

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1967

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 667 1011 EXT. 2497

HEAD OFFICE: -

BRITISH ANTARCTIC SURVEY

30 GILLINGHAM STREET

LONDON, S.W. 1.

Phone: LONDON VICTORIA 3687

EXPLANATORY NOTES 1967

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

Sensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> | |
|--------------|-------------------|-----------------|
| | Jan 1 - Aug 17 | Aug 18 - Dec 31 |
| H | +1½ min. | +1½ min. |
| D | +1 | +1 |
| Z | 0 | -½ |
| T | +2 | +2 |

Insensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> |
|--------------|-------------------|
| H | -4½ min. |
| D | -½ |
| Z | 0 |
| T | -3 |

3. Order of Traces, from top to bottom:

Sensitive Magnetograms

H trace and baseline
 T trace (after 23rd November
 appears above H trace)
 D baseline and trace
 Z baseline and trace

Insensitive Magnetograms

D trace and baseline
 T trace
 H baseline and trace
 Z baseline and trace

4. Sense of trace

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

H baseline values increase with increasing temperature.
Z baseline values decrease with increasing temperature.

Temperature coefficients:

H : 4.25 $\gamma/^\circ\text{C}$ Jan 01 - Aug 17 Z : 1.2 $\gamma/^\circ\text{C}$ Jan 01 - Dec 31
3.98 $\gamma/^\circ\text{C}$ Aug 17 - Dec 31

| <u>T trace</u> | <u>Scale Value</u> | <u>Baseline</u> |
|-----------------|---------------------------------|------------------------|
| Jan 01 - Aug 17 | 0.54 $^\circ\text{C}/\text{mm}$ | 12.73 $^\circ\text{C}$ |
| Aug 17 - Dec 31 | 0.53 $^\circ\text{C}/\text{mm}$ | 12.79 $^\circ\text{C}$ |

6. Scale Values, Sensitive magnetograms

| H | D | Z |
|---|---|---|
| 4.28 γ/mm Jan 01 - Feb 28 | 0.92 γ/mm Jan 01 - Dec 31 | 4.14 γ/mm Jan 01 - Jan 31 |
| 4.27 γ/mm Mar 01 - Mar 31 | | 4.16 γ/mm Feb 01 - Feb 28 |
| 4.26 γ/mm Apr 01 - Aug 31 | | 4.20 γ/mm Mar 01 - Mar 31 |
| 4.25 γ/mm Sep 01 - Sep 30 | | 4.30 γ/mm Apr 01 - Dec 31 |
| 4.24 γ/mm Oct 01 - Nov 30 | | |
| 4.25 γ/mm Dec 01 - Dec 31 | | |

7. Scale of Reproduction

To give scale a rule of 50 mm. length is reproduced on each magnetogram.

8. Baseline Values

Sensitive Magnetograms

H baselines

Jan 01 - Aug 17 22,919 y
Aug 17 - Dec 31 22,897 y

Note: H baselines are at 0°C. Chart baselines must be calculated using temperature coefficients.

D baselines

Jan 01 - May 31 17° 21.7'
Jun 01 - Aug 31 17° 21.8'
Sep 01 - Dec 31 17° 22.0'

Z baselines

Chart baselines

| | |
|-------------------------|----------|
| Jan 01 - Mar 24, 2300 z | 35,858 y |
| Mar 24 - Apr 06, 2000 z | 35,855 y |
| Apr 06 - Apr 09, 0400 z | 35,852 y |
| Apr 09 | 35,855 y |
| Apr 10 - Apr 30 | 35,852 y |
| May 01 - Jun 21, 0400 z | 35,851 y |
| Jun 21 | 35,854 y |
| Jun 22 - Jun 30 | 35,851 y |
| Jul 01 - Jul 22, 0200 z | 35,852 y |
| Jul 22 - Aug 08, 2300 z | 35,855 y |
| Aug 08 - Aug 13 | 38,852 y |
| Aug 14 | 35,855 y |
| Aug 15 - Aug 17, 1700 z | 35,852 y |
| Aug 17 - Sep 08, 1900 z | 35,723 y |
| Sep 08 - Sep 10 | 35,716 y |
| Sep 11 - Sep 30 | 35,723 y |
| Oct 01 - Oct 31 | 35,725 y |
| Nov 01 - Nov 01, 1800 z | 35,721 y |
| Nov 01 - Nov 06, 2300 z | 35,724 y |
| Nov 06 - Nov 09, 2000 z | 35,719 y |
| Nov 09 - Nov 10, 1400 z | 35,724 y |
| Nov 10 - Nov 15 | 35,718 y |
| Nov 16 - Dec 01 | 35,724 y |
| Dec 02 - Dec 31 | 35,730 y |

Note: In periods when chart baselines are quoted the temperature correction varies by less than 1 y.

ARGENTINE ISLANDS, A.973

JANUARY 1967

Lower limit K9: 500y

Scale values: H, 4.28y/mm; D, 6.24y/mm

| | K_H | | | | | | | | K_D | | | | | | | | $\text{Max}(K_H, K_D)$ | | | | | | | | Sum |
|----|-------|----|----|----|----|----|----|----|-------|----|----|----|----|----|----|----|------------------------|----|----|----|----|----|----|----|-----|
| | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | |
| 1 | 2 | 2 | 1 | 2 | 3 | 4 | 3 | 3 | 1 | 1 | 2 | 2 | 3 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 4 | 3 | 3 | 21 |
| 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 0 | 1 | 2 | 2 | 2 | 0 | 1 | 0 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 15 |
| 3 | 2 | 1 | 0 | 2 | 3 | 3 | 1 | 1 | 1 | 2 | 1 | 3 | 2 | 2 | 1 | 0 | 2 | 2 | 1 | 3 | 3 | 3 | 1 | 1 | 16 |
| 4 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 7 |
| 5 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 5 |
| 6 | 1 | 0 | 2 | 0 | 0 | 2 | 3 | 2 | 0 | 0 | 2 | 1 | 1 | 1 | 2 | 0 | 1 | 0 | 2 | 1 | 1 | 2 | 3 | 2 | 12 |
| 7 | 1 | 0 | 2 | 3 | 4 | 4 | 5 | 4 | 0 | 0 | 3 | 2 | 4 | 3 | 4 | 3 | 1 | 0 | 3 | 3 | 4 | 4 | 5 | 4 | 24 |
| 8 | 4 | 5 | 5 | 4 | 2 | 3 | 2 | 2 | 5 | 6 | 6 | 5 | 3 | 2 | 2 | 0 | 5 | 6 | 6 | 5 | 3 | 3 | 2 | 2 | 32 |
| 9 | 3 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 0 | 3 | 2 | 2 | 3 | 2 | 1 | 0 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 19 |
| 10 | 2 | 0 | 1 | 0 | 0 | 1 | 3 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 3 | 3 | 10 |
| 11 | 4 | 3 | 2 | 1 | 1 | 3 | 3 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 4 | 3 | 2 | 1 | 2 | 3 | 3 | 2 | 20 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 13 | 2 | 2 | 2 | 2 | 5 | 3 | 4 | 5 | 0 | 1 | 1 | 2 | 6 | 0 | 2 | 5 | 2 | 2 | 2 | 2 | 6 | 3 | 4 | 5 | 26 |
| 14 | 6 | 4 | 5 | 3 | 1 | 1 | 0 | 2 | 5 | 6 | 6 | 5 | 1 | 0 | 0 | 0 | 6 | 6 | 6 | 5 | 1 | 1 | 0 | 2 | 27 |
| 15 | 2 | 1 | 0 | 0 | 1 | 2 | 2 | 1 | 1 | 1 | 0 | 1 | 3 | 1 | 1 | 0 | 2 | 1 | 0 | 1 | 3 | 2 | 2 | 1 | 12 |
| 16 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 1 | 1 | 1 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 11 |
| 17 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 7 |
| 18 | 1 | 0 | 0 | 0 | 0 | 3 | 2 | 2 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 2 | 1 | 3 | 2 | 2 | 11 |
| 19 | 2 | 0 | 0 | 0 | 0 | 1 | 3 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 3 | 2 | 9 |
| 20 | 2 | 2 | 2 | 2 | 2 | 1 | 3 | 3 | 0 | 1 | 2 | 2 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 3 | 3 | 17 |
| 21 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 15 |
| 22 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 9 |
| 23 | 3 | 1 | 2 | 0 | 0 | 2 | 1 | 1 | 0 | 1 | 2 | 1 | 0 | 1 | 0 | 0 | 3 | 1 | 2 | 1 | 0 | 2 | 1 | 1 | 11 |
| 24 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 4 |
| 25 | 3 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 3 | 3 | 0 | 0 | 0 | 3 | 2 | 1 | 3 | 3 | 1 | 2 | 2 | 17 |
| 26 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 0 | 0 | 1 | 9 |
| 27 | 1 | 0 | 0 | 1 | 0 | 2 | 1 | 2 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 1 | 2 | 1 | 2 | 10 |
| 28 | 2 | 3 | 3 | 1 | 1 | 2 | 2 | 3 | 2 | 3 | 4 | 2 | 2 | 0 | 1 | 0 | 2 | 3 | 4 | 2 | 2 | 2 | 2 | 3 | 20 |
| 29 | 2 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 2 | 1 | 2 | 1 | 0 | 1 | 1 | 1 | 9 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 4 |
| 31 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 1 | 1 | 6 |

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| 4.24 γ/mm Oct 01 - Nov 30 | | |
| 4.25 γ/mm Dec 01 - Dec 31 | | |

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| Apr 06 - Apr 09, 0400 z | 35,852 y |
| Apr 09 | 35,855 y |
| Apr 10 - Apr 30 | 35,852 y |
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| Jun 21 | 35,854 y |
| Jun 22 - Jun 30 | 35,851 y |
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| Jul 22 - Aug 08, 2300 z | 35,855 y |
| Aug 08 - Aug 13 | 38,852 y |
| Aug 14 | 35,855 y |
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| Sep 08 - Sep 10 | 35,716 y |
| Sep 11 - Sep 30 | 35,723 y |
| Oct 01 - Oct 31 | 35,725 y |
| Nov 01 - Nov 01, 1800 z | 35,721 y |
| Nov 01 - Nov 06, 2300 z | 35,724 y |
| Nov 06 - Nov 09, 2000 z | 35,719 y |
| Nov 09 - Nov 10, 1400 z | 35,724 y |
| Nov 10 - Nov 15 | 35,718 y |
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ARGENTINE ISLANDS, A.973

FEBRUARY 1967

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Scale values: H, 4.28y/mm; D, 6.24y/mm

| | K_H | | | | | | | | K_D | | | | | | | | $\text{Max}(K_H, K_D)$ | | | | | | | | Sum |
|----|-------|----|----|----|----|----|----|----|-------|----|----|----|----|----|----|----|------------------------|----|----|----|----|----|----|----|-----|
| | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | |
| 1 | 1 | 2 | 1 | 1 | 0 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 12 |
| 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 7 |
| 3 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | | 4 |
| 4 | 1 | 2 | 1 | 1 | 0 | 2 | 4 | 3 | 0 | 2 | 1 | 3 | 3 | 1 | 3 | 2 | 1 | 2 | 1 | 3 | 3 | 2 | 4 | 3 | 19 |
| 5 | 3 | 3 | 2 | 1 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 4 | 2 | 1 | 0 | 3 | 3 | 2 | 2 | 4 | 3 | 3 | 1 | 21 |
| 6 | 1 | 1 | 1 | 1 | 0 | 2 | 2 | 4 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 4 | 15 |
| 7 | 2 | 2 | 2 | 1 | 1 | 4 | 5 | 5 | 0 | 0 | 1 | 2 | 2 | 4 | 3 | 4 | 2 | 2 | 2 | 2 | 2 | 4 | 5 | 5 | 24 |
| 8 | 4 | 4 | 5 | 3 | 4 | 4 | 5 | 4 | 4 | 4 | 5 | 4 | 3 | 3 | 2 | 2 | 4 | 4 | 5 | 4 | 4 | 4 | 5 | 4 | 34 |
| 9 | 2 | 1 | 2 | 0 | 0 | 0 | 2 | 1 | 2 | 2 | 3 | 0 | 0 | 0 | 1 | 0 | 2 | 2 | 3 | 0 | 0 | 0 | 2 | 1 | 10 |
| 10 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| 11 | 2 | 3 | 2 | 1 | 2 | 1 | 2 | 2 | 0 | 3 | 3 | 3 | 2 | 1 | 1 | 0 | 2 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 18 |
| 12 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 7 |
| 13 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 5 |
| 14 | 1 | 0 | 0 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 8 |
| 15 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 7 |
| 16 | 4 | 3 | 4 | 8 | 7 | 4 | 5 | 3 | 3 | 3 | 4 | 8 | 6 | 2 | 3 | 3 | 4 | 3 | 4 | 8 | 7 | 4 | 5 | 3 | 38 |
| 17 | 3 | 4 | 0 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 0 | 1 | 2 | 1 | 1 | 1 | 3 | 4 | 0 | 1 | 2 | 2 | 2 | 3 | 17 |
| 18 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 2 | 0 | 1 | 0 | 8 |
| 19 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 9 |
| 20 | 0 | 1 | 2 | 1 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 2 | 1 | 1 | 9 |
| 21 | 1 | 1 | 1 | 0 | 1 | 2 | 1 | 2 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 10 |
| 22 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 0 | 0 | 1 | 2 | 2 | 1 | 1 | 0 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 11 |
| 23 | 3 | 2 | 1 | 3 | 3 | 2 | 2 | 1 | 2 | 0 | 1 | 3 | 3 | 1 | 0 | 0 | 3 | 2 | 1 | 3 | 3 | 2 | 2 | 1 | 17 |
| 24 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 2 | 7 |
| 25 | 1 | 3 | 2 | 1 | 1 | 3 | 4 | 2 | 0 | 4 | 2 | 3 | 1 | 3 | 2 | 0 | 1 | 4 | 2 | 3 | 1 | 3 | 4 | 2 | 20 |
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| 28 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 5 |

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| Apr 10 - Apr 30 | 35,852 y |
| May 01 - Jun 21, 0400 z | 35,851 y |
| Jun 21 | 35,854 y |
| Jun 22 - Jun 30 | 35,851 y |
| Jul 01 - Jul 22, 0200 z | 35,852 y |
| Jul 22 - Aug 08, 2300 z | 35,855 y |
| Aug 08 - Aug 13 | 38,852 y |
| Aug 14 | 35,855 y |
| Aug 15 - Aug 17, 1700 z | 35,852 y |
| Aug 17 - Sep 08, 1900 z | 35,723 y |
| Sep 08 - Sep 10 | 35,716 y |
| Sep 11 - Sep 30 | 35,723 y |
| Oct 01 - Oct 31 | 35,725 y |
| Nov 01 - Nov 01, 1800 z | 35,721 y |
| Nov 01 - Nov 06, 2300 z | 35,724 y |
| Nov 06 - Nov 09, 2000 z | 35,719 y |
| Nov 09 - Nov 10, 1400 z | 35,724 y |
| Nov 10 - Nov 15 | 35,718 y |
| Nov 16 - Dec 01 | 35,724 y |
| Dec 02 - Dec 31 | 35,730 y |

Note: In periods when chart baselines are quoted the temperature correction varies by less than 1 y.

Lower limit K9: 500y

Scale values: H, 4.28y/mm; D, 6.24y/mm

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

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1967

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 667 1011 EXT. 2497

HEAD OFFICE:-

BRITISH ANTARCTIC SURVEY

30 GILLINGHAM STREET

LONDON, S.W. 1.

Phone: LONDON VICTORIA 3687

ARGENTINE ISLANDS A.973

EXPLANATORY NOTES 1967

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

Sensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> | |
|--------------|-------------------|-----------------|
| | Jan 1 - Aug 17 | Aug 18 - Dec 31 |
| H | +1½ min. | +1½ min. |
| D | +1 | +1 |
| Z | 0 | -½ |
| T | +2 | +2 |

Insensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> |
|--------------|-------------------|
| H | -4½ min. |
| D | -½ |
| Z | 0 |
| T | -3 |

3. Order of Traces, from top to bottom:

Sensitive Magnetograms

H trace and baseline
T trace (after 23rd November
appears above H trace)
D baseline and trace
Z baseline and trace

Insensitive Magnetograms

D trace and baseline
T trace
H baseline and trace
Z baseline and trace

4. Sense of trace

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

H baseline values increase with increasing temperature.
Z baseline values decrease with increasing temperature.

Temperature coefficients:

H : 4.25 $\gamma/^\circ\text{C}$ Jan 01 - Aug 17 Z : 1.2 $\gamma/^\circ\text{C}$ Jan 01 - Dec 31
3.98 $\gamma/^\circ\text{C}$ Aug 17 - Dec 31

| <u>T trace</u> | <u>Scale Value</u> | <u>Baseline</u> |
|-----------------|---------------------------------|------------------------|
| Jan 01 - Aug 17 | 0.54 $^\circ\text{C}/\text{mm}$ | 12.73 $^\circ\text{C}$ |
| Aug 17 - Dec 31 | 0.53 $^\circ\text{C}/\text{mm}$ | 12.79 $^\circ\text{C}$ |

6. Scale Values, Sensitive magnetograms

| H | D | Z |
|---|---------------------------|---|
| 4.28 γ/mm Jan 01 - Feb 28 | 0.92' /mm Jan 01 - Dec 31 | 4.14 γ/mm Jan 01 - Jan 31 |
| 4.27 γ/mm Mar 01 - Mar 31 | | 4.16 γ/mm Feb 01 - Feb 28 |
| 4.26 γ/mm Apr 01 - Aug 31 | | 4.20 γ/mm Mar 01 - Mar 31 |
| 4.25 γ/mm Sep 01 - Sep 30 | | 4.30 γ/mm Apr 01 - Dec 31 |
| 4.24 γ/mm Oct 01 - Nov 30 | | |
| 4.25 γ/mm Dec 01 - Dec 31 | | |

7. Scale of Reproduction

To give scale a rule of 50 mm. length is reproduced on each magnetogram.

Baseline Values

Sensitive Magnetograms

H baselines

Jan 01 - Aug 17 22,919 y
Aug 17 - Dec 31 22,397 y

Note: H baselines are at 0°C. Chart baselines must be calculated using temperature coefficients.

D baselines

Jan 01 - May 31 17° 21.7'
Jun 01 - Aug 31 17° 21.8'
Sep 01 - Dec 31 17° 22.0'

Z baselines

Chart baselines

| | |
|-------------------------|----------|
| Jan 01 - Mar 24, 2300 z | 35,858 y |
| Mar 24 - Apr 06, 2000 z | 35,855 y |
| Apr 06 - Apr 09, 0400 z | 35,852 y |
| Apr 09 | 35,855 y |
| Apr 10 - Apr 30 | 35,852 y |
| May 01 - Jun 21, 0400 z | 35,851 y |
| Jun 21 | 35,854 y |
| Jun 22 - Jun 30 | 35,851 y |
| Jul 01 - Jul 22, 0200 z | 35,852 y |
| Jul 22 - Aug 08, 2300 z | 35,855 y |
| Aug 08 - Aug 13 | 38,852 y |
| Aug 14 | 35,855 y |
| Aug 15 - Aug 17, 1700 z | 35,852 y |
| Aug 17 - Sep 08, 1900 z | 35,723 y |
| Sep 08 - Sep 10 | 35,716 y |
| Sep 11 - Sep 30 | 35,723 y |
| Oct 01 - Oct 31 | 35,725 y |
| Nov 01 - Nov 01, 1800 z | 35,721 y |
| Nov 01 - Nov 06, 2300 z | 35,724 y |
| Nov 06 - Nov 09, 2000 z | 35,719 y |
| Nov 09 - Nov 10, 1400 z | 35,724 y |
| Nov 10 - Nov 15 | 35,718 y |
| Nov 16 - Dec 01 | 35,724 y |
| Dec 02 - Dec 31 | 35,730 y |

Note: In periods when chart baselines are quoted the temperature correction varies by less than 1 y.

Lower limit $\lambda = 50 \gamma$

Scale values: $\mu, 1.200/\text{mm}; \sigma, 0.215/\text{mm}$

| No. | K_H | | | | | | | | K_D | | | | | | | | $\text{Max}(K_H, K_D)$ | | | | | | | | Sum | |
|-----|-------|----|----|----|----|----|----|----|-------|----|----|----|----|----|----|----|------------------------|----|----|----|----|----|----|----|-----|----|
| | a1 | a2 | a3 | a4 | a5 | a6 | a7 | a8 | a1 | a2 | a3 | a4 | a5 | a6 | a7 | a8 | a1 | a2 | a3 | a4 | a5 | a6 | a7 | a8 | | |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 2 | 2 | 3 | 1 | 1 | 2 | 1 | 0 | 3 | 3 | 3 | 2 | 3 | 2 | 16 | |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 3 | 3 | 2 | 1 | 1 | 0 | 0 | 2 | 1 | 3 | 3 | 2 | 1 | 2 | 14 |
| 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 |
| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 3 | 2 | 1 | 1 | 1 | 1 | 2 | 17 |
| 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 2 | 3 | 1 | 2 | 1 | 1 | 2 | 2 | 3 | 3 | 1 | 2 | 1 | 1 | 2 | 2 | 15 |
| 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 3 | 2 | 2 | 1 | 0 | 1 | 2 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 15 |
| 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 2 | 1 | 1 | 1 | 1 | 0 | 3 | 3 | 2 | 1 | 1 | 1 | 2 | 0 | 0 | 13 |
| 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 2 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 9 |
| 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 6 |
| 10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 3 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 7 |
| 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 3 |
| 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 13 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| 14 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 15 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 7 |
| 16 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 2 | 1 | 0 | 3 | 0 | 1 | 3 | 3 | 2 | 1 | 0 | 3 | 2 | 0 | 15 |
| 17 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 2 | 0 | 0 | 0 | 2 | 1 | 3 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | 12 |
| 18 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 1 | 0 | 1 | 1 | 0 | 2 | 2 | 3 | 1 | 0 | 1 | 1 | 0 | 3 | 0 | 11 |
| 19 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 4 | 4 | 3 | 2 | 1 | 2 | 1 | 5 | 4 | 4 | 3 | 2 | 1 | 3 | 2 | 0 | 24 |
| 20 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 2 | 1 | 1 | 0 | 1 | 1 | 3 | 3 | 2 | 2 | 1 | 0 | 2 | 1 | 0 | 14 |
| 21 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 3 | 2 | 1 | 0 | 0 | 1 | 3 | 3 | 3 | 2 | 1 | 1 | 0 | 1 | 0 | 14 |
| 22 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 5 | 5 | 2 | 2 | 2 | 1 | 3 | 4 | 5 | 5 | 2 | 2 | 2 | 2 | 0 | 25 |
| 23 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 0 | 0 | 0 | 2 | 3 | 3 | 2 | 3 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 0 | 17 |
| 24 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 4 | 0 | 26 |
| 25 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 8 |
| 26 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 27 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 28 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 29 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 8 |
| 30 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 4 |

Lower limit is: 56

Scale values: 11, 1.000/111; 1, 1.000/111

| No. | K_{11} | | | | K_{12} | | | | $\max(K_{11}, K_{12})$ | | | | Sum |
|-----|----------|---|---|---|----------|---|---|---|------------------------|---|---|---|-----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | |
| 16 | 1 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 16 |
| 17 | 1 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 17 |
| 18 | 1 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 18 |
| 19 | 1 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 19 |
| 20 | 1 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 20 |
| 21 | 1 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 21 |
| 22 | 1 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 22 |
| 23 | 1 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 23 |
| 24 | 1 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 24 |
| 25 | 1 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 25 |
| 26 | 1 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 26 |
| 27 | 1 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 27 |
| 28 | 1 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 28 |
| 29 | 1 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 29 |
| 30 | 1 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 30 |

BRITISH ANTARCTIC SURVEY

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MAGNETIC RECORDS FOR 1967

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LAT. -65° 15'

LONG. 295° 44'

GEOMAGNETIC LAT. -53.8°

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EXPLANATORY NOTES 1967

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

Sensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> | |
|--------------|-------------------|-----------------|
| | Jan 1 - Aug 17 | Aug 18 - Dec 31 |
| H | +1½ min. | +1½ min. |
| D | +1 | +1 |
| Z | 0 | -½ |
| T | +2 | +2 |

Insensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> |
|--------------|-------------------|
| H | -4½ min. |
| D | -½ |
| Z | 0 |
| T | -3 |

3. Order of Traces, from top to bottom:

Sensitive Magnetograms

H trace and baseline
T trace (after 23rd November
appears above H trace)
D baseline and trace
Z baseline and trace

Insensitive Magnetograms

D trace and baseline
T trace
H baseline and trace
Z baseline and trace

4. Sense of trace

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

H baseline values increase with increasing temperature.
Z baseline values decrease with increasing temperature.

Temperature coefficients:

H : 4.25 $\gamma/^\circ\text{C}$ Jan 01 - Aug 17 Z : 1.2 $\gamma/^\circ\text{C}$ Jan 01 - Dec 31
3.98 $\gamma/^\circ\text{C}$ Aug 17 - Dec 31

| <u>T trace</u> | <u>Scale Value</u> | <u>Baseline</u> |
|-----------------|---------------------------------|------------------------|
| Jan 01 - Aug 17 | 0.54 $^\circ\text{C}/\text{mm}$ | 12.73 $^\circ\text{C}$ |
| Aug 17 - Dec 31 | 0.53 $^\circ\text{C}/\text{mm}$ | 12.79 $^\circ\text{C}$ |

6. Scale Values, Sensitive magnetograms

| H | D | Z |
|---|---|---|
| 4.28 γ/mm Jan 01 - Feb 28 | 0.92 γ/mm Jan 01 - Dec 31 | 4.14 γ/mm Jan 01 - Jan 31 |
| 4.27 γ/mm Mar 01 - Mar 31 | | 4.16 γ/mm Feb 01 - Feb 28 |
| 4.26 γ/mm Apr 01 - Aug 31 | | 4.20 γ/mm Mar 01 - Mar 31 |
| 4.25 γ/mm Sep 01 - Sep 30 | | 4.30 γ/mm Apr 01 - Dec 31 |
| 4.24 γ/mm Oct 01 - Nov 30 | | |
| 4.25 γ/mm Dec 01 - Dec 31 | | |

7. Scale of Reproduction

To give scale a rule of 50 mm. length is reproduced on each magnetogram.

8. /

8. Baseline Values

Sensitive Magnetograms

H baselines

Jan 01 - Aug 17 22,919 y
Aug 17 - Dec 31 22,897 y

Note: H baselines are at 0°C. Chart baselines must be calculated using temperature coefficients.

D baselines

Jan 01 - May 31 17° 21.7'
Jun 01 - Aug 31 17° 21.8'
Sep 01 - Dec 31 17° 22.0'

Z baselines

Chart baselines

| | |
|-------------------------|----------|
| Jan 01 - Mar 24, 2300 z | 35,858 y |
| Mar 24 - Apr 06, 2000 z | 35,855 y |
| Apr 06 - Apr 09, 0400 z | 35,852 y |
| Apr 09 | 35,855 y |
| Apr 10 - Apr 30 | 35,852 y |
| May 01 - Jun 21, 0400 z | 35,851 y |
| Jun 21 | 35,854 y |
| Jun 22 - Jun 30 | 35,851 y |
| Jul 01 - Jul 22, 0200 z | 35,852 y |
| Jul 22 - Aug 08, 2300 z | 35,855 y |
| Aug 08 - Aug 13 | 38,852 y |
| Aug 14 | 35,855 y |
| Aug 15 - Aug 17, 1700 z | 35,852 y |
| Aug 17 - Sep 08, 1900 z | 35,723 y |
| Sep 08 - Sep 10 | 35,716 y |
| Sep 11 - Sep 30 | 35,723 y |
| Oct 01 - Oct 31 | 35,725 y |
| Nov 01 - Nov 01, 1800 z | 35,721 y |
| Nov 01 - Nov 06, 2300 z | 35,724 y |
| Nov 06 - Nov 09, 2000 z | 35,719 y |
| Nov 09 - Nov 10, 1400 z | 35,724 y |
| Nov 10 - Nov 15 | 35,718 y |
| Nov 16 - Dec 01 | 35,724 y |
| Dec 02 - Dec 31 | 35,730 y |

Note: In periods when chart baselines are quoted the temperature correction varies by less than 1 y.

Lower limit K9: 500γ

Scale values: H, 1.28γ/mm; D, 6.24γ/mm

| | K_H | | | | | | | | K_D | | | | | | | | Max(K_H, K_D) | | | | | | | | Sum |
|----|-------|----|----|----|----|----|----|----|-------|----|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|-----|
| | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | |
| 1 | 2 | 2 | 1+ | x | 0+ | 0 | 3 | 4 | 2 | 2 | 1+ | x | 0+ | 0 | 3 | 3 | 2 | 2 | 1+ | x | 0+ | 0 | 3 | 4 | 12+ |
| 2 | 3 | 2 | 2 | 3 | 2 | 1 | 3 | 4 | 2 | 3 | 2 | 3 | 2 | 1 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 1 | 3 | 4 | 21 |
| 3 | 5 | 4 | 5 | 5 | 4 | 3 | 4 | 3 | 5 | 6 | 6 | 6 | 4 | 4 | 3 | 3 | 5 | 6 | 6 | 6 | 4 | 4 | 4 | 3 | 38 |
| 4 | 4 | 4 | 2 | 2 | 2 | 0 | 1 | 2 | 4 | 4 | 2 | 2 | 2 | 1 | 1 | 3 | 4 | 4 | 2 | 2 | 2 | 1 | 1 | 3 | 19 |
| 5 | 3 | 2 | 2 | 2 | 0 | 1 | 1 | 2 | 4 | 2 | 4 | 3 | 0 | 1 | 1 | 2 | 4 | 2 | 4 | 3 | 0 | 1 | 1 | 2 | 17 |
| 6 | 3 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 1 | 3 | 3 | 2 | 0 | 0 | 0 | 1 | 1 | 10 |
| 7 | 3 | 3 | 4 | 2 | 0 | 0 | 0 | 0 | 4 | 4 | 5 | 3 | 0 | 0 | 0 | 0 | 4 | 4 | 5 | 3 | 0 | 0 | 0 | 0 | 16 |
| 8 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 3 |
| 9 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 7 |
| 10 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 2 | 0 | 2 | 2 | 0 | 1 | 0 | 1 | 1 | 1 | 2 | 2 | 0 | 1 | 1 | 1 | 2 | 10 |
| 11 | 3 | 4 | 1 | 1 | 0 | 0 | 0 | 3 | 3 | 3 | 2 | 1 | 0 | 0 | 0 | 2 | 3 | 4 | 2 | 1 | 0 | 0 | 0 | 3 | 13 |
| 12 | 2 | 3 | 1 | 1 | 0 | 0 | 2 | 3 | 5 | 5 | 0 | 2 | 0 | 0 | 2 | 3 | 5 | 5 | 1 | 2 | 0 | 0 | 2 | 3 | 18 |
| 13 | 2 | 4 | 3 | 0 | 1 | 0 | 0 | 2 | 5 | 5 | 3 | 1 | 1 | 0 | 0 | 2 | 5 | 5 | 3 | 1 | 1 | 0 | 0 | 2 | 17 |
| 14 | 3 | 2 | 1 | 0 | 0 | 0 | 3 | 3 | 4 | 2 | 1 | 0 | 0 | 0 | 2 | 3 | 4 | 2 | 1 | 0 | 0 | 0 | 3 | 3 | 13 |
| 15 | 3 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 3 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 8 |
| 16 | 2 | 3 | 2 | 1 | 1 | 0 | 0 | 2 | 2 | 2 | 3 | 1 | 1 | 0 | 0 | 2 | 2 | 3 | 3 | 1 | 1 | 0 | 0 | 2 | 12 |
| 17 | 3 | 4 | 2 | 1 | 0 | 0 | 1 | 2 | 4 | 3 | 3 | 1 | 0 | 1 | 1 | 2 | 4 | 4 | 3 | 1 | 0 | 1 | 1 | 2 | 16 |
| 18 | 2 | 3 | 2 | 2 | 0 | 0 | 1 | 0 | 1 | 3 | 3 | 2 | 0 | 0 | 1 | 0 | 2 | 3 | 3 | 2 | 0 | 0 | 1 | 0 | 11 |
| 19 | 3 | 4 | 3 | 1 | 1 | 1 | 0 | 0 | 3 | 3 | 3 | 2 | 2 | 1 | 1 | 0 | 3 | 4 | 3 | 2 | 2 | 1 | 1 | 0 | 16 |
| 20 | 3 | 1 | 2 | 1 | 0 | 0 | 0 | 2 | 4 | 1 | 2 | 1 | 1 | 0 | 0 | 1 | 4 | 1 | 2 | 1 | 1 | 0 | 0 | 2 | 11 |
| 21 | 1 | 2 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 0 | 0 | 1 | 1 | 1 | 9 |
| 22 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 |
| 23 | 0 | 2 | 0 | 1 | 0 | 1 | 1 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 2 | 0 | 1 | 0 | 1 | 1 | 2 | 7 |
| 24 | 1 | 1 | 1 | 0 | 1 | 3 | 2 | 2 | 1 | 0 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 2 | 2 | 12 |
| 25 | 2 | 2 | 1 | 3 | 7 | 3 | 4 | 8 | 0 | 0 | 0 | 4 | 5 | 4 | 4 | 8 | 2 | 2 | 1 | 4 | 7 | 4 | 4 | 8 | 32 |
| 26 | 9 | 9 | 9 | 5 | 4 | 3 | 3 | 3 | 9 | 8 | 8 | 6 | 5 | 3 | 3 | 5 | 9 | 9 | 9 | 6 | 5 | 3 | 3 | 5 | 49 |
| 27 | 3 | 3 | 3 | 1 | 1 | 0 | 2 | 3 | 4 | 3 | 4 | 2 | 2 | 0 | 3 | 3 | 4 | 3 | 4 | 2 | 2 | 0 | 3 | 3 | 21 |
| 28 | 2 | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 1 | 2 | 4 | 4 | 3 | 3 | 4 | 5 | 2 | 3 | 4 | 4 | 3 | 3 | 4 | 5 | 28 |
| 29 | 5 | 5 | 4 | 4 | 3 | 2 | 1 | 2 | 6 | 6 | 5 | 4 | 3 | 1 | 0 | 2 | 6 | 6 | 5 | 4 | 3 | 2 | 1 | 2 | 29 |
| 30 | 1 | 2 | 2 | 1 | 4 | 5 | 4 | 5 | 2 | 2 | 2 | 1 | 4 | 4 | 5 | 4 | 2 | 2 | 2 | 1 | 4 | 5 | 5 | 5 | 26 |
| 31 | 6 | 5 | 3 | 2 | 0 | 3 | 2 | 0 | 7 | 5 | 5 | 0 | 0 | 2 | 0 | 0 | 7 | 5 | 5 | 2 | 0 | 3 | 2 | 0 | 24 |

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1967

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 667 1011 EXT. 2497

HEAD OFFICE:-

BRITISH ANTARCTIC SURVEY

30 GILLINGHAM STREET

LONDON, S.W. 1.

Phone: LONDON VICTORIA 3687

EXPLANATORY NOTES 1967

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

Sensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> | |
|--------------|-------------------|-----------------|
| | Jan 1 - Aug 17 | Aug 18 - Dec 31 |
| H | +1½ min. | +1½ min. |
| D | +1 | +1 |
| Z | 0 | -½ |
| T | +2 | +2 |

Insensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> |
|--------------|-------------------|
| H | -4½ min. |
| D | -½ |
| Z | 0 |
| T | -3 |

3. Order of Traces, from top to bottom:

Sensitive Magnetograms

H trace and baseline
T trace (after 23rd November
appears above H trace)
D baseline and trace
Z baseline and trace

Insensitive Magnetograms

D trace and baseline
T trace
H baseline and trace
Z baseline and trace

4. Sense of trace

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

H baseline values increase with increasing temperature.
Z baseline values decrease with increasing temperature.

Temperature coefficients:

H : 4.25 $\gamma/^\circ\text{C}$ Jan 01 - Aug 17 Z : 1.2 $\gamma/^\circ\text{C}$ Jan 01 - Dec 31
3.98 $\gamma/^\circ\text{C}$ Aug 17 - Dec 31

| <u>T trace</u> | <u>Scale Value</u> | <u>Baseline</u> |
|-----------------|---------------------------------|------------------------|
| Jan 01 - Aug 17 | 0.54 $^\circ\text{C}/\text{mm}$ | 12.73 $^\circ\text{C}$ |
| Aug 17 - Dec 31 | 0.53 $^\circ\text{C}/\text{mm}$ | 12.79 $^\circ\text{C}$ |

6. Scale Values, Sensitive magnetograms

| H | D | Z |
|---|---|---|
| 4.28 γ/mm Jan 01 - Feb 28 | 0.92 γ/mm Jan 01 - Dec 31 | 4.14 γ/mm Jan 01 - Jan 31 |
| 4.27 γ/mm Mar 01 - Mar 31 | | 4.16 γ/mm Feb 01 - Feb 28 |
| 4.26 γ/mm Apr 01 - Aug 31 | | 4.20 γ/mm Mar 01 - Mar 31 |
| 4.25 γ/mm Sep 01 - Sep 30 | | 4.30 γ/mm Apr 01 - Dec 31 |
| 4.24 γ/mm Oct 01 - Nov 30 | | |
| 4.25 γ/mm Dec 01 - Dec 31 | | |

7. Scale of Reproduction

To give scale a rule of 50 mm. length is reproduced on each magnetogram.

8. /

8. Baseline Values

Sensitive Magnetograms

H baselines

Jan 01 - Aug 17 22,919 y
Aug 17 - Dec 31 22,897 y

Note: H baselines are at 0°C. Chart baselines must be calculated using temperature coefficients.

D baselines

Jan 01 - May 31 17° 21.7'
Jun 01 - Aug 31 17° 21.8'
Sep 01 - Dec 31 17° 22.0'

Z baselines

Chart baselines

| | |
|-------------------------|----------|
| Jan 01 - Mar 24, 2300 z | 35,858 y |
| Mar 24 - Apr 06, 2000 z | 35,855 y |
| Apr 06 - Apr 09, 0400 z | 35,852 y |
| Apr 09 | 35,855 y |
| Apr 10 - Apr 30 | 35,852 y |
| May 01 - Jun 21, 0400 z | 35,851 y |
| Jun 21 | 35,854 y |
| Jun 22 - Jun 30 | 35,851 y |
| Jul 01 - Jul 22, 0200 z | 35,852 y |
| Jul 22 - Aug 08, 2300 z | 35,855 y |
| Aug 08 - Aug 13 | 38,852 y |
| Aug 14 | 35,855 y |
| Aug 15 - Aug 17, 1700 z | 35,852 y |
| Aug 17 - Sep 08, 1900 z | 35,723 y |
| Sep 08 - Sep 10 | 35,716 y |
| Sep 11 - Sep 30 | 35,723 y |
| Oct 01 - Oct 31 | 35,725 y |
| Nov 01 - Nov 01, 1800 z | 35,721 y |
| Nov 01 - Nov 06, 2300 z | 35,724 y |
| Nov 06 - Nov 09, 2000 z | 35,719 y |
| Nov 09 - Nov 10, 1400 z | 35,724 y |
| Nov 10 - Nov 15 | 35,718 y |
| Nov 16 - Dec 01 | 35,724 y |
| Dec 02 - Dec 31 | 35,730 y |

Note: In periods when chart baselines are quoted the temperature correction varies by less than 1 y.

Lower limit K9: 500y

Scale values: H, 4.28y/mm; D, 6.24y/mm

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

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1967

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LAT. -65° 15'

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BRITISH ANTARCTIC SURVEY

30 GILLINGHAM STREET

LONDON, S.W. 1.

Phone: LONDON VICTORIA 3687

EXPLANATORY NOTES 1967

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

Sensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> | |
|--------------|-------------------|-----------------|
| | Jan 1 - Aug 17 | Aug 18 - Dec 31 |
| H | +1½ min. | +1½ min. |
| D | +1 | +1 |
| Z | 0 | -½ |
| T | +2 | +2 |

Insensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> |
|--------------|-------------------|
| H | -4½ min. |
| D | -½ |
| Z | 0 |
| T | -3 |

3. Order of Traces, from top to bottom:

Sensitive Magnetograms

H trace and baseline
T trace (after 23rd November
appears above H trace)
D baseline and trace
Z baseline and trace

Insensitive Magnetograms

D trace and baseline
T trace
H baseline and trace
Z baseline and trace

4. Sense of trace

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

H baseline values increase with increasing temperature.
Z baseline values decrease with increasing temperature.

Temperature coefficients:

H : 4.25 $\gamma/^\circ\text{C}$ Jan 01 - Aug 17 Z : 1.2 $\gamma/^\circ\text{C}$ Jan 01 - Dec 31
3.98 $\gamma/^\circ\text{C}$ Aug 17 - Dec 31

| <u>T trace</u> | <u>Scale Value</u> | <u>Baseline</u> |
|-----------------|---------------------------------|------------------------|
| Jan 01 - Aug 17 | 0.54 $^\circ\text{C}/\text{mm}$ | 12.73 $^\circ\text{C}$ |
| Aug 17 - Dec 31 | 0.53 $^\circ\text{C}/\text{mm}$ | 12.79 $^\circ\text{C}$ |

6. Scale Values, Sensitive magnetograms

| H | D | Z |
|---|---------------------------|---|
| 4.28 γ/mm Jan 01 - Feb 28 | 0.92' /mm Jan 01 - Dec 31 | 4.14 γ/mm Jan 01 - Jan 31 |
| 4.27 γ/mm Mar 01 - Mar 31 | | 4.16 γ/mm Feb 01 - Feb 28 |
| 4.26 γ/mm Apr 01 - Aug 31 | | 4.20 γ/mm Mar 01 - Mar 31 |
| 4.25 γ/mm Sep 01 - Sep 30 | | 4.30 γ/mm Apr 01 - Dec 31 |
| 4.24 γ/mm Oct 01 - Nov 30 | | |
| 4.25 γ/mm Dec 01 - Dec 31 | | |

7. Scale of Reproduction

To give scale a rule of 50 mm. length is reproduced on each magnetogram.

8. /

8. Baseline Values

Sensitive Magnetograms

H baselines

Jan 01 - Aug 17 22,919 y
Aug 17 - Dec 31 22,897 y

Note: H baselines are at 0°C. Chart baselines must be calculated using temperature coefficients.

D baselines

Jan 01 - May 31 17° 21.7'
Jun 01 - Aug 31 17° 21.8'
Sep 01 - Dec 31 17° 22.0'

Z baselines

Chart baselines

| | |
|-------------------------|----------|
| Jan 01 - Mar 24, 2300 z | 35,858 y |
| Mar 24 - Apr 06, 2000 z | 35,855 y |
| Apr 06 - Apr 09, 0400 z | 35,852 y |
| Apr 09 | 35,855 y |
| Apr 10 - Apr 30 | 35,852 y |
| May 01 - Jun 21, 0400 z | 35,851 y |
| Jun 21 | 35,854 y |
| Jun 22 - Jun 30 | 35,851 y |
| Jul 01 - Jul 22, 0200 z | 35,852 y |
| Jul 22 - Aug 08, 2300 z | 35,855 y |
| Aug 08 - Aug 13 | 38,852 y |
| Aug 14 | 35,855 y |
| Aug 15 - Aug 17, 1700 z | 35,852 y |
| Aug 17 - Sep 08, 1900 z | 35,723 y |
| Sep 08 - Sep 10 | 35,716 y |
| Sep 11 - Sep 30 | 35,723 y |
| Oct 01 - Oct 31 | 35,725 y |
| Nov 01 - Nov 01, 1800 z | 35,721 y |
| Nov 01 - Nov 06, 2300 z | 35,724 y |
| Nov 06 - Nov 09, 2000 z | 35,719 y |
| Nov 09 - Nov 10, 1400 z | 35,724 y |
| Nov 10 - Nov 15 | 35,718 y |
| Nov 16 - Dec 01 | 35,724 y |
| Dec 02 - Dec 31 | 35,730 y |

Note: In periods when chart baselines are quoted the temperature correction varies by less than 1 y.

ARGENTINE ISLANDS, A.973

JULY 1967

Lower limit K9: 500y

Scale values: H, 4.28y/mm; D, 6.24y/mm

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

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1967

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 667 1011 EXT. 2497

HEAD OFFICE: -

BRITISH ANTARCTIC SURVEY

30 GILLINGHAM STREET

LONDON, S.W. 1.

Phone: LONDON VICTORIA 3687

EXPLANATORY NOTES 1967

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

Sensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> | |
|--------------|-------------------|-----------------|
| | Jan 1 - Aug 17 | Aug 18 - Dec 31 |
| H | +1½ min. | +1½ min. |
| D | +1 | +1 |
| Z | 0 | -½ |
| T | +2 | +2 |

Insensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> |
|--------------|-------------------|
| H | -4½ min. |
| D | -½ |
| Z | 0 |
| T | -3 |

3. Order of Traces, from top to bottom:

Sensitive Magnetograms

H trace and baseline
T trace (after 23rd November
appears above H trace)
D baseline and trace
Z baseline and trace

Insensitive Magnetograms

D trace and baseline
T trace
H baseline and trace
Z baseline and trace

4. Sense of trace

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

H baseline values increase with increasing temperature.

Z baseline values decrease with increasing temperature.

Temperature coefficients:

H : 4.25 y/°C Jan 01 - Aug 17 Z : 1.2 y/°C Jan 01 - Dec 31
3.98 y/°C Aug 17 - Dec 31

| <u>T trace</u> | <u>Scale Value</u> | <u>Baseline</u> |
|-----------------|--------------------|-----------------|
| Jan 01 - Aug 17 | 0.54 °C/mm | 12.73°C |
| Aug 17 - Dec 31 | 0.53 °C/mm | 12.79°C |

6. Scale Values, Sensitive magnetograms

| H | D | Z |
|--------------------------|---------------------------|--------------------------|
| 4.28y/mm Jan 01 - Feb 28 | 0.92' /mm Jan 01 - Dec 31 | 4.14y/mm Jan 01 - Jan 31 |
| 4.27y/mm Mar 01 - Mar 31 | | 4.16y/mm Feb 01 - Feb 28 |
| 4.26y/mm Apr 01 - Aug 31 | | 4.20y/mm Mar 01 - Mar 31 |
| 4.25y/mm Sep 01 - Sep 30 | | 4.30y/mm Apr 01 - Dec 31 |
| 4.24y/mm Oct 01 - Nov 30 | | |
| 4.25y/mm Dec 01 - Dec 31 | | |

7. Scale of Reproduction

To give scale a rule of 50 mm. length is reproduced on each magnetogram.

8. /

8. baseline Values

Sensitive Magnetograms

H baselines

Jan 01 - Aug 17 22,919 y
Aug 17 - Dec 31 22,897 y

Note: H baselines are at 0°C. Chart baselines must be calculated using temperature coefficients.

D baselines

Jan 01 - May 31 17° 21.7'
Jun 01 - Aug 31 17° 21.8'
Sep 01 - Dec 31 17° 22.0'

Z baselines

Chart baselines

| | |
|-------------------------|----------|
| Jan 01 - Mar 24, 2300 z | 35,858 y |
| Mar 24 - Apr 06, 2000 z | 35,855 y |
| Apr 06 - Apr 09, 0400 z | 35,852 y |
| Apr 09 | 35,855 y |
| Apr 10 - Apr 30 | 35,852 y |
| May 01 - Jun 21, 0400 z | 35,851 y |
| Jun 21 | 35,854 y |
| Jun 22 - Jun 30 | 35,851 y |
| Jul 01 - Jul 22, 0200 z | 35,852 y |
| Jul 22 - Aug 08, 2300 z | 35,855 y |
| Aug 08 - Aug 13 | 38,852 y |
| Aug 14 | 35,855 y |
| Aug 15 - Aug 17, 1700 z | 35,852 y |
| Aug 17 - Sep 08, 1900 z | 35,723 y |
| Sep 08 - Sep 10 | 35,716 y |
| Sep 11 - Sep 30 | 35,723 y |
| Oct 01 - Oct 31 | 35,725 y |
| Nov 01 - Nov 01, 1800 z | 35,721 y |
| Nov 01 - Nov 06, 2300 z | 35,724 y |
| Nov 06 - Nov 09, 2000 z | 35,719 y |
| Nov 09 - Nov 10, 1400 z | 35,724 y |
| Nov 10 - Nov 15 | 35,718 y |
| Nov 16 - Dec 01 | 35,724 y |
| Dec 02 - Dec 31 | 35,730 y |

Note: In periods when chart baselines are quoted the temperature correction varies by less than 1 y.

Lower limit K9: 500y

Scale values: H, 4.28y/mm; D, 6.24y/mm

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

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1967

FROM ARGENTINE ISLANDS A.973

| | |
|-------------------|----------|
| LAT. | -65° 15' |
| LONG. | 295° 14' |
| GEOMAGNETIC LAT. | -53.8° |
| GEOMAGNETIC LONG. | 3.3° |

ORIGINAL RECORDS HELD AT: -

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HEAD OFFICE: -

BRITISH ANTARCTIC SURVEY
30 GILLINGHAM STREET
LONDON, S.W. 1.

Phone: LONDON VICTORIA 3687

EXPLANATORY NOTES 1967

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

Sensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> | |
|--------------|-------------------|-----------------|
| | Jan 1 - Aug 17 | Aug 18 - Dec 31 |
| H | +1½ min. | +1½ min. |
| D | +1 | +1 |
| Z | 0 | -½ |
| T | +2 | +2 |

Insensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> |
|--------------|-------------------|
| H | -4½ min. |
| D | -½ |
| Z | 0 |
| T | -3 |

3. Order of Traces, from top to bottom:

Sensitive Magnetograms

H trace and baseline
T trace (after 23rd November
appears above H trace)
D baseline and trace
Z baseline and trace

Insensitive Magnetograms

D trace and baseline
T trace
H baseline and trace
Z baseline and trace

4. Sense of trace

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

H baseline values increase with increasing temperature.
Z baseline values decrease with increasing temperature.

Temperature coefficients:

H : 4.25 $\gamma/^\circ\text{C}$ Jan 01 - Aug 17 Z : 1.2 $\gamma/^\circ\text{C}$ Jan 01 - Dec 31
3.98 $\gamma/^\circ\text{C}$ Aug 17 - Dec 31

| <u>T trace</u> | <u>Scale Value</u> | <u>Baseline</u> |
|-----------------|---------------------------------|------------------------|
| Jan 01 - Aug 17 | 0.54 $^\circ\text{C}/\text{mm}$ | 12.73 $^\circ\text{C}$ |
| Aug 17 - Dec 31 | 0.53 $^\circ\text{C}/\text{mm}$ | 12.79 $^\circ\text{C}$ |

6. Scale Values, Sensitive magnetograms

| H | D | Z |
|---|---|---|
| 4.28 γ/mm Jan 01 - Feb 28 | 0.92 $^\circ/\text{mm}$ Jan 01 - Dec 31 | 4.14 γ/mm Jan 01 - Jan 31 |
| 4.27 γ/mm Mar 01 - Mar 31 | | 4.16 γ/mm Feb 01 - Feb 28 |
| 4.26 γ/mm Apr 01 - Aug 31 | | 4.20 γ/mm Mar 01 - Mar 31 |
| 4.25 γ/mm Sep 01 - Sep 30 | | 4.30 γ/mm Apr 01 - Dec 31 |
| 4.24 γ/mm Oct 01 - Nov 30 | | |
| 4.25 γ/mm Dec 01 - Dec 31 | | |

7. Scale of Reproduction

To give scale a rule of 50 mm. length is reproduced on each magnetogram.

8. /

8. Baseline Values

Sensitive Magnetograms

H baselines

Jan 01 - Aug 17 22,919 y
Aug 17 - Dec 31 22,897 y

Note: H baselines are at 0°C. Chart baselines must be calculated using temperature coefficients.

D baselines

Jan 01 - May 31 17° 21.7'
Jun 01 - Aug 31 17° 21.8'
Sep 01 - Dec 31 17° 22.0'

Z baselines

Chart baselines

| | |
|-------------------------|----------|
| Jan 01 - Mar 24, 2300 z | 35,858 y |
| Mar 24 - Apr 06, 2000 z | 35,855 y |
| Apr 06 - Apr 09, 0400 z | 35,852 y |
| Apr 09 | 35,855 y |
| Apr 10 - Apr 30 | 35,852 y |
| May 01 - Jun 21, 0400 z | 35,851 y |
| Jun 21 | 35,854 y |
| Jun 22 - Jun 30 | 35,851 y |
| Jul 01 - Jul 22, 0200 z | 35,852 y |
| Jul 22 - Aug 08, 2300 z | 35,855 y |
| Aug 08 - Aug 13 | 38,852 y |
| Aug 14 | 35,855 y |
| Aug 15 - Aug 17, 1700 z | 35,852 y |
| Aug 17 - Sep 08, 1900 z | 35,723 y |
| Sep 08 - Sep 10 | 35,716 y |
| Sep 11 - Sep 30 | 35,723 y |
| Oct 01 - Oct 31 | 35,725 y |
| Nov 01 - Nov 01, 1800 z | 35,721 y |
| Nov 01 - Nov 06, 2300 z | 35,724 y |
| Nov 06 - Nov 09, 2000 z | 35,719 y |
| Nov 09 - Nov 10, 1400 z | 35,724 y |
| Nov 10 - Nov 15 | 35,718 y |
| Nov 16 - Dec 01 | 35,724 y |
| Dec 02 - Dec 31 | 35,730 y |

Note: In periods when chart baselines are quoted the temperature correction varies by less than 1 y.

ARGENTINE ISLANDS, A.973

SEPTEMBER 1967

Lower limit K9: 500y

Scale values: H, 4.28y/mm; D, 6.24y/mm

| | K_H | | | | | | | | K_D | | | | | | | | $\text{Max}(K_H, K_D)$ | | | | | | | | Sum |
|----|-------|----|----|----|----|----|----|----|-------|----|----|----|----|----|----|----|------------------------|----|----|----|----|----|----|----|-----|
| | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | |
| 1 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 2 | 3 | 4 | 25 |
| 2 | 4 | 2 | 2 | 3 | 2 | 3 | 1 | 0 | 4 | 4 | 3 | 4 | 2 | 2 | 1 | 0 | 4 | 4 | 3 | 4 | 2 | 3 | 1 | 0 | 21 |
| 3 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 7 |
| 4 | 2 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 9 |
| 5 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| 6 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 1 | 1 | 7 |
| 7 | 1 | 2 | 2 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 2 | 0 | 1 | 2 | 1 | 0 | 9 |
| 8 | 1 | 0 | 0 | 1 | 1 | 0 | 2 | 2 | 1 | 1 | 0 | 1 | 2 | 0 | 3 | 2 | 1 | 1 | 0 | 1 | 2 | 0 | 3 | 2 | 10 |
| 9 | 3 | 3 | 1 | 1 | 0 | 0 | 2 | 2 | 5 | 5 | 1 | 2 | 1 | 0 | 2 | 2 | 5 | 5 | 1 | 2 | 1 | 0 | 2 | 2 | 18 |
| 10 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 11 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| 13 | 1 | 3 | 4 | 3 | 2 | 4 | 3 | 3 | 1 | 4 | 5 | 4 | 4 | 4 | 3 | 4 | 1 | 4 | 5 | 4 | 4 | 4 | 3 | 4 | 29 |
| 14 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 4 | 3 | 1 | 3 | 3 | 3 | 2 | 3 | 4 | 3 | 1 | 3 | 3 | 3 | 2 | 3 | 4 | 22 |
| 15 | 3 | 3 | 3 | 1 | 0 | 0 | 3 | 2 | 4 | 3 | 3 | 1 | 1 | 0 | 2 | 1 | 4 | 3 | 3 | 1 | 1 | 0 | 3 | 2 | 17 |
| 16 | 3 | 3 | 0 | 1 | 1 | 2 | 1 | 2 | 4 | 4 | 0 | 1 | 2 | 1 | 1 | 0 | 4 | 4 | 0 | 1 | 2 | 2 | 1 | 2 | 16 |
| 17 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 3 | 3 | 2 | 0 | 0 | 1 | 1 | 0 | 3 | 3 | 2 | 0 | 0 | 1 | 1 | 1 | 11 |
| 18 | 2 | 1 | 1 | 1 | 2 | 3 | 3 | 2 | 1 | 0 | 0 | 2 | 3 | 2 | 3 | 3 | 2 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 18 |
| 19 | 5 | 3 | 3 | 1 | 2 | 2 | 3 | 4 | 4 | 2 | 4 | 1 | 3 | 2 | 2 | 2 | 5 | 3 | 4 | 1 | 3 | 2 | 3 | 4 | 25 |
| 20 | 3 | 2 | 4 | 4 | 3 | 4 | 5 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 6 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 6 | 34 |
| 21 | 5 | 5 | 4 | 4 | 3 | 4 | 4 | 4 | 6 | 6 | 5 | 5 | 3 | 3 | 4 | 5 | 6 | 6 | 5 | 5 | 3 | 4 | 4 | 5 | 38 |
| 22 | 3 | 3 | 0 | 0 | 0 | 1 | 1 | 1 | 4 | 3 | 0 | 0 | 1 | 1 | 1 | 0 | 4 | 3 | 0 | 0 | 1 | 1 | 1 | 1 | 11 |
| 23 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 6 |
| 24 | 1 | 1 | 0 | 1 | 1 | 2 | 2 | 2 | 0 | 1 | 0 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 2 | 1 | 2 | 2 | 2 | 11 |
| 25 | 3 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 7 |
| 26 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 2 | 6 |
| 27 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 6 |
| 28 | 3 | 3 | 4 | 4 | 2 | 4 | 3 | 4 | 1 | 4 | 5 | 4 | 3 | 3 | 2 | 3 | 3 | 4 | 5 | 4 | 3 | 4 | 3 | 4 | 30 |
| 29 | 4 | 4 | 5 | 4 | 2 | 3 | 3 | 4 | 5 | 4 | 5 | 4 | 2 | 3 | 3 | 4 | 5 | 4 | 5 | 4 | 2 | 3 | 3 | 4 | 30 |
| 30 | 4 | 3 | 2 | 3 | 3 | 4 | 2 | 2 | 4 | 3 | 3 | 4 | 4 | 3 | 2 | 1 | 4 | 3 | 3 | 4 | 4 | 4 | 2 | 2 | 26 |

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EXPLANATORY NOTES 1967

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2. Time

Charts were changed at Greenwich midnight, so that each chart shows a complete Greenwich day.

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

Sensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> | |
|--------------|-------------------|-----------------|
| | Jan 1 - Aug 17 | Aug 18 - Dec 31 |
| H | +1½ min. | +1½ min. |
| D | +1 | +1 |
| Z | 0 | -½ |
| T | +2 | +2 |

Insensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> |
|--------------|-------------------|
| H | -½ min. |
| D | ½ |
| Z | 0 |
| T | -3 |

3. Order of Traces, from top to bottom:

Sensitive Magnetograms

H trace and baseline
T trace (after 23rd November
appears above H trace)
D baseline and trace
Z baseline and trace

Insensitive Magnetograms

D trace and baseline
T trace
H baseline and trace
Z baseline and trace

4. Sense of trace

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

H baseline values increase with increasing temperature.
Z baseline values decrease with increasing temperature.

Temperature coefficients:

H : 4.25 $\gamma/^\circ\text{C}$ Jan 01 - Aug 17 Z : 1.2 $\gamma/^\circ\text{C}$ Jan 01 - Dec 31
3.98 $\gamma/^\circ\text{C}$ Aug 17 - Dec 31

| <u>T trace</u> | <u>Scale Value</u> | <u>Baseline</u> |
|-----------------|---------------------------------|------------------------|
| Jan 01 - Aug 17 | 0.54 $^\circ\text{C}/\text{mm}$ | 12.73 $^\circ\text{C}$ |
| Aug 17 - Dec 31 | 0.53 $^\circ\text{C}/\text{mm}$ | 12.79 $^\circ\text{C}$ |

6. Scale Values, Sensitive magnetograms

| H | D | Z |
|---|---|---|
| 4.28 γ/mm Jan 01 - Feb 28 | 0.92 γ/mm Jan 01 - Dec 31 | 4.14 γ/mm Jan 01 - Jan 31 |
| 4.27 γ/mm Mar 01 - Mar 31 | | 4.16 γ/mm Feb 01 - Feb 28 |
| 4.26 γ/mm Apr 01 - Aug 31 | | 4.20 γ/mm Mar 01 - Mar 31 |
| 4.25 γ/mm Sep 01 - Sep 30 | | 4.30 γ/mm Apr 01 - Dec 31 |
| 4.24 γ/mm Oct 01 - Nov 30 | | |
| 4.25 γ/mm Dec 01 - Dec 31 | | |

7. Scale of Reproduction

To give scale a rule of 50 mm. length is reproduced on each magnetogram.

8. Baseline Values

Sensitive Magnetograms

H baselines

Jan 01 - Aug 17 22,919 y
Aug 17 - Dec 31 22,897 y

Note: H baselines are at 0°C. Chart baselines must be calculated using temperature coefficients.

D baselines

Jan 01 - May 31 17° 21.7'
Jun 01 - Aug 31 17° 21.8'
Sep 01 - Dec 31 17° 22.0'

Z baselines

Chart baselines

| | |
|-------------------------|----------|
| Jan 01 - Mar 24, 2300 z | 35,858 y |
| Mar 24 - Apr 06, 2000 z | 35,855 y |
| Apr 06 - Apr 09, 0400 z | 35,852 y |
| Apr 09 | 35,855 y |
| Apr 10 - Apr 30 | 35,852 y |
| May 01 - Jun 21, 0400 z | 35,351 y |
| Jun 21 | 35,854 y |
| Jun 22 - Jun 30 | 35,851 y |
| Jul 01 - Jul 22, 0200 z | 35,852 y |
| Jul 22 - Aug 08, 2300 z | 35,855 y |
| Aug 08 - Aug 13 | 38,852 y |
| Aug 14 | 35,855 y |
| Aug 15 - Aug 17, 1700 z | 35,852 y |
| Aug 17 - Sep 08, 1900 z | 35,723 y |
| Sep 08 - Sep 10 | 35,716 y |
| Sep 11 - Sep 30 | 35,723 y |
| Oct 01 - Oct 31 | 35,725 y |
| Nov 01 - Nov 01, 1800 z | 35,721 y |
| Nov 01 - Nov 06, 2300 z | 35,724 y |
| Nov 06 - Nov 09, 2000 z | 35,719 y |
| Nov 09 - Nov 10, 1400 z | 35,724 y |
| Nov 10 - Nov 15 | 35,718 y |
| Nov 16 - Dec 01 | 35,724 y |
| Dec 02 - Dec 31 | 35,730 y |

Note: In periods when chart baselines are quoted the temperature correction varies by less than 1 y.

Lower limit K9: 500y

Scale Values: H, 4.28y/mm; D, 6.24y/mm

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

BRITISH ANTARCTIC SURVEY

(FORMERLY FALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1967

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 667 1011 EXT. 2497

HEAD OFFICE:

BRITISH ANTARCTIC SURVEY

30 GILLINGHAM STREET

LONDON, S.W. 1.

Phone: LONDON VICTORIA 3687

EXPLANATORY NOTES 1967

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

Sensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> | |
|--------------|-------------------|-----------------|
| | Jan 1 - Aug 17 | Aug 18 - Dec 31 |
| H | +1½ min. | +1½ min. |
| D | +1 | +1 |
| Z | 0 | -½ |
| T | +2 | +2 |

Insensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> |
|--------------|-------------------|
| H | -4½ min. |
| D | -½ |
| Z | 0 |
| T | -3 |

3. Order of Traces, from top to bottom:

Sensitive Magnetograms

H trace and baseline
T trace (after 23rd November
appears above H trace)
D baseline and trace
Z baseline and trace

Insensitive Magnetograms

D trace and baseline
T trace
H baseline and trace
Z baseline and trace

4. Sense of trace

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

H baseline values increase with increasing temperature.
Z baseline values decrease with increasing temperature.

Temperature coefficients:

H : 4.25 $\gamma/^\circ\text{C}$ Jan 01 - Aug 17 Z : 1.2 $\gamma/^\circ\text{C}$ Jan 01 - Dec 31
3.98 $\gamma/^\circ\text{C}$ Aug 17 - Dec 31

| <u>T trace</u> | <u>Scale Value</u> | <u>Baseline</u> |
|------------------|---------------------------------|------------------------|
| Jan 01 - Aug 17 | 0.54 $^\circ\text{C}/\text{mm}$ | 12.73 $^\circ\text{C}$ |
| Aug 17, - Dec 31 | 0.53 $^\circ\text{C}/\text{mm}$ | 12.7 $^\circ\text{C}$ |

6. Scale Values, Sensitive magnetograms

| H | D | Z |
|---|---|---|
| 4.28 γ/mm Jan 01 - Feb 28 | 0.92 γ/mm Jan 01 - Dec 31 | 4.14 γ/mm Jan 01 - Jan 31 |
| 4.27 γ/mm Mar 01 - Mar 31 | | 4.16 γ/mm Feb 01 - Feb 28 |
| 4.26 γ/mm Apr 01 - Aug 31 | | 4.20 γ/mm Mar 01 - Mar 31 |
| 4.25 γ/mm Sep 01 - Sep 30 | | 4.30 γ/mm Apr 01 - Dec 31 |
| 4.24 γ/mm Oct 01 - Nov 30 | | |
| 4.25 γ/mm Dec 01 - Dec 31 | | |

7. Scale of Reproduction

To give scale a rule of 50 mm. length is reproduced on each magnetogram.

8.

6. Baseline Values

Sensitive Magnetograms

1 baselines

Jan 01 - Aug 17 22,917 y
 Aug 17 - Dec 31 22,797 y

Note: H baselines are at 0°C. Chart baselines must be calculated using temperature coefficients.

2 baselines

Jan 01 - May 31 17° 21.7'
 Jun 01 - Aug 31 17° 21.0'
 Sep 01 - Dec 31 17° 22.0'

3 baselines

Chart baselines

| | |
|-------------------------|----------|
| Jan 01 - Mar 24, 2300 z | 35,858 y |
| Mar 24 - Apr 06, 2000 z | 35,855 y |
| Apr 06 - Apr 09, 0400 z | 35,852 y |
| Apr 09 | 35,855 y |
| Apr 10 - Apr 30 | 35,852 y |
| May 01 - Jun 21, 0400 z | 35,851 y |
| Jun 21 | 35,854 y |
| Jun 22 - Jun 30 | 35,851 y |
| Jul 01 - Jul 22, 0200 z | 35,852 y |
| Jul 22 - Aug 08, 2300 z | 35,855 y |
| Aug 08 - Aug 13 | 38,852 y |
| Aug 14 | 35,855 y |
| Aug 15 - Aug 17, 1700 z | 35,852 y |
| Aug 17 - Sep 08, 1900 z | 35,723 y |
| Sep 08 - Sep 10 | 35,716 y |
| Sep 11 - Sep 30 | 35,723 y |
| Oct 01 - Oct 31 | 35,725 y |
| Nov 01 - Nov 04, 1300 z | 35,721 y |
| Nov 04 - Nov 06, 2300 z | 35,724 y |
| Nov 06 - Nov 09, 2000 z | 35,719 y |
| Nov 09 - Nov 10, 1400 z | 35,724 y |
| Nov 10 - Nov 15 | 35,718 y |
| Nov 16 - Dec 01 | 35,724 y |
| Dec 02 - Dec 31 | 35,730 y |

Note: In periods when chart-baselines are quoted the temperature correction varies by less than 1 y.

Lower limit K9: 500y

Scale values: H, 4.28y/mm; D, 6.24y/mm

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

BRITISH ANTARCTIC SURVEY

(FORMERLY PALKLAND ISLAND DEPENDENCIES SURVEY)

MAGNETIC RECORDS FOR 1967

FROM ARGENTINE ISLANDS A.973

LAT. -65° 15'

LONG. 295° 44'

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GEOMAGNETIC LONG. 3.3°

ORIGINAL RECORDS HELD AT:-

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Phone: LONDON VICTORIA 3687

EXPLANATORY NOTES 1967

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

Sensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> | |
|--------------|-------------------|-----------------|
| | Jan 1 - Aug 17 | Aug 18 - Dec 31 |
| H | +1½ min. | +1½ min. |
| D | +1 | +1 |
| Z | 0 | -½ |
| T | +2 | +2 |

Insensitive Magnetograms

| <u>Trace</u> | <u>Correction</u> |
|--------------|-------------------|
| H | -4½ min. |
| D | -½ |
| Z | 0 |
| T | -3 |

3. Order of Traces, from top to bottom:

Sensitive Magnetograms

H trace and baseline
T trace (after 23rd November
appears above H trace)
D baseline and trace
Z baseline and trace

Insensitive Magnetograms

D trace and baseline
T trace
H baseline and trace
Z baseline and trace

4. Sense of trace

All magnetograms: Temperature increases up the sheet.

H increases up the sheet.

D increases easterly up the sheet.

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(N.B. Z is negative, hence as Z increases, modulus of Z decreases).

5. Temperature Coefficients

H baseline values increase with increasing temperature.

Z baseline values decrease with increasing temperature.

Temperature coefficients:

H : 4.25 $\gamma/^\circ\text{C}$ Jan 01 - Aug 17 Z : 1.2 $\gamma/^\circ\text{C}$ Jan 01 - Dec 31
3.98 $\gamma/^\circ\text{C}$ Aug 17 - Dec 31

| <u>T trace</u> | <u>Scale Value</u> | <u>Baseline</u> |
|-----------------|---------------------------------|------------------------|
| Jan 01 - Aug 17 | 0.54 $^\circ\text{C}/\text{mm}$ | 12.73 $^\circ\text{C}$ |
| Aug 17 - Dec 31 | 0.53 $^\circ\text{C}/\text{mm}$ | 12.79 $^\circ\text{C}$ |

6. Scale Values, Sensitive magnetograms

| H | D | Z |
|---|---|--|
| 4.28 γ/mm Jan 01 - Feb 28 | 0.92 γ/mm Jan 01 - Dec 31 | 4.14 γ/mm Jan 01 - Jan 31 |
| 4.27 γ/mm Mar 01 - Mar 31 | | 4.16 γ/mm Feb 01 - Feb 28 |
| 4.26 γ/mm Apr 01 - Aug 31 | | 4.20 γ/mm Mar 01 - Mar 31 |
| 4.25 γ/mm Sep 01 - Sep 30 | | 4.30 γ/mm Apr 01 - Dec 31. |
| 4.24 γ/mm Oct 01 - Nov 30 | | |
| 4.25 γ/mm Dec 01 - Dec 31 | | |

7. Scale of Reproduction

To give scale a rule of 50 mm. length is reproduced on each magnetogram.

8. /

3. Baseline Values

Sensitive Magnetograms

H baselines

Jan 01 - Aug 17 22,919 y
Aug 17 - Dec 31 22,897 y

Note: H baselines are at 0°C. Chart baselines must be calculated using temperature coefficients.

D baselines

Jan 01 - May 31 17° 21.7'
Jun 01 - Aug 31 17° 21.8'
Sep 01 - Dec 31 17° 22.0'

Z baselines

Chart baselines

| | |
|-------------------------|----------|
| Jan 01 - Mar 24, 2300 z | 35,858 y |
| Mar 24 - Apr 06, 2000 z | 35,855 y |
| Apr 06 - Apr 09, 0400 z | 35,852 y |
| Apr 09 | 35,855 y |
| Apr 10 - Apr 30 | 35,852 y |
| May 01 - Jun 21, 0400 z | 35,851 y |
| Jun 21 | 35,854 y |
| Jun 22 - Jun 30 | 35,851 y |
| Jul 01 - Jul 22, 0200 z | 35,852 y |
| Jul 22 - Aug 08, 2300 z | 35,855 y |
| Aug 08 - Aug 13 | 38,852 y |
| Aug 14 | 35,855 y |
| Aug 15 - Aug 17, 1700 z | 35,852 y |
| Aug 17 - Sep 08, 1900 z | 35,723 y |
| Sep 08 - Sep 10 | 35,716 y |
| Sep 11 - Sep 30 | 35,723 y |
| Oct 01 - Oct 31 | 35,725 y |
| Nov 01 - Nov 01, 1800 z | 35,721 y |
| Nov 01 - Nov 06, 2300 z | 35,724 y |
| Nov 06 - Nov 09, 2000 z | 35,719 y |
| Nov 09 - Nov 10, 1400 z | 35,724 y |
| Nov 10 - Nov 15 | 35,718 y |
| Nov 16 - Dec 01 | 35,724 y |
| Dec 02 - Dec 31 | 35,730 y |

Note: In periods when chart baselines are quoted the temperature correction varies by less than 1 y.

Lower limit K_9 : 500y

Scale values: H, 4.28y/mm; D, 6.24y/mm

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