sup>+</sup>	200 <sup>+</sup>	200 <sup>+</sup>	175 <sup>+</sup>	115 <sup>+</sup>	80 <sup>+</sup>	120 <sup>+</sup>	100 <sup>+</sup>	80 <sup>+</sup>	75 <sup>+</sup>	70 <sup>+</sup>	55 <sup>+</sup>				135 <sup>+</sup>	165 <sup>+</sup>				
22				115 <sup>+</sup>	135 <sup>+</sup>	130 <sup>+</sup>	115 <sup>+</sup>	125 <sup>+</sup>	110 <sup>+</sup>	100 <sup>+</sup>	120 <sup>+</sup>	115 <sup>+</sup>	115 <sup>+</sup>	70 <sup>+</sup>	55 <sup>+</sup>	70 <sup>+</sup>					125 <sup>+</sup>	135 <sup>+</sup>	135 <sup>+</sup>	145 <sup>+</sup>	140 <sup>+</sup>		
23		105 <sup>+</sup>	115 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	100 <sup>+</sup>			115 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	100 <sup>+</sup>	105 <sup>+</sup>	105 <sup>+</sup>	85 <sup>+</sup>	95 <sup>+</sup>								130 <sup>+</sup>	165 <sup>+</sup>		
24		180 <sup>+</sup>	210 <sup>+</sup>	130 <sup>+</sup>	115 <sup>+</sup>	100 <sup>+</sup>			125 <sup>+</sup>	125	130	125	120	135 <sup>+</sup>	145 <sup>+</sup>	165	180 <sup>+</sup>	145 <sup>+</sup>					135	120	100		
25		115	100	90	80			130 <sup>+</sup>	145 <sup>+</sup>	120 <sup>+</sup>	115 <sup>+</sup>	120 <sup>+</sup>	100 <sup>+</sup>	120 <sup>+</sup>	160 <sup>+</sup>		105 <sup>+</sup>	135 <sup>+</sup>	135 <sup>+</sup>	130	115	130	130	115			
26		105	90	100	90			115 <sup>+</sup>	105 <sup>+</sup>	95 <sup>+</sup>	95 <sup>+</sup>	105 <sup>+</sup>	95 <sup>+</sup>	115 <sup>+</sup>	100 <sup>+</sup>	105 <sup>+</sup>		100 <sup>+</sup>	100	85	70	115	100 <sup>+</sup>	70			
27					85	75	85	100 <sup>+</sup>	110 <sup>+</sup>	115 <sup>+</sup>	80 <sup>+</sup>	130 <sup>+</sup>	135 <sup>+</sup>	120	115	110	95	95	100								
28					115	140	135	145		160	170																
29		175 <sup>+</sup>	250 <sup>+</sup>	190 <sup>+</sup>	205 <sup>+</sup>	180 <sup>+</sup>	270 <sup>+</sup>	225 <sup>+</sup>	225 <sup>+</sup>								180 <sup>+</sup>	190 <sup>+</sup>	125 <sup>+</sup>	160 <sup>+</sup>	165 <sup>+</sup>	135 <sup>+</sup>	125 <sup>+</sup>	190 <sup>+</sup>	215 <sup>+</sup>	260 <sup>+</sup>	
30		45 <sup>+</sup>	45 <sup>+</sup>	35 <sup>+</sup>	45 <sup>+</sup>	45 <sup>+</sup>	55 <sup>+</sup>	60 <sup>+</sup>	55 <sup>+</sup>	70 <sup>+</sup>		50 <sup>+</sup>	40 <sup>+</sup>			75 <sup>+</sup>							115 <sup>+</sup>	100 <sup>+</sup>	100		
31		80										105 <sup>+</sup>	140 <sup>+</sup>	160	125	85 <sup>+</sup>						130 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	125 <sup>+</sup>	85	
Mean		118 (19)	120 (20)	113 (21)	112 (20)	117 (21)	131 (18)	147 (22)	146 (22)	141 (19)	136 (20)	120 (21)	127 (22)	130 (21)	130 (20)	137 (20)	163 (14)	135 (20)	145 (16)	146 (16)	144 (18)	141 (18)	139 (20)	127 (19)	132 (19)	133	
Fair Weather Mean		105 (11)	106 (11)	108 (9)	101 (9)	116 (8)	126 (8)	180 (6)	179 (8)	178 (7)	177 (6)	163 (6)	178 (5)	129 (5)	136 (6)	171 (6)	173 (6)	157 (8)	149 (10)	151 (8)	151 (9)	139 (11)	149 (9)	124 (9)	116 (12)	144	
Mean of Oa days																									[148 (7)]		

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

17	LERWICK													Factor 2.55													AUGUST, 1966						
	Hour GMT		2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean								
	volts per metre																																
1			80 <sup>+</sup>	90 <sup>+</sup>	95 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	145	155 <sup>+</sup>											65	80	90	90	90									
2	85	90	90	75	85	145	100 <sup>+</sup>	90 <sup>+</sup>											95 <sup>+</sup>	95 <sup>+</sup>	100 <sup>+</sup>												
3				110	160	225	235	290	405	495									200 <sup>+</sup>	215 <sup>+</sup>	290 <sup>+</sup>	270 <sup>+</sup>	245 <sup>+</sup>	270									
4	220	280	280	280	280	260	205 <sup>+</sup>	195 <sup>+</sup>	150 <sup>+</sup>	110 <sup>+</sup>	125 <sup>+</sup>	90 <sup>+</sup>	65 <sup>+</sup>	325 <sup>+</sup>	335 <sup>+</sup>	405 <sup>+</sup>	300 <sup>+</sup>	235 <sup>+</sup>	200 <sup>+</sup>	215 <sup>+</sup>													
5 Oa	130	145	105	105	100	110				180 <sup>+</sup>	140 <sup>+</sup>	135 <sup>+</sup>	140	155	125	110	135 <sup>+</sup>	135 <sup>+</sup>	130 <sup>+</sup>	155 <sup>+</sup>			170 <sup>+</sup>	190 <sup>+</sup>	137 (19)								
6 Oa	200 <sup>+</sup>	180 <sup>+</sup>	170 <sup>+</sup>	170 <sup>+</sup>	145 <sup>+</sup>	145 <sup>+</sup>			105 <sup>+</sup>	125	120	130 <sup>+</sup>	110 <sup>+</sup>	105	110	95	80	90	90	85	85	80	90 <sup>+</sup>	130 <sup>+</sup>	120 (22)								
7 Oa	160 <sup>+</sup>	245 <sup>+</sup>	255 <sup>+</sup>	190 <sup>+</sup>	145 <sup>+</sup>	200 <sup>+</sup>	200 <sup>+</sup>	140 <sup>+</sup>	145 <sup>+</sup>	135	125	135	130	125	135	135	145	155	135	110	110 <sup>+</sup>	120 <sup>+</sup>	125	125	151 (24)								
8 Oa	105	105	115	100	100	125	155	145	120	110	130	130	125	110	125	130	130	125	120	135	105	125	130	125	122 (24)								
9 Oa	115	95	110	110	100	100	100	150	120	100	105	140	160	170	180	195	180	195	215	190	170 <sup>+</sup>	235 <sup>+</sup>	280 <sup>+</sup>	260 <sup>+</sup>	157 (24)								
10(Oa)	245 <sup>+</sup>	270 <sup>+</sup>	235 <sup>+</sup>	185 <sup>+</sup>	190 <sup>+</sup>	190 <sup>+</sup>	195 <sup>+</sup>	220 <sup>+</sup>	260 <sup>+</sup>	205 <sup>+</sup>	190 <sup>+</sup>	150 <sup>+</sup>	170 <sup>+</sup>												216 (13)								
11(Oa)			-	-	-	-	-	-	100 <sup>+</sup>	100 <sup>+</sup>	100	90 <sup>+</sup>	95 <sup>+</sup>	90	95	85	95	110	100	100	110	105	95	85	97 (16)								
12 Oa	80	55	55	55	60	75	85	95	110	120	105	105	110	120	100	125	120	105	105	100	100	110	90	90	95 (24)								
13 Oa	85	80	65	65	65	65	90	95	100	95	100 <sup>+</sup>	100	100	100	120	120	110	120	125	145	135	125	120	105	101 (24)								
14	85	85	80			80 <sup>+</sup>	80 <sup>+</sup>	85 <sup>+</sup>	80 <sup>+</sup>	85 <sup>+</sup>	80 <sup>+</sup>		100			90 <sup>+</sup>	95 <sup>+</sup>	100 <sup>+</sup>	130 <sup>+</sup>	125 <sup>+</sup>	125	125	120	110									
15 Oa	100	95	90	90	85	85	100	90	100	100 <sup>+</sup>	105 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	110 <sup>+</sup>	110 <sup>+</sup>	135 <sup>+</sup>	140 <sup>+</sup>	150	145	150	155	145	140	113 (24)								
16	175	170	140																														
17 Oa				180 <sup>+</sup>	160 <sup>+</sup>	190 <sup>+</sup>	270 <sup>+</sup>	225 <sup>+</sup>	175 <sup>+</sup>	135 <sup>+</sup>	105 <sup>+</sup>	105 <sup>+</sup>	100 <sup>+</sup>	110 <sup>+</sup>	105 <sup>+</sup>	105 <sup>+</sup>	95 <sup>+</sup>	125 <sup>+</sup>	145 <sup>+</sup>	145 <sup>+</sup>	175 <sup>+</sup>	175	175	175	151 (21)								
18	100	90	90	80	90	-	425 <sup>+</sup>	390 <sup>+</sup>	245 <sup>+</sup>	215 <sup>+</sup>	-	-	135 <sup>+</sup>	135 <sup>+</sup>	-	-	100 <sup>+</sup>	95 <sup>+</sup>	110 <sup>+</sup>	100 <sup>+</sup>	-	-	-	-									
19			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
20	-	-	-	-	-	-	-	-	-	-	135 <sup>+</sup>	135 <sup>+</sup>	140	145	150 <sup>+</sup>	155 <sup>+</sup>	155	145	145	145	135	120	110	125									
21 Oa	100	95	80	65	85	90	100	100	125	180 <sup>+</sup>	170 <sup>+</sup>		135 <sup>+</sup>	145	135	145	150	170	130	135	135 <sup>+</sup>	125 <sup>+</sup>	95 <sup>+</sup>		122 (22)								
22	85 <sup>+</sup>	75 <sup>+</sup>	65	65	65	65	65	55	85	65 <sup>+</sup>							95 <sup>+</sup>	120	105			-	-										
23			-	-	-	-	-	90 <sup>+</sup>					105 <sup>+</sup>	105 <sup>+</sup>							125 <sup>+</sup>	120	80	55	85								
24	75	65	75	80	65	50	65	95	105	100	95	95	100	90	100	105	100	45 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	110 <sup>+</sup>	135 <sup>+</sup>	200 <sup>+</sup>	155 <sup>+</sup>									
25 Oa	125 <sup>+</sup>	125 <sup>+</sup>						225 <sup>+</sup>	145 <sup>+</sup>	145	135	140	150	160	155	150	135	130	125	170	160	145	200 <sup>+</sup>	180 <sup>+</sup>	173 (24)								
26 Oa	155 <sup>+</sup>	155 <sup>+</sup>	145 <sup>+</sup>	155 <sup>+</sup>	135 <sup>+</sup>	130 <sup>+</sup>	200 <sup>+</sup>	280 <sup>+</sup>	235 <sup>+</sup>	145 <sup>+</sup>	145 <sup>+</sup>	190 <sup>+</sup>	180 <sup>+</sup>	195 <sup>+</sup>	245	205	175	160	130 <sup>+</sup>	155 <sup>+</sup>	205 <sup>+</sup>	185 <sup>+</sup>	155	170	176 (24)								
27 Oa	120	120	110	105	105	125	120	125	125	125	110	125	125	125	110	105	95	100	110	120	125	130	130	155	119 (24)								
28 Oa	170	125	100	90	90	110	170	140	155	140	130	130	150	180	175	225	245	185 <sup>+</sup>				190 <sup>+</sup>	195 <sup>+</sup>	225 <sup>+</sup>	160 (24)								
29 Oa	200 <sup>+</sup>						270 <sup>+</sup>	205 <sup>+</sup>	180 <sup>+</sup>	155 <sup>+</sup>	190 <sup>+</sup>	235 <sup>+</sup>	280 <sup>+</sup>	300 <sup>+</sup>	335 <sup>+</sup>	345 <sup>+</sup>	345 <sup>+</sup>	270 <sup>+</sup>	290 <sup>+</sup>	280 <sup>+</sup>	270 <sup>+</sup>	225 <sup>+</sup>	225 <sup>+</sup>	200 <sup>+</sup>	242 (24)								
30	245 <sup>+</sup>	255 <sup>+</sup>	155 <sup>+</sup>	130	135 <sup>+</sup>	145 <sup>+</sup>	155 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	110 <sup>+</sup>	120 <sup>+</sup>	140 <sup>+</sup>	135 <sup>+</sup>	125 <sup>+</sup>	125 <sup>+</sup>	140 <sup>+</sup>	150 <sup>+</sup>	145 <sup>+</sup>	145 <sup>+</sup>	145 <sup>+</sup>	110 <sup>+</sup>	10 <sup>+</sup>	35										
31				80 <sup>+</sup>	75 <sup>+</sup>	100	135	145	180 <sup>+</sup>	170 <sup>+</sup>	140 <sup>+</sup>	135 <sup>+</sup>	145 <sup>+</sup>	155 <sup>+</sup>	140 <sup>+</sup>	140 <sup>+</sup>	140 <sup>+</sup>	140	110	100	95	95	75	85									
Mean	137 (23)	136 (22)	122 (22)	115 (23)	114 (23)	127 (23)	157 (23)	157 (25)	155 (24)	147 (25)	124 (24)	130 (21)	133 (23)	144 (24)	152 (22)	155 (22)	146 (24)	137 (25)	136 (24)	135 (25)	141 (22)	138 (23)	141 (24)	147 (23)	139								
Fair Weather Mean	116 (15)	113 (15)	103 (16)	100 (16)	102 (15)	115 (15)	118 (12)	128 (13)	147 (10)	148 (12)	115 (10)	122 (9)	130 (11)	129 (13)	137 (14)	137 (14)	136 (14)	132 (14)	129 (14)	124 (14)	119 (14)	119 (14)	110 (15)	129 (15)	123								
																							Mean of Oa days			[144 (17)]							

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

17 LERWICK		Factor 2-53												SEPTEMBER 1966														
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean		
volts per metre														95	180 <sup>+</sup>	205 <sup>+</sup>	125 <sup>+</sup>	190 <sup>+</sup>	75	80	90	100	120	125	135	105		
1 Oa	85	60	75	75	80	100	125	150	125	145 <sup>+</sup>	130 <sup>+</sup>	110 <sup>+</sup>	95	90 <sup>+</sup>	85 <sup>+</sup>	85 <sup>+</sup>	95 <sup>+</sup>	100 <sup>+</sup>	110 <sup>+</sup>	140 <sup>+</sup>	120 <sup>+</sup>	140 <sup>+</sup>	135 <sup>+</sup>	145 <sup>+</sup>	108	(24)		
2	180 <sup>+</sup>	190 <sup>+</sup>	105 <sup>+</sup>	110 <sup>+</sup>	155 <sup>+</sup>	190 <sup>+</sup>	205 <sup>+</sup>	170 <sup>+</sup>	65 <sup>+</sup>	90 <sup>+</sup>	55 <sup>+</sup>	55 <sup>+</sup>	200 <sup>+</sup>	180 <sup>+</sup>	205 <sup>+</sup>	125 <sup>+</sup>	190 <sup>+</sup>	75	80	90	100	120	125	135	105	85	(21)	
3 Oa	95 <sup>+</sup>	100	80	85 <sup>+</sup>			75 <sup>+</sup>	65 <sup>+</sup>		335 <sup>+</sup>	95 <sup>+</sup>	95 <sup>+</sup>	180	195	225	155 <sup>+</sup>	145 <sup>+</sup>	125 <sup>+</sup>	135 <sup>+</sup>	120 <sup>+</sup>	130 <sup>+</sup>	135 <sup>+</sup>	110 <sup>+</sup>	100 <sup>+</sup>				
4	110 <sup>+</sup>							100 <sup>+</sup>					100 <sup>+</sup>	95 <sup>+</sup>	105 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	110 <sup>+</sup>	130 <sup>+</sup>	180 <sup>+</sup>	200	215 <sup>+</sup>						
5	225 <sup>+</sup>			95 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	85 <sup>+</sup>	85 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
6				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
7				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
8				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
9				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
10				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
11				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
12				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
13				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
14				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
15				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
16				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
17 Oa				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
18				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
19				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
20				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
21 Oa				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
22 Oa				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
23 Oa				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
24				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
25				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
26				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
27				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
28				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
29				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
30				90 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>	50 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	80 <sup>+</sup>		85 <sup>+</sup>					
Mean	121	120	120	135	102	113	124	141	135	108	109	114	139	145	134	124	121	121	122	124	128	144	115	121	124			
Fair Weather Mean	94	86	99	93	86	100	119	134	131	114	145	153	137	163	117	121	129	123	122	123	126	120	109	123	119			
	(6)	(8)	(8)	(7)	(7)	(7)	(7)	(6)	(6)	(5)	(3)	(4)	(6)	(5)	(5)	(6)	(6)	(6)	(6)	(7)	(8)	(6)	(7)	(6)	(6)			
Mean of Oa days																									[111	(6)]		

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

17 LERWICK		Factor 2-53												OCTOBER 1966														
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean		
		volts per metre																										
1							-	-	-	-	-	180	110	100	75 <sup>+</sup>			55 <sup>+</sup>	90 <sup>+</sup>	85 <sup>+</sup>	95 <sup>+</sup>	105 <sup>+</sup>						
2															75 <sup>+</sup>	125 <sup>+</sup>						150	140	120	125			
3															120 <sup>+</sup>	120 <sup>+</sup>						95	85	85	80			
4		110	105	95	100	90	95	100			100	125 <sup>+</sup>	125 <sup>+</sup>	125 <sup>+</sup>	120 <sup>+</sup>	120 <sup>+</sup>		110	125	110	155	155	130	125	110			
5		75	65	55	55		65			90	125	125	130	110	120	110	110	140 <sup>+</sup>	160 <sup>+</sup>	190 <sup>+</sup>	155	155	130	125	110			
6		125	105	85 <sup>+</sup>																								
7 Oa		335 <sup>+</sup>	275 <sup>+</sup>	260	145	155	125	130	175	170	215	155	155	180	215	225	250	290	225 <sup>+</sup>	315 <sup>+</sup>	265 <sup>+</sup>	260	300	190	215	218 (24)		
8				125 <sup>+</sup>	110 <sup>+</sup>	90 <sup>+</sup>	95 <sup>+</sup>	100 <sup>+</sup>	85 <sup>+</sup>	85 <sup>+</sup>	95 <sup>+</sup>	90 <sup>+</sup>	90 <sup>+</sup>	100 <sup>+</sup>	110 <sup>+</sup>	105 <sup>+</sup>	120 <sup>+</sup>	110 <sup>+</sup>				90 <sup>+</sup>	90 <sup>+</sup>	75 <sup>+</sup>				
9 Oa		85 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>		80	90	90	110	110	130	100	85	95	100	125	135	130	135	170	155	130	100	90	85	108 (22)		
10		80	75	75	85	85	90	90	100	100	100					110 <sup>+</sup>	100 <sup>+</sup>			145 <sup>+</sup>	100 <sup>+</sup>	145 <sup>+</sup>	130 <sup>+</sup>	100 <sup>+</sup>	110 <sup>+</sup>			
11																												
12 Oa		100	90	90	80	90		110 <sup>+</sup>	135 <sup>+</sup>	135 <sup>+</sup>	125	125	135	155	200	215 <sup>+</sup>	170 <sup>+</sup>	220 <sup>+</sup>	200 <sup>+</sup>	325 <sup>+</sup>	290 <sup>+</sup>	290 <sup>+</sup>	200 <sup>+</sup>	190 <sup>+</sup>	170	169 (23)		
13 Oa		145 <sup>+</sup>	155 <sup>+</sup>	190 <sup>+</sup>	200 <sup>+</sup>	190 <sup>+</sup>	180 <sup>+</sup>	190 <sup>+</sup>	180 <sup>+</sup>	180 <sup>+</sup>	180 <sup>+</sup>	170 <sup>+</sup>	180 <sup>+</sup>	180 <sup>+</sup>	190 <sup>+</sup>	215 <sup>+</sup>	230 <sup>+</sup>	270 <sup>+</sup>	215 <sup>+</sup>	200 <sup>+</sup>	225 <sup>+</sup>	230 <sup>+</sup>	235 <sup>+</sup>	145 <sup>+</sup>	150 <sup>+</sup>	193 (24)		
14		90 <sup>+</sup>	135	135	145																							
15																			100 <sup>+</sup>	135 <sup>+</sup>	200	170	145	125				
16 Oa		120 <sup>+</sup>			125 <sup>+</sup>			125 <sup>+</sup>	125 <sup>+</sup>	125 <sup>+</sup>	125 <sup>+</sup>	130 <sup>+</sup>	110 <sup>+</sup>	120	110	110	110	145	170	190	215	190	170	100	125	137 (20)		
17		100	105	75	80	65									360 <sup>+</sup>	245 <sup>+</sup>	265 <sup>+</sup>											
18 Oa				240 <sup>+</sup>	280 <sup>+</sup>	260 <sup>+</sup>	270 <sup>+</sup>				325 <sup>+</sup>	315 <sup>+</sup>							415 <sup>+</sup>	370 <sup>+</sup>	315 <sup>+</sup>	280 <sup>+</sup>	405 <sup>+</sup>	415 <sup>+</sup>	435 <sup>+</sup>	366 (24)		
19																												
20			200 <sup>+</sup>	200 <sup>+</sup>	190 <sup>+</sup>	215 <sup>+</sup>		270 <sup>+</sup>				235 <sup>+</sup>	580 <sup>+</sup>			370 <sup>+</sup>		-	-	-	-	-	-	-	-			
21		-	-	-										280 <sup>+</sup>			180 <sup>+</sup>	280 <sup>+</sup>	190 <sup>+</sup>	235 <sup>+</sup>	135 <sup>+</sup>		215 <sup>+</sup>	125	120			
22		110	125			125	110 <sup>+</sup>	125 <sup>+</sup>	110 <sup>+</sup>		125 <sup>+</sup>				100 <sup>+</sup>		110 <sup>+</sup>			100 <sup>+</sup>	85 <sup>+</sup>	180 <sup>+</sup>						
23		65 <sup>+</sup>					65																					
24		125 <sup>+</sup>	100 <sup>+</sup>						135 <sup>+</sup>		75 <sup>+</sup>			85 <sup>+</sup>					135 <sup>+</sup>			90	90	80	80			
25		80			75 <sup>+</sup>	80 <sup>+</sup>	50 <sup>+</sup>		100 <sup>+</sup>														110	125				
26																												
27				100 <sup>+</sup>				110 <sup>+</sup>			90	80	90		90	100	100		110	120	135 <sup>+</sup>							
28		80	80	65	65	80	75	75			110 <sup>+</sup>			90	100	135 <sup>+</sup>	125 <sup>+</sup>				110	100	85	80				
29			90 <sup>+</sup>	90					90 <sup>+</sup>	100 <sup>+</sup>	85 <sup>+</sup>			100 <sup>+</sup>	125 <sup>+</sup>	125 <sup>+</sup>	125 <sup>+</sup>	110	125	125	125	120 <sup>+</sup>	100 <sup>+</sup>	90 <sup>+</sup>				
30		95 <sup>+</sup>				60 <sup>+</sup>					80 <sup>+</sup>		95 <sup>+</sup>	100 <sup>+</sup>	100 <sup>+</sup>	90 <sup>+</sup>	90 <sup>+</sup>	65 <sup>+</sup>			65 <sup>+</sup>	95	135					
31											125 <sup>+</sup>				100 <sup>+</sup>							135	135					
Mean		113 (17)	119 (15)	113 (14)	122 (14)	125 (12)	112 (11)	131 (14)	127 (9)	116 (14)	130 (16)	153 (12)	157 (12)	130 (15)	137 (17)	160 (17)	160 (14)	180 (13)	176 (15)	185 (16)	161 (17)	174 (17)	161 (18)	138 (17)	123 (14)	142		
Fair Weather Mean		96 (9)	98 (9)	104 (9)	94 (8)	94 (6)	94 (7)	93 (6)	128 (3)	107 (5)	126 (7)	127 (6)	117 (6)	121 (7)	141 (6)	134 (5)	151 (4)	157 (5)	132 (5)	153 (4)	145 (8)	148 (10)	138 (11)	112 (11)	123 (10)	122		
Mean of Oa days																								[198 (6)]				

**POTENTIAL GRADIENT** (close to the ground, over an open level surface)  
Mean values for hours without hydrometeors and for fair weather hours.

The potential gradient is reckoned as positive when the potential increases upwards. The small \* denotes a non-fair weather hour (see Introduction). No entry is made for hours with hydrometers and dashes are inserted for hours of defective record. The number of hours or days used in computing each mean is shown in round brackets. The mean for Oa days (see Introduction) and the figure in round brackets, which is the number of days used in computing this mean, are entered in square brackets.

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Monthly, seasonal and annual means for hours without hydrometeors and for fair weather hours

18 LERWICK

1966

	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
		volts per metre																								
		No hydrometeors																								
Jan.		156	145	136	127	131	129	141	153	186	209	231	168	174	167	155	161	167	180	179	183	184	175	182	172	166
Feb.		161	162	134	128	128	149	127	145	160	162	154	168	167	171	175	168	156	167	190	207	194	169	152	147	160
Mar.		94	97	78	83	87	96	101	100	103	130	118	114	127	137	129	123	132	132	159	143	130	109	109	116	114
Apr.		108	99	103	95	102	102	114	116	124	123	143	151	136	155	155	155	153	150	149	154	149	145	154	142	132
May		137	132	119	121	137	140	157	168	195	207	211	205	227	253	233	226	240	236	217	223	210	193	160	166	188
June		157	171	161	191	143	105	120	142	189	199	186	180	173	204	226	234	232	259	255	265	206	199	203	157	190
July		118	120	113	112	117	131	147	146	141	136	120	127	130	130	137	163	135	145	146	144	141	139	127	132	133
Aug.		137	136	122	115	114	127	157	157	155	147	124	130	133	144	152	155	146	137	136	135	141	138	141	147	139
Sept.		121	120	120	135	102	113	124	141	135	108	109	114	139	145	134	124	121	121	122	124	128	144	115	121	124
Oct.		113	119	113	122	125	112	131	127	116	130	153	157	130	137	160	160	180	176	185	161	174	161	138	123	142
Nov.		106	105	90	95	97	108	101	110	121	126	119	113	133	142	149	153	157	163	162	163	159	130	124	126	127
Dec.		123	117	108	113	114	129	142	131	154	163	160	203	152	144	145	180	163	184	155	153	170	162	156	160	149
Year		128	127	116	120	116	120	130	136	148	153	152	153	152	161	163	167	165	171	171	171	165	155	147	142	147
Winter		137	132	117	116	117	129	128	135	155	165	166	163	157	156	156	165	161	173	171	177	177	159	153	151	151
Equinox		109	109	103	109	104	106	117	121	119	123	131	134	133	143	145	141	147	145	154	145	145	140	129	125	128
Summer		137	140	129	135	128	126	145	153	170	172	160	161	166	183	187	195	188	194	189	192	175	167	158	151	163
		Fair weather																								
Jan.		91	104	93	97	90	91	103	107	131	141	156	141	155	144	147	137	130	144	148	147	155	127	115	93	124
Feb.		107	114	113	110	103	117	126	153	160	159	141	139	149	148	162	149	144	157	161	162	145	135	127	115	137
Mar.		92	97	80	82	83	82	107	88	100	121	139	129	135	153	152	123	123	139	147	136	117	92	93	97	113
Apr.		105	101	100	100	97	103	112	125	135	135	125	119	126	135	148	154	139	137	144	147	137	137	131	119	125
May		132	130	110	100	101	97	135	154	168	209	213	184	225	196	203	223	254	305	254	227	261	196	154	173	184
June		150	180	171	121	130	114	122	148	159	188	199	177	150	176	183	181	192	244	221	219	218	203	181	144	174
July		105	106	108	101	116	126	180	179	178	177	163	178	129	136	171	173	157	149	151	151	139	149	124	116	144
Aug.		116	113	103	100	102	115	118	128	147	148	115	122	130	129	137	137	136	132	129	124	119	119	110	129	123
Sept.		94	86	99	93	86	100	119	134	131	114	145	153	136	163	117	121	129	123	122	123	126	120	109	123	119
Oct.		96	98	104	94	94	94	93	128	107	126	127	117	121	141	134	151	157	132	153	145	148	138	112	123	122
Nov.		114	97	91	86	92	93	100	94	106	118	118	106	133	141	146	154	152	170	167	174	150	111	109	134	123
Dec.		104	126	94	98	93	109	129	113	135	151	181	221	150	127	125	135	135	200	163	157	178	166	149	176	142
Year		109	113	105	99	99	103	120	129	138	149	152	149	145	149	152	153	154	169	163	159	158	141	126	129	136
Winter		104	110	98	98	95	103	115	117	133	142	149	152	147	140	145	144	140	168	160	160	157	135	125	129	132
Equinox		97	95	96	92	90	95	108	119	118	124	134	130	130	148	138	137	137	133	141	138	132	122	111	115	120
Summer		126	132	123	105	112	113	139	152	163	181	173	165	159	159	173	179	185	207	189	180	184	167	142	141	156
		Annual mean for 0a days																							[165]	

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.



ESKDALEMUIR

GEOMAGNETIC FORCE: HORIZONTAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

19 ESKDALEUIR (H)												16,000γ (0.16 CGS unit) +												JANUARY 1966				
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 21,000γ+	
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	
1 q	918	920	920	922	925	929	933	932	927	924	923	925	926	926	930	928	927	927	924	926	926	927	927	927	927	926	1219	
2	924	919	936	932	936	934	933	931	925	926	925	929	929	931	927	925	921	918	925	925	916	927	924	919	926	926	1233	
3	919	933	915	919	920	923	923	925	924	922	920	920	920	923	925	923	923	917	917	911	923	915	918	917	916	920	1091	
4	917	918	919	921	925	926	927	929	926	923	923	928	928	928	931	932	931	933	918	920	902	930	893	909	913	922	1122	
5	917	914	912	916	918	919	920	919	919	918	917	914	911	913	916	920	921	923	923	922	921	918	918	918	918	918	1027	
6	923	917	917	919	921	924	925	925	927	925	922	920	920	920	924	925	925	928	928	928	928	925	921	921	916	923	1154	
7	917	919	919	918	924	926	925	925	927	926	925	920	917	921	926	932	934	931	932	920	904	903	912	917	922	1120		
8	911	910	908	911	919	924	931	928	925	925	925	923	922	925	921	916	920	924	923	922	920	917	916	916	916	920	1082	
9	931	916	919	920	921	925	926	926	926	925	923	920	919	921	928	929	926	918	905	912	922	912	933	915	908	921	1100	
10	915	913	918	920	925	919	924	919	916	918	919	918	922	925	926	925	923	911	916	917	923	915	918	918	918	919	1063	
11	929	921	917	919	920	924	925	925	924	919	917	919	924	928	928	924	925	927	928	927	925	924	923	925	924	1167		
12 q	922	921	920	917	921	925	926	924	922	920	919	919	921	923	925	925	927	928	928	928	929	929	926	925	924	1170		
13 q	923	924	925	926	927	929	931	934	932	929	926	925	924	926	929	928	926	926	931	930	925	925	927	926	927	1254		
14	924	926	924	925	926	928	929	932	932	932	929	926	928	934	936	936	925	922	925	926	927	925	923	917	924	927	1249	
15	915	919	921	921	926	929	931	932	930	927	922	921	923	925	923	918	930	932	929	927	924	924	924	925	925	1198		
16 q	925	926	927	927	928	930	925	927	924	921	921	925	928	928	927	925	925	927	928	928	928	928	928	927	926	1233		
17	925	924	924	924	929	930	933	932	927	924	921	921	922	923	921	925	929	933	933	934	935	933	934	933	928	1269		
18	934	935	936	935	936	937	939	938	938	940	938	942	942	940	933	928	920	905	899	892	912	921	922	924	929	1286		
19	924	921	923	923	925	930	932	931	932	929	917	920	921	922	921	924	923	927	927	928	929	931	930	931	926	1221		
20 d	930	928	938	932	931	939	939	928	937	926	917	919	923	917	908	905	906	881	904	899	903	914	921	917	919	1062		
21 d	936	904	912	913	917	918	920	921	930	924	928	924	913	911	886	903	912	921	886	907	906	912	927	910	914	941		
22 d	906	909	910	912	917	926	929	949	934	926	913	901	914	910	868	907	899	896	910	914	918	939	905	905	913	917		
23 d	901	905	910	915	921	924	917	917	924	917	900	906	902	892	894	910	917	920	909	911	912	912	916	921	911	873		
24 d	919	917	916	920	924	923	930	928	921	901	900	903	915	923	924	917	888	897	917	914	916	916	920	917	915	966		
25	914	915	924	918	921	924	921	917	916	921	920	920	920	908	904	891	912	924	912	906	921	923	922	921	916	995		
26	921	920	924	926	926	923	924	929	918	910	913	914	897	912	919	913	907	917	919	905	905	917	927	928	917	1014		
27	919	917	917	914	919	922	926	922	919	915	909	906	909	914	917	919	919	920	921	922	924	924	923	921	918	1038		
28	921	921	921	923	925	925	928	927	929	927	922	915	920	924	924	925	928	936	934	935	940	941	929	926	927	1246		
29	930	930	930	936	934	932	934	936	938	932	921	919	918	920	917	915	918	912	922	927	928	927	927	926	926	1229		
30	928	926	928	928	929	930	932	932	932	931	931	932	929	925	916	908	906	912	921	927	925	925	925	925	925	1203		
31 q	924	924	924	925	925	925	925	922	921	921	920	921	921	924	925	924	923	925	928	930	927	925	925	927	924	1181		
Mean	921	920	921	922	925	927	928	928	927	923	920	920	921	922	919	919	919	919	920	920	921	922	922	921	922	922		
Sum 28,000γ+	562	512	554	577	661	722	763	762	721	619	520	516	541	576	498	506	501	500	526	525	549	585	575	552		Grand Total 685,923		

GEOMAGNETIC DECLINATION (WEST)  
Mean values for periods of sixty minutes ending at exact hours, GMT

20 ESKDALEUIR (D)													9° +												JANUARY 1966	
	Hour GMT																									Sum
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	1300·0' +
1 q	58·4	58·7	58·8	58·6	58·7	59·3	58·0	58·0	58·0	58·7	59·1	59·6	60·1	59·8	59·6	58·9	58·6	58·5	58·6	58·5	58·7	58·5	58·3	58·6	58·8	110·6
2	58·7	58·8	62·4	58·4	57·4	58·0	58·1	57·9	58·3	58·8	59·7	60·8	62·3	61·8	61·2	61·1	58·4	58·4	58·6	58·8	53·9	55·3	57·6	57·0	58·8	111·7
3	57·3	58·3	56·7	56·4	56·5	56·9	58·0	58·1	58·1	58·8	58·4	59·6	60·1	60·8	60·1	59·6	59·5	58·7	57·4	57·8	58·1	57·1	56·8	57·4	58·2	97·5
4	58·0	58·1	58·2	59·0	58·7	58·0	57·9	58·2	58·4	59·3	59·4	59·4	60·1	60·3	60·7	62·1	61·0	62·4	61·5	61·2	49·6	54·8	56·0	57·3	58·7	109·6
5	57·4	57·6	57·7	58·5	58·5	58·5	58·2	58·0	57·8	57·9	58·8	59·3	59·7	59·7	59·6	59·1	58·6	58·3	58·1	57·9	57·7	56·4	57·0	57·5	58·2	97·8
6	58·7	58·3	58·4	58·5	58·6	58·4	58·0	58·0	57·8	57·7	57·9	58·7	59·9	60·4	60·0	59·5	59·1	58·7	58·5	58·4	57·9	57·7	55·6	57·0	58·4	101·7
7	57·5	58·4	58·3	59·3	58·0	57·9	57·7	57·8	58·0	57·9	59·3	60·3	60·3	59·8	59·5	60·2	59·9	59·9	59·7	60·5	59·3	57·4	54·7	56·8	58·7	108·4
8	53·9	58·4	58·4	58·2	57·8	57·1	56·8	57·5	57·7	57·8	58·6	58·7	59·6	60·9	61·2	61·2	60·8	60·1	59·2	58·7	57·6	56·4	56·9	55·9	58·3	99·4
9	53·1	55·2	57·7	58·3	58·7	58·5	58·5	58·4	58·2	58·4	58·7	59·4	60·7	61·4	60·7	59·8	60·4	62·1	60·4	59·2	57·5	55·1	54·8	55·5	58·3	100·2
10	57·0	57·7	57·7	57·1	58·4	56·9	57·3	57·7	57·6	58·0	58·9	59·5	60·0	60·6	60·1	58·7	59·4	59·6	59·7	58·5	54·1	56·6	56·6	56·5	58·1	93·2
11	57·1	57·6	58·3	57·6	57·7	58·3	57·8	57·8	57·7	58·3	58·8	59·8	60·5	61·0	59·7	59·2	59·1	58·8	58·7	58·5	57·8	57·0	56·9	57·0	58·4	101·0
12 q	57·3	56·9	57·3	56·8	57·7	58·6	58·5	58·0	57·8	58·4	59·1	59·6	59·8	59·6	59·5	58·8	59·1	58·8	58·9	58·7	58·5	57·9	57·7	57·6	58·4	100·9
13 q	57·6	58·0	58·5	57·9	57·9	58·5	58·7	58·5	58·2	58·1	58·7	59·4	60·4	60·5	60·0	59·2	59·2	59·1	58·6	58·5	57·6	57·7	57·6	57·7	58·6	106·1
14	57·6	57·2	57·0	57·2	57·6	57·8	58·2	58·5	58·5	58·7	59·3	60·0	60·8	61·7	62·0	60·3	59·6	59·3	58·6	58·3	57·6	56·8	55·9	53·8	58·4	102·3
15	55·6	56·0	57·6	58·3	58·5	58·8	58·6	58·2	57·8	57·8	58·7	60·1	60·9	61·3	61·2	59·4	59·7	59·3	58·8	58·7	58·0	57·8	57·2	57·8	58·6	106·1
16 q	58·3	58·6	58·7	58·9	58·5	58·7	58·3	58·1	58·2	58·8	60·0	60·6	60·5	60·4	60·2	59·6	59·4	58·9	58·5	58·3	58·0	57·8	58·1	58·1	58·9	113·5
17	57·9	58·1	58·5	58·7	58·7	57·8	57·9	58·3	57·9	57·7	58·4	59·0	60·0	61·3	60·8	59·9	59·5	58·9	58·7	58·7	58·6	58·4	58·5	58·5	58·8	110·7
18	58·8	58·8	59·0	59·4	59·5	59·4	59·1	58·8	58·6	58·7	59·3	59·7	60·1	61·3	61·6	62·1	63·0	62·2	60·4	57·8	57·6	57·7	57·7	59·7	132·9	
19	57·7	58·2	58·7	58·6	58·7	58·8	58·5	58·5	58·4	58·5	59·2	59·9	61·1	62·1	62·2	60·6	60·1	59·6	59·3	58·9	58·5	58·0	57·9	57·9	59·2	119·9
20 d	58·0	58·5	59·0	58·3	58·7	57·6	56·9	57·6	58·2	57·9	59·1	61·1	62·9	64·1	64·5	63·8	66·0	62·6	62·3	59·0	52·5	58·0	57·2	56·5	59·6	130·3
21 d	54·1	53·3	56·4	56·5	56·1	56·4	57·8	57·9	58·8	58·5	58·9	61·7	60·9	63·7	61·3	62·0	62·5	59·7	45·5	50·4	55·6	56·7	55·8	53·6	57·3	74·1
22 d	54·5	57·3	57·0	58·5	58·1	58·6	62·6	64·0	60·7	59·7	59·0	58·9	60·7	63·8	56·0	61·5	62·4	60·1	59·7	57·5	46·1	47·9	52·1	53·1	57·9	89·8
23 d	54·5	58·8	58·7	57·0	57·5	58·6	59·7	60·4	59·4	58·9	58·9	61·6	62·0	62·0	60·7	59·5	59·6	58·6	58·5	54·0	56·6	57·0	56·4	54·1	58·5	103·0
24 d	55·4	56·9	57·4	57·9	57·5	59·1	59·8	59·0	59·2	59·6	61·7	62·0	62·0	61·0	60·1	60·0	55·9	51·0	58·9	58·1	55·9	56·6	52·6	56·1	58·1	93·7
25	57·1	57·8	58·8	57·3	57·9	57·7	58·2	58·7	58·2	58·5	58·8	59·6	61·3	61·4	60·1	60·8	58·2	59·5	57·8	57·2	57·0	57·1	57·2	57·2	58·5	103·4
26	58·2	58·5	58·9	58·9	59·1	58·3	59·4	60·1	59·4	59·0	60·2	60·7	61·7	60·9	60·5	60·3	52·0	55·0	53·9	55·5	53·7	55·6	55·8	56·0	58·0	91·6
27	56·8	57·9	59·1	60·2	58·9	58·6	58·4	58·2	57·8	57·7	58·7	59·7	59·7	60·0	60·2	59·6	58·8	58·6	58·8	58·3	58·0	57·8	57·8	57·8	58·7	108·2
28	57·8	57·9	58·2	58·6	58·7	58·6	58·2	57·8	57·4	56·9	57·6	58·2	59·4	60·6	61·0	60·5	60·1	60·0	60·1	59·7	59·4	59·5	58·2	58·2	58·9	112·6
29	57·9	58·0	58·0	58·8	59·0	59·1	58·9	58·6	58·4	58·7	59·3	60·4	60·5	60·8	61·4	61·3	60·6	58·9	58·6	59·2	58·7	58·4	58·1	58·0	59·1	119·6
30	57·9	58·0	58·3	58·4	58·3	58·0	58·0	57·8	57·7	57·8	58·2	58·9	59·6	61·4	61·7	60·6	60·2	60·2	59·3	58·9	58·7	58·1	57·8	57·8	58·8	111·6
31 q	57·8	57·8	57·9	58·4	58·5	58·5	58·2	58·0	57·9	58·6	58·9	59·3	59·9	61·3	60·6	59·9	59·6	59·2	59·1	58·8	58·5	57·8	57·3	57·6	58·7	109·4
Mean	57·0	57·7	58·3	58·2	58·2	58·2	58·4	58·5	58·3	58·4	59·1	59·9	60·6	61·1	60·5	60·3	59·7	59·2	58·6	58·2	56·7	56·9	56·7	56·8	58·6	
Sum 1700·0' +	67·9	89·6	105·6	104·5	104·4	105·3	110·2	112·4	106·1	110·1	130·6	155·5	177·5	195·7	177·0	169·1	149·6	135·8	116·5	105·4	57·8	65·0	57·6	61·6		Grand Total 43570·8

GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

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21 ESKDALEMUIR (Z)												45,000γ (0.45 CGS unit) +												JANUARY 1966			
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 10,000γ+	
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	
1 q	449	448	448	449	448	448	448	449	449	449	451	452	450	451	452	451	451	451	449	450	449	449	448	447	449	786	
2	448	448	438	441	442	442	442	443	445	443	445	444	443	448	448	449	453	453	452	451	457	452	448	449	447	724	
3	449	442	444	444	446	446	447	448	448	448	449	450	447	448	450	453	453	453	456	454	455	456	457	455	450	798	
4	454	453	449	448	448	448	448	447	446	446	445	445	444	445	448	448	449	452	455	466	468	460	459	456	451	827	
5	449	448	450	450	449	449	449	449	449	449	448	449	449	448	454	454	454	453	453	452	453	453	453	452	451	826	
6	450	450	450	449	448	448	448	448	448	448	449	449	449	448	449	451	450	449	449	449	449	452	452	453	449	785	
7	453	451	450	448	447	446	446	445	445	446	446	446	447	449	452	450	449	448	448	453	460	465	465	463	451	818	
8	459	458	457	459	454	450	448	448	447	445	443	443	443	446	449	454	454	454	453	453	454	456	458	459	452	844	
9	455	453	450	449	449	448	448	448	447	446	444	443	443	446	449	452	454	459	461	459	460	456	446	450	451	815	
10	454	455	454	453	449	452	450	449	449	450	449	449	448	448	448	450	452	453	456	456	457	457	454	454	453	452	850
11	448	448	448	449	452	451	449	449	448	448	446	445	446	448	452	454	453	453	452	451	450	450	450	448	449	788	
12 q	449	448	448	449	449	449	449	449	448	447	446	446	446	448	448	450	450	450	449	449	449	449	448	448	448	761	
13 q	448	448	448	448	448	448	448	447	447	445	441	439	443	447	448	449	449	449	449	449	451	451	449	449	447	738	
14	448	448	448	448	448	448	448	446	446	443	442	441	441	440	443	448	449	449	449	449	450	449	451	448	447	720	
15	448	448	446	445	445	445	445	447	448	447	446	447	446	445	448	449	448	448	448	449	450	450	449	448	447	735	
16 q	448	448	447	447	447	447	447	448	448	447	446	446	445	443	445	448	448	448	448	448	448	448	448	448	447	731	
17	448	448	448	447	445	447	447	448	448	448	446	445	447	444	448	449	448	448	448	448	448	447	447	445	447	733	
18	445	443	443	442	442	442	443	443	442	441	439	438	439	441	443	447	449	454	461	472	469	460	454	453	448	745	
19	450	449	448	448	448	447	447	446	445	443	442	442	441	445	449	453	452	451	449	448	448	448	448	448	447	735	
20 d	448	448	444	444	443	442	442	443	442	442	442	442	441	448	459	461	464	482	477	478	479	461	456	454	453	882	
21 d	443	445	443	443	443	442	443	446	443	441	439	440	443	447	463	467	465	472	479	472	462	460	453	448	452	842	
22 d	453	450	454	454	453	450	441	434	439	442	446	448	448	453	479	467	467	468	465	464	461	449	444	443	453	872	
23 d	442	440	436	444	447	446	446	447	445	445	447	448	452	458	461	466	461	458	459	463	458	458	454	451	451	832	
24 d	451	450	451	451	449	448	445	446	446	449	448	448	447	450	455	460	470	473	460	458	458	456	455	453	453	877	
25	452	452	448	448	449	449	448	448	448	448	448	448	452	455	460	468	466	458	460	464	459	455	453	452	454	888	
26	451	451	450	450	449	448	447	446	447	450	452	453	453	458	458	463	471	466	462	462	464	458	448	442	454	899	
27	447	448	448	449	447	451	451	452	453	453	452	455	457	454	458	457	455	455	453	453	453	452	452	452	452	857	
28	452	452	452	451	451	451	452	451	449	448	447	448	444	443	447	449	451	450	451	449	447	447	449	449	449	780	
29	448	447	447	447	446	447	446	446	446	442	442	445	447	447	448	453	453	458	458	454	453	451	449	448	449	769	
30	448	448	448	448	448	448	448	447	445	444	442	441	441	442	449	453	457	454	453	453	452	452	451	449	448	761	
31 q	452	452	451	450	449	449	451	451	450	450	451	452	448	449	452	452	452	452	451	451	451	451	451	449	451	817	
Mean	450	449	448	448	448	447	447	447	447	446	446	446	446	448	452	454	455	456	455	456	455	453	452	450	450		
Sum 13,000γ+	939	917	886	892	878	872	857	854	843	831	823	828	834	888	1014	1077	1098	1124	1113	1128	1122	1056	999	962		Grand Total 334,835	

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH CHAMBER

22 ESKDALEMUIR										JANUARY 1966	
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magneto- graph chamber °C	
1 q	0100 0011	3	0100 0011	3	0100 0010	2	0000 0000	0	0	12.9	
2	3211 1133	15	3211 1123	14	3101 1133	13	1000 0010	2	1	12.9	
3	3101 1222	12	3101 1222	12	3100 1111	8	1000 0000	1	1	12.9	
4	1111 0353	15	0111 0343	13	1110 0252	12	0000 0130	4	1	12.8	
5	2000 0102	5	1000 0101	3	2000 0002	4	1000 0000	1	0	12.8	
6	2000 0002	4	2000 0002	4	1000 0002	3	0000 0000	0	0	12.8	
7	1101 0233	11	1101 0233	11	1100 0113	7	0000 0011	2	1	12.8	
8	3221 2212	15	2221 2212	14	3111 1112	11	0000 1000	1	1	12.7	
9	3000 1325	14	3000 1325	14	3000 0223	10	1000 0102	4	1	12.7	
10	1221 1232	14	1221 1222	13	1211 1131	11	0000 0000	0	1	12.7	
11	2000 0101	4	2000 0101	4	1000 0001	2	0000 0000	0	0	12.7	
12 q	1100 0010	3	1100 0010	3	1100 0000	2	0000 0000	0	0	12.7	
13 q	1001 0010	3	0001 0010	2	1000 0010	2	0000 0000	0	0	12.7	
14	1011 1212	9	1011 1202	8	0000 0012	3	0000 0000	0	0	12.7	
15	2100 1211	8	1100 1210	6	2100 1101	6	0000 0000	0	0	12.6	
16 q	0000 0000	0	0000 0000	0	0000 0000	0	0000 0000	0	0	12.6	
17	0110 1100	4	0110 1100	4	0100 0000	1	0000 0000	0	0	12.6	
18	0011 2331	11	0011 2331	11	0000 1120	4	0000 0120	3	1	12.6	
19	0011 1100	4	0011 1100	4	0001 1000	2	0000 1000	1	0	12.6	
20 d	2222 3342	20	2222 3332	19	1112 2342	16	0000 2221	7	1	12.5	
21 d	3223 4354	26	3223 4344	25	3123 3353	23	1000 2121	7	2	12.5	
22 d	3333 5344	28	2233 5334	25	3332 4243	24	0010 3111	7	2	12.5	
23 d	3112 2232	16	2112 2232	15	3112 1232	15	1000 1000	2	1	12.5	
24 d	2222 2423	19	2122 2422	17	2212 1423	17	0000 0210	3	1	12.5	
25	2121 2421	15	2121 2421	15	2111 2321	13	1000 1100	3	1	12.5	
26	1122 3434	20	0022 3434	18	1122 2433	18	0000 0102	3	1	12.5	
27	2100 0000	3	2100 0000	3	2100 0000	3	0000 0000	0	0	12.5	
28	0001 1224	10	0001 1224	10	0000 0012	3	0000 0001	1	1	12.5	
29	1111 1211	9	1111 1211	9	0010 0210	4	0000 0100	1	0	12.5	
30	0000 1110	3	0000 1110	3	0000 1100	2	0000 1000	1	0	12.5	
31 q	0001 0011	3	0001 0011	3	0000 0001	1	0000 0000	0	0	12.5	
Mean									0.60	12.6	

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

GEOMAGNETIC FORCE: HORIZONTAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

19 ESKDALEMUIR (H)												16,000γ (0-16 CGS unit) +												FEBRUARY 1966									
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 21,000γ+							
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ							
1 q	926	932	929	924	925	928	933	933	932	931	926	921	920	921	925	927	928	927	927	927	925	927	928	930	927	1252							
2	931	929	931	932	932	932	933	935	932	932	932	934	932	924	923	923	923	925	924	927	927	929	932	931	929	1305							
3	929	928	929	931	932	929	925	931	932	933	930	923	924	917	905	919	926	928	909	914	907	926	912	914	923	1153							
4	921	928	922	925	924	927	932	925	916	917	914	910	912	912	916	909	926	927	923	921	932	925	916	924	921	1104							
5 d	919	911	925	914	912	917	931	926	926	908	910	917	901	921	924	920	906	910	912	913	917	916	917	912	916	985							
6	917	916	917	923	926	919	914	913	920	918	913	912	906	910	916	921	924	924	922	925	926	928	921	916	919	1047							
7	916	922	917	919	920	923	925	927	929	930	924	925	924	924	923	925	924	925	925	925	925	923	923	924	924	1167							
8	923	925	923	921	923	924	925	926	928	927	924	924	926	927	917	916	914	918	924	924	924	922	924	925	923	1154							
9 q	924	921	922	925	927	927	928	928	926	925	924	925	925	929	933	932	928	929	929	933	931	930	925	923	927	1249							
10	921	926	924	925	928	929	931	932	927	929	921	925	928	933	939	937	934	928	924	913	920	920	917	919	926	1230							
11	924	919	924	921	925	928	932	933	933	927	923	919	919	923	914	924	932	928	926	928	925	913	906	916	923	1162							
12	912	913	916	918	928	929	926	924	920	919	917	921	920	922	924	925	924	925	927	927	926	925	924	922	922	1134							
13	922	923	920	926	922	925	928	932	930	923	918	917	920	929	931	924	921	924	930	927	925	927	928	926	925	1198							
14 q	926	927	927	929	929	929	928	929	927	923	921	922	926	929	933	931	925	919	923	927	928	928	928	928	927	1242							
15	927	928	929	929	932	932	931	931	929	926	928	932	934	930	927	930	929	933	934	934	924	923	921	929	929	1302							
16	933	938	932	925	929	936	930	930	926	918	913	910	914	920	924	932	929	929	928	928	926	928	937	932	927	1247							
17	930	929	929	930	932	936	939	940	939	936	932	928	927	923	916	925	926	924	925	921	929	928	927	930	929	1301							
18	929	925	928	929	932	936	936	936	932	924	914	914	920	924	926	925	927	928	931	932	932	932	932	929	928	1273							
19 d	933	929	929	932	935	935	931	936	939	932	920	924	925	925	920	917	912	901	913	907	910	902	909	917	922	1133							
20 d	920	929	916	913	920	915	922	933	921	890	894	892	882	884	900	909	913	918	921	921	918	921	921	920	912	893							
21	920	917	917	919	919	919	920	921	915	912	914	913	914	917	918	919	917	921	924	924	924	924	925	924	919	1057							
22	926	924	926	928	930	928	928	928	926	921	923	917	911	898	898	919	907	903	917	896	892	901	908	925	916	980							
23 d	921	924	922	922	918	947	923	887	895	876	899	903	908	906	911	903	903	919	916	918	943	903	913	914	912	894							
24 d	917	919	917	924	934	918	921	912	922	916	906	894	893	911	914	912	913	911	918	937	925	918	922	923	917	997							
25	925	921	930	925	925	923	926	928	927	924	919	914	908	909	919	924	919	921	925	928	928	930	943	925	924	1166							
26 q	924	923	923	925	927	928	929	929	927	923	920	917	914	917	919	919	921	921	925	926	925	928	928	926	923	1164							
27	927	926	927	927	929	927	932	929	925	919	917	917	917	916	918	921	924	926	928	929	930	929	929	928	925	1197							
28 q	929	928	929	928	930	931	931	930	925	920	918	916	916	919	925	929	930	930	930	932	932	933	932	933	927	1256							
Mean	924	924	924	925	927	928	928	927	926	921	918	917	917	919	920	922	922	922	924	924	924	923	923	924	923								
Sum 25,000γ+	872	880	880	889	945	977	990	964	926	779	714	686	666	720	758	817	805	822	860	864	876	839	848	865		Grand Total 620,242							

GEOMAGNETIC DECLINATION (WEST)  
Mean values for periods of sixty minutes ending at exact hours, GMT

20 ESKDALEMUIR (D)													9° +													FEBRUARY 1966	
	Hour GMT																										Sum
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	1300.0'	
1 q	58.1	58.3	57.2	57.0	57.6	58.1	57.5	57.2	58.7	58.2	58.3	59.0	60.8	62.0	60.8	60.0	59.7	59.3	58.9	58.8	58.5	57.9	57.8	57.8	58.6	107.5	
2	58.0	58.5	58.4	58.7	58.6	58.0	57.9	57.8	58.2	58.8	58.8	59.6	60.3	61.7	60.9	59.9	60.0	59.6	57.9	58.9	58.8	58.1	57.8	57.9	58.9	113.1	
3	58.2	58.4	58.6	58.8	58.7	57.8	57.8	59.0	59.3	58.7	58.9	59.3	60.2	62.2	61.7	60.8	59.9	60.2	57.3	55.0	51.2	51.1	55.3	57.1	58.1	95.5	
4	57.1	57.9	57.4	57.1	57.7	58.2	56.8	58.4	58.5	58.8	60.0	59.8	60.8	62.6	61.4	59.8	59.5	59.5	58.9	58.7	51.2	54.3	55.4	58.8	58.3	98.6	
5 d	55.6	56.8	58.8	58.2	56.4	57.7	55.8	58.2	58.8	58.7	61.4	62.6	62.7	63.2	62.2	63.1	64.9	63.8	61.8	60.4	52.0	52.1	54.1	53.1	58.9	112.4	
6	55.8	55.0	57.7	59.8	57.9	55.9	56.6	56.7	57.1	58.1	58.9	59.8	61.4	61.4	61.3	59.8	58.9	59.0	58.7	56.6	56.2	55.3	54.9	55.6	57.9	88.4	
7	56.9	55.6	55.8	57.4	57.2	57.9	57.6	57.8	58.7	58.9	58.6	59.1	60.1	60.6	59.8	59.0	58.5	58.2	58.1	58.1	56.6	57.9	58.0	58.0	58.1	94.4	
8	57.8	57.8	57.8	58.0	57.8	57.6	57.7	57.8	57.9	57.9	57.8	58.3	60.0	61.5	60.7	60.4	61.7	60.8	59.6	59.0	57.8	57.1	57.1	57.5	58.6	107.4	
9 q	57.2	57.1	57.7	57.8	57.4	57.2	57.2	57.5	57.8	58.2	58.8	59.2	60.5	62.0	60.8	59.8	59.8	59.6	59.0	59.0	58.7	58.1	58.0	57.4	58.6	105.8	
10	57.1	55.1	55.8	55.6	56.6	57.2	57.5	57.8	57.7	58.0	58.2	59.3	60.1	60.8	60.8	59.8	60.0	61.4	61.4	60.3	58.7	54.7	55.2	57.0	58.2	96.1	
11	59.9	58.7	58.4	54.7	55.7	57.6	57.8	57.7	58.2	59.6	59.8	60.8	60.8	64.2	63.2	59.7	60.4	60.5	59.3	59.3	58.8	56.4	54.3	48.5	58.5	104.3	
12	49.4	55.6	57.3	58.6	59.3	57.5	57.9	57.8	57.9	59.5	59.7	60.5	59.8	59.8	59.5	58.8	58.8	58.8	58.8	58.8	58.7	58.1	57.8	57.8	58.2	96.5	
13	57.2	57.3	57.9	57.0	55.8	56.6	56.6	56.6	56.9	57.8	59.7	61.6	62.4	62.6	61.0	59.3	58.1	57.8	58.1	57.7	57.3	57.9	57.9	58.0	58.3	98.9	
14 q	57.9	58.0	58.1	58.2	57.7	57.3	57.3	56.9	56.7	57.1	58.6	60.0	60.2	60.7	60.3	59.0	58.6	58.2	58.5	58.6	58.5	58.3	58.3	58.3	58.4	101.3	
15	58.1	58.5	58.4	58.4	58.3	57.8	57.1	56.8	56.5	56.6	58.0	59.9	61.3	61.4	60.0	58.9	58.5	58.6	58.7	58.8	58.2	55.8	56.7	57.6	58.3	98.9	
16	58.9	58.9	57.1	56.8	56.7	55.5	56.1	56.9	56.6	57.0	59.1	60.4	61.3	61.4	60.8	59.6	58.9	58.8	58.5	58.4	57.8	57.8	57.3	57.9	58.3	98.5	
17	57.8	58.1	58.2	58.0	58.0	57.8	57.8	57.4	56.5	56.6	58.0	59.6	61.2	61.9	61.3	60.2	59.6	59.3	59.1	58.0	54.1	55.2	56.7	56.8	58.2	97.2	
18	57.7	58.0	58.4	58.7	58.8	58.3	57.7	57.6	57.4	57.1	58.0	59.8	60.7	61.0	60.3	59.1	58.4	58.5	58.0	57.8	57.8	57.7	57.2	57.7	58.4	101.7	
19 d	57.9	58.0	58.6	58.6	57.8	57.1	57.2	57.6	56.9	56.8	57.1	59.5	61.8	62.6	64.4	66.4	70.6	65.1	61.2	51.5	46.7	53.4	54.2	54.6	58.6	105.6	
20 d	57.2	59.0	53.8	55.3	57.4	60.3	60.2	61.2	59.2	58.9	59.9	62.5	63.5	63.0	61.8	61.8	59.5	58.2	58.1	58.2	57.6	57.7	57.4	57.5	59.1	119.2	
21	57.4	57.5	57.6	57.7	57.9	58.1	57.9	58.1	57.5	57.4	57.9	59.0	60.7	61.6	61.8	59.1	58.2	58.4	58.3	58.2	58.1	57.6	57.9	58.1	58.4	101.6	
22	58.2	58.0	58.1	58.0	58.1	57.6	57.5	57.7	57.7	57.4	58.8	61.0	63.4	63.8	60.6	60.1	62.2	56.9	48.5	51.0	50.6	49.6	53.7	55.7	57.3	74.2	
23 d	57.6	60.6	58.1	58.4	65.4	64.2	57.8	62.1	62.5	62.5	58.4	61.4	61.4	61.8	62.5	61.1	57.6	58.3	58.2	55.0	46.7	53.7	57.0	53.6	59.0	115.9	
24 d	58.2	57.9	57.9	58.7	55.6	58.6	61.3	59.9	58.6	57.9	59.4	61.0	59.7	61.6	61.5	59.3	58.4	57.3	56.8	45.1	54.9	56.6	58.2	59.2	58.1	93.6	
25	58.1	58.7	58.1	55.7	56.9	57.9	58.3	59.0	58.2	58.4	59.3	61.2	62.1	62.4	61.6	59.7	59.4	55.5	56.5	58.7	58.2	58.3	57.1	56.8	58.6	106.1	
26 q	57.1	57.6	58.0	58.0	58.1	58.0	58.2	58.0	57.3	58.0	58.6	60.0	60.8	61.1	60.5	59.2	58.8	59.0	59.0	58.9	57.8	57.7	58.2	58.1	58.6	106.0	
27	58.2	58.0	58.2	57.6	57.9	58.2	58.5	58.5	58.1	58.2	59.4	60.8	62.0	61.9	61.1	60.0	59.0	58.8	58.9	58.9	58.4	58.2	58.2	58.1	59.0	115.1	
28 q	57.5	57.9	57.8	57.5	57.4	57.5	57.6	57.4	56.8	56.7	57.5	58.3	59.7	60.3	60.1	59.4	59.2	59.2	59.3	59.3	59.1	58.5	58.5	58.4	58.4	100.9	
Mean	57.4	57.7	57.7	57.7	57.8	57.9	57.7	58.1	57.9	58.1	58.8	60.1	61.1	61.8	61.2	60.1	59.9	59.2	58.4	57.4	56.0	56.3	56.8	56.9	58.4		
Sum 1500.0' +	106.1	116.8	115.2	114.3	118.7	121.5	115.0	125.4	122.2	127.4	146.9	183.3	209.7	231.1	212.7	183.1	177.1	158.6	135.4	107.0	69.0	75.1	90.2	92.9		Grand Total 39254.7	

GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

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21 ESKDALEUIR (Z)												45,000γ (0.45 CGS unit) +												FEBRUARY 1966		
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 10,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 q	449	447	445	445	447	447	447	447	447	447	445	442	441	444	445	448	449	449	449	450	451	451	449	448	447	734
2	448	447	447	447	446	446	445	444	442	442	442	441	444	447	447	447	448	451	449	448	449	448	448	448	446	710
3	448	448	447	447	446	447	447	445	444	447	446	447	445	448	453	452	452	452	460	465	473	460	454	453	451	826
4	453	447	447	447	447	447	447	447	447	446	447	449	453	452	453	459	458	453	454	455	455	446	447	440	450	796
5 d	440	445	444	447	447	446	442	442	441	444	445	444	449	451	456	461	466	468	471	472	473	467	460	459	453	880
6	455	453	453	447	441	444	447	448	448	447	447	447	450	455	458	457	455	454	453	453	452	450	452	452	451	818
7	453	452	453	452	451	449	447	444	442	444	447	447	445	446	452	453	453	452	451	451	451	450	451	450	450	789
8	451	451	452	452	452	451	450	447	447	447	448	447	441	444	453	458	457	456	456	455	455	454	453	452	451	829
9 q	453	453	453	452	452	451	450	448	447	447	446	446	444	444	447	451	451	451	451	449	450	450	452	452	450	790
10	454	453	453	453	452	449	448	447	448	447	447	447	444	445	447	449	452	453	457	463	464	466	461	455	452	854
11	448	445	441	446	447	447	447	447	445	444	445	443	443	445	453	453	452	452	453	453	453	457	459	451	449	769
12	443	442	447	448	447	446	447	448	446	441	441	440	439	441	446	448	449	451	452	452	452	452	451	449	447	718
13	449	447	445	441	444	447	446	447	445	444	443	442	442	442	447	452	456	455	452	453	453	451	449	449	448	741
14 q	449	448	448	448	448	449	448	448	448	448	447	444	445	446	447	449	449	452	452	451	450	450	449	448	448	757
15	450	449	448	448	447	448	448	448	448	445	442	441	441	442	445	447	448	449	449	449	453	456	453	451	448	745
16	448	444	444	444	444	445	446	447	448	448	446	444	442	444	448	449	448	448	448	448	451	451	449	447	447	721
17	447	447	447	447	447	446	445	444	445	442	440	441	441	446	449	449	449	449	451	452	452	449	448	447	447	720
18	447	447	446	446	446	445	445	444	445	447	447	445	443	444	447	448	448	447	447	448	448	448	448	448	446	714
19 d	447	447	447	447	447	446	447	445	445	443	441	437	434	439	449	459	481	495	484	498	493	467	458	444	456	940
20 d	444	430	434	442	444	442	436	437	442	447	447	447	451	460	464	468	465	463	459	455	456	453	453	453	450	792
21	453	454	453	453	453	452	451	451	449	451	448	447	448	449	455	459	458	454	453	453	452	452	451	450	452	849
22	452	452	452	452	451	451	449	447	450	449	446	445	448	452	468	474	478	477	473	470	464	452	435	431	455	918
23 d	443	443	447	449	421	397	411	426	430	440	449	452	456	430	436	472	477	471	468	468	454	445	440	441	444	666
24 d	448	447	449	447	444	446	446	445	448	447	447	449	458	458	459	463	469	469	464	463	448	449	451	447	453	861
25	442	444	436	442	444	447	446	447	445	441	439	440	445	449	452	455	457	461	460	456	454	453	447	444	448	746
26 q	447	448	449	450	451	451	450	448	447	447	445	447	447	448	450	453	453	453	453	453	453	453	452	451	450	799
27	451	451	450	451	452	452	449	448	447	446	442	442	443	447	453	456	457	453	453	452	452	451	451	449	450	798
28 q	451	451	451	451	451	451	450	451	452	451	448	447	447	447	448	448	449	450	452	451	451	451	450	449	450	798
Mean	449	448	447	448	447	446	446	446	446	446	445	445	445	447	451	455	457	457	456	457	456	453	451	449	450	
Sum 12,000γ+	563	532	528	541	509	485	477	477	478	478	460	450	469	506	630	738	783	786	777	787	761	684	620	559		Grand Total 302,078

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH CHAMBER

22 ESKDALEUIR										FEBRUARY 1966	
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magneto-graph chamber °C	
1 q	2101 1000	5	2100 1000	4	1101 1000	4	0000 0000	0	0	12.5	
2	0011 1112	7	0011 1112	7	0001 1110	4	0000 0000	0	0	12.5	
3	1011 3243	15	1011 3243	15	0011 2143	12	0000 1021	4	1	12.5	
4	2222 2244	20	2211 2234	17	2222 2243	19	1000 0011	3	1	12.5	
5 d	3323 3343	24	2323 3333	22	3222 1243	19	1000 1001	3	1	12.5	
6	2221 2022	13	1121 2022	11	2211 1022	11	0100 1000	2	1	12.5	
7	2111 0122	10	2001 0112	7	2110 0022	8	0000 0000	0	0	12.5	
8	0000 2121	6	0000 2121	6	0000 1110	3	0000 1000	1	0	12.5	
9 q	1111 1012	8	1111 1012	8	1100 0001	3	0000 0000	0	0	12.5	
10	2112 2223	15	1012 2222	12	2111 1123	12	0000 0011	2	1	12.5	
11	2222 3333	20	2122 3333	19	2221 3103	14	1000 1001	3	1	12.5	
12	3211 0000	7	3211 0000	7	3111 0000	6	1000 0000	1	0	12.5	
13	2211 2210	11	2211 2210	11	2101 0000	4	1000 0000	1	0	12.5	
14 q	0001 1210	5	0001 1210	5	0000 0000	0	0000 0000	0	0	12.5	
15	1001 2022	8	0001 2022	7	1000 2012	6	0000 0000	0	0	12.5	
16	2210 0112	9	2210 0112	9	2110 0002	6	1000 0000	1	0	12.5	
17	0001 2132	9	0001 2132	9	0001 1032	7	0000 0000	0	0	12.5	
18	1111 0110	6	1111 0110	6	1100 0000	2	0000 0000	0	0	12.5	
19 d	2122 2453	21	2021 2433	17	1102 2352	16	0000 2332	10	1	12.6	
20 d	3333 3321	21	3333 3321	21	3333 2221	19	2010 1000	4	1	12.6	
21	1121 1101	8	1121 1101	8	1011 0000	3	0000 0000	0	0	12.6	
22	1012 3434	18	1012 3333	16	0002 3434	16	0000 2113	7	1	12.5	
23 d	2434 2343	25	2334 2343	24	2433 1343	23	1322 1121	13	2	12.5	
24 d	2333 3242	22	2333 3242	22	2232 2242	19	0001 0120	4	1	12.5	
25	3211 2323	17	2111 2323	15	3211 2322	16	1100 1001	4	1	12.5	
26 q	1000 2011	5	0000 2011	4	1000 0010	2	0000 0000	0	0	12.5	
27	1111 1001	6	1111 1000	5	1111 1001	6	0000 0000	0	0	12.5	
28 q	0001 1100	3	0001 1100	3	0001 0000	1	0000 0000	0	0	12.5	
Mean									0.46	12.5	

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

GEOMAGNETIC FORCE: HORIZONTAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

19	ESKDALEMUIR (H)												16,000γ (0-16 CGS unit) +												MARCH 1966	
	Hour GMT 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 21,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 q	932	930	930	928	928	933	934	933	928	916	906	901	910	917	925	927	929	930	929	930	932	933	932	932	926	1225
2 q	933	934	934	933	933	934	934	933	930	926	927	930	932	932	932	932	929	924	931	934	933	932	932	931	931	1355
3	929	937	932	929	930	934	938	939	939	928	912	920	936	932	929	930	930	929	926	928	922	928	919	906	928	1282
4	931	929	921	925	924	925	926	924	919	916	920	919	921	921	928	927	923	926	929	935	930	915	925	925	924	1184
5	926	922	922	924	924	928	932	933	931	923	915	910	915	921	923	928	931	928	930	928	929	927	924	925	925	1199
6	930	925	925	928	932	932	934	930	925	913	910	913	914	915	921	925	926	927	931	931	929	926	926	933	925	1201
7 q	929	934	931	931	931	932	932	934	928	917	912	906	910	919	925	931	930	930	932	933	932	933	930	929	927	1251
8	929	931	932	932	932	937	936	938	937	928	922	917	919	926	931	933	933	932	929	932	936	936	936	935	931	1349
9	933	933	933	933	934	935	936	933	929	921	915	917	916	917	924	928	929	934	938	941	932	917	920	917	928	1265
10	912	924	917	921	924	927	930	932	924	920	919	906	912	913	905	920	928	930	934	935	932	932	945	928	924	1170
11	932	929	936	929	928	930	932	932	929	920	910	908	914	919	925	929	932	932	936	926	925	935	936	927	927	1251
12	925	926	930	932	932	934	934	934	930	913	908	906	910	913	918	920	923	931	934	935	936	935	935	936	926	1230
13	935	934	935	928	931	931	930	932	927	923	918	920	927	934	939	935	937	942	915	907	887	881	879	836	919	1063
14 d	825	846	894	932	938	897	825	825	817	822	834	834	870	892	896	897	881	888	903	911	915	916	916	922	879	96
15	909	915	911	914	918	918	922	912	901	891	887	894	901	915	915	909	915	915	911	917	918	937	920	916	912	881
16	923	919	918	921	926	925	924	920	916	903	891	890	902	903	913	913	918	921	924	922	922	909	916	916	915	955
17	921	920	922	923	925	927	929	926	923	912	904	904	909	918	913	919	928	930	936	927	924	924	923	933	922	1120
18	917	913	918	924	924	925	927	927	925	922	908	900	907	913	920	924	925	926	930	933	935	933	935	938	923	1149
19 d	941	941	947	949	939	941	946	939	932	917	931	903	886	900	908	922	921	925	893	933	923	932	951	935	927	1255
20	913	915	920	921	924	928	929	924	915	907	903	901	903	911	908	915	913	907	926	931	931	925	931	938	918	1039
21	928	925	919	927	927	925	933	928	918	909	902	904	909	914	924	923	924	922	924	931	930	931	933	942	923	1152
22	919	923	927	932	932	936	936	931	920	910	903	903	915	923	927	938	938	933	935	933	933	926	923	929	926	1225
23 d	930	932	933	940	934	949	949	925	881	844	847	887	909	907	915	925	931	910	909	877	878	893	894	899	908	798
24 q	892	891	891	893	895	898	900	897	894	889	885	884	890	897	906	908	909	909	911	912	913	913	911	918	900	606
25	915	922	921	923	925	926	930	927	917	908	902	903	911	913	914	922	935	935	924	943	935	924	928	924	922	1127
26 d	929	928	927	928	934	936	936	935	929	918	915	932	895	892	905	922	920	909	905	916	925	929	930	929	922	1124
27	924	923	920	918	916	918	919	902	911	912	907	896	895	905	913	917	922	923	925	932	931	931	930	939	918	1029
28 d	935	928	920	920	921	921	910	919	911	887	858	856	869	869	888	907	927	899	903	878	909	880	904	912	901	631
29	920	944	913	892	911	921	920	911	901	898	898	893	889	896	909	919	922	922	924	926	927	926	927	926	915	949
30	926	928	924	919	912	916	920	920	918	911	903	899	899	911	919	927	927	922	929	929	928	934	923	921	919	1065
31 q	921	928	922	922	923	923	923	923	919	910	907	903	904	913	916	920	924	925	927	929	929	931	931	931	921	1104
Mean	921	923	923	925	926	927	926	923	917	907	903	902	907	912	917	922	925	923	924	925	925	923	925	923	920	
Sum 27,000γ+	1564	1629	1625	1671	1707	1742	1706	1618	1424	1134	979	959	1103	1281	1434	1592	1660	1616	1633	1675	1661	1624	1665	1628		Grand Total 684,330

GEOMAGNETIC DECLINATION (WEST)  
Mean values for periods of sixty minutes ending at exact hours, GMT

20	ESKDALEMUIR (D)													9° +												MARCH 1966	
	Hour GMT																									Mean	Sum
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24		1300·0° +	
1 q	57·8	57·8	57·8	57·5	57·4	56·8	56·9	56·8	55·8	56·0	58·0	60·1	60·8	61·0	61·2	60·0	58·8	58·9	58·6	59·0	59·0	58·8	58·6	58·1	58·4	101·5	
2 q	57·8	57·8	57·5	57·0	57·2	57·2	57·1	57·1	56·9	57·5	59·5	61·5	62·1	61·5	60·7	60·0	59·3	59·7	60·0	59·3	58·9	58·3	57·8	57·5	58·7	109·2	
3	57·8	59·6	61·7	56·7	56·9	56·7	56·9	57·1	56·8	57·3	61·0	60·8	61·5	61·0	61·0	59·7	59·0	59·3	59·3	60·0	59·5	56·9	54·4	51·4	58·4	102·3	
4	58·0	55·3	55·6	54·8	55·3	55·7	55·4	55·8	56·2	57·0	59·0	61·5	62·6	62·3	61·5	60·9	60·5	60·9	60·0	59·5	59·0	52·3	54·0	55·8	57·9	88·9	
5	57·1	56·3	56·0	55·2	55·2	56·4	56·0	56·1	56·0	56·0	57·4	59·5	61·7	62·5	60·9	59·5	58·0	57·7	57·8	57·8	57·2	56·7	56·9	57·2	57·5	81·1	
6	57·3	57·3	57·5	57·2	57·2	57·1	56·7	56·6	55·8	56·8	58·7	60·9	63·0	63·8	62·8	60·5	59·1	58·4	58·1	57·2	57·4	56·6	57·1	57·3	58·3	100·4	
7 q	56·7	59·5	57·8	56·4	55·8	56·2	56·4	56·1	54·9	54·9	57·3	60·2	62·7	63·9	62·5	60·9	59·3	58·7	58·1	57·8	57·8	57·7	57·8	57·8	58·2	97·2	
8	57·2	57·2	57·3	56·6	57·1	57·4	57·1	56·1	55·7	55·5	57·1	58·9	60·7	61·7	61·3	59·8	58·8	58·7	58·0	57·5	57·8	57·8	57·8	57·7	57·9	90·8	
9	57·8	57·9	58·0	58·0	58·0	57·8	57·7	56·6	55·1	54·9	56·5	59·5	62·6	63·9	64·0	62·6	60·5	59·6	59·3	58·9	58·7	56·6	49·7	50·8	58·1	95·0	
10	52·9	53·9	56·6	56·5	57·2	57·1	56·7	56·1	55·6	55·6	57·9	59·5	62·7	65·1	64·5	62·3	60·2	59·4	58·9	58·7	57·5	56·9	53·8	55·2	57·9	90·8	
11	56·6	57·9	58·0	56·4	56·7	57·1	57·0	56·7	55·2	55·2	56·9	59·0	61·4	62·5	62·5	61·1	59·8	58·9	58·7	57·7	58·0	57·7	56·6	52·4	57·9	90·0	
12	54·8	56·8	57·0	57·1	57·3	57·6	57·7	56·2	55·3	56·7	58·2	61·7	63·3	63·4	63·5	61·4	59·0	58·3	58·1	58·1	58·3	58·1	58·0	58·0	58·5	103·9	
13	57·3	57·2	56·9	57·2	57·2	57·1	56·8	56·2	55·3	55·9	56·9	59·3	61·5	62·5	62·8	62·5	61·4	60·6	62·6	60·5	58·9	54·9	32·0	36·4	56·7	59·9	
14 d	33·4	24·0	26·4	21·8	44·0	65·2	62·7	65·2	67·0	64·4	61·4	64·0	64·2	64·4	57·1	59·8	59·0	57·9	58·1	57·6	57·7	58·2	57·4	55·9	54·5	6·8	
15	55·3	57·3	56·3	58·9	57·0	55·9	55·7	54·2	54·3	55·8	58·8	62·2	62·7	64·4	63·8	61·2	59·4	58·0	57·8	58·0	58·2	54·8	55·7	57·2	58·0	92·9	
16	61·4	57·4	56·2	58·1	58·8	56·3	56·4	55·4	54·8	55·6	58·0	61·4	63·5	63·5	63·2	60·8	58·8	58·0	57·9	57·8	57·7	56·7	57·4	57·1	58·4	102·2	
17	57·6	57·4	57·3	56·7	56·2	55·7	55·8	55·7	54·9	54·3	57·0	60·4	63·2	64·2	62·5	60·5	59·7	59·3	59·6	60·8	57·2	59·6	57·8	55·2	59·6	58·3	100·4
18	55·8	55·7	57·1	57·4	57·6	56·9	56·5	55·4	54·2	55·0	56·6	58·8	61·6	63·2	62·2	60·6	58·6	57·8	57·8	58·4	58·6	58·6	58·5	58·3	58·0	91·2	
19 d	57·8	57·5	57·0	55·3	54·3	55·4	56·0	55·7	56·0	57·8	58·9	64·2	65·4	67·1	65·0	62·2	59·0	57·8	49·9	48·6	57·2	57·8	48·4	54·2	57·4	78·5	
20	54·1	60·3	61·4	57·0	56·2	56·1	55·8	54·8	54·3	55·0	57·0	60·0	62·7	64·5	63·6	61·8	58·5	58·3	57·8	55·3	56·2	57·2	57·9	56·7	58·0	92·5	
21	56·6	55·9	55·3	57·9	55·3	57·0	57·6	55·7	54·5	54·2	56·8	59·7	62·4	62·8	62·6	60·0	58·6	57·8	58·2	57·9	58·1	57·1	57·2	54·3	57·6	83·5	
22	54·1	56·7	56·8	57·0	57·7	57·9	57·1	55·3	53·5	53·7	56·4	59·8	62·6	63·7	63·3	62·8	61·8	60·9	59·8	59·0	57·6	54·9	54·2	57·0	58·1	93·6	
23 d	56·9	57·5	57·8	57·3	58·2	57·5	58·9	59·3	57·8	65·1	63·2	67·6	70·0	65·5	66·2	70·6	69·4	66·6	48·1	52·7	56·8	53·2	56·2	56·7	60·4	149·1	
24 q	57·0	56·6	56·6	56·1	56·0	56·1	56·6	56·0	55·8	56·2	58·2	59·9	61·6	61·6	60·6	59·0	57·9	57·3	57·0	56·6	56·8	56·9	57·0	57·1	57·5	80·8	
25	57·0	57·1	57·0	57·0	56·9	56·9	56·6	54·4	52·6	52·9	55·2	59·5	62·9	65·1	64·1	62·6	61·7	61·1	59·8	60·3	58·3	58·0	57·5	57·0	58·4	101·5	
26 d	57·1	56·9	57·0	57·0	57·5	58·7	57·0	54·8	54·0	54·2	57·0	62·8	64·9	66·9	64·4	62·3	59·9	57·7	52·2	55·5	57·9	58·0	58·0	57·4	58·3	99·1	
27	55·9	56·6	56·1	57·8	56·5	57·7	57·9	58·8	56·6	55·6	58·5	61·5	63·5	64·9	63·9	60·0	61·0	58·9	58·1	58·0	57·8	57·4	56·7	56·9	58·6	105·7	
28 d	56·0	54·1	54·9	54·9	55·3	55·6	57·7	58·0	57·0	57·1	59·8	62·5	66·3	68·9	69·9	59·1	62·8	59·7	57·8	53·4	46·6	45·5	54·2	56·9	57·7	84·0	
29	58·6	57·8	53·0	58·8	56·1	55·3	58·7	58·6	56·6	55·0	56·8	59·7	61·3	62·3	62·0	60·8	59·2	58·7	57·8	57·6	57·4	57·5	57·3	57·0	58·1	93·9	
30	56·6	56·3	55·3	54·4	54·5	53·9	56·6	55·9	54·2	54·4	56·2	58·3	61·7	65·4	63·6	62·4	59·9	59·0	58·5	58·6	57·8	57·2	56·6	56·9	57·7	84·2	
31 q	57·2	57·7	55·3	55·0	54·7	54·6	54·7	54·6	54·7	55·8	58·4	59·9	61·8	62·7	62·5	61·1	59·1	58·0	57·8	57·8	57·8	57·6	57·8	57·8	57·7	84·4	
Mean	56·1	56·0	55·9	55·7	56·2	56·9	57·0	56·5	55·7	56·2	58·0	60·8	62·9	63·7	62·9	61·3	59·9	59·1	57·8	57·6	57·6	56·6	55·4	55·8	58·0		
Sum 1700·0° +	37·5	37·3	34·5	25·0	41·3	62·9	66·7	51·3	27·4	41·4	98·6	184·6	248·9	276·2	249·7	198·8	157·1	131·9	91·5	85·6	86·1	53·7	17·7	29·6		Grand Total 43135·3	

GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

21 ESKDALEUIR (Z)												45,000γ (0.45 CGS unit) +												MARCH 1966			
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 10,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 q	450	449	450	450	449	449	448	448	449	446	442	442	443	445	449	452	453	452	453	453	452	452	452	451	450	449	777
2 q	450	450	449	449	450	449	448	448	448	448	443	438	436	439	443	445	449	453	453	453	452	452	452	452	451	448	752
3	452	447	443	446	448	448	447	447	446	443	441	441	442	444	448	448	449	449	454	454	459	460	452	452	454	448	762
4	446	437	446	449	449	449	450	450	449	446	441	437	438	442	446	452	458	454	455	454	458	465	459	456	449	786	
5	454	455	454	453	453	451	449	448	449	448	448	445	444	445	451	452	453	452	453	454	454	454	454	455	451	828	
6	453	453	453	453	452	451	450	450	449	447	443	442	446	450	454	457	459	456	454	454	454	456	454	452	452	842	
7 q	452	448	448	448	449	448	448	446	447	443	440	442	442	445	451	455	456	454	453	453	452	452	451	451	449	774	
8	454	453	451	450	449	448	448	445	442	439	436	437	439	443	446	450	453	450	452	451	449	448	448	448	447	729	
9	449	450	450	450	450	449	448	448	448	447	442	435	432	437	444	452	454	453	449	449	453	459	460	453	448	761	
10	439	439	449	452	453	453	452	450	449	445	441	437	437	443	452	454	456	457	454	454	454	459	448	444	449	766	
11	443	443	437	438	443	447	448	448	445	443	441	438	439	442	448	452	451	451	452	454	454	454	448	448	446	707	
12	444	447	448	449	449	449	449	449	445	446	443	440	439	443	449	459	460	459	455	453	452	450	450	449	449	776	
13	450	450	449	452	453	453	453	451	448	444	442	438	439	442	446	454	458	462	475	487	496	492	455	417	454	906	
14 d	416	418	400	367	333	329	348	390	425	448	472	499	504	495	515	517	511	495	477	471	468	465	465	461	445	689	
15	460	457	458	456	453	456	461	465	465	459	452	448	443	445	451	458	462	467	469	467	467	461	459	459	458	998	
16	452	453	455	455	451	452	454	457	454	451	449	451	454	453	455	461	461	461	461	460	461	465	464	463	456	953	
17	461	460	456	455	455	455	455	457	454	451	447	442	440	444	450	454	456	455	457	461	466	467	466	451	455	915	
18	449	454	455	455	455	455	455	455	453	449	449	446	445	449	455	460	461	460	458	455	455	455	455	455	454	893	
19 d	455	455	454	450	451	450	449	453	453	453	449	447	448	452	455	464	469	472	481	477	465	460	453	440	456	955	
20	444	447	431	439	447	450	451	453	451	449	442	437	440	447	455	462	469	466	462	460	459	459	456	453	451	829	
21	449	446	447	444	446	448	449	453	453	450	449	447	446	450	454	459	461	461	458	456	457	457	457	448	452	845	
22	453	454	454	454	454	450	451	454	453	450	447	440	441	444	450	454	457	458	460	460	460	460	460	455	453	873	
23 d	457	455	455	450	448	441	439	442	447	447	444	443	462	474	492	543	596	605	582	482	505	503	501	491	483	1604	
24 q	483	479	477	476	472	470	469	468	466	465	461	460	460	461	466	469	471	471	469	467	466	466	466	465	468	1243	
25	466	465	465	463	462	461	461	463	460	454	447	443	446	449	457	461	461	461	460	458	460	462	461	462	459	1008	
26 d	462	461	461	462	458	454	453	454	450	447	439	431	442	449	455	461	466	471	482	472	464	460	458	458	457	970	
27	461	457	453	449	453	455	456	456	454	451	449	449	450	457	464	475	475	469	465	461	461	460	460	454	458	994	
28 d	449	445	449	454	456	458	460	451	450	449	449	449	456	464	471	497	490	502	524	507	439	439	454	456	463	1118	
29	451	432	429	424	421	440	444	449	454	455	452	449	451	453	459	460	461	461	464	462	462	461	461	461	451	816	
30	462	460	457	454	454	455	460	460	456	454	451	447	443	443	450	466	468	468	467	466	465	462	461	461	458	990	
31 q	462	457	459	460	460	458	460	455	451	448	445	444	445	449	455	460	462	462	464	462	461	460	460	460	457	959	
Mean	453	451	450	449	448	448	449	450	450	449	446	445	446	450	456	463	467	467	467	467	462	461	460	458	454	454	
Sum 13,000γ+	1028	976	942	906	876	881	913	963	963	910	831	782	835	942	1138	1367	1470	1467	1472	1326	1280	1270	1199	1081		Grand Total 337,818	

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH CHAMBER

22 ESKDALEUIR										MARCH 1966	
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magneto-graph chamber °C	
1 q	1101 1000	4	1101 1000	4	0101 0000	2	0000 0000	0	0	12.5	
2 q	1000 1221	7	0000 1221	6	1000 0000	1	0000 0000	0	0	12.5	
3	2112 3223	16	2112 3223	16	2102 2013	11	0000 0011	2	1	12.5	
4	3211 1124	15	3111 1123	13	3210 0114	12	2000 0001	3	1	12.5	
5	1211 1122	11	1111 1112	9	1200 0021	6	0000 0000	0	0	12.5	
6	2001 1112	8	2001 1112	8	1000 0111	4	0000 0000	0	0	12.5	
7 q	2001 1000	4	2001 1000	4	2000 0000	2	0000 0000	0	0	12.5	
8	0121 1110	7	0121 1110	7	0121 0010	5	0000 0000	0	0	12.5	
9	0002 1123	9	0002 1123	9	0001 0013	5	0000 0001	1	1	12.4	
10	3112 2213	15	3112 2213	15	3112 1012	11	1000 0000	1	1	12.5	
11	2200 1123	11	2200 1123	11	2100 0013	7	1000 0001	2	0	12.6	
12	2011 2111	9	1011 2111	8	2011 1100	6	0000 0000	0	0	12.6	
13	1010 2235	14	1010 2234	13	1000 1235	12	0000 0224	8	2	12.6	
14 d	5654 4432	33	5553 4432	31	4643 4312	27	3444 3310	22	2	12.6	
15	2211 1323	15	1111 1323	13	2211 1212	12	0001 0201	4	1	12.6	
16	3211 2112	13	1111 2112	10	3210 1001	8	1000 0000	1	0	12.6	
17	1011 2223	12	1011 2223	12	1010 1013	7	0000 0012	3	0	12.6	
18	1100 0011	4	1100 0011	4	1000 0000	1	1000 0000	1	0	12.6	
19 d	2323 3244	23	2323 3244	23	2323 2244	22	0001 1232	9	1	12.6	
20	2222 2322	17	2122 2322	16	2212 2121	13	2101 1000	5	1	12.7	
21	2211 2123	14	2211 2123	14	1210 1103	9	0000 0001	1	1	12.7	
22	3111 1222	13	2111 1222	12	3010 1112	9	0000 0000	0	0	12.7	
23 d	3245 5563	33	3245 5562	32	2233 4553	27	0111 4562	20	2	12.6	
24 q	1000 0102	4	1000 0102	4	1000 0001	2	0000 0000	0	0	12.6	
25	3113 4443	23	3113 4443	23	2112 2222	14	0000 0000	0	1	12.7	
26 d	2123 5432	22	2113 5432	21	1122 3332	17	0001 2221	8	1	12.7	
27	2232 3332	20	2132 3332	19	2210 2212	12	1000 2101	5	1	12.7	
28 d	3133 4464	28	2123 4464	26	3132 2464	25	1010 2352	14	2	12.7	
29	3421 1111	14	3321 1111	13	3421 0000	10	3310 0000	7	1	12.7	
30	1212 3222	15	1212 3212	14	1111 2121	10	0000 0100	1	1	12.7	
31 q	2001 1000	4	1001 1000	3	2000 0000	2	0000 0000	0	0	12.8	
Mean									0.67	12.6	

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

19 ESKDALEUIR (H)												16,000γ (0.16 CGS unit) +												APRIL 1966		
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 21,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 d	929	930	929	928	928	928	930	930	923	912	908	910	923	928	919	936	930	926	921	918	917	939	908	900	923	1150
2 d	913	906	917	915	917	898	901	912	910	901	894	889	901	904	909	915	924	926	931	922	919	925	924	924	912	897
3	919	921	920	921	923	926	926	925	914	905	901	903	907	918	925	915	928	934	937	930	927	934	933	920	921	1112
4	934	918	924	926	924	934	925	922	914	905	901	903	906	912	915	926	936	931	937	938	930	937	930	931	923	1159
5	931	928	927	930	931	935	932	932	917	905	897	898	905	912	915	924	929	934	934	932	932	932	930	934	924	1176
6	929	937	936	927	928	932	934	931	919	911	897	896	903	913	910	926	930	938	938	931	930	926	929	934	924	1185
7	927	933	924	919	912	926	926	926	924	914	907	901	902	911	920	925	929	934	936	933	941	925	927	930	923	1152
8	936	930	923	921	927	934	937	932	915	897	888	886	892	905	916	924	927	939	938	947	933	934	945	932	923	1158
9	933	928	931	935	932	931	930	929	923	917	905	898	903	901	919	922	930	934	935	936	934	934	934	935	925	1209
10	935	936	930	930	929	931	930	923	918	909	908	903	904	906	913	922	929	946	922	928	935	937	937	938	925	1199
11 q	935	935	933	931	933	935	934	932	922	911	899	893	898	908	914	929	935	938	938	937	937	937	937	934	926	1235
12	935	935	934	935	935	936	938	935	928	917	911	911	916	924	929	933	939	940	942	942	941	941	942	941	933	1380
13 d	942	935	936	932	940	953	949	945	935	920	907	901	887	883	918	913	929	934	916	907	907	900	890	912	920	1091
14	912	917	918	917	921	922	924	922	914	914	909	911	912	909	919	922	918	933	936	932	938	932	930	932	921	1114
15	942	936	929	931	934	933	936	929	925	917	906	901	898	898	905	915	925	929	935	937	936	935	935	932	925	1199
16	933	934	932	932	935	937	935	931	923	913	906	903	903	911	923	926	929	938	941	944	947	948	943	942	930	1309
17	940	941	940	939	938	938	941	940	935	915	910	910	913	914	913	925	929	934	935	937	939	940	936	935	931	1337
18	934	933	936	934	933	934	936	931	924	916	908	902	906	910	921	925	934	935	938	938	938	940	938	939	928	1283
19 q	939	938	938	937	936	931	932	932	929	920	909	908	908	917	929	937	940	942	943	942	943	942	943	945	933	1380
20	945	946	946	945	946	944	944	933	920	909	904	908	895	906	922	935	931	929	936	934	937	935	936	930	930	1318
21	937	942	935	930	929	929	933	929	914	902	897	900	903	914	922	933	935	935	938	940	948	945	949	947	929	1286
22 d	962	940	937	939	942	946	954	949	924	912	909	906	905	914	909	916	927	944	947	938	941	939	935	936	932	1371
23	944	943	943	927	914	943	939	910	914	901	893	888	892	904	921	944	927	941	943	939	939	936	934	940	926	1219
24	945	940	931	928	934	932	928	921	912	897	890	892	906	921	931	939	936	939	945	950	934	935	937	939	928	1262
25 q	936	935	935	936	935	935	934	933	928	915	906	902	903	910	921	935	939	941	943	940	941	939	938	934	930	1314
26 q	933	935	936	937	937	938	939	932	924	910	900	898	901	914	924	932	940	941	945	945	937	940	937	940	930	1315
27 q	937	935	935	936	936	936	934	929	921	909	902	907	913	921	932	935	939	947	950	949	948	948	949	946	933	1394
28	947	948	946	946	945	936	930	932	925	919	906	908	908	915	921	930	936	942	945	940	941	937	936	936	932	1375
29	935	934	934	936	934	933	934	926	918	915	905	899	900	913	927	924	932	948	951	946	936	934	932	927	928	1273
30 d	930	937	939	935	937	932	928	915	917	912	909	906	903	914	922	921	927	917	925	939	938	925	935	930	925	1193
Mean	935	933	933	931	931	933	933	929	921	911	903	901	904	911	919	927	931	936	937	936	935	935	934	933	926	
Sum 27,000γ+	1049	1006	974	935	945	1000	993	868	629	320	92	41	116	330	584	804	939	1089	1121	1091	1064	1051	1009	995		Grand Total 667,045

**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

20 ESKDALEUIR (D)													9° +											APRIL 1966																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	Hour GMT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		



GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

21 ESKDALEUIR (Z)													45,000γ (0.45 CGS unit) +													APRIL 1966	
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 10,000γ+	
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	
1 d	460	460	459	458	457	457	458	457	455	451	443	437	435	444	464	482	496	523	519	511	497	473	442	430	465	1168	
2 d	439	451	427	427	437	443	442	447	449	449	450	449	447	449	454	459	461	464	466	467	467	464	463	461	451	832	
3	461	460	459	453	454	455	456	460	460	456	451	446	443	444	451	460	461	461	461	462	465	466	459	455	457	959	
4	451	455	455	456	454	450	454	455	454	451	450	446	443	444	447	453	460	462	461	461	464	458	461	460	454	905	
5	459	458	459	458	456	454	457	460	460	457	450	444	441	443	448	453	458	460	460	460	461	458	457	455	455	926	
6	457	455	449	449	453	453	454	455	456	454	450	447	440	439	447	455	459	462	465	465	463	462	461	459	455	909	
7	449	442	433	432	442	444	449	450	450	449	448	444	447	446	450	458	463	468	469	466	462	461	459	457	452	838	
8	454	447	438	435	433	433	444	450	454	453	446	438	438	444	451	455	457	460	462	461	465	464	460	454	450	796	
9	459	454	456	456	455	454	454	453	450	448	445	441	436	437	444	454	461	465	462	459	457	456	454	454	453	864	
10	455	454	454	454	455	456	457	457	453	449	445	439	440	445	454	461	464	467	478	470	461	459	456	454	456	937	
11 q	456	456	457	457	456	454	457	458	456	452	445	439	438	444	447	450	452	455	456	455	455	454	453	453	452	855	
12	454	454	454	454	454	454	456	454	450	448	445	436	431	437	446	453	456	459	458	456	455	454	454	454	451	826	
13 d	453	454	454	454	452	446	447	446	445	442	439	435	436	447	464	479	489	500	516	508	493	481	475	465	463	1120	
14	456	448	448	449	452	453	455	458	459	452	449	443	442	443	453	458	464	468	471	471	466	466	464	459	456	947	
15	443	443	448	453	454	454	454	458	456	453	451	448	443	448	454	458	459	461	461	460	460	459	458	458	454	894	
16	459	459	458	456	456	455	459	460	458	455	450	443	442	443	447	454	456	459	458	457	455	455	456	456	454	906	
17	454	454	454	454	453	453	453	453	449	448	448	443	438	442	447	450	454	457	459	459	457	455	454	455	452	843	
18	458	456	454	454	454	453	453	453	450	449	445	438	434	433	437	443	449	453	454	453	454	453	454	454	449	788	
19 q	455	454	454	454	454	454	453	450	448	445	446	443	438	438	441	445	447	451	454	454	454	454	454	454	450	794	
20	454	454	454	453	453	452	452	454	449	447	443	436	436	439	453	467	478	483	476	466	461	460	459	456	456	935	
21	455	450	443	443	447	451	454	457	454	446	442	441	438	442	449	456	457	455	458	456	454	456	456	459	451	819	
22 d	448	449	453	455	454	449	443	441	441	439	436	431	435	446	459	462	474	477	469	465	460	460	459	459	453	864	
23	457	455	454	456	449	441	442	444	443	438	432	433	432	437	442	451	460	460	460	458	457	457	458	455	449	771	
24	452	449	449	454	455	459	458	457	452	447	443	442	438	442	448	454	459	459	464	465	461	456	454	454	453	871	
25 q	453	454	454	455	456	459	456	454	453	450	447	439	437	440	446	457	459	462	461	462	460	456	454	454	453	878	
26 q	457	456	456	456	456	459	456	454	451	444	437	432	431	437	442	448	453	454	454	458	459	456	454	452	451	812	
27 q	454	454	454	454	456	456	454	452	447	440	435	434	436	438	443	448	450	454	454	454	453	452	450	450	449	772	
28	452	452	453	454	454	455	454	452	449	442	438	436	437	441	444	446	449	459	465	464	460	459	457	455	451	827	
29	455	454	454	453	453	454	453	451	446	443	441	442	442	443	449	456	459	460	463	467	468	462	460	459	454	887	
30 d	454	449	444	442	443	450	454	455	450	445	439	431	435	443	457	474	487	495	488	474	471	470	461	457	457	968	
Mean	454	453	451	451	452	452	453	453	452	448	444	440	438	442	449	457	462	466	467	465	463	460	457	455	453		
Sum 13,000γ+	623	590	538	538	557	560	588	605	547	442	329	196	149	258	478	699	851	973	1002	944	875	796	716	657		Grand Total 326,511	

GEOMAGNETIC CHARACTER FIGURES ( $K$ ,  $K_H$ ,  $K_D$ ,  $K_Z$ , AND  $C$ ) AND TEMPERATURE IN MAGNETOGRAPH CHAMBER

22 ESKDALEUIR										APRIL 1966	
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magneto- graph chamber °C	
1 d	0012 3435	18	0002 3335	16	0011 2334	14	0000 3434	14	1	12.8	
2 d	2321 1121	14	3321 1121	14	3321 0021	12	3200 0000	5	1	12.7	
3	2210 2223	14	1110 2223	12	2210 1113	11	0000 1001	2	1	12.7	
4	3211 2223	16	3211 2223	16	2211 1123	13	0000 0101	2	1	12.7	
5	2111 1122	11	2011 1122	10	2110 0022	8	0000 0100	1	0	12.7	
6	2221 2222	15	2211 2222	14	2120 1111	9	1000 0000	1	0	12.8	
7	4211 1122	14	3211 1121	12	4200 0022	10	2100 0000	3	1	12.7	
8	2212 2223	16	2212 2223	16	2211 1023	12	2110 0001	5	1	12.7	
9	2101 2211	10	2101 2211	10	1100 0110	4	0000 0000	0	0	12.8	
10	1111 1331	12	1001 1331	10	1111 0030	7	0000 0020	2	0	12.7	
11 q	0000 1000	1	0000 1000	1	0000 1000	1	0000 0000	0	0	12.7	
12	1011 1101	6	1011 1101	6	0011 0000	2	0000 0000	0	0	12.8	
13 d	2323 4343	24	2313 4343	23	1221 3232	16	0000 2222	8	1	12.9	
14	2112 3323	17	1112 3322	15	2101 1113	10	1000 0001	2	1	12.8	
15	3120 0100	7	3110 0100	6	3020 0000	5	1000 0000	1	0	12.8	
16	0000 1212	6	0000 1212	6	0000 0002	2	0000 0000	0	0	12.8	
17	0111 2102	8	0111 2102	8	0010 0001	2	0000 0000	0	0	12.7	
18	1100 1100	4	1100 1100	4	1100 0000	2	0000 0000	0	0	12.7	
19 q	1010 1100	4	1010 1100	4	0000 0000	0	0000 0000	0	0	12.7	
20	0012 3212	11	0012 3211	10	0011 2102	7	0000 1010	2	1	12.8	
21	2101 1122	10	1101 1122	9	2100 0002	5	1000 0000	1	0	12.8	
22 d	3222 3321	18	3222 3321	18	3221 1201	12	1000 2200	5	1	12.8	
23	2331 2312	17	2331 2312	17	1321 0101	9	0200 0100	3	1	12.8	
24	3111 1132	13	3111 1132	13	1111 0021	7	0000 0000	0	1	12.8	
25 q	1001 1111	6	1001 1111	6	1000 0010	2	0000 0000	0	0	12.8	
26 q	0100 1111	5	0000 1111	4	0100 1011	4	0000 0000	0	0	12.8	
27 q	0000 1111	4	0000 1111	4	0000 0000	0	0000 0000	0	0	12.7	
28	1111 1220	9	1111 1220	9	1110 0010	4	0000 0100	1	0	12.9	
29	1110 1232	11	0110 1231	9	1110 1132	10	0000 1010	2	1	12.9	
30 d	2221 2333	18	2121 2333	17	2210 1213	12	1101 2221	10	1	12.9	
Mean									0.47	12.8	

$q$  denotes an international quiet day and  $d$  an international disturbed day.

$K_H$  For horizontal component.  $K_D$  For declination.  $K_Z$  For vertical component.

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

19 ESKDALEMUIR (H)												16,000γ (0.16 CGS unit) +												MAY 1966		
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 21,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	930	934	929	929	924	912	925	922	911	901	903	903	906	914	919	916	935	935	946	942	930	930	938	934	924	1168
2 d	940	950	931	931	930	928	922	920	908	902	906	909	895	915	917	929	941	965	950	941	938	940	925	923	927	1256
3	927	926	927	929	925	921	917	913	912	908	904	908	913	923	930	937	944	944	941	935	928	934	933	926	926	1220
4 d	942	930	918	919	928	923	924	906	905	901	887	878	899	914	932	931	935	940	952	939	932	917	925	942	922	1119
5	928	924	930	925	927	925	915	916	911	903	898	906	913	921	923	928	937	939	946	941	936	934	936	933	925	1195
6	933	937	936	937	919	935	913	912	912	908	898	899	906	909	924	930	929	939	943	938	937	937	933	937	925	1201
7	937	932	932	931	929	929	926	923	917	908	902	905	912	915	924	932	932	937	942	947	945	943	934	934	928	1268
8	932	931	932	931	934	933	928	923	916	911	913	912	920	925	934	955	937	949	961	950	938	930	925	927	931	1347
9	930	933	930	931	932	928	929	935	927	916	907	902	903	914	916	927	941	947	948	943	938	935	933	932	928	1277
10 q	933	933	933	932	933	933	931	925	919	912	907	912	911	915	927	933	940	949	946	948	947	947	944	940	931	1350
11 d	938	936	936	938	942	944	942	936	934	927	914	911	919	907	904	929	935	943	951	963	958	955	949	945	936	1456
12	948	942	938	933	938	943	940	942	937	924	910	904	906	920	928	929	941	949	950	950	942	941	943	939	935	1437
13	949	939	938	939	942	942	940	934	914	907	913	912	909	916	923	930	943	946	951	948	943	940	940	940	933	1398
14 q	939	938	936	937	939	937	931	924	916	912	908	911	915	919	927	935	940	947	952	947	946	945	943	942	933	1386
15 q	938	938	936	936	938	938	931	928	925	921	920	918	919	919	921	931	936	941	949	953	946	946	944	941	934	1413
16	941	938	936	934	938	936	927	921	916	914	911	915	921	936	940	927	934	944	956	960	955	940	938	940	934	1418
17	939	933	931	941	939	933	927	919	910	902	908	915	925	924	923	927	943	944	955	952	949	951	942	938	932	1370
18	944	940	933	934	937	931	930	923	916	908	909	917	927	931	927	940	942	951	947	946	948	942	942	940	934	1405
19	945	936	931	932	932	930	927	924	919	915	912	910	909	916	923	924	933	945	952	958	954	945	940	939	931	1351
20	934	940	935	933	934	934	932	926	923	919	916	903	908	927	929	935	947	946	971	967	954	940	939	944	935	1436
21	946	943	942	940	938	934	930	926	920	912	912	903	907	918	921	938	955	951	949	944	944	943	940	940	933	1396
22	940	943	943	942	946	948	944	936	930	915	910	908	911	915	927	930	939	951	958	954	949	945	946	944	936	1474
23 q	940	939	940	942	946	950	945	937	926	915	904	904	910	916	934	945	951	953	954	948	947	946	945	943	937	1480
24 q	943	942	943	945	946	947	943	939	930	920	914	907	911	921	933	943	954	960	959	955	948	945	944	943	939	1535
25	942	946	946	946	948	947	943	935	927	915	911	909	917	931	939	950	958	951	945	945	945	945	941	960	940	1553
26 d	958	955	953	960	962	958	949	945	935	885	813	850	832	880	923	979	1024	1020	988	927	889	856	825	899	924	1165
27	896	901	896	897	896	892	889	887	881	875	871	874	878	888	895	903	908	915	916	918	919	919	922	917	898	553
28	913	915	919	918	918	916	907	898	893	890	885	886	894	906	907	918	927	927	931	936	933	927	941	925	914	930
29	920	918	918	922	923	919	914	903	892	888	889	893	899	896	905	919	926	940	945	940	939	930	929	928	916	995
30	922	921	925	924	927	923	915	901	893	892	896	903	907	927	933	937	949	942	954	955	958	934	927	923	925	1188
31 d	934	937	923	926	949	951	924	898	867	873	861	880	907	900	928	973	974	957	998	972	951	899	925	906	926	1213
Mean	935	935	932	933	934	933	928	922	914	906	900	902	907	915	924	934	943	947	952	947	942	935	934	935	929	
Sum 27,000γ+	2001	1970	1896	1914	1959	1920	1760	1577	1342	1099	912	967	1109	1378	1636	1960	2230	2367	2506	2368	2193	1976	1942	1971		Grand Total 690,953

**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

20 ESKDALEMUIR (D)													9° +												MAY 1966		
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 1300.0' +	
1	57.1	58.2	55.3	54.8	52.7	53.9	53.8	51.7	51.4	53.9	56.4	59.8	62.0	62.5	62.4	61.5	61.1	60.4	59.3	57.8	56.2	56.3	56.5	56.9	57.2	71.9	
2 d	56.1	53.9	54.2	53.1	51.1	49.7	51.3	51.8	54.4	58.6	59.8	63.8	63.7	65.2	62.9	61.8	60.7	58.2	57.0	56.7	51.5	52.6	52.3	53.2	56.4	53.6	
3	54.2	54.6	55.0	56.0	55.0	53.1	51.9	51.8	52.0	53.8	57.1	60.1	63.2	64.6	64.5	63.5	62.2	59.6	58.1	57.7	56.7	56.6	55.5	51.8	57.0	68.6	
4 d	54.0	47.8	52.2	56.5	54.1	53.3	52.7	53.2	52.9	54.3	57.2	61.3	63.7	64.2	64.3	61.6	60.1	59.0	55.4	55.4	55.2	53.0	55.4	55.4	56.3	52.2	
5	53.5	53.8	54.8	55.4	55.1	54.4	54.9	53.5	52.8	54.4	57.2	60.9	62.8	63.2	62.5	61.6	61.0	59.8	55.1	55.2	55.4	55.9	55.1	55.2	56.8	63.5	
6	56.2	58.1	56.8	55.4	55.4	56.9	52.3	52.5	51.6	52.3	55.1	56.3	59.8	61.3	61.9	61.7	60.3	58.9	57.9	57.1	56.7	56.5	55.3	56.1	56.8	62.4	
7	56.9	57.1	56.7	56.0	55.6	55.1	54.2	53.3	53.3	54.4	56.7	58.7	61.6	63.2	63.6	63.3	62.0	60.6	59.1	58.0	57.1	53.5	54.2	55.2	57.5	79.4	
8	54.3	55.3	55.8	55.4	56.1	55.4	54.3	53.3	53.1	53.5	56.7	59.4	62.4	64.2	64.3	64.5	63.1	61.7	61.2	60.2	57.8	52.9	54.8	55.9	57.7	85.6	
9	55.9	55.5	55.6	55.5	54.9	54.4	55.5	54.8	53.1	53.2	56.4	59.9	63.1	64.4	63.1	61.8	61.0	59.7	58.5	58.0	57.9	57.4	57.1	57.2	57.7	83.9	
10 q	57.1	57.1	56.7	56.3	55.9	55.1	54.1	53.0	52.5	53.0	54.9	58.5	61.3	62.4	62.7	61.5	60.3	59.5	58.2	58.4	58.0	57.9	57.8	57.6	57.5	79.8	
11 d	57.2	57.0	56.8	56.2	55.4	54.8	54.2	53.7	52.2	52.9	55.3	59.8	64.7	65.4	63.5	62.7	61.3	60.0	58.6	58.3	59.1	56.7	50.0	51.6	57.4	77.4	
12	53.4	54.8	55.4	55.4	55.7	54.5	54.3	53.1	53.1	53.2	56.0	59.1	61.2	62.6	62.0	60.5	59.7	59.5	59.3	58.8	56.4	58.0	58.1	57.9	57.2	72.0	
13	59.5	56.7	56.7	56.3	56.1	55.1	54.1	52.7	53.3	56.1	56.3	57.7	60.7	62.4	62.3	60.6	60.2	59.8	58.7	58.0	58.2	58.2	57.9	57.2	57.7	84.8	
14 q	57.1	56.8	56.5	55.5	55.5	54.5	54.5	54.0	54.0	54.3	56.1	58.1	60.0	60.9	60.8	60.7	60.5	59.2	58.9	58.8	58.4	57.9	58.1	57.6	57.4	78.7	
15 q	57.0	56.8	56.7	55.5	54.9	53.8	53.1	53.2	54.3	55.2	56.7	58.0	59.5	60.0	60.5	60.4	59.7	58.9	58.5	57.9	57.3	57.9	58.4	58.2	57.2	72.4	
16	57.6	57.1	56.2	55.4	54.4	52.9	51.8	51.8	53.1	55.2	57.5	60.1	61.8	62.7	62.0	61.1	60.3	59.6	58.9	58.9	54.6	60.5	57.3	56.9	57.4	77.7	
17	55.5	54.3	56.8	55.9	52.3	52.3	51.8	52.6	53.4	55.4	58.7	60.8	63.8	64.8	64.1	62.9	61.6	59.0	58.1	57.9	57.3	55.7	56.1	57.0	57.4	78.1	
18	59.0	55.3	54.7	54.4	53.4	53.8	53.3	51.6	52.2	54.5	57.2	55.4	63.3	64.3	62.2	60.6	59.0	58.0	57.2	57.1	57.7	56.5	57.1	57.4	56.9	65.2	
19	56.7	55.4	55.6	54.8	53.9	52.9	51.9	51.9	52.8	55.3	59.1	61.9	62.7	63.1	63.2	61.6	60.1	59.0	57.9	57.1	57.3	55.9	56.1	56.0	57.2	72.2	
20	56.0	55.6	55.6	54.5	53.5	52.5	51.8	50.8	51.3	53.4	56.8	60.8	63.7	65.6	65.1	63.0	62.1	60.1	59.3	59.0	55.4	51.3	54.6	56.9	57.0	68.7	
21	57.1	56.1	57.4	56.3	55.3	54.3	53.6	52.2	51.5	53.0	56.8	60.3	62.7	64.5	64.5	63.6	61.4	59.1	57.9	57.1	57.1	56.7	56.8	56.9	57.6	82.2	
22	56.4	56.4	56.0	55.3	55.7	55.6	55.4	53.6	52.5	53.2	55.6	59.1	61.8	64.2	64.7	62.9	60.9	59.1	57.1	56.5	56.9	57.4	57.6	56.6	57.5	80.6	
23 q	56.7	56.6	56.8	56.7	55.4	54.7	54.0	53.1	52.5	53.6	55.4	59.6	63.1	65.2	64.9	62.8	59.9	57.9	56.7	56.5	56.9	56.9	56.9	56.8	57.5	79.6	
24 q	56.7	56.8	56.7	56.3	55.3	54.1	53.6	52.3	51.5	52.8	55.9	58.7	61.6	63.4	64.2	63.2	60.8	58.9	57.3	56.7	57.1	56.8	56.8	57.2	57.2	57.3	75.1
25	57.2	57.3	57.3	56.8	55.0	53.1	52.2	51.7	52.2	53.5	56.1	59.2	61.6	63.2	63.1	62.1	60.8	63.2	58.2	58.4	58.1	58.1	58.1	58.2	57.7	84.7	
26 d	56.4	55.7	55.3	54.6	53.0	51.7	51.6	53.3	50.6	52.4	56.1	63.4	66.1	62.0	69.8	69.4	70.5	63.7	54.0	49.9	51.4	49.4	47.7	52.2	56.7	60.2	
27	55.0	54.2	54.4	53.3	52.3	50.8	49.9	50.5	52.0	54.7	58.1	60.1	61.8	61.9	60.3	58.9	57.1	56.1	56.0	55.9	56.3	57.0	56.9	56.4	55.8	39.9	
28	56.1	55.8	56.1	55.5	55.3	53.9	53.9	53.3	53.4	55.4	58.1	60.8	62.9	63.2	62.0	60.3	58.9	57.0	56.9	57.9	57.9	57.8	57.3	56.3	57.3	76.0	
29	56.7	56.6	54.3	54.4	53.4	52.6	53.4	54.5	54.6	55.3	56.9	58.7	60.8	61.5	61.4	59.9	58.5	57.4	56.7	56.1	55.2	57.1	57.1	57.0	56.7	60.1	
30	56.0	55.4	55.2	54.2	53.4	52.5	51.1	50.1	51.3	53.6	56.3	58.8	60.8	62.0	60.5	59.1	59.0	58.1	58.0	55.7	55.7	53.9	54.6	55.7	55.9	41.0	
31 d	54.7	53.4	52.9	55.4	55.6	47.6	45.8	52.4	56.1	58.9	62.6	63.9	64.9	66.0	64.5	68.2	65.1	65.2	62.7	54.2	48.3	47.0	45.7	52.0	56.8	63.1	
Mean	56.2	55.7	55.7	55.4	54.5	53.5	52.9	52.6	52.7	54.3	56.9	59.8	62.4	63.4	63.1	62.2	60.9	59.5	58.0	57.1	56.3	55.8	55.6	56.0	57.1		
Sum 1600.0' +	143.3	125.5	126.5	117.1	90.7	59.3	40.3	31.3	35.0	83.3	165.1	253.0	333.1	364.1	357.8	327.3	289.2	246.2	196.7	171.2	145.1	129.3	123.7	136.5		Grand Total 42490.6	

GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

57

21 ESKDALEUIR (Z)													45,000γ (0.45 CGS unit) +													MAY 1966	
	Hour 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 10,000γ+	
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	
1	456	451	449	447	447	449	444	449	450	449	445	442	441	441	450	454	455	459	459	460	463	462	460	469	452	851	
2 d	454	443	443	447	449	449	448	443	440	437	437	436	443	452	459	465	470	472	475	474	472	460	454	454	453	876	
3	455	455	456	454	455	459	460	459	454	449	444	441	442	446	452	457	461	467	470	469	467	465	463	459	457	959	
4 d	446	435	430	431	431	437	443	449	450	448	443	441	441	445	453	462	470	472	475	474	471	467	460	444	451	818	
5	448	449	448	453	456	460	460	461	459	453	444	436	435	442	448	451	455	461	470	471	467	464	459	458	455	908	
6	456	453	445	438	440	439	448	449	447	442	442	440	439	443	451	454	459	463	464	463	462	459	458	458	451	812	
7	455	454	454	455	456	458	454	452	449	445	441	437	437	442	449	454	460	464	463	461	461	460	459	456	453	876	
8	455	455	456	455	455	455	455	454	449	443	436	431	431	440	446	454	463	462	466	469	472	470	462	461	454	895	
9	460	458	458	458	457	455	455	452	450	453	446	442	440	440	444	450	454	457	462	466	464	462	460	459	457	901	
10 q	460	459	460	460	460	461	461	458	454	449	442	433	437	440	446	451	455	458	459	458	458	455	455	455	453	884	
11 d	457	457	457	458	459	457	455	454	447	445	438	432	433	442	448	450	455	456	459	458	461	461	455	449	452	843	
12	447	447	450	455	455	455	457	457	454	449	446	445	443	447	450	457	460	461	461	461	464	460	458	454	454	893	
13	443	444	450	454	455	455	457	456	455	449	443	443	443	442	443	450	457	461	464	462	461	460	456	455	452	858	
14 q	456	455	455	456	458	459	460	457	453	447	443	440	437	440	443	444	449	453	456	457	458	459	457	457	452	849	
15 q	456	455	455	456	459	459	457	451	448	441	431	427	430	437	443	447	450	453	454	457	459	456	454	454	450	789	
16	454	454	455	456	458	459	459	455	451	442	439	437	438	443	449	453	455	454	454	457	460	459	456	454	452	851	
17	454	454	452	442	444	446	448	449	448	443	435	431	432	436	443	451	458	464	469	470	467	459	448	449	450	792	
18	443	443	448	448	446	448	452	457	458	452	441	434	431	435	442	448	453	459	460	460	457	458	455	454	449	782	
19	454	453	455	458	459	455	453	452	449	444	443	439	434	439	445	453	454	459	463	465	461	460	458	455	453	860	
20	456	454	453	453	454	454	451	448	444	442	439	435	431	431	439	451	461	467	469	467	470	468	459	454	452	850	
21	454	454	454	456	455	454	454	454	451	448	442	437	432	439	446	450	456	460	461	460	457	456	457	456	452	843	
22	457	456	456	457	454	454	454	450	448	448	446	442	441	443	448	458	458	462	466	464	458	454	453	454	453	881	
23 q	454	454	455	456	457	458	460	458	454	448	443	439	441	446	446	447	452	459	460	460	457	454	453	453	453	864	
24 q	454	454	454	457	459	457	456	452	449	447	442	437	437	437	441	447	455	464	465	464	460	456	454	453	452	851	
25	454	455	454	454	456	456	453	452	450	441	430	424	428	438	445	450	460	465	466	464	455	456	454	452	451	812	
26 d	452	452	452	452	453	453	451	449	442	446	447	447	464	467	483	500	543	587	583	496	475	478	422	410	471	1304	
27	455	468	477	478	480	483	482	477	474	469	460	453	454	460	465	474	477	476	473	471	471	469	467	467	470	1280	
28	468	467	466	467	467	466	465	465	459	451	447	443	449	462	471	474	476	477	475	471	469	468	464	461	465	1148	
29	464	465	466	468	470	469	465	463	460	460	457	453	451	455	459	461	465	469	472	475	475	470	467	465	464	1144	
30	466	465	466	467	468	471	470	468	465	459	448	443	445	447	450	457	463	470	474	476	476	478	471	461	463	1124	
31 d	437	437	445	448	409	402	426	432	436	436	443	445	450	466	489	498	530	526	507	487	483	477	464	442	459	1015	
Mean	454	453	454	455	454	455	455	454	452	447	443	439	440	445	451	457	464	469	470	467	465	463	457	454	455		
Sum 13,000γ+	1080	1055	1074	1093	1079	1092	1110	1080	1000	868	719	603	630	787	992	1176	1392	1542	1578	1465	1409	1338	1171	1080		Grand Total 338,413	

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH CHAMBER

22 ESKDALEUIR										MAY 1966	
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magneto- graph chamber °C	
1	2321 1222	15	1311 1222	13	2220 0111	9	1010 0000	2	1	12.9	
2 d	3122 2433	20	3122 2433	20	2121 1132	13	2010 1001	5	1	12.9	
3	1110 1223	11	1010 1222	9	1100 0013	6	0000 0000	0	0	12.9	
4 d	3223 3233	21	3223 3233	21	3211 1022	12	2110 0002	6	1	12.9	
5	1111 1132	11	1011 1132	10	1110 0022	7	0000 0011	2	0	12.9	
6	2321 1211	13	2321 1211	13	2220 0011	8	1010 0000	2	0	12.9	
7	1102 1112	9	1002 1112	8	0101 0002	4	0000 0000	0	0	12.8	
8	1001 3332	13	0001 3332	12	1000 1122	7	0000 0111	3	1	13.1	
9	1111 1110	7	1111 1110	7	1110 0000	3	0000 0000	0	0	13.0	
10 q	0002 0111	5	0002 0111	5	0000 0000	0	0000 0000	0	0	13.0	
11 d	0012 3234	15	0012 3232	13	0001 1114	8	0000 0011	2	1	13.0	
12	2221 2222	15	2211 2222	14	2121 0021	9	0000 0000	0	1	13.0	
13	2112 1320	12	2112 1320	12	2112 1100	8	1001 0000	2	1	13.0	
14 q	1010 0110	4	1000 0110	3	0010 0000	1	0000 0000	0	0	13.0	
15 q	0001 1010	3	0001 1010	3	0000 0000	0	0000 0000	0	0	13.1	
16	1000 2232	10	1000 2221	8	0000 1032	6	0000 0000	0	0	13.1	
17	2312 2222	16	2112 2222	14	2310 0122	11	0000 1102	4	0	13.1	
18	3111 2211	12	2101 2211	10	3110 0001	6	1001 0000	2	0	13.2	
19	2000 0222	8	2000 0222	8	1000 0020	3	0000 0100	1	0	13.2	
20	1012 2333	15	1012 2332	14	0010 1133	9	0000 2201	5	1	13.2	
21	2112 1221	12	2012 1221	11	0110 0000	2	0000 1000	1	0	13.2	
22	0111 3321	12	0111 3321	12	0000 0101	2	0000 0110	2	1	13.2	
23 q	1000 1110	4	1000 1110	4	0000 0000	0	0000 0000	0	0	13.2	
24 q	0011 0121	6	0001 0121	5	0010 0000	1	0000 0000	0	0	13.2	
25	0001 2213	9	0001 2213	9	0000 0101	2	0000 0100	1	1	13.2	
26 d	2245 6655	35	2245 6655	35	1234 4455	28	0012 3555	21	2	13.2	
27	3111 0001	7	3011 0001	6	2110 0000	4	2000 0000	2	1	13.2	
28	0110 2223	11	0010 2223	10	0110 0111	5	0000 1000	1	1	13.3	
29	0101 2321	10	0101 2321	10	0010 0020	3	0000 0000	0	0	13.3	
30	1011 3232	13	1011 3232	13	0010 1122	7	0000 0102	3	1	13.3	
31 d	3443 4555	33	3443 4553	31	3442 3445	29	2422 3344	24	2	13.2	
Mean									0.55	13.1	

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

19 ESKDALEMUIR (H)												16,000γ (0.16 CGS unit) +												JUNE 1966		
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 21,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1 d	983	934	911	907	900	903	906	890	880	875	888	898	898	896	907	922	927	933	932	931	933	930	929	925	914	938
2 d	925	926	926	927	928	930	925	912	901	892	879	876	903	922	933	949	911	931	947	945	945	938	934	939	923	1144
3	931	931	928	932	931	933	929	924	918	914	907	903	909	921	930	944	971	958	940	951	940	933	937	938	931	1353
4	931	934	927	925	930	932	927	923	915	907	899	901	909	923	936	942	957	945	945	947	944	939	946	942	930	1326
5	933	940	943	947	947	939	928	919	907	899	898	895	911	926	937	945	950	956	958	953	951	948	947	945	934	1422
6	945	945	946	949	952	951	946	933	924	918	916	907	915	921	927	934	940	950	955	951	948	944	942	942	938	1501
7	943	943	938	943	952	954	948	943	929	913	895	907	923	919	934	925	947	950	962	954	953	956	947	949	939	1527
8	942	941	934	934	938	945	944	940	928	914	902	896	906	901	912	923	932	947	952	952	949	944	942	941	932	1359
9 q	940	938	939	940	943	944	938	933	925	913	905	903	908	916	922	927	940	951	955	955	954	947	949	942	934	1427
10 q	940	940	939	939	940	937	934	926	924	917	912	903	905	920	925	933	936	947	960	962	959	954	952	949	936	1453
11 q	946	945	942	939	939	940	937	931	920	908	902	902	907	914	927	944	953	957	963	964	960	958	955	951	938	1504
12	952	947	943	940	939	933	931	934	929	922	914	916	895	916	919	935	947	957	957	953	959	940	929	931	935	1438
13	939	932	932	935	935	934	917	916	911	908	911	916	920	923	936	942	945	949	953	955	949	943	942	940	933	1383
14	933	934	934	934	938	937	930	918	911	914	920	933	927	923	932	936	940	952	957	960	953	948	943	938	935	1445
15	935	938	936	938	939	934	927	922	917	914	920	929	936	942	940	943	949	953	954	965	953	951	944	939	938	1518
16	946	939	950	946	944	939	930	924	923	917	913	920	922	920	934	936	948	947	954	956	953	949	944	953	938	1507
17	942	940	942	938	942	942	935	927	920	908	903	906	922	938	936	939	941	949	959	960	955	951	945	942	937	1482
18 q	940	940	937	938	943	944	939	930	915	902	892	899	916	928	947	956	964	962	959	954	953	950	949	949	938	1506
19	947	947	945	950	951	949	941	932	924	912	909	909	923	940	932	964	980	979	981	962	967	951	943	945	945	1683
20	947	950	951	950	949	945	925	922	916	909	908	904	907	917	925	929	932	951	970	960	955	949	946	944	936	1461
21	945	944	943	943	945	943	937	931	918	911	903	900	900	910	926	931	942	956	958	953	951	945	944	944	934	1423
22 q	942	941	940	942	942	944	938	931	929	922	912	909	912	913	918	929	942	951	959	960	955	951	951	950	937	1483
23 d	945	947	953	954	956	955	951	942	927	917	903	907	919	920	947	942	963	997	994	957	940	930	945	933	943	1644
24 d	949	948	950	952	953	955	954	945	934	911	905	904	916	932	948	959	979	992	1006	985	954	928	933	940	947	1732
25 d	942	931	934	934	931	932	920	916	916	900	879	877	911	923	929	940	951	970	971	958	947	939	937	926	930	1314
26	936	934	933	935	932	929	927	920	911	911	907	919	938	942	934	964	942	954	964	955	947	943	943	937	936	1457
27	936	936	935	934	933	931	928	925	918	911	917	919	920	934	940	950	957	952	954	958	951	950	946	943	937	1478
28	942	941	942	944	943	945	945	940	933	923	915	917	928	936	943	950	962	971	963	966	958	950	942	942	943	1641
29	936	935	935	937	938	933	922	919	919	917	918	914	923	934	944	946	951	962	959	952	950	951	955	955	938	1505
30	938	939	944	940	941	940	933	926	918	911	910	911	915	924	931	926	934	952	961	964	962	950	947	947	936	1464
Mean	942	939	938	939	940	939	933	927	919	910	905	907	915	923	932	940	948	956	960	957	952	945	944	942	935	
Sum 27,000γ+	1251	1180	1152	1166	1194	1172	992	794	560	310	162	200	444	694	951	1205	1433	1681	1802	1698	1548	1360	1308	1261		Grand Total 673,518

**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

20	ESKDALEMUIR (D)												9° +												JUNE 1966		
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 1300.0' +	
1 d	45.5	46.7	50.6	51.9	51.1	50.9	51.0	52.3	53.2	55.5	58.1	60.8	62.7	62.6	61.5	60.0	58.1	56.0	55.3	55.4	56.6	56.9	57.6	57.3	55.4	28.6	
2 d	56.4	56.4	56.1	54.8	53.0	51.8	51.1	50.8	51.0	52.0	56.7	61.0	63.5	65.6	65.8	64.6	61.3	59.1	57.9	55.2	57.8	57.9	57.7	57.9	57.3	75.4	
3	56.3	55.5	55.5	55.4	56.0	55.4	53.3	51.8	51.3	52.2	55.3	60.3	63.3	63.7	64.1	63.2	63.0	61.9	57.7	54.7	55.9	57.1	57.2	57.6	57.4	77.7	
4	57.3	57.4	56.7	58.5	55.2	52.5	51.8	51.6	52.4	52.7	55.2	59.1	63.2	64.4	64.0	62.2	60.4	58.7	57.9	57.9	57.3	56.4	56.3	55.4	57.3	74.5	
5	54.5	52.9	52.4	52.6	53.3	53.0	53.3	52.2	52.0	50.7	51.4	54.8	60.5	64.6	67.4	67.3	66.1	62.5	60.3	59.1	58.2	57.9	57.2	57.2	56.9	57.3	75.0
6	56.9	57.5	58.5	55.1	52.9	52.3	51.4	50.6	50.1	51.9	55.2	58.4	61.6	63.8	64.5	64.0	62.8	60.3	58.3	57.8	57.5	57.4	56.7	56.2	57.2	71.7	
7	55.6	55.6	56.0	59.9	54.5	52.6	52.1	51.2	50.8	51.3	54.8	57.8	61.3	63.7	64.5	63.2	62.7	61.5	58.8	57.5	56.8	57.5	57.1	57.2	57.3	74.0	
8	57.1	57.5	56.9	56.1	55.2	53.5	51.5	50.4	49.8	50.8	53.4	56.4	60.3	62.4	64.2	63.9	62.4	60.0	58.0	57.2	57.1	57.1	57.0	56.9	56.9	65.1	
9 q	56.9	56.7	56.7	55.9	55.0	54.0	53.5	53.0	52.6	54.1	56.2	59.0	60.7	61.7	61.9	61.6	60.2	58.2	56.7	56.9	57.9	56.8	55.4	57.2	57.0	68.8	
10 q	57.3	56.7	56.2	55.4	53.5	51.9	50.7	50.8	51.2	53.6	56.7	59.4	61.8	62.5	62.4	61.4	59.9	59.0	59.5	58.8	57.8	57.9	57.3	56.9	57.0	68.6	
11 q	56.6	56.2	55.4	54.4	53.0	51.5	51.0	50.1	50.3	52.6	56.4	59.7	62.6	62.7	62.2	61.3	60.4	59.2	58.1	58.8	58.9	58.9	58.3	57.5	56.9	66.1	
12	56.7	55.4	54.2	53.3	53.7	51.5	50.6	50.9	52.6	54.6	56.1	60.3	61.3	62.2	61.5	60.4	58.9	57.4	57.2	57.2	57.7	56.7	56.8	56.9	56.4	54.1	
13	57.2	55.9	55.1	55.1	54.1	51.8	51.8	53.0	53.2	53.8	56.7	60.0	62.2	62.8	61.5	60.0	59.1	58.2	57.7	57.3	56.7	56.7	57.3	56.7	56.8	63.9	
14	55.8	56.7	55.3	53.1	51.2	49.5	48.9	49.4	52.8	55.3	58.0	59.8	60.6	60.1	59.2	58.9	58.1	58.2	57.2	56.5	56.4	56.1	56.2	53.5	55.7	36.8	
15	54.2	54.3	53.6	53.7	53.2	51.8	50.9	51.5	51.8	54.2	57.1	60.3	61.8	62.0	61.6	61.6	61.8	61.5	60.1	59.1	57.0	55.8	55.1	51.6	56.5	55.6	
16	52.0	54.4	52.3	52.3	52.0	50.6	50.5	51.6	52.7	55.1	58.0	60.3	61.5	60.9	61.9	60.5	58.9	58.0	58.0	57.3	56.1	57.3	57.4	57.5	56.1	47.1	
17	55.3	55.3	55.3	55.0	53.2	52.2	51.5	51.6	52.1	54.0	56.9	59.7	61.8	62.6	61.5	60.4	59.4	58.6	58.0	57.1	57.5	58.0	56.3	56.6	56.7	59.9	
18 q	57.0	56.3	56.4	55.8	56.2	53.8	51.8	50.2	50.7	53.7	57.9	60.7	63.1	64.4	65.1	63.8	61.5	58.7	57.1	56.9	57.1	57.0	57.6	57.9	57.5	80.7	
19	57.9	57.7	56.7	55.9	53.9	52.1	50.6	50.9	52.1	54.5	57.6	60.8	63.6	65.1	63.1	64.6	64.9	62.6	61.2	58.5	57.8	56.3	55.9	56.8	58.0	91.1	
20	57.3	57.3	57.7	55.5	53.2	51.1	50.2	49.8	50.1	51.9	55.1	58.7	61.4	62.9	63.0	62.7	61.5	59.8	58.7	56.2	56.6	57.2	57.8	57.5	56.8	63.2	
21	57.9	57.4	58.2	57.3	54.6	52.1	50.2	49.0	49.4	51.0	53.3	56.7	59.6	60.6	62.2	61.3	60.1	58.4	56.8	56.2	56.7	56.6	56.2	56.6	56.2	48.4	
22 q	56.9	56.5	56.0	55.8	55.3	53.8	52.3	49.9	49.4	50.2	53.3	56.2	59.5	61.8	61.5	60.7	59.8	58.9	58.6	58.1	57.8	57.2	56.7	56.1	56.3	51.8	
23 d	57.1	55.7	54.3	53.9	52.3	50.9	49.5	48.1	48.1	50.6	53.3	57.4	60.7	63.0	63.9	62.8	64.0	64.1	61.1	55.5	52.1	51.5	57.4	58.2	56.1	45.5	
24 d	58.0	57.3	56.3	55.3	54.1	52.0	50.0	48.9	48.7	49.5	52.4	56.0	59.0	62.4	64.9	66.1	65.3	64.0	62.4	60.0	55.8	54.2	49.8	55.1	56.6	57.5	
25 d	55.6	57.7	59.1	57.1	57.1	54.4	52.2	53.1	50.8	51.7	53.6	56.4	57.7	60.8	62.1	63.4	61.4	59.9	60.2	58.7	59.1	58.5	53.0	55.4	57.0	69.0	
26	55.3	55.2	55.1	55.0	54.0	53.0	52.6	52.8	53.1	53.3	55.2	58.1	60.3	61.7	62.1	63.6	62.4	60.7	60.3	58.7	57.9	58.3	56.4	55.4	57.1	70.5	
27	56.0	55.4	54.9	54.4	54.1	53.3	51.8	51.5	51.6	52.5	53.5	55.6	58.0	60.0	60.4	60.3	59.9	58.7	57.9	57.8	57.7	56.9	56.8	56.7	56.1	45.7	
28	56.0	55.3	54.8	54.1	53.1	51.8	50.9	51.0	51.1	53.0	56.5	59.2	61.6	62.5	62.7	63.0	62.2	60.9	58.2	58.0	57.2	57.7	57.3	56.9	56.9	65.0	
29	54.4	54.2	54.3	53.3	53.0	52.8	52.4	53.1	53.9	55.3	58.0	60.2	60.9	61.5	63.2	63.4	61.6	61.4	59.3	57.1	58.3	58.0	57.0	54.3	57.2	70.9	
30	54.3	54.4	55.2	53.3	50.8	50.2	50.5	51.9	51.5	53.3	55.4	58.9	61.6	62.4	61.8	60.3	59.8	59.1	57.9	57.1	56.5	55.7	54.5	55.2	55.9	41.6	
Mean	55.8	55.7	55.5	55.0	53.7	52.3	51.3	51.1	51.3	52.9	55.7	58.9	61.4	62.7	62.9	62.3	61.1	59.8	58.5	57.4	57.1	56.9	56.4	56.4	56.7		
Sum 1500.0' +	174.8	171.5	165.8	149.2	111.5	68.4	38.8	32.8	40.1	85.6	170.7	267.7	341.8	380.2	385.6	369.3	334.3	293.3	255.2	221.7	213.5	206.8	193.3	191.9		Grand Total 40863.8	

21 ESKDALEUIR (Z)		45,000γ (0.45 CGS unit) +																									JUNE 1966	
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 10,000γ+	
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	
1 d	412	426	439	454	460	456	452	456	457	455	453	444	438	443	453	461	467	469	470	468	467	466	465	466	454	897		
2 d	467	467	467	467	469	469	470	466	460	457	453	448	448	452	457	468	479	474	479	485	476	471	469	463	466	1181		
3	465	467	468	466	465	465	465	467	467	465	454	446	446	453	459	465	467	472	479	482	477	471	467	461	465	1159		
4	461	462	464	463	464	466	465	465	461	456	448	441	438	448	459	467	470	471	471	469	468	465	461	463	461	1066		
5	463	460	460	460	460	460	460	459	457	453	446	437	435	438	445	454	459	465	466	465	460	460	460	460	456	942		
6	460	460	453	452	447	447	450	453	453	452	446	441	442	446	451	459	461	461	465	467	465	461	460	459	455	911		
7	459	459	459	451	447	446	451	454	454	452	452	448	448	453	460	464	467	472	475	471	468	464	463	459	458	996		
8	456	456	458	460	461	462	462	461	459	455	451	449	449	453	459	460	465	471	471	471	468	464	462	461	460	1044		
9 q	461	461	463	465	465	467	467	469	466	464	455	449	444	450	454	456	461	465	470	471	468	465	461	459	461	1076		
10 q	459	460	461	462	463	463	461	461	459	454	446	441	441	443	448	449	452	458	456	458	460	459	457	456	455	927		
11 q	457	457	459	460	461	461	461	459	451	443	438	436	435	441	446	452	458	467	471	468	465	461	460	459	455	926		
12	459	459	459	460	460	459	455	450	447	441	435	436	442	449	461	465	465	465	464	465	465	467	465	462	456	955		
13	457	457	460	460	459	459	459	457	456	449	443	437	438	443	453	458	460	461	465	465	465	463	459	457	456	940		
14	459	457	454	458	461	463	462	457	452	446	441	441	445	449	452	456	461	461	466	471	471	468	465	462	457	978		
15	460	459	459	459	459	460	460	456	451	445	442	439	443	449	451	455	459	461	460	461	467	466	460	454	456	935		
16	449	453	451	453	454	456	454	451	449	448	445	443	448	454	459	463	468	472	467	467	467	464	461	456	456	952		
17	455	456	457	458	455	455	457	459	457	454	446	436	431	439	445	453	455	460	465	467	467	465	463	461	455	916		
18 q	460	460	461	462	461	463	463	464	460	456	450	443	443	446	452	454	456	460	460	461	460	459	460	459	457	973		
19	459	459	460	461	463	464	460	456	453	450	446	443	442	444	449	448	456	465	465	461	459	463	462	461	456	949		
20	459	459	459	460	460	461	464	459	453	446	452	437	440	446	456	465	471	475	474	475	468	465	460	459	459	1023		
21	459	459	459	459	460	460	461	463	461	456	451	448	447	448	448	455	460	464	465	465	462	460	459	457	458	986		
22 q	458	459	459	460	460	460	462	457	449	447	446	442	443	453	461	464	461	461	463	465	465	462	459	458	457	974		
23 d	456	452	450	451	452	450	453	456	454	443	435	431	439	444	454	461	471	483	498	506	498	487	469	461	461	1054		
24 d	460	460	461	463	464	465	464	461	455	453	443	438	438	439	441	449	453	458	467	486	489	484	472	458	459	1021		
25 d	435	436	402	412	433	446	453	453	454	449	448	448	448	449	456	461	471	482	484	485	475	469	466	464	453	879		
26	460	460	460	461	463	461	464	465	462	456	448	438	441	451	459	460	461	464	467	469	467	464	460	460	459	1021		
27	460	460	460	460	464	466	465	463	460	454	449	448	449	453	455	459	460	461	460	460	460	460	459	459	459	1004		
28	459	459	459	459	460	459	458	459	459	456	453	444	441	439	443	451	457	465	469	471	469	465	463	460	457	977		
29	460	460	459	459	460	459	458	459	459	458	457	453	448	449	455	456	457	460	465	471	465	462	460	455	459	1004		
30	457	457	452	448	448	451	454	458	459	457	454	450	448	450	454	460	464	465	467	468	467	466	461	453	457	968		
Mean	457	457	456	457	459	459	460	459	457	452	447	443	443	447	453	458	462	466	469	471	468	465	462	459	458			
Sum 13,000γ+	701	716	692	723	758	779	790	773	694	570	426	275	278	414	595	748	872	988	1064	1114	1048	966	868	782		Grand Total 329,634		

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH CHAMBER

22 ESKDALEUIR										JUNE 1966	
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magneto- graph chamber °C	
1 d	5232 1011	15	5232 1011	15	4230 0000	9	3110 0000	5	1	13.0	
2 d	1113 4421	17	1003 4421	15	1111 1221	10	0000 1210	4	1	13.0	
3	1111 1432	14	1011 1432	13	0110 0321	8	0000 0101	2	1	13.2	
4	2201 1212	11	2101 1212	10	1200 0002	5	0000 0000	0	0	13.2	
5	2112 2121	12	2112 2121	12	2110 0100	5	0000 0000	0	0	13.2	
6	2101 3211	11	1101 3211	10	2100 1001	5	1000 0000	1	0	13.1	
7	1312 3322	17	1212 3322	16	1311 1121	11	0100 0110	3	1	13.3	
8	2111 2200	9	2111 2200	9	1111 0000	4	0000 0000	0	0	13.4	
9 q	0002 2212	9	0002 2211	8	0001 0112	5	0000 0000	0	0	13.4	
10 q	1111 1101	7	0011 1101	5	1110 0000	3	0000 0000	0	0	13.4	
11 q	1011 1221	9	1001 1221	8	0010 0010	2	0000 0000	0	0	13.4	
12	2222 3322	18	2222 3322	18	1222 1001	9	0000 0000	0	1	13.5	
13	2212 2211	13	2112 2211	12	1211 0011	7	0000 0000	0	0	13.4	
14	2112 2222	14	1112 2221	12	2010 0012	6	0000 0000	0	0	13.4	
15	1101 2223	12	1101 2222	11	0100 0023	6	0000 0011	2	0	13.4	
16	3211 2232	16	3211 2232	16	2210 1012	9	0000 0001	1	1	13.4	
17	1100 2221	9	1100 2221	9	0100 0011	3	0000 0000	0	0	13.5	
18 q	1101 1120	7	1001 1120	6	0100 0000	1	0000 0000	0	0	13.5	
19	1100 4232	13	1000 4232	12	0100 2111	6	0000 1100	2	1	13.5	
20	1221 2331	15	1121 2331	14	1211 0120	8	0000 0000	0	1	13.5	
21	2211 2211	12	1111 2211	10	2210 0001	6	0000 0000	0	0	13.6	
22 q	1111 1111	8	1111 1111	8	1110 0001	4	0000 0000	0	0	13.6	
23 d	2113 4444	23	2113 4443	22	2111 1234	15	0001 1222	8	1	13.7	
24 d	1112 3354	20	1012 3353	18	1111 1244	15	0000 0133	7	1	13.7	
25 d	3322 2333	21	3322 2332	20	3321 1213	16	3300 0111	9	1	13.7	
26	1112 3422	16	1102 3421	14	0111 1212	9	0000 0000	0	1	13.7	
27	0011 2221	9	0001 2221	8	0010 0101	3	0000 0000	0	0	13.7	
28	1000 1332	10	1000 1332	10	0000 0121	4	0000 0000	0	1	13.7	
29	2111 3233	16	1101 3233	14	2110 0122	9	0000 0010	1	1	13.7	
30	2211 1223	14	1111 1223	12	2211 0012	9	0000 0002	2	1	13.7	
Mean									0.50	13.4	

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

19	ESKDALEMUIR (H)												16,000γ (0.16 CGS unit) +												JULY 1966		
	Hour GMT 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 21,000γ+	
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	
1	930	934	933	936	933	926	931	929	919	904	905	913	923	939	950	946	948	955	957	950	950	947	948	942	935	1448	
2	940	936	937	939	938	934	934	928	921	919	915	913	919	930	938	950	952	952	957	958	950	948	951	954	945	939	1524
3	939	941	936	933	934	938	933	926	918	909	910	905	915	926	942	950	950	948	958	957	948	946	944	942	935	1448	
4	942	941	939	938	941	940	934	930	922	919	924	915	933	920	944	968	939	975	938	955	958	950	954	923	939	1542	
5	933	930	943	945	938	939	935	923	907	904	918	919	919	931	933	936	934	946	953	958	955	952	949	946	935	1446	
6	945	946	946	943	945	943	937	936	925	911	894	899	911	911	935	945	949	952	953	953	950	946	946	945	936	1466	
7 q	945	941	939	939	942	943	939	930	915	905	901	900	906	912	925	935	941	952	960	959	958	961	963	958	936	1469	
8 d	956	954	964	970	973	958	932	936	917	912	919	917	922	926	932	966	962	978	978	962	967	974	957	926	948	1758	
9 d	932	942	914	881	857	857	820	842	853	874	878	859	879	902	921	931	945	961	957	941	929	924	923	924	902	646	
10 d	927	914	911	917	890	886	891	890	900	894	870	854	896	925	919	923	930	944	947	938	948	946	940	927	914	927	
11	924	922	926	926	920	929	916	921	912	901	893	904	913	918	909	934	948	948	944	943	945	947	948	953	927	1244	
12 d	925	929	925	918	916	942	935	902	875	859	870	878	896	909	928	933	936	929	936	937	942	936	932	931	917	1019	
13 q	936	932	932	931	932	926	922	916	914	909	899	899	902	907	913	927	934	938	944	951	950	945	938	935	926	1232	
14 q	936	934	935	938	938	937	933	929	921	915	910	912	924	928	929	931	934	950	958	950	950	947	945	945	935	1429	
15	942	941	943	945	946	943	934	927	923	923	923	923	921	925	940	963	956	961	956	973	966	949	961	952	943	1636	
16	952	949	950	945	944	942	929	918	912	908	909	911	927	939	945	943	953	970	960	950	955	952	953	950	940	1566	
17	950	938	934	943	947	945	935	926	905	898	902	915	930	942	945	958	949	949	955	960	951	940	940	937	937	1494	
18 q	938	939	940	943	937	926	928	923	911	899	911	918	911	918	933	945	954	953	959	953	946	945	942	941	934	1413	
19	940	942	944	945	943	945	931	922	915	912	909	910	921	931	939	942	930	947	958	959	945	945	945	946	936	1466	
20	947	942	940	945	949	947	946	942	933	921	913	913	913	918	923	936	954	958	951	954	947	947	954	955	939	1548	
21 d	949	951	945	959	918	941	939	936	925	913	897	896	910	925	924	938	976	967	981	965	943	943	947	936	939	1524	
22	943	937	919	922	925	921	923	917	907	901	896	898	907	926	936	946	952	964	948	959	956	941	936	932	930	1312	
23	932	937	934	934	944	938	929	921	915	909	912	917	925	935	946	954	956	942	949	954	946	940	940	944	936	1453	
24	940	952	938	931	935	931	929	929	926	912	913	911	916	931	933	940	949	949	948	948	945	944	943	940	935	1433	
25 q	939	939	940	940	941	937	932	929	929	931	930	925	924	922	931	934	948	949	949	951	954	945	944	942	938	1505	
26	937	940	947	942	949	943	936	925	920	913	910	912	910	911	923	932	942	954	969	966	956	951	944	938	936	1470	
27	948	936	935	938	939	941	950	947	939	931	918	912	930	948	924	899	954	945	952	953	951	948	946	941	939	1525	
28	938	936	947	980	971	952	937	926	927	913	909	909	927	919	920	926	937	963	951	957	956	949	946	944	939	1540	
29	940	948	951	939	947	948	938	930	918	918	916	917	922	924	933	941	949	951	958	963	960	953	949	946	940	1559	
30	945	944	945	949	941	937	933	924	910	916	910	914	918	925	941	949	951	953	953	953	948	950	947	946	938	1502	
31	945	944	941	943	945	941	934	922	909	905	901	907	920	932	947	955	949	959	958	953	949	949	960	951	938	1519	
Mean	940	939	938	939	936	935	928	922	914	908	906	907	916	925	933	941	947	954	955	954	951	947	946	941	934		
Sum 28,000γ+	1135	1111	1073	1097	1018	976	769	595	341	154	83	101	401	663	913	1178	1361	1567	1596	1575	1472	1363	1338	1183		Grand Total 695,063	

**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

20 ESKDALEMUIR (D)													9° +													JULY 1966	
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 1300'0'+	
	0-1																										
1	52.3	53.2	53.5	53.7	53.1	51.8	51.1	50.9	51.6	53.9	57.2	59.9	62.9	65.2	64.2	61.7	61.0	60.3	59.0	57.2	57.6	57.5	56.8	56.5	56.8	62.1	
2	55.1	55.1	54.5	54.2	53.0	51.8	51.8	53.0	52.7	53.3	56.1	59.9	62.9	64.7	65.0	63.3	61.3	58.9	57.7	56.8	57.3	57.3	54.1	52.2	56.7	62.0	
3	54.3	56.1	55.4	54.1	55.0	51.6	50.8	50.6	50.7	53.0	55.4	59.3	61.9	62.7	62.6	61.0	59.9	59.1	58.0	57.3	56.1	55.3	56.0	56.1	56.3	52.3	
4	55.4	55.4	55.2	54.9	55.3	53.5	51.2	51.3	51.8	53.9	57.5	61.8	67.5	67.0	67.0	67.6	63.4	61.3	59.1	59.1	58.9	56.1	51.8	52.6	57.9	88.6	
5	52.6	54.4	54.8	54.9	57.3	54.4	52.6	51.4	51.5	52.0	55.2	58.7	61.3	61.6	60.9	60.4	59.1	57.7	57.8	58.6	58.2	58.1	57.4	56.9	56.6	57.8	
6	56.8	57.3	56.9	55.4	53.6	52.6	52.7	52.5	51.8	53.0	55.2	58.4	60.5	61.1	61.9	61.4	59.8	59.1	58.2	57.7	57.3	57.2	56.8	56.4	56.8	63.6	
7 q	57.3	56.8	55.7	54.0	52.5	51.6	50.7	49.9	50.5	51.5	54.5	57.2	58.7	59.7	61.2	61.3	60.3	59.6	58.4	58.0	57.9	57.9	56.4	56.3	51.9		
8 d	56.2	54.3	54.5	55.1	52.3	48.5	49.1	53.8	54.7	56.7	57.8	58.9	61.4	62.7	63.4	64.2	63.8	62.7	60.7	58.8	58.0	49.8	45.4	43.1	56.1	45.9	
9 d	48.2	47.7	43.0	56.1	56.0	53.2	58.4	64.3	57.2	57.1	56.7	59.0	63.0	63.0	63.3	61.8	57.3	57.6	58.6	57.3	57.7	57.2	56.4	55.8	56.9	65.9	
10 d	48.6	47.1	50.4	51.3	55.4	61.5	61.6	54.6	53.3	51.5	53.9	58.0	60.7	61.8	62.5	62.7	62.1	60.7	59.5	58.1	57.7	54.7	57.1	56.0	56.7	60.8	
11	54.7	54.5	55.8	54.0	50.4	50.9	51.0	50.5	49.4	49.6	51.6	54.3	57.0	58.7	58.7	58.3	59.1	59.0	58.5	58.3	58.2	57.6	57.0	52.4	55.0	19.5	
12 d	48.2	49.4	48.7	49.7	53.9	53.2	55.5	54.0	54.5	55.9	59.2	60.4	61.6	61.6	62.6	61.8	60.6	58.8	58.1	57.5	57.3	56.8	56.3	56.1	56.3	51.7	
13 q	55.2	54.2	55.1	54.3	53.0	51.2	51.1	51.3	51.2	52.2	53.9	56.1	58.1	59.2	60.4	60.1	59.2	59.0	58.4	57.9	57.1	56.8	56.7	56.7	55.8	38.4	
14 q	55.4	55.2	55.1	54.9	54.0	52.6	51.2	51.1	51.3	53.8	56.7	58.9	61.9	62.4	61.5	61.4	59.8	59.1	58.2	57.3	57.4	57.8	57.5	57.0	56.7	61.5	
15	56.0	55.2	54.6	54.1	52.6	50.6	50.6	50.6	50.6	52.3	55.2	56.9	58.2	58.1	59.4	61.9	61.9	61.5	60.0	60.1	58.1	55.9	57.7	56.3	56.2	48.4	
16	55.9	56.1	56.0	56.1	54.6	53.0	51.0	52.3	52.1	53.4	55.9	58.9	61.7	62.5	61.5	59.4	58.0	57.9	56.8	56.7	57.6	57.8	57.2	55.3	56.6	57.7	
17	50.6	51.4	57.1	56.8	51.4	51.6	50.6	50.8	52.2	53.6	56.1	59.0	61.6	64.2	62.4	60.7	58.7	57.9	55.7	56.3	56.7	53.5	56.8	56.9	55.9	42.6	
18 q	56.7	55.9	55.0	54.7	54.1	52.8	52.4	51.6	52.0	52.5	54.7	57.9	60.8	62.7	63.0	61.7	59.2	57.2	57.4	57.0	57.1	57.1	57.8	56.0	56.6	57.3	
19	55.3	55.1	55.3	55.1	55.4	53.8	51.5	51.1	52.0	53.3	56.0	54.2	61.9	63.1	62.5	61.1	59.8	59.1	58.0	57.0	57.0	57.0	57.2	56.9	56.6	58.7	
20	55.1	55.4	55.2	54.6	54.0	53.0	52.5	50.3	49.2	30.9	54.1	57.3	61.3	63.6	63.9	63.6	62.4	59.9	57.8	57.1	56.8	57.1	56.2	55.8	56.5	57.1	
21 d	53.9	55.6	62.2	55.1	51.7	50.7	49.6	49.7	50.2	50.9	53.0	56.0	61.5	64.7	64.2	63.6	63.5	58.6	59.2	56.4	56.5	57.0	56.2	54.6	56.4	54.6	
22	54.2	51.2	52.3	54.2	53.1	52.5	50.7	49.8	50.6	52.6	54.7	58.4	61.0	63.4	63.0	61.5	60.0	59.0	56.9	55.7	53.4	55.0	53.1	53.1	55.4	29.4	
23	52.5	51.6	53.1	52.7	50.1	48.9	49.4	50.2	49.8	52.3	54.3	57.6	60.9	62.8	62.7	62.4	60.4	58.7	58.0	57.6	56.8	56.0	55.4	55.0	55.4	29.2	
24	54.3	51.4	51.7	53.3	53.6	50.6	50.3	51.1	51.0	53.6	55.3	57.3	59.2	60.4	61.4	61.4	59.7	58.0	57.6	57.1	56.6	56.7	55.7	56.0	55.6	33.3	
25 q	55.4	55.3	55.4	55.4	54.3	53.0	51.6	51.2	52.0	53.4	54.6	56.7	59.4	61.0	62.3	61.5	61.0	59.7	58.4	57.9	56.3	56.0	56.7	55.9	56.4	54.4	
26	54.5	55.4	55.3	53.3	53.6	52.6	51.2	49.3	49.9	50.5	51.8	54.7	59.0	62.0	62.8	62.2	60.8	58.6	56.8	56.4	56.6	55.2	56.3	56.4	55.6	35.2	
27	55.9	52.7	52.1	52.7	52.7	53.1	50.7	50.7	50.3	50.9	53.7	57.1	61.9	67.1	68.4	65.2	65.5	62.6	58.6	57.1	56.8	55.8	55.4	55.4	56.8	62.4	
28	55.2	54.6	57.3	57.2	52.6	56.7	54.4	55.4	55.7	56.4	57.1	59.1	61.8	63.2	63.2	62.8	61.0	58.0	57.2	57.9	57.7	56.9	55.5	56.1	57.6	83.0	
29	55.9	59.3	52.2	51.3	51.6	49.6	48.7	48.8	49.8	51.6	54.8	58.2	60.4	62.1	61.5	60.3	58.5	56.7	56.5	56.8	56.8	57.0	56.7	56.2	55.9	31.3	
30	55.3	55.3	55.2	55.4	54.5	54.8	51.4	49.6	49.3	51.3	53.5	57.1	60.7	63.6	64.4	62.7	59.9	59.0	58.0	57.2	57.0	56.1	56.0	56.3	56.4	53.6	
31	55.6	55.2	56.0	55.4	52.9	49.8	48.6	48.3	49.5	51.3	54.5	59.0	61.9	64.3	65.2	63.9	60.7	58.8	57.3	56.8	57.4	57.1	54.1	53.4	56.1	47.0	
Mean	54.3	54.1	54.3	54.3	53.5	52.4	51.7	51.6	51.6	52.9	55.2	57.9	61.1	62.6	62.8	62.0	60.6	59.2	58.1	57.5	57.2	56.4	55.9	55.2	56.3		
Sum 1500'0'+	182.6	177.4	184.6	184.0	157.6	125.5	104.0	100.0	98.4	138.2	210.2	296.2	392.6	440.2	447.0	422.9	377.7	334.8	301.6	281.4	272.0	247.3	231.2	209.8		Grand Total 41917.2	

GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

61

21 ESKDALEMUIR (Z)		45,000γ (0.45 CGS unit) +																					JULY 1966				
	Hour GMT 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 10,000γ+	
1	γ	448	453	454	456	459	460	457	457	450	445	445	441	441	448	453	458	463	464	464	468	465	463	460	457	455	929
2	γ	459	459	459	459	460	459	455	460	460	456	452	440	435	439	444	458	460	465	465	465	461	458	454	454	456	936
3	γ	455	454	454	458	459	454	456	453	449	446	442	442	446	445	442	448	456	459	458	460	464	463	460	459	453	882
4	γ	459	459	459	459	459	460	460	457	448	441	437	433	435	440	445	453	466	474	483	474	469	468	453	447	456	938
5	γ	447	453	454	454	455	457	460	461	456	449	442	440	437	445	450	459	465	468	469	466	464	460	460	459	455	930
6	γ	460	459	457	460	460	461	459	461	461	454	449	445	443	448	454	460	465	465	464	464	461	460	459	459	458	988
7 q	γ	459	459	459	461	462	459	456	454	453	448	445	442	439	441	442	446	449	454	456	459	458	455	454	454	453	864
8 d	γ	454	454	453	452	449	451	457	449	445	444	443	442	449	460	465	466	471	480	486	484	476	468	447	430	457	975
9 d	γ	398	384	389	376	375	399	410	413	435	456	468	469	475	474	476	486	498	495	493	493	485	481	478	474	449	780
10 d	γ	450	442	447	450	430	401	411	431	448	452	448	454	461	460	471	472	471	469	475	480	477	471	463	460	454	894
11	γ	464	460	449	450	453	458	459	463	467	467	465	456	452	454	459	461	461	462	465	465	464	464	463	457	460	1038
12 d	γ	444	429	438	437	419	416	417	428	437	442	444	447	454	463	465	467	467	467	469	468	467	466	467	466	449	784
13 q	γ	465	465	464	464	465	466	461	460	456	457	459	456	456	460	460	460	461	461	464	465	465	465	465	465	462	1085
14 q	γ	464	464	462	464	464	465	464	461	459	459	452	441	433	437	443	454	464	465	465	466	465	464	461	461	458	997
15	γ	463	463	461	461	463	462	460	460	456	453	449	443	441	443	448	448	453	458	460	458	463	468	463	460	457	957
16	γ	460	459	458	458	458	458	458	460	461	449	439	438	442	449	461	465	460	461	467	469	468	466	463	455	458	982
17	γ	451	450	450	434	438	445	445	448	452	449	449	446	449	454	455	462	467	471	476	475	473	472	465	464	456	940
18 q	γ	465	464	465	465	464	464	460	461	459	452	449	443	443	444	452	462	465	471	471	469	466	464	461	461	460	1040
19	γ	464	463	463	464	464	465	466	463	460	455	454	452	454	457	464	471	476	466	466	470	467	465	464	463	463	1116
20	γ	461	460	461	464	465	464	457	454	454	452	446	445	448	449	454	456	462	469	472	472	470	465	459	449	459	1008
21 d	γ	451	446	426	422	431	443	456	461	462	460	453	446	443	455	464	465	470	483	485	489	483	471	459	457	458	981
22	γ	417	422	436	453	460	465	465	467	467	461	454	453	450	455	461	466	471	471	473	473	475	469	465	464	459	1013
23	γ	463	461	461	462	461	460	454	453	450	447	448	449	449	452	457	461	465	471	472	471	471	469	465	462	460	1034
24	γ	460	454	453	453	454	459	455	454	453	453	452	446	448	454	458	460	463	465	464	464	464	463	461	460	457	970
25 q	γ	460	460	460	460	460	459	459	458	448	441	437	437	442	449	453	458	461	460	465	465	466	465	463	460	456	946
26	γ	464	461	454	454	455	454	458	459	458	458	452	446	441	439	443	452	459	466	469	471	468	466	460	460	457	967
27	γ	454	456	458	458	460	459	456	454	449	448	447	442	437	438	454	461	456	461	464	465	465	464	461	463	455	930
28	γ	464	461	454	430	419	428	433	438	443	450	449	443	445	459	469	476	476	476	477	474	473	470	465	460	455	932
29	γ	459	448	443	454	459	461	461	464	464	457	444	439	441	446	449	456	460	464	462	459	461	460	459	460	455	930
30	γ	461	460	460	460	461	460	459	454	455	454	442	437	440	445	451	459	465	466	464	464	462	460	460	460	457	959
31	γ	461	461	460	460	460	463	464	465	459	448	442	437	436	442	449	456	461	469	474	471	467	464	457	451	457	977
Mean		455	453	452	452	452	453	453	454	454	452	448	445	445	450	455	461	465	468	470	469	468	465	461	458	457	
Sum 13,000γ+		1104	1043	1021	1012	1001	1035	1048	1081	1074	1003	897	790	805	952	1103	1282	1407	1496	1557	1556	1503	1427	1294	1211		Grand Total 339,702

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH CHAMBER

22 ESKDALEMUIR		JULY 1966								
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-n range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magneto- graph chamber °C
1	2212 2221	14	2212 2221	14	1010 1111	6	1000 0010	2	1	13.5
2	1110 1223	11	1000 1222	8	1110 0103	7	0000 0000	0	0	13.5
3	2211 2220	12	1101 2220	9	2210 1010	7	0000 0000	0	0	13.5
4	1002 4534	19	1002 4534	19	0001 2213	9	0000 0112	4	1	13.5
5	2201 1121	10	2201 1121	10	2200 0101	6	0000 0000	0	0	13.5
6	1112 2121	11	1012 2121	10	1110 1001	5	0000 0000	0	0	13.5
7 q	1100 0112	6	1000 0112	5	1100 0002	4	0000 0000	0	0	13.5
8 d	2333 3335	25	2333 3334	24	2332 2115	19	0010 0213	7	1	13.5
9 d	4543 3432	23	4543 3432	28	4442 0211	18	3322 0111	13	2	13.5
10 d	3444 3232	25	3334 3232	23	3442 2112	19	2331 1011	12	1	13.5
11	2221 1223	15	2221 1223	15	2210 0103	9	1000 0001	2	1	13.5
12 d	3433 2221	20	3433 2221	20	2232 1000	10	2220 1000	7	1	13.5
13 q	1101 2111	8	1001 2111	7	1100 0000	2	0000 0000	0	0	13.5
14 q	1101 1220	8	1000 1220	6	0101 1100	4	0000 0000	0	0	13.5
15	0000 2334	12	0000 2334	12	0000 1123	7	0000 0011	2	1	13.5
16	1111 1323	13	1111 1323	13	1111 1113	10	0001 0000	1	1	13.5
17	3322 2322	19	3322 2322	19	3321 1122	15	0200 2000	2	1	13.5
18 q	0121 2220	10	0121 2220	10	0110 1100	4	0000 1000	1	0	13.4
19	0211 2320	11	0111 2320	10	0211 0000	4	0000 0100	1	1	13.3
20	1121 0213	11	1121 0213	11	1121 0102	8	0000 0001	1	1	13.4
21 d	3322 3342	22	2322 3342	21	3321 2322	18	2100 1101	6	1	13.4
22	4111 1321	14	4111 1321	14	3111 1121	11	3000 0000	3	1	13.3
23	1212 2321	14	1112 2321	13	1211 1111	9	0000 0000	0	1	13.3
24	3212 2201	13	2111 2201	10	3212 1101	11	0000 0000	0	1	13.3
25 q	1111 2211	10	1001 2211	8	0110 0011	4	0000 0000	0	0	13.2
26	2111 3333	17	2101 3322	14	2010 0033	9	0000 0000	0	1	13.2
27	2132 4411	18	2132 4411	18	2031 2200	10	0000 2100	3	1	13.2
28	3322 3322	20	3322 3322	20	3210 1102	10	1211 1000	6	1	13.2
29	3211 1221	13	2211 1221	12	3100 0000	4	1001 0000	2	1	13.2
30	0221 2221	12	0221 2221	12	0220 0101	6	0001 0000	1	0	13.2
31	1011 2322	12	1011 2322	12	1001 0112	6	0000 0000	0	1	13.1
Mean									0.71	13.4

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

19	ESKDALEMUIR (H)												16,000γ (0.16 CGS unit) +												AUGUST 1966		
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 21,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	955	949	952	951	942	942	937	927	920	919	915	911	916	928	944	955	958	966	961	959	954	947	946	951	942	1605	
2 q	938	938	938	942	943	936	930	923	916	909	905	906	913	924	937	948	949	949	950	952	946	944	945	948	935	1429	
3	955	955	952	952	952	943	935	927	924	915	907	908	924	944	954	941	928	944	948	941	940	937	940	937	938	1503	
4	938	937	941	944	938	937	934	929	922	913	904	905	915	918	919	916	937	946	955	955	949	944	947	932	932	1375	
5	937	937	938	937	935	935	935	925	903	923	917	906	915	929	956	962	943	948	952	946	944	947	941	936	935	1447	
6	940	952	946	939	941	940	934	926	913	909	898	899	909	924	937	937	944	952	951	947	950	942	938	939	934	1407	
7	953	935	944	933	933	938	935	930	920	904	902	906	915	928	937	943	946	950	947	952	953	947	947	948	935	1446	
8	939	935	939	941	944	943	940	930	918	902	900	905	915	931	943	953	955	954	961	959	950	951	955	957	938	1520	
9	952	939	942	945	943	936	934	938	928	917	909	908	913	920	931	948	953	947	959	954	952	942	946	948	938	1504	
10	947	947	950	953	944	949	947	944	935	924	909	906	905	915	923	948	935	944	955	954	950	949	950	952	939	1535	
11	944	942	945	940	940	945	937	927	926	928	920	909	920	923	931	911	942	962	957	946	946	953	924	920	935	1438	
12	933	945	939	948	948	944	942	917	911	921	926	910	904	925	931	942	944	950	950	948	950	952	958	943	937	1481	
13	945	942	948	939	939	925	932	929	921	915	913	912	912	921	928	934	936	947	942	941	942	941	946	949	933	1399	
14	947	937	944	951	948	959	940	929	915	911	908	908	920	920	924	929	931	939	948	961	949	948	946	946	936	1458	
15	947	946	944	942	944	942	935	929	922	908	897	904	911	915	921	933	941	943	949	955	953	951	957	949	935	1438	
16 q	948	949	946	948	941	939	931	926	912	905	908	916	925	935	938	940	939	940	946	949	950	948	951	952	937	1482	
17 q	951	944	944	944	944	939	932	923	931	900	894	897	918	935	950	945	945	953	953	949	948	948	949	948	937	1484	
18	948	949	949	947	948	947	942	931	923	900	888	902	913	941	952	947	952	961	963	943	945	952	951	948	939	1542	
19 d	949	952	952	940	928	924	927	921	906	886	857	867	895	943	936	947	947	950	932	930	938	940	941	938	927	1246	
20	938	934	936	932	936	930	922	909	906	903	895	897	908	921	931	934	944	951	944	946	945	946	942	957	929	1307	
21	940	931	935	936	935	934	930	922	912	906	903	915	926	930	935	932	943	947	946	946	948	948	945	946	933	1391	
22 q	943	939	937	935	939	937	931	923	916	909	909	914	924	927	935	944	950	933	948	951	951	955	944	948	935	1442	
23 d	954	951	945	944	952	951	944	944	930	906	908	898	911	925	931	948	939	961	931	946	952	948	936	946	938	1501	
24 d	940	944	935	935	936	931	921	914	913	915	927	933	914	935	935	932	941	936	948	952	946	950	942	944	934	1419	
25	935	940	945	940	935	932	930	922	913	899	905	906	924	932	935	950	953	953	954	955	953	959	948	937	936	1455	
26	941	947	941	928	945	936	924	922	915	919	927	923	926	931	939	945	948	955	949	955	952	946	946	942	938	1502	
27	940	950	942	941	931	932	923	915	911	911	917	923	935	937	953	955	953	948	952	950	947	944	947	948	938	1505	
28 q	943	941	940	941	939	935	929	921	913	910	908	911	921	933	941	955	954	952	955	952	945	949	948	950	937	1486	
29	942	936	939	940	942	940	931	922	917	910	907	909	928	961	958	956	965	952	956	967	965	967	978	922	942	1610	
30 d	914	889	881	907	915	920	915	900	893	884	875	901	909	952	948	940	995	1035	959	975	952	885	926	898	924	1168	
31 d	900	894	897	910	911	904	900	887	882	887	888	893	896	908	916	920	928	937	943	940	934	929	928	947	912	879	
Mean	942	939	939	939	939	937	932	924	916	909	905	907	915	929	937	942	946	952	951	951	948	945	945	943	935		
Sum 28,000γ+	1196	1126	1126	1125	1111	1045	879	632	387	168	46	108	380	811	1049	1190	1338	1505	1464	1476	1399	1309	1308	1226		Grand Total 695,404	

**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

20	ESDALEMUIR (D)													9° +												AUGUST 1966		
	Hour GMT		0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 1200.0° +
1	53.7	53.4	53.7	54.1	54.7	52.4	51.4	49.6	50.3	52.6	55.3	58.0	61.0	63.5	64.2	62.6	60.1	58.7	57.9	57.4	57.8	57.2	57.0	55.2	56.3	151.8		
2 q	54.0	54.1	54.0	54.2	53.0	51.0	50.6	49.9	49.7	51.0	54.1	57.0	59.9	62.1	62.0	61.0	59.3	57.8	56.3	55.9	55.9	56.0	56.0	56.0	55.5	130.8		
3	55.9	55.5	54.5	53.7	52.4	51.0	49.1	48.3	50.0	52.2	56.3	59.8	63.8	67.3	67.5	66.4	61.4	58.5	57.1	56.8	56.7	56.0	56.1	55.4	56.7	161.7		
4	55.2	55.3	55.2	54.7	53.4	51.5	50.3	50.4	50.7	51.6	55.2	58.3	62.6	64.2	64.8	62.9	61.3	59.0	57.5	56.7	56.5	54.9	53.5	52.9	56.2	148.6		
5	54.2	54.3	54.7	54.0	52.3	52.3	50.5	48.8	51.4	53.2	56.3	59.4	61.3	64.1	64.0	63.0	58.4	58.1	57.7	57.8	57.6	57.4	55.8	55.0	56.3	151.6		
6	55.9	54.9	50.1	51.0	49.7	49.6	51.2	50.5	51.0	52.8	56.0	59.1	61.6	63.7	63.6	62.1	59.7	59.3	58.2	56.9	54.1	56.1	56.0	56.2	55.8	139.3		
7	52.3	52.8	54.3	52.4	53.9	52.2	49.8	50.1	50.2	52.0	53.7	56.3	60.0	62.5	62.7	61.3	59.9	59.0	57.7	57.3	57.1	56.2	56.7	54.4	55.6	134.8		
8	55.1	54.3	54.3	54.3	53.8	53.0	51.2	49.9	49.9	52.0	54.9	58.8	61.8	64.6	63.5	61.6	59.8	58.7	58.1	57.5	56.6	56.8	55.4	52.6	56.2	148.5		
9	51.3	49.8	51.9	53.4	53.0	51.2	50.5	49.1	49.0	50.6	54.4	57.8	59.1	62.2	62.4	61.7	60.5	59.0	57.6	54.1	48.0	53.1	55.7	56.2	54.7	111.6		
10	53.2	55.1	59.0	55.8	55.3	53.3	51.6	50.8	49.8	50.1	53.1	57.8	60.0	61.7	60.4	60.2	58.6	58.5	57.9	57.2	57.0	56.3	54.2	55.4	55.9	142.3		
11	54.6	54.4	54.3	55.4	58.5	54.3	55.1	55.5	57.1	53.2	54.3	57.5	60.0	62.6	62.4	61.0	59.5	56.8	56.3	56.8	54.9	49.9	49.2	49.0	55.9	142.6		
12	53.4	54.0	51.1	49.8	51.8	52.4	52.8	54.1	56.1	55.9	55.1	58.4	59.5	60.0	60.1	59.4	58.2	58.5	53.8	56.8	57.1	56.6	54.6	54.6	55.6	134.1		
13	55.3	54.9	57.1	54.0	52.5	52.4	51.0	50.0	50.5	51.0	53.5	55.2	57.9	59.0	58.2	56.7	55.3	54.6	54.3	55.9	56.1	56.3	56.3	55.8	54.7	113.8		
14	52.8	52.7	57.5	57.2	53.9	53.3	54.1	53.4	51.7	53.9	57.0	59.5	61.4	62.5	61.6	59.8	57.8	56.7	55.8	55.7	54.3	55.8	56.0	56.3	56.3	150.7		
15	56.1	56.2	54.8	54.1	52.9	51.2	50.7	51.2	51.5	54.0	56.9	60.4	63.6	64.6	63.4	60.2	58.2	56.4	56.6	56.6	56.7	56.4	55.0	56.1	56.4	153.8		
16 q	56.3	59.4	56.7	53.9	51.5	51.5	51.1	51.6	52.2	54.8	58.1	61.6	63.7	64.1	62.2	59.9	58.0	57.8	57.1	57.0	56.8	56.7	56.6	55.9	56.9	164.5		
17 q	56.0	55.7	55.7	55.3	53.5	51.7	49.8	48.8	49.0	51.1	55.2	59.8	61.9	62.2	61.0	58.4	55.8	54.2	52.9	55.2	56.9	56.8	56.6	56.2	55.4	129.7		
18	55.9	55.7	55.1	54.4	53.5	51.4	48.8	48.1	48.8	52.3	57.1	61.4	63.6	63.6	64.7	62.8	60.5	58.8	55.3	53.3	55.4	56.6	55.9	55.6	56.2	148.6		
19 d	55.2	53.4	51.0	51.3	50.2	50.1	47.8	48.5	49.6	52.6	58.4	64.3	65.3	65.5	64.4	62.5	60.7	56.6	54.4	56.1	57.1	56.3	56.1	52.5	55.8	139.9		
20	53.4	53.2	55.9	53.4	52.8	51.4	49.5	52.6	52.0	53.7	56.0	59.7	63.2	63.6	62.6	60.7	59.0	57.2	55.8	55.1	56.1	55.7	55.1	52.3	55.8	140.0		
21	51.9	53.7	54.3	54.9	52.9	51.3	50.6	50.9	52.3	54.2	56.9	59.5	62.1	62.4	61.8	59.0	57.7	56.6	56.3	55.1	56.6	56.6	56.5	55.2	55.8	139.3		
22 q	54.1	54.5	53.9	53.6	53.3	52.9	51.4	51.5	52.1	53.8	56.3	59.1	62.2	62.6	62.7	61.0	59.0	57.0	57.1	57.2	57.0	57.1	56.7	56.3	56.3	152.4		
23 d	54.1	52.6	53.1	30.5	52.6	50.5	50.3	49.2	49.3	51.5	56.6	60.9	63.4	63.6	63.4	62.6	59.2	56.4	54.0	54.2	48.8	49.3	53.6	54.2	54.7	113.9		
24 d	50.9	57.6	53.2	52.3	51.7	50.9	49.2	50.2	52.7	54.7	57.0	61.1	63.2	64.1	63.5	60.1	57.6	55.5	56.5	56.3	52.1	52.0	54.9	52.9	55.4	130.2		
25	55.2	57.1	57.3	52.3	52.0	50.8	50.5	50.1	51.3	53.8	57.6	60.2	62.5	63.2	62.1	59.2	57.7	57.1	54.5	55.4	55.0	53.4	53.6	54.5	55.7	136.4		
26	54.9	56.7	55.3	54.5	51.7	50.8	50.9	51.8	51.4	52.8	55.9	59.1	62.0	61.3	60.0	58.8	57.8	57.1	56.2	56.7	56.6	56.6	54.9	54.9	55.8	138.7		
27	54.3	54.9	54.2	53.0	52.5	51.4	50.9	50.1	50.9	53.2	56.6	59.4	62.5	61.4	60.4	58.9	57.7	56.6	56.9	55.8	56.1	55.7	55.0	54.3	55.5	132.7		
28 q	54.4	54.9	54.3	54.1	53.6	52.6	50.7	50.8	50.9	53.4	57.8	60.2	62.0	62.7	62.6	63.2	59.0	57.4	55.9	54.7	55.6	56.0	55.7	53.2	56.1	145.7		
29	54.2	54.0	54.0	53.8	53.2	51.9	50.4	50.4	50.8	53.0	56.5	59.8	62.2	64.8	63.7	62.5	61.6	59.2	57.2	57.4	57.7	57.3	53.0	40.6	42.6	55.2	124.6	
30 d	43.7	44.4	46.7	46.5	47.7	45.7	44.2	45.8	47.9	50.5	54.8	60.9	64.3	70.3	71.0	67.4	68.3	72.6	58.5	58.9	36.0	34.8	40.6	45.8	52.8	67.3		
31 d	49.5	54.1	51.6	50.9	51.4	51.3	51.0	51.1	51.2	52.6	56.0	58.5	60.7	62.3	61.4	58.8	57.3	57.8	57.8	57.7	56.8	55.9	55.1	51.6	55.1	122.4		
Mean	53.8	54.3	54.1	53.3	52.7	51.5	50.5	50.4	51.0	52.7	55.9	59.3	61.9	63.3	62.9	61.1	59.2	58.0	56.4	56.3	55.1	54.8	54.3	53.8	55.7			
Sum 1500.0° +	167.0	183.6	178.8	152.8	135.2	97.3	67.0	63.1	81.3	134.1	232.9	338.8	418.3	462.3	448.3	395.7	334.9	297.5	249.4	245.8	206.6	197.5	185.0	169.1		Grand Total 41442.3		



GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

63

21 ESKDALEUIR (Z)		45,000γ (0.45 CGS unit) +																								AUGUST 1966	
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 10,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	451	454	455	457	457	454	454	453	448	445	442	437	436	441	445	453	460	465	465	465	465	464	463	456	454	γ	885
2 q	459	460	461	463	464	465	461	460	459	457	451	442	439	445	450	455	460	462	464	464	464	461	460	459	458	457	979
3	459	459	460	460	463	463	459	458	454	449	448	441	437	446	465	477	484	482	472	466	463	461	460	460	460	460	1046
4	464	463	463	463	465	465	463	460	454	449	448	443	445	454	466	477	474	472	468	465	466	465	463	460	461	1075	
5	456	457	460	463	464	463	457	454	453	449	446	444	447	458	466	483	489	479	474	468	465	463	461	464	462	1083	
6	461	454	450	450	451	450	452	453	458	457	451	446	437	436	450	463	469	469	471	468	468	465	463	460	456	952	
7	456	455	449	454	460	463	464	464	460	456	454	452	449	449	454	461	464	469	465	464	463	463	461	460	459	1009	
8	461	461	461	462	464	465	467	469	462	457	454	450	447	450	457	460	461	464	465	468	468	464	461	454	461	1052	
9	449	448	450	454	460	465	463	460	460	456	453	441	441	443	450	459	467	469	467	475	475	463	460	458	458	986	
10	459	457	452	444	448	450	455	454	453	446	445	446	449	459	466	469	477	474	469	467	465	465	464	459	458	992	
11	457	460	460	459	454	450	452	456	456	456	450	448	449	456	460	477	480	489	490	480	479	471	461	454	463	1104	
12	443	437	443	442	451	454	456	459	457	453	450	446	453	459	463	463	472	478	482	472	467	465	459	459	458	983	
13	460	460	452	450	459	463	460	462	459	454	454	452	448	450	459	465	468	471	474	470	466	465	463	460	460	1044	
14	457	453	448	438	437	433	437	442	448	448	448	448	448	449	455	460	464	465	465	465	466	465	464	464	453	867	
15	464	461	460	461	462	461	463	463	459	450	449	448	446	449	458	461	464	465	461	461	463	463	460	460	459	1012	
16 q	461	457	452	453	458	459	460	461	461	459	452	448	444	449	459	467	467	467	464	462	461	461	461	460	458	1003	
17 q	459	460	461	462	464	466	471	471	471	464	459	455	454	456	465	471	471	471	471	465	460	459	459	460	464	1125	
18	461	461	461	462	464	467	469	469	460	454	449	449	448	447	454	464	467	477	485	490	477	467	464	462	464	1128	
19 d	464	455	453	443	442	454	461	464	465	460	459	459	461	462	471	478	493	511	508	492	475	469	468	467	468	1234	
20	465	465	461	462	466	467	465	461	459	455	454	452	456	459	463	469	471	471	471	468	466	465	464	457	463	1112	
21	454	457	460	462	464	465	465	463	461	457	453	448	447	452	459	465	468	472	471	468	465	464	463	460	461	1063	
22 q	462	463	463	464	465	465	466	465	461	456	456	454	448	449	455	463	468	470	465	464	463	461	464	461	461	1071	
23 d	453	450	454	458	457	458	458	457	454	452	443	441	442	448	458	469	476	490	500	485	481	469	462	444	461	1059	
24 d	449	429	434	454	461	465	465	465	457	443	438	438	441	447	460	468	472	475	472	471	474	467	462	457	457	964	
25	460	455	449	454	462	465	466	465	463	459	449	443	446	449	453	463	468	470	474	472	468	454	454	457	459	1018	
26	460	457	450	452	455	460	461	459	454	450	445	441	443	449	454	458	464	465	466	465	465	465	460	460	457	958	
27	464	460	460	460	464	464	465	463	457	445	437	437	440	446	454	460	467	469	470	468	465	465	463	461	459	1004	
28 q	461	461	462	463	464	465	466	465	464	459	453	450	448	449	457	465	473	474	471	468	466	464	464	462	462	1094	
29	461	464	464	464	464	465	466	465	461	456	450	449	448	449	459	463	467	471	467	465	465	466	460	442	460	1051	
30 d	417	389	378	382	402	429	443	453	460	459	453	445	438	436	447	460	464	493	574	549	505	404	449	482	450	811	
31 d	467	462	482	483	480	482	482	485	487	481	476	467	468	468	474	483	483	480	477	474	472	472	472	468	476	1425	
Mean	457	454	454	455	458	460	461	461	459	455	451	447	447	450	458	466	471	474	476	472	469	462	462	459	460		
Sum 13,000γ+	1174	1084	1068	1098	1191	1260	1292	1298	1235	1091	969	860	843	959	1206	1449	1592	1699	1758	1644	1528	1334	1311	1246		Grand Total 342,189	

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH CHAMBER

22 ESKDALEUIR										AUGUST 1966	
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magneto- graph chamber °C	
1	3210 2122	13	3210 2122	13	2110 1002	7	0000 0000	0	1	13.1	
2 q	1000 0001	2	1000 0001	2	0000 0000	0	0000 0000	0	0	13.1	
3	1113 3321	15	1113 3321	15	1112 1201	9	0001 1100	3	1	13.1	
4	1123 2323	17	1113 2323	16	0021 1112	8	0000 0000	0	1	13.0	
5	1133 4322	19	1133 4322	19	1132 1212	13	0000 0000	0	1	13.1	
6	3212 2321	16	2102 2321	13	3210 0121	10	1000 0000	1	1	13.1	
7	3211 1111	11	3101 1111	9	2210 0001	6	1100 0000	2	1	13.1	
8	1012 2222	12	1012 2222	12	1010 1112	7	0000 0001	1	0	13.1	
9	2120 2333	16	2120 2332	15	2120 1133	13	0000 0020	2	1	13.0	
10	3223 4322	21	3213 4322	20	3222 2102	14	1000 0101	3	1	13.0	
11	1322 4434	23	1222 4434	22	1322 2222	16	0100 0112	5	1	13.0	
12	3333 3333	24	3333 3333	24	3222 1132	16	2100 0110	5	1	13.0	
13	2211 1212	12	2211 1212	12	2201 0012	8	1100 0000	2	0	13.0	
14	3322 2221	17	2212 2221	14	3321 0010	10	2110 1000	5	1	13.0	
15	1111 1122	10	0111 1122	9	1010 0001	3	0000 0000	0	0	13.0	
16 q	2111 1101	8	1011 1101	6	2110 0001	5	1000 0000	1	0	13.0	
17 q	1100 1220	7	1000 1210	5	1100 0220	6	0000 0010	1	0	13.0	
18	1012 3431	15	1012 3431	15	0011 1231	9	0000 1220	5	1	12.9	
19 d	3313 4333	23	2313 4332	21	3212 2233	18	1110 1330	10	1	12.9	
20	2222 2112	14	2112 2112	12	2221 0012	10	1000 0001	2	0	12.9	
21	2111 1211	10	2101 1211	9	1110 0111	6	0000 0000	0	0	12.9	
22 q	1100 1312	9	1100 1312	9	1000 0101	3	0000 0100	1	0	12.9	
23 d	3323 4443	26	3223 4443	25	2322 2333	20	1011 1333	13	1	12.9	
24 d	3123 4333	22	2113 4333	20	3122 2223	17	3210 1101	9	1	12.9	
25	3212 2233	18	2112 2233	16	3211 2122	14	1000 0110	3	1	12.9	
26	2211 1122	12	2211 1122	12	2210 1002	8	1000 0000	1	0	12.8	
27	2111 2211	11	2111 2211	11	1111 1001	6	0000 0000	0	0	12.8	
28 q	1011 2222	11	1001 2222	10	1010 1212	8	0000 0000	0	0	12.8	
29	1001 4234	15	1001 4234	15	0000 3124	10	0000 1003	4	1	12.8	
30 d	5324 5566	36	5324 5556	35	5313 4465	31	4321 2455	26	2	12.7	
31 d	4232 4443	26	4222 4443	25	4232 3223	21	4000 0100	5	1	12.7	
Mean									0.65	13.0	

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component. (See Introduction).

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

19 ESKDALEMUIR (H)													16,000γ (0.16 CGS unit) +													SEPTEMBER 1966																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

20 ESKDALEUIR (D)													9° +													SEPTEMBER 1966																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

65

21 ESKDALEMUIR (Z)												45,000γ (0.45 CGS unit) +												SEPTEMBER 1966																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH CHAMBER

22 ESKDALEMUIR										SEPTEMBER 1966	
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magneto-graph chamber °C	
1 d	1324 3353	24	1324 3353	24	0112 2343	16	0000 1332	9	1	12.8	
2	3322 3443	24	3212 3443	22	2320 2232	16	2110 1120	8	1	12.7	
3 d	3224 5569	36	3224 5569	36	2223 3458	29	0002 4568	25	2	12.7	
4 d	9654 4433	38	9654 4332	36	7643 2433	32	7654 3431	33	2	12.7	
5	2113 3423	19	1103 3423	17	2111 3311	13	0001 2210	6	1	12.7	
6 d	3333 4322	23	2333 4322	22	3331 3212	18	2210 2201	10	1	12.7	
7	2222 3343	21	2212 3333	19	2221 2342	18	0000 2332	10	1	12.7	
8 d	3434 4434	29	2334 4434	27	3422 3434	25	0312 3234	18	1	12.6	
9	3222 3434	23	2222 3433	21	3221 2424	20	3010 2222	12	1	12.7	
10	4422 3333	24	4322 3333	23	3422 1333	21	2210 2112	11	1	12.7	
11 q	3111 1211	11	3111 1211	11	2111 0001	6	2000 0000	2	0	12.7	
12 q	0013 2312	12	0013 2311	11	0011 1012	6	0000 0000	0	0	12.7	
13 q	2100 2211	9	1100 2211	8	2000 0001	3	0000 0000	0	0	12.7	
14	1011 2335	16	1001 2333	13	0010 0225	10	0000 0002	2	1	12.7	
15	5322 2243	23	4322 2242	21	5322 1143	21	3110 0013	9	1	12.7	
16	3113 2223	17	3103 2223	16	3112 2122	14	2000 0011	2	1	12.7	
17	3322 1211	15	2122 1211	12	3321 1000	10	2200 0000	4	1	12.8	
18 q	0011 1111	6	0001 1111	5	0010 0001	2	0 000 0000	0	0	12.7	
19	3331 3333	22	3321 3333	21	2331 2132	17	1000 0003	4	1	12.6	
20	3333 4433	26	3333 4432	25	2222 2433	20	1111 1112	9	1	12.6	
21	3312 3111	15	2312 3111	14	3211 2001	10	1100 0000	2	1	12.6	
22 q	2111 1133	13	2111 1121	10	2110 0133	11	0000 0000	0	0	12.6	
23	1233 3432	21	1132 3432	19	0233 3232	18	0000 1332	9	1	12.6	
24	2222 3432	20	2222 3432	20	2112 2221	13	0001 0000	1	1	12.7	
25	4321 1223	18	4321 1223	18	4320 0012	12	0200 0010	3	1	12.8	
26	4223 4453	27	3123 4453	25	4220 3342	20	1000 2332	11	1	12.8	
27	3324 3333	24	3224 3333	23	3322 2313	19	2100 1000	4	1	12.8	
28	3423 3404	23	3323 3304	21	2412 2403	18	2320 2210	12	1	12.8	
29	3331 2442	22	2231 2332	18	3321 2441	20	0200 0220	6	1	12.8	
30	2332 3414	22	1332 3414	21	2321 2304	17	0210 1202	8	1	12.8	
Mean									0.90	12.7	

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

19	ESDALEMUIR (H)												16,000γ (0·16 CGS unit) +												OCTOBER 1966	
	Hour GMT 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 21,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	930	935	927	925	926	932	925	926	914	905	904	905	913	922	929	935	936	934	937	934	936	935	936	935	927	1236
2 q	934	934	932	933	933	930	931	925	920	908	903	902	908	920	928	931	931	932	935	937	936	938	938	935	927	1254
3	936	934	935	935	937	936	940	946	941	934	924	916	911	915	923	930	936	941	944	946	947	943	943	936	935	1429
4 d	941	936	936	934	933	939	932	941	936	925	913	910	908	927	921	928	947	963	969	974	917	905	912	941	933	1388
5 d	949	912	910	917	938	939	916	906	895	851	846	880	902	905	914	897	903	906	929	931	937	912	914	925	910	834
6 d	919	926	927	924	943	905	934	923	922	897	892	896	892	898	913	915	913	916	921	927	925	930	944	933	918	1035
7	932	929	927	929	932	930	929	927	922	913	903	899	901	910	914	921	912	910	922	928	932	932	952	928	922	1134
8	923	928	928	926	927	931	932	934	917	907	906	901	904	909	917	920	926	927	932	936	937	936	934	938	924	1176
9	940	940	940	935	930	936	942	931	919	907	905	908	915	914	916	917	923	925	929	934	934	939	938	938	927	1255
10	932	931	932	932	933	932	930	927	923	915	913	909	910	915	917	922	926	931	934	935	938	936	937	936	927	1246
11 q	936	936	936	936	936	936	936	933	927	919	916	917	918	924	928	931	932	937	939	935	935	936	935	936	931	1350
12	945	942	934	939	943	948	939	934	933	926	921	913	922	919	925	936	933	942	944	936	941	946	952	930	935	1443
13	945	935	936	937	937	937	938	934	932	926	925	929	921	922	926	932	933	933	941	941	943	940	940	957	935	1440
14	937	938	936	935	933	937	931	926	916	900	894	901	913	924	934	937	939	941	943	941	942	941	939	940	930	1318
15	941	940	942	945	942	938	934	937	929	915	920	920	929	938	942	948	951	953	943	938	957	941	938	939	938	1520
16 d	936	945	945	950	945	964	952	894	889	898	891	865	868	853	880	889	904	907	901	917	924	923	927	928	912	895
17	935	924	926	926	928	927	924	920	913	904	896	891	897	905	918	928	936	928	936	937	939	939	937	934	923	1148
18	944	928	930	929	933	935	932	929	923	912	902	899	901	910	916	924	933	937	941	941	940	939	936	936	927	1250
19	936	933	934	937	936	936	935	932	926	922	913	911	914	920	926	931	937	938	931	942	944	942	943	946	932	1365
20	944	938	937	936	936	939	945	947	944	932	922	917	915	920	924	930	935	936	941	943	937	939	941	937	935	1435
21 q	940	939	937	937	939	940	941	943	938	930	920	918	920	918	925	931	935	938	941	943	944	944	944	943	935	1448
22 q	944	942	940	940	940	941	944	945	941	932	922	915	916	921	927	932	937	940	942	947	946	942	942	939	937	1477
23 q	936	933	937	938	940	941	942	942	940	933	925	921	924	926	931	939	944	949	953	956	953	947	948	948	939	1546
24	950	949	948	946	947	948	951	957	955	948	938	937	936	935	940	951	924	924	936	944	941	939	932	944	931	1613
25	927	942	957	936	931	937	930	944	928	908	906	899	904	908	918	924	930	934	933	940	913	930	945	967	929	1291
26	947	933	936	940	951	942	935	933	929	918	909	913	916	925	917	899	917	924	932	930	933	933	932	938	928	1282
27	933	930	930	930	931	933	933	932	927	917	911	908	912	921	929	929	934	936	940	938	938	942	948	956	931	1338
28	935	932	930	931	935	936	936	935	924	914	909	910	917	923	929	935	938	941	941	943	939	942	937	937	931	1349
29	937	939	939	936	938	940	935	932	923	915	909	909	918	928	936	938	940	937	937	940	939	940	940	940	933	1385
30	947	946	944	946	945	945	946	940	931	925	922	927	937	951	959	951	939	929	912	918	912	921	917	928	935	1438
31 d	932	946	954	925	933	915	931	930	929	916	908	892	889	913	893	890	912	914	920	883	909	892	911	917	915	954
Mean	937	935	935	934	937	936	935	932	926	915	909	908	911	917	923	926	930	933	936	937	936	934	937	938	929	
Sum 28,000γ+	1063	995	1002	965	1031	1025	1001	905	706	372	187	137	250	444	626	694	836	915	1007	1032	1006	957	1044	1072		Grand Total 691,272

**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

20	ESDALEMUIR (D)												9° +												OCTOBER 1966												
	Hour GMT																																				Sum
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	1200·0' +											
1	54·2	52·2	50·1	49·2	51·0	51·8	53·0	52·5	52·6	53·1	55·6	57·4	59·3	59·3	58·6	57·9	56·5	55·9	55·5	55·6	55·8	54·7	54·6	54·5	54·6	110·9											
2 q	54·6	54·4	54·0	54·4	54·4	53·6	52·5	52·2	52·0	53·7	56·5	59·1	60·0	60·1	59·3	57·4	55·8	55·4	55·4	54·9	54·7	54·6	53·9	53·9	55·3	126·8											
3	54·4	54·4	54·6	54·5	54·0	53·7	54·6	53·8	51·8	51·7	52·8	55·3	57·4	59·4	60·0	59·0	57·4	56·5	56·5	56·4	56·2	55·7	53·7	51·7	55·2	125·5											
4 d	52·8	52·1	53·5	51·3	52·7	53·3	52·7	52·2	52·2	53·3	56·7	59·8	61·2	63·2	63·0	59·9	59·8	59·9	59·7	60·4	53·9	51·1	49·6	41·7	55·3	126·0											
5 d	43·6	39·4	48·9	55·5	52·7	50·2	54·6	54·7	52·2	59·4	62·6	61·0	60·5	60·1	61·1	58·5	49·9	53·0	49·7	50·1	45·0	52·1	52·5	52·0	53·3	79·3											
6 d	53·7	55·3	54·5	58·2	58·6	64·6	58·0	54·1	53·4	53·9	56·2	58·2	60·6	60·0	60·5	58·1	55·4	54·0	53·5	53·3	51·7	52·5	55·9	54·7	56·2	148·9											
7	53·6	53·4	54·8	54·6	54·1	53·0	53·7	52·5	52·2	52·7	54·5	56·9	59·5	60·4	59·4	58·1	53·8	50·6	53·4	56·0	55·6	55·4	50·8	47·0	54·4	106·0											
8	51·9	53·5	53·8	53·7	53·8	53·8	53·8	53·3	54·3	56·3	57·8	59·0	59·8	60·0	58·8	57·3	56·2	55·1	54·8	55·1	55·2	53·7	54·1	54·7	55·4	129·8											
9	54·7	55·7	53·7	52·5	53·9	54·9	54·8	54·9	55·1	55·4	55·8	58·7	60·0	59·4	59·3	58·7	52·5	55·4	55·5	55·6	55·1	54·9	51·8	50·1	55·4	128·6											
10	53·7	53·6	53·8	53·8	53·8	53·7	53·5	52·8	52·7	53·7	55·7	58·1	59·4	59·3	57·7	57·1	55·9	55·6	55·0	53·0	53·5	54·6	54·9	54·9	55·0	119·8											
11 q	54·9	54·7	54·6	54·5	54·1	53·7	53·5	52·5	51·7	52·3	54·6	57·2	58·1	57·7	57·5	56·8	56·2	55·7	55·3	54·6	54·8	54·7	54·1	54·0	54·9	117·8											
12	55·4	52·1	52·2	52·6	53·5	53·4	53·1	52·3	52·3	52·9	55·8	56·5	59·5	59·3	58·5	58·4	57·3	56·7	56·6	52·1	55·6	55·2	52·5	51·9	54·8	115·7											
13	53·6	53·3	53·6	53·1	53·5	53·0	52·5	52·5	52·4	52·6	54·6	59·3	59·4	61·1	58·9	58·4	57·5	54·4	55·7	55·7	53·1	54·4	54·2	53·7	55·0	120·5											
14	53·9	53·0	52·5	51·0	53·1	52·9	52·7	52·2	51·9	52·6	55·5	58·7	61·1	62·3	60·4	58·7	57·2	56·7	56·3	55·7	55·5	54·7	54·0	54·2	55·3	126·8											
15	54·4	53·9	54·6	53·2	52·2	52·4	52·7	52·0	51·3	51·3	55·4	58·5	61·6	61·5	59·7	58·6	58·0	58·0	56·7	55·4	48·6	46·3	42·7	48·1	54·0	97·1											
16 d	51·5	52·3	52·9	55·0	57·5	54·1	53·6	58·6	60·8	59·3	57·8	62·2	67·1	69·5	65·6	67·1	61·2	59·2	51·7	53·3	53·2	51·5	53·3	53·9	57·6	182·2											
17	52·7	53·8	53·6	53·3	54·7	53·7	52·8	51·7	50·6	51·1	53·8	57·4	59·4	60·3	59·8	59·2	57·9	57·7	58·9	58·2	56·7	55·2	54·4	53·4	55·4	130·3											
18	47·3	50·1	52·8	53·6	53·7	53·3	53·1	52·6	52·2	53·2	54·7	57·9	59·4	60·2	59·1	58·5	57·5	57·0	56·6	55·8	55·4	55·2	53·8	52·8	54·8	115·8											
19	52·9	53·6	52·7	53·6	52·9	52·3	52·1	52·6	51·9	51·9	52·9	55·8	57·4	58·2	58·3	57·8	56·7	56·4	55·6	56·5	55·8	54·8	54·1	52·2	54·5	109·0											
20	53·2	53·1	52·9	52·7	53·1	53·9	53·8	53·7	53·C	53·4	54·6	56·2	58·2	59·3	58·7	58·6	58·2	56·2	55·5	56·5	55·5	54·7	54·4	54·5	55·2	123·9											
21 q	54·6	54·3	53·8	54·1	54·4	54·0	53·8	53·7	52·7	51·8	52·9	55·9	58·5	59·2	59·7	59·1	58·0	57·4	56·8	56·4	55·8	55·4	54·9	54·8	55·5	132·0											
22 q	54·5	54·1	54·0	54·0	54·0	54·1	53·7	53·5	52·5	51·8	53·0	55·7	57·7	59·0	59·1	58·4	57·4	57·0	56·3	56·3	55·9	55·2	54·3	52·6	55·1	123·2											
23 q	49·5	51·7	53·5	53·7	53·7	53·7	53·6	53·4	52·8	52·6	53·8	56·3	58·2	59·1	59·7	59·1	58·3	57·7	57·1	56·5	56·2	55·9	54·4	53·7	55·2	124·2											
24	54·4	54·5	54·2	54·1	54·4	54·1	54·0	53·7	53·1	52·6	54·1	57·5	60·1	62·4	64·7	65·7	63·4	60·2	58·4	57·0	54·3	49·2	45·5	44·6	55·7	136·2											
25	49·6	52·0	53·8	52·8	51·9	50·7	53·4	56·2	53·7	53·8	54·3	60·8	62·2	63·0	60·1	59·6	57·6	56·0	53·8	49·9	52·8	52·6	52·5	54·4	54·9	117·5											
26	52·9	52·5	53·7	52·8	55·5	52·8	52·2	52·0	51·5	51·7	54·5	56·5	58·5	60·9	62·6	57·0	59·1	54·5	57·3	55·7	52·7	53·0	53·7	54·8	54·9	118·4											
27	53·2	54·5	54·4	54·7	54·6	54·2	53·8	53·4	52·8	53·3	55·1	56·8	58·2	58·9	58·6	57·7	56·6	53·1	54·1	55·6	55·2	55·1	53·1	53·7	55·0	120·7											
28	52·7	53·1	55·2	54·5	54·0	53·7	53·6	53·0	51·7	52·2	54·7	57·6	59·1	59·3	58·1	56·5	55·8	55·8	55·3	53·9	54·0	53·9	53·7	54·0	54·8	115·4											
29	54·6	54·9	54·9	54·6	54·5	53·0	53·0	52·0	51·3	52·0	54·5	57·9	59·6	59·5	58·6	56·8	55·7	55·0	54·7	54·5	53·8	54·5	54·5	54·0	54·9	118·4											
30	53·9	53·1	53·7	54·6	54·7	54·9	54·5	53·6	52·2	52·1	54·0	57·4	60·0	61·4	61·2	58·7	55·9	50·7	53·1	53·3	50·0	44·8	41·6	52·8	53·8	92·2											
31 d	52·6	55·5	54·7	53·0	54·6	61·0	58·2	54·2	53·6	53·0	56·5	59·7	60·9	62·9	65·2	59·4	60·4	54·3	45·9	45·2	37·0	42·7	44·0	50·0	53·9	94·5											
Mean	52·9	53·0	53·5	53·7	54·0	53·9	53·7	53·3	52·7	53·3	55·2	57·9	59·7	60·5	60·1	58·8	57·1	55·8	55·2	54·8	53·5	53·2	52·3	52·4	55·0												
Sum 1600·0' +	39·5	44·1	60·0	63·2	73·6	71·5	64·9	52·4	34·5	50·7	111·3	195·3	251·9	276·2	261·8	222·3	169·1	131·1	110·7	98·5	58·6	48·3	20·6	23·3		Grand Total 40933·4											

GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

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21 ESKDALEMUIR (Z)													45,000γ (0-45 CGS unit) +													OCTOBER 1966		
	Hour GMT		0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 11,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	460	454	457	464	466	467	469	471	470	472	471	468	468	466	468	472	475	473	474	473	473	473	472	472	469	469	248	
2 q	472	472	472	470	469	469	470	472	469	466	460	456	455	457	464	470	472	471	470	469	469	469	469	469	469	468	221	
3	470	470	470	470	469	469	466	465	463	459	458	457	455	457	461	466	468	467	466	466	466	468	470	468	465	164		
4 d	468	468	465	464	463	461	464	464	465	463	460	458	464	465	468	469	470	466	466	468	505	540	506	443	471	293		
5 d	434	410	425	411	418	446	454	462	465	470	467	470	470	475	477	500	525	516	503	482	470	471	470	466	465	157		
6 d	471	465	464	460	447	438	436	454	461	468	471	477	484	494	495	496	501	497	492	487	484	479	465	460	473	346		
7	468	470	470	467	468	470	472	473	472	469	461	460	466	472	480	490	505	505	493	485	479	477	468	461	475	401		
8	466	467	469	472	472	472	472	470	469	466	464	466	472	473	476	476	477	478	478	477	476	476	475	471	472	330		
9	472	469	464	462	464	465	464	465	466	466	461	457	467	474	479	480	490	487	484	479	477	477	476	472	472	317		
10	470	470	470	470	470	470	472	472	472	471	468	462	462	465	469	470	472	472	473	475	472	470	470	470	470	470	277	
11 q	472	471	471	470	470	470	470	471	469	466	461	460	462	464	464	464	467	468	469	470	471	471	472	470	468	233		
12	465	462	466	466	466	464	466	467	465	463	457	457	456	461	462	467	470	469	471	476	470	470	466	468	465	170		
13	462	465	466	468	468	466	466	466	466	465	461	456	453	457	462	465	467	470	473	471	470	471	471	465	466	175		
14	466	468	468	469	472	470	470	472	472	471	465	461	464	467	472	473	472	471	470	470	470	471	472	472	469	268		
15	472	472	470	467	467	466	466	467	467	468	465	454	447	450	459	462	465	468	470	473	480	476	472	467	454	466	177	
16 d	454	459	461	457	454	453	456	460	462	463	466	467	473	502	514	511	505	506	508	495	487	481	475	473	477	442		
17	466	472	475	476	475	474	476	476	476	474	472	466	460	461	464	469	474	477	477	477	477	477	476	476	473	344		
18	477	474	474	475	475	475	474	472	469	466	464	464	465	466	468	472	473	473	472	472	472	472	473	473	471	310		
19	475	473	473	472	471	471	470	469	468	467	466	464	466	466	468	470	472	475	477	473	472	472	472	469	470	291		
20	469	468	469	469	469	468	466	466	466	466	466	460	461	464	467	471	472	473	473	472	473	474	473	472	469	245		
21 q	472	471	470	471	469	468	467	466	466	465	460	455	460	464	466	466	467	469	470	469	468	468	467	466	467	200		
22 q	470	469	469	468	468	468	467	466	467	466	464	458	461	466	469	471	470	469	469	468	468	470	471	470	468	222		
23 q	471	470	469	468	467	467	467	466	467	466	464	461	461	461	462	465	466	465	465	465	467	471	471	471	466	193		
24	469	468	466	466	462	462	461	460	460	459	455	454	455	457	462	475	477	474	473	473	476	485	474	467	466	190		
25	467	461	449	449	460	462	462	456	462	464	461	455	460	471	472	473	475	475	479	478	484	481	475	447	466	278		
26	441	458	465	466	455	449	455	461	465	466	466	465	469	473	484	496	499	495	486	482	480	477	477	475	471	305		
27	473	470	470	472	472	472	472	472	472	472	470	470	469	472	475	478	477	477	476	474	475	475	473	461	472	339		
28	458	465	466	468	469	470	470	472	475	473	468	470	475	476	476	475	472	472	472	472	472	472	472	472	471	303		
29	472	470	470	472	471	471	471	473	476	473	468	466	470	472	476	476	475	477	476	472	472	470	470	472	472	331		
30	470	468	468	468	467	466	468	470	472	470	466	461	455	460	462	466	472	489	489	488	490	477	470	465	471	297		
31 d	466	451	419	440	449	440	449	462	467	468	465	467	475	479	497	518	525	524	499	494	494	480	467	466	473	361		
Mean	466	465	465	465	465	465	465	467	468	467	467	461	464	469	473	477	480	480	478	476	476	476	472	467	470			
Sum 14,000γ+	458	420	400	407	402	399	428	478	499	472	467	306	388	524	649	782	876	873	814	751	757	757	645	476		Grand Total 349,428		

GEOMAGNETIC CHARACTER FIGURES ( $K$ ,  $K_H$ ,  $K_D$ ,  $K_Z$ , AND  $C$ ) AND TEMPERATURE IN MAGNETOGRAPH CHAMBER

22 ESKDALEMUIR										OCTOBER 1966	
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magneto-graph chamber °C	
1	2211 1110	9	2111 1110	8	2211 1010	8	1000 0000	1	0	12-8	
2 q	0010 0111	4	0010 0111	4	0010 0001	2	0000 0000	0	0	12-8	
3	0010 0013	5	0000 0013	4	0010 0002	3	0000 0001	1	0	13-4	
4 d	2221 3455	24	2221 3455	24	1211 2245	18	0000 1145	11	1	13-5	
5 d	4434 3453	30	4434 3353	29	4333 2452	26	3320 1331	16	2	13-5	
6 d	2432 3223	21	2422 3223	20	2432 2122	18	1332 1012	13	1	13-5	
7	2100 1323	12	1100 1323	11	2100 1323	12	0000 1221	6	1	13-5	
8	2111 1101	8	1111 1101	7	2010 1001	5	0000 0000	0	0	13-5	
9	2112 2313	15	1112 2312	13	2112 1303	13	1000 0100	2	1	13-5	
10	1011 0130	7	0001 0120	4	1011 0030	6	0000 0000	0	0	13-6	
11 q	0000 1010	2	0000 1010	2	0000 0010	1	0000 0000	0	0	13-5	
12	2123 2233	18	2123 2233	18	2012 2133	14	1000 0011	3	1	13-5	
13	2012 2224	15	2012 2224	15	2012 2222	13	0000 0001	1	1	13-5	
14	1211 1111	9	1111 1111	8	1210 1001	6	0000 0000	0	0	13-5	
15	1113 3343	19	1103 3343	18	1112 2143	15	0000 0022	4	1	13-5	
16 d	3343 4433	27	3343 4333	26	2333 3433	24	1111 3121	11	1	13-5	
17	3101 1211	10	3101 1211	10	2100 0111	6	0000 0000	0	0	13-5	
18	3001 1111	8	3001 1111	8	3001 1001	6	0000 0000	0	0	13-3	
19	1111 0122	9	1011 0122	8	1111 0011	6	0000 0000	0	0	13-3	
20	2111 1111	9	2101 1111	8	0110 1111	6	0000 0000	0	0	13-5	
21 q	0001 1110	4	0001 1110	4	0000 1000	1	0000 0000	0	0	13-5	
22 q	0000 1012	4	0000 1011	3	0000 0002	2	0000 0000	0	0	13-5	
23 q	2000 0111	5	1000 0111	4	2000 0001	3	0000 0000	0	0	13-4	
24	1122,3323	17	1122 3323	17	0112 2223	13	0000 1112	5	1	13-4	
25	3233 3344	25	3232 3344	24	3133 3243	22	2211 1023	12	1	13-5	
26	3312 2332	19	3312 2322	18	3312 2332	19	3200 1100	7	1	13-5	
27	2111 1212	11	2111 1212	11	2111 1211	10	0000 0002	2	0	13-5	
28	3111 0022	10	3110 0022	9	2011 0011	6	1000 0000	1	0	13-5	
29	1110 0110	5	0100 0110	3	1110 0010	4	0000 0000	0	0	13-5	
30	2111 2334	17	2111 2334	17	2011 2334	16	0000 0202	4	1	13-5	
31 d	4433 4454	31	4323 4453	28	4433 3444	29	3221 3232	18	2	13-4	
Mean									0-52	13-4	

q denotes an international quiet day and d an international disturbed day.

$K_H$  For horizontal component.  $K_D$  For declination.  $K_Z$  For vertical component. (See Introduction).

**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

19	ESKDALEUIR (H)												16,000γ (0.16 CGS unit) +												NOVEMBER				1966
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 21,000γ+		
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ		
1 d	921	919	924	926	926	929	911	911	927	885	887	865	884	892	920	934	896	912	904	920	927	944	951	923	914	938			
2	919	933	931	923	928	930	931	930	925	919	914	912	908	925	928	929	928	929	951	932	930	936	947	939	928	1277			
3 d	936	928	932	933	940	938	933	945	940	924	895	902	917	914	922	916	939	931	936	946	942	944	943	942	931	1338			
4	943	931	932	932	929	940	944	940	933	920	920	920	922	926	925	926	929	931	928	925	932	928	936	939	930	1331			
5	937	941	937	937	935	942	937	930	927	916	909	913	913	912	917	918	921	916	922	926	947	936	938	941	928	1268			
6	937	935	935	937	932	941	944	941	931	916	905	902	911	919	928	932	932	927	916	909	913	920	926	928	926	1217			
7	933	939	937	934	931	934	940	942	934	922	914	912	916	921	925	929	933	936	939	945	936	938	935	959	933	1384			
8	945	928	927	926	935	937	937	940	935	926	919	913	915	924	931	928	937	942	936	938	942	943	943	940	933	1387			
9 q	940	938	937	940	943	944	944	942	935	924	918	920	925	928	933	939	943	943	946	947	948	947	947	945	938	1516			
10	946	946	947	951	952	951	945	945	941	935	926	921	916	928	929	934	931	937	941	935	932	927	936	937	937	1489			
11	949	938	937	943	937	948	940	936	932	927	904	909	922	924	928	931	938	941	943	944	944	942	941	940	935	1438			
12	940	938	942	939	935	937	940	940	936	925	916	920	918	921	928	939	942	936	925	909	936	939	940	937	932	1378			
13	936	940	940	943	940	942	947	943	935	926	905	927	931	931	932	935	941	943	931	937	940	949	941	939	936	1474			
14 q	938	937	938	940	942	943	943	940	938	936	929	927	927	929	934	939	944	947	947	948	948	944	945	941	939	1544			
15	936	938	940	941	943	944	944	944	941	933	926	924	929	935	935	936	936	940	938	931	931	932	938	937	936	1472			
16	935	936	939	938	945	951	949	945	932	928	922	923	920	924	929	930	935	941	943	945	943	940	938	937	936	1468			
17	942	937	937	948	957	951	955	956	944	935	931	930	935	941	946	949	951	967	933	908	916	926	933	939	940	1567			
18	939	938	940	942	943	944	944	943	938	930	925	931	935	940	947	946	948	937	925	933	940	922	932	913	936	1475			
19	924	939	932	949	940	940	937	933	923	929	922	920	920	915	921	928	933	936	942	940	937	937	940	943	933	1380			
20	948	944	932	931	931	933	935	939	937	933	932	935	938	936	937	937	942	945	934	935	933	935	937	945	937	1484			
21	934	933	932	937	940	942	942	942	934	937	935	934	935	936	937	938	941	944	945	946	944	932	933	944	938	1517			
22 q	936	932	935	938	940	941	942	943	940	938	936	933	932	933	934	938	941	944	945	944	944	943	942	940	939	1534			
23 q	940	944	942	946	946	949	951	948	944	944	943	939	937	938	940	941	946	947	947	948	948	945	944	948	940	1665			
24	944	944	940	937	959	953	945	947	942	937	930	931	930	931	931	941	944	944	944	944	942	941	942	940	941	1583			
25 q	938	938	941	944	945	946	945	944	943	943	941	940	942	946	951	951	955	951	956	954	951	950	947	947	946	1709			
26	948	940	935	940	938	948	951	949	947	955	943	945	940	932	933	940	935	941	940	940	940	941	941	939	942	1601			
27	939	939	940	941	948	952	951	950	948	937	932	932	937	938	938	941	941	944	934	930	938	942	944	940	941	1576			
28 d	940	940	944	948	950	954	951	949	944	941	927	930	927	927	924	913	924	898	917	939	935	938	927	917	933	1404			
29 d	912	934	934	938	941	938	937	939	933	918	916	912	913	911	915	907	914	922	927	936	933	934	932	932	926	1228			
30 d	936	940	937	937	944	948	951	918	928	915	900	900	898	906	911	900	921	925	927	914	918	943	920	921	923	1158			
Mean	937	937	937	939	941	943	942	941	936	929	921	921	923	926	930	932	935	937	935	935	937	938	939	938	934	934			
Sum 27,000γ+	1111	1107	1096	1159	1215	1290	1266	1214	1087	854	622	622	693	783	909	965	1061	1097	1062	1048	1110	1138	1159	1132		Grand Total 672,800			

**GEOMAGNETIC DECLINATION (WEST)**  
Mean values for periods of sixty minutes ending at exact hours, GMT

20	ESKDALEUIR (D)												9° +												NOVEMBER 1966		
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 1200.0° +
1 d	53.9	56.3	56.8	54.7	57.4	57.3	59.6	59.4	55.5	54.5	56.3	56.7	61.0	61.2	60.7	62.3	55.8	51.7	50.4	54.5	53.7	49.0	51.5	50.8	55.9	141.0	
2	54.9	54.8	52.2	53.9	53.9	53.6	54.0	54.1	52.7	52.9	55.2	58.0	57.6	58.9	57.8	57.4	56.5	54.0	45.7	52.1	53.7	52.7	52.5	52.5	54.2	101.6	
3 d	50.3	53.7	52.3	55.3	54.9	54.7	57.8	55.8	53.3	54.1	54.7	56.2	57.5	57.4	56.2	55.9	51.5	54.6	52.6	50.9	51.1	50.3	51.2	52.5	53.9	94.8	
4	52.9	53.3	53.8	53.8	55.7	56.4	55.5	54.5	53.6	52.8	54.9	57.5	58.6	59.6	58.5	57.5	56.6	55.7	55.5	50.0	56.0	52.0	53.6	53.7	54.7	122.0	
5	53.7	55.4	54.6	54.0	54.9	54.9	55.1	56.2	55.8	55.5	55.8	57.5	59.3	59.2	59.7	57.9	57.3	52.7	55.5	52.1	50.9	53.1	53.5	52.9	55.3	127.5	
6	52.0	53.8	54.3	54.6	55.1	55.2	54.8	53.7	52.8	53.2	55.6	58.5	59.4	60.4	59.0	58.5	57.4	58.4	58.8	55.8	52.1	51.0	50.6	50.8	55.2	125.8	
7	52.0	53.9	54.6	52.5	53.1	52.8	52.6	52.7	52.1	52.3	53.1	56.5	58.0	58.4	57.3	56.3	55.4	55.2	59.6	59.5	53.8	52.1	53.3	53.1	54.6	110.2	
8	49.4	48.8	50.1	50.9	52.1	52.1	52.5	52.4	52.4	52.6	54.8	57.2	58.1	59.1	58.7	57.5	56.5	56.2	55.7	54.0	55.1	54.5	54.1	53.9	54.1	98.7	
9 q	53.9	53.7	54.5	54.1	54.5	53.8	53.7	53.4	52.3	52.0	53.8	55.4	56.6	57.3	56.8	56.3	56.2	55.5	55.0	55.0	54.8	54.6	54.3	54.4	54.7	111.9	
10	54.6	54.8	55.0	55.6	54.9	54.8	56.8	54.5	53.5	53.4	54.9	58.6	57.6	58.8	57.9	57.1	56.4	55.6	55.3	55.6	53.1	52.6	51.8	52.9	55.3	126.1	
11	53.9	53.9	54.4	54.0	56.3	54.9	53.3	53.0	52.5	53.6	54.9	56.4	58.2	59.2	58.3	56.6	55.9	55.5	54.7	54.3	53.9	53.8	53.9	54.0	55.0	119.4	
12	54.3	53.8	53.9	51.3	51.5	53.7	53.7	53.0	52.2	52.2	52.9	55.9	58.1	59.3	59.2	57.7	57.4	58.2	59.6	56.3	53.8	53.5	52.9	52.9	54.9	117.3	
13	52.9	53.7	54.9	54.0	54.5	54.0	53.8	53.7	52.6	52.7	53.7	54.9	57.4	58.8	57.5	56.9	56.5	56.4	55.9	54.3	54.3	52.0	50.1	52.0	54.5	107.5	
14 q	53.3	53.8	55.0	54.9	54.8	54.5	53.9	53.7	53.4	52.7	53.9	56.0	57.9	58.4	57.8	56.8	56.4	55.7	54.9	54.7	54.0	53.7	53.7	53.3	54.9	117.2	
15	51.6	52.2	53.6	54.5	54.4	54.6	54.0	53.8	53.7	53.7	54.6	57.4	58.3	59.2	58.1	56.5	57.0	56.4	54.9	53.8	52.5	52.2	52.2	50.1	54.6	109.3	
16	51.4	52.9	52.9	52.7	52.2	52.1	54.3	54.8	55.0	55.4	54.5	56.1	57.5	58.3	58.1	56.4	56.0	55.8	55.3	54.8	54.4	53.7	53.6	52.2	54.6	110.4	
17	52.9	53.1	54.8	54.7	54.0	54.6	54.9	53.8	53.3	53.0	53.7	55.0	56.7	57.6	57.7	57.0	56.7	57.8	58.0	53.6	52.5	53.4	53.8	53.9	54.9	116.5	
18	54.7	54.5	54.4	54.1	53.9	53.7	53.7	53.2	52.8	52.9	54.0	55.5	56.8	57.7	58.5	59.5	61.4	61.3	55.4	57.4	55.2	43.6	41.4	47.6	54.3	103.2	
19	50.7	52.0	48.5	49.3	51.5	53.8	54.4	54.8	55.9	55.7	56.0	57.3	57.6	57.3	57.4	56.6	55.7	55.9	55.8	55.6	54.6	54.2	53.7	53.3	54.5	107.6	
20	55.8	51.8	50.7	53.1	53.7	53.8	54.0	53.6	53.5	53.8	55.4	56.2	57.6	57.0	57.5	56.7	56.8	57.4	57.6	56.6	53.9	51.5	50.6	51.3	54.6	109.9	
21	52.9	52.7	51.5	53.3	53.1	53.4	53.2	53.4	53.7	53.0	55.2	55.7	56.8	56.6	56.6	56.4	55.8	55.7	55.4	55.4	55.5	54.3	51.2	52.4	54.3	103.2	
22 q	51.8	52.9	53.8	53.8	54.5	54.1	53.8	53.7	53.0	53.6	54.9	56.5	56.4	56.4	56.3	55.8	55.7	55.5	54.9	54.7	54.1	53.9	53.8	53.8	54.5	107.7	
23 q	53.1	54.4	54.7	54.9	54.6	54.7	54.2	53.9	54.0	54.6	55.3	56.1	56.4	56.5	56.4	55.8	55.2	54.8	54.6	54.4	54.2	54.2	53.7	52.8	54.7	113.5	
24	53.3	53.7	52.9	54.7	54.2	54.2	54.7	55.7	54.8	54.9	55.7	55.9	57.4	56.8	55.0	55.5	55.1	54.8	54.7	54.9	54.0	53.6	53.7	53.6	54.7	113.8	
25 q	53.3	53.4	53.7	53.7	54.0	53.7	53.6	53.8	53.8	54.2	54.8	55.5	56.3	56.8	56.8	56.8	56.4	56.7	56.4	56.0	54.6	54.3	54.0	53.5	54.8	116.1	
26	48.3	49.4	47.9	53.0	54.5	53.6	53.0	53.8	53.5	54.3	54.9	56.5	57.1	58.4	58.0	59.3	56.4	57.6	56.2	55.3	54.5	53.3	52.7	53.3	54.4	104.8	
27	53.6	53.9	54.2	54.7	54.7	54.9	54.3	54.1	53.9	54.2	55.5	56.6	57.5	57.5	57.9	59.2	57.8	58.0	59.2	56.3	53.9	52.9	53.4	53.3	55.5	131.5	
28 d	53.9	54.7	56.2	54.8	54.7	54.6	54.6	54.5	53.6	53.9	54.6	56.9	58.6	58.9	58.6	58.3	57.4	50.6	50.1	48.6	50.4	47.5	50.3	46.9	53.9	93.2	
29 d	41.1	50.4	53.4	55.2	54.9	57.1	57.0	55.6	54.4	54.5	55.5	55.0	56.9	58.1	58.0	54.0	53.6	52.0	54.5	53.7	53.2	51.7	51.2	52.6	53.9	93.6	
30 d	53.5	53.8	55.2	56.2	55.7	54.1	54.6	57.4	63.2	59.7	56.7	56.7	59.6	58.6	56.7	49.2	57.5	57.4	54.5	48.6	52.5	43.2	43.7	51.5	54.6	109.8	
Mean	52.5	53.3	53.5	53.9	54.3	54.3	54.5	54.3	53.9	53.9	54.9	56.5	57.8	58.3	57.8	56.9	56.3	55.8	55.2	54.3	53.7	52.1	52.0	52.4	54.7		
Sum 1500.0° +	73.9	99.5	104.8	116.3	128.2	129.7	135.4	130.0	116.8	115.9	145.8	194.2	232.8	247.7	233.0	207.7	190.3	173.1	156.7	128.8	110.3	62.4	60.0	71.8		Grand Total 39365.1	

GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

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21 ESKDALEUIR (Z)													45,000γ (0.45 CGS unit) +													NOVEMBER 1966	
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 11,000γ+	
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	
1 d	450	450	456	460	464	464	467	466	473	479	479	484	496	500	492	500	520	524	506	495	487	481	463	462	480	518	
2	453	442	453	464	471	473	474	475	477	475	472	471	472	473	473	476	479	484	480	475	475	475	468	460	470	290	
3 d	461	464	466	467	467	466	462	461	466	466	471	472	473	479	487	491	492	484	483	477	472	468	466	463	472	324	
4	461	465	467	470	470	466	466	467	471	469	464	462	462	466	472	477	477	479	482	484	480	473	472	472	471	294	
5	472	470	469	470	470	468	467	469	470	471	472	472	473	479	481	487	487	492	489	487	483	477	475	472	476	422	
6	472	471	471	471	472	468	468	472	475	476	473	469	466	468	473	477	479	483	491	499	501	495	490	484	478	464	
7	478	473	473	473	475	475	474	474	475	475	472	469	468	470	473	477	477	476	475	476	477	478	476	462	474	371	
8	446	450	453	456	456	461	465	466	469	470	467	466	468	469	473	475	472	472	475	477	475	474	473	472	467	200	
9 q	471	470	469	468	469	469	470	472	473	474	472	471	470	473	475	475	473	472	472	472	472	471	472	471	471	316	
10	469	468	468	466	466	466	466	466	466	466	472	469	471	472	473	476	475	475	473	476	481	484	482	477	472	324	
11	471	470	470	469	467	463	466	469	472	471	469	468	472	472	476	477	476	473	472	472	472	472	472	472	471	303	
12	472	472	466	464	466	466	468	471	473	474	473	472	471	472	473	473	473	476	485	499	490	484	479	478	475	390	
13	477	475	473	472	471	470	470	470	472	472	470	470	472	474	478	477	477	476	479	480	478	476	476	473	474	378	
14 q	474	472	472	472	470	470	470	468	468	467	466	464	465	468	472	473	473	473	472	472	472	471	471	470	472	470	285
15	473	472	471	470	470	470	470	470	470	470	470	467	466	466	468	473	475	476	476	476	477	476	471	470	472	319	
16	469	467	465	465	462	462	461	461	462	462	465	462	462	466	473	473	473	473	472	472	472	472	472	472	467	215	
17	470	469	466	461	461	462	462	464	467	469	467	463	464	464	466	467	468	468	481	495	494	481	475	470	470	274	
18	469	470	471	471	471	470	469	469	470	470	469	467	466	468	471	470	470	480	501	491	487	493	484	476	475	393	
19	473	465	466	460	461	463	467	469	470	467	466	466	467	471	477	477	478	479	477	477	477	477	475	471	471	296	
20	458	452	460	464	467	468	468	468	466	466	463	460	462	463	468	471	472	473	477	479	483	484	481	470	468	243	
21	473	473	473	472	467	466	467	467	468	467	466	466	466	466	470	472	472	472	472	472	472	473	477	478	472	470	287
22 q	472	471	469	470	470	471	471	469	468	466	466	466	467	467	469	472	472	472	472	472	472	471	470	469	470	274	
23 q	472	469	468	469	469	469	469	468	466	466	464	466	466	468	470	472	471	471	471	470	470	471	471	471	469	262	
24	469	467	467	466	460	461	465	465	465	466	467	468	466	468	470	473	473	473	473	472	472	472	472	472	469	249	
25 q	472	472	470	469	468	468	468	468	467	466	466	465	466	467	468	468	468	468	467	467	469	469	470	470	468	236	
26	469	468	463	465	465	466	466	465	463	456	457	460	462	465	468	471	475	474	475	476	476	475	473	472	468	225	
27	472	471	471	469	467	465	466	465	465	466	466	466	467	469	471	472	475	475	477	486	484	481	476	473	471	315	
28 d	472	469	464	462	463	462	464	464	464	465	465	468	467	470	477	484	488	502	500	490	468	467	470	468	472	337	
29 d	465	453	461	466	467	466	466	468	469	471	472	477	481	484	489	495	494	492	484	481	479	478	476	473	475	407	
30 d	472	470	470	468	465	465	466	469	463	464	468	475	480	484	492	509	494	488	489	495	490	475	466	468	477	445	
Mean	468	466	467	467	467	467	467	468	469	469	468	468	469	472	475	478	478	479	480	480	479	477	474	471	472		
Sum 13,000γ+	1047	990	1001	1009	1007	999	1018	1035	1067	1065	1047	1037	1079	1147	1248	1331	1349	1375	1397	1412	1357	1298	1214	1127		Grand Total 339,656	

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH CHAMBER

22 ESKDALEUIR										NOVEMBER 1966	
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magneto- graph chamber °C	
1 d	3333 4533	27	3233 4433	25	3333 3533	26	2012 1322	13	1	13.4	
2	3232 3333	22	3232 3233	21	3122 2331	17	2100 0112	7	1	13.5	
3 d	2233 2433	22	2233 2433	22	2232 2422	19	0010 2211	7	1	13.6	
4	2220 0042	12	2220 0032	11	2220 0042	12	0000 0010	1	1	13.5	
5	2122 2332	17	1122 1232	14	2111 2331	14	0000 0010	1	1	13.5	
6	2111 1232	13	1111 1222	11	2110 1130	9	0000 0011	2	0	13.4	
7	2100 0024	9	0100 0024	7	2100 0022	7	1000 0003	4	1	13.4	
8	3211 2120	12	3211 2120	12	3201 1120	10	1100 0000	2	1	13.5	
9 q	1111 0001	5	1100 0001	3	1111 0000	4	0000 0000	0	0	13.5	
10	0122 2222	13	0112 2222	12	0122 2021	10	0000 0011	2	0	13.5	
11	2213 0100	9	2213 0100	9	1211 0000	5	0100 0000	1	0	13.5	
12	1211 1231	12	1111 1231	11	1211 1130	10	1000 0120	4	1	13.5	
13	2113 1123	14	1013 1123	12	2111 1022	10	0000 0000	0	1	13.5	
14 q	1000 0001	2	1000 0001	2	1000 0001	2	0000 0000	0	0	13.5	
15	2011 1122	10	1011 1121	8	2001 1112	8	0000 0000	0	0	13.5	
16	2111 1111	9	1111 1111	8	2111 1001	7	0000 0000	0	0	13.5	
17	2220 0332	14	2220 0332	14	2210 0231	11	1000 0021	4	1	13.5	
18	0002 2434	15	0002 2433	14	0001 2434	14	0000 0222	6	1	13.5	
19	3321 2223	18	3321 2223	18	3321 2122	16	1000 0001	2	1	13.5	
20	3111 2123	14	3111 1123	13	3101 2022	11	2000 0011	4	1	13.5	
21	1121 1113	11	1121 1112	10	1111 1003	8	0000 0001	1	0	13.5	
22 q	2101 1001	6	2001 0001	4	2101 1000	5	0000 0000	0	0	13.5	
23 q	2000 0102	5	1000 0101	3	2000 0002	4	0000 0000	0	0	13.5	
24	1312 1011	10	1311 0010	7	1212 1011	9	0100 0000	1	0	13.4	
25 q	1101 2111	8	0000 2111	5	1101 1111	7	0000 0000	0	0	13.5	
26	3322 2210	15	3322 2210	15	3212 2210	13	1000 0000	1	1	13.5	
27	0110 1231	9	0110 1131	8	0110 0230	7	0000 0011	2	0	13.5	
28 d	2112 2453	20	1112 2453	19	2011 2443	17	1000 1331	9	1	13.4	
29 d	5222 2321	19	3222 2321	17	5221 1321	17	2000 1100	4	1	13.5	
30 d	2243 3434	25	2243 2433	23	2233 3434	24	0011 2212	9	1	13.3	
Mean									0.57	13.5	

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component, K<sub>D</sub> For declination, K<sub>Z</sub> For vertical component. (See Introduction).



**GEOMAGNETIC FORCE: HORIZONTAL COMPONENT**  
Mean values for periods of sixty minutes ending at exact hours, GMT

19 ESKDALEMUIR (H)												16,000γ (0.16 CGS unit) +												DECEMBER 1966																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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951 at 0-1h. 1 January 1967.

**GEOMAGNETIC DECLINATION (WEST)**  
mean values for periods of sixty minutes ending at exact hours, GMT

20 ESKDALEMUIR (D)													9° +													DECEMBER 1966																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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GEOMAGNETIC FORCE: VERTICAL COMPONENT  
Mean values for periods of sixty minutes ending at exact hours, GMT

71

21 ESKDALEUIR (Z)		45,000γ (0.45 CGS unit) +																						DECEMBER 1966			
	P <sub>00</sub> - GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	Sum 11,000γ+
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	470	464	455	459	460	454	459	467	470	467	468	468	468	470	478	483	483	482	482	481	484	476	474	475	471	471	300
2	469	465	465	468	469	471	471	469	467	465	465	465	465	466	468	472	477	477	477	479	478	477	477	475	471	471	303
3 q	469	469	468	469	469	469	469	468	468	465	465	464	464	464	467	471	471	471	471	471	471	471	471	471	471	471	253
4	467	465	465	465	465	465	465	463	450	451	455	459	461	465	471	476	477	483	487	493	491	485	474	466	469	469	264
5 d	471	467	465	468	471	468	467	467	469	467	466	467	468	471	475	476	478	481	500	501	495	496	491	485	476	476	430
6	479	472	468	468	474	476	477	477	477	476	474	475	477	478	482	482	478	480	479	480	480	479	478	476	477	477	442
7	476	475	474	472	473	474	474	474	472	469	466	468	472	475	476	477	476	476	476	476	476	476	475	474	474	474	372
8	472	472	472	471	471	471	471	471	469	467	465	465	468	471	471	472	474	472	472	473	473	474	476	471	471	471	304
9 q	468	470	471	471	471	471	470	470	469	468	465	465	467	468	470	471	472	472	471	471	471	471	471	471	471	470	275
10	471	471	471	469	468	468	467	467	467	465	464	465	465	466	468	471	471	471	470	470	471	472	473	471	471	471	256
11 q	471	471	471	470	468	467	466	467	467	468	466	465	465	465	468	472	472	472	471	471	471	471	471	471	471	469	263
12 q	471	471	471	469	467	466	466	466	465	465	465	462	460	462	467	471	471	471	470	470	470	470	470	470	469	468	225
13 d	470	467	465	465	460	453	455	449	448	453	454	456	459	460	466	474	478	482	480	478	477	476	474	472	465	471	171
14 d	472	472	471	471	472	471	471	468	466	465	465	464	464	470	501	586	616	639	547	517	483	493	486	443	495	473	873
15	419	419	437	457	466	467	478	480	482	481	478	477	478	481	483	485	489	499	492	485	487	487	479	475	473	361	
16	469	471	474	476	477	477	476	476	475	475	474	474	477	475	478	480	483	480	479	480	483	487	485	479	477	477	460
17	480	479	478	477	477	478	476	474	472	470	470	465	465	468	473	479	482	484	485	485	486	491	482	475	477	477	451
18	475	475	476	476	476	474	473	472	472	474	471	469	471	472	474	477	477	478	478	479	480	482	479	478	475	475	408
19	478	476	476	476	476	476	476	475	474	472	470	470	471	472	474	476	477	477	476	476	478	479	478	477	475	475	406
20	476	476	476	475	475	475	474	474	474	474	473	472	473	475	476	480	480	478	478	483	483	482	481	480	477	477	443
21	472	466	468	470	471	471	468	472	472	472	472	471	474	478	480	486	486	486	486	491	494	490	487	483	478	478	466
22	479	477	476	476	475	472	471	471	469	466	468	468	474	475	476	476	477	479	482	484	483	486	478	477	476	476	415
23	475	476	475	476	475	476	475	474	472	471	470	471	471	472	476	478	482	483	483	483	483	482	480	475	476	476	434
24	473	468	467	470	471	471	469	469	472	475	477	480	481	482	482	481	481	482	483	484	483	481	479	476	477	477	437
25	474	469	468	471	471	471	471	470	471	472	472	475	474	478	484	487	488	487	489	484	480	481	479	478	477	477	444
26 d	466	457	455	464	469	470	469	467	468	468	476	479	485	487	490	514	514	506	498	489	489	478	444	446	477	477	448
27 d	453	452	444	457	463	459	460	467	470	475	478	482	489	504	497	493	493	504	499	495	492	468	460	469	476	476	423
28	469	465	471	474	475	475	474	472	475	474	474	475	481	487	500	493	487	489	491	486	483	482	476	465	479	479	493
29	471	473	475	474	474	474	474	474	472	474	471	469	469	472	476	480	480	480	480	478	478	478	475	475	475	475	396
30	475	475	475	475	475	474	472	471	471	471	472	469	468	471	474	480	487	493	486	482	480	479	479	475	474	476	432
31 q	474	475	475	475	476	476	475	473	472	471	471	468	471	472	476	478	478	477	476	475	474	473	473	474	474	474	378
Mean	470	468	468	470	471	470	470	470	469	469	469	469	471	474	478	483	485	487	484	482	481	480	476	472	475	475	475
Sum 14,000γ+	574	520	518	574	600	580	579	574	555	546	538	541	602	693	823	989	1040	1082	991	951	898	872	748	638			Grand Total 353,026

475 at 0-1h. 1 January 1967.

GEOMAGNETIC CHARACTER FIGURES (K, K<sub>H</sub>, K<sub>D</sub>, K<sub>Z</sub>, AND C) AND TEMPERATURE IN MAGNETOGRAPH CHAMBER

22 ESKDALEUIR		DECEMBER 1966								
	3-h range indices K	Sum of K indices	3-h range indices K <sub>H</sub>	Sum of K <sub>H</sub> indices	3-h range indices K <sub>D</sub>	Sum of K <sub>D</sub> indices	3-h range indices K <sub>Z</sub>	Sum of K <sub>Z</sub> indices	Geomagnetic character of day, C (0-2)	Temperature in magnetograph chamber °C
1	3322 2242	20	3322 2242	20	3322 2242	20	2110 1020	7	1	13.5
2	2111 1113	11	1110 1112	8	2101 0013	8	1000 0000	1	0	13.3
3 q	2111 0002	7	1111 0002	6	2000 0002	4	0000 0000	0	0	13.4
4	2243 3233	22	1243 3233	21	2033 3233	19	0021 1112	8	1	13.4
5 d	3332 1343	22	3332 1333	21	3321 1343	20	1100 0212	7	1	13.5
6	3221 1111	12	2121 1111	10	3211 0011	9	2100 0000	3	1	13.5
7	0111 0011	5	0001 0011	3	0111 0011	5	0000 0000	0	0	13.5
8	0000 0103	4	0000 0103	4	0000 0002	2	0000 0000	0	0	13.5
9 q	2000 0000	2	1000 0000	1	2000 0000	2	0000 0000	0	0	13.5
10	0011 0021	5	0011 0021	5	0000 0020	2	0000 0000	0	0	13.3
11 q	1100 1011	5	1100 1011	5	0100 0000	1	0000 0000	0	0	13.0
12 q	0000 0011	2	0000 0001	1	0000 0010	1	0000 0000	0	0	13.2
13 d	2332 3522	22	2332 3521	21	2232 3322	19	0110 1200	5	1	13.3
14 d	1322 4655	28	1312 4644	25	1322 4655	28	0000 4644	18	2	13.4
15	4213 2422	20	3213 2412	18	4213 2421	19	3200 0211	9	1	13.4
16	2111 2232	14	2111 2232	14	1001 2112	8	0000 0011	2	1	13.4
17	2111 2224	15	1111 2114	12	2100 1224	12	0000 0102	3	1	13.4
18	1111 1111	8	1011 1111	7	1111 1011	7	0000 0000	0	0	13.2
19	1010 0022	6	1010 0012	5	1010 0022	6	0000 0000	0	0	12.9
20	0000 2243	11	0000 2243	11	0000 1242	9	0000 0000	0	1	12.9
21	2221 1332	16	2221 1232	15	2221 1332	16	1010 0111	5	1	12.9
22	2312 2243	19	1211 2233	15	2312 2243	19	0000 0001	1	1	12.8
23	2111 1233	14	2111 1233	14	2011 1132	11	0000 0001	1	1	12.8
24	2233 0131	15	1233 0121	13	2232 0031	13	1010 0000	2	1	12.9
25	2122 2134	17	1112 2133	14	2122 2124	16	1000 1011	4	1	12.9
26 d	3233 3444	26	3233 3444	26	3223 2444	24	1101 1223	11	1	12.9
27 d	4333 4544	30	3333 4434	27	4333 4544	30	2111 2222	13	2	12.9
28	2112 3243	18	2112 3243	18	2112 3243	18	1000 2112	7	1	12.8
29	2122 1113	13	1122 1113	12	2111 1012	9	0000 0000	0	0	12.8
30	1111 1312	11	0011 1301	7	1101 1312	10	0000 0100	1	0	12.7
31 q	1001 1111	6	1000 1111	5	1001 1000	3	0000 0000	0	0	12.6
Mean									0.65	13.1

q denotes an international quiet day and d an international disturbed day.

K<sub>H</sub> For horizontal component. K<sub>D</sub> For declination. K<sub>Z</sub> For vertical component

MEAN MONTHLY AND ANNUAL VALUES OF GEOMAGNETIC ELEMENTS  
For all,  $a$ , quiet,  $q$ , and disturbed,  $d$ , days for  $H$ ,  $D$  and  $Z$  and for all days for  $X$ ,  $-Y$ ,  $I$  and  $F$

23 ESKDALEMUIR										1966			
	Horizontal ( $H$ ) component			Declination ( $D$ ) (west)			Vertical ( $Z$ ) component			North component ( $X$ ) all days	West component ( $-Y$ ) all days	Inclination ( $I$ ) (north) all days	Total force ( $F$ ) all days
	$a$	$q$	$d$	$a$	$q$	$d$	$a$	$q$	$d$				
	16,000 $\gamma$ +			9° +			45,000 $\gamma$ +						
Jan.	$\gamma$ 922	$\gamma$ 925	$\gamma$ 915	' 58.6	' 58.7	' 58.3	$\gamma$ 450	$\gamma$ 449	$\gamma$ 453	$\gamma$ 16666	$\gamma$ 2931	° 69 34.7	$\gamma$ 48498
Feb.	923	926	916	58.4	58.5	58.7	450	449	451	16667	2931	69 34.6	48498
Mar.	920	921	907	58.0	58.1	57.7	454	454	461	16664	2928	69 35.0	48501
Apr.	927	930	922	57.7	57.8	57.6	453	451	458	16671	2928	69 34.5	48503
May	929	935	927	57.1	57.4	56.7	455	452	457	16674	2926	69 34.4	48505
June	935	936	931	56.7	57.0	56.5	458	457	459	16681	2925	69 34.0	48510
July	934	934	924	56.3	56.4	56.5	457	458	453	16680	2923	69 34.1	48508
Aug.	935	936	927	55.7	56.0	54.8	460	461	462	16681	2920	69 34.1	48512
Sept.	919	925	893	54.6	54.7	53.2	468	472	453	16667	2912	69 35.4	48514
Oct.	929	934	918	55.0	55.2	55.3	470	467	472	16676	2916	69 34.7	48519
Nov.	934	941	925	54.7	54.7	54.4	472	470	475	16682	2915	69 34.4	48523
Dec.	934	943	928	54.3	54.7	53.8	474	470	478	16681	2913	69 34.5	48525
Year	928	932	919	56.4	56.6	56.1	460	459	461	16674	2922	69 34.5	48510



## ALL DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

24 ESKDALEMUIR

1966

	Hour GMT																							
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	NORTH COMPONENT																							
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+0.7	-1.5	-0.5	+0.1	+2.9	+4.8	+5.9	+5.9	+4.8	+1.3	-2.3	-3.2	-2.9	-2.4	-4.2	-3.8	-3.5	-3.0	-1.7	-1.5	+0.6	+1.6	+1.4	+0.6
Feb.	+1.9	+1.9	+2.0	+2.2	+4.1	+5.2	+5.7	+4.5	+3.4	-2.0	-4.9	-6.9	-8.5	-7.2	-5.3	-2.4	-2.6	-1.4	+0.6	+1.6	+3.2	+1.6	+1.5	+2.0
Mar.	+3.2	+5.3	+5.3	+7.0	+7.7	+8.3	+6.9	+4.6	-0.9	-10.6	-17.1	-20.0	-17.3	-12.3	-6.7	-0.3	+3.0	+2.4	+3.9	+5.4	+4.9	+4.7	+7.0	+5.5
Apr.	+9.6	+8.5	+7.5	+6.5	+6.6	+8.6	+9.0	+5.7	-1.7	-12.5	-22.1	-26.3	-26.5	-21.0	-12.5	-4.1	+1.8	+7.9	+10.3	+9.9	+9.2	+9.5	+8.4	+7.7
May	+7.4	+6.9	+4.6	+5.4	+7.6	+7.3	+2.6	-3.0	-10.5	-19.6	-27.7	-28.3	-26.1	-18.4	-10.1	+1.1	+10.7	+16.3	+22.0	+18.4	+13.5	+7.0	+6.1	+6.6
June	+7.0	+4.6	+4.0	+4.9	+6.9	+7.4	+2.4	-4.1	-11.9	-21.5	-28.7	-30.2	-24.2	-17.2	-8.8	-0.1	+8.8	+17.6	+22.8	+20.2	+15.7	+9.5	+8.3	+6.8
July	+7.3	+6.6	+5.3	+6.1	+4.3	+3.8	-2.3	-7.6	-15.6	-22.6	-26.9	-28.7	-21.7	-14.8	-7.0	+2.1	+9.0	+16.9	+18.7	+18.5	+15.5	+12.7	+12.4	+8.1
Aug.	+8.6	+5.9	+6.2	+6.7	+6.8	+5.7	+1.3	-6.4	-14.6	-23.2	-29.7	-30.7	-24.2	-11.7	-3.6	+2.2	+8.5	+14.9	+14.9	+15.3	+14.1	+11.4	+11.7	+9.6
Sept.	+1.6	-8.4	-2.4	+6.3	+7.3	+5.9	-1.7	-6.9	-17.4	-25.8	-28.5	-21.6	-13.0	-6.7	+0.1	+8.3	+12.5	+15.0	+18.4	+13.6	+13.5	+11.8	+4.9	+13.0
Oct.	+10.1	+7.7	+7.5	+6.4	+8.2	+8.0	+7.3	+4.7	-1.1	-12.2	-19.7	-23.7	-21.5	-16.1	-9.9	-6.7	-0.8	+2.9	+6.4	+7.5	+7.8	+6.4	+10.0	+10.8
Nov.	+4.3	+3.6	+3.1	+4.7	+6.3	+8.8	+7.7	+6.3	+2.4	-5.2	-13.7	-15.1	-13.8	-11.3	-6.7	-4.1	-0.5	+1.2	+0.5	+0.7	+3.4	+5.7	+6.3	+5.2
Dec.	+2.2	+2.6	+0.9	+0.6	+2.9	+5.1	+6.3	+5.3	+2.9	-1.2	-5.8	-6.7	-5.8	-5.6	-4.1	-4.3	-3.2	-0.9	+0.1	+1.2	+0.1	+1.6	+3.1	+2.9
Year	+5.3	+3.6	+3.6	+4.8	+5.9	+6.6	+4.3	+0.7	-5.0	-12.9	-18.9	-20.2	-17.1	-12.0	-6.5	-1.0	+3.6	+7.4	+9.7	+9.3	+8.5	+6.9	+6.7	+6.5
Winter	+2.3	+1.7	+1.3	+1.9	+4.0	+6.0	+6.4	+5.5	+3.4	-1.8	-6.7	-8.0	-7.8	-6.7	-5.1	-3.7	-2.5	-1.0	-0.1	+0.5	+1.8	+2.6	+3.1	+2.7
Equinox	+6.1	+3.3	+4.5	+6.5	+7.5	+7.8	+5.4	+2.0	-5.3	-15.3	-21.8	-22.9	-19.6	-14.0	-7.2	-0.7	+4.1	+7.0	+9.7	+9.1	+8.9	+8.1	+7.6	+9.3
Summer	+7.6	+6.0	+5.0	+5.7	+6.5	+6.1	+1.0	-5.3	-13.1	-21.7	-28.2	-29.5	-24.0	-15.5	-7.3	+1.3	+9.2	+16.5	+19.6	+18.1	+14.7	+10.2	+9.6	+7.8
	WEST COMPONENT																							
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	-7.5	-4.4	-1.7	-1.7	-1.3	-0.8	+0.2	+0.5	-0.7	-0.6	+2.1	+5.9	+9.5	+12.5	+9.1	+8.0	+4.9	+2.7	-0.1	-1.9	-9.2	-7.8	-9.1	-8.5
Feb.	-5.0	-3.0	-3.3	-3.4	-2.3	-1.6	-2.7	-1.0	-1.8	-1.8	+1.1	+7.3	+11.7	+15.8	+12.8	+8.1	+6.9	+3.9	+0.1	-4.8	-11.3	-10.5	-7.9	-7.3
Mar.	-9.1	-8.8	-9.2	-10.4	-7.7	-4.0	-3.7	-6.6	-11.4	-10.9	-2.8	+10.6	+21.4	+26.7	+23.4	+16.3	+10.2	+6.0	-0.3	-0.9	-0.9	-6.2	-11.6	-10.0
Apr.	-5.1	-7.8	-7.9	-9.1	-8.7	-9.5	-12.3	-18.8	-22.1	-19.5	-9.7	+5.2	+20.4	+30.6	+30.9	+25.1	+17.9	+11.8	+4.6	+1.2	-0.3	-5.1	-6.5	-5.4
May	-3.0	-6.0	-6.3	-7.7	-11.5	-16.6	-20.5	-23.0	-23.7	-17.5	-5.7	+8.3	+21.7	+28.0	+28.4	+25.5	+21.0	+15.1	+8.1	+3.4	-1.7	-5.4	-6.5	-4.3
June	-3.4	-4.4	-5.4	-8.1	-13.9	-21.1	-26.9	-29.1	-29.1	-23.3	-10.3	+5.5	+18.9	+26.5	+28.9	+27.7	+23.4	+18.2	+12.8	+6.7	+4.6	+2.3	-0.1	-0.6
July	-9.0	-10.0	-9.1	-9.0	-13.6	-18.8	-23.4	-25.0	-26.6	-21.4	-10.6	+2.9	+19.7	+28.7	+31.1	+28.8	+22.7	+17.2	+12.2	+8.9	+6.8	+2.3	-0.3	-4.5
Aug.	-8.1	-5.9	-6.7	-10.7	-13.5	-19.8	-25.5	-27.5	-26.0	-19.0	-4.2	+12.7	+26.7	+35.9	+35.1	+27.6	+18.9	+14.0	+6.3	+5.8	-0.8	-2.7	-4.7	-7.6
Sept.	-10.5	-15.9	-13.0	-14.0	-13.8	-15.8	-17.3	-16.5	-10.4	+4.7	+20.5		+30.8	+35.6	+29.6	+19.7	+10.7	+7.3	+6.0	+2.8	-0.3	-6.0	-16.1	-4.8
Oct.	-8.9	-8.5	-6.0	-5.7	-3.7	-4.1	-5.2	-7.8	-11.6	-11.0	-2.5	+10.3	+19.8	+24.7	+23.5	+17.6	+10.2	+4.6	+1.9	+0.1	-6.2	-8.1	-11.9	-11.4
Nov.	-10.3	-6.2	-5.4	-3.1	-0.9	+0.3	+0.5	-0.6	-3.5	-5.0	-1.4	+6.4	+13.1	+15.9	+14.3	+10.5	+8.3	+5.7	+2.8	-1.8	-4.3	-12.0	-12.2	-10.5
Dec.	-8.5	-5.9	-3.4	-1.1	-1.3	+0.4	+1.3	+2.8	+1.1	+0.5	+1.9	+7.6	+11.2	+13.4	+13.1	+11.3	+8.3	+3.4	-2.8	-7.3	-8.7	-13.5	-12.9	-10.9
Year	-7.3	-7.2	-6.5	-7.0	-7.7	-9.1	-11.1	-12.8	-14.3	-11.7	-3.1	+8.6	+18.7	+24.5	+23.3	+18.9	+13.6	+9.1	+4.3	+1.0	-2.7	-6.1	-8.3	-7.1
Winter	-7.8	-4.9	-3.4	-2.4	-1.5	-0.5	-0.2	+0.3	-1.2	-1.7	+0.9	+6.7	+11.4	+14.5	+12.3	+9.5	+7.1	+3.9	0.0	-3.9	-8.4	-11.0	-10.5	-9.3
Equinox	-8.4	-10.2	-9.0	-9.8	-8.5	-7.8	-9.2	-12.6	-15.4	-12.9	-2.6	+11.7	+23.1	+29.4	+26.8	+19.7	+12.3	+7.4	+3.1	+0.8	-1.9	-6.3	-11.5	-7.9
Summer	-5.9	-6.6	-6.9	-8.9	-13.1	-19.1	-24.1	-26.1	-26.4	-20.3	-7.7	+7.4	+21.7	+29.8	+30.9	+27.4	+21.6	+16.1	+9.8	+6.2	+2.2	-0.9	-2.9	-4.3
	VERTICAL COMPONENT																							
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	-0.4	-1.2	-2.1	-2.0	-2.3	-2.6	-3.0	-3.2	-3.5	-3.9	-4.1	-4.0	-3.7	-2.1	+2.1	+4.0	+4.8	+5.5	+5.3	+5.6	+5.5	+3.3	+1.6	+0.4
Feb.	-0.8	-1.9	-2.1	-1.6	-2.8	-3.6	-3.9	-3.9	-3.9	-4.5	-5.0		-4.2	-2.9	+1.6	+5.4	+7.0	+7.1	+6.8	+7.2	+6.2	+3.5	+1.2	-1.0
Mar.	-1.5	-3.3	-4.3	-5.5	-6.4	-6.3	-5.2	-3.7	-3.6	-5.4	-7.8	-9.5	-7.7	-4.4	+2.1	+9.4	+12.8	+12.6	+12.8	+8.0	+6.6	+6.2	+4.0	+0.1
Apr.	+0.6	-0.5	-2.2	-2.2	-1.6	-1.4	-0.6	0.0	-1.9	-5.4	-9.2	-13.6	-15.2	-11.6	-4.2	+3.1	+8.2	+12.4	+13.2	+11.3	+9.0	+6.4	+3.7	+1.7
May	-0.6	-1.5	-0.9	-0.2	-0.7	-0.3	+0.4	-0.7	-3.3	-7.4	-12.4	-16.0	-15.2	-10.1	-3.5	+2.4	+9.5	+14.2	+15.4	+11.8	+9.9	+7.6	+2.3	-0.7
June	-1.1	-0.6	-1.5	-0.4	+0.8	+1.4	+1.9	+1.3	-1.4	-5.5	-10.3	-15.4	-15.2	-10.7	-4.7	+0.5	+4.6	+8.4	+11.0	+12.7	+10.4	+7.7	+4.5	+1.6
July	-1.6	-3.5	-4.3	-4.6	-5.0	-3.9	-3.3	-2.4	-2.6	-4.9	-8.3	-11.7	-11.3	-6.5	-1.7	+4.1	+8.2	+11.0	+13.0	+12.9	+11.2	+8.9	+4.5	+1.8
Aug.	-2.7	-5.7	-6.1	-5.1	-2.1	0.0	+1.1	+1.3	-0.7	-5.5	-9.3	-12.8	-13.4	-9.7	-1.6	+6.2	+10.8	+14.2	+16.2	+12.5	+8.7	+2.4	+1.7	-0.4
Sept.	-16.0	-19.7	-16.4	-15.2	-10.9	-9.0	-4.0	-1.5	-1.1	-3.2	-5.2	-6.3	-2.7	+3.1	+9.2	+18.4	+24.6	+24.8	+22.6	+18.1	+11.1	+2.9	-10.7	-12.9
Oct.	-3.3	-4.4	-5.2	-4.9	-5.1	-5.1	-4.3	-2.6	-2.0	-2.8	-3.0	-8.1	-5.6	-1.1	+2.8	+7.2	+10.2	+10.2	+8.2	+6.2	+6.3	+6.4	+2.7	-2.7
Nov.	-3.6	-5.4	-5.1	-4.7	-4.8	-5.2	-4.4	-3.9	-2.9	-2.9	-3.6	-3.8	-2.5	-0.1	+3.1	+6.0	+6.6	+7.4	+8.2	+8.7	+6.8	+4.9	+2.0	-0.8
Dec.	-4.4	-6.1	-6.2	-4.4	-3.5	-4.2	-4.2	-4.4	-5.0	-5.3	-5.5	-5.3	-3.5	-0.5	+3.7	+9.0	+10.7	+12.0	+9.1	+7.8	+6.1	+5.2	+1.2	-2.3
Year	-2.9	-4.5	-4.7	-4.2	-3.7	-3.3	-2.5	-2.0	-2.7	-4.7	-6.9	-9.3	-8.3	-4.7	+0.7	+6.3	+9.8	+11.7	+11.8	+10.2	+8.1	+5.5	+1.6	-1.3
Winter	-2.3	-3.7	-3.9	-3.2	-3.3	-3.9	-3.9	-3.9	-3.8	-4.0	-4.4	-4.5	-3.5	-1.4	+2.6	+6.1	+7.3	+8.0	+7.3	+7.3	+6.1	+4.2	+1.5	-0.9
Equinox	-5.1	-7.0	-7.0	-6.9	-6.0	-5.5	-3.5	-1.9	-2.1	-4.2	-6.3	-9.4	-7.8	-3.5	+2.5	+9.5	+13.9	+15.0	+14.2	+10.9	+8.3	+5.5	-0.1	-3.5
Summer	-1.5	-2.8	-3.2	-2.6	-1.7	-0.7	0.0	-0.1	-2.0	-5.8	-10.1	-14.0	-13.8	-9.3	-2.9	+3.3	+8.3	+11.9	+13.9	+12.5	+10.1	+6.7	+3.3	+0.6

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

## ALL DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

25 ESKDALEMUIR

1966

	Hour GMT																							
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
DECLINATION (measured positive towards the west)																								
Jan.	-1.53	-0.83	-0.32	-0.35	-0.35	-0.33	-0.17	-0.10	-0.31	-0.17	+0.49	+1.28	+2.00	+2.59	+1.98	+1.73	+1.10	+0.65	+0.04	-0.32	-1.87	-1.62	-1.86	-1.73
Feb.	-1.06	-0.67	-0.73	-0.76	-0.61	-0.50	-0.74	-0.36	-0.48	-0.29	+0.40	+1.71	+2.64	+3.42	+2.75	+1.70	+1.48	+0.83	-0.01	-1.02	-2.38	-2.16	-1.63	-1.53
Mar.	-1.93	-1.94	-2.02	-2.33	-1.81	-1.10	-0.99	-1.49	-2.25	-1.81	+0.04	+2.82	+4.89	+5.77	+4.92	+3.27	+1.93	+1.12	-0.19	-0.38	-0.35	-1.41	-2.57	-2.19
Apr.	-1.36	-1.85	-1.84	-2.04	-1.97	-2.21	-2.78	-3.97	-4.37	-3.46	-1.16	+1.97	+5.02	+6.85	+6.61	+5.17	+3.52	+2.09	+0.56	-0.10	-0.38	-1.35	-1.59	-1.36
May	-0.87	-1.45	-1.42	-1.72	-2.57	-3.58	-4.20	-4.49	-4.37	-2.81	-0.17	+2.65	+5.25	+6.25	+6.04	+5.06	+3.83	+2.44	+0.85	+0.03	-0.82	-1.33	-1.51	-1.09
June	-0.92	-1.04	-1.22	-1.79	-3.03	-4.48	-5.46	-5.67	-5.41	-3.91	-1.06	+2.16	+4.64	+5.91	+6.10	+5.55	+4.39	+3.02	+1.76	+0.63	+0.37	+0.13	-0.31	-0.36
July	-2.06	-2.23	-2.00	-2.02	-2.87	-3.90	-4.60	-4.73	-4.78	-3.49	-1.17	+1.59	+4.71	+6.25	+6.47	+5.69	+4.23	+2.85	+1.78	+1.12	+0.82	+0.02	-0.49	-1.19
Aug.	-1.93	-1.39	-1.56	-2.38	-2.95	-4.17	-5.15	-5.28	-4.70	-2.99	+0.20	+3.62	+6.18	+7.60	+7.14	+5.45	+3.49	+2.28	+0.73	+0.62	-0.66	-0.94	-1.35	-1.86
Sept.	-2.15	-2.88	-2.52	-3.02	-3.02	-2.90	-3.10	-3.22	-2.69	-1.18	+1.94	+4.86	+6.61	+7.36	+5.92	+3.66	+1.71	+0.93	+0.55	+0.09	+0.53	-1.61	-3.39	-1.42
Oct.	-2.13	-1.97	-1.47	-1.37	-1.03	-1.10	-1.30	-1.72	-2.29	-1.77	+0.18	+2.90	+4.72	+5.50	+5.04	+3.76	+2.06	+0.82	+0.16	-0.23	-1.52	-1.84	-2.74	-2.66
Nov.	-2.21	-1.36	-1.18	-0.79	-0.40	-0.36	-0.16	-0.34	-0.78	-0.82	+0.19	+1.80	+3.09	+3.58	+3.10	+2.25	+1.67	+1.09	+0.55	-0.38	-0.99	-2.60	-2.67	-2.28
Dec.	-1.78	-1.27	-0.71	-0.25	-0.36	-0.10	+0.04	+0.38	+0.12	+0.15	+0.59	+1.75	+2.45	+2.87	+2.76	+2.42	+1.77	+0.71	-0.57	-1.49	-1.75	-2.76	-2.69	-2.28
Year	-1.65	-1.57	-1.42	-1.57	-1.75	-2.06	-2.38	-2.58	-2.69	-1.88	+0.04	+2.43	+4.35	+5.33	+4.90	+3.81	+2.60	+1.57	+0.52	-0.12	-0.84	-1.46	-1.90	-1.66
Winter	-1.65	-1.03	-0.73	-0.54	-0.43	-0.32	-0.26	-0.13	-0.36	-0.28	+0.42	+1.63	+2.55	+3.14	+2.65	+2.03	+1.51	+0.82	0.00	-0.80	-1.75	-2.29	-2.21	-1.95
Equinox	-1.89	-2.16	-1.96	-2.19	-1.96	-1.83	-2.04	-2.60	-2.90	-2.05	+0.25	+3.14	+5.31	+6.37	+5.62	+3.97	+2.31	+1.24	+0.27	-0.15	-0.69	-1.55	-2.57	-1.91
Summer	-1.45	-1.53	-1.55	-1.58	-2.85	-4.03	-4.85	-5.04	-4.81	-3.30	-0.55	+2.51	+5.19	+6.50	+6.44	+5.44	+3.99	+2.65	+1.28	+0.60	-0.07	-0.53	-0.91	-1.13
INCLINATION																								
Jan.	+0.03	+0.12	0.00	-0.04	-0.23	-0.37	-0.46	-0.47	-0.39	-0.18	+0.03	+0.04	-0.01	-0.04	+0.23	+0.26	+0.29	+0.30	+0.24	+0.26	+0.20	+0.07	+0.05	+0.07
Feb.	-0.09	-0.13	-0.15	-0.15	-0.31	-0.41	-0.24	-0.38	-0.29	+0.06	+0.19	+0.24	+0.32	+0.22	+0.24	+0.20	+0.27	+0.22	+0.13	+0.13	+0.07	-0.10	+0.02	-0.07
Mar.	-0.14	-0.33	-0.35	-0.47	-0.57	-0.65	-0.54	-0.32	+0.10	+0.68	+0.96	+0.95	+0.69	+0.39	+0.23	+0.07	0.00	+0.09	+0.06	-0.15	-0.15	-0.09	-0.23	-0.24
Apr.	-0.56	-0.48	-0.45	-0.37	-0.37	-0.49	-0.46	-0.16	+0.32	+0.91	+1.33	+1.32	+1.13	+0.74	+0.36	+0.06	-0.12	-0.35	-0.40	-0.39	-0.38	-0.41	-0.39	-0.40
May	-0.47	-0.42	-0.25	-0.27	-0.38	-0.29	+0.08	+0.44	+0.87	+1.30	+1.57	+1.37	+1.09	+0.63	+0.25	-0.31	-0.71	-0.89	-1.15	-0.95	-0.62	-0.21	-0.27	-0.40
June	-0.45	-0.27	-0.24	-0.24	-0.27	-0.20	+0.20	+0.63	+1.07	+1.54	+1.74	+1.53	+0.99	+0.56	+0.13	-0.30	-0.71	-1.15	-1.37	-1.09	-0.82	-0.46	-0.43	-0.40
July	-0.41	-0.41	-0.35	-0.41	-0.25	-0.13	+0.34	+0.73	+1.26	+1.61	+1.67	+1.56	+0.92	+0.48	+0.06	-0.36	-0.65	-1.03	-1.04	-1.00	-0.82	-0.64	-0.70	-0.43
Aug.	-0.54	-0.46	-0.48	-0.45	-0.34	-0.15	+0.23	+0.77	+1.24	+1.60	+1.76	+1.54	+0.94	+0.11	-0.21	-0.31	-0.51	-0.78	-0.65	-0.76	-0.70	-0.66	-0.67	-0.55
Sept.	-0.38	+0.24	-0.10	-0.63	-0.59	-0.45	+0.19	+0.61	+1.30	+1.73	+1.69	+1.02	+0.43	+0.10	-0.12	-0.32	-0.33	-0.45	-0.72	-0.48	-0.60	-0.63	-0.40	-1.12
Oct.	-0.64	-0.51	-0.55	-0.47	-0.62	-0.60	-0.52	-0.28	+0.16	+0.85	+1.25	+1.23	+1.04	+0.74	+0.45	+0.41	+0.19	+0.01	-0.23	-0.34	-0.28	-0.17	-0.46	-0.65
Nov.	-0.25	-0.30	-0.27	-0.39	-0.52	-0.70	-0.62	-0.50	-0.19	+0.33	+0.82	+0.82	+0.69	+0.56	+0.35	+0.29	+0.10	+0.04	+0.14	+0.19	-0.01	-0.11	-0.22	-0.24
Dec.	-0.15	-0.25	-0.17	-0.14	-0.26	-0.44	-0.53	-0.49	-0.33	-0.06	+0.22	+0.22	+0.17	+0.20	+0.21	+0.37	+0.38	+0.32	+0.25	+0.20	+0.24	+0.18	-0.02	-0.12
Year	-0.34	-0.26	-0.27	-0.34	-0.39	-0.41	-0.21	+0.05	+0.43	+0.86	+1.11	+0.99	+0.70	+0.39	+0.18	0.00	-0.15	-0.30	-0.39	-0.37	-0.33	-0.25	-0.31	-0.38
Winter	-0.12	-0.14	-0.14	-0.18	-0.33	-0.48	-0.51	-0.46	-0.30	+0.04	+0.32	+0.33	+0.29	+0.24	+0.26	+0.28	+0.26	+0.22	+0.19	+0.19	+0.13	+0.06	-0.04	-0.09
Equinox	-0.43	-0.27	-0.37	-0.48	-0.54	-0.55	-0.33	-0.03	+0.47	+1.05	+1.30	+1.13	+0.83	+0.49	+0.23	+0.06	-0.07	-0.17	-0.32	-0.33	-0.35	-0.32	-0.37	-0.60
Summer	-0.47	-0.39	-0.33	-0.34	-0.31	-0.20	+0.21	+0.64	+1.11	+1.51	+1.68	+1.50	+0.98	+0.44	+0.05	-0.32	-0.65	-0.97	-1.05	-0.95	-0.74	-0.49	-0.52	-0.44
HORIZONTAL COMPONENT																								
Jan.	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Feb.	-0.6	-2.2	-0.8	-0.2	+2.6	+4.6	+5.8	+5.9	+4.6	+1.2	-1.9	-2.1	-1.2	-0.2	-2.6	-2.4	-2.6	-2.5	-1.7	-1.8	-1.0	+0.2	-0.2	-0.9
Mar.	+1.0	+1.3	+1.4	+1.6	+3.6	+4.8	+5.2	+4.3	+3.0	-2.3	-4.6	-5.5	-6.4	-4.4	-3.0	-1.0	-1.4	-0.7	+0.6	+0.7	+1.2	-0.2	+0.1	+0.7
Apr.	+1.6	+3.7	+3.6	+5.1	+6.2	+7.5	+6.2	+3.4	-2.9	-12.3	-17.3	-17.9	-13.3	-7.5	-2.6	+2.5	+4.7	+3.4	+3.8	+5.2	+4.7	+3.6	+4.9	+3.7
May	+8.6	+7.0	+6.0	+4.8	+5.0	+6.8	+6.7	+2.4	-5.5	-15.7	-23.4	-25.0	-22.6	-15.4	-7.0	+0.3	+4.9	+9.8	+10.9	+10.0	+9.0	+8.5	+7.2	+6.7
June	+6.8	+5.8	+3.4	+4.0	+5.5	+4.3	-1.0	-6.9	-14.4	-22.3	-28.3	-26.5	-22.0	-13.3	-5.0	+5.5	+14.2	+18.7	+23.1	+18.7	+13.0	+6.0	+4.9	+5.8
July	+6.3	+3.8	+3.0	+3.4	+4.4	+3.6	-2.3	-9.0	-16.7	-25.2	-30.0	-28.8	-20.6	-12.4	-3.7	+4.7	+12.4	+20.5	+24.7	+21.1	+16.2	+9.8	+8.2	+6.6
Aug.	+5.6	+4.8	+3.6	+4.4	+1.9	+0.5	-6.3	-11.8	-20.0	-26.0	-28.3	-27.8	-18.0	-9.6	-1.5	+7.0	+12.8	+19.6	+20.5	+19.8	+16.5	+12.9	+12.2	+7.2
Sept.	+7.1	+4.8	+4.9	+4.8	+4.4	+2.2	-3.1	-11.1	-18.9	-26.1	-30.0	-28.0	-19.2	-5.3	+2.5	+6.9	+11.7	+17.1	+15.8	+16.1	+13.8	+10.8	+10.7	+8.1
Oct.	-0.2	-11.0	-4.6	+3.8	+4.8	+3.5	-4.4	-9.8	-20.0	-27.2	-27.3	-17.7	-7.5	-0.4	+5.2	+11.6	+14.2	+16.0	+19.2	+13.9	+13.2	+10.6	+2.1	+12.0
Nov.	+8.4	+6.1	+6.4	+5.3	+7.4	+7.2	+6.3	+3.3	-3.1	-13.9	-19.8	-21.6	-17.8	-11.6	-5.7	-3.5	+1.0	+3.6	+6.6	+7.4	+6.6	+4.9	+7.8	+8.7
Dec.	+2.5	+2.5	+2.1	+4.1	+6.1	+8.6	+7.7	+6.1	+1.8	-6.0	-13.7	-13.8	-11.3	-8.4	-4.1	-2.2	+0.9	+2.2	+1.0	+0.4	+2.6	+3.5	+4.1	+3.3
Year	+0.7	+1.5	+0.3	+0.4	+2.6	+5.1	+6.4	+5.7	+3.1	-1.1	-5.4	-5.3	-3.8	-3.2	-1.8	-2.3	-1.7	-0.3	-0.4	-0.1	-1.4	-0.8	+0.8	+1.0
Year	+4.0	+2.3	+2.4	+3.5	+4.5	+4.9	+2.3	-1.5	-7.4	-14.7	-19.2	-18.4	-13.6	-7.6	-2.4	+2.3	+5.9	+8.9	+10.3	+9.3	+7.9	+5.8	+5.2	+5.2
Winter	+0.9	+0.8	+0.7	+1.5	+3.7	+5.8	+6.3	+5.5	+3.1	-2.1	-6.4	-6.7	-5.7	-4.1	-2.9	-2.0	-1.2	-0.3	-0.1	-0.2	+0.3	+0.7	+1.2	+1.0
Equinox	+4.6	+1.5	+2.9	+4.7	+5.9	+6.3	+3.7	-0.2	-7.9	-17.3	-21.9	-20.5	-15.3	-8.7	-2.5	+2.7	+6.2	+8.2	+10.1	+9.1	+8.4	+6.9	+5.5	+7.8
Summer	+6.5	+4.8	+3.7	+4.1	+4.1	+2.7	-3.2	-9.7	-17.5	-24.9	-29.1	-27.8	-19.9	-10.1	-1.9	+6.0	+12.8	+19.0	+21.0	+18.9	+14.9	+9.9	+9.0	+6.9

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

## INTERNATIONAL QUIET DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

26 ESKDALEMUIR

1966

	Hour GMT																							
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
	NORTH COMPONENT																							
	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$
Jan.	-2.4	-1.8	-1.9	-1.6	+0.1	+2.1	+2.7	+2.7	+0.3	-2.2	-4.1	-3.3	-2.7	-1.4	+0.6	0.0	-0.3	+1.0	+2.2	+2.9	+1.8	+2.0	+1.8	+1.5
Feb.	+0.3	+0.4	+0.3	+0.5	+1.9	+3.0	+4.2	+4.3	+2.0	-1.2	-4.3	-6.8	-7.6	-5.6	-1.0	+0.4	-0.6	-1.5	0.0	+2.2	+1.9	+3.1	+2.2	+2.0
Mar.	+0.9	+2.5	+1.3	+1.7	+2.4	+4.5	+4.9	+4.5	+0.7	-7.6	-13.7	-18.0	-15.0	-8.9	-3.3	+0.6	+2.3	+2.1	+4.6	+6.3	+6.5	+7.4	+6.2	+7.3
Apr.	+6.0	+5.7	+6.2	+6.1	+6.5	+6.6	+7.1	+4.7	-1.7	-13.9	-25.5	-29.6	-29.0	-20.8	-10.6	+0.1	+6.2	+10.3	+12.9	+11.9	+10.6	+10.6	+10.3	+9.3
May	+4.2	+3.7	+3.5	+4.8	+7.3	+8.7	+4.5	-0.4	-7.6	-15.4	-22.4	-25.0	-24.3	-20.7	-10.7	-1.0	+6.9	+13.8	+16.6	+15.0	+11.8	+10.8	+8.9	+6.9
June	+5.1	+4.7	+3.6	+4.4	+6.9	+8.6	+5.1	-0.9	-8.5	-20.1	-30.7	-34.4	-30.4	-22.7	-13.4	-2.7	+7.6	+15.3	+21.6	+21.5	+18.6	+14.9	+14.4	+11.5
July	+5.2	+4.0	+4.4	+5.8	+6.6	+3.5	+1.3	-3.6	-11.2	-18.5	-21.9	-23.4	-23.0	-20.0	-11.9	-3.5	+5.4	+12.1	+18.2	+17.7	+16.9	+13.9	+11.7	+10.3
Aug.	+9.4	+6.3	+5.9	+7.5	+7.7	+4.5	-0.8	-7.9	-13.7	-26.3	-31.0	-29.8	-20.6	-10.9	-1.0	+6.3	+9.4	+8.5	+14.3	+14.4	+11.5	+12.1	+11.0	+13.4
Sept.	+8.0	+4.9	+6.8	+4.9	+4.5	+0.3	-3.5	-9.8	-19.8	-24.7	-26.7	-17.8	-8.5	-1.7	+2.8	+2.2	+3.4	+7.1	+8.9	+12.5	+11.1	+12.3	+10.3	+12.4
Oct.	+5.4	+3.9	+3.5	+3.7	+4.5	+4.8	+6.2	+5.4	+1.7	-7.1	-15.6	-20.5	-19.3	-15.3	-9.2	-3.7	+0.1	+4.0	+7.1	+9.0	+8.5	+7.3	+8.3	+7.3
Nov.	-1.6	-2.6	-2.4	+0.6	+2.0	+3.6	+4.3	+2.8	-0.2	-3.2	-7.7	-10.5	-10.4	-8.5	-4.7	-1.1	+3.3	+4.1	+6.3	+6.5	+6.6	+4.8	+4.3	+3.7
Dec.	+0.7	-2.0	-2.5	-0.3	+1.6	+3.7	+3.8	+2.8	0.0	-2.6	-6.6	-8.3	-6.5	-4.4	-2.1	-1.6	+0.4	+2.6	+3.6	+4.3	+4.9	+4.2	+2.3	+2.1
Year	+3.4	+2.5	+2.4	+3.1	+4.3	+4.5	+3.3	+0.4	-4.8	-11.9	-17.5	-18.9	-16.4	-11.8	-5.4	-0.3	+3.6	+6.6	+9.7	+10.3	+9.3	+8.7	+7.6	+7.4
Winter	-0.8	-1.6	-1.6	-0.2	+1.4	+3.1	+3.7	+3.2	+0.5	-2.4	-5.7	-7.2	-6.8	-5.0	-1.9	-0.6	+0.7	+1.6	+3.0	+4.0	+3.8	+3.5	+2.7	+2.3
Equinox	+5.0	+4.2	+4.4	+4.1	+4.5	+4.1	+3.7	+1.2	-4.7	-13.3	-20.4	-21.4	-18.0	-11.7	-5.1	-0.1	+3.0	+5.9	+8.3	+9.9	+9.2	+9.4	+8.8	+9.1
Summer	+6.0	+4.7	+4.3	+5.6	+7.2	+6.4	+2.5	-3.3	-10.3	-20.1	-26.5	-28.1	-24.5	-18.6	-9.3	-0.2	+7.3	+12.4	+17.7	+17.1	+14.7	+12.9	+11.5	+10.6
	WEST COMPONENT																							
	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$
Jan.	-4.4	-3.7	-2.5	-3.0	-2.0	+0.6	-1.2	-2.3	-3.2	-1.1	+1.7	+4.6	+6.9	+8.0	+6.6	+3.1	+2.5	+1.3	+0.7	0.0	-1.7	-3.3	-4.0	-3.5
Feb.	-4.7	-3.6	-3.7	-4.0	-4.0	-4.0	-4.8	-4.9	-4.6	-1.5	+2.8		+8.1	+12.5	+9.8	+4.9	+3.4	+2.4	+2.2	+2.4	+0.4	-1.6	-1.4	-2.2
Mar.	-3.9	-0.7	-5.3	-8.3	-9.0	-8.8	-8.0	-9.2	-12.3	-11.5	-1.6	+7.9	+15.8	+18.6	+16.4	+10.6	+4.3	+2.5	+1.7	+1.3	+0.9	+0.1	-0.5	-1.0
Apr.	-1.3	-1.8	-6.4	-5.4	-7.3	-10.7	-15.3	-19.0	-22.7	-21.1	-11.7	+2.8	+16.8	+24.0	+23.2	+18.3	+12.7	+8.1	+4.9	+3.1	+2.2	+2.7	+2.2	+1.8
May	-1.6	-2.1	-2.9	-5.8	-8.6	-13.2	-16.8	-21.4	-23.4	-20.7	-11.8	+1.6	+14.3	+21.4	+24.3	+21.5	+15.5	+9.9	+5.6	+4.0	+2.9	+2.4	+3.1	+1.7
June	+0.3	-1.6	-3.5	-6.7	-10.6	-18.3	-24.6	-31.0	-32.1	-24.1	-9.7	+4.1	+17.6	+24.3	+25.9	+23.5	+18.3	+11.8	+9.0	+8.4	+7.9	+5.6	+3.0	+2.8
July	-0.9	-3.7	-4.7	-7.5	-12.7	-20.0	-24.6	-27.3	-26.8	-21.7	-11.3	+0.9	+13.1	+19.6	+24.5	+23.6	+18.6	+15.6	+13.4	+9.8	+7.1	+6.2	+6.9	+2.0
Aug.	-3.7	-0.5	-4.5	-7.7	-13.9	-19.6	-26.7	-28.9	-28.6	-20.6	-4.0	+12.3	+26.0	+31.6	+30.2	+24.4	+12.6	+5.6	+1.7	+2.4	+4.1	+4.6	+3.4	-0.2
Sept.	-2.6	-1.7	-7.3	-10.0	-10.2	-14.3	-18.8	-19.3	-12.5	+2.9	+17.3		+24.3	+24.1	+19.9	+8.8	+1.8	+2.3	+3.1	+4.5	+1.6	-0.1	-0.9	-0.7
Oct.	-6.9	-6.1	-5.5	-4.7	-4.6	-6.1	-7.8	-9.8	-14.0	-15.0	-7.9	+4.6	+13.1	+16.4	+17.7	+14.1	+9.7	+7.9	+6.1	+4.3	+2.9	+1.1	-3.9	-5.7
Nov.	-8.5	-5.9	-2.3	-2.1	-0.9	-2.2	-3.7	-4.6	-7.1	-7.1	-2.3	+4.1	+8.2	+10.3	+9.7	+7.7	+6.9	+5.3	+3.3	+2.3	-0.7	-2.1	-3.4	-5.2
Dec.	-6.6	-4.7	-1.5	-1.6	-1.3	-0.9	-1.9	-3.2	-4.3	-4.6	-1.1	+4.4	+9.6	+11.0	+9.3	+7.0	+4.9	+3.1	+1.7	-0.2	-2.1	-4.2	-5.7	-7.2
Year	-3.7	-3.0	-4.2	-5.6	-7.1	-9.6	-12.4	-15.0	-16.6	-13.7	-4.9	+5.6	+14.5	+18.5	+18.1	+14.0	+9.2	+6.3	+4.5	+3.6	+2.1	+1.0	-0.1	-1.5
Winter	-6.0	-4.5	-2.5	-2.7	-2.1	-1.6	-2.7	-3.7	-4.9	-4.4	-0.7	+3.9	+8.1	+10.5	+8.8	+5.7	+4.4	+3.0	+2.0	+1.1	-1.0	-2.8	-3.6	-4.5
Equinox	-3.7	-2.6	-6.1	-7.1	-7.7	-9.5	-11.3	-14.2	-17.1	-15.0	-4.6	+8.2	+17.5	+20.8	+19.3	+13.0	+7.1	+5.2	+4.0	+3.3	+1.9	+0.9	-0.8	-1.4
Summer	-1.4	-2.0	-3.9	-6.9	-11.6	-17.8	-23.1	-27.2	-27.7	-21.8	-9.2	+4.7	+17.7	+24.3	+26.2	+23.3	+16.2	+10.7	+7.4	+6.2	+5.5	+4.7	+4.1	+1.6
	VERTICAL COMPONENT																							
	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$	$\gamma$
Jan.	+0.6	+0.2	-0.2	0.0	-0.4	-0.5	0.0	+0.2	-0.2	-1.0	-1.6	-1.6	-2.2	-1.0	+0.4	+1.4	+1.4	+1.3	+0.6	+0.8	+1.0	+1.0	+0.2	-0.4
Feb.	+0.8	+0.4	+0.3	+0.2	+0.8	+0.8	0.0	-0.6	-0.7	-1.2	-3.4	-3.8	-4.2	-3.0	-0.9	+1.0	+1.2	+2.0	+2.4	+1.8	+2.1	+2.0	+1.4	+0.6
Mar.	+5.2	+2.4	+2.4	+2.4	+1.8	+0.5	+0.4	-1.2	-2.0	-5.2	-9.0	-9.4	-8.4	-5.6	-1.0	+2.8	+4.8	+4.1	+4.2	+3.2	+2.4	+2.2	+1.8	+1.2
Apr.	+4.1	+3.8	+4.1	+4.3	+4.7	+5.4	+4.3	+2.7	+0.1	-4.8	-8.9	-13.5	-14.9	-11.6	-7.1	-1.3	+1.3	+4.2	+4.9	+5.7	+5.3	+3.4	+2.1	+1.7
May	+4.0	+3.5	+3.8	+5.0	+6.6	+6.9	+6.8	+3.2	-0.4	-5.5	-11.8	-16.8	-15.6	-11.9	-8.2	-4.8	+0.2	+5.5	+6.8	+7.2	+6.4	+4.1	+2.6	+2.4
June	+1.7	+2.1	+3.3	+4.5	+4.7	+5.5	+5.5	+4.7	-0.3	-4.5	-10.3	-15.1	-16.1	-10.7	-5.1	-2.3	+0.3	+4.9	+6.7	+7.3	+6.3	+3.9	+2.1	+0.9
July	+4.9	+4.6	+4.2	+5.1	+5.2	+4.8	+2.3	+1.0	-2.8	-6.3	-9.4	-14.0	-15.1	-11.6	-7.8	-1.7	+2.2	+4.4	+6.5	+7.0	+6.2	+4.9	+3.0	+2.4
Aug.	-0.2	-0.4	-0.8	+0.4	+2.4	+3.4	+4.2	+3.8	+2.6	-1.6	-6.4	-10.8	-14.0	-11.0	-3.4	+3.6	+7.2	+8.2	+6.4	+4.0	+1.6	+0.4	+0.8	-0.4
Sept.	-2.6	-0.9	0.0	+1.3	+0.9	+2.8	+3.7	+3.1	+0.6	-4.3	-8.8	-11.3	-10.4	-5.9	-0.8	+4.9	+6.1	+4.0	+4.1	+3.7	+3.6	+3.3	+1.8	+1.1
Oct.	+4.1	+3.4	+2.9	+2.2	+1.4	+1.1	+1.0	+1.0	+0.3	-1.4	-5.5	-9.2	-7.5	-4.8	-2.3	0.0	+1.2	+1.1	+1.4	+1.0	+1.3	+2.6	+2.7	+2.0
Nov.	+2.4	+1.1	-0.2	-0.2	-0.6	-0.3	-0.2	-0.8	-1.4	-2.3	-2.6	-3.4	-2.6	-0.7	+1.4	+2.0	+1.6	+1.5	+1.0	+0.8	+1.0	+0.9	+0.8	+0.8
Dec.	+0.6	+1.3	+1.2	+0.9	+0.2	-0.1	-0.8	-1.1	-1.8	-2.5	-3.6	-5.1	-4.6	-2.5	+1.2	+2.7	+2.8	+2.5	+1.8	+1.7	+1.4	+1.3	+1.2	+1.3
Year	+2.1	+1.8	+1.7	+2.2	+2.3	+2.5	+2.3	+1.3	-0.5	-3.4	-6.8	-9.5	-9.6	-6.7	-2.8	+0.7	+2.5	+3.6	+3.9	+3.7	+3.2	+2.5	+1.7	+1.1
Winter	+1.1	+0.7	+0.3	+0.2	0.0	0.0	-0.3	-0.6	-1.0	-1.7	-2.8	-3.5	-3.4	-1.8	+0.5	+1.8	+1.7	+1.8	+1.5	+1.3	+1.4	+1.3	+0.9	+0.6
Equinox	+2.7	+2.2	+2.3	+2.5	+2.2	+2.5	+2.3	+1.4	-0.3	-3.9	-8.1													

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

## INTERNATIONAL QUIET DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

27 ESKDALEMUIR

1966

	Hour GMT																							
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
DECLINATION (measured positive towards the west)																								
Jan.	-0.79	-0.67	-0.43	-0.55	-0.41	+0.05	-0.33	-0.56	-0.65	-0.15	+0.49	+1.03	+1.47	+1.65	+1.31	+0.61	+0.51	+0.22	+0.07	-0.11	-0.41	-0.73	-0.87	-0.75
Feb.	-0.95	-0.74	-0.75	-0.81	-0.87	-0.90	-0.95	-1.11	-1.05	-0.88	-0.15	+0.79	+1.89	+2.70	+1.99	+0.97	+0.71	+0.54	+0.43	+0.41	+0.01	-0.42	-0.35	-0.51
Mar.	-0.81	-0.23	-1.11	-1.71	-1.89	-1.92	-1.77	-1.99	-2.49	-2.03	+0.17	+2.21	+3.69	+4.03	+3.39	+2.09	+0.77	+0.42	+0.19	+0.05	-0.05	-0.25	-0.31	-0.45
Apr.	-0.48	-0.57	-1.49	-1.30	-1.69	-2.37	-3.30	-3.97	-4.49	-3.74	-1.45	+1.61	+4.38	+5.53	+5.01	+3.66	+2.33	+1.27	+0.52	+0.21	+0.07	+0.16	+0.07	+0.03
May	-0.46	-0.56	-0.70	-1.32	-1.98	-2.94	-3.52	-4.26	-4.42	-3.60	-1.58	+1.20	+3.72	+5.00	+5.24	+4.34	+2.86	+1.50	+0.54	+0.28	+0.16	+0.10	+0.30	+0.10
June	-0.12	-0.49	-0.83	-1.50	-2.37	-3.97	-5.10	-6.17	-6.13	-4.12	-0.87	+2.03	+4.58	+5.65	+5.65	+4.80	+3.39	+1.83	+1.04	+0.93	+0.93	+0.60	+0.09	+0.15
July	-0.36	-0.89	-1.10	-1.70	-2.78	-4.13	-4.96	-5.34	-4.96	-3.69	-1.48	+1.00	+3.42	+4.63	+5.32	+4.84	+3.54	+2.69	+2.04	+1.34	+0.82	+0.75	+0.96	+0.04
Aug.	-1.06	-0.31	-1.10	-1.81	-3.05	-4.08	-5.31	-5.51	-5.24	-3.21	+0.28	+3.51	+5.92	+6.71	+6.08	+4.67	+2.19	+0.82	-0.17	-0.03	+0.42	+0.49	+0.30	-0.51
Sept.	-0.79	-0.51	-1.70	-2.17	-2.19	-2.49	-2.75	-3.41	-3.18	-1.63	+1.51	+4.09	+5.17	+4.89	+3.88	+1.69	+0.23	+0.21	+0.31	+0.47	-0.06	-0.45	-0.55	-0.57
Oct.	-1.58	-1.36	-1.22	-1.06	-1.08	-1.38	-1.78	-2.14	-2.86	-2.76	-1.04	+1.64	+3.30	+3.82	+3.86	+2.96	+1.94	+1.44	+0.98	+0.54	+0.28	+0.16	+0.10	-1.40
Nov.	-1.64	-1.08	-0.38	-0.44	-0.24	-0.56	-0.88	-1.02	-1.42	-1.30	-0.18	+1.18	+2.00	+2.36	+2.10	+1.58	+1.26	+0.92	+0.44	+0.24	-0.38	-0.58	-0.82	-1.16
Dec.	-1.34	-0.87	-0.22	-0.31	-0.31	-0.30	-0.51	-0.73	-0.86	-0.83	+0.02	+1.17	+2.14	+2.35	+1.94	+1.45	+0.97	+0.52	+0.21	-0.19	-0.58	-0.99	-1.22	-1.51
Year	-0.87	-0.69	-0.92	-1.22	-1.57	-2.08	-2.60	-3.02	-3.15	-2.33	-0.36	+1.79	+3.47	+4.11	+3.81	+2.81	+1.73	+1.03	+0.55	+0.35	+0.10	-0.11	-0.29	-0.55
Winter	-1.18	-0.84	-0.45	-0.53	-0.46	-0.43	-0.67	-0.85	-0.99	-0.79	+0.05	+1.04	+1.87	+2.27	+1.83	+1.15	+0.86	+0.55	+0.29	+0.09	-0.34	-0.68	-0.81	-0.98
Equinox	-0.91	-0.67	-1.38	-1.56	-1.71	-2.04	-2.40	-2.88	-3.25	-2.54	-0.20	+2.39	+4.13	+4.57	+4.03	+2.60	+1.32	+0.83	+0.50	+0.32	+0.06	-0.15	-0.46	-0.60
Summer	-0.50	-0.56	-0.93	-1.58	-2.55	-3.78	-4.72	-5.32	-5.19	-3.65	-0.91	+1.93	+4.41	+5.50	+5.57	+4.66	+2.99	+1.71	+0.86	+0.63	+0.58	+0.49	+0.41	-0.05
INCLINATION																								
Jan.	+0.22	+0.16	+0.15	+0.14	+0.01	-0.16	-0.17	-0.15	+0.01	+0.13	+0.21	+0.13	+0.05	-0.03	-0.10	0.00	+0.03	-0.05	-0.14	-0.17	-0.07	-0.07	-0.07	-0.07
Feb.	+0.05	+0.02	+0.03	+0.02	-0.06	-0.13	-0.23	-0.24	-0.09	+0.10	+0.21	+0.32	+0.30	+0.15	-0.07	-0.05	+0.03	+0.12	+0.03	-0.13	-0.07	-0.14	-0.09	-0.09
Mar.	+0.11	-0.09	+0.03	+0.05	-0.01	-0.18	-0.22	-0.22	-0.04	+0.50	+0.69	+0.86	+0.59	+0.23	0.00	-0.09	-0.08	-0.07	-0.21	-0.35	-0.38	-0.43	-0.35	-0.43
Apr.	-0.28	-0.26	-0.23	-0.23	-0.22	-0.18	-0.18	-0.02	+0.37	+1.03	+1.58	+1.57	+1.34	+0.79	+0.25	-0.25	-0.52	-0.68	-0.78	-0.68	-0.59	-0.64	-0.65	-0.59
May	-0.16	-0.13	-0.10	-0.12	-0.21	-0.25	+0.07	+0.35	+0.75	+1.11	+1.31	+1.20	+1.04	+0.81	+0.21	-0.30	-0.63	-0.88	-0.98	-0.85	-0.65	-0.64	-0.55	-0.41
June	-0.30	-0.24	-0.11	-0.10	-0.22	-0.22	+0.08	+0.53	+0.92	+1.48	+1.86	+1.83	+1.39	+0.94	+0.45	-0.15	-0.70	-1.01	-1.35	-1.32	-1.15	-0.94	-0.92	-0.76
July	-0.21	-0.11	-0.13	-0.17	-0.16	+0.11	+0.26	+0.58	+0.97	+1.31	+1.33	+1.17	+0.93	+0.79	+0.31	-0.08	-0.51	-0.87	-1.18	-1.09	-1.04	-0.86	-0.77	-0.64
Aug.	-0.58	-0.41	-0.35	-0.39	-0.29	+0.01	+0.46	+0.94	+1.29	+1.92	+1.91	+1.54	+0.70	+0.08	-0.36	-0.60	-0.58	-0.41	-0.80	-0.87	-0.76	-0.83	-0.74	-0.89
Sept.	-0.55	-0.32	-0.36	-0.17	-0.16	+0.19	+0.48	+0.93	+1.53	+1.65	+1.50	+0.68	+0.02	-0.31	-0.43	-0.13	-0.09	-0.39	-0.52	-0.78	-0.65	-0.72	-0.62	-0.78
Oct.	-0.17	-0.10	-0.09	-0.13	-0.20	-0.22	-0.29	-0.21	+0.05	+0.60	+0.97	+1.06	+0.92	+0.69	+0.35	+0.08	-0.09	-0.33	-0.50	-0.61	-0.56	-0.43	-0.43	-0.36
Nov.	+0.26	+0.27	+0.18	-0.02	-0.13	-0.22	-0.24	-0.15	+0.06	+0.23	+0.47	+0.55	+0.52	+0.42	+0.23	+0.04	-0.25	-0.29	-0.43	-0.43	-0.40	-0.27	-0.22	-0.17
Dec.	+0.05	+0.22	+0.21	+0.06	-0.09	-0.23	-0.25	-0.17	0.00	+0.16	+0.36	+0.37	+0.20	+0.10	+0.06	+0.09	-0.01	-0.14	-0.21	-0.24	-0.26	-0.19	-0.06	-0.02
Year	-0.13	-0.08	-0.06	-0.09	-0.14	-0.12	-0.02	+0.18	+0.49	+0.85	+1.03	+0.94	+0.67	+0.39	+0.08	-0.12	-0.28	-0.42	-0.59	-0.63	-0.55	-0.52	-0.46	-0.44
Winter	+0.15	+0.17	+0.14	+0.05	-0.07	-0.19	-0.22	-0.18	-0.01	+0.16	+0.31	+0.34	+0.27	+0.16	+0.03	+0.02	-0.05	-0.09	-0.18	-0.24	-0.20	-0.17	-0.11	-0.09
Equinox	-0.22	-0.19	-0.16	-0.12	-0.15	-0.10	-0.06	+0.12	+0.50	+0.95	+1.19	+1.04	+0.72	+0.35	+0.04	-0.10	-0.20	-0.36	-0.50	-0.60	-0.55	-0.55	-0.51	-0.54
Summer	-0.31	-0.22	-0.17	-0.19	-0.22	-0.09	+0.22	+0.60	+0.98	+1.45	+1.61	+1.43	+1.03	+0.66	+0.15	-0.28	-0.60	-0.79	-1.08	-1.03	-0.90	-0.81	-0.75	-0.68
HORIZONTAL COMPONENT																								
Jan.	-3.1	-2.4	-2.3	-2.1	-0.3	+2.2	+2.5	+2.3	-0.3	-2.4	-3.7	-2.5	-1.5	0.0	+1.7	+0.5	+0.1	+1.2	+2.3	+2.9	+1.5	+1.4	+1.1	+0.9
Feb.	-0.5	-0.2	-0.3	-0.2	+1.2	+2.3	+3.4	+3.4	+1.1	-2.0	-4.5	-6.2	-6.1	-3.4	+0.7	+1.2	0.0	-1.1	+0.4	+2.6	+1.9	+2.8	+1.9	+1.6
Mar.	+0.2	+2.3	+0.4	+0.2	+0.8	+2.9	+3.4	+2.8	-1.4	-9.5	-13.8	-16.4	-12.0	-5.5	-0.4	+2.4	+3.0	+2.5	+4.8	+6.4	+6.6	+7.3	+6.0	+7.0
Apr.	+5.7	+5.3	+5.0	+5.1	+5.1	+4.7	+4.3	+1.3	-5.6	-17.3	-27.1	-28.7	-25.7	-16.3	-6.4	+3.3	+8.3	+11.5	+13.5	+12.3	+10.8	+10.9	+10.5	+9.5
May	+3.9	+3.3	+2.9	+3.7	+5.7	+6.3	+1.5	-4.1	-11.5	-18.7	-24.1	-24.3	-21.5	-16.7	-6.3	+2.7	+9.5	+15.3	+17.3	+15.5	+12.1	+11.1	+9.3	+7.1
June	+5.1	+4.4	+2.9	+3.2	+5.0	+5.3	+0.8	-6.2	-13.9	-24.0	-31.9	-33.2	-26.9	-18.2	-8.7	+1.4	+10.6	+17.1	+22.8	+22.6	+19.7	+15.6	+14.7	+11.8
July	+5.0	+3.3	+3.5	+4.4	+4.3	+0.1	-3.0	-8.3	-15.7	-22.0	-23.5	-22.9	-20.4	-16.3	-7.5	+0.6	+8.5	+14.7	+20.2	+19.1	+17.9	+14.8	+12.7	+10.5
Aug.	+8.6	+6.1	+5.0	+6.0	+5.2	+1.1	-5.4	-12.8	-18.4	-29.5	-31.2	-27.2	-15.8	-5.3	+4.2	+10.4	+11.4	+9.3	+14.4	+14.6	+12.0	+12.7	+11.4	+13.2
Sept.	+7.4	+4.5	+5.4	+3.1	+2.7	-1.8	-5.9	-12.9	-22.8	-26.5	-25.8	-14.5	-4.2	+2.5	+6.2	+3.7	+3.7	+7.4	+9.3	+13.1	+11.2	+12.1	+10.0	+12.1
Oct.	+4.1	+2.8	+2.5	+2.8	+3.6	+3.7	+4.8	+3.6	-0.7	-9.6	-16.7	-19.4	-16.7	-12.2	-6.1	-1.2	+1.8	+5.3	+8.0	+9.6	+8.9	+7.4	+7.5	+6.2
Nov.	-3.0	-3.6	-2.8	+0.2	+1.8	+3.2	+3.6	+2.0	-1.4	-4.4	-8.0	-9.6	-8.8	-6.6	-3.0	+0.2	+4.4	+5.0	+6.8	+6.8	+6.4	+4.4	+3.6	+2.8
Dec.	-0.5	-2.8	-2.7	-0.6	+1.4	+3.5	+3.4	+2.2	-0.7	-3.4	-6.7	-7.4	-4.7	-2.4	-0.5	-0.4	+1.2	+3.1	+3.8	+4.2	+4.5	+3.4	+1.3	+0.8
Year	+2.7	+1.9	+1.6	+2.1	+3.0	+2.8	+1.1	-2.2	-7.6	-14.1	-18.1	-17.7	-13.7	-8.4	-2.2	+2.1	+5.2	+7.6	+10.3	+10.8	+9.5	+8.7	+7.5	+7.0
Winter	-1.8	-2.3	-2.0	-0.7	+1.0	+2.8	+3.2	+2.5	-0.3	-3.1	-5.7	-6.4	-5.3	-3.1	-0.3	+0.4	+1.4	+2.1	+3.3	+4.1	+3.6	+3.0	+2.0	+1.5
Equinox	+4.3	+3.7	+3.3	+2.8	+3.1	+2.4	+1.7	-1.3	-7.6	-15.7	-20.9	-19.7	-14.7	-7.9	-1.7	+2.1	+4.2	+6.7	+8.9	+10.3	+9.4	+9.4	+8.5	+8.7
Summer	+5.7	+4.3	+3.6	+4.3	+5.1	+3.2	-1.5	-7.9	-14.9	-23.5	-27.7	-26.9	-21.1	-14.1	-4.6	+3.8	+10.0	+14.1	+18.7	+17.9	+15.4	+13.5	+12.0	+10.7

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

DIURNAL INEQUALITIES OF THE GEOGRAPHICAL COMPONENTS OF GEOMAGNETIC FORCE  
INTERNATIONAL DISTURBED DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

28 ESKDALEMUIR

1966

	Hour GMT																							
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
NORTH COMPONENT																								
Jan.	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Feb.	+6.3	-1.0	+3.0	+4.2	+7.8	+11.4	+11.2	+12.4	+13.5	+3.5	-4.0	-6.4	-4.1	-8.0	-20.2	-8.8	-12.7	-11.6	-8.3	-3.5	+0.6	+6.4	+6.1	+2.3
Mar.	+7.3	+6.6	+7.0	+5.8	+8.1	+9.6	+9.9	+1.9	+4.3	-11.5	-10.3	-12.0	-16.4	-9.5	-5.2	-6.7	-9.3	-5.6	-0.2	+7.2	+12.8	-0.4	+2.7	+3.9
Apr.	+8.9	+13.9	+22.4	+32.9	+28.5	+20.3	+4.8	+0.3	-13.9	-31.3	-32.1	-30.3	-28.7	-22.8	-10.9	+2.5	+4.7	-3.2	-1.2	-0.9	+4.5	+5.0	+13.7	+12.9
May	+14.9	+9.6	+11.3	+10.9	+13.2	+11.0	+12.0	+10.9	+2.4	-9.0	-17.2	-23.0	-23.9	-21.0	-14.8	-8.8	-0.3	+3.7	+4.5	+2.8	+2.8	+7.5	-0.6	+1.2
June	+16.3	+17.4	+7.4	+9.3	+17.7	+18.3	+10.2	-2.3	-13.8	-27.5	-51.1	-45.3	-42.6	-29.8	-12.9	+14.4	+28.8	+33.8	+39.8	+22.9	+9.8	-8.9	-11.2	-0.4
July	+18.7	+7.2	+4.4	+4.8	+4.7	+7.3	+4.5	-5.3	-14.5	-28.1	-38.6	-40.0	-25.4	-18.1	-4.7	+4.9	+9.9	+29.2	+35.4	+23.0	+12.4	+2.0	+5.3	+0.9
Aug.	+18.2	+18.7	+11.7	+7.6	-10.8	-4.4	-18.9	-21.3	-27.4	-31.2	-36.3	-44.1	-27.4	-11.7	-4.9	+8.7	+21.2	+28.7	+32.9	+23.4	+20.7	+21.6	+17.4	+7.7
Sept.	+8.0	+1.3	-1.6	+4.2	+5.0	+3.6	0.0	-8.5	-17.7	-28.6	-36.8	-33.4	-28.8	-3.0	-2.2	+4.1	+17.9	+32.3	+14.3	+19.9	+21.3	+8.0	+10.0	+10.5
Oct.	-28.9	-72.6	-38.5	+13.2	+10.0	+11.5	-9.4	-7.5	-21.4	-37.9	-41.7	-25.5	+3.1	+6.1	+12.6	+32.8	+46.7	+48.7	+48.2	+28.1	+14.6	+10.9	-28.7	+25.6
Nov.	+21.3	+18.9	+18.6	+12.9	+20.5	+13.5	+15.0	+1.7	-2.7	-20.3	-29.5	-32.7	-31.2	-24.7	-19.9	-18.0	-3.5	+2.9	+12.9	+11.1	+10.8	-0.5	+7.5	+15.2
Dec.	+6.7	+7.2	+8.2	+10.1	+13.5	+14.7	+8.9	+5.0	+7.3	-9.5	-21.2	-24.9	-21.2	-19.0	-10.1	-12.6	-7.3	-6.8	-1.6	+8.1	+7.2	+20.1	+13.0	+4.5
	+6.5	+6.3	+7.4	+2.6	+7.6	+11.1	+13.5	+15.8	+7.4	+3.0	-4.2	-4.9	-2.5	-3.9	-6.2	-14.1	-17.2	-6.3	-7.7	-8.5	-10.9	+2.8	+5.3	-3.1
Year	+8.7	+2.8	+5.1	+9.9	+10.4	+10.6	+5.1	+0.3	-6.4	-19.0	-26.9	-26.9	-20.6	-13.8	-8.3	-0.1	+6.6	+12.2	+14.1	+11.2	+8.9	+6.3	+3.4	+6.8
Winter	+6.7	+4.8	+6.5	+5.7	+9.2	+11.7	+11.0	+8.8	+8.2	-3.7	-10.0	-12.1	-11.0	-10.1	-10.5	-10.6	-11.6	-7.5	-4.4	+0.8	+2.4	+7.2	+6.8	+1.9
Equinox	+4.1	-7.5	+3.5	+17.5	+18.1	+14.0	+5.6	+1.4	-8.9	-24.6	-30.1	-27.9	-20.2	-15.7	-8.3	+2.1	+11.9	+13.0	+16.2	+10.2	+8.1	+5.8	-2.0	+13.7
Summer	+15.3	+11.1	+5.4	+6.5	+4.1	+6.3	-1.0	-9.4	-18.4	-28.8	-40.7	-40.7	-31.0	-15.6	-6.1	+8.0	+19.4	+31.0	+30.6	+22.3	+16.2	+5.6	+5.4	+4.6
WEST COMPONENT																								
Jan.	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Feb.	-13.7	-6.6	-2.3	-2.4	-2.0	+1.1	+7.5	+9.8	+7.4	+4.0	+5.6	+12.9	+16.5	+21.9	+7.7	+13.9	+12.9	-1.3	-7.9	-12.9	-24.5	-13.9	-16.1	-17.5
Mar.	-5.8	-0.2	-5.2	-3.4	+0.4	+5.9	+0.4	+5.7	+3.2	-0.9	+0.8	+11.3	+12.6	+16.9	+17.9	+16.9	+15.8	+8.1	+2.5	-22.1	-33.5	-20.2	-12.2	-14.9
Apr.	-25.4	-35.8	-31.2	-36.2	-13.9	+7.7	+4.9	+4.8	+1.1	+4.9	+6.5	+27.5	+37.5	+40.5	+32.5	+26.2	+22.7	+10.9	-22.4	-20.6	-11.2	-14.7	-11.6	-4.9
May	-11.2	-13.7	-12.3	-19.7	-15.6	-11.1	-11.2	-17.4	-18.3	-13.0	-0.7	+14.9	+28.1	+39.5	+42.9	+36.8	+29.9	+18.7	+6.5	-2.7	-5.6	-25.0	-20.5	-19.1
June	-2.3	-12.7	-10.9	-6.2	-11.3	-23.3	-26.2	-19.6	-19.8	-11.3	-1.6	+20.6	+32.0	+33.9	+39.1	+42.6	+39.1	+28.4	+11.1	-5.1	-16.4	-26.5	-34.5	-19.3
July	-6.4	-7.3	-5.2	-8.5	-13.9	-21.1	-27.7	-30.1	-32.1	-27.9	-15.0	+2.2	+16.8	+28.9	+35.0	+35.5	+29.5	+25.9	+20.8	+6.5	+1.2	-2.9	-5.9	+1.7
Aug.	-24.1	-25.1	-21.6	-13.8	-15.0	-16.2	-11.6	-9.8	-17.4	-15.8	-8.2	+2.1	+20.9	+29.3	+32.7	+33.2	+28.6	+21.0	+19.4	+9.7	+8.4	-3.2	-8.0	-15.5
Sept.	-19.1	-11.6	-18.6	-21.7	-19.4	-24.8	-31.4	-30.6	-26.3	-17.0	+2.4	+25.9	+37.9	+51.4	+49.4	+38.2	+32.3	+30.6	+9.8	+12.8	-19.4	-24.2	-11.8	-15.0
Oct.	-50.2	-54.7	-20.2	-13.3	+0.3	+3.0	-10.7	-0.9	-0.7	+0.2	+16.7	+31.5	+42.0	+56.9	+45.4	+27.8	+12.4	+17.7	+6.1	-1.2	+1.2	+23.8	-74.3	-11.1
Nov.	-18.4	-18.3	-8.5	-1.0	+3.4	+9.3	+3.4	-2.2	-4.6	-0.9	+8.3	+18.9	+28.5	+35.1	+35.6	+23.5	+9.8	+4.7	-13.5	-12.0	-33.6	-26.4	-19.7	-21.3
Dec.	-18.3	-2.0	+3.1	+5.8	+7.8	+8.2	+13.0	+11.4	+9.1	+2.9	+1.9	+4.9	+17.7	+18.7	+16.2	+5.3	+2.3	-7.1	-10.3	-14.5	+10.0	-26.9	-22.0	-17.1
	-20.3	-8.4	-6.5	+0.6	-2.6	+5.2	+9.3	+19.7	+8.8	+7.9	+4.1	+12.7	+17.2	+16.6	+28.5	+27.5	+23.8	+2.3	-25.3	-29.0	-22.3	-24.9	-23.5	-21.5
Year	-17.9	-16.4	-11.6	-10.0	-6.8	-4.7	-6.8	-4.9	-7.5	-5.6	+1.7	+15.5	+25.7	+32.5	+31.9	+27.3	+21.6	+13.3	-0.3	-7.6	-13.8	-19.4	-21.7	-14.6
Winter	-14.5	-4.3	-2.7	+0.1	+0.9	+5.1	+7.6	+11.7	+7.1	+3.5	+3.1	+10.4	+16.0	+18.5	+17.6	+15.9	+13.7	+0.5	-10.2	-19.7	-22.6	-21.5	-18.5	-17.8
Equinox	-26.3	-30.6	-18.0	-17.6	-6.5	+2.2	-3.4	-3.9	-5.6	-2.2	+7.7	+23.2	+34.1	+43.0	+39.1	+28.6	+18.7	+13.0	-5.9	-9.1	-12.3	-22.5	-31.5	-14.1
Summer	-13.0	-14.2	-14.1	-12.5	-14.9	-21.3	-24.2	-22.5	-23.9	-18.0	-5.6	+12.7	+26.9	+35.9	+39.1	+37.3	+32.3	+26.4	+15.3	+6.0	-6.5	-14.2	-15.1	-12.0
VERTICAL COMPONENT																								
Jan.	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Feb.	-5.2	-5.9	-7.0	-5.3	-5.5	-7.0	-9.1	-9.3	-9.6	-8.7	-8.2	-7.3	-6.4	-1.3	+10.8	+11.7	+12.9	+18.0	+15.5	+14.5	+11.0	+4.3	-0.2	-2.7
Mar.	-6.7	-8.8	-6.9	-4.8	-10.6	-15.7	-14.8	-12.2	-9.9	-7.0	-5.3	-5.4	-1.5	-3.6	+1.7	+13.4	+20.4	+22.1	+18.0	+20.0	+13.7	+5.0	+1.3	-2.4
Apr.	-13.4	-14.3	-17.3	-24.6	-31.9	-34.7	-31.4	-23.1	-16.1	-12.4	-10.5	-7.3	+1.2	+5.7	+16.5	+35.2	+45.3	+47.9	+48.0	+20.7	+7.1	+4.2	+5.1	+0.1
May	-7.2	-5.3	-10.5	-10.8	-9.3	-8.9	-9.2	-8.7	-9.9	-12.8	-16.5	-21.3	-20.4	-12.1	+1.7	+13.2	+23.5	+33.9	+33.6	+27.1	+19.7	+11.6	+2.1	-3.5
June	-8.0	-12.3	-11.7	-10.0	-16.9	-17.5	-12.6	-11.7	-14.1	-14.8	-15.5	-16.9	-11.0	-2.7	+9.3	+17.8	+36.5	+45.5	+42.6	+20.7	+15.3	+11.4	-6.1	-17.3
July	-12.6	-10.4	-14.8	-9.2	-3.0	-1.4	-0.2	-0.2	-2.6	-7.2	-12.2	-16.8	-16.4	-13.2	-6.4	+1.4	+9.6	+14.6	+21.0	+27.4	+22.4	+16.8	+9.6	+3.8
Aug.	-14.0	-22.5	-22.8	-26.1	-32.6	-31.5	-23.2	-17.1	-8.0	-2.7	-2.2	-1.9	+3.0	+8.9	+14.8	+17.7	+22.0	+25.3	+28.2	+29.3	+24.2	+17.9	+9.4	+3.9
Sept.	-12.5	-25.4	-22.3	-18.4	-14.0	-4.9	-0.6	+2.4	+2.1	-3.4	-8.7	-12.4	-12.5	-10.2	-0.5	+9.2	+15.2	+27.3	+43.8	+31.8	+18.9	-6.2	+0.1	+1.2
Oct.	-69.6	-101.1	-81.6	-68.0	-40.6	-34.7	-17.8	-9.6	-1.6	+5.5	+15.2	+18.4	+31.4	+37.9	+42.4	+65.2	+80.8	+90.5	+84.0	+55.8	+32.4	-0.7	-68.6	-65.6
Nov.	-13.0	-21.1	-24.8	-25.3	-25.5	-24.0	-19.9	-11.3	-7.6	-5.3	-5.8	-3.9	+1.6	+11.3	+18.6	+27.1	+33.5	+30.2	+21.9	+13.5	+16.4	+18.5	+5.0	-10.1
Dec.	-11.2	-14.1	-11.8	-10.7	-10.1	-10.6	-10.3	-9.7	-8.0	-6.3	-3.6	-0.3	+4.4	+8.1	+12.2	+20.5	+22.3	+22.8	+17.1	+12.3	+4.0	-1.5	-7.0	-8.5
	-11.5	-14.8	-17.9	-12.9	-10.9	-13.6	-13.5	-14.3	-13.7	-12.2	-10.1	-8.3	-4.9	+0.6	+7.9	+30.7	+37.9	+44.6	+26.9	+18.1	+9.3	+4.4	-6.9	-14.9
Year	-15.4	-21.3	-20.8	-18.8	-17.6	-17.0	-13.5	-10.4	-8.3	-7.3	-6.9	-6.9	-2.6	+2.5	+10.7	+13.6	+30.0	+35.2	+33.4	+24.3	+16.2	+7.1	-4.8	-1.3
Winter	-8.7	-10.9	-10.9	-8.4	-9.3	-11.7	-11.9	-11.4	-10.3	-8.5	-6.8	-5.3	-2.1	+0.9	+8.1	+19.1	+23.4	+26.9	+19.4	+16.2	+9.5	+3.1	-3.2	-7.1
Equinox	-25.8	-35.5	-33.5	-32.2	-26.8	-25.6	-19.6	-13.2	-8.8	-6.3	-4.4	-3.5	+3.5	+10.7	+19.8	+35.2	+45.8	+50.6	+46.9	+29.3	+18.9	+8.4	-14.1	-19.8
Summer	-11.8	-17.7	-17.9	-15.9	-16.6	-13.8	-9.1	-6.7	-5.7	-7.0	-9.7	-12.0	-9.2	-4.3	+4.3	+11.5	+20.8	+28.2	+33.9	+27.3	+20.2	+10.0	+3.3	-2.1

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.



## INTERNATIONAL DISTURBED DAYS

Departures from the mean of the 24 hourly values (uncorrected for non-cyclic change)

29 ESKDALEMUIR

1966

	Hour GMT																							
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
DECLINATION (measured positive towards the west)																								
Jan.	-2.96	-1.29	-0.56	-0.62	-0.68	-0.19	+1.10	+1.52	+1.00	+0.67	+1.26	+2.80	+3.44	+4.67	+2.26	+3.10	+3.02	+0.15	-1.28	-2.46	-4.92	-3.01	-3.44	-3.58
Feb.	-1.42	-0.27	-1.28	-0.88	-0.20	+0.85	-0.26	+1.08	+0.48	+0.23	+0.52	+2.68	+3.10	+3.71	+3.76	+3.62	+3.48	+1.81	+0.50	-4.68	-7.14	-4.03	-2.54	-3.12
Mar.	-5.40	-7.65	-7.02	-8.39	-3.79	+0.84	+0.81	+0.95	+0.72	+2.07	+2.42	+6.57	+8.52	+8.91	+6.88	+5.15	+4.37	+2.30	-4.43	-4.09	-2.40	-3.11	-2.80	-1.43
Apr.	-2.76	-3.07	-2.86	-4.33	-3.58	-2.61	-2.66	-3.87	-3.74	-2.29	+0.46	+3.79	+6.46	+8.63	+9.10	+7.67	+6.00	+3.61	+1.14	-0.65	-1.22	-5.27	-4.08	-3.87
May	-1.04	-3.16	-2.44	-1.56	-2.88	-5.31	-5.60	-3.84	-3.48	-1.30	+1.48	+5.72	+7.90	+7.84	+8.28	+8.02	+6.82	+4.49	+0.82	-1.82	-3.62	-4.98	-6.50	-3.84
June	-1.94	-1.71	-1.19	-1.86	-2.95	-4.47	-5.70	-5.83	-5.91	-4.60	-1.65	+1.85	+4.26	+6.41	+7.17	+6.92	+5.55	+4.15	+2.92	+0.49	-0.19	-0.66	-1.37	-0.31
July	-5.47	-5.67	-4.73	-3.03	-2.63	-3.08	-1.65	-1.21	-2.51	-2.07	-0.37	+1.97	+5.15	+6.27	+6.71	+6.33	+4.97	+3.18	+2.73	+1.13	+0.95	-1.39	-2.21	-3.37
Aug.	-4.10	-2.36	-3.66	-4.48	-4.06	-5.09	-6.28	-5.82	-4.64	-2.40	+1.78	+6.36	+8.60	+10.38	+9.96	+7.50	+5.84	+4.99	+1.46	+1.86	-4.62	-5.12	-2.72	-3.38
Sept.	-9.03	-8.40	-2.68	-3.13	-0.30	+0.20	-1.81	+0.08	+0.62	+1.37	+4.80	+7.20	+8.29	+11.16	+8.64	+4.41	+0.84	+1.84	-0.47	-1.22	-0.28	-5.15	-13.86	-3.12
Oct.	-4.42	-4.33	-2.36	-0.66	-0.04	+1.39	+0.16	-0.50	-0.82	+0.53	+2.70	+4.92	+6.80	+7.89	+7.82	+5.34	+2.08	+0.83	-3.16	-2.80	-7.10	-5.27	-4.20	-4.80
Nov.	-3.89	-0.66	+0.34	+0.81	+1.08	+1.12	+2.29	+2.10	+1.56	+0.91	+1.12	+1.86	+4.29	+4.40	+3.60	+1.51	+0.72	-1.18	-2.01	-3.18	-2.26	-6.09	-4.86	-3.58
Dec.	-4.29	-1.90	-1.57	+0.03	-0.79	+0.66	+1.39	+3.39	+1.51	+1.48	+0.97	+2.71	+3.53	+3.46	+5.91	+5.99	+5.37	+0.68	-4.79	-5.51	-4.07	-5.08	-4.89	-4.19
Year	-3.89	-3.37	-2.50	-2.34	-1.73	-1.31	-1.52	-1.00	-1.27	-0.45	+1.29	+4.04	+5.86	+6.98	+6.67	+5.46	+4.09	+2.24	-0.55	-1.91	-3.07	-4.10	-4.46	-3.16
Winter	-3.14	-1.03	-0.77	-0.17	-0.15	+0.61	+1.13	+2.02	+1.14	+0.82	+0.97	+2.51	+3.59	+4.06	+3.88	+3.55	+3.15	+0.37	-1.89	-3.96	-4.60	-4.55	-3.93	-3.62
Equinox	-5.40	-5.86	-3.73	-4.13	-1.93	-0.05	-0.87	-0.83	-0.81	+0.42	+2.59	+5.62	+7.52	+9.15	+8.11	+5.64	+3.32	+2.15	-1.75	-2.19	-2.75	-4.70	-6.23	-3.31
Summer	-3.14	-3.23	-3.01	-2.73	-3.13	-4.49	-4.81	-4.17	-4.13	-2.59	+0.31	+3.97	+6.48	+7.73	+8.03	+7.19	+5.79	+4.20	+1.98	+0.41	-1.87	-3.04	-3.20	-2.57
INCLINATION																								
Jan.	-0.38	-0.01	-0.35	-0.38	-0.62	-0.93	-1.04	-1.15	-1.21	-0.49	0.00	+0.09	-0.08	+0.24	+1.50	+0.71	+1.00	+1.22	+1.01	+0.74	+0.51	-0.15	-0.22	-0.02
Feb.	-0.58	-0.65	-0.57	-0.46	-0.79	-1.09	-1.02	-0.49	-0.56	+0.59	+0.53	+0.52	+0.89	+0.34	+0.17	+0.58	+0.93	+0.82	+0.43	+0.27	-0.11	+0.38	-0.01	-0.15
Mar.	-0.62	-0.85	-1.53	-2.34	-2.49	-2.27	-1.14	-0.64	+0.50	+1.68	+1.76	+1.48	+1.47	+1.17	+0.74	+0.40	+0.55	+1.26	+1.51	+0.81	+0.01	-0.06	-0.64	-0.79
Apr.	-1.02	-0.61	-0.86	-0.75	-0.91	-0.81	-0.88	-0.73	-0.19	+0.42	+0.73	+0.81	+0.74	+0.62	+0.52	+0.48	+0.25	+0.38	+0.47	+0.52	+0.37	+0.08	+0.32	+0.05
May	-1.23	-1.29	-0.65	-0.79	-1.45	-1.36	-0.68	+0.09	+0.78	+1.57	+2.98	+2.31	+2.14	+1.49	+0.63	-0.99	-1.43	-1.41	-1.67	-0.93	-0.07	+1.17	+0.98	-0.18
June	-1.46	-0.64	-0.59	-0.45	-0.22	-0.27	+0.01	+0.69	+1.25	+1.98	+2.39	+2.17	+1.06	+0.52	-0.25	-0.69	-0.75	-1.84	-2.04	-0.90	-0.27	+0.31	-0.04	+0.01
July	-1.26	-1.49	-1.08	-0.98	+0.07	-0.31	+0.79	+1.09	+1.79	+2.16	+2.42	+2.81	+1.63	+0.65	+0.31	-0.51	-1.17	-1.49	-1.68	-0.92	-0.85	-0.93	-0.82	-0.23
Aug.	-0.61	-0.58	-0.23	-0.48	-0.45	-0.07	+0.34	+0.96	+1.51	+1.98	+2.16	+1.58	+1.14	-0.64	-0.44	-0.48	-1.17	-1.79	+0.03	-0.66	-0.70	-0.40	-0.52	-0.49
Sept.	+0.74	+2.88	+0.74	-2.39	-1.66	-1.64	+0.30	+0.26	+1.37	+2.62	+2.91	+1.76	+0.10	-0.11	-0.30	-0.86	-1.20	-1.16	-1.15	-0.45	-0.17	-0.46	+1.03	-3.17
Oct.	-1.51	-1.55	-1.73	-1.46	-2.01	-1.58	-1.51	-0.37	+0.04	+1.21	+1.69	+1.83	+1.76	+1.50	+1.35	+1.58	+0.95	+0.50	-0.15	-0.26	+0.09	+0.79	-0.14	-1.00
Nov.	-0.50	-0.79	-0.86	-0.99	-1.22	-1.32	-0.99	-0.70	-0.78	+0.44	+1.28	+1.57	+1.29	+1.23	+0.78	+1.27	+1.00	+1.09	+0.65	-0.06	-0.26	-1.04	-0.77	-0.31
Dec.	-0.48	-0.69	-0.85	-0.50	-0.73	-1.12	-1.32	-1.62	-0.92	-0.59	-0.02	-0.03	-0.15	+0.08	+0.27	+1.36	+1.79	+1.49	+1.45	+1.34	+1.20	+0.21	-0.25	+0.08
Year	-0.75	-0.52	-0.71	-0.99	-1.04	-1.06	-0.59	-0.22	+0.30	+1.13	+1.57	+1.41	+1.00	+0.59	+0.44	+0.03	+0.06	-0.08	-0.09	-0.04	-0.03	-0.01	-0.09	-0.31
Winter	-0.49	-0.53	-0.66	-0.58	-0.84	-1.11	-1.09	-0.99	-0.87	-0.01	+0.45	+0.54	+0.49	+0.47	+0.69	+0.98	+1.18	+1.15	+0.88	+0.57	+0.33	-0.15	-0.31	-0.09
Equinox	-0.60	-0.03	-0.85	-1.74	-1.77	-1.57	-0.81	-0.37	+0.43	+1.48	+1.47	+1.47	+1.02	+0.79	+0.58	+0.40	+0.14	+0.25	+0.17	+0.16	+0.07	+0.09	+0.14	-1.23
Summer	-1.14	-1.00	-0.63	-0.67	-0.51	-0.51	+0.12	+0.71	+1.33	+1.92	+2.49	+2.22	+1.49	+0.51	+0.06	-0.67	-1.13	-1.63	-1.34	-0.85	-0.48	+0.04	-0.10	-0.22
HORIZONTAL COMPONENT																								
Jan.	+3.8	-2.1	+2.6	+3.7	+7.3	+11.4	+12.3	+13.9	+14.6	+4.1	-3.0	-4.1	-1.2	-4.1	-18.6	-6.3	-10.3	-11.6	-9.5	-5.7	-3.6	+3.9	+3.2	-0.7
Feb.	+6.2	+6.5	+6.0	+5.1	+8.0	+10.5	+9.8	+2.9	+4.8	-11.5	-10.0	-9.9	-14.0	-6.5	-2.0	-3.7	-6.4	-4.1	+0.2	+3.3	+6.8	-3.9	+0.6	+1.3
Mar.	+4.4	+7.5	+16.7	+26.2	+25.7	+21.3	+5.6	+1.1	-13.5	-30.0	-30.5	-25.1	-21.8	-15.5	-5.1	+7.0	+8.5	-1.3	-5.0	-4.5	+2.5	+2.4	+11.5	+11.9
Apr.	+12.7	+7.1	+9.0	+7.3	+10.3	+8.9	+9.9	+7.7	-0.8	-11.1	-17.1	-20.1	-18.7	-13.9	-7.2	-2.3	+4.9	+6.9	+5.5	+2.3	+1.8	+3.1	-4.1	-2.1
May	+15.6	+14.9	+5.4	+8.1	+15.5	+14.0	+5.5	-5.7	-17.0	-29.1	-50.6	-41.1	-36.4	-23.5	-6.0	+21.5	+35.1	+38.2	+41.1	+21.7	+6.8	-13.3	-17.0	-3.7
June	+17.3	+5.8	+3.4	+3.3	+2.2	+3.6	-0.3	-10.4	-19.8	-32.5	-40.6	-39.0	-22.1	-12.8	+1.4	+10.9	+14.8	+33.2	+38.5	+23.8	+12.4	+1.5	+4.2	+1.2
July	+13.8	+14.1	+7.8	+5.1	-13.2	-7.1	-20.6	-22.7	-30.0	-33.5	-37.2	-43.1	-23.4	-6.5	+0.8	+14.3	+25.8	+31.9	+35.8	+24.7	+21.8	+20.7	+15.8	+4.9
Aug.	+4.6	-0.7	-4.8	+0.4	+1.6	-0.7	-5.4	-13.6	-22.0	-31.1	-35.8	-28.4	-21.8	+5.9	+6.4	+10.6	+23.2	+37.1	+15.8	+21.8	+17.6	+3.7	+7.8	+7.8
Sept.	-37.0	-80.9	-41.4	+10.7	+9.9	+11.8	-11.1	-7.5	-21.2	-37.3	-38.2	-19.7	+10.2	+15.7	+20.2	+37.1	+48.1	+51.0	+48.5	+27.5	+14.6	+6.7	-41.0	+23.3
Oct.	+17.8	+15.5	+16.8	+12.5	+20.8	+14.9	+15.4	+1.3	-3.4	-20.1	-27.6	-28.9	-25.8	-18.3	-13.4	-13.7	-1.8	+3.7	+10.4	+8.9	+4.8	-5.1	+4.0	+11.3
Nov.	+3.4	+6.7	+8.6	+10.9	+14.6	+15.9	+11.0	+6.9	+8.8	-8.9	-20.6	-23.7	-17.8	-15.5	-7.2	-11.5	-6.8	-7.9	-3.4	+5.5	+5.4	+15.1	+9.0	+1.5
Dec.	+2.9	+4.8	+6.2	+2.7	+7.0	+11.8	+14.9	+19.0	+8.8	+4.3	-3.4	-2.6	+0.5	-1.0	-1.2	-9.1	-12.8	-5.8	-11.9	-13.4	-14.6	-1.5	+1.2	-6.8
Year	+5.5	-0.1	+3.0	+8.0	+9.1	+9.7	+3.9	-0.6	-7.6	-19.7	-26.2	-23.8	-16.0	-8.0	-2.7	+4.6	+10.2	+14.3	+13.8	+9.7	+6.4	+2.8	-0.4	+4.2
Winter	+4.1	+4.0	+5.9	+5.6	+9.2	+12.4	+12.0	+10.7	+9.3	-3.0	-9.3	-10.1	-8.1	-6.8	-7.3	-7.7	-9.1	-7.3	-6.1	-2.6	-1.5	+3.4	+3.5	-1.2
Equinox	-0.5	-12.7	+0.3	+14.2	+16.7	+14.2	+4.9	+0.7	-9.7	-24.6	-28.3	-23.5	-14.0	-8.0	-1.4	+7.0	+14.9	+15.1	+14.9	+8.5	+5.9	+1.8	-7.4	+11.1
Summer	+12.8	+8.5	+2.9	+4.2	+1.5	+2.5	-5.2	-13.1	-22.2	-31.5	-41.1	-37.9	-25.9	-9.2	+0.7	+14.3	+24.7	+35.1	+32.8	+23.0	+14.7	+3.1	+2.7	+2.5

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

RANGE OF MEAN DIURNAL INEQUALITIES FOR THE MONTHS, SEASONS AND YEAR  
The ranges are derived from the diurnal inequalities printed in Tables 24 to 29

30 ESKDALEMUIR

1966

	All days			Quiet days			Disturbed days			All days			Quiet days			Disturbed days		
	X	-Y	Z	X	-Y	Z	X	-Y	Z	D	I	H	D	I	H	D	I	H
Jan.	10.1	21.7	9.7	7.0	12.4	3.6	33.7	46.4	27.6	4.46	0.77	8.5	2.52	0.39	6.6	9.59	2.71	33.2
Feb.	14.2	27.1	12.2	11.9	17.4	6.6	29.2	51.4	37.8	5.80	0.68	11.6	3.81	0.56	9.6	10.90	2.02	24.5
Mar.	28.3	38.3	22.3	25.4	30.9	14.6	65.0	76.7	82.7	8.34	1.61	25.4	6.52	1.29	23.7	17.30	4.25	56.7
Apr.	36.8	53.0	28.4	42.5	46.7	20.6	38.8	67.9	55.2	11.22	1.89	35.9	10.02	2.36	42.2	14.37	1.83	32.8
May	50.3	52.1	31.4	41.6	47.7	24.0	90.9	77.1	63.0	10.74	2.72	51.4	9.66	2.29	41.6	14.78	4.43	91.7
June	53.0	58.0	28.1	56.0	58.0	23.4	75.4	67.6	44.2	11.77	3.11	54.7	11.82	3.21	56.0	13.08	4.43	79.1
July	47.4	57.7	24.7	41.6	51.8	22.1	77.0	58.3	61.9	11.25	2.71	48.8	10.66	2.51	43.7	12.38	4.49	78.9
Aug.	46.0	63.4	29.6	45.4	60.5	22.2	69.1	82.8	69.2	12.88	2.54	47.1	12.22	2.81	45.8	16.66	3.95	72.9
Sept.	46.9	52.9	44.5	39.2	43.6	17.4	121.3	131.2	191.6	10.75	2.85	46.5	8.58	2.43	39.6	25.02	6.08	131.9
Oct.	34.5	36.6	18.3	29.5	32.7	13.3	54.0	69.2	59.0	8.24	1.90	30.3	6.72	1.67	29.0	14.99	3.84	49.7
Nov.	23.9	28.1	14.1	17.1	18.8	5.8	45.0	45.6	36.9	6.25	1.52	22.4	4.00	0.98	16.4	10.49	2.89	39.6
Dec.	13.0	26.9	18.2	13.2	18.2	7.9	33.0	57.5	62.5	5.63	0.91	11.8	3.86	0.63	11.9	11.50	3.41	33.6
Year	29.9	38.8	21.1	29.2	35.1	13.5	41.0	54.2	56.5	8.02	1.52	29.5	7.26	1.66	28.9	11.44	2.63	40.5
Winter	14.4	25.5	12.5	11.2	16.5	5.3	23.8	41.1	38.8	5.43	0.84	13.0	3.45	0.58	10.5	8.66	2.29	22.5
Equinox	32.6	44.8	24.4	31.3	37.9	14.6	48.2	74.5	86.1	9.27	1.90	32.0	7.82	1.79	31.2	15.38	3.54	45.0
Summer	49.1	57.3	27.9	45.8	53.9	21.8	71.7	63.3	51.8	11.54	2.73	50.1	10.89	2.69	46.4	12.84	4.12	76.2

## NON-CYCLIC CHANGE

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1966

	All days			Quiet days			Disturbed days		
	H	D	Z	H	D	Z	H	D	Z
Jan.	0.2	-0.01	0.0	2.2	0.22	-0.7	-3.0	-0.27	+0.9
Feb.	0.2	+0.01	0.0	1.8	+0.34	+0.9	-3.4	-0.22	+6.0
Mar.	-0.1	-0.02	+0.3	5.1	+0.15	-4.1	+2.9	+3.52	+12.3
Apr.	0.0	-0.20	-0.1	2.6	+0.14	-0.9	-10.2	-0.58	+2.5
May	+0.5	-0.26	-1.0	1.7	+0.31	-0.9	-10.5	-3.26	-12.6
June	-0.2	+0.16	+0.8	4.5	+0.28	-0.8	-5.2	+1.42	+8.4
July	+0.5	-0.01	0.0	5.0	-0.27	-1.7	-9.9	+0.79	+2.0
Aug.	-0.7	-0.04	+0.6	2.7	+0.22	-0.5	-1.7	+1.13	+8.9
Sept.	-0.2	+0.02	-0.4	2.4	+0.32	+3.2	-6.7	+0.48	-5.1
Oct.	-0.2	-0.03	0.0	3.2	-0.22	-1.6	-4.6	+0.93	+0.8
Nov.	+0.2	+0.01	+0.4	4.0	-0.24	-1.4	-1.7	+0.17	-0.5
Dec.	-0.7	+0.01	+0.2	1.0	+0.19	-0.1	-10.4	+0.94	-5.6
Year	0.0	-0.03	+0.1	3.0	+0.12	-0.7	-5.4	+0.42	+1.5
Winter	0.0	+0.01	+0.1	2.3	+0.13	-0.3	-4.6	+0.15	+0.2
Equinox	-0.1	-0.06	-0.1	3.3	+0.10	-0.9	-4.7	+1.09	+2.6
Summer	0.0	-0.04	+0.1	3.5	+0.13	-1.0	-6.8	+0.02	+1.7

AVERAGE RANGE OF DIURNAL INEQUALITY 1932-53  
WITH 1966 AS PERCENTAGE OF THIS

32 ESKDALEMUIR

1966

		All days			International quiet days			International disturbed days		
		H	D	Z	H	D	Z	H	D	Z
Year	1932-53	37.8	8.66	28.7	34.4	8.43	13.7	53.9	11.93	82.1
	1966(%)	78	93	74	84	86	99	75	96	69
Winter	1932-53	19.3	6.95	21.2	16.2	4.44	5.9	34.4	11.45	66.5
	1966(%)	67	78	59	65	78	90	65	76	58
Equinox	1932-53	43.1	10.18	37.1	39.7	9.69	14.8	75.4	15.11	108.9
	1966(%)	74	91	66	79	81	99	60	102	79
Summer	1932-53	59.7	11.84	33.9	50.4	11.76	21.9	83.7	13.11	82.4
	1966(%)	84	97	82	92	93	100	91	98	63

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.



## 34 ESKDALEMUIR

1966

## (a) Disturbances without sudden commencement

All times GMT

Serial Number	From		To		Range ( $\gamma$ )			Notes
	Date	Hour	Date	Hour	H	D	Z	
1a	13 Mar.	17	14 Mar.	19	196	279	214	
2a	23 Mar.	08	23 Mar.	24	270	327	274	
3a	28 Mar.	09	29 Mar.	05	234	127	138	
4a	3 Sept.	09	4 Sept.	23	1027	517	910	
5a	4 Oct.	20	5 Oct.	21	193	172	151	
6a	14 Dec.	13	15 Dec.	03	246	251	318	

## (b) Disturbances with sudden commencement (ssc)

All times GMT

Serial Number	Date	Time of sudden commencement	End of disturbance		With initial reversed stroke			Magnitude of main stroke ( $\gamma$ )			Range of following disturbance ( $\gamma$ )		
			Date	Hour	H	D	Z	H	D	Z	H	D	Z
1b	1 Apr.	12 37	2 Apr.	07	Yes	Yes	Yes	$\gamma$ +44	$\gamma$ -27	$\gamma$ -5	106	196	118
2b	25 May	23 28	27 May	03	No	No	No	+36	-9	-5	346	217	267
3b	31 May	03 42	1 June	07	No	Yes	No	+12	-21	-2	204	173	152
4b	15 July	15 00	-	-	Yes	Yes	Yes	+21	-9	-4		small	
5b	29 Aug.	13 15	30 Aug.	06	Yes	Yes	Yes	+87	-41	-6	186	178	45
6b	30 Aug.	11 12	31 Aug.	03	Yes	Yes	No	+95	†	-8	272	286	222
7b	23 Sept.	08 56	23 Sept.	24	Yes	Yes	Yes	+49	+41	-6	103	99	103
8b	15 Oct.	09 55	16 Oct.	23	Yes	Yes	Yes	+32	+19	-4	111	115	40
9b	17 Nov.	17 21	-	-	Yes	Yes	No	+27	-6	-2		small	

In the case of an ssc\*, that is, an ssc preceded, on at least one component, by one or more small oscillations, timing of the sudden commencement has been made from the main stroke.

† Three consecutive sudden movements -6, +17, -27.

## (c) Disturbances due to solar flare (sfe)

All times GMT

Serial Number	Date	Commence-ment	Max.	End	Movement ( $\gamma$ )			K	K'	Notes
					H	D	Z			
1c	20 Mar.	09 55	09 59	10 11	-25	+20	0	2	2	
2c	30 Mar.	12 48	12 53	13 20	-24	-12	-5	3	2	Solar flare ended 1345
3c	28 Aug.	15 26	15 31	15 47	-7	-24	0	2	2	SEA. Complete SWF.
4c	18 Sept.	14 54	15 00	15 15	-4	-5	+1	1	1	SEA. Severe SWF.
5c	21 Sept.	09 33	09 35	09 47	-13	+6	+2	2	2	SEA. Severe SWF.

SEA = Sudden enhancement of atmospherics

SWF = Short wave fade out.



POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

35 ESKDALEMUIR		Factor 2.22													JANUARY 1966												
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	
		volts per metre																									
1		170									160	170	235														
2				50 <sup>+</sup>																		155	190	145	130		
3 0a		85	80	115	150	95	140	215	190	135	120	150	175	145	160	210	300	270	305	565	400	325	260	145	105	202	(24)
4 0a		90	80	55	50	50	55	75	65	85	65	120	110	150	185	200			205	260						112	(17)
5							65 <sup>+</sup>	295 <sup>+</sup>	360 <sup>+</sup>																		
6																											
7												280 <sup>+</sup>	300 <sup>+</sup>	295	275	300	200	205	345 <sup>+</sup>		230	165	260	260	210	210	
8 0a		210 <sup>+</sup>	180	170	200	170	145	155	145	190	195	175	155	200	185	200	205	180	155	170	180	190	195	170	110	176	(24)
9 0a		110	120	130	115	115	125	125	150	175	190	195	230	280	315 <sup>+</sup>	310 <sup>+</sup>	325	320	305	270	240	265	155	145	135	202	(24)
10		145	165	160	160 <sup>+</sup>	150 <sup>+</sup>	125 <sup>+</sup>	105 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	130 <sup>+</sup>	120 <sup>+</sup>	180 <sup>+</sup>	190 <sup>+</sup>			175 <sup>+</sup>					135 <sup>+</sup>	150 <sup>+</sup>	95 <sup>+</sup>	75 <sup>+</sup>		
11		45 <sup>+</sup>	85 <sup>+</sup>	60 <sup>+</sup>	65 <sup>+</sup>	65 <sup>+</sup>	35 <sup>+</sup>													125	85						
12							50 <sup>+</sup>										130			145	100	75	60	55			
13 0a			45	75	90	105	90	90	110	100	80		90					65	80	220	195	210	175		145	116	(17)
14 0a																			135	140	105	110	170	325	280	181	(7)
15		190	125	105	110	75	215	280	235				145	220	200 <sup>+</sup>												
16																					100 <sup>+</sup>	115	110	105 <sup>+</sup>	115 <sup>+</sup>		
17					185	165	260	155	125	120	100	115	110	125	125	155	155	120	155	145	170	130	120	125	100		
18 0a		100	100	85	85	80	65	65	70	75	80	105	160	205	240	240	205	155	185	150	130	150	155	135	160	133	(24)
19 0a		180	185	155	145	140	165	170	165	150	160	205	170	135	160	195	240	275	270	290	300	270	320	425	305	216	(24)
20		280	325	250	210	170	165	145	170 <sup>+</sup>	145 <sup>+</sup>	140 <sup>+</sup>							90 <sup>+</sup>	125 <sup>+</sup>	160 <sup>+</sup>	170 <sup>+</sup>	125 <sup>+</sup>	130	125 <sup>+</sup>	100 <sup>+</sup>		
21		100 <sup>+</sup>	100 <sup>+</sup>	90 <sup>+</sup>	105 <sup>+</sup>	40 <sup>+</sup>	20 <sup>+</sup>	35 <sup>+</sup>									155	195									
22																											
23									5 <sup>+</sup>	40 <sup>+</sup>	60 <sup>+</sup>	135 <sup>+</sup>		100 <sup>+</sup>	155	100	80	80	95	110 <sup>+</sup>	75 <sup>+</sup>	110 <sup>+</sup>	70 <sup>+</sup>	85 <sup>+</sup>			
24																											
25								225 <sup>+</sup>	135 <sup>+</sup>	70 <sup>+</sup>			330 <sup>+</sup>							160	140	155	245				
26													195 <sup>+</sup>	235 <sup>+</sup>													
27														320	285	5 <sup>+</sup>											
28														310	165 <sup>+</sup>												
29		155	195	190	195	145	200	245														65 <sup>+</sup>	120	120	185		
30							80 <sup>+</sup>						105 <sup>+</sup>	110 <sup>+</sup>	135 <sup>+</sup>			160	170	220	190	190	260		75 <sup>+</sup>		
31			215 <sup>+</sup>			215 <sup>+</sup>	190 <sup>+</sup>								295 <sup>+</sup>	155 <sup>+</sup>	95 <sup>+</sup>										
Mean		143 (13)	143 (14)	121 (14)	133 (14)	199 (15)	122 (18)	159 (15)	155 (13)	112 (12)	122 (12)	157 (12)	179 (16)	199 (14)	206 (14)	185 (12)	206 (13)	187 (13)	179 (13)	208 (15)	182 (16)	169 (18)	171 (18)	161 (15)	149 (15)	161	
Fair Weather Mean		151 (10)	145 (11)	135 (11)	140 (11)	119 (11)	148 (11)	156 (11)	138 (9)	129 (8)	128 (9)	154 (8)	158 (10)	217 (11)	197 (9)	195 (9)	203 (10)	181 (11)	183 (12)	220 (13)	198 (13)	186 (14)	179 (15)	182 (11)	170 (11)	167	
Mean of 0a days																									[167 (8)]		

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

35 ESKDALEMUIR		Factor 2.28														FEBRUARY 1966														
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean				
		volts per metre																												
1																														
2		0 <sup>+</sup>		30 <sup>+</sup>	50	65	50	65	50	60	95	50 <sup>+</sup>	25 <sup>+</sup>	70 <sup>+</sup>	50 <sup>+</sup>	40 <sup>+</sup>	30 <sup>+</sup>	35 <sup>+</sup>	35 <sup>+</sup>	50 <sup>+</sup>	80	60	45	25 <sup>+</sup>	30 <sup>+</sup>					
3							185	55 <sup>+</sup>										205	245		195	235								
4																		85 <sup>+</sup>	75 <sup>+</sup>	90 <sup>+</sup>	110 <sup>+</sup>	125	150	235	220					
5																		170												
6							170 <sup>+</sup>			160	140 <sup>+</sup>	130 <sup>+</sup>									225 <sup>+</sup>									
7																														
8																														
9																														
10																		175	150 <sup>+</sup>	375 <sup>+</sup>	275	220	210	160	145					
11		105	90	85	80	90																								
12		45 <sup>+</sup>																												
13																														
14			135	145										185 <sup>+</sup>	270 <sup>+</sup>	350	335	235	250	325	565 <sup>+</sup>	650 <sup>+</sup>	490 <sup>+</sup>							
15	0a	275	155	95	160	165	185	215	205	210	190	205	260	380	350	305	375	370	255	210	190	95		115	135	222 (23)				
16		100	120	105								135	210	245	305	345	370	255	330	435	475	415	360	220	180					
17	0a	170	210	250	240	220	230		360 <sup>+</sup>	235			220	320	415	305	190	350	320	435	295	415	435	390	495	299 (22)				
18	0a	425	275	225	155	115	160	200	235	215	250		255	310 <sup>+</sup>	240				525 <sup>+</sup>	560 <sup>+</sup>	430 <sup>+</sup>	400 <sup>+</sup>	300	285	295 (18)					
19																														
20																					290	325								
21														195 <sup>+</sup>					185	280					155					
22		170	165	235 <sup>+</sup>	155	240 <sup>+</sup>	170	125	175 <sup>+</sup>	150 <sup>+</sup>	245 <sup>+</sup>		195 <sup>+</sup>	100 <sup>+</sup>	120 <sup>+</sup>	40 <sup>+</sup>	270	255	280 <sup>+</sup>											
23				175	185	175	180 <sup>+</sup>	130	135 <sup>+</sup>	115 <sup>+</sup>			120 <sup>+</sup>		85 <sup>+</sup>								130	225	215 <sup>+</sup>					
24				95	100	135	175 <sup>+</sup>	190 <sup>+</sup>																						
25						145																								
26		100 <sup>+</sup>	45 <sup>+</sup>	75 <sup>+</sup>			45 <sup>+</sup>	45 <sup>+</sup>																						
27			85 <sup>+</sup>				70 <sup>+</sup>	60 <sup>+</sup>						70 <sup>+</sup>	105 <sup>+</sup>															
28									100 <sup>+</sup>	110 <sup>+</sup>	135 <sup>+</sup>	155 <sup>+</sup>	180 <sup>+</sup>	150 <sup>+</sup>			100 <sup>+</sup>			170 <sup>+</sup>	155 <sup>+</sup>		175 <sup>+</sup>	135	150					
Mean		154 (9)	142 (9)	138 (11)	167 (9)	175 (10)	160 (12)	123 (10)	170 (9)	156 (9)	176 (6)	149 (6)	178 (7)	203 (10)	216 (9)	226 (8)	232 (9)	207 (12)	240 (12)	261 (11)	275 (14)	285 (12)	240 (12)	189 (10)	181 (10)	193				
Fair Weather Mean		207 (6)	164 (7)	147 (8)	167 (9)	139 (8)	163 (6)	147 (5)	163 (3)	176 (5)	178 (3)	186 (3)	242 (3)	315 (3)	327 (4)	326 (4)	308 (5)	252 (8)	259 (7)	271 (6)	263 (9)	238 (9)	233 (9)	221 (8)	212 (8)	221				
																							Mean of 0a days				[272 (3)]			

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

85

35 ESKDALEMUIR													Factor 2-31													MARCH 1966									
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean									
		volts per metre																																	
1	135	100	105	105	105	85	85	100	105	120	195	170		135 <sup>+</sup>	180 <sup>+</sup>	155 <sup>+</sup>	200 <sup>+</sup>					210	230												
2												155 <sup>+</sup>																							
3												115 <sup>+</sup>																							
4										110 <sup>+</sup>	105 <sup>+</sup>	115 <sup>+</sup>	95 <sup>+</sup>	90 <sup>+</sup>	180 <sup>+</sup>	115 <sup>+</sup>	190 <sup>+</sup>	165 <sup>+</sup>	215 <sup>+</sup>	200 <sup>+</sup>															
5	125	105	165			125					235	195		150	115	135	155			260	190	185	180	155	140										
6	210 <sup>+</sup>	180	140	130	155	215						55 <sup>+</sup>																							
7		20 <sup>+</sup>	50 <sup>+</sup>	35 <sup>+</sup>	50 <sup>+</sup>																														
8		165	165	145	40 <sup>+</sup>	70 <sup>+</sup>	70 <sup>+</sup>	110 <sup>+</sup>	65 <sup>+</sup>	140 <sup>+</sup>	140 <sup>+</sup>	115 <sup>+</sup>	120 <sup>+</sup>	120 <sup>+</sup>	110 <sup>+</sup>	140 <sup>+</sup>				165	170	140	180	130	110										
9			55 <sup>+</sup>								35 <sup>+</sup>																								
10												95 <sup>+</sup>								135			95 <sup>+</sup>												
11														165 <sup>+</sup>																					
12 Oa	90				100	120	100	85	110	145	130	115		135	140	130	105	115	115	110	100	165	180	185	170	124	(21)								
13 Oa	105	80 <sup>+</sup>	80	60	60 <sup>+</sup>	80													130	215	210		185	185	170	135	162	(13)							
14																																			
15	185	150	135	145	110	110	135	145	155	135	155	145 <sup>+</sup>		165 <sup>+</sup>	170 <sup>+</sup>	110 <sup>+</sup>	135 <sup>+</sup>	155 <sup>+</sup>	215 <sup>+</sup>	265	275	290	245	190	250										
16												90 <sup>+</sup>																							
17																																			
18 Oa	185	185	180	200 <sup>+</sup>	165	120				205		75 <sup>+</sup>																							
19	310	265	255	230	180	220	230	280	210	130	175	175	160	130	135	115	130	160	125	165	185	160	165	130	180	184	(24)								
20	135	105	90	65 <sup>+</sup>	120	170	165	125	200	385	420 <sup>+</sup>	355	260	340	350	300	250 <sup>+</sup>	340 <sup>+</sup>	55 <sup>+</sup>	105	275	320	300	255											
21	250 <sup>+</sup>				215	315	300	265	230	220	225	145	140 <sup>+</sup>	125 <sup>+</sup>	125 <sup>+</sup>	125 <sup>+</sup>	120 <sup>+</sup>	150 <sup>+</sup>	170 <sup>+</sup>	145	55 <sup>+</sup>	45 <sup>+</sup>	90 <sup>+</sup>												
22				115	105	120				125	130						110	125	120 <sup>+</sup>	105	105	125	125												
23			65 <sup>+</sup>																																
24			70 <sup>+</sup>																																
25	125	95	90	85	90	95	95	110	125	155	175	230	210	170	155	165	230	140	120		155	190	150	145	140										
26	145	155	150	140	130	110	135	130	130	170	165	130 <sup>+</sup>	125 <sup>+</sup>	135 <sup>+</sup>								280	255	200	200										
27																																			
28				45 <sup>+</sup>																															
29 Oa	125	110	115	125	125	135	155	150	125	165	115 <sup>+</sup>	145 <sup>+</sup>	165 <sup>+</sup>	140	135	115 <sup>+</sup>		50 <sup>+</sup>	115 <sup>+</sup>	130					75	95									
30	230	160	140	125	125	115	80	90	105	95 <sup>+</sup>	90 <sup>+</sup>	105 <sup>+</sup>	105 <sup>+</sup>	85 <sup>+</sup>	110 <sup>+</sup>	110 <sup>+</sup>	75 <sup>+</sup>	80 <sup>+</sup>				260	165	295	295										
31	65		95 <sup>+</sup>	95	95	100	105	115	90 <sup>+</sup>					75 <sup>+</sup>	95 <sup>+</sup>	100 <sup>+</sup>	105 <sup>+</sup>								110	95 <sup>+</sup>	111	(23)							
Mean	161 (15)	134 (14)	119 (18)	111 (17)	118 (17)	136 (17)	141 (12)	138 (12)	144 (15)	150 (15)	164 (15)	146 (18)	147 (15)	154 (16)	143 (16)	146 (14)	156 (13)	153 (14)	154 (15)	166 (17)	187 (19)	183 (19)	166 (18)	181 (14)	150										
Fair Weather Mean	151 (13)	148 (12)	139 (13)	125 (12)	130 (14)	140 (16)	144 (11)	145 (11)	152 (12)	175 (10)	182 (8)	198 (7)	183 (5)	170 (7)	171 (7)	168 (5)	149 (7)	138 (8)	175 (10)	172 (15)	201 (17)	196 (17)	175 (16)	181 (14)	163										
Mean of Oa days																								[145	(4)]										

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

35 ESKDALEMUIR													Factor 2-29													APRIL 1966						
	Hour GMT																															
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean							
													volts per metre																			
1					40 <sup>+</sup>	60	75	90	85	165	160	160	180	145	135	170	170	140	110	155	145	100	125	105								
2 Oa					85	75	80	110	125	110 <sup>+</sup>	105 <sup>+</sup>	100 <sup>+</sup>	95 <sup>+</sup>	105	100 <sup>+</sup>	105 <sup>+</sup>	110	110	100	115	115	120	95	65	101	(20)						
3 Oa	55	55	60	55	50	55	45	75	85	90 <sup>+</sup>	75	90	90	95 <sup>+</sup>	90	85	80	90	75	50	65	40 <sup>+</sup>	60	60 <sup>+</sup>	70	(24)						
4 Oa	90 <sup>+</sup>	65	65	60 <sup>+</sup>	70 <sup>+</sup>	100	60	55 <sup>+</sup>	80	80	80	75	65	100	115	110	90	95	85	85	65	60	70	70	79	(24)						
5	65	55	40 <sup>+</sup>	40 <sup>+</sup>	45	45											95	35														
6																	25 <sup>+</sup>	25 <sup>+</sup>														
7																																
8																																
9																																
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23																																
24																																
25																																
26																																
27																																
28 Oa	170 <sup>+</sup>	135 <sup>+</sup>	120 <sup>+</sup>	150 <sup>+</sup>	185 <sup>+</sup>	185 <sup>+</sup>	215 <sup>+</sup>	160 <sup>+</sup>	135 <sup>+</sup>	100 <sup>+</sup>	140 <sup>+</sup>	125 <sup>+</sup>	145 <sup>+</sup>	150	170	150 <sup>+</sup>	150 <sup>+</sup>	135	130	105	115	150	105	105 <sup>+</sup>	148	(24)						
29																																
30	95																															
Mean	96 (8)	89 (7)	77 (8)	85 (7)	87 (9)	99 (8)	106 (10)	101 (11)	108 (12)	127 (13)	111 (12)	123 (12)	126 (14)	136 (14)	129 (12)	110 (15)	106 (16)	125 (12)	114 (12)	108 (14)	103 (12)	108 (14)	105 (14)	88 (11)	107							
Fair Weather Mean	85 (6)	77 (5)	72 (5)	90 (3)	66 (4)	84 (6)	65 (4)	102 (5)	113 (6)	150 (3)	135 (4)	146 (5)	143 (5)	151 (6)	151 (7)	116 (9)	113 (10)	131 (10)	103 (8)	105 (11)	101 (10)	102 (10)	110 (13)	96 (8)	109							
																							Mean of 0a days			[99 (4)]						

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

35 ESKDALEMUIR		Factor 2.44																						MAY 1966			
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean	
volts per metre																											
1 0a	25	40	30	40	55	35	60	90	135	145	185	225	220	180	150	130	110	95	80	95	45	35	60	55	97	(24)	
2	75	55	70	70	55	85	90	75	85	115	90	75	85	90	95	55 <sup>+</sup>	35 <sup>+</sup>	45 <sup>+</sup>	30 <sup>+</sup>	25 <sup>+</sup>	35 <sup>+</sup>	30	40	25			
3	25 <sup>+</sup>	25 <sup>+</sup>	30 <sup>+</sup>	25 <sup>+</sup>	45 <sup>+</sup>	35 <sup>+</sup>			60 <sup>+</sup>	35 <sup>+</sup>	30 <sup>+</sup>	45 <sup>+</sup>	35 <sup>+</sup>	45 <sup>+</sup>	70 <sup>+</sup>	65	90	100	65 <sup>+</sup>	55 <sup>+</sup>	45 <sup>+</sup>						
4		75	35 <sup>+</sup>	45 <sup>+</sup>	75	115	125	120 <sup>+</sup>	115									125 <sup>+</sup>			150 <sup>+</sup>	145 <sup>+</sup>	145	140	115		
5	80					100 <sup>+</sup>	95	100																			
6	145	30 <sup>+</sup>			80	105	145	105	135	150	115	150	130	100	110	105	140	125	135	140	205	160	130				
7	110	120	150	135	125	145	160	150	190 <sup>+</sup>	150 <sup>+</sup>	125 <sup>+</sup>	110 <sup>+</sup>	95 <sup>+</sup>	90 <sup>+</sup>	120 <sup>+</sup>	110	115	120	135	190	80	105	95				
8																											
9 0a	80	85	85	95	120	115 <sup>+</sup>	145 <sup>+</sup>	115	90 <sup>+</sup>	65 <sup>+</sup>	135 <sup>+</sup>	155 <sup>+</sup>	140 <sup>+</sup>	145	150	135 <sup>+</sup>	130	115	100	85	75	75	75	70	107	(24)	
10 0a	65	70	55	60					85 <sup>+</sup>	135 <sup>+</sup>	125	120 <sup>+</sup>	160	210	205	170	155	205	195	185	175	110	85	110	134	(24)	
11	175					100	80	230 <sup>+</sup>	265 <sup>+</sup>	165 <sup>+</sup>			155 <sup>+</sup>	170 <sup>+</sup>	170 <sup>+</sup>	170	140	150	150	130	210 <sup>+</sup>	295 <sup>+</sup>					
12	35 <sup>+</sup>												170	145	135	130	115				140	125	105	135			
13													125	105 <sup>+</sup>	90 <sup>+</sup>												
14			145 <sup>+</sup>	170 <sup>+</sup>					130 <sup>+</sup>	105 <sup>+</sup>			130 <sup>+</sup>	150 <sup>+</sup>	150 <sup>+</sup>	170 <sup>+</sup>	170	155	150	125	80	85	80	160			
15	140								220 <sup>+</sup>	210	160 <sup>+</sup>	135 <sup>+</sup>	125	130 <sup>+</sup>	150 <sup>+</sup>	150 <sup>+</sup>	170 <sup>+</sup>	170	155	150	125	80	85	80	75		
16	65	70	85	75	75	90	100	55	60	35 <sup>+</sup>	95	110	125 <sup>+</sup>	130 <sup>+</sup>	125	130	135	150	125	65 <sup>+</sup>	45 <sup>+</sup>	50 <sup>+</sup>	60 <sup>+</sup>	65			
17	80	90	85	105	55	35 <sup>+</sup>										95 <sup>+</sup>	150	170	165	135	100	130	80	75			
18	75	65				90	130 <sup>+</sup>	160 <sup>+</sup>	170 <sup>+</sup>	175 <sup>+</sup>	285 <sup>+</sup>	95 <sup>+</sup>				120 <sup>+</sup>	105 <sup>+</sup>	130	125	130	115	95	250	250			
19	175	180	105	100			165 <sup>+</sup>																140 <sup>+</sup>	105 <sup>+</sup>			
20	135 <sup>+</sup>								130 <sup>+</sup>	90 <sup>+</sup>		120	130	125	135 <sup>+</sup>	125 <sup>+</sup>				105 <sup>+</sup>	130 <sup>+</sup>	140					
21	105																										
22																											
23																											
24	150	135	145	110	100		160	155	155	170 <sup>+</sup>	190 <sup>+</sup>	220 <sup>+</sup>	230 <sup>+</sup>	220 <sup>+</sup>	190 <sup>+</sup>	180 <sup>+</sup>	185 <sup>+</sup>	215 <sup>+</sup>	230	220	205	195	195	180 <sup>+</sup>			
25				255		330 <sup>+</sup>	220																				
26																											
27	140	105	140	145	60	75 <sup>+</sup>	125 <sup>+</sup>	30 <sup>+</sup>	40 <sup>+</sup>	90 <sup>+</sup>	110 <sup>+</sup>	165 <sup>+</sup>	120 <sup>+</sup>	135	155 <sup>+</sup>	140 <sup>+</sup>	105 <sup>+</sup>	80 <sup>+</sup>	190 <sup>+</sup>	155	145	135	160	140			
28 0a	155	145	115	95	105 <sup>+</sup>	115 <sup>+</sup>	135	140	135	145	155	145	105 <sup>+</sup>	105 <sup>+</sup>	100 <sup>+</sup>	170	210	220	215	215	250	255	220	180			
29	85	70	35 <sup>+</sup>	45 <sup>+</sup>	50 <sup>+</sup>	115	130	100	165	155	145	140	155	160	155	145	120	95	75	75 <sup>+</sup>	35 <sup>+</sup>	60	60	60			
30	50	40 <sup>+</sup>	45	55	50	75	110	125	120	135	145	135	115 <sup>+</sup>	95 <sup>+</sup>	80 <sup>+</sup>	80	85	70 <sup>+</sup>	50 <sup>+</sup>	40 <sup>+</sup>	45 <sup>+</sup>	40	50	55			
31 0a	45	40	45	70	85	110	145	135	175	175	180	160	140	120	100	115	135	90	110	140	250	220	215	190			
Mean	96	80	82	94	76	104	134	121	129	134	142	134	135	133	130	128	128	133	127	124	125	132	117	110	119		
	(23)	(18)	(17)	(18)	(15)	(18)	(19)	(19)	(22)	(18)	(19)	(21)	(20)	(21)	(21)	(20)	(21)	(20)	(20)	(20)	(22)	(22)	(20)	(22)	(23)		
Fair Weather Mean	101	90	89	101	78	97	125	112	135	161	143	141	145	143	137	127	132	136	140	145	147	116	120	109	124		
	(20)	(15)	(13)	(14)	(12)	(11)	(14)	(12)	(11)	(9)	(11)	(11)	(10)	(10)	(10)	(14)	(17)	(15)	(15)	(15)	(15)	(16)	(18)	(19)			
Mean of 0a days																									[119	(5)]	

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

35 ESKDALEMUIR		Factor 2.42																							JUNE 1966	
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
		volts per metre																								
1 0a	155	115	115	115	145	215	250	245	250	190	165	125	115	95 <sup>+</sup>	65 <sup>+</sup>	125 <sup>+</sup>	130 <sup>+</sup>	120	105 <sup>+</sup>	55 <sup>+</sup>	100 <sup>+</sup>	105	150	165	142	(24)
2	165	155 <sup>+</sup>	105 <sup>+</sup>	100 <sup>+</sup>	130	100	115	105	90 <sup>+</sup>			20 <sup>+</sup>	10 <sup>+</sup>	70 <sup>+</sup>	95 <sup>+</sup>	115 <sup>+</sup>	80 <sup>+</sup>	75 <sup>+</sup>	65 <sup>+</sup>	65 <sup>+</sup>	65 <sup>+</sup>	95	140	100		
3	20 <sup>+</sup>	70 <sup>+</sup>	75 <sup>+</sup>	160	155	165	195	175	225	200	85 <sup>+</sup>	125 <sup>+</sup>	115 <sup>+</sup>	170	155	165	175	155	130	85	85	55 <sup>+</sup>				
4	75 <sup>+</sup>	65																								
5					330 <sup>+</sup>	220 <sup>+</sup>	175 <sup>+</sup>	115 <sup>+</sup>	85 <sup>+</sup>											85	55 <sup>+</sup>	100 <sup>+</sup>	95	130		
6	155	115	70	60 <sup>+</sup>	90 <sup>+</sup>	120	120	145	120	125	150 <sup>+</sup>	135	100 <sup>+</sup>	170 <sup>+</sup>	155											
7 0a																										
8	90	120						240 <sup>+</sup>	230 <sup>+</sup>	225 <sup>+</sup>	235 <sup>+</sup>	95 <sup>+</sup>	115 <sup>+</sup>	155 <sup>+</sup>	165 <sup>+</sup>	160	155	135	105	105 <sup>+</sup>	95 <sup>+</sup>	120	115	100	150	(17)
9	10 <sup>+</sup>	5 <sup>+</sup>	10 <sup>+</sup>	20 <sup>+</sup>	25 <sup>+</sup>			95	95 <sup>+</sup>	65 <sup>+</sup>	60 <sup>+</sup>	45 <sup>+</sup>	100 <sup>+</sup>	60 <sup>+</sup>	40 <sup>+</sup>	25 <sup>+</sup>	25 <sup>+</sup>	30 <sup>+</sup>	50 <sup>+</sup>	30 <sup>+</sup>	25 <sup>+</sup>	20 <sup>+</sup>	15 <sup>+</sup>	15 <sup>+</sup>		
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30																										
Mean	116 (17)	99 (15)	79 (14)	110 (18)	141 (17)	153 (15)	179 (13)	154 (17)	182 (19)	160 (14)	146 (19)	119 (19)	113 (19)	123 (20)	113 (20)	115 (16)	117 (17)	114 (15)	122 (18)	98 (20)	102 (21)	109 (20)	114 (17)	110 (15)	125	
Fair Weather Mean	148 (11)	101 (9)	80 (5)	139 (8)	139 (8)	132 (9)	140 (8)	137 (9)	178 (6)	161 (5)	175 (3)	157 (3)	113 (3)	117 (5)	126 (6)	131 (8)	145 (6)	117 (8)	121 (6)	128 (9)	159 (9)	139 (13)	135 (11)	139 (10)	136	



[illegible]

The potential gradient is reckoned as positive when the potential increases upwards. The small + denotes a non-fair weather hour (see Introduction). No entry is made for hours with hydrometeors and dashes are inserted for hours of defective record. The number of hours or days used in computing each mean is shown in round brackets. The mean for 0a days (see Introduction) and the figure in round brackets, which is the number of days used in computing this mean, are entered in square brackets.

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

The potential gradient is reckoned as positive when the potential increases upwards. The small + denotes a non-fair weather hour (see Introduction). No entry is made for hours with hydrometeors and dashes are inserted for hours of defective record. The number of hours or days used in computing each mean is shown in round brackets. The mean for 0a days (see Introduction) and the figure in round brackets, which is the number of days used in computing this mean, are entered in square brackets.

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

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35 ESKDALEMUIR												Factor 2.42												NOVEMBER 1966									
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean								
volts per metre																																	
1	310	280	170	100	90	170	165	170	150				150 <sup>+</sup>			130	175	210	255	245	185	210	195	160									
2						95	105	140	165	115	120	140 <sup>+</sup>	50	35 <sup>+</sup>	40 <sup>+</sup>	95	55 <sup>+</sup>			120	140	90	35 <sup>+</sup>	65									
3	150	90	75	65	70	50	45	50	50	105	65	75	180	205	220	220	355 <sup>+</sup>	590 <sup>+</sup>	515 <sup>+</sup>	370 <sup>+</sup>	395 <sup>+</sup>	280 <sup>+</sup>	285	250									
4	70 <sup>+</sup>	25 <sup>+</sup>	45 <sup>+</sup>								225	215	155 <sup>+</sup>					210	175	215													
5	255	270	240	85	80	140	145	170	165	190	185	190 <sup>+</sup>																					
6		115	60	100	115								60 <sup>+</sup>	35 <sup>+</sup>							120	90 <sup>+</sup>	90 <sup>+</sup>	115									
7				245	240	255	230	225 <sup>+</sup>	240 <sup>+</sup>	210 <sup>+</sup>	155 <sup>+</sup>	125 <sup>+</sup>	330					225	350	240	290		225										
8							235	265	265 <sup>+</sup>	285 <sup>+</sup>	320		40 <sup>+</sup>	75 <sup>+</sup>			205		330	375	370	290	215	185									
9		215	150	175	135	140	235 <sup>+</sup>	240 <sup>+</sup>	155	210	80 <sup>+</sup>	95 <sup>+</sup>	145	140	225	190	160	230 <sup>+</sup>	445 <sup>+</sup>	445 <sup>+</sup>	275 <sup>+</sup>	110	55 <sup>+</sup>	40 <sup>+</sup>									
10	225	180	225	215	170	140	160	150	175	105	145	145 <sup>+</sup>	145																				
11	5 <sup>+</sup>	-10 <sup>+</sup>	25 <sup>+</sup>	45 <sup>+</sup>	35 <sup>+</sup>	35 <sup>+</sup>	85 <sup>+</sup>	40 <sup>+</sup>	55 <sup>+</sup>																								
12																					-30 <sup>+</sup>	-25 <sup>+</sup>	245	225									
13			-10 <sup>+</sup>	-15 <sup>+</sup>							195	165 <sup>+</sup>									120	185	155	150									
14								365 <sup>+</sup>									300	305	285	210	265	190											
15													265 <sup>+</sup>											85 <sup>+</sup>									
16			85 <sup>+</sup>	105 <sup>+</sup>	125 <sup>+</sup>	135 <sup>+</sup>	150 <sup>+</sup>	160 <sup>+</sup>	150 <sup>+</sup>	175 <sup>+</sup>	210 <sup>+</sup>	225 <sup>+</sup>	270 <sup>+</sup>	285 <sup>+</sup>	230 <sup>+</sup>	305 <sup>+</sup>	300	345 <sup>+</sup>	310 <sup>+</sup>	370 <sup>+</sup>	280 <sup>+</sup>	205 <sup>+</sup>	175 <sup>+</sup>	175 <sup>+</sup>									
17	205 <sup>+</sup>	140 <sup>+</sup>	150 <sup>+</sup>	115 <sup>+</sup>	95 <sup>+</sup>	120 <sup>+</sup>	95 <sup>+</sup>		90 <sup>+</sup>	125 <sup>+</sup>	110 <sup>+</sup>	165 <sup>+</sup>	135 <sup>+</sup>	80 <sup>+</sup>	185 <sup>+</sup>	125 <sup>+</sup>	125 <sup>+</sup>				200	135											
18	150	160	135	125	110 <sup>+</sup>									155	210	260	155	175	145	215	275	305 <sup>+</sup>	170	175									
19	100			120	70	70 <sup>+</sup>	75	95	105 <sup>+</sup>					90	125		185			175	195	225	220	115									
20 Oa	105	100	110	120	65	55	45	45	45	65	80	105	100	100	125	160	210 <sup>+</sup>	265 <sup>+</sup>	205	240	275	200	145	190	131 (24)								
21 Oa	210	150	145	165	195	220 <sup>+</sup>		160	160	135	150	155	135	200	160	160	165	220	255	245	240	190	195	215	184 (23)								
22	200	190	170	145	145						70	45 <sup>+</sup>	65	65 <sup>+</sup>	80 <sup>+</sup>		60	85	95	75	75 <sup>+</sup>	55 <sup>+</sup>	75	60									
23	60	60		55	55	50	50	55	50	65	100	100	95	75	100	100	85	120	130	100	95												
24			125	95	135	230 <sup>+</sup>	220 <sup>+</sup>	175	175	260 <sup>+</sup>	250 <sup>+</sup>	215	250	245 <sup>+</sup>	350 <sup>+</sup>	370 <sup>+</sup>	435 <sup>+</sup>	410 <sup>+</sup>	425 <sup>+</sup>	300 <sup>+</sup>	295 <sup>+</sup>	135 <sup>+</sup>	260 <sup>+</sup>	290									
25										295 <sup>+</sup>				185	140	85 <sup>+</sup>	220	245	205 <sup>+</sup>	215 <sup>+</sup>	130 <sup>+</sup>	150 <sup>+</sup>	130	110									
26	100	85 <sup>+</sup>							100				105 <sup>+</sup>	125 <sup>+</sup>	110 <sup>+</sup>	135 <sup>+</sup>																	
27	145														145	190	205	280 <sup>+</sup>															
28	75						150	135	160	155	145	190			210	220	210			210 <sup>+</sup>	250 <sup>+</sup>	230 <sup>+</sup>	180 <sup>+</sup>	185 <sup>+</sup>									
29	145 <sup>+</sup>	135 <sup>+</sup>	135	140	125	110	130	195	160				145 <sup>+</sup>	160 <sup>+</sup>	165 <sup>+</sup>	165 <sup>+</sup>	170 <sup>+</sup>	175 <sup>+</sup>	195 <sup>+</sup>	195 <sup>+</sup>	200 <sup>+</sup>	155 <sup>+</sup>	145 <sup>+</sup>	145 <sup>+</sup>	165 (20)								
30 Oa					175 <sup>+</sup>	160 <sup>+</sup>	150 <sup>+</sup>	180 <sup>+</sup>	140 <sup>+</sup>	160 <sup>+</sup>	150 <sup>+</sup>	175 <sup>+</sup>																					
Mean	148	134	117	117	118	129	138	152	139	167	152	157	149	133	167	182	199	256	270	240	212	169	167	154	165								
	(17)	(17)	(18)	(19)	(19)	(17)	(18)	(18)	(20)	(16)	(18)	(19)	(18)	(17)	(17)	(16)	(19)	(16)	(16)	(19)	(21)	(21)	(20)	(19)									
Fair Weather Mean	160	165	138	130	120	166	128	128	141	127	135	166	150	144	166	173	177	199	223	205	214	189	184	165	162								
	(13)	(11)	(13)	(15)	(14)	(10)	(12)	(12)	(14)	(9)	(11)	(9)	(9)	(8)	(10)	(10)	(12)	(9)	(10)	(12)	(12)	(10)	(13)	(14)									
Mean of Oa days																								[160	(3)]								

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

35 ESKDALEMUIR												Factor 2.42												DECEMBER					1966	
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean					
volts per metre																														
1	150	115																												
2	300	345 <sup>+</sup>																												
3	120 <sup>+</sup>	160	125	105 <sup>+</sup>	135	170 <sup>+</sup>	155 <sup>+</sup>	130	140	150	225	235	280	290 <sup>+</sup>	285 <sup>+</sup>	290 <sup>+</sup>	305 <sup>+</sup>	300 <sup>+</sup>	310 <sup>+</sup>	250 <sup>+</sup>	255 <sup>+</sup>	310 <sup>+</sup>	300 <sup>+</sup>	590 <sup>+</sup>						
4	385 <sup>+</sup>	290	515	365	190	145	120	115	105	85				220 <sup>+</sup>	350 <sup>+</sup>	555 <sup>+</sup>	540 <sup>+</sup>	400 <sup>+</sup>	280	400 <sup>+</sup>	445 <sup>+</sup>									
5			200 <sup>+</sup>	235 <sup>+</sup>	230 <sup>+</sup>																	495 <sup>+</sup>								
6						130 <sup>+</sup>					150 <sup>+</sup>				140 <sup>+</sup>	145 <sup>+</sup>	145 <sup>+</sup>	230 <sup>+</sup>	185 <sup>+</sup>		345 <sup>+</sup>	245	265	270	260					
7			230	195	170 <sup>+</sup>	190 <sup>+</sup>	110																							
8						40 <sup>+</sup>	135 <sup>+</sup>												230			260 <sup>+</sup>	175 <sup>+</sup>	150						
9				90 <sup>+</sup>																		45	45							
10			45			30 <sup>+</sup>					40	30	50	50	40	40	40	55 <sup>+</sup>	55 <sup>+</sup>	35 <sup>+</sup>	45 <sup>+</sup>	40 <sup>+</sup>	35 <sup>+</sup>	30 <sup>+</sup>						
11	30	25	25	20	25	20 <sup>+</sup>	20 <sup>+</sup>	30 <sup>+</sup>	20 <sup>+</sup>	20 <sup>+</sup>	25 <sup>+</sup>	25 <sup>+</sup>	25 <sup>+</sup>	35																
12																														
13						20	25	25	30	30	40	35	295	280 <sup>+</sup>	120	165	215 <sup>+</sup>	385 <sup>+</sup>	330 <sup>+</sup>	260	250	240	225	200						
14 Oa	185	140	160	160	120	125	115	105	130	130	210	285														172	(24)			
15																														
16						155	135	195	200	235	205	280	280 <sup>+</sup>	345 <sup>+</sup>	420 <sup>+</sup>	430 <sup>+</sup>	320 <sup>+</sup>		275 <sup>+</sup>	340			200	185						
17	165	150	155	100 <sup>+</sup>	75 <sup>+</sup>	55 <sup>+</sup>	45 <sup>+</sup>																							
18						75	80	80	75	85			110 <sup>+</sup>		140	145		160	175	130	135			165						
19		75 <sup>+</sup>	75 <sup>+</sup>	65	135	130 <sup>+</sup>	115 <sup>+</sup>																							
20					235 <sup>+</sup>	240 <sup>+</sup>	275	185	250	165			230	200	210	190	195	185 <sup>+</sup>	240	285	335	310	395 <sup>+</sup>	280						
21	235	285	340 <sup>+</sup>										185 <sup>+</sup>	165 <sup>+</sup>	130 <sup>+</sup>	100 <sup>+</sup>														
22	120 <sup>+</sup>				80 <sup>+</sup>	65 <sup>+</sup>	75 <sup>+</sup>	100	95	90	140	145	210	195																
23																														
24	150	170	130	130	95	105	120	95	95	115	160	185	180	165				175 <sup>+</sup>	130 <sup>+</sup>	165 <sup>+</sup>	195	195	200	190	160					
25 Oa	430 <sup>+</sup>	230	145	120	125	140	145	170	95	90	115	150	155	170	200	175	170	165	150	140	205	185	160	425 <sup>+</sup>		167	(23)			
26																														
27			25 <sup>+</sup>	20 <sup>+</sup>					100										45	40										
28																														
29					190	170 <sup>+</sup>	160	150																						
30	205	225	265	230	290			235 <sup>+</sup>	295 <sup>+</sup>	335 <sup>+</sup>	345 <sup>+</sup>	235	195	370 <sup>+</sup>	210	265	275 <sup>+</sup>	380 <sup>+</sup>	345 <sup>+</sup>	310	280	360 <sup>+</sup>	335	575 <sup>+</sup>	300					
31																														
Mean	206 (12)	184 (12)	174 (14)	141 (13)	144 (15)	111 (18)	114 (16)	125 (14)	127 (14)	127 (12)	150 (11)	173 (12)	197 (13)	189 (14)	205 (12)	208 (15)	239 (13)	213 (13)	205 (12)	239 (14)	243 (13)	249 (15)	272 (13)	243 (12)		187				
Fair Weather Mean	177 (8)	179 (10)	179 (10)	161 (8)	145 (9)	109 (7)	129 (10)	123 (12)	123 (12)	117 (10)	142 (8)	176 (9)	199 (8)	146 (7)	162 (7)	140 (6)	126 (6)	156 (5)	190 (7)	231 (8)	203 (8)	211 (9)	206 (6)	207 (9)		164				
																						Mean of 0a days					[169 (2)]			

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Monthly, seasonal and annual means for hours without hydrometeors and for fair weather hours

36 ESKDALEMUIR

1966

	Hour GMT																								Mean	
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24		
	volts per metre																									
	No hydrometeors																									
Jan.	143	143	121	133	119	122	159	155	112	122	157	179	199	206	185	206	187	179	208	182	169	171	161	149	161	
Feb.	154	142	138	167	175	160	123	170	156	176	149	178	203	216	226	232	207	240	261	275	285	240	189	181	193	
Mar.	161	134	119	111	118	136	141	138	144	150	164	146	147	154	143	146	156	153	154	166	187	183	166	181	150	
Apr.	96	89	77	85	87	99	106	101	108	127	111	123	126	136	129	110	106	125	114	108	103	108	105	88	107	
May	96	80	82	94	76	104	134	121	129	134	142	134	135	133	130	128	128	133	127	124	125	132	117	110	119	
June	116	99	79	110	141	153	179	154	182	160	146	119	113	123	113	115	117	114	122	98	102	109	114	110	125	
July	103	99	98	95	92	112	112	125	125	141	142	143	138	138	136	141	128	138	143	132	130	119	119	107	123	
Aug.	73	65	70	61	72	83	110	118	137	127	130	109	104	112	108	104	113	112	103	90	87	89	83	77	97	
Sept.	144	149	137	120	108	95	111	134	129	127	117	124	152	156	159	159	148	148	153	150	146	146	150	169	139	
Oct.	171	153	155	167	184	185	153	130	150	154	139	139	145	153	165	173	202	197	245	243	252	231	205	193	179	
Nov.	148	134	117	117	118	129	138	152	139	167	152	157	149	133	167	182	199	256	270	240	212	169	167	154	165	
Dec.	206	184	174	141	144	111	114	125	127	127	150	173	197	189	205	208	239	213	205	239	243	249	272	243	187	
Year	134	123	114	117	119	124	132	135	137	143	142	144	151	154	155	159	161	167	175	171	170	162	154	147	145	
Winter	163	151	137	139	139	131	133	151	133	148	152	172	187	186	196	207	208	222	236	234	227	207	197	182	177	
Equinox	143	131	122	121	124	129	128	126	133	139	133	133	143	150	149	147	153	156	167	167	172	167	157	158	144	
Summer	97	86	82	90	95	113	134	129	143	141	140	126	123	127	122	122	121	124	124	111	111	112	108	101	116	
	Fair weather																									
Jan.	151	145	135	140	119	148	156	138	129	128	154	158	217	197	195	203	181	183	220	198	186	179	182	170	167	
Feb.	207	164	147	167	139	163	147	163	176	178	186	242	315	327	326	308	252	259	271	263	238	233	221	212	221	
Mar.	151	148	139	125	130	140	144	145	152	175	182	198	183	170	171	168	149	138	175	172	201	196	175	181	163	
Apr.	85	77	72	90	66	84	65	102	113	150	135	146	143	151	151	116	113	131	103	105	101	102	110	96	109	
May	101	90	89	101	78	97	125	112	135	161	143	141	145	143	137	127	132	136	140	145	147	116	120	109	124	
June	148	101	80	139	139	132	140	137	178	161	175	157	113	117	126	131	145	117	121	128	159	139	135	139	136	
July	115	119	99	106	104	109	122	129	134	156	171	187	186	156	184	159	150	133	151	157	130	145	123	124	139	
Aug.	83	71	88	115	127	141	144	143	144	110	145	111	120	118	122	127	124	119	128	109	113	114	104	82	117	
Sept.	177	158	137	128	122	132	153	148	131	137	111	128	170	177	159	167	170	181	194	192	208	199	173	195	160	
Oct.	189	171	166	168	156	166	155	126	148	139	121	142	162	162	175	178	202	199	225	244	251	239	225	207	180	
Nov.	160	165	138	130	120	166	128	128	141	127	135	166	150	144	166	173	177	199	223	205	214	189	184	165	162	
Dec.	177	179	179	161	145	109	129	123	123	117	142	176	199	146	162	140	126	156	190	231	203	211	206	207	164	
Year	145	132	122	131	120	132	134	133	142	145	150	163	175	167	173	166	160	163	178	179	179	172	163	157	153	
Winter	174	163	150	149	131	147	140	138	142	137	154	185	220	203	212	206	184	199	226	224	210	203	198	189	179	
Equinox	151	139	129	128	119	131	129	130	136	150	137	153	165	165	164	157	159	162	174	178	190	184	171	170	153	
Summer	112	95	89	115	112	120	133	130	148	147	159	149	141	133	142	136	138	126	135	135	137	129	121	113	129	
Annual mean for 0a days																									[157]	

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

KEW

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

37 KEW OBSERVATORY													Factor 4.55													JANUARY 1966				
	Hour GMT																													
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean					
	volts per metre																													
1					45 <sup>+</sup>					350 <sup>+</sup>	420 <sup>+</sup>	445 <sup>+</sup>	410 <sup>+</sup>	365 <sup>+</sup>	335 <sup>+</sup>	325 <sup>+</sup>	385 <sup>+</sup>	385 <sup>+</sup>												
2	265 <sup>+</sup>	245 <sup>+</sup>	210 <sup>+</sup>					140 <sup>+</sup>			315 <sup>+</sup>	295 <sup>+</sup>	245 <sup>+</sup>	195 <sup>+</sup>	245 <sup>+</sup>	290 <sup>+</sup>	315 <sup>+</sup>	410 <sup>+</sup>	315 <sup>+</sup>	490 <sup>+</sup>	340 <sup>+</sup>	210 <sup>+</sup>	245 <sup>+</sup>	245 <sup>+</sup>						
3 S	220	185	95	130	85	35	185	385	655	665	710	690	490	445	435	490	700	575	545	560	645	685	685	645						
4 S	385 <sup>+</sup>	385 <sup>+</sup>	335 <sup>+</sup>							855 <sup>+</sup>	1035 <sup>+</sup>	1035 <sup>+</sup>	760	665	595	525	630	630	640	545	455	430	360	360	526 (24)					
5 S	265 <sup>+</sup>	200 <sup>+</sup>	95 <sup>+</sup>	55 <sup>+</sup>	80 <sup>+</sup>	35 <sup>+</sup>	70 <sup>+</sup>	85 <sup>+</sup>						335 <sup>+</sup>	490 <sup>+</sup>	490	525	595	685	700	745	690	630	545						
6 S	455	385	290	360	335	385	445	585	875	780	770	675	655	745	785	910	945	865	855	900	900	760	615	575	613 (24)					
7	515 <sup>+</sup>				315 <sup>+</sup>	430 <sup>+</sup>				675 <sup>+</sup>	710 <sup>+</sup>	630 <sup>+</sup>	595	575	675	735	575	745	760 <sup>+</sup>	770 <sup>+</sup>										
8 S			500 <sup>+</sup>	420 <sup>+</sup>	360 <sup>+</sup>	340 <sup>+</sup>	235 <sup>+</sup>	270 <sup>+</sup>	315 <sup>+</sup>	430	665	685	465	620	725	760	840	980	945	865	830	865	805	805						
9 S	690	595	585	455	455	265	60	200	305	575	535	335	490	340	280	315	255	335	445	690	755	700	615	640	630 (24)					
10 S	630	545	490	475	545	490	515	710	840	910	865	855	895	805	760	840 <sup>+</sup>	770 <sup>+</sup>	545 <sup>+</sup>	505 <sup>+</sup>	385 <sup>+</sup>	375 <sup>+</sup>	365 <sup>+</sup>	365 <sup>+</sup>	325 <sup>+</sup>	680 (24)					
11	290 <sup>+</sup>	200 <sup>+</sup>	105 <sup>+</sup>	0 <sup>+</sup>	15 <sup>+</sup>	130 <sup>+</sup>	195 <sup>+</sup>	385 <sup>+</sup>	505 <sup>+</sup>	575 <sup>+</sup>	645 <sup>+</sup>	620 <sup>+</sup>	490 <sup>+</sup>	420 <sup>+</sup>	420 <sup>+</sup>	455 <sup>+</sup>	465 <sup>+</sup>	430 <sup>+</sup>	445 <sup>+</sup>	410 <sup>+</sup>	325 <sup>+</sup>	295	280	210						
12	195	175	140	-20 <sup>+</sup>	-110 <sup>+</sup>						365 <sup>+</sup>	545 <sup>+</sup>	560 <sup>+</sup>	505 <sup>+</sup>	505 <sup>+</sup>	500 <sup>+</sup>	475 <sup>+</sup>	500	445	375	340	295	265							
13 S	255	210	200	195	185	185	265	490	785 <sup>+</sup>				805	760	675	675	645	500	505	645	735	690	515	365	521 (24)					
14 S	365	265	255	280	295	335	385	595	875	855 <sup>+</sup>	805 <sup>+</sup>	615 <sup>+</sup>	575 <sup>+</sup>		595 <sup>+</sup>	475 <sup>+</sup>	595 <sup>+</sup>	655	420	350	340	295	255	483 (24)						
15	95	255	60	0	195	225	375	315	395	445	435	405	455	455	515	405	360	280												
16	10	35	0	-35	55	60		125 <sup>+</sup>									95 <sup>+</sup>													
17		210 <sup>+</sup>	375 <sup>+</sup>	295 <sup>+</sup>													225 <sup>+</sup>	210 <sup>+</sup>	225 <sup>+</sup>	645	645	490	245	575						
18 S	665	545	500	475	315	155	335	420	630	785	645	575	525	525	685	665	700	645	630	755	700	545	435	455						
19 S	435	410	475	490	745	595	755 <sup>+</sup>	795 <sup>+</sup>	785 <sup>+</sup>	895 <sup>+</sup>	965 <sup>+</sup>	1050 <sup>+</sup>	1105 <sup>+</sup>	885 <sup>+</sup>	925 <sup>+</sup>	785 <sup>+</sup>	755 <sup>+</sup>	830 <sup>+</sup>	855 <sup>+</sup>	645 <sup>+</sup>	630 <sup>+</sup>	640 <sup>+</sup>	630 <sup>+</sup>	455 <sup>+</sup>	539 (24)					
20	365 <sup>+</sup>	315 <sup>+</sup>	335 <sup>+</sup>	220 <sup>+</sup>	200 <sup>+</sup>	140 <sup>+</sup>	-20 <sup>+</sup>	25 <sup>+</sup>																						
21	-130 <sup>+</sup>	-35 <sup>+</sup>		-10 <sup>+</sup>	-20 <sup>+</sup>	-35 <sup>+</sup>	-10 <sup>+</sup>	-95 <sup>+</sup>							280 <sup>+</sup>	210 <sup>+</sup>	175 <sup>+</sup>	410 <sup>+</sup>	435 <sup>+</sup>	365 <sup>+</sup>	490 <sup>+</sup>	595 <sup>+</sup>	560 <sup>+</sup>	630 <sup>+</sup>	615 <sup>+</sup>					
22	480 <sup>+</sup>	665 <sup>+</sup>	225 <sup>+</sup>	-110 <sup>+</sup>													165 <sup>+</sup>													
23	-185 <sup>+</sup>	-230 <sup>+</sup>	-150 <sup>+</sup>	-205 <sup>+</sup>	-220 <sup>+</sup>						70 <sup>+</sup>	375 <sup>+</sup>																		
24															630 <sup>+</sup>	545	525	490	375 <sup>+</sup>	385 <sup>+</sup>	350 <sup>+</sup>			315 <sup>+</sup>						
25	270 <sup>+</sup>	245 <sup>+</sup>	245 <sup>+</sup>	185 <sup>+</sup>	140 <sup>+</sup>	140 <sup>+</sup>	175 <sup>+</sup>	210 <sup>+</sup>													85 <sup>+</sup>				85 <sup>+</sup>					
26	200 <sup>+</sup>	175 <sup>+</sup>	225 <sup>+</sup>			150 <sup>+</sup>	350 <sup>+</sup>			685 <sup>+</sup>	690 <sup>+</sup>	560 <sup>+</sup>	385 <sup>+</sup>	150 <sup>+</sup>	60 <sup>+</sup>				265 <sup>+</sup>	255 <sup>+</sup>		85 <sup>+</sup>	85 <sup>+</sup>	165 <sup>+</sup>						
27 S	105	105	80	45	45	80		55	115	225	280	315	235	315	375	505	700	675	725											
28 S			165 <sup>+</sup>					265 <sup>+</sup>	335 <sup>+</sup>	210 <sup>+</sup>	350	350	420	505	455	595	585	595	595	490	435	220	245	195	338 (24)					
29	290	305	295	255	175	185	225	210	315	185				295	315	360	375	350	365	335										
30	225	210	225	200	235	270	270	295	405	445	435	420	365	315	315	335	315	365	395	405										
31																		315 <sup>+</sup>	420 <sup>+</sup>	585 <sup>+</sup>	675 <sup>+</sup>	515	525	455						
Mean	314 (24)	266 (25)	241 (26)	183 (23)	195 (23)	205 (21)	257 (19)	308 (21)	542 (15)	586 (18)	585 (20)	582 (21)	546 (20)	484 (23)	494 (24)	523 (22)	501 (25)	527 (25)	541 (24)	544 (25)	584 (18)	491 (21)	440 (20)	392 (23)	430					
Fair Weather Mean	331 (14)	302 (14)	264 (14)	248 (13)	282 (13)	265 (12)	285 (11)	387 (11)	541 (10)	545 (10)	569 (10)	531 (10)	550 (13)	526 (14)	538 (15)	544 (15)	563 (15)	583 (14)	603 (14)	608 (15)	631 (12)	540 (14)	467 (14)	435 (15)	464					
Mean for selected quiet days																				[541 (8)]										

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

37 KEW OBSERVATORY												Factor 4.50												FEBRUARY 1966										
	Hour GMT																																	
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean									
	volts per metre																																	
1 S	475	395	335	265	150			440 <sup>+</sup>	520 <sup>+</sup>	600 <sup>+</sup>	680 <sup>+</sup>	565	430	360	335	405	370	380	380	300	280	300	310	210	380	(24)								
2	195	140	140	160	220	230	265	150	220	315	360	325	105	385	370	350	395	440	450	485	370	405	380	245										
3	310 <sup>+</sup>	315 <sup>+</sup>	245 <sup>+</sup>	345 <sup>+</sup>	315 <sup>+</sup>	230 <sup>+</sup>				415	475	370	360	335	335	325																		
4	160 <sup>+</sup>		90 <sup>+</sup>																80 <sup>+</sup>	290 <sup>+</sup>	385	460	545	450										
5	335 <sup>+</sup>	195 <sup>+</sup>	80 <sup>+</sup>	70 <sup>+</sup>		105 <sup>+</sup>		125 <sup>+</sup>						-110 <sup>+</sup>	-20 <sup>+</sup>								95 <sup>+</sup>											
6 S											500	370	380	475	495	450	475	415	265	395	580	565	570	405	424	(24)								
7 S	350	360	265	245	245	315	460	510	555	580	570	555			530 <sup>+</sup>			345 <sup>+</sup>	315 <sup>+</sup>	240 <sup>+</sup>														
8	115 <sup>+</sup>	105 <sup>+</sup>				105 <sup>+</sup>	70 <sup>+</sup>	175 <sup>+</sup>	310 <sup>+</sup>	335 <sup>+</sup>	360 <sup>+</sup>	405 <sup>+</sup>	310 <sup>+</sup>	290 <sup>+</sup>	315 <sup>+</sup>								60 <sup>+</sup>	185 <sup>+</sup>										
9			240 <sup>+</sup>	245 <sup>+</sup>	230 <sup>+</sup>	265 <sup>+</sup>	380 <sup>+</sup>					775 <sup>+</sup>	845 <sup>+</sup>				475 <sup>+</sup>																	
10	315 <sup>+</sup>	-155 <sup>+</sup>	-240 <sup>+</sup>																	-315 <sup>+</sup>	-20 <sup>+</sup>	20 <sup>+</sup>	-350 <sup>+</sup>	-405 <sup>+</sup>										
11	-295 <sup>+</sup>	-130 <sup>+</sup>	-200 <sup>+</sup>	-75 <sup>+</sup>	-55 <sup>+</sup>	-85 <sup>+</sup>	55 <sup>+</sup>	90 <sup>+</sup>	175 <sup>+</sup>	130 <sup>+</sup>	130 <sup>+</sup>				95 <sup>+</sup>	210 <sup>+</sup>	150 <sup>+</sup>	245 <sup>+</sup>	90 <sup>+</sup>		60 <sup>+</sup>	70 <sup>+</sup>	130	265	265									
12	210	105	125	70 <sup>+</sup>									565	565	450	440	350	350	350	345			-20 <sup>+</sup>	-55 <sup>+</sup>										
13	55 <sup>+</sup>	90 <sup>+</sup>	-75 <sup>+</sup>	-120 <sup>+</sup>	-10 <sup>+</sup>	-10 <sup>+</sup>	35 <sup>+</sup>	20 <sup>+</sup>	90 <sup>+</sup>				265	245	245	195	240	245	300	325	325	310	300	300										
14 S	265	245	130	175	185	300	370	475	635	720	730	660																						
15 S	370	350	275	210	240	150	175	300	275	210			240 <sup>+</sup>	555	460	495	530	670	605	315	150	245	280	315	420	(24)								
16 S	185 <sup>+</sup>	25 <sup>+</sup>	-145 <sup>+</sup>	-165 <sup>+</sup>	20 <sup>+</sup>	45 <sup>+</sup>	160 <sup>+</sup>	385 <sup>+</sup>	605 <sup>+</sup>	625 <sup>+</sup>	565 <sup>+</sup>	495 <sup>+</sup>	635 <sup>+</sup>	635 <sup>+</sup>	845 <sup>+</sup>	730 <sup>+</sup>	545	460	405	300	245	230	220	200	298	(24)								
17 S	185	140	140	140	80	165	335	520	465	605	615	565	580	615	635	705	695	660	670	605	565	485	475	350	388	(24)								
18 S	230	385	245	240	210	280	370 <sup>+</sup>	600 <sup>+</sup>	775 <sup>+</sup>	720 <sup>+</sup>	615 <sup>+</sup>														490	(24)								
19			130 <sup>+</sup>				35 <sup>+</sup>	230 <sup>+</sup>	220 <sup>+</sup>		350	335	315	370	350	420	530	580	670	485														
20													200	315	405	440	460	465	580															
21	185	280	280	230	255				440	545	315	420	370	275	210	150	230	230	420 <sup>+</sup>	485 <sup>+</sup>														
22				70 <sup>+</sup>		70 <sup>+</sup>							240 <sup>+</sup>						265 <sup>+</sup>	326 <sup>+</sup>	405 <sup>+</sup>	385	385	350										
23	275	245	200	185	185	185	245	350	465	465	335	280	265	290	275	265						195 <sup>+</sup>	510 <sup>+</sup>	385 <sup>+</sup>										
24	345	275	195	275	420	460	510	530							55 <sup>+</sup>	335 <sup>+</sup>	380 <sup>+</sup>	460 <sup>+</sup>	440	485	615	600	370 <sup>+</sup>	280 <sup>+</sup>										
25																		460 <sup>+</sup>	440 <sup>+</sup>	440 <sup>+</sup>	370 <sup>+</sup>	290 <sup>+</sup>	310 <sup>+</sup>											
26	220 <sup>+</sup>			125 <sup>+</sup>						230 <sup>+</sup>							290 <sup>+</sup>	275 <sup>+</sup>		200 <sup>+</sup>	265 <sup>+</sup>	240 <sup>+</sup>	275 <sup>+</sup>	275 <sup>+</sup>										
27	280	255	195	195	210	210	220	240		245 <sup>+</sup>					255 <sup>+</sup>	275 <sup>+</sup>	275 <sup>+</sup>	325 <sup>+</sup>	315	380	420	335	335	370										
28 S	380	290	255	230	255	290	310	380	475	535	460	450	415	385	420				370	345	275	370	290	360	360	(24)								
Mean	234 (22)	195 (20)	132 (22)	148 (21)	186 (17)	184 (18)	250 (16)	325 (17)	389 (14)	458 (16)	478 (15)	479 (15)	384 (17)	358 (17)	359 (20)	383 (16)	413 (17)	406 (17)	405 (19)	325 (21)	330 (17)	327 (18)	284 (21)	251 (19)	320									
Fair Weather Mean	288 (13)	267 (13)	214 (13)	213 (12)	221 (12)	259 (10)	321 (9)	384 (9)	441 (8)	488 (9)	471 (10)	445 (11)	354 (12)	398 (13)	383 (13)	387 (12)	446 (12)	450 (12)	439 (14)	392 (13)	377 (12)	367 (14)	362 (13)	315 (13)	362									
	Mean for selected quiet days																			394	(7)													

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

93

37 KEW OBSERVATORY													Factor 4.60													MARCH 1966												
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean												
		volts per metre																																				
1		380	345	310	330	320	365	400	630	645	655	600	380	300	280	290	255	200 <sup>+</sup>						280 <sup>+</sup>	145 <sup>+</sup>	90 <sup>+</sup>	217	(24)										
2 S		35 <sup>+</sup>	45 <sup>+</sup>	75 <sup>+</sup>	110 <sup>+</sup>	110 <sup>+</sup>	110 <sup>+</sup>	90 <sup>+</sup>	180 <sup>+</sup>	225 <sup>+</sup>	290	300	290	290	235	235	255	320	330	320			365	320	275	225			175									
3		155 <sup>+</sup>	80 <sup>+</sup>				80 <sup>+</sup>	190	375	490	510	290	380	365	380	420					510 <sup>+</sup>	800 <sup>+</sup>	765 <sup>+</sup>	600 <sup>+</sup>	565 <sup>+</sup>													
4		375 <sup>+</sup>	475 <sup>+</sup>	410 <sup>+</sup>	390 <sup>+</sup>	410 <sup>+</sup>	265 <sup>+</sup>					620 <sup>+</sup>	455 <sup>+</sup>	455	435	400	400	435	400	355	345	235	175	155	190	320	(24)											
5 S		175	175	235	135	155	155	220	375	500	580	600	545	430	345	275	255	275	330	430	400	375	290	200	235													
6 S		275	280	220	220	220	255	280	310	330	320	290	245	320	330	335	335	275	280	300	375	375	380	335	335													
7 S		300	290	265	255	210	220	280	320	365	390	290	280	255	265	275	280	290	335	365	355	380	375	245	180	304	(24)											
8 S		200	210	200	175	180	265	265	345	365	330	365	455	490	435	345	330	290	330	290						281	(24)											
9 S		175	255	275	300	320	180	235	335	420	475	430	365	355	300	300	280	290	320	400	475	355	155	225	255	311	(24)											
10		235 <sup>+</sup>	235 <sup>+</sup>	200 <sup>+</sup>	190 <sup>+</sup>							55 <sup>+</sup>	175 <sup>+</sup>	275 <sup>+</sup>	180 <sup>+</sup>			210 <sup>+</sup>		175 <sup>+</sup>	165 <sup>+</sup>			225 <sup>+</sup>	265 <sup>+</sup>													
11		310 <sup>+</sup>	200 <sup>+</sup>		190 <sup>+</sup>	235 <sup>+</sup>	245 <sup>+</sup>	310	410	430	355	335	320					280 <sup>+</sup>	345 <sup>+</sup>	300	310	265	280	235	180	218	(24)											
12 S		120	120	120	120	145	180	165 <sup>+</sup>	245 <sup>+</sup>			210 <sup>+</sup>	190 <sup>+</sup>	210	245	225	200	165	175	235	245	225	275	290	245													
13 S		220	180	245	190	135	90	125	245	275	265	310		225	225	220	220	210	200	310	455	345	290	220	310													
14		375 <sup>+</sup>	155 <sup>+</sup>	200 <sup>+</sup>	135 <sup>+</sup>	175 <sup>+</sup>	135 <sup>+</sup>	180 <sup>+</sup>	400	480	530	575	535	455	420	420	455	565	435	500	420	245	280	365	235	289	(24)											
15		120	100	110	180	190	255	290	380	465	510	420	380	490	435	400	410	380	420	455	375	280	175	400	335													
16 S		200 <sup>+</sup>	175 <sup>+</sup>	100 <sup>+</sup>				275 <sup>+</sup>	310 <sup>+</sup>	310	365	345		420	490	365	330	345	345	455	520	490	290	255	235													
17 S		200	165	210	190	235	235	220	280	355	365	330	345	355	310	310	320	335	365	330	365	335	255	180		324	(24)											
18		265	100	165	235	175	235	330	455	400	345	290	310	290	335	320	310	345	365	420	335	220	255	110	45													
19		35	125	155	180	200	55	35	120	100	220	235	435	500	410	375	330	320	330	330	335	280	380	300	300													
20		255 <sup>+</sup>	245 <sup>+</sup>	210 <sup>+</sup>	145 <sup>+</sup>	125 <sup>+</sup>						520 <sup>+</sup>	510 <sup>+</sup>	435	420	355	330	330	245	300	290	255	245	135	110													
21		65	75	180	220	190	200	280	280	290	345	400	365	300	320	290	365	345	355	380	365	235	210	275	275	324	(24)											
22 S		235	245	210	245	220	255	400	610	565	575	555	365	255	290	275	255	310	310	400	275	235	190	235														
23		225	220	200	220	220	200	300	365	335	330	290 <sup>+</sup>			225 <sup>+</sup>	235 <sup>+</sup>		335 <sup>+</sup>	235 <sup>+</sup>			310	290	335	280													
24		255	220	200	190	200	275	455	490	380	335 <sup>+</sup>	290 <sup>+</sup>											280	165	165	200	272	(24)										
25		165	165	190	200	220	235	365	400	345	320	265	265					345 <sup>+</sup>	400 <sup>+</sup>	535 <sup>+</sup>	530 <sup>+</sup>	500 <sup>+</sup>	280	255	265													
26		330 <sup>+</sup>	330 <sup>+</sup>	355 <sup>+</sup>	310 <sup>+</sup>										220	255	210	180	180		175	210	200	165	90													
27		75 <sup>+</sup>	35 <sup>+</sup>	10 <sup>+</sup>								190 <sup>+</sup>	190 <sup>+</sup>	180 <sup>+</sup>	175 <sup>+</sup>	145 <sup>+</sup>	155 <sup>+</sup>								20 <sup>+</sup>													
28		90 <sup>+</sup>	55 <sup>+</sup>	75 <sup>+</sup>	100 <sup>+</sup>	145 <sup>+</sup>	220 <sup>+</sup>	330 <sup>+</sup>	400 <sup>+</sup>	365 <sup>+</sup>	355 <sup>+</sup>	355 <sup>+</sup>	380 <sup>+</sup>					335 <sup>+</sup>	310 <sup>+</sup>	380 <sup>+</sup>	420 <sup>+</sup>	600 <sup>+</sup>																
29 S		120	180	235	180	225	275	455	530	490	435	400	330	275	275	290	290	255	255	310	345	345	365	275	220	272	(24)											
30 S		190	180	180	180	190	200	420	380	335	280	290	280	220	245	235	235	235	235	245	180	255	-	-	145													
31 S		165	165	145	110	155	200	330	345	365	420	330	310	210	210	255	220	255	220	280	210	200	255	75		239	(24)											
Mean		204 (31)	188 (31)	196 (29)	201 (28)	204 (26)	209 (26)	277 (25)	360 (26)	384 (25)	386 (26)	358 (30)	348 (28)	334 (25)	312 (27)	303 (27)	293 (24)	302 (27)	311 (26)	346 (25)	359 (26)	333 (27)	284 (25)	256 (27)	216 (29)	290												
Fair Weather Mean		194 (20)	190 (20)	203 (20)	203 (20)	205 (20)	219 (20)	293 (21)	375 (22)	395 (22)	398 (23)	374 (22)	356 (22)	343 (23)	327 (24)	311 (24)	299 (23)	307 (21)	309 (22)	344 (22)	350 (22)	296 (24)	264 (23)	248 (24)	213 (25)	292												
																							Mean for selected quiet days				[277 (10)]											

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

37 KEW OBSERVATORY													Factor 4.56													APRIL 1966												
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean												
		volts per metre																																				
1 S	160	215	180	235	155	180	335	430	360	295	290	200	215	270	250	290	280	290	360	450	395	370				271	(24)											
2	180	160	170	160	145	145					145 <sup>+</sup>	160 <sup>+</sup>		145 <sup>+</sup>						-265 <sup>+</sup>	-245 <sup>+</sup>	-115 <sup>+</sup>	-105 <sup>+</sup>	0 <sup>+</sup>														
3 S	0 <sup>+</sup>	-95 <sup>+</sup>	-265 <sup>+</sup>	-85 <sup>+</sup>	-75 <sup>+</sup>	-150 <sup>+</sup>	0 <sup>+</sup>	45 <sup>+</sup>	55 <sup>+</sup>				90 <sup>+</sup>	70 <sup>+</sup>	100 <sup>+</sup>	135 <sup>+</sup>	110 <sup>+</sup>	110 <sup>+</sup>	70	110	180	180	160	225														
4 S	200	160	145	115	245	340	505	630	730	610	540	395	340	515	450	295	305	270	170	65	70	190	110	180	326	(24)												
5	70 <sup>+</sup>	90 <sup>+</sup>	65 <sup>+</sup>	65 <sup>+</sup>					225 <sup>+</sup>	205 <sup>+</sup>	380 <sup>+</sup>	560 <sup>+</sup>	505 <sup>+</sup>								-115 <sup>+</sup>	-10 <sup>+</sup>																
6						235 <sup>+</sup>	335 <sup>+</sup>						325 <sup>+</sup>	575 <sup>+</sup>	560 <sup>+</sup>	685 <sup>+</sup>		505 <sup>+</sup>	395 <sup>+</sup>	470 <sup>+</sup>	775 <sup>+</sup>	775 <sup>+</sup>																
7				360 <sup>+</sup>	190 <sup>+</sup>								270 <sup>+</sup>	250 <sup>+</sup>	250 <sup>+</sup>																							
8 S								325 <sup>+</sup>	360 <sup>+</sup>	395 <sup>+</sup>	360 <sup>+</sup>	280 <sup>+</sup>						110 <sup>+</sup>	250	325	305	370	340	235	274	(24)												
9 S	235	215	215														235	205	260	395	530	595	440	270	160	202	(24)											
10 S	125	110	90	80	90	100	115	110	110	125	135	180	160	145		125	235	245	335	360	160	70																
11	0 <sup>+</sup>	35 <sup>+</sup>	25 <sup>+</sup>	20 <sup>+</sup>	0		45 <sup>+</sup>	45 <sup>+</sup>	70 <sup>+</sup>	110 <sup>+</sup>	90 <sup>+</sup>						205 <sup>+</sup>	145 <sup>+</sup>					145 <sup>+</sup>	170 <sup>+</sup>														
12 S	10	80	90	205	190	260	395	470	610	505	520	585	585	560	540	520	425	405	325																			
13 S	145	80	70	70	55	100			335	325	360	395	325	415	440	450	385	360	415	430	385	370	430	460	349	(24)												
14	470	405	380	380	380															0 <sup>+</sup>	55 <sup>+</sup>	25 <sup>+</sup>	70 <sup>+</sup>															
15																																						
16								190	315	430	575	450	470							190	145	245	160	305														
17	190	70	180	180	170	155	145	145	135	110	35	170	225	110	180	155	270	200	125	135	160	540 <sup>+</sup>		20 <sup>+</sup>														
18					20 <sup>+</sup>																			250 <sup>+</sup>														
19	260 <sup>+</sup>							900 <sup>+</sup>	865 <sup>+</sup>																													
20			110 <sup>+</sup>		-20 <sup>+</sup>	80 <sup>+</sup>												125 <sup>+</sup>	155 <sup>+</sup>	200 <sup>+</sup>	325	315	515	630														
21	395	160	245	395	395	250	630	560	740	475	270		205	260	290	290	260	315	335	200	290	295	340	395														
22	340	290	235	190																																		
23							250 <sup>+</sup>	430 <sup>+</sup>	340 <sup>+</sup>	350 <sup>+</sup>	250 <sup>+</sup>	270 <sup>+</sup>	235 <sup>+</sup>	205 <sup>+</sup>	235 <sup>+</sup>	250 <sup>+</sup>	250 <sup>+</sup>			315	335	350	335	250														
24	215	170	145			170 <sup>+</sup>	145 <sup>+</sup>	180 <sup>+</sup>			205 <sup>+</sup>		225	250	250	270	245	205	205	385	425	415	450	515														
25 S	325	270	505	540	505	520	665	700	595	395	290	270	225	250	250	270	245	205	205	235	335	235	250	250														
26 S	225	245	250	235	260	295	425			245	290	235	190	215	235	260	245	215	180	290	340	270	200	160	307	(24)												
27 S	115	110	65	70	155	90										270	235	250	250	270	270	245	215	270														
28 S	280	325	335	325	305	385	430	550	530	350	295	270	245	250	235	235	215	200	180	135	160	225	380	360	311	(24)												
29 S	205	245	180	125	190	190	290	360	425	440	325	205	160	170	155	180	180	160	160	80	145	110	90	115	204	(24)												
30	205	385	385	380	215	235	340	335	665	415	155	215	250	160	180	205	290	360	450	385	205	260	250	25														
Mean	198 (22)	177 (21)	173 (22)	202 (20)	179 (20)	199 (18)	316 (16)	377 (17)	415 (18)	340 (17)	290 (19)	303 (16)	295 (19)	264 (18)	295 (16)	260 (16)	269 (18)	243 (19)	268 (18)	262 (22)	257 (24)	233 (21)	240 (19)	240 (21)	262													
Fair Weather Mean	223 (18)	205 (18)	215 (18)	230 (16)	216 (16)	232 (14)	389 (11)	407 (11)	463 (12)	363 (13)	314 (13)	297 (12)	277 (13)	277 (12)	291 (11)	270 (14)	270 (14)	267 (14)	263 (16)	272 (18)	275 (19)	275 (18)	281 (16)	283 (16)	286													
																									Mean for selected quiet days	[281 (8)]												

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

37 KEW OBSERVATORY													Factor 4-30													MAY 1966		
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean		
		volts per metre																										
1	0 <sup>+</sup>	110 <sup>+</sup>	120 <sup>+</sup>	205 <sup>+</sup>	190 <sup>+</sup>	165 <sup>+</sup>	155 <sup>+</sup>	45 <sup>+</sup>	225 <sup>+</sup>	270	240	130	155	155	155	165	155	145	145	175	205	225	240	240	207	(24)		
2 S	215 <sup>+</sup>	140 <sup>+</sup>	140 <sup>+</sup>	205 <sup>+</sup>	235 <sup>+</sup>	215 <sup>+</sup>	190 <sup>+</sup>	225 <sup>+</sup>	450 <sup>+</sup>	400	165	205	165	140	145	130	130	145	180	180	235	225	270	250				
3	200	205	155	105	105	110	165	165	140	110	105	120	120	140	175	180	165	175	155	155	190	200	235	250				
4	240	180	175	225	190	200	235	250	240	205									205 <sup>+</sup>	190	225	275	260	205			180	
5	155	140	140	165	140	190														190	225	260	355	390			295	
6	260	270	240	235	235	275	305 <sup>+</sup>	260 <sup>+</sup>	310 <sup>+</sup>				140 <sup>+</sup>								175 <sup>+</sup>							
7									110 <sup>+</sup>	205	190	175	140	155	130	140	140	175	200	205	310	260	235	215	261	(24)		
8	225	330	240	225 <sup>+</sup>													235 <sup>+</sup>	260 <sup>+</sup>	260 <sup>+</sup>		295 <sup>+</sup>	295	365	535				
9	450	435	510	485 <sup>+</sup>						590 <sup>+</sup>	535 <sup>+</sup>	475 <sup>+</sup>				285 <sup>+</sup>	215 <sup>+</sup>	145 <sup>+</sup>	70 <sup>+</sup>		190 <sup>+</sup>	175	190	270				
10 S	140	145	120	140	175	215	400	475	520	450	320	270	205	205	200	190	190	180	190	225	240	355	415	295				
11	240 <sup>+</sup>	205 <sup>+</sup>	240 <sup>+</sup>	205 <sup>+</sup>	205 <sup>+</sup>	275 <sup>+</sup>	310	240	175	70									335 <sup>+</sup>	380 <sup>+</sup>		380	345	370				
12		180	250	250	270	270	345	415	380	275 <sup>+</sup>	225 <sup>+</sup>	205 <sup>+</sup>	235 <sup>+</sup>	225 <sup>+</sup>	225 <sup>+</sup>	215 <sup>+</sup>	240 <sup>+</sup>			335 <sup>+</sup>	380 <sup>+</sup>		380	345	370			
13	235	310	310	330 <sup>+</sup>					640 <sup>+</sup>	475	310	225	200	190	190	205	205	200	215	305	380	345	330	275	205	(24)		
14	225 <sup>+</sup>	175 <sup>+</sup>	140 <sup>+</sup>	175 <sup>+</sup>	155 <sup>+</sup>	145 <sup>+</sup>	165 <sup>+</sup>	165 <sup>+</sup>	145	180	155	120	155	85	105	110	190	235	215	225	205	320	345					
15 S	310	275	225	215	240	285	270	225	270	295	240	190	145	155	155	145	165	175	165	95	110	140	240	190				
16 S	215	175	205	215	215	275	365	485	485	440	425	415	370	415	400	440	400	400	285	175	165	215	165	140				
17	130	105	145	50	105	95	260	335	250	260	240	225	200	225	240	240	295	215	190 <sup>+</sup>									
18 S								155 <sup>+</sup>	345 <sup>+</sup>	355 <sup>+</sup>	345 <sup>+</sup>	270 <sup>+</sup>	240	235	240	225	225	205	190	270	270	240	225	200				
19 S	190	205	345	390	370	440	460	405	310	260 <sup>+</sup>	240 <sup>+</sup>								145 <sup>+</sup>			335 <sup>+</sup>	380	400	370			
20 S	435	365	330	330	320	450	605	545	415	345	295	260	205	240	240	240	240	225	225	260	310	330	335	335	328			
21	330	320	120	200	215	140	205	240	250	205	140	240	175	240	240	240	205	260	275	380	370	495	450	345				
22	120 <sup>+</sup>	105 <sup>+</sup>	155 <sup>+</sup>	145 <sup>+</sup>	120 <sup>+</sup>	70 <sup>+</sup>	140 <sup>+</sup>	275 <sup>+</sup>	165 <sup>+</sup>	60 <sup>+</sup>				205 <sup>+</sup>	240 <sup>+</sup>	240 <sup>+</sup>	250 <sup>+</sup>	240 <sup>+</sup>	270 <sup>+</sup>	335 <sup>+</sup>	335 <sup>+</sup>	335	295	260				
23 S	225	200	205	205	225	305	365 <sup>+</sup>	335 <sup>+</sup>	275 <sup>+</sup>	275 <sup>+</sup>	270 <sup>+</sup>	275 <sup>+</sup>	225 <sup>+</sup>	225 <sup>+</sup>	240 <sup>+</sup>	235 <sup>+</sup>	235 <sup>+</sup>	235 <sup>+</sup>	240	320	305	355	425	400				
24	320	310	355	140	80	130	190	345	355	345 <sup>+</sup>												380 <sup>+</sup>						
25	215	200	190	180	110	120	155 <sup>+</sup>	175 <sup>+</sup>								180 <sup>+</sup>	180 <sup>+</sup>	205 <sup>+</sup>	215 <sup>+</sup>	95 <sup>+</sup>	235 <sup>+</sup>	270 <sup>+</sup>	260 <sup>+</sup>	225 <sup>+</sup>				
26	200	205	205	205	225	295	380	450	405	380	380	345	270	235	260	285	295	285	240	190	190	225	120	165				
27	200	215	310	205	175	260	415	425	405	345	415	435	355	320	345	320	335	365	320	355	250	355	510	530				
28 S	510	435	380	380	405	440	405	370	365	355	335	320	295	275	240	235	240	270	215	310	305	260	370	380				
29 S	370	345	295	345	285	330	390	450	435	310	270	260	235	235	225	215	190	180	190	205	275	400	415	335				
30 S	295	285	270	260	285	320	370	400	380	345	310	270	240	215	215	205	200	130	200	235	180	260	215	145				
31	225	260	205	165	200	310	335	425	450	460	465	405	365	320	310	330	275	285	250	200	145	165	120	130				
Mean	246	236	232	227	211	243	303	325	330	305	289	267	218	223	223	223	218	217	217	236	253	289	299	284	255			
	(28)	(29)	(29)	(29)	(26)	(26)	(25)	(25)	(27)	(27)	(23)	(22)	(22)	(23)	(23)	(23)	(22)	(25)	(25)	(27)	(25)	(26)	(28)	(27)	(27)			
Fair Weather Mean	264	254	247	219	218	260	339	369	346	303	279	258	221	224	221	223	219	221	212	234	247	286	301	286	260			
	(23)	(24)	(24)	(21)	(21)	(21)	(18)	(18)	(18)	(20)	(18)	(18)	(19)	(19)	(19)	(19)	(19)	(19)	(21)	(21)	(21)	(26)	(26)	(26)				
Mean for selected quiet days [276 (10)]																												

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

37	KEW OBSERVATORY												Factor 4-47												JUNE 1966				
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean			
		volts per metre																											
1	130	150	125	95	150	220	325	280	280	265	290	350	350	305	290	295	200	210	305	315	245	165	210	200					
2 S	185	165	165	130	130	245	255	350	360	395	430	360	295	315	290	265	200	210	200	165	140	165	130	105	235	(24)			
3 S	140	115	80	125	125	140	195	335	325	265	225	210	200	195	185	185	165	150	140	155	165	155	155	185	180	(24)			
4 S	85	95	125	140	140	165	235	305	315	295	210	165	155	175	175	165	150	155	235	255	255	255	220	265	197	(24)			
5 S	200	85	130	175	150	140	150	165	185	210	175	150	150 <sup>+</sup>	125 <sup>+</sup>	130 <sup>+</sup>				175 <sup>+</sup>		95 <sup>+</sup>	225	220	185	157	(24)			
6 S	210	220	200	200	185	195	255	335	315	305	255	225	225	245	220	200	265	220	220	280	335	420	360	265	256	(24)			
7 S	140	95	140	115	85	140	225	315	315	270 <sup>+</sup>		270 <sup>+</sup>	255 <sup>+</sup>	245 <sup>+</sup>	255 <sup>+</sup>	265 <sup>+</sup>	235 <sup>+</sup>				165 <sup>+</sup>	150	195	155	199	(24)			
8	130	95	125	125	140	165	295	435	465	420	375	280	220	235	220	195	155	155	350	220	140	295	385	350					
9	95	45	95	175	325	385	500	560	535	500	475	375	360 <sup>+</sup>	365 <sup>+</sup>	325 <sup>+</sup>	385 <sup>+</sup>	465 <sup>+</sup>	505 <sup>+</sup>	445 <sup>+</sup>	405 <sup>+</sup>	175 <sup>+</sup>			130 <sup>+</sup>					
10	210	270	290	325	375	430	525 <sup>+</sup>	690 <sup>+</sup>					500	505	445	315	385	315	385	350	360								
11			70 <sup>+</sup>	350 <sup>+</sup>	375 <sup>+</sup>	270 <sup>+</sup>	290 <sup>+</sup>	445 <sup>+</sup>	280 <sup>+</sup>	270	255	255	265	350	270	185	200				225	245	270	270	305				
12	225	255	265	220	245	155	85	60	85	105 <sup>+</sup>			155	150	155	155	155	140	125	225	265	245	195						
13	185	175	150	130	175	140	150	195	210		200	210	175	185	155	140	175	165	200	200	225	210	235	200					
14 S	175	175	165					270	245	280	225	210	245	235	245	210	175	155	125	150	220	115	130	200	197	(24)			
15	195	210	155	125	85 <sup>+</sup>					270 <sup>+</sup>	290 <sup>+</sup>	195 <sup>+</sup>	225	125	175	185	210	210	245	235	340	255	340	235					
16	130	200	150	200	210	165	315	360			505 <sup>+</sup>					385 <sup>+</sup>	420 <sup>+</sup>	360 <sup>+</sup>	235	185	195	270	290	360					
17	340 <sup>+</sup>	340 <sup>+</sup>	335 <sup>+</sup>	435 <sup>+</sup>	220 <sup>+</sup>	150 <sup>+</sup>	280 <sup>+</sup>			360 <sup>+</sup>	375 <sup>+</sup>	245 <sup>+</sup>	255 <sup>+</sup>			280 <sup>+</sup>	270 <sup>+</sup>	235 <sup>+</sup>	270 <sup>+</sup>	280 <sup>+</sup>	375 <sup>+</sup>	360 <sup>+</sup>	340 <sup>+</sup>	270 <sup>+</sup>					
18 S	200	220	210	245	280	305	340	335	235	235	220	195	140	150	140	165	150	155	165	165	220	220	245	255	216	(24)			
19	265	225	210	245	295	340	265	325	270	165 <sup>+</sup>			155	155	150	150	155	185	175	155	245	270 <sup>+</sup>							
20										325 <sup>+</sup>	430 <sup>+</sup>	430 <sup>+</sup>				280 <sup>+</sup>	255 <sup>+</sup>	220 <sup>+</sup>	245 <sup>+</sup>	175 <sup>+</sup>	270 <sup>+</sup>		245 <sup>+</sup>						
21	265	235	245	255	335	305		365 <sup>+</sup>	335 <sup>+</sup>								210 <sup>+</sup>	185 <sup>+</sup>	155	210	255	270	295	270					
22	280	195	265	340 <sup>+</sup>	385 <sup>+</sup>						175 <sup>+</sup>	130 <sup>+</sup>	195	200	200	220	200	220	235	265	350 <sup>+</sup>	245 <sup>+</sup>							
23							245 <sup>+</sup>				185 <sup>+</sup>						185 <sup>+</sup>	95 <sup>+</sup>	235	265	290	335	305	245					
24	270	255	225	235	245	225	340	335	335	315 <sup>+</sup>	270 <sup>+</sup>		185 <sup>+</sup>	200 <sup>+</sup>	185 <sup>+</sup>				165 <sup>+</sup>	185 <sup>+</sup>									
25	115	95	70	60	95	130	210	280	235	195	195	220	185 <sup>+</sup>	165 <sup>+</sup>									130 <sup>+</sup>	60 <sup>+</sup>					
26		95 <sup>+</sup>	115 <sup>+</sup>	105 <sup>+</sup>	125 <sup>+</sup>	150 <sup>+</sup>	165	175	225	210	175	155	150	155	165	150 <sup>+</sup>	115 <sup>+</sup>			200 <sup>+</sup>									
27 S			70 <sup>+</sup>	85 <sup>+</sup>	95 <sup>+</sup>			140 <sup>+</sup>	185 <sup>+</sup>	175 <sup>+</sup>				105 <sup>+</sup>	155 <sup>+</sup>	195 <sup>+</sup>	195 <sup>+</sup>		255	245	265	325	270	245					
28 S	235	225	185	220	265	280	340	405	350	340	270		270	235	185	130	130	165	165	200	225	185	175	70	260	(24)			
29	35	105	95	175	195	255	265	350	340	295	350	325	315	335	315	295	255	255	200	165	115	60	15	80					
30 S	105	115	130	165	175	220	350	445	435	350	290	290	270	245	210	245	225	220	245	175	185	155	150	115	230	(24)			
Mean	182 (25)	171 (26)	167 (27)	192 (27)	207 (27)	216 (25)	275 (24)	330 (25)	298 (23)	276 (26)	288 (23)	253 (21)	236 (25)	228 (25)	218 (24)	226 (25)	219 (27)	212 (23)	226 (27)	225 (26)	236 (27)	234 (23)	231 (23)	208 (25)	231				
Fair Weather Mean	175 (24)	167 (24)	166 (24)	176 (22)	206 (21)	226 (21)	263 (20)	315 (21)	303 (20)	302 (16)	271 (17)	248 (16)	237 (19)	237 (19)	221 (19)	206 (18)	197 (18)	193 (17)	219 (21)	218 (22)	240 (22)	225 (20)	230 (21)	214 (21)	227				
																									[213 (10)]				



POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

95

37 KEW OBSERVATORY		Factor 4.40																						JULY 1966		
	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
		volts per metre																								
1	180	155	85	85	145	230	325	380	430	-	-	-	-	120	135	55	95	80	105	120	120	80	65	55	95	
2	95	120	135	55+	65+	65+	135+	160+	200+	215	200	190	-	160	160	120	105	95	80	95	105	120	105	105	95	
3 S	55	80	80	55	40	80	160	215	160	145	120	120	-	105	105	95	80	65	55	40	55	95	65	65	95	93 (24)
4 S	40	40	55	65	105	145	215	255	255	290	250	230	-	230	260	265	275	-	215	155	155	225	200	265	265	195 (24)
5	240	240	170	155	180	200	-	-	-	260+	-	215+	-	-	-	-	-	-	-	-	-	-	-	-	95+	
6	130+	-10+	-20+	35+	85	205	360	465	395	430	415	380	-	335	260	250	265	-	-	275	310	290	265	205	205	
7 S	190	180	170	240	215	275	370	360	395	355	310	310	-	300	225	205	215	205	165	230	265	190	180	230	205	249 (24)
8 S	230	190	165	155	190	250	345	465	360	260	260	240	-	265	265	285	250	260	290	230	225	260	225	225	230	255 (24)
9	165+	145+	110+	85+	75+	95+	140+	190+	215+	240+	-	-	-	-	180+	-	-	85+	205+	-	-	155+	140+	15+	15+	
10	15+	15+	25+	35+	15+	50+	155+	140+	155+	180+	190+	180+	-	155+	145+	140+	-	-	-	-	-	-	-	-	-	
11	-	-	-	-	-	-	-	170+	290+	265+	370+	360+	-	345+	310+	310+	290+	260	205	165	155	215	275	240	155	
12 S	145	165	165	170	205	225	265	335	405	345	230	250	-	165	230	225	265	265	205	190	190	205	240	230	240	231 (24)
13 S	225	205	180	180	190	205	265	300	325	320	260	265	-	300	240	250	205	215	225	250	230	260	240	230	230	241 (24)
14	190	130	105	105	105	190	405	395	380	370	310	290	-	300	-	-	-	310	290	285	285	215	325	405	370	
15	310	290	260	230	200	205	320	420	445	355	310	240	-	190+	-	-	-	-	-	-	310+	-	-	190+	120+	
16 S	180+	190+	140+	155+	95+	-	-	205+	265+	240+	205+	-	-	130+	95+	120+	-	-	-	-	95+	165+	-	230	285	
17 S	275	205	95	75	35	60	170	310	380	325	225	155	-	290	170	155	170	130	130	165	165	-	380	415	380	183 (24)
18 S	310	265	240	290	360	385	430	490	475	395	395	380	-	290	310	320	290	285	-	230	230	240	200	205	180	308 (24)
19	145+	70+	25+	15+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20	-	-	-	-	-	-	-	-	-	-	-	-	35+	45+	70+	50+	140+	105+	-	-	-	-	-80+	-55+	0+	
21	0+	0+	-20+	35+	-	-	-	-	-	-	-	85+	165+	-	240	260	335	285	240	265	260	205	205	180	180	
22	170	155	130	110	140	155	275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
23	-	-	-	-	-	-	230	290	310	275	275	290	-	285	260	205	180	155	145	145	165	145	285	300	275	
24	265	250	205	200	155	140	60	75	140	140	190	-	-	-	130+	-	-	-	-	-	145	180	265	310	300	
25 S	230	200	170	180	165	290	480	500	405	360	290	285	-	260	265	260	275	265	260	240	225	205	260	300	260	276 (24)
26	240	230	215	190	205	265	380	415	-	-	-	-	-	230+	-	-	-	-	205+	-	-	240	200	240	260	
27 S	200	170	190	75	85	170	145+	165+	-	-	155+	265+	325+	325+	265+	225+	355+	-	240+	200+	215+	165+	170+	145+	140+	
28 S	110	105	95	140	130	170	240	395	360	335	345	265	-	205	215	170	205+	140+	-	140+	200+	230+	190+	-	-	205 (24)
29	-	-	-	190+	240+	215+	275+	335+	345+	335+	300+	285+	-	240+	-	-	-	-	-	-	170+	250	275	205	190	
30	190	180	155	145	155	180	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mean	174	153	128	128	143	185	266	307	324	292	265	246	-	226	206	198	222	189	192	188	196	201	206	206	195	210
	(26)	(26)	(26)	(27)	(25)	(24)	(24)	(24)	(22)	(22)	(23)	(22)	-	(22)	(22)	(20)	(18)	(17)	(17)	(19)	(21)	(22)	(23)	(24)	(25)	-
Fair Weather Mean	195	178	153	150	155	201	291	350	358	313	274	259	-	237	223	208	215	205	186	190	195	206	227	232	225	226
	(20)	(20)	(20)	(19)	(20)	(20)	(19)	(16)	(16)	(16)	(16)	(15)	-	(14)	(15)	(15)	(14)	(14)	(14)	(17)	(17)	(18)	(19)	(20)	(20)	-
Mean for selected quiet days																										[224 (10)]

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

37	KEW OBSERVATORIES												Factor 4.67												AUGUST 1966											
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean											
	0-1																																			
		volts per metre																																		
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
3	-	-	-	-	-	-	-	280 <sup>+</sup>	270 <sup>+</sup>	-	135 <sup>+</sup>	170 <sup>+</sup>	190 <sup>+</sup>	225 <sup>+</sup>	200 <sup>+</sup>	190 <sup>+</sup>	-	-	-	-	-	305 <sup>+</sup>	-	205 <sup>+</sup>												
4		145	110	125	125	170	315	460	475	350	245	-	180 <sup>+</sup>	225 <sup>+</sup>	200 <sup>+</sup>	190 <sup>+</sup>	-	155 <sup>+</sup>	180	170	245	250	260	205												
5	170	145	160	190	205	270	305	440	425	325	350	280	250	225	215	-	-	250	215	215	235	250	250	225												
6	200	200	190	180	225	260	315	370	325	290	260	-	-	-	-	-	-	-	-	-	-	-	-	-												
7 S							145 <sup>+</sup>	170 <sup>+</sup>	-	-	100 <sup>+</sup>	80 <sup>+</sup>	80 <sup>+</sup>	155 <sup>+</sup>	160 <sup>+</sup>	160 <sup>+</sup>	160 <sup>+</sup>	145 <sup>+</sup>	180	215	235	205	270	295												
8 S	260	245	180	200	260	260	380	450	425	380	270	260	250	190	205	180	145	135	170	235	280	295	315	250	(24)											
9 S	305	260	280	270	270	260	370	450	340 <sup>+</sup>	260 <sup>+</sup>	215 <sup>+</sup>	180 <sup>+</sup>	-	-	-	-	-	110 <sup>+</sup>	155 <sup>+</sup>	135 <sup>+</sup>	100 <sup>+</sup>	70 <sup>+</sup>	252	(24)												
10 S	70 <sup>+</sup>	-	-	115	135	180	295	305	305	280	260	235	215	205	200	190	160	180	215	205	235	290	335	325												
11 S	245	170	125	115 <sup>+</sup>	-	-	-	-	-	-	-	-	110 <sup>+</sup>	110 <sup>+</sup>	-	115 <sup>+</sup>	100 <sup>+</sup>	110 <sup>+</sup>	125	100	100	125	135	155	225	(24)										
12 S	135	110	100	100 <sup>+</sup>	100 <sup>+</sup>	-	-	-	170 <sup>+</sup>	-	145 <sup>+</sup>	170 <sup>+</sup>	160	160	170	215	270	280	270	440	245	170	190	190	129	(24)										
13	205	200	180	170	135	135	160	180	190	145	100	145	135	160	160	160 <sup>+</sup>	-	145 <sup>+</sup>	270 <sup>+</sup>	-	200	215	235	-												
14	190	180	155	155	145	160	215	180	215	250	215	235	180	180	200	160	180	180	145	145	145	235	245	115												
15	65	80	100	100	110	135	205 <sup>+</sup>	-	-	-	305 <sup>+</sup>	515 <sup>+</sup>	450	325	270	280	245	200	215	160	145	145	170	170												
16	155 <sup>+</sup>	145 <sup>+</sup>	100 <sup>+</sup>	90 <sup>+</sup>	-	-	-	-	-	280 <sup>+</sup>	280 <sup>+</sup>	270 <sup>+</sup>	235	225	180	200	160	160	125	145	180	215	200	170												
17 S	245	250	190	180	235	200	505	540	540	560	425	340	270	290	250	270	290	260	135	110	160	90	55	55												
18 S	90	20	65	55	100	110	305	415	405	620	575	665	485	425	395	370	340	290	245	155	180	110	295	160	250	(24)										
19	65	180	110	200	125	305	430	730	685	685	575	485	405	395	360	340	315	290	200	100	190	245	200	190												
20 S	135 <sup>+</sup>	70 <sup>+</sup>	70 <sup>+</sup>	80 <sup>+</sup>	65 <sup>+</sup>	70 <sup>+</sup>	110 <sup>+</sup>	405 <sup>+</sup>	340 <sup>+</sup>	460	575	520	405	325	245	200	155	90	100	135	160	180	485	515												
21 S	385	225	180	110	115	110	100	155	270	250	305	350	295	235	235	160 <sup>+</sup>	-	-	125	80	145	200	160	125	268	(24)										
22 S	125	100	80	55 <sup>+</sup>	-	90 <sup>+</sup>	200	190	270	340	315	-	235	260	280	305	325	200	315	305	305	295	270	270												
23 S	215	180	200	215	250	290	460	630	540	430	380	380	295	270	270	315	270	190	245	170	155	100	90	115	314	(24)										
24 S	145	90	55	115 <sup>+</sup>	90 <sup>+</sup>	-	170 <sup>+</sup>	290	430	475	340	315	280	250	170	205	-	200	155	200	160	80	20	100	198	(24)										
25	125	70	260	270	290	-	-	115 <sup>+</sup>	100 <sup>+</sup>	280 <sup>+</sup>	200 <sup>+</sup>	-	-	-	135	205	245	250	280	200	305	290	305	305												
26	305	260	295	180	245	290	340	515	495	540	605	575	610	640	575	520	415	405	360	270	305	360	450	395												
27 S	370	340	325	295 <sup>+</sup>	-	360 <sup>+</sup>	405 <sup>+</sup>	450 <sup>+</sup>	460 <sup>+</sup>	-	-	-	245	170	200	225	200	215	215	170	135	70	190	205												
28 S	170	100	65	90	100	125	0	65	55	65	70	80	125	125	115	115	125	135	155	55	-30	-75	35	90	110	(24)										
29	125	145	145	155	110	135	155	200	-	-	280 <sup>+</sup>	-	-	205 <sup>+</sup>	-	-	-	-	135 <sup>+</sup>	170 <sup>+</sup>	-	-	-	-												
30	-	-	-	-	-	-	-	295 <sup>+</sup>	260 <sup>+</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-35 <sup>+</sup>												
31	20	10	80	80	-	-	200 <sup>+</sup>	280	315	360	280	315	260	250	280	250	280	325	280	290	250	235	235	190												
Mean	181 (25)	157 (25)	152 (25)	150 (26)	164 (21)	187 (19)	263 (23)	345 (24)	355 (23)	346 (24)	304 (25)	308 (23)	264 (24)	253 (23)	237 (23)	232 (24)	232 (19)	212 (22)	195 (25)	183 (26)	189 (25)	184 (25)	218 (25)	198 (27)	230											
Fair Weather Mean	189 (22)	161 (23)	158 (23)	160 (19)	177 (18)	200 (17)	280 (16)	355 (18)	374 (17)	378 (18)	343 (17)	343 (16)	289 (20)	269 (19)	243 (21)	254 (18)	244 (17)	223 (19)	201 (23)	183 (23)	192 (23)	189 (24)	223 (24)	213 (24)	243											
	Mean for selected quiet days																				[222	(9)]														

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

37 KEW OBSERVATORY													Factor 4.77													SEPTEMBER 1966										
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean											
volts per metre																																				
1 S	175	155	145			245 <sup>+</sup>	245 <sup>+</sup>	225 <sup>+</sup>													180	265	290	235	183	(24)										
2 S	180	155	125		120	180	265	310 <sup>+</sup>	310 <sup>+</sup>					200 <sup>+</sup>	255 <sup>+</sup>	265 <sup>+</sup>	275 <sup>+</sup>	280 <sup>+</sup>	355 <sup>+</sup>	380	410	365	330	255	244	(24)										
3 S	190	175	145	145	145	190	220	235	265	255	210	200	155	145	135	155	145	125	80 <sup>+</sup>	235 <sup>+</sup>	275	200	135	110												
4 S	100	80	65	75	100											100 <sup>+</sup>	190	190	245	265	320	330	365	330	252	(24)										
5 S	245	210	180	175	175	210	235	330	355	290	300	280	235	220	235	135 <sup>+</sup>	55 <sup>+</sup>	-40 <sup>+</sup>	75 <sup>+</sup>	155	220	290	275	180 <sup>+</sup>												
6 S	100 <sup>+</sup>	120 <sup>+</sup>	65 <sup>+</sup>	65 <sup>+</sup>	80	100	190	235	290 <sup>+</sup>	275 <sup>+</sup>	265 <sup>+</sup>	265 <sup>+</sup>	225	220	225 <sup>+</sup>	145 <sup>+</sup>	45 <sup>+</sup>	-20 <sup>+</sup>	125 <sup>+</sup>	280	355	345	300	310	291	(24)										
7 S	245	275	245	225 <sup>+</sup>	190 <sup>+</sup>	145 <sup>+</sup>	310 <sup>+</sup>	430 <sup>+</sup>	365 <sup>+</sup>	445 <sup>+</sup>	375	380	330	255	265	220 <sup>+</sup>		265 <sup>+</sup>	265 <sup>+</sup>	165 <sup>+</sup>	235 <sup>+</sup>	135 <sup>+</sup>	180 <sup>+</sup>	55 <sup>+</sup>												
8	65	110	165	175	210	235	290	445 <sup>+</sup>	300 <sup>+</sup>	365 <sup>+</sup>			380 <sup>+</sup>	565 <sup>+</sup>			165 <sup>+</sup>	80 <sup>+</sup>	90 <sup>+</sup>	90 <sup>+</sup>	90 <sup>+</sup>	90 <sup>+</sup>	80 <sup>+</sup>	100 <sup>+</sup>												
9	175	190	180	245	155	290	330	365	455	365	245	280	255	245	265	255	235	210	125	125	155	200 <sup>+</sup>	80 <sup>+</sup>	55 <sup>+</sup>												
10	100	90	55	125	145	210	310	410	410	280	225	210	165	135	100	145	90	90 <sup>+</sup>	35 <sup>+</sup>	165 <sup>+</sup>	235	265	220	180												
11	155	165	180	145	135	210	265	235 <sup>+</sup>	180 <sup>+</sup>	225 <sup>+</sup>	235 <sup>+</sup>				180	180	200	200	235	190	235	265	175	190												
12	165 <sup>+</sup>	200 <sup>+</sup>			90 <sup>+</sup>	190 <sup>+</sup>	290 <sup>+</sup>				265 <sup>+</sup>	180 <sup>+</sup>	180 <sup>+</sup>	200 <sup>+</sup>		275 <sup>+</sup>	180 <sup>+</sup>		190 <sup>+</sup>	275	400	410	345	330												
13	275	220	190	180	190	220		265 <sup>+</sup>	280 <sup>+</sup>	290 <sup>+</sup>	290 <sup>+</sup>	275 <sup>+</sup>	235 <sup>+</sup>	200 <sup>+</sup>	165 <sup>+</sup>	-10 <sup>+</sup>	20 <sup>+</sup>	10 <sup>+</sup>	245	290	145	145	210	180												
14	200	235	190	145	200	280	345	365	345	290	235	220	235	90 <sup>+</sup>	20 <sup>+</sup>	55 <sup>+</sup>	20 <sup>+</sup>	-20 <sup>+</sup>	75 <sup>+</sup>	35 <sup>+</sup>	100 <sup>+</sup>	35 <sup>+</sup>	20 <sup>+</sup>													
15 S					180	225	320	445	475	390	355	345	280 <sup>+</sup>	375 <sup>+</sup>	355 <sup>+</sup>	235 <sup>+</sup>			330 <sup>+</sup>	235 <sup>+</sup>	190	290	335	400												
16 S	390	380	330	320	330	320	400	490	530	465	380	310	275	275	320	310	310	280	245	225	190	255	290	245	338	(24)										
17 S	210	190	220	225	225			380	380	400	410	355	335	345	310	280	255	200	135	135	155	125 <sup>+</sup>	25 <sup>+</sup>	145												
18 S	180	175	180	180	120 <sup>+</sup>	55 <sup>+</sup>	110 <sup>+</sup>	235	235	225	255	235	200	235	255	220	330	365	380	355	375	390	435	475	207	(24)										
19 S	435	375	290	365	330	365	390	600	745	630	530	475	465	475	530	580	545	445	335	235	200	180 <sup>+</sup>	25 <sup>+</sup>	20 <sup>+</sup>	457	(24)										
20	-	-	-	-	-	-	-	-	-	-	430 <sup>+</sup>	435 <sup>+</sup>	430 <sup>+</sup>	430 <sup>+</sup>	455 <sup>+</sup>	510 <sup>+</sup>	475 <sup>+</sup>	535 <sup>+</sup>	390 <sup>+</sup>	220 <sup>+</sup>	265 <sup>+</sup>	180 <sup>+</sup>														
21												390 <sup>+</sup>	545	590	565	475	390	310	275	245	255	235	220	90												
22 S	90	100	165	135	175	180	275	465	420	435	410	435	535	510	445	445	280	265	280	255	245	335	435	420	333	(24)										
23 S	235	220	165	145	220	345	520	665	690	580	635	630	510	355	335	320	290	220	165	190 <sup>+</sup>	220 <sup>+</sup>	275 <sup>+</sup>	135 <sup>+</sup>	200 <sup>+</sup>												
24	180 <sup>+</sup>	255 <sup>+</sup>	125 <sup>+</sup>	145 <sup>+</sup>	125 <sup>+</sup>					530 <sup>+</sup>	345	310	310	335	335	280	265	210	210 <sup>+</sup>	155 <sup>+</sup>	100 <sup>+</sup>	125 <sup>+</sup>	120 <sup>+</sup>	110 <sup>+</sup>												
25	120 <sup>+</sup>										110 <sup>+</sup>	145 <sup>+</sup>	110 <sup>+</sup>	145 <sup>+</sup>	175 <sup>+</sup>	120 <sup>+</sup>	110 <sup>+</sup>	80 <sup>+</sup>																		
26 S									590	520	490	390	355	355	335	355	320	310	330	265	275	345	430	380												
27 S									490 <sup>+</sup>	675	520	435	400	430	380	475	455	345	200 <sup>+</sup>	375 <sup>+</sup>	175 <sup>+</sup>	380	400	330	355	(24)										
28 S	225	225	190	210	200	220	320	475	535	465 <sup>+</sup>	375 <sup>+</sup>	410 <sup>+</sup>	390 <sup>+</sup>	375 <sup>+</sup>	410 <sup>+</sup>	420 <sup>+</sup>	335 <sup>+</sup>	355 <sup>+</sup>	390 <sup>+</sup>	410	430	310	210	335	468	(24)										
29 S	310	225	165	180	310	335	500	580	710	690	690	620	675	635	645	610	580			355 <sup>+</sup>																
30																																				
Mean	198	197	171	180	180	226	307	390	425	413	357	342	328	321	308	280	256	215	223	234	232	251	233	226	271											
	(24)	(23)	(22)	(20)	(23)	(21)	(20)	(21)	(22)	(22)	(24)	(24)	(25)	(26)	(25)	(27)	(25)	(25)	(26)	(27)	(28)	(27)	(26)	(25)												
Fair Weather Mean	209	197	179	186	191	242	323	418	476	433	389	359	345	339	331	339	305	263	250	255	262	301	300	274	299											
	(20)	(20)	(20)	(17)	(19)	(17)	(16)	(15)	(15)	(15)	(17)	(17)	(18)	(17)	(17)	(15)	(16)	(14)	(12)	(16)	(20)	(18)	(18)	(18)												
Mean for selected quiet days																								[313 (10)]												

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

37	KEW OBSERVATORY												Factor 4.51												OCTOBER 1966											
	Hour GMT	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean											
													volts per metre																							
1										170 <sup>+</sup>	250 <sup>+</sup>	260 <sup>+</sup>	205 <sup>+</sup>				255	215	285	345	440	505	695	645	600											
2	430	310	215	170	170	180	190	215	250 <sup>+</sup>	230 <sup>+</sup>			145 <sup>+</sup>	200	180	230	250	290	240 <sup>+</sup>	225 <sup>+</sup>	370 <sup>+</sup>	415 <sup>+</sup>	225 <sup>+</sup>	310 <sup>+</sup>												
3	475 <sup>+</sup>	420 <sup>+</sup>	360 <sup>+</sup>	415 <sup>+</sup>																																
4																																				
5 S	175	145	80	95	110			335	380	475	285	285	255	320	350	365	380	380	350	475	415	240	175	175	282	(24)										
6	225	205	240	240	300	320	335	365	430	430	395	460	350	320	320			510	620	510	460	430	320 <sup>+</sup>	335 <sup>+</sup>												
7 S	365 <sup>+</sup>	350 <sup>+</sup>	270 <sup>+</sup>	365 <sup>+</sup>	270 <sup>+</sup>	175 <sup>+</sup>	240 <sup>+</sup>	335 <sup>+</sup>	350 <sup>+</sup>		415 <sup>+</sup>	445 <sup>+</sup>	365	320	320			350	145 <sup>+</sup>	175 <sup>+</sup>			395	270	350											
8										445 <sup>+</sup>	350 <sup>+</sup>	380 <sup>+</sup>	510	395	430	460	395	350																		
9													255 <sup>+</sup>	320	335	320	125	95																		
10 S	-	-	-	-						240 <sup>+</sup>						190	260	250	300	300	190	225	240	120												
11 S	25	45	70	120	110	155	225	335	415	405	345	320	275	265	335	335	345	355	215 <sup>+</sup>	325 <sup>+</sup>	360 <sup>+</sup>	225 <sup>+</sup>			244	(24)										
12 S													-	290	325	360	430	380	395	360	265	145	105		240	(24)										
13 S	110	120	155	170	190	240	300	310	110 <sup>+</sup>	170 <sup>+</sup>	320 <sup>+</sup>	325 <sup>+</sup>	345	355	355	345	405	345 <sup>+</sup>	250 <sup>+</sup>																	
14				70 <sup>+</sup>		35 <sup>+</sup>	110 <sup>+</sup>	170 <sup>+</sup>	320 <sup>+</sup>	325 <sup>+</sup>	375 <sup>+</sup>	335 <sup>+</sup>	275 <sup>+</sup>	290	250	265	250	190 <sup>+</sup>		380 <sup>+</sup>	420 <sup>+</sup>	525 <sup>+</sup>	490 <sup>+</sup>	355 <sup>+</sup>												
15	95 <sup>+</sup>	110	155	170	155	145	225	250	240 <sup>+</sup>	345 <sup>+</sup>		205 <sup>+</sup>	275 <sup>+</sup>	290	250	265	250	190 <sup>+</sup>																		
16 S	430 <sup>+</sup>	445 <sup>+</sup>	475 <sup>+</sup>					440 <sup>+</sup>	455 <sup>+</sup>	335 <sup>+</sup>	310 <sup>+</sup>	250 <sup>+</sup>	140 <sup>+</sup>	120 <sup>+</sup>	145	190	200	310	385	540	525	430			287	(24)										
17 S		205	225	190	225			480 <sup>+</sup>	535 <sup>+</sup>	465 <sup>+</sup>	355 <sup>+</sup>	535 <sup>+</sup>	540 <sup>+</sup>			395	415	465	505	620	600	525	355	275												
18																285 <sup>+</sup>	355																			
19	230 <sup>+</sup>							275 <sup>+</sup>	490 <sup>+</sup>	445 <sup>+</sup>	480 <sup>+</sup>	445 <sup>+</sup>				285 <sup>+</sup>	355																			
20	335	310	285	325	335	430	535	635	655	480	415	380		290 <sup>+</sup>	440 <sup>+</sup>	445 <sup>+</sup>	480 <sup>+</sup>	690	775	720	550	445	345	325												
																445 <sup>+</sup>	455 <sup>+</sup>	440 <sup>+</sup>	445 <sup>+</sup>	325 <sup>+</sup>	275	240	190	215												
21 S	260	250	285	325	395	405	535	620	610	535	505	455	430	430	385	360	440	445	480	490	335	335	360	355	418	(24)										
22	360 <sup>+</sup>	265 <sup>+</sup>	370 <sup>+</sup>			360 <sup>+</sup>	395 <sup>+</sup>	480 <sup>+</sup>	505 <sup>+</sup>	500 <sup>+</sup>	480 <sup>+</sup>	415	370	325	290	290																				
23	-150 <sup>+</sup>	-80 <sup>+</sup>	35 <sup>+</sup>	120	120	180	180	215	230	320	335	380	440	395	415	440	480	560	465	505	475	500	550	560												
24 S	480 <sup>+</sup>	445 <sup>+</sup>	205 <sup>+</sup>	155 <sup>+</sup>	290 <sup>+</sup>	310 <sup>+</sup>	320	480	715	825	895	860	785	670	600	600	515	380	335	325	275	275	275	265	434	(24)										
25 S	225	205	120	145	155	170	290	475	500	560	560 <sup>+</sup>	500 <sup>+</sup>	430 <sup>+</sup>	420 <sup>+</sup>	320 <sup>+</sup>	370 <sup>+</sup>	445	595	535	430	415	440	445	345												
26 S	215	335	405	420	480	490	600	705	895	825	610	560	465	415	480	475	525	585	515	420	360	405	325	205												
27	360	325	275					95 <sup>+</sup>	250	370	440	455	360	325	360	405	430	345	320	170 <sup>+</sup>		170 <sup>+</sup>														
28				75 <sup>+</sup>	190	240	290	380	445	475	430 <sup>+</sup>	440 <sup>+</sup>	405 <sup>+</sup>			180 <sup>+</sup>	360 <sup>+</sup>			240	200	250	290	310												
29	260	260	325	310	335	395																														
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
31	-	-	-	-	-	-	-	180	360	395	525	380	440	490	420	540	560	525	395					190 <sup>+</sup>												
Mean	258 (19)	246 (19)	239 (19)	216 (18)	239 (16)	264 (16)	323 (17)	372 (22)	427 (23)	445 (21)	427 (22)	410 (20)	371 (19)	349 (19)	339 (22)	361 (24)	382 (23)	399 (22)	401 (20)	399 (20)	389 (18)	364 (19)	339 (17)	295 (18)	344											
Fair Weather Mean	238 (11)	217 (13)	218 (13)	215 (13)	234 (14)	279 (12)	335 (12)	393 (14)	490 (12)	508 (12)	475 (10)	450 (11)	415 (13)	363 (16)	347 (18)	356 (21)	374 (21)	410 (19)	448 (15)	455 (14)	390 (15)	372 (15)	338 (14)	295 (14)	359											
																					Mean for selected quiet days				[336 (8)]											

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

97

37 KEW OBSERVATORY													Factor 4.42													NOVEMBER 1966																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Mean values for hours without hydrometeors and for fair weather hours

37 KEW OBSERVATORY													Factor 4.47													DECEMBER 1966			
	Hour GMT																									Mean			
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24					
	volts per metre																												
1	280	310	275	255	230	195	265	275 <sup>+</sup>	290 <sup>+</sup>									325 <sup>+</sup>	420 <sup>+</sup>	385 <sup>+</sup>	420 <sup>+</sup>	420 <sup>+</sup>	340 <sup>+</sup>	265 <sup>+</sup>	255 <sup>+</sup>	449 (24)			
2	190 <sup>+</sup>							-	-	335 <sup>+</sup>	375 <sup>+</sup>	375 <sup>+</sup>	275 <sup>+</sup>	215 <sup>+</sup>					15 <sup>+</sup>	160	280	240	205	205	190				
3	205	190	195	190	190	230	255	360	425	435	515	575	480			410	310	310	290	275	290	85 <sup>+</sup>	-125 <sup>+</sup>	135 <sup>+</sup>					
4 S	135	130	95	70	95	160	240	300	335	455	470	480	540	555	605	530	540	575	515	350	425	425	400	335					
5 S	425	455	410	470	495	455	565	650	635	770	750	615		545	435	530													
6 S												495 <sup>+</sup>	395 <sup>+</sup>	580 <sup>+</sup>	700 <sup>+</sup>	720 <sup>+</sup>	710 <sup>+</sup>	780 <sup>+</sup>	770 <sup>+</sup>	700	650	530	520	515	599 (24)				
7 S	420	385	445	445	435	505	495	575	640	635	745	805	665	575	580	590	600	565	350 <sup>+</sup>	375 <sup>+</sup>	310 <sup>+</sup>	455 <sup>+</sup>	505 <sup>+</sup>	545 <sup>+</sup>					
8 S	565 <sup>+</sup>									170 <sup>+</sup>	85 <sup>+</sup>	205 <sup>+</sup>			190 <sup>+</sup>	400 <sup>+</sup>	495	495	590	435	425	445	360	290					
9 S	280	255	275	275	275	325	385	470	460	505	505	445	395	410	410	435	395	325	220 <sup>+</sup>					0 <sup>+</sup>					
10	130 <sup>+</sup>	95 <sup>+</sup>	130 <sup>+</sup>													325	395	350	530	720	495	520	580	435					
11	350	340	160	215	205	155	180	195	325	530	600	600	575	485	540	395	495					130 <sup>+</sup>	105 <sup>+</sup>		358 (24)				
12	250	250	315	375	315	310	280 <sup>+</sup>						425	485	445	485				155 <sup>+</sup>	50 <sup>+</sup>								
13								290	470	530	565	530	580	580	605	635	720	750	820	615	735	750	425	340					
14	555	340	445	460	460	485	545	530	605	840	795	865	960	735	685	750	635	600	565	615	540	420	580	275 <sup>+</sup>					
15	25 <sup>+</sup>	-35 <sup>+</sup>	190 <sup>+</sup>	340 <sup>+</sup>	310 <sup>+</sup>								215 <sup>+</sup>	375 <sup>+</sup>					515 <sup>+</sup>		455	495	350	340					
16	230	265	265	160			160 <sup>+</sup>											600 <sup>+</sup>	460 <sup>+</sup>	530 <sup>+</sup>	650 <sup>+</sup>	650 <sup>+</sup>	445 <sup>+</sup>	495 <sup>+</sup>	345 (24)				
17 S	625 <sup>+</sup>	480 <sup>+</sup>	515 <sup>+</sup>	530 <sup>+</sup>	515 <sup>+</sup>	530 <sup>+</sup>	555 <sup>+</sup>	590 <sup>+</sup>	520 <sup>+</sup>	425 <sup>+</sup>	350 <sup>+</sup>	410 <sup>+</sup>	350	325	350	445	420	340	300	250	205	190	170	135 <sup>+</sup>					
18 S	95 <sup>+</sup>	85 <sup>+</sup>	110 <sup>+</sup>	95 <sup>+</sup>	110 <sup>+</sup>	105 <sup>+</sup>	70 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	85 <sup>+</sup>	85 <sup>+</sup>	75 <sup>+</sup>	70 <sup>+</sup>		160 <sup>+</sup>	310	425	470	435	425	520	515	540	420					
19 S	290	275	250	190	120	105	160	325	425	400	400	375	315	280	300	315	275	255	250	190	95 <sup>+</sup>	120 <sup>+</sup>	155 <sup>+</sup>	70 <sup>+</sup>					
20 S	35 <sup>+</sup>	-10 <sup>+</sup>	35 <sup>+</sup>	60 <sup>+</sup>	85 <sup>+</sup>			310	495	455	530		565	555	455	515	615	445	470	480	495	315	375	315					
21 S	310	190	195	315	360	435	335	580	635	590	650							600 <sup>+</sup>	460 <sup>+</sup>	530 <sup>+</sup>	650 <sup>+</sup>	650 <sup>+</sup>	445 <sup>+</sup>	495 <sup>+</sup>	439 (24)				
22	10 <sup>+</sup>	105	75	135	240	280			445	485	515	375	395	485	515	495	420	340	300	250	205	190	170	135 <sup>+</sup>					
23	255	230	85	110	155	195	160	240	350	340	360	325	255	240							370	420	470	280					
24	455	290														310 <sup>+</sup>	855 <sup>+</sup>	905 <sup>+</sup>	725 <sup>+</sup>	545 <sup>+</sup>	580 <sup>+</sup>			275					
25 S	420	310	215	195	265	325	325	435	720	870	770	650	580	435	435	530 <sup>+</sup>	710 <sup>+</sup>	750 <sup>+</sup>	795 <sup>+</sup>	735 <sup>+</sup>	685 <sup>+</sup>	545 <sup>+</sup>	665 <sup>+</sup>	650 <sup>+</sup>					
26 S	600 <sup>+</sup>	615 <sup>+</sup>	695 <sup>+</sup>	615 <sup>+</sup>	540 <sup>+</sup>	665 <sup>+</sup>	650 <sup>+</sup>	700 <sup>+</sup>	555 <sup>+</sup>	435 <sup>+</sup>	445 <sup>+</sup>	360 <sup>+</sup>	335 <sup>+</sup>	310	335	280	420	470	460	420	370	325	310	310	467 (24)				
27	300	255	265	265	180 <sup>+</sup>	70 <sup>+</sup>	110 <sup>+</sup>	110 <sup>+</sup>										470	400	445	470	635	625	635					
28	635 <sup>+</sup>	580 <sup>+</sup>	505 <sup>+</sup>	580 <sup>+</sup>	580 <sup>+</sup>	640 <sup>+</sup>			665 <sup>+</sup>	750 <sup>+</sup>	625 <sup>+</sup>							240 <sup>+</sup>	360	290		340	215	290					
29	275	155	60				265 <sup>+</sup>	275 <sup>+</sup>					335 <sup>+</sup>		435 <sup>+</sup>				350 <sup>+</sup>		255 <sup>+</sup>	230 <sup>+</sup>	135 <sup>+</sup>	105 <sup>+</sup>					
30 S	145	190	195	215	275	340	460	665	905	1010	905	925	880	725	710	695	640	530	530	580			230 <sup>+</sup>						
31									205 <sup>+</sup>	265 <sup>+</sup>					445 <sup>+</sup>	400 <sup>+</sup>	590	695	640	660	615	720	660	545	470	528 (24)			
Mean	303 (28)	259 (26)	256 (25)	285 (23)	293 (22)	325 (20)	323 (20)	403 (19)	489 (20)	513 (22)	510 (22)	501 (20)	456 (21)	467 (20)	458 (21)	489 (22)	526 (21)	487 (21)	485 (24)	441 (25)	426 (24)	410 (25)	366 (24)	321 (26)	408				
Fair Weather Mean	310 (18)	259 (19)	234 (18)	255 (17)	274 (15)	300 (15)	336 (13)	432 (13)	512 (15)	593 (15)	600 (15)	578 (14)	531 (15)	483 (16)	483 (16)	489 (18)	497 (17)	477 (16)	465 (17)	435 (18)	467 (16)	456 (16)	404 (17)	374 (15)	427				
																					Mean for selected quiet days				[457 (9)]				

POTENTIAL GRADIENT (close to the ground, over an open level surface).  
Monthly, seasonal and annual means for hours without hydrometeors and for fair weather hours

38 KEW OBSERVATORY

1966

	Hour GMT	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Mean
		volts per metre																								
		No hydrometeors																								
Jan.	314	266	241	183	195	205	257	308	542	586	585	582		546	484	494	523	501	527	541	544	584	491	440	392	430
Feb.	234	195	132	148	186	184	250	325	389	458	478	479		384	358	359	383	413	406	405	325	330	327	284	251	320
Mar.	204	188	196	201	204	209	277	360	384	386	358	348		334	312	303	293	302	311	346	359	333	284	256	216	290
Apr.	198	177	173	202	179	199	316	377	415	340	290	303		295	264	295	260	269	243	268	262	257	233	240	240	262
May	246	236	232	227	211	243	303	325	330	305	289	267		218	223	223	223	218	217	217	236	253	289	299	284	255
June	182	171	167	192	207	216	275	330	298	276	288	253		236	228	218	226	219	212	226	225	236	234	231	208	231
July	174	153	128	128	143	185	266	307	324	292	265	246		226	206	198	222	189	192	188	196	-201	206	206	195	210
Aug.	181	157	152	150	164	187	263	345	355	346	304	308		264	253	237	232	232	212	195	183	189	194	218	198	230
Sept.	198	197	171	180	180	226	307	390	425	413	357	342		328	321	308	280	256	215	223	234	232	251	233	226	271
Oct.	258	246	239	216	239	264	323	372	427	445	427	410		371	349	339	361	382	399	401	399	389	364	339	295	344
Nov.	254	240	242	238	259	259	280	362	423	457	421	432		456	387	424	439	432	440	421	400	384	319	309	301	357
Dec.	303	259	256	285	293	325	323	403	489	513	510	501		456	467	458	489	526	487	485	441	426	410	366	321	408
Year	229	207	194	196	205	225	287	350	400	401	381	373		343	321	321	328	328	322	326	317	318	300	285	261	301
Winter	276	240	218	213	233	243	277	349	461	503	499	499		461	424	434	459	468	465	463	427	431	387	350	316	379
Equinox	215	202	195	200	201	225	306	375	413	396	358	351		332	311	311	299	302	292	309	313	303	283	267	244	292
Summer	196	179	170	174	181	208	277	327	327	305	287	269		236	227	219	226	215	208	207	210	220	231	239	221	232
		Fair weather																								
Jan.	331	302	264	248	282	265	285	387	541	545	569	531		550	526	538	544	563	583	603	608	631	540	467	435	464
Feb.	288	267	214	213	221	259	321	384	441	488	471	445		354	389	383	387	446	450	439	392	377	367	362	315	362
Mar.	194	190	203	203	205	219	293	375	395	398	374	356		343	327	311	299	307	309	344	350	296	264	248	213	292
Apr.	223	205	215	230	216	232	389	407	463	363	314	297		277	277	291	270	270	267	263	272	275	275	281	283	286
May	264	254	247	219	218	260	339	369	346	303	279	258		221	224	221	223	219	221	212	234	247	286	301	286	260
June	175	167	166	176	206	226	263	315	303	302	271	248		237	237	221	206	197	193	219	218	240	225	230	214	227
July	195	178	153	150	155	201	291	350	358	313	274	259		237	223	208	215	205	186	190	195	206	227	232	225	226
Aug.	189	161	158	160	177	200	280	355	374	378	343	343		289	269	243	254	244	223	201	183	192	189	223	213	243
Sept.	209	197	179	186	191	242	323	418	476	433	389	359		345	339	331	339	305	263	250	255	262	301	300	274	299
Oct.	238	217	218	215	234	279	335	393	490	508	475	450		415	363	347	356	374	410	448	455	390	372	338	295	359
Nov.	285	255	253	247	263	283	334	426	522	558	557	543		530	467	445	464	469	506	496	487	413	360	344	385	412
Dec.	310	259	234	255	274	300	336	432	512	593	600	578		531	483	483	489	497	477	465	435	467	456	404	374	427
Year	241	221	209	209	220	247	316	384	435	432	410	389		361	344	335	337	341	341	344	340	333	322	311	293	321
Winter	303	271	241	241	260	277	319	407	504	546	549	524		491	469	462	471	494	504	501	481	472	431	394	377	416
Equinox	216	202	204	209	211	243	335	398	456	425	388	365		345	327	320	316	314	312	326	333	306	303	292	266	309
Summer	206	190	181	176	189	222	293	347	345	324	292	277		246	238	223	225	216	206	205	207	221	232	247	235	239
Annual mean for selected quiet days																										[326]

"Winter" comprises the four months January, February, November, December; "Equinox" the months March, April, September, October; and "Summer" May to August.

POTENTIAL GRADIENT AIR-EARTH CURRENT AND CONDUCTIVITY - WILSON METHOD

99

Mean value for periods of twenty minutes about 1430 GMT

$F$  = Potential gradient, unit  $1 \text{ v.cm.}^{-1}$ .  $i$  = Air-earth current, unit  $10^{-18} \text{ amp. cm.}^{-2}$

$\lambda+$  = Conductivity due to positive ions, unit  $10^{-18} \text{ ohm.}^{-1} \text{ cm.}^{-1}$

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1966

	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
	$F$	$i$	$\lambda+$	$F$	$i$	$\lambda+$	$F$	$i$	$\lambda+$	$F$	$i$	$\lambda+$	$F$	$i$	$\lambda+$	$F$	$i$	$\lambda+$
1	...	...	...	3.11	159	51	...	...	...	2.70	159	59	...	...	...	2.84	208	73
2	...	...	...	...	...	...	...	...	...	...	...	...	1.43	133	93	2.99	171	57
3	...	...	...	3.31	158	48	4.10	216	53	...	...	...	...	...	...	1.92	155	81
4	...	...	...	...	...	...	4.18	188	45	4.11	120	29	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	7.66	239	31	...	...	...	...	...	...	...	...	...	...	...	...	2.10	169	80
7	7.08	245	35	...	...	...	2.90	186	64	...	...	...	...	...	...	...	...	...
8	...	...	...	3.52	165	47	3.36	155	46	...	...	...	...	...	...	2.15	196	91
9	...	...	...	...	...	...	3.10	157	51	...	...	...	2.74	171	62	3.06	200	65
10	...	...	...	...	...	...	...	...	...	...	...	...	2.16	130	60	4.40	188	43
11	4.27	195	46	1.79	83	46	...	...	...	...	...	...	...	...	...	...	...	...
12	5.11	157	31	...	...	...	...	...	...	5.37	198	37	2.39	137	57	...	...	...
13	6.31	252	40	...	...	...	...	...	...	4.75	204	43	1.74	128	74	1.47	139	95
14	6.53	205	31	4.70	175	37	3.74	152	41	...	...	...	...	...	...	...	...	...
15	...	...	...	...	...	...	4.05	147	36	...	...	...	...	...	...	1.85	125	68
16	...	...	...	8.04	253	31	3.57	145	41	...	...	...	4.15	111	27	...	...	...
17	...	...	...	6.73	206	31	3.28	122	37	...	...	...	2.13	132	62	...	...	...
18	...	...	...	...	...	...	3.10	119	38	...	...	...	2.43	216	89	...	...	...
19	9.87	225	23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...	...	...	...	...	2.36	129	55	...	...	...
21	...	...	...	2.33	120	52	2.90	124	43	...	...	...	...	...	...	...	...	...
22	...	...	...	...	...	...	2.72	115	42	...	...	...	...	...	...	1.91	202	106
23	...	...	...	...	...	...	2.01	135	67	...	...	...	2.46	144	59	...	...	...
24	5.96	195	33	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25	...	...	...	...	...	...	...	...	...	2.69	135	50	...	...	...	...	...	...
26	...	...	...	...	...	...	...	...	...	2.81	188	67	...	...	...	...	...	...
27	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28	4.95	212	43	4.50	145	32	3.80	154	41	...	...	...	...	...	...	...	...	...
29	...	...	...	...	...	...	2.84	163	57	1.68	104	62	...	...	...	2.97	160	54
30	...	...	...	...	...	...	2.51	136	54	...	...	...	...	...	...	2.36	174	74
31	...	...	...	...	...	...	2.66	147	55	...	...	...	3.26	244	75	...	...	...
Mean	6.42	214	35	4.23	163	42	3.22	151	48	3.44	158	50	2.48	152	65	2.50	174	74
No. of days used	9	9	9	9	9	9	17	17	17	7	7	7	11	11	11	12	12	12

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	$F$	$i$	$\lambda+$	$F$	$i$	$\lambda+$	$F$	$i$	$\lambda+$	$F$	$i$	$\lambda+$	$F$	$i$	$\lambda+$	$F$	$i$	$\lambda+$
1	0.57	38	67	...	...	...	...	...	...	...	...	...	3.25	91	28	...	...	...
2	...	...	...	1.64	126	77	2.55	174	68	...	...	...	5.00	199	40	...	...	...
3	...	...	...	1.73	130	75	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	4.28	265	62	4.14	121	29	...	...	...
5	...	...	...	2.02	132	65	2.14	129	60	4.14	146	35	...	...	...	...	...	...
6	...	...	...	...	...	...	2.40	113	47	...	...	...	...	...	...	6.96	168	24
7	...	...	...	...	...	...	2.60	175	67	2.91	109	37	3.27	181	55	5.36	101	19
8	...	...	...	...	...	...	5.67	187	33	...	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	2.77	221	80	...	...	...	5.00	125	25	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	3.68	94	26	...	...	...
11	...	...	...	...	...	...	...	...	...	3.07	136	44	5.36	128	24	...	...	...
12	1.69	101	60	...	...	...	1.95	187	96	3.40	150	44	...	...	...	4.64	125	27
13	2.65	129	49	...	...	...	...	...	...	...	...	...	...	...	...	5.68	127	22
14	2.64	173	66	...	...	...	...	...	...	4.79	129	27	6.82	186	27	6.51	102	16
15	...	...	...	2.81	167	59	3.50	162	46	...	...	...	...	...	...	3.74	123	33
16	...	...	...	1.84	110	60	3.36	153	46	...	...	...	3.61	136	38	...	...	...
17	...	...	...	2.76	177	64	...	...	...	...	...	...	...	...	...	...	...	...
18	3.19	189	59	4.29	199	46	...	...	...	...	...	...	4.15	109	26	...	...	...
19	...	...	...	3.46	208	60	5.47	141	26	3.39	157	46	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4.32	148	34
21	2.67	122	46	...	...	...	6.50	109	17	3.86	206	53	2.86	86	30	...	...	...
22	4.19	157	38	2.14	153	72	4.86	135	28	...	...	...	2.83	111	39	4.93	130	26
23	...	...	...	2.42	152	63	3.34	129	39	...	...	...	4.95	137	28	...	...	...
24	...	...	...	1.77	131	74	...	...	...	...	...	...	...	...	...	...	...	...
25	2.40	120	50	...	...	...	...	...	...	2.80	129	46	...	...	...	...	...	...
26	...	...	...	5.51	236	43	3.53	110	31	...	...	...	...	...	...	...	...	...
27	...	...	...	...	...	...	3.60	151	42	...	...	...	...	...	...	...	...	...
28	1.38	64	46	...	...	...	3.81	208	55	...	...	...	...	...	...	...	...	...
29	...	...	...	...	...	...	6.72	259	39	...	...	...	6.75	132	20	...	...	...
30	...	...	...	...	...	...	...	...	...	...	...	...	5.86	148	25	7.00	156	22
31	...	...	...	2.55	150	59	...	...	...	4.92	117	24	...	...	...	...	...	...
Mean	2.38	121	53	2.69	159	63	3.81	161	48	3.76	154	42	4.50	132	31	5.46	131	25
No. of days used	9	9	9	13	13	13	17	17	17	10	10	10	15	15	15	9	9	9

Year: Mean 3.74 156 48  
No. of days used 138 138 138

## SMOKE CONCENTRATION IN THE AIR

40 KEW OBSERVATORY		Complete days only																								1966	
Hour GMT		microgrammes per cubic metre																								Mean	No. of days used
0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24				
Jan.	64	56	52	49	47	45	49	61	88	114	98	90	89	84	80	83	95	103	108	116	119	109	95	74	83	31	
Feb.	34	28	25	22	21	20	21	28	37	44	42	45	47	49	48	46	47	55	62	61	59	52	44	37	41	28	
Mar.	56	56	50	45	43	40	45	50	55	53	48	35	33	30	29	28	32	43	59	73	81	85	74	65	50	30	
Apr.	29	26	22	20	22	27	33	44	50	46	46	36	45	44	39	39	40	39	40	47	51	44	40	35	39	29	
May	21	21	19	18	20	22	27	32	28	24	21	15	17	15	14	14	17	16	17	19	23	24	24	20	20	30	
June	15	14	11	11	12	17	22	27	27	23	20	16	13	14	12	11	12	12	15	15	16	19	19	17	16	27	
July	14	14	12	13	13	15	16	17	18	13	11	10	9	9	10	11	9	11	11	11	13	14	15	14	12	28	
Aug.	15	14	14	15	16	15	21	26	27	25	27	19	17	13	13	13	11	13	14	17	18	19	18	17	17	31	
Sept.	41	38	34	34	34	38	43	53	55	51	44	35	32	29	28	29	32	34	39	43	44	44	43	43	39	30	
Oct.	28	27	25	22	24	26	33	45	50	48	44	31	29	28	29	33	42	54	54	59	53	51	40	33	38	25	
Nov.	52	39	35	32	28	27	30	37	50	53	52	49	46	47	55	61	67	77	85	82	86	75	70	57	54	25	
Dec.	54	56	46	45	38	36	34	36	53	57	59	53	49	45	41	56	72	82	85	86	91	96	88	63	60	22	
Year	423	389	345	326	318	328	374	456	538	551	512	434	426	407	398	424	476	539	589	629	654	632	570	475	39	336	
Winter	51	45	39	37	33	32	33	41	57	67	63	59	58	56	56	60	70	79	85	86	89	83	74	58	59	106	
Spring	43	41	36	33	33	33	39	47	53	49	47	35	39	37	34	33	36	41	49	60	66	65	57	50	45	59	
Autumn	35	33	29	28	29	32	38	49	53	49	44	33	31	29	29	31	37	44	47	51	49	47	41	38	39	55	
Summer	16	16	14	14	15	17	21	25	25	21	20	15	14	13	12	15	12	13	14	15	17	19	19	17	16	116	