MAGNETIC OBSERVATORY, CAPETOWN
APRIL TO JUNE, 1939

(Latitude 33° 57′ S., longitude 18° 28′ or 1h 13m.9 E. of Gr.)

Note: D and Z are negative; changes are in the algebraic sense.

April 1-2—Disturbances of small amplitude began at about 16h GMT, April 1, and continued until 24h, April 2, with small bays at about 18h and 23h each day.

April 10—Bays developed in all elements at 00h 15m GMT, April 10. The changes were: D, +8′ in twenty minutes and then −7′ in sixty minutes; H, +36 gammas in twenty-five minutes and −31 gammas in forty-seven minutes; Z, −38 gammas in thirty minutes and +39 gammas in fifty minutes. There were disturbances during the day and small bays developed at about 20h and 24h.

April 16-17—A storm began with a small sudden commencement at 21h 38m GMT, April 16, when in a period of five minutes H increased 13 gammas. There was also a sudden outburst at 01h 57m, April 17, when the changes were: D, +4′ in two minutes; H, +37 gammas in two minutes; Z, −39 gammas in ten minutes. A series of bays developed in D with ranges varying from ±5′ to ±15′ covering periods of about one hour until 22h April 17, when the storm ended. H diminished by 115 gammas from 02h to 04h 50m. Afterward the general tendency in H was an oscillating decrease to a minimum value at 15h 45m. By 20h 45m H had increased by 175 gammas. The maximum value of H occurred at 02h 00m, April 17. Z increased 113 gammas from 02h 06m to 04h 40m. The maximum value in Z was at 15h 45m, and by 21h it had diminished 164 gammas. Range: H, 175 gammas.

April 18-20—This storm began at 08h GMT, April 18, and continued until 06h, April 20.

April 20—Bays developed in all elements at about 17h GMT, April 20. The changes in a period of about one hour were: D, ∓9′; H, +88 gammas, −67 gammas; Z, −86 gammas, +39 gammas.

April 23-24—A storm began at 05h 45m GMT, April 23. The changes were: D, +12′ in fifteen minutes, −4′ in twenty minutes, +2′ in ten minutes, and −14′ in thirty-five minutes; H, +57 gammas in fifteen minutes, −88 gammas in fifty minutes; Z, −55 gammas in twenty minutes, +117 gammas in fifty-five minutes. The storm lasted until about 02h, April 24. Ranges: D, 30′; H, 165 gammas; Z, 125 gammas.

April 24-25—Disturbances in all elements began at about 17h 35m GMT, April 24. The changes in D were: −7′ in fifteen minutes; +17′ in sixty-five minutes; −5′ in thirty-five minutes; +5′ in twenty minutes; −18′ in forty minutes; +9′ in twenty minutes. The changes in H were: +43 gammas in five minutes; +130 gammas in forty-one minutes; −282 gammas in two hundred and eighteen minutes. The changes in Z were: −55 gammas in sixty minutes; +211 gammas in one hundred and nine minutes; −204 gammas from 20h 24m to 02h 05m, April 25. Range: H, 282 gammas.

April 25—A bay developed at 01h 15m, April 25, when the change in D was +25′ in sixty-two minutes, in H 57 gammas in thirty-five minutes, and in Z −110 gammas in fifty minutes.

May 1-3—A storm began with a sudden commencement at 11h 35m

GMT, May 1, when H increased 31 gammas in five minutes. At $19^h\ 40^m$ D changed $-8'$ in thirty minutes and $+6'$ in fifteen minutes. At $21^h\ 00^m$ D changed $-11'$ in thirty-five minutes and $+8'$ in twenty-five minutes. At $23^h\ 38^m$ H changed $+57$ gammas in twenty minutes. There was a strong storm for about twenty-four hours and smaller disturbances for a further twenty-four hours. Ranges: D, $26'$; H, 151 gammas; Z, 121 gammas.

May 5-7—A storm began with a sudden commencement at $20^h\ 44^m$ GMT, May 5, when the change in D was $+2'$ in five minutes, the change in $H+52$ gammas in five minutes, and the change in $Z-31$ gammas in ten minutes. The following disturbance was not great. The storm died out at about 10^h, May 7.

May 25-26—Disturbances began gradually at about 18^h GMT, May 25, and continued until about 4^h, May 26.

May 27—A storm began with a sudden commencement at $20^h\ 50^m$ GMT, May 27, when H increased 13 gammas in five minutes. There was a bay in D of $+8'$ from $21^h\ 45^m$ to $22^h\ 15^m$ and another of $-9'$ from $22^h\ 15^m$ to $23^h\ 50^m$.

May 28—There was a bay in D of $-5'$ from $01^h\ 10^m$ to $02^h\ 15^m$ GMT, May 28, and another of $+7'$ from $02^h\ 15^m$ to $02^h\ 35^m$.

May 29—At $07^h\ 30^m$ GMT, May 29, H changed $+31$ gammas in ten minutes and D changed $+2'$ in five minutes.

June 10—There was a small sudden commencemnt at $01^h\ 15^m$ GMT, June 10, when the change in D was $+2'$ in five minutes and in H was $+11$ gammas in five minutes.

June 13-14—A storm began gradually at about 17^h GMT, June 13. There were changes in D of the order of $8'$ in each ten minutes. The storm lasted until about 24^h, June 14. Range: H, 146 gammas.

June 26—There was a small sudden commencement at $20^h\ 19^m$ GMT, June 26, when the change in D was $+2'$ in five minutes and in H $+21$ gammas in three minutes. The following disturbances were small and continued until about 24^h.

Erratum—Note that the sudden commencement of July 13, 1938, occurred at $20^h\ 04^m$ GMT, and not at the time given on page 105 in the March, 1939, number of this JOURNAL.

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