

explaining, in some of the most remarkable Animal Motions, some time hereafter, at greater Length than this present Occasion will admit of.

VI. *Observations of Latitude and Variation, taken on Board the Hartford, in her Passage from Java Head to St. Hellena, Anno Dom. 173 $\frac{1}{2}$. Communicated by Edmund Halley, LL. D. Regius Astronomer at Greenwich.*

ON Wednesday, February the 2d, we took our Departure from Java Head, allowing it to lie in the Latitude of 6° 45' South.

Monday, February 7.

By a good Amplitude made	3° 28'	Variat. NWly.
Latitude by Account	9 59	South.
Merid. Dist. from Java Head	43	} West.
Longitude from ditto	45	

Sunday, February 13.

By a good Azimuth made	4° 45'	Variat. NWly.
Latitude by good Observat.	13 43	South.
Merid. Dist. from Java Head	3 31	} West.
Longitude from ditto	3 36	

Tuesday, February 15.

By a good Amplitude	4° 52'	Variat. NWly.
Latitude per Observation	15 18	South.
Merid. Dist. from Java Head	6 1	} West.
Longitude from ditto	6 9	

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Monday,

Monday, February 21.

By a good Azimuth and Amplitude	4° 51'	Variat. NW.
Latitude <i>per</i> Observation	18 12	South.
Merid. Dist. from <i>Java Head</i>	17 28	} West.
Longitude from ditto	18 00	

Friday, February 25.

By a good Amplitude made	6° 8'	Variat. NW.
Latitude <i>per</i> Observation	19 59	South.
Merid. Dist. from <i>Java Head</i>	21 17	} West.
Longitude from ditto	22 15	

Tuesday, February 29.

By a good Azimuth	10° 3'	Variat. NW.
Latitude <i>per</i> Observation	21 00	South.
Merid. Dist. from <i>Java Head</i>	30 28	} West.
Longitude from ditto	32 12	

Sunday, March 5.

By a good Amplitude made	15° 15'	Variat. NW.
Latitude <i>per</i> Observation	23 16	South.
Merid. Dist. from <i>Java Head</i>	37 18	} West.
Longitude from ditto	38 58	

Wednesday, March 6.

By a good Amplitude made	18° 2'	Variat. NW.
Latitude <i>per</i> Observation	25 11	South.
Merid. Dist. from <i>Java Head</i>	40 30	} West.
Longitude from ditto	42 33	

Friday, March 10.

By an Azim. and Amplitude made	19° 00'	Variat. NW.
Latitude <i>per</i> Observation	26 18	South.
Meridian Distance	42 42	} West.
Longitude	44 5	

Monday,

Monday, March 13.

By a very good Amplitude	21° 45'	Variat. NW.
Latitude <i>per</i> Observation	27 23	South.
Meridian Distance	44 1+	} West.
Longitude from <i>Java</i>	46 34	

Friday, March 17.

By a good Azimuth made	24° 23'	Variat. NW.
Latitude <i>per</i> Account	30 25	South.
Merid. Dist. from <i>Java Head</i>	51 29	} West.
Longitude ditto	54 52	

Sunday, March 19.

By a good Azimuth had	24° 50'	Variat. NW.
Latitude <i>per</i> Observation	30 27	South.
Meridian Distance	56 40	} West.
Longitude	59 21	

Wednesday, March 22.

By a good Azimuth had	24° 15'	Variat. NW.
Latitude <i>per</i> Account	31 23	South.
Merid. Dist. from <i>Java Head</i>	61 37	} West.
Longitude from ditto	66 03	

Friday, March 24.

By a good Amplitude had	23° 51'	Variat. NW.
Latitude <i>per</i> Observation	32 47	South.
Meridian Distance	63 00	} West.
Longitude	67 4+	

Saturday, April 1.

By a good Amplitude made	20° 16'	Variat. NW.
Latitude <i>per</i> Observation	34 58	South.
Merid. Dist. from <i>Java Head</i>	73 36	} West.
Longitude from ditto	79 4+	

Tuesday, April 4.

By a good Azimuth and Amplitude	20° 07'	Variat. NW.
Latitude <i>per</i> Observation	35 33	South.
Merid. Dist. from <i>Java Head</i>	74 42	} West.
Longitude from ditto	81 24	

Thursday, April 6.

By a good Amplitude made	19° 07'	Variat. NW.
Latitude <i>per</i> Observation	35 41	South.
Merid. Dist. from <i>Java Head</i>	77 02	} West.
Longitude from ditto	87 12	

Friday, April 7.

By a very good Amplitude made	17° 30'	Variat. NW.
Latitude <i>per</i> Observation	36 25	South.
Meridian Distance from <i>Java</i>	77 56	} West.
Longitude from ditto	87 38	

Monday, April 10.

By a good Azim. & Amplitude made	16° 09'	Variat. NW.
Latitude <i>per</i> Observation	38 18	South.
Merid. Dist. from <i>Java Head</i>	77 24	} West.
Longitude from ditto	87 26	

Thursday, April 13.

By a good Azim. & Amplitude made	15° 40'	Variat. NW.
Latitude <i>per</i> Observation	37 58	South.
Merid. Dist. from <i>Java Head</i>	77 21	} West.
Longitude from ditto	85 15	

Friday, April 14.

By a very good Azim. & Amplitudes	15° 45'	Variat. NW.
Latitude <i>per</i> Observation	37 04	South.
Merid. Dist. from <i>Java Head</i>	76 54	} West.
Longitude from ditto	84 42	

N. B. This Day I judged Cape *Bonne Esperance* to bear N. by W. from me, Distance 20 34'.

Sunday,

Sunday, April 16.

By a very good Azimuth made	16° 14'	Variat. NW.
Latitude <i>per</i> Observation	36 15	South.
Merid. Dist. from <i>Java Head</i>	77 59	} West.
Ditto from Cape <i>Bonne Esperance</i>	00 30	
Longitude from <i>Java Head</i>	85 14	

Tuesday, April 18.

By a very good Amplitude made	15° 45'	Variat. NW.
Latitude <i>per</i> Observation	35 33	South.
Merid. Dist. from <i>Java Head</i>	79 05	} West.
Ditto from Cape <i>Bonne Esperance</i>	01 36	
Longitude from <i>Java Head</i>	86 10	

Friday, April 21.

By a very good Azimuth made	14° 40'	Variation.
Latitude <i>per</i> Observation	32 23	South.
Merid. Dist. from <i>Java Head</i>	81 09	} West.
Ditto from Cape <i>Bonne Esperance</i>	03 40	
Longitude from <i>Java Head</i>	87 09	

Monday, April 24.

By a good Amplitude made	12° 39'	Variat. NW.
Latitude <i>per</i> Observation	27 01	South.
Merid. Dist. from <i>Java Head</i>	84 52	} West.
Ditto from Cape <i>Bonne Esperance</i>	07 23	
Longitude from <i>Java Head</i>	89 18	

Saturday, April 29.

By good Azimuths made	11° 20'	Variation.
Latitude <i>per</i> Observation	21 45	South.
Meridian Dist. from <i>Java Head</i>	89 08	} West.
Ditto from Cape <i>Bonne Esperance</i>	11 41	
Longitude from <i>Java Head</i>	92 20	

Friday,

(336)

Friday, May 5.

Latitude per Observation	16° 00' South.
Meridian Dist. from <i>Java Head</i>	97 43
Ditto from <i>Cape Bonne Esperance</i>	20 16
Longitude from <i>Java Head</i>	99 53

By an Ampl the Night before came in 8 00 NW.

At Noon *Barn Point* bore W. by N. $\frac{1}{2}$ N. Distance four Miles

VII. *An Account of an extraordinary Eruption of Mount Vesuvius in the Month of March, in the Year 1730, extracted from the Meteorological Diary of that Year at Naples, communicated by Nichol. Cyrillus, M. D. R. S. S.*

THE Thermometer used in this *Diary*, was made by Mr. *Hauksbee*, in which the Freezing-Point is marked at 65 Degrees under the Point extreme Hot; but the Doctor observes, that at *Naples* Water will freeze when this Thermometer stands at 55 Degrees only: Which, he is of Opinion, seems to argue, that there is something else besides an intense Degree of Cold required for freezing Water; that the Air of *Naples* abounds in it, more than the Air of *London*; and that this may probably be of a saline Nature; because when we turn Water into Ice by the Help of Snow, it is necessary to mix Salt with it.

March Ther. Winds.

8. 40 : 0. S. 3 Cloudy Weather; strong South Wind. *Vesuvius* sent forth a great Smoak and Stream of Fire, with hollow Rumbling.

March