BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1963

FROM ARGENTINE ISLANDS A.973

LAT.	-65° 15'
LONG.	295° 44'
GEOMAGNETIC LAT.	-53.8°
GEOMAGNETIC LONG.	3.3°

ORIGINAL RECORDS HELD AT:-

BRITISH ANTARCTIC SURVEY

DEPARTMENT OF NATURAL PHILOSOPHY

DRUMMOND STREET

EDINBURGH, 8.

Phone: EDINBURGH NEWINGTON 1011 EXT. 2497

HEAD OFFICE:-

BRITISH ANTARCTIC SURVEY

30 GILLINGHAM STREET

LONDON, S.W. 1.

Phone: LONDON VICTORIA 3687

EXPLANATORY NOTES 1963

1. Instruments

These are standard La Cour variometers, recording H, D, and Z.

2. Time

Charts were changed at Greenwich midnight, so that each chart shows a complete Greenwich day. The master clock was adjusted to keep the clock error less than ½ minute.

The parallax correction for each trace is given below. The correction is to be added to the times read from the magnetograms.

Sensitive Magnetograms	Trace	Correction Jan - Sept	Correction Oct - Dec
	H	+ 2 mins.	+ 2 mins.
	D	- 1 min.	- 1 min.
	Z	+ 2 mins.	nil
	T	+ 4 mins.	+ 4 mins.
Insensitive Magnetograms	H	nil	- 6 mins.
	D	- 1 min.	- 1 min.
	Z	- 1 min.	- 1 min.
	T	+ 1 min.	+ 1 min.

3. Order of Traces, from top to bottom

Sensitive Magnetograms	Insensitive Magnetograms
T trace	D trace and baseline (double baseline, upper line used)
H trace and baseline	H baseline
D baseline and trace	T trace
Z baseline and trace	H trace
	Z baseline and trace

4. Sense of Traces

All magnetograms: Temperature increases up the sheet.
H increases up the sheet.
D increases easterly up the sheet.
Z increases down the sheet.
(N.B. Z is negative, hence as Z increases, modulus of Z decreases).

5. Temperature Coefficients

The sensitive H and Z variometers have appreciable temperature coefficients.
H baseline values increase with increasing temperature.
Z baseline values decrease (i.e. their moduli increase) with increasing temperature.

	H	Z
Temperature coefficient	4.2 γ/°C	2.1 γ/°C

T Trace	Scale Value	Baseline
Jan - Dec	0.53°C/mm	- 33.6°C
(Insensitive Magnetogram	1.88°C/mm	+ 12.7°C)

6. Scale Values

	Sensitive Magnetograms		Insensitive Magnetograms
H	Jan-23 Jun	4.34 γ/mm	15.8 γ/mm
	24 Jun- Dec	4.30 γ/mm	
D		0.92 '/mm	2.4 '/mm
Z		4.10 γ/mm	11.5 γ/mm

The above insensitive scale values are the means for the year but the values used when the insensitive record was required were determined by comparison with the sensitive records for the same day.

Baseline Values - Sensitive Magnetograms 1963

H baseline			D baseline		Z baseline		
1 Jan-31 Jan	23053	γ at 0°C	Jan-Dec	17°37.5'E	Jan	-36232	γ at 0°C
1 Jan-14 Mar	052	"			Feb-Mar	226	"
15 Mar-24 Apr	051	"			Apr-23 Jun	228	"
25 Apr-31 May	050	"			24 Jun-Aug	152	"
1 Jun-23 Jun	049	"			Sept	154	"
24 Jun-27 Jul	110	"			Oct	156	"
28 Jul-13 Aug	109	"			Nov	158	"
14 Aug-27 Aug	108	"			Dec	159	"
28 Aug-12 Sep	107	"					
13 Sep-28 Sep	106	"					
29 Sep-14 Oct	105	"					
15 Oct-31 Oct	104	"					
1 Nov-15 Nov	103	"					
16 Nov-30 Nov	102	"					
1 Dec-15 Dec	101	"					
16 Dec-31 Dec	100	"					

Insensitive magnetogram baselines were calculated where required by comparison of sensitive and insensitive records.

Baseline separations, to give scale

Sensitive

	H - D	D - Z
1 Jan - 1 Feb	33.4 mm ± 0.2	154.0 mm ± 0.2
3 Feb - 6 Feb	33.0 mm ± 0.2	153.6 mm ± 0.2
7 Feb - 9 Feb	33.1 mm ± 0.2	154.1 mm ± 0.2
10 Feb -11 Feb (1300 U.T.)		151.4 mm
11 Feb -19 Feb		154.0 mm ± 0.2
20 Feb -25 Jun (0900 U.T.)	33.5 mm ± 0.2	154.1 mm ± 0.2
25 Jun - 5 Dec	see note below	153.9 mm ± 0.2
6 Dec -31 Dec		153.5 mm ± 0.2

From 25 June onwards H baseline appears to have moved slowly across the paper, H-D starting at 47.8 mm and decreasing to 44.2 mm at the end of the year.

Insensitive

	D - H	H - Z	D - Z
3 Feb		129.7 mm	
6 Feb		129.5 mm	
10 Feb - 19 Feb		130.0 mm	
20 Feb - 30 Sept			177.0 mm ± 0.2
29 Oct	61.3 mm		177.0 mm
7 Dec	61.9 mm		176.0 mm

ARGENTINE ISLANDS A.973 JANUARY 1963

Lower limit K9: 500γ Scale values: E,4.32γ/mm; D,6.24γ/mm.

	K_H				K_D				$Max(K_H,K_D)$				
1	2	1	1	1	2	2	2	1	0	1	0	2	
2	0	0	1	1	2	2	1	0	0	0	0	2	
3	1	1	1	2	1	2	1	1	1	1	2	2	
4	2	1	1	1	2	2	3	2	1	1	1	2	
5	1	1	1	2	2	2	1	1	1	1	1	2	
6	1	0	0	0	0	1	1	1	0	0	1	1	
7	2	2	1	1	1	3	2	0	1	1	2	3	
8	1	0	1	1	1	0	1	1	1	1	2	1	
9	0	0	1	0	1	0	1	1	0	0	0	1	
10	1	1	1	0	1	1	1	0	1	1	1	1	
11	0	1	1	1	2	3	3	3	0	0	1	2	
12	1	2	1	1	1	2	3	4	0	1	1	1	
13	4	5	3	4	3	3	3	4	2	4	4	4	
14	3	3	2	4	2	3	3	3	2	3	3	3	
15	2	3	3	3	2	2	3	2	2	4	3	3	
16	3	2	2	3	3	3	4	3	4	1	2	2	
17	2	2	2	2	1	2	3	2	2	3	3	2	
18	2	1	1	1	1	2	2	4	1	2	2	1	
19	3	2	1	2	2	2	3	3	3	1	2	2	
20	1	1	1	1	1	1	1	1	1	0	2	2	
21	1	1	1	1	1	1	1	2	1	1	1	2	
22	1	1	1	1	1	1	3	2	1	1	2	1	
23	2	2	2	2	2	2	2	2	1	2	3	3	
24	1	2	1	2	1	2	3	3	1	1	1	2	
25	2	1	1	1	1	1	2	1	1	1	1	1	
26	1	1	1	0	0	1	2	1	0	0	0	1	
27	0	1	1	0	1	1	0	1	0	1	1	1	
28	1	1	0	1	0	0	1	0	0	0	0	1	
29	0	0	0	0	0	2	3	3	0	0	0	2	
30	3	3	3	3	2	2	4	4	2	3	3	4	
31	3	2	4	3	5	3	2	2	4	3	4	4	

	$Max(K_H,K_D)$								
1	2	2	2	1	2	1	1		
2	0	0	0	1	1	2	2	1	
3	1	1	1	2	2	1	2	1	
4	2	1	1	2	2	2	3	2	
5	1	1	1	2	2	2	1	1	
6	1	0	1	1	0	1	1	1	
7	2	2	2	3	2	3	2	0	
8	1	1	2	1	1	0	1	1	
9	0	0	1	1	1	0	1	1	
10	1	1	1	1	1	1	1	0	
11	0	1	1	2	2	3	3	3	
12	1	2	1	1	1	2	3	4	
13	4	5	4	4	3	3	3	4	
14	3	3	3	4	2	3	3	3	
15	2	4	3	3	3	2	3	2	
16	4	2	2	3	3	3	4	3	
17	2	3	3	2	2	2	3	2	
18	2	2	2	1	2	2	2	4	
19	3	2	2	2	3	2	3	3	
20	1	1	2	2	1	1	1	1	
21	1	1	1	2	1	1	1	2	
22	1	1	2	1	1	1	3	2	
23	2	2	3	3	2	2	2	2	
24	1	2	1	2	1	2	3	4	
25	2	1	1	1	1	1	2	1	
26	1	1	1	1	0	1	2	1	
27	0	1	1	1	1	1	0	1	
28	1	1	0	1	1	0	1	0	
29	0	0	0	2	1	2	3	3	
30	3	3	3	4	2	2	4	5	
31	4	3	4	4	5	3	3	2	

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Insensitive Magnetograms	H	nil	- 6 mins.
	D	- 1 min.	- 1 min.
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H trace and baseline	H baseline
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ARGENTINE ISLANDS A.973 — FEBRUARY 1963

Lower limit K9: 500 γ — Scale values: H, 4.32 γ/mm; D, 6.24 γ/mm

	K_H								K_D								$Max(K_H, K_D)$								
	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	Sum
Day																									
1	1	1	2	2	3	-	3+	3	0	0	2	2	4	-	-	-	1	1	2	2	4	-	3+	3+	16+
2	1	1	0	1	0	0	1	1	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	q	0+
3	1	1	0	0	1	0	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	0	1	1	7
4	1	0	0	0	0	2	2	2	0	0	0	0	0	1	0	0	1	0	0	0	0	2	2	2	7
5	0	1	1	1	1	1	1	1	0	0	0	1	2	0	0	0	0	1	1	1	2	1	1	1	8
6	1	1	0	0	0	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	8
7	1	1	1	1	0	1	1	2	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	2	8
8	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	3
9	1	0	0	0	0	1	3	5	0	0	0	0	1	0	1	4	1	0	0	0	1	1	3	5	11
10	5	4	3	3	3	3	3	3	5	4	4	3	5	1	2	4	5	4	4	3	5	3	3	4	31
11	3	2	2	2	2	3	3	3	2	2	2	3	2	2	2	2	3	2	2	3	2	3	3	3	21
12	2	2	2	2	2	3	2	3	3	3	3	2	2	2	3	3	3	3	3	2	2	3	3	3	22
13	3	3	2	q	q	3	3	q	1	3	2	q	3	3	3	q	3	3	2	q	3	3	3	q	17+
14	2	2	2	2	2	2	3	2	1	2	3	2	2	1	2	1	2	2	3	2	2	2	3	2	18
15	1	1	1	2	2	2	2	1	1	1	1	1	1	1	0	0	1	1	1	2	2	2	2	1	12
16	2	1	1	1	1	1	1	1	0	0	0	2	2	1	0	0	2	1	1	2	2	1	1	1	11
17	1	2	1	1	1	1	1	1	0	1	0	1	1	1	0	0	1	2	1	1	1	1	1	1	9
18	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	1	1	1	1	0	4
19	1	0	0	1	0	0	1	2	0	0	0	1	1	0	0	1	1	0	0	1	1	0	1	2	6
20	1	2	2	1	1	1	2	3	2	1	2	2	2	1	1	3	2	2	2	2	2	1	2	3	16
21	2	1	0	1	1	1	1	2	1	0	1	1	1	1	0	0	2	1	1	1	1	1	1	2	10
22	2	2	1	1	1	1	2	1	0	2	2	1	1	1	1	0	2	2	2	1	1	1	2	1	12
23	0	1	2	1	1	2	2	2	0	0	2	2	1	0	0	1	0	1	2	2	1	2	2	2	12
24	1	1	1	1	1	1	1	2	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	2	9
25	1	1	1	1	0	2	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	2	1	1	9
26	1	1	2	2	1	1	1	2	0	1	1	2	1	0	0	1	1	1	2	2	1	1	1	2	11
27	1	0	0	1	0	0	2	1	0	0	0	1	0	0	1	0	1	0	0	1	0	0	2	1	5
28	1	q	q	q	q	q	q	q	1	q	q	q	3	q	q	q	1	q	q	q	3	q	q	q	4+

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1 Jun-23 Jun	049	"			Sept	154 "
24 Jun-27 Jul	110	"			Oct	156 "
28 Jul-13 Aug	109	"			Nov	158 "
14 Aug-27 Aug	108	"			Dec	159 "
28 Aug-12 Sep	107	"				
13 Sep-28 Sep	106	"				
29 Sep-14 Oct	105	"				
15 Oct-31 Oct	104	"				
1 Nov-15 Nov	103	"				
16 Nov-30 Nov	102	"				
1 Dec-15 Dec	101	"				
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3 Feb - 6 Feb	33.0 mm ± 0.2	153.6 mm ± 0.2
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ARGENTINE ISLANDS A.973 — MARCH 1963

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	K_H								K_D								$\max(K_H, K_D)$								
	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	Sum
1	2	3	3	2	2	2	2	2	2	3	4	2	2	1	1	1	2	3	4	2	2	2	2	2	19
2	2	2	2	2	2	2	1	2	2	1	2	2	2	1	1	0	2	2	2	2	2	2	1	2	16
3	1	2	2	2	2	2	2	2	0	1	2	2	2	1	1	2	1	2	2	2	2	2	2	2	15
4	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	8
5	1	1	1	1	1	0	2	1	0	1	1	1	1	0	0	1	1	1	1	1	1	0	2	1	8
6	1	2	2	0	1	2	2	2	1	2	2	0	1	2	1	1	1	2	2	0	1	2	2	2	12
7	1	1	1	0	0	1	2	4	1	2	1	0	0	0	1	4	1	2	1	0	0	1	2	4	11
8	3	3	4	3	3	3	4	3	4	4	4	4	3	3	4	2	4	4	4	4	3	3	4	3	29
9	3	3	2	1	2	2	2	4	2	3	2	3	2	1	2	3	3	3	2	3	2	2	2	4	21
10	3	3	3	3	3	4	4	3	3	4	4	3	3	4	4	4	3	4	4	3	3	4	4	4	29
11	5	4	1	2	1	2	3	3	5	3	2	1	2	1	3	4	5	4	2	2	2	2	3	4	24
12	3	2	2	2	1	1	2	1	3	3	2	1	1	1	2	0	3	3	2	2	1	1	2	1	15
13	1	1	2	2	3	3	2	2	1	0	2	2	2	1	1	1	1	1	2	2	3	3	2	2	16
14	1	1	0	0	0	0	1	1	2	0	0	0	1	0	0	0	2	1	0	0	1	0	1	1	6
15	1	2	1	0	0	0	0	0	1	1	0	0	0	0	0	0	1	2	1	0	0	0	0	0	4
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	1	1	2	0	0	0	0	0	1	0	2	0	0	0	0	0	1	1	2	4
18	1	2	2	1	1	0	0	2	0	3	2	1	1	1	0	2	1	3	2	1	1	1	0	2	11
19	2	2	1	1	1	0	1	2	1	3	1	1	1	0	0	3	2	3	1	1	1	0	1	3	12
20	1	1	1	1	0	0	2	2	1	0	1	1	0	0	1	1	1	1	1	1	0	0	2	2	8
21	2	2	1	0	0	0	0	0	0	1	2	1	0	0	0	0	2	2	2	1	0	0	0	0	7
22	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
23	2	2	3	4	3	2	1	1	1	1	2	3	2	1	0	1	2	2	3	4	3	2	1	1	18
24	1	1	0	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	0	1	1	1	1	1	7
25	1	1	0	0	0	1	2	0	1	0	0	1	1	0	0	0	1	1	0	1	1	1	2	0	7
26	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
27	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2
28	0	1	2	1	1	0	2	1	0	0	2	1	0	0	0	1	0	1	2	1	1	0	2	1	8
29	2	1	1	1	1	0	1	1	2	2	1	1	1	0	0	1	2	2	1	1	1	0	1	1	9
30	0	0	1	1	0	0	0	0	1	0	1	1	0	0	0	0	1	0	1	1	0	0	0	0	3
31	0	1	1	0	0	0	0	3	0	1	1	1	1	0	0	1	0	1	1	1	1	0	0	3	7

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1963

FROM ARGENTINE ISLANDS A.973

LAT.	-65° 15'
LONG.	295° 44'
GEOMAGNETIC LAT.	-53.8°
GEOMAGNETIC LONG.	3.3°

ORIGINAL RECORDS HELD AT:-

BRITISH ANTARCTIC SURVEY

DEPARTMENT OF NATURAL PHILOSOPHY

DRUMMOND STREET

EDINBURGH, 8.

Phone: EDINBURGH NEWINGTON 1011 EXT. 2497

HEAD OFFICE:-

BRITISH ANTARCTIC SURVEY

30 GILLINGHAM STREET

LONDON, S.W. 1.

Phone: LONDON VICTORIA 3687

EXPLANATORY NOTES 1963

1. Instruments

These are standard La Cour variometers, recording H, D, and Z.

2. Time

Charts were changed at Greenwich midnight, so that each chart shows a complete Greenwich day. The master clock was adjusted to keep the clock error less than ½ minute.

The parallax correction for each trace is given below. The correction is to be added to the times read from the magnetograms.

	Trace	Correction Jan - Sept	Correction Oct - Dec
Sensitive Magnetograms	H	+ 2 mins.	+ 2 mins.
	D	- 1 min.	- 1 min.
	Z	+ 2 mins.	nil
	T	+ 4 mins.	+ 4 mins.
Insensitive Magnetograms	H	nil	- 6 mins.
	D	- 1 min.	- 1 min.
	Z	- 1 min.	- 1 min.
	T	+ 1 min.	+ 1 min.

3. Order of Traces, from top to bottom

Sensitive Magnetograms	Insensitive Magnetograms
T trace	D trace and baseline (double baseline, upper line used)
H trace and baseline	H baseline
D baseline and trace	T trace
Z baseline and trace	H trace
	Z baseline and trace

4. Sense of Traces

All magnetograms: Temperature increases up the sheet.
H increases up the sheet.
D increases easterly up the sheet.
Z increases down the sheet.
(N.B. Z is negative, hence as Z increases, modulus of Z decreases).

5. Temperature Coefficients

The sensitive H and Z variometers have appreciable temperature coefficients.
H baseline values increase with increasing temperature.
Z baseline values decrease (i.e. their moduli increase) with increasing temperature.

	H	Z
Temperature coefficient	4.2 γ/°C	2.1 γ/°C

T Trace	Scale Value	Baseline
Jan - Dec	0.53°C/mm	- 33.6°C
(Insensitive Magnetogram	1.88°C/mm	+ 12.7°C)

6. Scale Values

	Sensitive Magnetograms		Insensitive Magnetograms
H	Jan-23 Jun	4.34 γ/mm	15.6 γ/mm
	24 Jun-Dec	4.30 γ/mm	
D		0.92 '/mm	2.4 '/mm
Z		4.10 γ/mm	11.5 γ/mm

The above insensitive scale values are the means for the year but the values used when the insensitive record was required were determined by comparison with the sensitive record for the same day.

Baseline Values – Sensitive Magnetograms

1963

H baseline			D baseline		Z baseline		
1 Jan-31 Jan	23053 γ at 0°C		Jan-Dec	17°37.5'E	Jan	-36232 γ at 0°C	
1 Jan-14 Mar	052	"			Feb-Mar	226	"
15 Mar-24 Apr	051	"			Apr-23 Jun	228	"
25 Apr-31 May	050	"			24 Jun-Aug	152	"
1 Jun-23 Jun	049	"			Sept	154	"
24 Jun-27 Jul	110	"			Oct	156	"
28 Jul-13 Aug	109	"			Nov	158	"
14 Aug-27 Aug	108	"			Dec	159	"
28 Aug-12 Sep	107	"					
13 Sep-28 Sep	106	"					
29 Sep-14 Oct	105	"					
15 Oct-31 Oct	104	"					
1 Nov-15 Nov	103	"					
16 Nov-30 Nov	102	"					
1 Dec-15 Dec	101	"					
16 Dec-31 Dec	100	"					

Insensitive magnetogram baselines were calculated where required by comparison of sensitive and insensitive records.

Baseline corrections, to give scale

Sensitive

	H – D	D – Z
1 Jan – 1 Feb	33.4 mm ± 0.2	154.0 mm ± 0.2
3 Feb – 6 Feb	33.0 mm ± 0.2	153.6 mm ± 0.2
7 Feb – 9 Feb	33.1 mm ± 0.2	154.1 mm ± 0.2
10 Feb –11 Feb (1300 U.T.)		151.4 mm
11 Feb –19 Feb		154.0 mm ± 0.2
20 Feb –25 Jun (0900 U.T.)	33.5 mm ± 0.2	154.1 mm ± 0.2
25 Jun – 5 Dec	see note below	153.9 mm ± 0.2
6 Dec –31 Dec		153.5 mm ± 0.2

From 25 June onwards H baseline appears to have moved slowly across the paper, H-D starting at 47.8 mm and decreasing to 44.2 mm at the end of the year.

Insensitive

	D – H	H – Z	D – Z
3 Feb		129.7 mm	
6 Feb		129.5 mm	
10 Feb – 19 Feb		130.0 mm	
20 Feb – 30 Sept			177.0 mm ± 0.2
29 Oct	61.3 mm		177.0 mm
7 Dec	61.9 mm		176.0 mm

ARGENTINE ISLANDS A.973 — **APRIL 1963**

Lower limit K9: 500 γ — Scale values: E, 4.32 γ/m; D, 6.24 γ/m.

K_H

	E1	E2	E3	E4	E5	E6	E7	E8
1	2	3	2	2	1	1	1	1
2	2	1	0	0	0	2	2	1
3	2	2	2	1	0	0	0	1
4	1	2	3	3	2	2	3	3
5	4	4	2	2	3	3	3	3
6	3	2	3	2	3	1	2	3
7	2	2	2	2	2	1	1	3
8	2	2	1	2	1	1	1	1
9	1	3	1	1	1	1	1	0
10	0	0	0	0	0	0	0	0
11	1	0	0	1	0	0	1	1
12	3	1	2	2	1	1	1	2
13	2	1	1	2	2	2	3	2
14	4	2	1	2	3	3	2	3
15	4	3	4	2	1	1	1	2
16	2	2	1	1	1	1	2	2
17	3	2	1	1	0	1	2	1
18	0	1	1	1	2	2	3	4
19	3	3	3	1	1	2	2	1
20	3	2	3	1	1	2	1	0
21	0	1	0	1	1	1	1	0
22	3	1	0	1	1	0	3	3
23	3	2	3	1	1	0	0	0
24	0	0	0	0	0	0	0	0
25	1	2	1	0	0	1	1	2
26	1	3	0	0	0	0	1	2
27	1	2	3	2	2	2	2	1
28	0	0	1	0	0	1	1	0
29	1	2	1	0	0	0	1	1
30	1	0	0	1	1	3	4	3

K_D

	E1	E2	E3	E4	E5	E6	E7	E8
1	4	5	5	2	1	0	0	0
2	0	1	0	0	0	1	1	1
3	3	2	2	1	0	0	0	0
4	1	1	2	3	3	2	3	3
5	5	4	3	2	3	3	3	4
6	3	2	4	3	2	2	1	3
7	2	2	3	3	1	1	1	2
8	2	1	0	1	0	0	1	0
9	0	2	2	1	1	1	1	0
10	0	0	0	0	0	0	0	0
11	0	0	0	1	0	0	0	0
12	3	0	2	2	1	0	1	0
13	2	2	2	2	2	1	2	3
14	4	2	1	2	2	3	2	5
15	4	3	4	3	2	1	1	2
16	3	3	2	1	1	0	2	1
17	3	3	2	1	0	0	0	0
18	0	0	0	0	0	0	0	0
19	0	2	1	0	0	0	0	0
20	1	0	0	1	1	2	5	4

$\mathrm{Max}(K_H, K_D)$

	E1	E2	E3	E4	E5	E6	E7	E8	Sum
1	4	5	5	2	1	1	1	1	25
2	2	1	0	0	0	2	2	1	8
3	3	2	2	1	0	0	0	1	9
4	1	2	3	3	3	2	3	3	20
5	5	4	3	2	3	3	3	4	27
6	3	2	4	3	3	2	2	3	22
7	2	2	3	3	2	1	1	3	17
8	2	2	1	2	1	1	1	1	11
9	1	3	2	1	1	1	1	0	10
10	0	0	0	0	0	0	0	0	0
11	1	0	0	1	0	0	1	1	4
12	3	1	2	2	1	1	1	2	13
13	2	2	2	2	2	2	3	3	18
14	4	2	1	2	3	3	2	5	22
15	4	3	4	3	2	1	1	2	20
16	3	3	2	1	1	1	2	2	15
17	3	3	2	1	0	1	2	1	13
18	0	1	1	2	2	2	3	4	16
19	3	3	3	1	1	2	2	1	16
20	3	2	3	1	1	2	1	0	13
21	0	1	0	1	1	1	1	0	5
22	3	1	0	1	1	0	3	3	12
23	3	3	4	3	1	0	0	0	14
24	0	0	0	0	0	0	0	0	0
25	2	2	1	0	0	1	1	2	9
26	2	3	1	0	0	0	1	2	9
27	2	2	3	2	2	2	3	1	17
28	0	0	1	0	0	1	1	0	3
29	1	2	1	0	0	0	1	1	6
30	1	0	0	1	1	3	5	4	15

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1963

FROM ARGENTINE ISLANDS A.973

LAT.	-65° 15'
LONG.	295° 44'
GEOMAGNETIC LAT.	-53.8°
GEOMAGNETIC LONG.	3.3°

ORIGINAL RECORDS HELD AT:-

BRITISH ANTARCTIC SURVEY

DEPARTMENT OF NATURAL PHILOSOPHY

DRUMMOND STREET

EDINBURGH, 8.

Phone: EDINBURGH NEWINGTON 1011 EXT. 2497

HEAD OFFICE:-

BRITISH ANTARCTIC SURVEY

30 GILLINGHAM STREET

LONDON, S.W. 1.

Phone: LONDON VICTORIA 3687

EXPLANATORY NOTES 1963

1. Instruments

These are standard La Cour variometers, recording H, D, and Z.

2. Time

Charts were changed at Greenwich midnight, so that each chart shows a complete Greenwich day. The master clock was adjusted to keep the clock error less than ½ minute.

The parallax correction for each trace is given below. The correction is to be added to the times read from the Magnetograms.

	Trace	Correction Jan - Sept	Correction Oct - Dec
Sensitive Magnetograms	H	+ 2 mins.	+ 2 mins.
	D	- 1 min.	- 1 min.
	Z	+ 2 mins.	nil
	T	+ 4 mins.	+ 4 mins.
Insensitive Magnetograms	H	nil	- 6 mins.
	D	- 1 min.	- 1 min.
	Z	- 1 min.	- 1 min.
	T	+ 1 min.	+ 1 min.

3. Order of Traces, from top to bottom

Sensitive Magnetograms	Insensitive Magnetograms
T trace	D trace and baseline (double baseline, upper line used)
H trace and baseline	H baseline
D baseline and trace	T trace
Z baseline and trace	H trace
	Z baseline and trace

4. Sense of Traces

All magnetograms: Temperature increases up the sheet.
H increases up the sheet.
D increases easterly up the sheet.
Z increases down the sheet.
(N.B. Z is negative, hence as Z increases, modulus of Z decreases).

5. Temperature Coefficients

The sensitive H and Z variometers have appreciable temperature coefficients.
H baseline values increase with increasing temperature.
Z baseline values decrease (i.e. their moduli increase) with increasing temperature.

	H	Z
Temperature coefficient	4.2 γ/°C	2.1 γ/°C

T Trace	Scale Value	Baseline
Jan - Dec	0.53°C/mm	- 33.6°C
(Insensitive Magnetogram	1.88°C/mm	+ 12.7°C)

6. Scale Values

	Sensitive Magnetograms		Insensitive Magnetograms
H	Jan-23 Jun	4.34 γ/mm	15.8 γ/mm
	24 Jun- Dec	4.30 γ/mm	
D		0.92 '/mm	2.4 '/mm
Z		4.10 γ/mm	11.5 γ/mm

The above insensitive scale values are the means for the year but the values used when the insensitive record was required were determined by comparison with the sensitive records for the same day.

Baseline Values - Sensitive Magnetograms 1963

H baseline			D baseline		Z baseline		
1 Jan–31 Jan	23053 γ	at 0°C	Jan–Dec	17°37.5'E	Jan	-36232 γ	at 0°C
1 Jan–14 Mar	052	"			Feb–Mar	226	"
15 Mar–24 Apr	051	"			Apr–23 Jun	228	"
25 Apr–31 May	050	"			24 Jun–Aug	152	"
1 Jun–23 Jun	049	"			Sept	154	"
24 Jun–27 Jul	110	"			Oct	156	"
28 Jul–13 Aug	109	"			Nov	158	"
14 Aug–27 Aug	108	"			Dec	159	"
28 Aug–12 Sep	107	"					
13 Sep–28 Sep	106	"					
29 Sep–14 Oct	105	"					
15 Oct–31 Oct	104	"					
1 Nov–15 Nov	103	"					
16 Nov–30 Nov	102	"					
1 Dec–15 Dec	101	"					
16 Dec–31 Dec	100	"					

Insensitive magnetogram baselines were calculated where required by comparison of sensitive and insensitive records.

Baseline corrections, to give scale 1963

Sensitive

	H - D	D - Z
1 Jan - 1 Feb	33.4 mm ± 0.2	154.0 mm ± 0.2
3 Feb - 6 Feb	33.0 mm ± 0.2	153.6 mm ± 0.2
7 Feb - 9 Feb	33.1 mm ± 0.2	154.1 mm ± 0.2
10 Feb -11 Feb (1300 U.T.)		151.4 mm
11 Feb -19 Feb		154.0 mm ± 0.2
20 Feb -25 Jun (0900 U.T.)	33.5 mm ± 0.2	154.1 mm ± 0.2
25 Jun - 5 Dec	see note below	153.9 mm ± 0.2
6 Dec -31 Dec		153.5 mm ± 0.2

From 25 June onwards H baseline appears to have moved slowly across the paper, H-D starting at 47.8 mm and decreasing to 44.2 mm at the end of the year.

Insensitive

	D - H	H - Z	D - Z
3 Feb		129.7 mm	
6 Feb		129.5 mm	
10 Feb - 19 Feb		130.0 mm	
20 Feb - 30 Sept			177.0 mm ± 0.2
29 Oct	61.3 mm		177.0 mm
7 Dec	61.9 mm		176.0 mm

ARGENTINE ISLANDS A.973 — MAY 1963

Lower limit K9: 500 γ — Scale values: E, 4.32 γ/nm; D, 6.24 γ/nm.

	K_H								K_D								$\max(K_H, K_D)$								
	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	Sum
1	3	3	2	3	3	3	1	3	5	5	3	3	2	3	2	3	5	5	3	3	3	3	2	3	27
2	3	2	2	3	2	3	2	2+	4	2	3	4	2	2	2	2+	4	2	3	4	2	3	2	2+	22
3	2	2	3	2	1	2	2	3	3	2	3	2	2	2	1	4	3	2	3	2	2	2	2	4	20
4	4	2	3	3	1	2	1	2	4	3	5	3	2	2	1	3	4	3	5	3	2	2	1	3	23
5	2	3	2	2	1	2	1	1	3	4	2	2	1	1	1	1	3	4	2	2	1	2	1	1	16
6	3	4	1	1	1	1	2	2	3	3	3	1	0	1	1	1	3	4	3	1	1	1	2	2	17
7	0	1	2	1	1	1	1	2	1	0	2	2	1	1	1	1	1	1	2	2	1	1	1	2	11
8	2	2	2	2	1	1	2	3	3	3	2	2	1	1	2	3	3	3	2	2	1	1	2	3	17
9	2	3	4	2	1	2	3	3	2	2	4	3	2	1	1	3	2	3	4	3	2	2	3	3	22
10	2	3	2	2	2	2	3	3	3	4	3	3	1	1	3	3	3	4	3	3	2	2	3	3	23
11	4	3	1	2	3	1	2	3	4	4	2	3	2	1	0	3	4	4	2	3	3	1	2	3	22
12	3	1	2	1	2	1	2	2	4	2	3	2	1	1	2	3	4	2	3	2	2	1	2	3	19
13	3	3	2	3	3	2	2	3	5	4	4	3	3	1	2	4	5	4	4	3	3	2	2	4	27
14	3	4	3	3	2	1	1	3	3	4	2	3	2	0	1	2	3	4	3	3	2	1	1	3	20
15	2	2	2	1	1	1	2	2	1	2	3	0	1	1	1	1	2	2	3	1	1	1	2	2	14
16	3	1	0	0	0	0	0	0	4	1	0	0	0	0	0	0	4	1	0	0	0	0	0	0	5
17	2	1	1	1	1	1	1	1	2	1	1	2	1	1	2	0	2	1	1	2	1	1	2	1	11
18	0	1	0	0	1	1	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	1	0	0	4
19	0	0	0	1	1	1	1	3	0	0	1	2	0	1	1	3	0	0	1	2	1	1	1	3	9
20	4	1	2	0	0	0	0	0	4	2	2	0	0	0	0	0	4	2	2	0	0	0	0	0	8
21	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	1	3
22	1	1	0	0	1	1	0	0	0	0	0	1	1	0	0	0	1	1	0	1	1	1	0	0	5
23	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	2
24	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
25	1	1	1	1	2	1	2	1	0	0	0	1	1	1	1	1	1	1	1	1	2	1	2	1	10
26	3	3	1	0	1	1	1	2	3	3	1	1	0	1	0	3	3	3	1	1	1	1	1	3	14
27	2	2	0	1	0	1	2	3	2	2	1	1	0	1	1	3	2	2	1	1	0	1	2	3	12
28	2	3	2	2	1	1	1	1	3	4	4	2	2	1	1	1	3	4	4	2	2	1	1	1	18
29	3	5	3	1	1	1	1	0	5	5	2	2	1	1	1	0	5	5	3	2	1	1	1	0	18
30	3	3	3	1	1	1	2	0	3	3	4	2	1	1	1	0	3	3	4	2	1	1	2	0	15
31	0	2	2	2	2	2	3	3	0	1	2	2	2	1	1	3	0	2	2	2	2	2	3	3	16

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1963

FROM ARGENTINE ISLANDS A.973

LAT.	-65° 15'
LONG.	295° 44'
GEOMAGNETIC LAT.	-53.8°
GEOMAGNETIC LONG.	3.3°

ORIGINAL RECORDS HELD AT:-

BRITISH ANTARCTIC SURVEY

DEPARTMENT OF NATURAL PHILOSOPHY

DRUMMOND STREET

EDINBURGH, 8.

Phone: EDINBURGH NEWINGTON 1011 EXT. 2497

HEAD OFFICE:-

BRITISH ANTARCTIC SURVEY

30 GILLINGHAM STREET

LONDON, S.W. 1.

Phone: LONDON VICTORIA 3687

3. Order of Traces, from top to bottom

Declinative Magnetograms	Inclinative Magnetograms
T trace	D trace and baseline (double baseline, upper line used)
H trace and baseline	H baseline
D baseline and trace	T trace
Z baseline and trace	H trace
	Z baseline and trace

4. Sense of Traces

All magnetograms: Temperature increases up the sheet.
H increases up the sheet.
D increases easterly up the sheet.
Z increases down the sheet.
(N.B. Z is negative, hence as Z increases, modulus of Z decreases).

5. Temperature Coefficients

The declinative H and Z variometers have appreciable temperature coefficients.
H baseline values increase with increasing temperature.
Z baseline values decrease (i.e. their moduli increase) with increasing temperature.

Temperature coefficient	H: 4.2 γ/°C	Z: 2.1 γ/°C
T trace	Scale Value	Deflection
Jan – Dec	0.5 γ/mm	– 25.5 mm
(Inclinative Magnetogram	1.0 γ/mm	+ 12.7°C)

6. Scale Values

H		
D		
Z		

Baseline Values - Sensitive Magnetograms

1963

H baseline			D baseline		Z baseline		
1 Jan-31 Jan	23053 γ at 0°C		Jan-Dec	17°37.5'E	Jan	-36232 γ at 0°C	
1 Jan-14 Mar	052	"			Feb-Mar	226	"
15 Mar-24 Apr	051	"			Apr-23 Jun	228	"
25 Apr-31 May	050	"			24 Jun-Aug	152	"
1 Jun-25 Jun	049	"			Sept	154	"
24 Jun-27 Jul	110	"			Oct	156	"
28 Jul-13 Aug	109	"			Nov	158	"
14 Aug-27 Aug	108	"			Dec	159	"
28 Aug-12 Sep	107	"					
13 Sep-28 Sep	106	"					
29 Sep-14 Oct	105	"					
15 Oct-31 Oct	104	"					
1 Nov-15 Nov	103	"					
16 Nov-30 Nov	102	"					
1 Dec-15 Dec	101	"					
16 Dec-31 Dec	100	"					

Insensitive magnetogram baselines were calculated where required by comparison of sensitive and insensitive records.

Baseline separations, to give scale

1963

Sensitive

	H - D	D - Z
1 Jan - 1 Feb	33.4 mm ± 0.2	154.0 mm ± 0.2
3 Feb - 6 Feb	33.0 mm ± 0.2	153.6 mm ± 0.2
7 Feb - 9 Feb	33.1 mm ± 0.2	154.1 mm ± 0.2
10 Feb -11 Feb (1300 U.T.)		151.4 mm
11 Feb -19 Feb		154.0 mm ± 0.2
20 Feb -25 Jun (0900 U.T.)	33.5 mm ± 0.2	154.1 mm ± 0.2
25 Jun - 5 Dec	see note below	153.9 mm ± 0.2
6 Dec -31 Dec		153.5 mm ± 0.2

From 25 June onwards H baseline appears to have moved slowly across the paper, H-D starting at 47.8 mm and decreasing to 44.2 mm at the end of the year.

Insensitive

	D - H	H - Z	D - Z
3 Feb		129.7 mm	
6 Feb		129.5 mm	
10 Feb - 19 Feb		130.0 mm	
20 Feb - 30 Sept			177.0 mm ± 0.2
29 Oct	61.3 mm		177.0 mm
7 Dec	61.9 mm		176.0 mm

ARGENTINE ISLANDS A.973 **JUNE 1963**

Lower limit K9: 500γ **Scale values: E,4.32γ/mm; D,6.24γ/mm.**

	K_H								K_D								$Max(K_H,K_D)$								
Day	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	Sum
1	1	3	2	3	2	1	1	2	2	3	2	4	2	2	1	3	2	3	2	4	2	2	1	3	19
2	2	3	2	1	2	2	2	0	2	3	3	3	3	2	2	0	2	3	3	3	3	2	2	0	18
3	2	2	1	2	1	1	q	0	1	2	2	2	1	1	1	0	2	2	2	2	1	1	q	0	10+
4	1	1	2	0	0	0	0	0	1	0	2	0	0	0	0	0	1	1	2	0	0	0	0	0	4
5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6	0	0	0	0	0	3	4	5	0	0	0	0	0	1	3	3	0	0	0	0	0	3	4	5	12
7	6	5	3	2	2	1	3	4	6	6	4	2	3	1	3	5	6	6	4	2	3	1	3	5	30
8	2	2	2	2	1	1	2	3	2	2	2	2	1	1	2	4	2	2	2	2	1	1	2	4	16
9	4	3	2	2	2	1	1	1	4	3	2	3	2	1	1	2	4	3	2	3	2	1	1	2	18
10	1	2	0	2	0	1	2	1	1	0	0	2	1	0	2	0	1	2	0	2	1	1	2	1	10
11	2	3	1	1	1	2	0	1	2	3	3	1	1	1	0	2	2	3	3	1	1	2	0	2	14
12	1	3	0	0	0	0	0	0	0	3	1	1	1	0	0	0	1	3	1	1	1	0	0	0	7
13	3	2	2	1	0	1	0	1	3	2	2	1	0	1	0	0	3	2	2	1	0	1	0	1	10
14	2	0	0	2	0	1	0	1	2	0	0	1	1	1	0	0	3	0	0	2	1	1	0	1	8
15	2	3	3	1	0	0	0	2	1	3	3	1	0	1	1	2	2	3	3	1	0	1	2	2	14
16	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
17	2	2	3	2	2	1	1	2	1	1	2	3	2	1	2	3	2	2	3	3	2	1	2	3	18
18	1	3	2	3	3	3	4	3	1	3	3	2	3	2	3	4	1	3	3	3	3	3	4	4	24
19	4	3	2	0	0	1	1	3	3	4	3	0	0	1	2	1	4	4	3	0	0	1	2	3	17
20	3	3	3	2	2	2	1	2	3	2	4	4	2	1	1	2	3	3	4	4	2	2	1	2	21
21	2	3	1	2	0	0	0	1	3	2	3	3	0	0	0	0	3	3	3	3	0	0	0	1	13
22	2	1	1	0	0	0	0	1	1	2	2	1	0	0	0	0	2	2	2	1	0	0	0	1	8
23	1	1	0	0	0	0	0	0	2	1	1	1	0	0	0	0	2	1	1	1	0	0	0	0	5
24	q	q	q	q	q	q	q	q	1	2	2	0	1	0	0	0	q	q	q	q	q	q	q	q	6+
25	2	3	3	2	1	2	4	5	3	4	4	3	2	2	2	4	3	4	4	3	2	2	4	5	27
26	4	3	4	3	1	1	1	2	5	3	4	2	1	1	1	3	5	3	4	3	1	1	1	3	21
27	3	4	3	2	2	1	3	2	5	5	4	3	3	2	3	3	5	5	4	3	3	2	3	3	28
28	2	2	2	2	1	2	3	1	3	3	4	3	1	1	1	1	3	3	4	3	1	2	3	1	20
29	2	2	2	0	1	2	2	2	2	1	3	1	1	2	3	3	2	2	3	1	1	2	3	3	17
30	3	2	2	2	2	2	2	2	2	2	3	2	1	1	3	3	3	2	3	2	2	2	3	3	20

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1963

FROM ARGENTINE ISLANDS A.973

LAT.	-65° 15'
LONG.	295° 44'
GEOMAGNETIC LAT.	-53.8°
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EXPLANATORY NOTES 1963

1. Instruments

These are standard La Cour variometers, recording H, D, and Z.

2. Time

Charts were changed at Greenwich midnight, so that each chart shows a complete Greenwich day. The master clock was adjusted to keep the clock error less than ½ minute.

The parallax correction for each trace is given below. The correction is to be added to the times read from the magnetograms.

Sensitive Magnetograms	Trace	Correction Jan - Sept	Correction Oct - Dec
	H	+ 2 mins.	+ 2 mins.
	D	- 1 min.	- 1 min.
	Z	+ 2 mins.	nil
	T	+ 4 mins.	+ 4 mins.
Insensitive Magnetograms	H	nil	- 6 mins.
	D	- 1 min.	- 1 min.
	Z	- 1 min.	- 1 min.
	T	+ 1 min.	+ 1 min.

3. Order of Traces, from top to bottom

Sensitive Magnetograms	Insensitive Magnetograms
T trace	D trace and baseline (double baseline, upper line used)
H trace and baseline	H baseline
D baseline and trace	T trace
Z baseline and trace	H trace
	Z baseline and trace

4. Sense of Traces

All magnetograms: Temperature increases up the sheet.
H increases up the sheet.
D increases easterly up the sheet.
Z increases down the sheet.
(N.B. Z is negative, hence as Z increases, modulus of Z decreases).

5. Temperature Coefficients

The sensitive H and Z variometers have appreciable temperature coefficients.
H baseline values increase with increasing temperature.
Z baseline values decrease (i.e. their moduli increase) with increasing temperature.

	H	Z
Temperature coefficient	4.2 γ/°C	2.1 γ/°C

T Trace	Scale Value	Baseline
Jan - Dec	0.53°C/mm	- 33.6°C
(Insensitive Magnetogram	1.88°C/mm	+ 12.7°C)

6. Scale Values

	Sensitive Magnetograms		Insensitive Magnetograms
H	Jan-23 Jun	4.34 γ/mm	15.8 γ/mm
	24 Jun- Dec	4.30 γ/mm	
D		0.92 '/mm	2.4 '/mm
Z		4.10 γ/mm	11.5 γ/mm

The above insensitive scale values are the means for the year but the values used when the insensitive record was required were determined by comparison with the sensitive records for the same day.

Baseline Values - Sensitive Magnetograms

1963

H baseline			D baseline		Z baseline		
1 Jan-31 Jan	23053	γ at 0°C	Jan-Dec	17°37.5'E	Jan	-36232	γ at 0°C
1 Jan-14 Mar	052	"			Feb-Mar	226	"
15 Mar-24 Apr	051	"			Apr-23 Jun	228	"
25 Apr-31 May	050	"			24 Jun-Aug	152	"
1 Jun-23 Jun	049	"			Sept	154	"
24 Jun-27 Jul	110	"			Oct	156	"
28 Jul-13 Aug	109	"			Nov	158	"
14 Aug-27 Aug	108	"			Dec	159	"
28 Aug-12 Sep	107	"					
13 Sep-28 Sep	106	"					
29 Sep-14 Oct	105	"					
15 Oct-31 Oct	104	"					
1 Nov-15 Nov	103	"					
16 Nov-30 Nov	102	"					
1 Dec-15 Dec	101	"					
16 Dec-31 Dec	100	"					

Insensitive magnetogram baselines were calculated where required by comparison of sensitive and insensitive records.

Baseline separations, to give scale

Sensitive

	H - D	D - Z
1 Jan - 1 Feb	33.4 mm ± 0.2	154.0 mm ± 0.2
3 Feb - 6 Feb	33.0 mm ± 0.2	153.6 mm ± 0.2
7 Feb - 9 Feb	33.1 mm ± 0.2	154.1 mm ± 0.2
10 Feb -11 Feb (1300 U.T.)		151.4 mm
11 Feb -19 Feb		154.0 mm ± 0.2
20 Feb -25 Jun (0900 U.T.)	33.5 mm ± 0.2	154.1 mm ± 0.2
25 Jun - 5 Dec	see note below	153.9 mm ± 0.2
6 Dec -31 Dec		153.5 mm ± 0.2

From 25 June onwards H baseline appears to have moved slowly across the paper, H-D starting at 47.8 mm and decreasing to 44.2 mm at the end of the year.

Insensitive

	D - H	H - Z	D - Z
3 Feb		129.7 mm	
6 Feb		129.5 mm	
10 Feb - 19 Feb		130.0 mm	
20 Feb - 30 Sept			177.0 mm ± 0.2
29 Oct	61.3 mm		177.0 mm
7 Dec	61.9 mm		176.0 mm

ARGENTINE ISLANDS A.973 — JULY 1963

Lower limit K9: 500 γ — Scale values: H, 4.32 γ/mm; D, 6.24 γ/mm.

	K_H								K_D								$\max(K_H, K_D)$								
	K1	K2	K3	K4	K5	K6	K7	K8	K1	K2	K3	K4	K5	K6	K7	K8	K1	K2	K3	K4	K5	K6	K7	K8	
1	3	2	0	0	0	0	0	0	3	3	1	0	0	0	0	0	3	3	1	0	0	0	0	0	
2	0	1	1	0	0	0	0	0	0	0	1	1	0	1	0	0	0	1	1	1	0	1	0	0	
3	2	0	0	0	0	0	0	0	2	1	0	1	0	0	0	0	2	1	0	1	0	0	0	0	
4	0	1	2	2	2	1	4	4	0	3	3	1	1	1	4	4	0	3	3	2	2	1	4	4	19
5	3	4	3	2	1	0	2	3	4	4	5	1	1	0	1	3	4	4	5	2	1	0	2	3	21
6	3	4	3	2	2	2	2	1	4	6	5	2	2	2	2	1	4	6	5	2	2	2	2	1	24
7	2	2	1	3	3	3	1	1	4	4	2	3	2	2	1	1	4	4	2	3	3	3	1	1	21
8	3	3	2	1	2	2	1	4	3	2	3	2	1	1	1	2	3	3	3	2	2	2	1	4	20
9	5	3	2	2	2	1	2	3	5	4	3	2	2	1	2	3	5	4	3	2	2	1	2	3	22
10	2	3	2	1	1	1	1	2	2	3	3	2	0	1	1	2	2	3	3	2	1	1	1	2	15
11	3	2	3	0	0	1	1	1	2	2	2	0	1	1	1	1	3	2	3	0	1	1	1	1	12
12	1	2	1	0	0	1	1	1	1	2	1	0	0	0	0	0	1	2	1	0	0	1	1	1	7
13	1	2	2	0	1	0	1	0	3	1	2	1	0	0	0	1	3	2	2	1	1	0	1	1	11
14	1	1	1	1	0	1	0	0	2	1	1	1	0	0	0	0	2	1	1	1	0	1	0	0	6
15	1	0	0	1	0	1	0	1	1	1	0	0	0	0	0	0	1	1	0	1	0	1	0	1	5
16	3	3	1	1	1	1	1	2	3	3	1	0	0	0	1	2	3	3	1	1	1	1	1	2	13
17	3	3	4	4	3	2	1	2	4	4	3	3	2	1	1	1	4	4	4	4	3	2	1	2	24
18	2	2	2	1	1	2	2	3	1	1	2	2	1	2	1	2	2	2	2	2	1	2	2	3	16
19	3	1	1	1	0	0	1	0	3	1	2	0	1	0	0	0	3	1	2	1	1	0	1	0	9
20	0	0	0	1	0	1	2	1	0	1	0	0	0	1	1	0	0	1	0	1	0	1	2	1	6
21	1	2	3	3	4	3	3	1	0	2	3	4	5	4	2	0	1	2	3	4	5	4	3	1	23
22	1	1	3	2	2	2	2	1	0	2	4	2	2	2	2	0	1	2	4	2	2	2	2	1	16
23	2	2	3	2	1	2	2	4	3	3	3	2	2	2	3	5	3	3	3	2	2	2	3	5	23
24	4	4	2	3	3	1	1	3	4	5	4	4	3	1	1	3	4	5	4	4	3	1	1	3	25
25	2	3	3	2	1	2	1	2	2	4	3	1	1	2	1	1	2	4	3	2	1	2	1	2	17
26	2	2	3	2	2	2	2	2	3	3	4	2	2	2	2	2	3	3	4	2	2	2	2	2	20
27	3	3	2	2	2	2	1	2	5	4	3	2	2	1	1	2	5	4	3	2	2	2	1	2	21
28	3	1	1	1	1	1	0	0	4	2	3	2	0	0	0	0	4	2	3	2	1	1	0	0	13
29	0	0	0	0	0	1	1	2	0	0	1	0	0	0	0	2	0	0	1	0	0	1	1	2	5
30	3	3	4	2	4	2	4	3	3	4	5	2	4	2	3	4	3	4	5	2	4	2	4	4	28
31	3	4	2	2	3	1	1	4	4	3	4	1	3	1	1	5	4	4	4	2	3	1	1	5	24

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1963

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LONG.	295° 44'
GEOMAGNETIC LAT.	-53.8°
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EXPLANATORY NOTES 1963

1. Instruments

These are standard La Cour variometers, recording H, D, and Z.

2. Time

Charts were changed at Greenwich midnight, so that each chart shows a complete Greenwich day. The master clock was adjusted to keep the clock error less than ½ minute.

The parallax correction for each trace is given below. The correction is to be added to the times read from the magnetograms.

Sensitive Magnetograms	Trace	Correction Jan - Sept	Correction Oct - Dec
	H	+ 2 mins.	+ 2 mins.
	D	- 1 min.	- 1 min.
	Z	+ 2 mins.	nil
	T	+ 4 mins.	+ 4 mins.
Insensitive Magnetograms	H	nil	- 6 mins.
	D	- 1 min.	- 1 min.
	Z	- 1 min.	- 1 min.
	T	+ 1 min.	+ 1 min.

3. Order of Traces, from top to bottom

Sensitive Magnetograms	Insensitive Magnetograms
T trace	D trace and baseline (double baseline, upper line used)
H trace and baseline	H baseline
D baseline and trace	T trace
Z baseline and trace	H trace
	Z baseline and trace

4. Sense of Traces

All magnetograms: Temperature increases up the sheet.
H increases up the sheet.
D increases easterly up the sheet.
Z increases down the sheet.
(N.B. Z is negative, hence as Z increases, modulus of Z decreases).

5. Temperature Coefficients

The sensitive H and Z variometers have appreciable temperature coefficients.
H baseline values increase with increasing temperature.
Z baseline values decrease (i.e. their moduli increase) with increasing temperature.

	H	Z
Temperature coefficient	4.2 ɣ/°C	2.1 ɣ/°C

T Trace	Scale Value	Baseline
Jan - Dec	0.53°C/mm	- 33.6°C
(Insensitive Magnetogram	1.88°C/mm	+ 12.7°C)

6. Scale Values

	Sensitive Magnetograms		Insensitive Magnetograms
H	Jan-23 Jun	4.34 ɣ/mm	15.8 ɣ/mm
	24 Jun- Dec	4.30 ɣ/mm	
D		0.92 '/mm	2.4 '/mm
Z		4.10 ɣ/mm	11.5 ɣ/mm

The above insensitive scale values are the means for the year but the values used when the insensitive record was required were determined by comparison with the sensitive records for the same day.

Baseline Values - Sensitive Magnetograms

1963

	H baseline		D baseline		Z baseline	
1 Jan-31 Jan	23053 ɣ at 0°C		Jan-Dec	17°37.5'E	Jan	-36232 ɣ at 0°C
1 Jan-14 Mar	052	"			Feb-Mar	226 "
15 Mar-24 Apr	051	"			Apr-23 Jun	228 "
25 Apr-31 May	050	"			24 Jun-Aug	152 "
1 Jun-23 Jun	049	"			Sept	154 "
24 Jun-27 Jul	110	"			Oct	156 "
28 Jul-13 Aug	109	"			Nov	158 "
14 Aug-27 Aug	108	"			Dec	159 "
28 Aug-12 Sep	107	"				
13 Sep-28 Sep	106	"				
29 Sep-14 Oct	105	"				
15 Oct-31 Oct	104	"				
1 Nov-15 Nov	103	"				
16 Nov-30 Nov	102	"				
1 Dec-15 Dec	101	"				
16 Dec-31 Dec	100	"				

Insensitive magnetogram baselines were calculated where required by comparison of sensitive and insensitive records.

Baseline separations, to give scale

Sensitive

	H - D	D - Z
1 Jan - 1 Feb	33.4 mm ± 0.2	154.0 mm ± 0.2
3 Feb - 6 Feb	33.0 mm ± 0.2	153.6 mm ± 0.2
7 Feb - 9 Feb	33.1 mm ± 0.2	154.1 mm ± 0.2
10 Feb -11 Feb (1300 U.T.)		151.4 mm
11 Feb -19 Feb		154.0 mm ± 0.2
20 Feb -25 Jun (0900 U.T.)	33.5 mm ± 0.2	154.1 mm ± 0.2
25 Jun - 5 Dec	see note below	153.9 mm ± 0.2
6 Dec -31 Dec		153.5 mm ± 0.2

From 25 June onwards H baseline appears to have moved slowly across the paper, H-D starting at 47.8 mm and decreasing to 44.2 mm at the end of the year.

Insensitive

	D - H	H - Z	D - Z
3 Feb		129.7 mm	
6 Feb		129.5 mm	
10 Feb - 19 Feb		130.0 mm	
20 Feb - 30 Sept			177.0 mm ± 0.2
29 Oct	61.3 mm		177.0 mm
7 Dec	61.9 mm		176.0 mm

ARGENTINE ISLANDS A.973 AUGUST 1963

Lower limit K9: 500γ Scale values: H,4.32γ/mm; D,6.24γ/mm.

Day	K_H								K_D								$Max(K_H,K_D)$								
	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	Sum
1	4	4	2	2	2	2	2	3	5	3	4	2	2	2	3	4	5	4	4	2	2	2	3	4	26
2	2	4	3	2	2	1	3	3	4	3	3	2	1	0	3	4	4	4	3	2	2	1	3	4	25
3	3	2	2	1	1	1	2	3	3	2	3	1	0	0	0	3	3	2	3	1	1	1	2	3	16
4	2	2	3	2	2	1	3	3	3	2	2	3	3	1	2	3	3	2	3	3	3	1	3	3	21
5	3	3	2	3	2	1	3	2	5	3	3	3	1	0	1	2	5	3	3	3	2	1	3	2	22
6	2	3	2	2	1	2	2	3	3	3	3	1	1	1	1	3	3	3	3	2	1	2	2	3	19
7	3	2	1	2	2	1	1	1	3	4	2	2	1	1	0	0	3	4	2	2	2	1	1	1	16
8	2	2	2	1	1	1	0	0	3	4	2	1	2	1	0	0	3	4	2	1	2	1	0	0	13
9	2	2	3	2	2	1	2	1	2	3	3	3	2	1	2	0	2	3	3	3	2	1	2	1	17
10	1	1	1	1	2	2	2	0	0	0	0	0	1	1	1	0	1	1	1	1	2	2	2	0	10
11	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	1	1	1	0	0	1	1	1	6
12	0	2	1	0	1	1	1	1	1	1	1	0	0	0	0	0	1	2	1	0	1	1	1	1	8
13	1	1	0	0	0	0	1	1	2	2	0	0	0	0	0	0	2	2	0	0	0	0	1	1	6
14	2	1	1	0	0	0	0	0	2	0	1	1	0	0	0	0	2	1	1	1	0	0	0	0	5
15	0	0	0	0	1	1	1	3	0	0	0	0	1	1	1	2	0	0	0	0	1	1	1	3	6
16	1	1	1	0	1	1	0	1	3	2	1	0	0	1	0	0	3	2	1	0	1	1	0	1	9
17	3	2	3	1	0	1	3	2	3	1	2	2	1	0	2	1	3	2	3	2	1	1	3	2	17
18	2	3	3	4	3	2	2	2	3	3	3	4	5	2	2	2	3	3	3	4	5	2	2	2	24
19	2	2	2	0	1	3	4	4	1	3	2	1	1	1	4	4	2	3	2	1	1	3	4	4	20
20	5	3	4	3	3	3	2	3	6	4	6	3	4	1	2	2	6	4	6	3	4	3	2	3	31
21	4	2	3	3	2	2	2	2	5	3	4	3	2	2	2	2	5	3	4	3	2	2	2	2	23
22	2	1	2	1	2	1	1	3	1	1	3	1	1	1	0	3	2	1	3	1	2	1	1	3	14
23	3	3	3	3	3	1	2	1	3	4	5	3	3	2	1	0	3	4	5	3	3	2	2	1	23
24	3	2	2	1	1	1	1	1	5	1	3	3	1	1	1	1	5	2	3	3	1	1	1	1	17
25	2	2	2	1	0	0	2	2	2	3	2	1	0	0	1	2	2	3	2	1	0	0	2	2	12
26	3	2	2	1	1	1	2	2	3	3	2	0	1	1	1	0	3	3	2	1	1	1	2	2	15
27	2	1	1	1	2	2	3	3	1	2	1	1	1	2	3	4	2	2	1	1	2	2	3	4	17
28	3	3	2	3	3	2	4	4	4	3	3	4	3	3	4	4	4	3	3	4	3	3	4	4	28
29	3	2	2	3	2	2	2	2	4	3	3	4	2	2	2	2	4	3	3	4	2	2	2	2	22
30	2	2	2	1	2	2	2	4	2	2	1	2	2	2	2	3	2	2	2	2	2	2	2	4	18
31	4	2	2	2	3	3	1	3	3	3	2	2	2	2	1	5	4	3	2	2	3	3	1	5	23

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1963

FROM ARGENTINE ISLANDS A.973

LAT.	-65° 15'
LONG.	295° 44'
GEOMAGNETIC LAT.	-53.8°
GEOMAGNETIC LONG.	3.3°

ORIGINAL RECORDS HELD AT:-

BRITISH ANTARCTIC SURVEY

DEPARTMENT OF NATURAL PHILOSOPHY

DRUMMOND STREET

EDINBURGH, 8.

Phone: EDINBURGH NEWINGTON 1011 EXT. 2497

HEAD OFFICE:-

BRITISH ANTARCTIC SURVEY

30 GILLINGHAM STREET

LONDON, S.W. 1.

Phone: LONDON VICTORIA 3687

EXPLANATORY NOTES 1963

1. Instruments

These are standard La Cour variometers, recording H, D, and Z.

2. Time

Charts were changed at Greenwich midnight, so that each chart shows a complete Greenwich day. The master clock was adjusted to keep the clock error less than ½ minute.

The parallax correction for each trace is given below. The correction is to be added to the times read from the magnetograms.

	Trace	Correction Jan - Sept	Correction Oct - Dec
Sensitive Magnetograms	H	+ 2 mins.	+ 2 mins.
	D	- 1 min.	- 1 min.
	Z	+ 2 mins.	nil
	T	+ 4 mins.	+ 4 mins.
Insensitive Magnetograms	H	nil	- 6 mins.
	D	- 1 min.	- 1 min.
	Z	- 1 min.	- 1 min.
	T	+ 1 min.	+ 1 min.

3. Order of Traces, from top to bottom

Sensitive Magnetograms	Insensitive Magnetograms
T trace	D trace and baseline (double baseline, upper line used)
H trace and baseline	H baseline
D baseline and trace	T trace
Z baseline and trace	H trace
	Z baseline and trace

4. Sense of Traces

All magnetograms: Temperature increases up the sheet.
H increases up the sheet.
D increases easterly up the sheet.
Z increases down the sheet.
(N.B. Z is negative, hence as Z increases, modulus of Z decreases).

5. Temperature Coefficients

The sensitive H and Z variometers have appreciable temperature coefficients.
H baseline values increase with increasing temperature.
Z baseline values decrease (i.e. their moduli increase) with increasing temperature.

	H	Z
Temperature coefficient	4.2 γ/°C	2.1 γ/°C

T Trace	Scale Value	Baseline
Jan - Dec	0.53°C/mm	- 33.6°C
(Insensitive Magnetogram	1.88°C/mm	+ 12.7°C)

6. Scale Values

		Sensitive Magnetograms	Insensitive Magnetograms
H	Jan-23 Jun	4.34 γ/mm	15.8 γ/mm
	24 Jun- Dec	4.30 γ/mm	
D		0.92 ′/mm	2.4 ′/mm
Z		4.10 γ/mm	11.5 γ/mm

The above insensitive scale values are the means for the year but the values used when the insensitive record was required were determined by comparison with the sensitive records for the same day.

Baseline Values - Sensitive Magnetograms

1963

	H baseline		D baseline		Z baseline		
1 Jan-31 Jan	23053	γ at 0°C	Jan-Dec	17°37.5'E	Jan	-36232	γ at 0°C
1 Jan-14 Mar	052	"			Feb-Mar	226	"
15 Mar-24 Apr	051	"			Apr-23 Jun	228	"
25 Apr-31 May	050	"			24 Jun-Aug	152	"
1 Jun-23 Jun	049	"			Sept	154	"
24 Jun-27 Jul	110	"			Oct	156	"
28 Jul-13 Aug	109	"			Nov	158	"
14 Aug-27 Aug	108	"			Dec	159	"
28 Aug-12 Sep	107	"					
13 Sep-28 Sep	106	"					
29 Sep-14 Oct	105	"					
15 Oct-31 Oct	104	"					
1 Nov-15 Nov	103	"					
16 Nov-30 Nov	102	"					
1 Dec-15 Dec	101	"					
16 Dec-31 Dec	100	"					

Insensitive magnetogram baselines were calculated where required by comparison of sensitive and insensitive records.

Baseline separations, to give scale

Sensitive

	H - D	D - Z
1 Jan - 1 Feb	33.4 mm ± 0.2	154.0 mm ± 0.2
3 Feb - 6 Feb	33.0 mm ± 0.2	153.6 mm ± 0.2
7 Feb - 9 Feb	33.1 mm ± 0.2	154.1 mm ± 0.2
10 Feb -11 Feb (1300 U.T.)		151.4 mm
11 Feb -19 Feb		154.0 mm ± 0.2
20 Feb -25 Jun (0900 U.T.)	33.5 mm ± 0.2	154.1 mm ± 0.2
25 Jun - 5 Dec	see note below	153.9 mm ± 0.2
6 Dec -31 Dec		153.5 mm ± 0.2

From 25 June onwards H baseline appears to have moved slowly across the paper, H-D starting at 47.8 mm and decreasing to 44.2 mm at the end of the year.

Insensitive

	D - H	H - Z	D - Z
3 Feb		129.7 mm	
6 Feb		129.5 mm	
10 Feb - 19 Feb		130.0 mm	
20 Feb - 30 Sept			177.0 mm ± 0.2
29 Oct	61.3 mm		177.0 mm
7 Dec	61.9 mm		176.0 mm

ARGENTINE ISLANDS A.973 SEPTEMBER 1963

Lower limit K9: 500γ Scale values: E,4.32γ/mm; D,6.24γ/mm.

	K_H								K_D								$Max(K_H,K_D)$								
	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	Σ
1	4	3	2	3	3	1	2	1	4	3	3	4	2	1	1	1	4	3	3	4	3	1	2	1	21
2	2	1	0	0	0	1	1	3	2	1	0	0	0	0	1	2	2	1	0	0	0	1	1	3	8
3	3	3	2	1	2	2	2	2	3	1	3	1	1	1	1	1	3	3	3	1	2	2	2	2	18
4	2	1	1	1	0	0	1	2	2	1	1	0	1	0	1	2	2	1	1	1	1	0	1	2	9
5	3	1	0	1	2	2	2	3	4	1	0	1	1	1	0	4	4	1	0	1	2	2	2	4	16
6	3	1	2	1	1	1	1	2	3	0	2	1	1	0	0	2	3	1	2	1	1	1	1	2	12
7	1	1	1	0	0	0	0	3	1	0	1	0	0	0	0	2	1	1	1	0	0	0	0	3	6
8	2	3	2	2	3	2	1	1	3	4	4	3	3	1	1	0	3	4	4	3	3	2	1	1	21
9	3	4	1	2	2	1	1	1	4	4	3	2	3	1	1	1	4	4	3	2	3	1	1	1	19
10	2	2	2	1	1	1	1	3	2	3	2	1	1	0	0	2	2	3	2	1	1	1	1	3	14
11	3	2	2	3	2	2	3	3	4	3	2	4	2	2	4	4	4	3	2	4	2	2	4	4	25
12	4	3	3	2	1	1	1	2	5	3	4	2	1	1	0	2	5	3	4	2	1	1	1	2	19
13	1	0	1	0	0	1	3	3	2	0	0	0	0	0	2	4	2	0	1	0	0	1	3	4	11
14	3	4	5	4	4	3	4	5	4	4	6	5	5	4	4	5	4	4	6	5	5	4	4	5	37
15	3	3	3	3	4	4	3	3	3	3	3	2	4	3	4	4	3	3	3	3	4	4	4	4	28
16	2	3	3	4	3	3	4	3	3	3	3	4	4	3	3	2	3	3	3	4	4	3	4	3	27
17	4	3	3	5	2	3	4	3	4	3	5	5	3	2	2	3	4	3	5	5	3	3	4	3	30
18	3	1	2	2	1	3	2	3	3	3	2	2	3	2	1	2	3	3	2	2	3	3	2	3	21
19	3	3	3	3	3	2	2	2	4	3	4	4	3	2	1	0	4	3	4	4	3	2	2	2	24
20	2	2	2	3	3	2	2	2	3	1	2	2	3	2	1	2	3	2	2	3	3	2	2	2	19
21	2	3	0	1	3	4	4	4	2	3	1	2	4	5	5	3	2	3	1	2	4	5	5	4	26
22	4	7	6	3	3	4	5	6	5	7	7	4	2	3	5	7	5	7	7	4	3	4	5	7	42
23	8	7	2	4	3	2	3	2	9	8	3	2	3	2	1	0	9	8	3	4	3	2	3	2	34
24	0	2	2	2	2	3	3	5	0	0	1	1	1	2	1	5	0	2	2	2	2	3	3	5	19
25	6	6	3	3	3	3	3	2	6	6	4	4	2	3	3	2	6	6	4	4	3	3	3	2	31
26	3	4	3	2	2	3	3	4	3	5	4	1	3	2	2	3	3	5	4	2	3	3	3	4	27
27	4	2	2	2	2	2	5	4	3	2	1	2	2	2	3	4	4	2	2	2	2	2	5	4	25
28	5	4	3	3	4	4	3	3	5	5	5	3	3	2	4	4	5	5	5	3	4	4	4	4	34
29	3	3	3	3	3	2	2	3	3	3	3	2	2	2	2	3	3	3	3	3	3	2	2	3	22
30	2	1	2	2	2	1	2	1	4	2	3	2	2	1	1	0	4	2	3	2	2	1	2	1	17

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1963

FROM ARGENTINE ISLANDS A.973

LAT.	-65° 15'
LONG.	295° 44'
GEOMAGNETIC LAT.	-53.8°
GEOMAGNETIC LONG.	3.3°

ORIGINAL RECORDS HELD AT:-

BRITISH ANTARCTIC SURVEY

DEPARTMENT OF NATURAL PHILOSOPHY

DRUMMOND STREET

EDINBURGH, 8.

Phone: EDINBURGH NEWINGTON 1011 EXT. 2497

HEAD OFFICE:-

BRITISH ANTARCTIC SURVEY

30 GILLINGHAM STREET

LONDON, S.W. 1.

Phone: LONDON VICTORIA 3687

EXPLANATORY NOTES 1963

1. Instruments

These are standard La Cour variometers, recording H, D, and Z.

2. Time

Charts were changed at Greenwich midnight, so that each chart shows a complete Greenwich day. The master clock was adjusted to keep the clock error less than ½ minute.

The parallax correction for each trace is given below. The correction is to be added to the times read from the magnetograms.

Sensitive Magnetograms	Trace	Correction Jan - Sept	Correction Oct - Dec
	H	+ 2 mins.	+ 2 mins.
	D	- 1 min.	- 1 min.
	Z	+ 2 mins.	nil
	T	+ 4 mins.	+ 4 mins.
Insensitive Magnetograms	H	nil	- 6 mins.
	D	- 1 min.	- 1 min.
	Z	- 1 min.	- 1 min.
	T	+ 1 min.	+ 1 min.

3. Order of Traces, from top to bottom

Sensitive Magnetograms	Insensitive Magnetograms
T trace	D trace and baseline (double baseline, upper line used)
H trace and baseline	H baseline
D baseline and trace	T trace
Z baseline and trace	H trace
	Z baseline and trace

4. Sense of Traces

All magnetograms: Temperature increases up the sheet.
H increases up the sheet.
D increases easterly up the sheet.
Z increases down the sheet.
(N.B. Z is negative, hence as Z increases, modulus of Z decreases).

5. Temperature Coefficients

The sensitive H and Z variometers have appreciable temperature coefficients.
H baseline values increase with increasing temperature.
Z baseline values decrease (i.e. their moduli increase) with increasing temperature.

	H	Z
Temperature coefficient	4.2 γ/°C	2.1 γ/°C

T Trace	Scale Value	Baseline
Jan - Dec	0.53°C/mm	- 33.6°C
(Insensitive Magnetogram	1.88°C/mm	+ 12.7°C)

6. Scale Values

	Sensitive Magnetograms		Insensitive Magnetograms
H	Jan-23 Jun	4.34 γ/mm	15.8 γ/mm
	24 Jun- Dec	4.30 γ/mm	
D		0.92 '/mm	2.4 '/mm
Z		4.10 γ/mm	11.5 γ/mm

The above insensitive scale values are the means for the year but the values used when the insensitive record was required were determined by comparison with the sensitive records for the same day.

Baseline Values - Sensitive Magnetograms 1963

	H baseline		D baseline		Z baseline	
1 Jan-31 Jan	23053 γ at 0°C		Jan-Dec	17°37.5'E	Jan	-36232 γ at 0°C
1 Jan-14 Mar	052	"			Feb-Mar	226 "
15 Mar-24 Apr	051	"			Apr-23 Jun	228 "
25 Apr-31 May	050	"			24 Jun-Aug	152 "
1 Jun-23 Jun	049	"			Sept	154 "
24 Jun-27 Jul	110	"			Oct	156 "
28 Jul-13 Aug	109	"			Nov	158 "
14 Aug-27 Aug	108	"			Dec	159 "
28 Aug-12 Sep	107	"				
13 Sep-28 Sep	106	"				
29 Sep-14 Oct	105	"				
15 Oct-31 Oct	104	"				
1 Nov-15 Nov	103	"				
16 Nov-30 Nov	102	"				
1 Dec-15 Dec	101	"				
16 Dec-31 Dec	100	"				

Insensitive magnetogram baselines were calculated where required by comparison of sensitive and insensitive records.

Baseline separations, to give scale 1963

Sensitive

	H - D	D - Z
1 Jan - 1 Feb	33.4 mm ± 0.2	154.0 mm ± 0.2
3 Feb - 6 Feb	33.0 mm ± 0.2	153.6 mm ± 0.2
7 Feb - 9 Feb	33.1 mm ± 0.2	154.1 mm ± 0.2
10 Feb -11 Feb (1300 U.T.)		151.4 mm
11 Feb -19 Feb		154.0 mm ± 0.2
20 Feb -25 Jun (0900 U.T.)	33.5 mm ± 0.2	154.1 mm ± 0.2
25 Jun - 5 Dec	see note below	153.9 mm ± 0.2
6 Dec -31 Dec		153.5 mm ± 0.2

From 25 June onwards H baseline appears to have moved slowly across the paper, H-D starting at 47.8 mm and decreasing to 44.2 mm at the end of the year.

Insensitive

	D - H	H - Z	D - Z
3 Feb		129.7 mm	
6 Feb		129.5 mm	
10 Feb - 19 Feb		130.0 mm	
20 Feb - 30 Sept			177.0 mm ± 0.2
29 Oct	61.3 mm		177.0 mm
7 Dec	61.9 mm		176.0 mm

ARGENTINE ISLANDS A.973 — OCTOBER 1963

Lower limit K9: 500 γ — Scale values: E, 4.32 γ/mm; D, 6.24 γ/mm.

	K_H								K_D								$\mathrm{Max}(K_H, K_D)$								
Hr	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	Sum
1	1	2	0	0	0	0	0	0	0	2	2	0	0	0	0	0	1	2	2	0	0	0	0	0	5
2	0	0	0	1	1	2	1	0	0	0	0	1	1	1	0	0	0	0	0	1	1	2	1	0	5
3	1	1	1	1	0	0	1	1	1	2	2	2	1	0	0	0	1	2	2	2	1	0	1	1	10
4	2	2	2	2	0	1	1	1	2	2	2	2	1	0	0	0	2	2	2	2	1	1	1	1	12
5	1	2	3	3	1	1	3	2	1	1	2	2	1	1	1	0	1	2	3	3	1	1	3	2	16
6	2	2	0	0	0	0	1	0	2	3	1	0	0	0	0	0	2	3	1	0	0	0	1	0	7
7	2	3	2	1	1	2	2	4	1	1	1	2	1	1	0	3	2	3	2	2	1	2	2	4	18
8	3	4	2	2	2	3	2	2	4	4	3	2	1	1	1	1	4	4	3	2	2	3	2	2	22
9	1	2	2	1	0	1	1	3	1	2	1	0	0	0	1	3	1	2	2	1	0	1	1	3	11
10	2	2	2	2	1	1	3	2	2	1	2	1	1	0	3	2	2	2	2	2	1	1	3	2	15
11	1	2	3	2	3	3	2	4	1	2	4	4	4	2	2	3	1	2	4	4	4	3	2	4	24
12	4	4	4	3	4	4	5	3	4	4	3	2	4	3	3	2	4	4	4	3	4	4	5	3	31
13	2	4	2	2	3	3	3	4	3	3	2	2	2	2	2	5	3	4	2	2	3	3	3	5	25
14	4	4	3	3	3	3	3	2	4	4	3	3	3	3	3	2	4	4	3	3	3	3	3	2	25
15	3	2	2	2	1	2	2	3	3	3	3	3	2	2	2	4	3	3	3	3	2	2	2	4	22
16	3	3	2	1	2	2	2	2	3	2	2	2	2	1	2	1	3	3	2	2	2	2	2	2	18
17	0	2	2	2	0	1	0	0	1	2	1	1	0	1	0	0	1	2	2	2	0	1	0	0	8
18	0	2	1	1	1	1	1	2	1	1	1	1	1	0	1	0	1	2	1	1	1	1	1	2	10
19	2	2	2	1	0	1	1	2	0	2	2	0	1	1	1	1	2	2	2	1	1	1	1	2	12
20	2	1	1	2	3	1	2	4	1	1	1	2	3	2	1	3	2	1	1	2	3	2	2	4	17
21	1	3	2	2	0	1	1	2	2	3	2	2	1	1	0	0	2	3	2	2	1	1	1	2	14
22	2	0	0	0	1	2	1	1	0	0	0	1	1	0	0	0	2	0	0	1	1	2	1	1	8
23	1	1	0	0	1	1	1	2	0	1	0	0	1	1	0	1	1	1	0	0	1	1	1	2	7
24	4	5	6	6	2	3	3	4	5	5	6	6	3	2	2	3	5	5	6	6	3	3	3	4	35
25	4	2	2	1	1	1	2	3	5	3	2	1	1	1	1	1	5	3	2	1	1	1	2	3	18
26	3	1	0	0	1	2	1	2	3	2	1	1	0	1	0	1	3	2	1	1	1	2	1	2	13
27	2	1	2	1	1	1	2	1	0	0	1	1	1	1	0	0	2	1	2	1	1	1	2	1	11
28	1	0	0	1	0	3	3	2	0	0	0	2	0	2	3	0	1	0	0	2	0	3	3	2	11
29	2	1	2	1	3	5	4	6	2	2	3	2	3	5	4	8	2	2	3	2	3	5	4	8	29
30	5	3	2	3	0	2	3	2	5	3	3	2	1	1	1	0	5	3	3	3	1	2	3	2	22
31	2	1	2	2	1	1	2	1	0	0	1	3	2	1	0	0	2	1	2	3	2	1	2	1	14

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1963

FROM ARGENTINE ISLANDS A.973

LAT.	-65° 15'
LONG.	295° 44'
GEOMAGNETIC LAT.	-53.8°
GEOMAGNETIC LONG.	3.3°

ORIGINAL RECORDS HELD AT:-

BRITISH ANTARCTIC SURVEY

DEPARTMENT OF NATURAL PHILOSOPHY

DRUMMOND STREET

EDINBURGH, 8.

Phone: EDINBURGH NEWINGTON 1011 EXT. 2497

HEAD OFFICE:-

BRITISH ANTARCTIC SURVEY

30 GILLINGHAM STREET

LONDON, S.W. 1.

Phone: LONDON VICTORIA 3687

EXPLANATORY NOTES 1963

1. Instruments

These are standard La Cour variometers, recording H, D, and Z.

2. Time

Charts were changed at Greenwich midnight, so that each chart shows a complete Greenwich day. The master clock was adjusted to keep the clock error less than ½ minute.

The parallax correction for each trace is given below. The correction is to be added to the times read from the magnetograms.

Sensitive Magnetograms	Trace	Correction Jan - Sept	Correction Oct - Dec
	H	+ 2 mins.	+ 2 mins.
	D	- 1 min.	- 1 min.
	Z	+ 2 mins.	nil
	T	+ 4 mins.	+ 4 mins.
Insensitive Magnetograms	H	nil	- 6 mins.
	D	- 1 min.	- 1 min.
	Z	- 1 min.	- 1 min.
	T	+ 1 min.	+ 1 min.

3. Order of Traces, from top to bottom

Sensitive Magnetograms	Insensitive Magnetograms
T trace	D trace and baseline (double baseline, upper line used)
H trace and baseline	H baseline
D baseline and trace	T trace
Z baseline and trace	H trace
	Z baseline and trace

4. Sense of Traces

All magnetograms: Temperature increases up the sheet.
H increases up the sheet.
D increases easterly up the sheet.
Z increases down the sheet.
(N.B. Z is negative, hence as Z increases, modulus of Z decreases).

5. Temperature Coefficients

The sensitive H and Z variometers have appreciable temperature coefficients.
H baseline values increase with increasing temperature.
Z baseline values decrease (i.e. their moduli increase) with increasing temperature.

	H	Z
Temperature coefficient	4.2 ɣ/°C	2.1 ɣ/°C

T Trace	Scale Value	Baseline
Jan - Dec	0.53°C/mm	- 33.6°C
(Insensitive Magnetogram	1.88°C/mm	+ 12.7°C)

6. Scale Values

	Sensitive Magnetograms		Insensitive Magnetograms
H	Jan-23 Jun	4.34 ɣ/mm	15.8 ɣ/mm
	24 Jun- Dec	4.30 ɣ/mm	
D		0.92 ' /mm	2.4 ' /mm
Z		4.10 ɣ/mm	11.5 ɣ/mm

The above insensitive scale values are the means for the year but the values used when the insensitive record was required were determined by comparison with the sensitive records for the same day.

Baseline Values - Sensitive Magnetograms

1963

	H baseline		D baseline		Z baseline		
1 Jan-31 Jan	25053	γ at 0°C	Jan-Dec	17°37.5'E	Jan	-36232	γ at 0°C
1 Jan-14 Mar	052	"			Feb-Mar	226	"
15 Mar-24 Apr	051	"			Apr-23 Jun	228	"
25 Apr-31 May	050	"			24 Jun-Aug	152	"
1 Jun-23 Jun	049	"			Sept	154	"
24 Jun-27 Jul	110	"			Oct	156	"
28 Jul-13 Aug	109	"			Nov	158	"
14 Aug-27 Aug	108	"			Dec	159	"
28 Aug-12 Sep	107	"					
13 Sep-28 Sep	106	"					
29 Sep-14 Oct	105	"					
15 Oct-31 Oct	104	"					
1 Nov-15 Nov	103	"					
16 Nov-30 Nov	102	"					
1 Dec-15 Dec	101	"					
16 Dec-31 Dec	100	"					

Insensitive magnetogram baselines were calculated where required by comparison of sensitive and insensitive records.

Baseline separations, to give scale

1963

Sensitive

	H - D	D - Z
1 Jan - 1 Feb	33.4 mm ± 0.2	154.0 mm ± 0.2
3 Feb - 6 Feb	33.0 mm ± 0.2	153.6 mm ± 0.2
7 Feb - 9 Feb	33.1 mm ± 0.2	154.1 mm ± 0.2
10 Feb -11 Feb (1300 U.T.)		151.4 mm
11 Feb -19 Feb		154.0 mm ± 0.2
20 Feb -25 Jun (0900 U.T.)	33.5 mm ± 0.2	154.1 mm ± 0.2
25 Jun - 5 Dec	see note below	153.9 mm ± 0.2
6 Dec -31 Dec		153.5 mm ± 0.2

From 25 June onwards H baseline appears to have moved slowly across the paper, H-D starting at 47.8 mm and decreasing to 44.2 mm at the end of the year.

Insensitive

	D - H	H - Z	D - Z
3 Feb		129.7 mm	
6 Feb		129.5 mm	
10 Feb - 19 Feb		130.0 mm	
20 Feb - 30 Sept			177.0 mm ± 0.2
29 Oct	61.3 mm		177.0 mm
7 Dec	61.9 mm		176.0 mm

ARGENTINE ISLANDS A.973 — NOVEMBER 1963

Lower limit K9: 500 γ — Scale values: E 4.32 γ/mm; D 6.2 γ/mm.

	K_H								K_D								$\max(K_H, K_D)$								
Day	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	Sum
1	2	3	1	2	1	2	2	2	1	3	2	1	1	1	2	1	2	3	2	2	1	2	2	2	16
2	2	1	1	2	2	3	3	2	2	1	2	3	2	2	2	3	2	1	2	3	2	3	3	3	19
3	2	3	2	2	1	0	3	3	3	3	4	2	2	0	1	3	3	3	4	2	2	0	3	3	20
4	2	2	1	1	1	2	2	1	0	2	1	2	1	1	1	0	2	2	1	2	1	2	2	1	15
5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1
6	1	1	2	1	2	3	3	4	1	0	1	2	2	2	2	4	1	1	2	2	2	3	3	4	18
7	2	2	2	4	2	3	5	3	3	4	4	4	4	4	5	4	3	4	4	4	4	4	5	4	32
8	5	3	3	3	3	3	4	3	4	3	4	3	2	3	3	3	5	3	4	3	3	3	4	3	28
9	4	3	2	2	3	3	3	4	4	3	2	3	3	2	4	4	4	3	2	3	3	3	4	4	26
10	3	3	2	3	2	3	3	4	4	3	2	3	2	2	2	4	4	3	2	3	2	3	3	4	24
11	2	3	2	2	1	3	3	3	3	2	3	1	1	2	2	2	3	3	3	2	1	3	3	3	21
12	2	3	2	2	2	3	2	2	1	3	3	2	1	1	3	1	2	3	3	2	2	3	3	2	20
13	1	1	1	1	0	1	1	2	0	0	0	1	1	0	1	0	1	1	1	1	1	1	1	2	9
14	1	1	1	1	1	0	1	2	0	2	2	1	1	0	0	0	1	2	2	1	1	0	1	2	10
15	1	1	1	0	0	0	0	0	2	1	1	1	1	0	0	0	2	1	1	1	1	0	0	0	6
16	1	0	1	0	0	0	1	1	1	1	1	0	0	0	0	1	1	1	1	0	0	0	1	1	5
17	1	0	0	3	3	4	3	3	1	0	0	3	3	3	1	0	1	0	0	3	3	4	3	3	17
18	1	1	1	1	1	1	2	2	0	1	1	1	1	0	1	0	1	1	1	1	1	1	2	2	10
19	1	1	1	0	0	1	2	2	0	0	1	1	0	0	0	0	1	1	1	1	0	1	2	2	9
20	2	2	1	0	0	0	1	1	2	3	1	1	1	0	0	0	2	3	1	1	1	0	1	1	10
21	1	1	1	0	1	1	1	0	0	0	1	1	1	0	0	0	1	1	1	1	1	1	1	0	7
22	0	0	1	1	1	2	3	3	0	0	1	2	0	2	2	1	0	0	1	2	1	2	3	3	12
23	2	2	2	1	1	1	2	1	2	2	2	1	2	1	0	0	2	2	2	1	2	1	2	1	13
24	1	3	2	2	3	2	3	4	0	2	3	3	2	3	3	3	1	3	3	3	3	3	3	4	25
25	3	2	1	2	1	2	1	1	2	3	2	2	2	0	0	0	3	3	2	2	2	2	1	1	16
26	0	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	1	5
27	0	1	1	1	0	2	2	3	0	1	1	1	1	0	0	0	0	1	1	1	1	2	2	3	11
28	2	3	0	0	1	1	2	0	0	3	1	1	1	0	0	0	2	3	1	1	1	1	2	0	11
29	2	1	1	1	0	2	3	3	1	1	1	1	1	1	0	2	2	1	1	1	1	2	3	3	14
30	4	2	1	4	5	3	3	2	2	1	2	3	4	2	2	1	4	2	2	4	5	3	3	2	25

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1963

FROM ARGENTINE ISLANDS A.973

LAT.	-65° 15'
LONG.	295° 44'
GEOMAGNETIC LAT.	-53.8°
GEOMAGNETIC LONG.	3.3°

ORIGINAL RECORDS HELD AT:-

BRITISH ANTARCTIC SURVEY

DEPARTMENT OF NATURAL PHILOSOPHY

DRUMMOND STREET

EDINBURGH, 8.

Phone: EDINBURGH NEWINGTON 1011 EXT. 2497

HEAD OFFICE:-

BRITISH ANTARCTIC SURVEY

30 GILLINGHAM STREET

LONDON, S.W. 1.

Phone: LONDON VICTORIA 3687

[redacted] A.975

EXPLANATORY NOTES 1965

1. Instruments

These are standard La Cour variometers, recording H, D, and Z.

2. Time

Charts were changed at Greenwich midnight, so that each chart shows a complete Greenwich day. The master clock was adjusted to keep the clock error less than $\frac{1}{2}$ minute.

The parallax correction for each trace is given below. The correction is to be added to the times read from the magnetograms.

	Trace	Correction Jan - Sept	Correction Oct - Dec
Sensitive Magnetograms	H	+ 2 mins.	+ 2 mins.
	D	- 1 min.	- 1 min.
	Z	+ 2 mins.	nil
	T	+ 4 mins.	+ 4 mins.
Insensitive Magnetograms	H	nil	- 6 mins.
	D	- 1 min.	- 1 min.
	Z	- 1 min.	- 1 min.
	T	+ 1 min.	+ 1 min.

3. Order of Traces, from top to bottom

Sensitive Magnetograms	Insensitive Magnetograms
T trace	D trace and baseline (double baseline, upper line used)
H trace and baseline	H baseline
D baseline and trace	T trace
Z baseline and trace	H trace
	Z baseline and trace

4. Sense of Traces

All magnetograms: Temperature increases up the sheet.
H increases up the sheet.
D increases easterly up the sheet.
Z increases down the sheet.
(N.B. Z is negative, hence as Z increases, modulus of Z decreases).

5. Temperature Coefficients

The sensitive H and Z variometers have appreciable temperature coefficients.
H baseline values increase with increasing temperature.
Z baseline values decrease (i.e. their moduli increase) with increasing temperature.

	H	Z
Temperature coefficient	4.2 γ/°C	2.1 γ/°C

T Trace	Scale Value	Baseline
Jan - Dec	0.53°C/mm	- 33.6°C
(Insensitive Magnetogram	1.88°C/mm	+ 12.7°C)

6. Scale Values

	Sensitive Magnetograms		Insensitive Magnetograms
H	Jan-23 Jun	4.34 γ/mm	15.8 γ/mm
	24 Jun- Dec	4.30 γ/mm	
D		0.92 '/mm	2.4 '/mm
Z		4.10 γ/mm	11.5 γ/mm

The above insensitive scale values are the means for the year but the values used when the insensitive record was required were determined by comparison with the sensitive records for the same day.

Baseline Values - Sensitive Magnetograms

H baseline			D baseline		Z baseline		
1 Jan-31 Jan	23053 γ	at 0°C	Jan-Dec	17°37.5'E	Jan	-36232 γ	at 0°C
1 Jan-14 Mar	052	"			Feb-Mar	226	"
15 Mar-24 Apr	051	"			Apr-23 Jun	228	"
25 Apr-31 May	050	"			24 Jun-Aug	152	"
1 Jun-23 Jun	049	"			Sept	154	"
24 Jun-27 Jul	110	"			Oct	156	"
28 Jul-13 Aug	109	"			Nov	158	"
14 Aug-27 Aug	108	"			Dec	159	"
28 Aug-12 Sep	107	"					
13 Sep-28 Sep	106	"					
29 Sep-14 Oct	105	"					
15 Oct-31 Oct	104	"					
1 Nov-15 Nov	103	"					
16 Nov-30 Nov	102	"					
1 Dec-15 Dec	101	"					
16 Dec-31 Dec	100	"					

Insensitive magnetogram baselines were calculated where required by comparison of sensitive and insensitive records.

Baseline separations, to give scale

Sensitive

	H - D	D - Z
1 Jan - 1 Feb	33.4 mm ± 0.2	154.0 mm ± 0.2
3 Feb - 6 Feb	33.0 mm ± 0.2	153.6 mm ± 0.2
7 Feb - 9 Feb	33.1 mm ± 0.2	154.1 mm ± 0.2
10 Feb -11 Feb (1300 U.T.)		151.4 mm
11 Feb -19 Feb		154.0 mm ± 0.2
20 Feb -25 Jun (0900 U.T.)	33.5 mm ± 0.2	154.1 mm ± 0.2
25 Jun - 5 Dec	see note below	153.9 mm ± 0.2
6 Dec -31 Dec		153.5 mm ± 0.2

From 25 June onwards H baseline appears to have moved slowly across the paper, H-D starting at 47.8 mm and decreasing to 44.2 mm at the end of the year.

Insensitive

	D - H	H - Z	D - Z
3 Feb		129.7 mm	
6 Feb		129.5 mm	
10 Feb - 19 Feb		130.0 mm	
20 Feb - 30 Sept			177.0 mm ± 0.2
29 Oct	61.3 mm		177.0 mm
7 Dec	61.9 mm		176.0 mm

ARGENTINE ISLANDS A.975 — DECEMBER 1963

Lower limit E3: 500 γ — Scale values: H, 4.32 γ/m; D, 6.24 γ/m.

K_H | K_D | $\mathrm{Max}(K_H, K_D)$

Day	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	E1	E2	E3	E4	E5	E6	E7	E8	Sum
1	1	0	1	1	0	2	2	3	1	0	1	1	1	1	1	0	1	0	1	1	1	2	2	3	11
2	3	2	2	1	2	3	3	4	1	2	1	2	2	1	1	1	3	2	2	2	2	3	3	4	21
3	3	3	3	3	2	3	3	4	2	3	3	4	3	3	3	4	3	3	3	4	3	3	3	4	26
4	3	2	2	1	2	3	3	4	1	2	2	2	2	2	2	5	3	2	2	2	2	3	3	5	22
5	4	2	2	2	3	3	3	3	4	2	2	3	3	3	3	2	4	2	2	3	3	3	3	3	23
6	3	2	-	2+	3	3	3	3	3	3	-	2+	2	2	2	3	3	3	-	2+	3	3	3	3	20+
7	2	2	1	2	3	2	2	2	3	1	2	2	2	1	1	0	3	2	2	2	3	2	2	2	18
8	2	2	1	1	2	2	2	1	2	3	3	2	2	1	1	2	2	3	3	2	2	2	2	2	18
9	1	2	1	1	1	1	1	1	0	2	2	2	1	0	0	0	1	2	2	2	1	1	1	1	11
10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11	0	0	0	0	0	0	1	2	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	2	4
12	0	0	0	1	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	3	4
13	3	3	1	1	0	1	2	1	1	2	1	1	0	0	1	0	3	3	1	1	0	1	2	1	12
14	2	1	1	1	3	2	4	3	1	1	2	2	3	3	2	2	2	1	2	2	3	3	4	3	20
15	2	1	1	2	1	3	2	1	1	1	3	3	1	1	1	0	2	1	3	3	1	3	2	1	16
16	2	1	0	0	1	4	1	2	1	1	1	1	1	1	0	0	2	1	1	1	1	4	1	2	13
17	1	0	0	0	0	1	1	2	0	0	1	0	0	0	0	0	1	0	1	0	0	1	1	2	6
18	1	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	1	0	0	1	0	1	1	1	5
19	1	0	0	0	0	2	2	4	0	0	0	0	0	1	0	2	1	0	0	0	0	2	2	4	9
20	3	3	3	2	3	2	3	3	2	1	4	2	3	2	2	0	3	3	4	2	3	2	3	3	23
21	2	1	2	1	2	3	3	3	0	1	2	1	3	1	1	1	2	1	2	1	3	3	3	3	18
22	1	2	1	1	2	3	3	2	0	3	2	2	2	2	3	1	1	3	2	2	2	3	3	2	18
23	1	2	2	0	0	3	3	2	0	2	3	2	1	2	1	2	1	2	3	2	1	3	3	2	17
24	2	1	0	0	1	1	2	2	2	0	0	1	1	1	1	1	2	1	0	1	1	1	2	2	10
25	0	1	2	2	1	1	2	1	0	0	1	2	1	0	0	0	0	1	2	2	1	1	2	1	10
26	1	1	1	0	0	0	2	2	0	2	1	1	0	0	0	0	1	2	1	1	0	0	2	2	9
27	2	1	1	0	1	2	2	2	0	1	2	0	2	0	1	0	2	1	2	0	2	2	2	2	13
28	1	1	3	1	1	2	4	3	0	0	2	2	2	0	2	1	1	1	3	2	2	2	4	3	18
29	2	1	1	4	3	3	3	3	3	1	2	3	2	2	2	2	3	1	2	4	3	3	3	3	22
30	2	2	1	0	1	3	1	2	1	1	1	0	1	1	0	1	2	2	1	0	1	3	1	2	12
31	1	0	1	1	0	0	1	1	0	0	1	1	0	0	0	0	1	0	1	1	0	0	1	1	5