

*November 17 to 20, 1882.*—Declination greatly disturbed on these days; brilliant auroral display on the 20th. Great disturbance in horizontal force on the 17th, 18th, 19th, 20th, and 21st. Vertical force but little affected.

The magnetic equilibrium was disturbed during the entire period, November 12 to November 21, inclusive, with daily displays of auroras.

*December 20, 21, 1882.*—Declination disturbance commenced on the 19th and continued to the 24th, inclusive. Bright auroras every day. Horizontal force greatly disturbed on the 20th and 21st. Vertical force slightly, if at all, affected.

*February 24, 25, 27, 28, 1883.*—Declination disturbances commence February 22, and extend at least to March 3; daily auroras, very brilliant February 23, 25, 26, 28, March 2 and 3. Horizontal force on the 24th and 25th greatly disturbed (already on preceding days, 22d and 23d), and continues in a state of unrest to March 3, inclusive. The vertical force appears undisturbed on the 24th and 25th, and is but slightly affected on the 28th.

*March 27, 1883.*—Declination greatly disturbed on the 27th and 28th. Bright auroras on the 26th, 27th, and 28th. Days of disturbance of the horizontal force 26th, 27th, 28th, 29th, and 30th. Vertical force very little affected.

*April 3, 1883.*—Declination greatly disturbed April 2 and 3; auroras. Great disturbance in horizontal force on the 1st, 2d, 3d, 4th, and 5th. Vertical force slightly affected.

*May 21, 22, 1883.*—Declination disturbed on the 20th, 21st, and 22d; horizontal force likewise. Vertical force disturbed on the 21st but not on the 22d.

*June 18, 1883.*—Declination greatly disturbed on the 17th, 18th, 19th; horizontal force disturbed on the 17th, 18th, 19th, and 20th. Vertical force apparently normal.

*June 27, 1883.*—Large disturbance in declination. Horizontal force disturbed on the 25th, 26th, 27th, 28th, 29th, and 30th, and very heavily on July 1. Vertical force apparently normal.