

IV. *Contributions to Terrestrial Magnetism*.—No. XIV.

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IN this paper (*i. e.* the XIV.th Number of the “Contributions to Terrestrial Magnetism”) I have the pleasure of presenting to the Royal Society the second half of the Magnetic Survey of the Northern Hemisphere, of which the first half was presented by me last year and is printed as No. XIII. of my “Contributions to Terrestrial Magnetism.” These two papers, taken together with No. XI. (appertaining to the Southern Hemisphere), embrace fully three quarters of the entire globe.

The form in which the observations are collected in the two latest papers (No. XIII. and the present, No. XIV.) is the same, *viz.* arranged in zones of latitude, each zone beginning with the meridian of Greenwich, and passing eastward round the globe until the same meridian is again reached. In No. XIII. these zones were eight in number, being each  $5^{\circ}$  of latitude in breadth (excepting the last, which comprised also the few observations north of the 80th parallel). In the present paper the zones are four in number, each being  $10^{\circ}$  in breadth.

Zone 1,	comprehending	from the equator	to $10^{\circ}$ N.
Zone 2,	„	„	lat. $10^{\circ}$ N. „ $20^{\circ}$ N.
Zone 3,	„	„	„ $20^{\circ}$ N. „ $30^{\circ}$ N.
Zone 4,	„	„	„ $30^{\circ}$ N. „ $40^{\circ}$ N.

The statements in the introduction to No. XIII. regarding the different Magnetic Elements apply equally to the present paper; it may, however, be remarked in addition, that while the observations of Force are fewer, a larger proportion of them were made by the observers *in absolute measure*, and have therefore not needed conversion; the remainder have been converted by the same method of proceeding as that described in No. XIII.

In the present paper corrections for “secular change” have been much more sparingly introduced. For this three reasons may be assigned:—the first being the very satisfactory one that a larger proportion of the observations are at dates differing by so few years from the Mean Epoch (1840–45) that any corrections on this account may well be dispensed with; another being, that in this part of the globe more of the earth’s surface is covered by the ocean, and it has not been thought advisable in either paper to correct “Sea Observations” for differences of epoch (regarding these generally as less influential than differences of “Ship’s Attraction”); the third reason being of a

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less satisfactory character, viz. that there are generally fewer available grounds for assigning "secular change" on tolerably sufficient and accordant evidence.

I have now to offer again, and in increased measure, my most grateful acknowledgments to Captain FREDERICK JOHN EVANS, R.N., the present Hydrographer of the Admiralty, for his most valuable assistance in many ways, but preeminently in the superintendence of the formation and execution of the Maps (Plates 26–28) embodying the results.

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### ZONE I.—LATITUDES, EQUATOR TO 10° N.

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Dayman ..... } MSS. in the Magnetic Office, Kew.  
H.M.S. 'Fly' ..... }  
The 'John Fleming' }

## NORTH EQUATORIAL ZONE I.—Lat. Equator to 10° N.

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842-5.	Corrected.	Observed.	Cor. to Epoch 1842-5.	Corrected.		
Quitta .....	5 55	1 00	1846	19 55 w.	.....	19-9 w.	.....	.....	.....	.....	Denham.
At sea (5 observations)	5 50	1 29	1846	20 39 w.	.....	20-7 w.	.....	.....	.....	.....	Denham.
Little Popoe .....	6 13	1 36	1846	20 21 w.	.....	20-4 w.	.....	.....	.....	.....	Denham.
Whydah .....	6 19	2 05	1846	20 08 w.	.....	20-1 w.	.....	.....	.....	.....	Denham.
At sea (6 observations)	6 12	2 05	1846	19 19 w.	.....	19-3 w.	.....	.....	.....	.....	Denham.
Badagry .....	6 24	2 53	1846	20 30 w.	.....	20-5 w.	.....	.....	.....	.....	Denham.
At sea (3 observations)	6 21	2 53	1846	19 51 w.	.....	19-9 w.	.....	.....	.....	.....	Denham.
At sea .....	6 24	3 27	1846	19 36 w.	.....	19-6 w.	.....	.....	.....	.....	Denham.
At sea (2 observations)	5 39	4 09	1846	20 47 w.	.....	20-8 w.	.....	.....	.....	.....	Denham.
At sea (4 observations)	5 19	5 03	1846	19 55 w.	.....	19-9 w.	.....	.....	.....	.....	Denham.
At sea (5 observations)	4 56	5 23	1846	20 25 w.	.....	20-4 w.	.....	.....	.....	.....	Denham.
At sea (5 observations)	4 48	5 32	1846	19 21 w.	.....	19-4 w.	.....	.....	.....	.....	Denham.
Middleton River .....	4 32	5 41	1846	19 50 w.	.....	19-8 w.	.....	.....	.....	.....	Denham.
At sea (6 observations)	4 06	5 55	1846	19 39 w.	.....	19-7 w.	.....	.....	.....	.....	Denham.
At sea (2 observations)	4 10	6 00	1846	19 23 w.	.....	19-4 w.	.....	.....	.....	.....	Denham.
St. Thomas .....	0 25	6 45	1822	.....	.....	.....	0 04 s.	.....	0-1 s.	7-19	Sabine.
			1826	22 47 w.	.....	22-8 w.	.....	.....	.....	.....	Owen.
Opposite Kende, on the Tshadda .....	8 01	7 16	1854	.....	.....	.....	6 07 n.	.....	6-1 n.	.....	Baikie.
Princes Island .....	1 41	7 27	1827	18 56 w.	.....	18-8 w.	.....	.....	.....	.....	De Clerval.
			1842	.....	.....	.....	3 33 s.	.....	3-6 s.	.....	Allen.
Stirling .....	7 07	7 49	1835	19 51 w.	.....	19-9 w.	.....	.....	.....	.....	Allen.
Ojogo .....	7 45	8 29	1854	.....	.....	.....	4 38 n.	.....	4-6 n.	.....	Baikie.
			1826	22 00 w.	.....	.....	.....	.....	.....	.....	Owen.
			1836	19 50 w.	.....	19-8 w.	.....	.....	.....	.....	Vidal.
Fernando Po .....	3 45	8 45	1842	.....	.....	.....	2 13 s.	.....	2-2 s.	.....	Allen.
			1846	19 04 w.	.....	19-1 w.	.....	.....	.....	.....	Denham.
Rabba .....	6 27	9 13	1835	20 36 w.	.....	20-6 w.	.....	.....	.....	.....	Allen.
Corisco Bay .....	0 55	9 20	1836	20 04 w.	.....	20-1 w.	.....	.....	.....	.....	Vidal.
Cameroon's River .....	3 55	9 30	1836	19 46 w.	.....	19-8 w.	.....	.....	.....	.....	Vidal.
Magadoxo .....	2 02	43 20	1825	9 00 w.	.....	9-0 w.	.....	.....	.....	.....	Owen.
Bhava .....	1 07	43 58	1825	10 00 w.	.....	10-0 w.	.....	.....	.....	.....	Owen.
Minicoy .....	8 17	73 02	1870	0 16 e.	0 28 e.	0-7 e.	3 48 s.	0 28 n.	3-3 s.	7-97	Basevi.
Andomnatis Island ..	1 26	73 26	1830	0 15 w.	.....	0-3 w.	.....	.....	.....	.....	Laplace.
Balghatty .....	9 59	76 14	1838	.....	.....	.....	0 19 n.	0 04 s.	0-3 n.	.....	Taylor and Caldecott.
Aleppy .....	9 30	76 20	1870	0 36 e.	0 28 e.	1-1 e.	1 41 s.	0 28 n.	1-2 s.	7-99	Basevi.
Quilon .....	8 54	76 40	1838	.....	.....	.....	2 22 s.	0 04 s.	2-4 s.	.....	Taylor and Caldecott.
Trevandrum .....	8 29	76 56	1838	.....	.....	.....	3 15 s.	0 04 s.	3-3 s.	.....	Taylor and Caldecott.
			1841	0 40 e.	.....	0-7 e.	.....	.....	.....	.....	Caldecott.
			1855	0 27 e.	0 13 e.	0-7 e.	.....	.....	.....	.....	Brown.
Nagrazoil .....	8 11	77 25	1838	.....	.....	.....	3 53 s.	0 04 s.	3-9 s.	.....	Taylor and Caldecott.
Near Cape Comorin ..	8 03	77 35	1843	1 10 e.	.....	1-2 e.	.....	.....	.....	.....	Powell.
Punnae .....	8 10	77 41	1869	0 45 e.	0 27 e.	1-2 e.	3 21 s.	0 27 n.	2-9 s.	8-07	Basevi.
Kudankolam .....	8 11	77 45	1869	0 44 e.	0 27 e.	1-2 e.	3 34 s.	0 27 n.	3-1 s.	8-08	Basevi.
Palamcottah .....	8 44	77 45	1838	.....	.....	.....	2 46 s.	0 04 s.	2-8 s.	.....	Taylor and Caldecott.
Tinnevely Coast .....	8 00	77 50	1846	0 10 e.	.....	0-2 e.	.....	.....	.....	.....	Franklin.
Powani .....	8 49	77 54	1838	.....	.....	.....	2 46 s.	0 04 s.	2-8 s.	.....	Taylor and Caldecott.
Mallapatti .....	9 29	78 04	1869	0 52 e.	0 27 e.	1-3 e.	0 37 s.	0 27 n.	0-2 s.	8-03	Basevi.
Vadinatrum .....	8 57	78 07	1838	.....	.....	.....	1 34 s.	.....	1-6 s.	.....	Taylor and Caldecott.
Trichendor .....	8 30	78 08	1842	1 58 e.	.....	2-0 e.	.....	.....	.....	.....	Franklin.
Tutocorin .....	8 48	78 10	1838	.....	.....	.....	2 38 s.	.....	2-6 s.	.....	Taylor and Caldecott.
			1842	0 51 e.	.....	0-9 e.	.....	.....	.....	.....	Franklin.
Carryshandy .....	9 11	78 24	1838	.....	.....	.....	1 52 s.	.....	1-9 s.	.....	Taylor and Caldecott.
Tinnevely Coast .....	8 25	78 25	1846	1 58 e.	.....	2-0 e.	.....	.....	.....	.....	Franklin.
Tinnevely Coast .....	8 40	78 30	1846	0 51 e.	.....	0-9 e.	.....	.....	.....	.....	Franklin.
Palk Strait .....	9 03	78 35	1838	0 51 e.	.....	0-9 e.	.....	.....	.....	.....	Powell.
Ramnad .....	9 22	78 51	1838	.....	.....	.....	1 25 s.	.....	1-4 s.	.....	Taylor and Caldecott.
Kalehennary .....	9 40	78 57	1838	.....	.....	.....	0 06 n.	.....	0-1 n.	.....	Taylor and Caldecott.
Devaputnum .....	9 29	78 58	1844	.....	.....	.....	0 35 s.	.....	0-6 s.	.....	Ludlow.
Tonday .....	9 45	79 05	1844	.....	.....	.....	0 08 n.	.....	0-1 n.	.....	Ludlow.
			1837	0 35 w.	.....	0-6 w.	.....	.....	.....	.....	Powell.
Paumben .....	9 17	79 16	1838	.....	.....	.....	1 36 s.	.....	1-6 s.	.....	Taylor and Caldecott.
			1844	.....	.....	.....	0 45 s.	.....	0-8 s.	.....	Ludlow.



## NORTH EQUATORIAL ZONE I.—Lat. Equator to 10° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.		
Palk Strait .....	9 30	79 18	1838	0 30 E.	.....	0.5 E.	.....	.....	.....	.....	Powell.
Palvarayan Kattoo ...	9 17	79 36	1844	.....	.....	.....	0 45 s.	.....	0.8 s.	.....	Ludlow.
Poonaryn .....	9 28	79 38	1844	.....	.....	.....	0 12 s.	.....	0.2 s.	.....	Ludlow.
Delft .....	9 32	79 42	1838	1 40 E.	.....	1.7 E.	.....	.....	.....	.....	Powell.
			1844	.....	.....	.....	0 31 s.	.....	0.5 s.	.....	Ludlow.
Mutokbāndi .....	7 41	79 44	1844	0 13 E.	.....	0.2 E.	.....	.....	.....	.....	Powell.
At sea (6 observations)	5 24	79 47	1858	0 37 E.	.....	0.6 E.	.....	.....	.....	.....	Novara.
Karativo .....	9 46	79 49	1844	.....	.....	.....	0 20 N.	.....	0.3 N.	.....	Ludlow.
Koelramalai .....	8 32	79 50	1845	1 15 E.	.....	1.3 E.	.....	.....	.....	.....	Franklin.
Manaar .....	8 59	79 54	1844	.....	.....	.....	1 16 s.	.....	1.3 s.	.....	Ludlow.
			1845	1 04 E.	.....	1.1 E.	.....	.....	.....	.....	Franklin.
Changani .....	9 47	79 56	1828	1 16 E.	.....	1.3 E.	0 37 s.	.....	0.6 s.	.....	Blosseville.
Aripo .....	8 27	80 01	1833	.....	.....	.....	2 18 s.	.....	2.3 s.	.....	Blosseville.
Jaffna .....	9 40	80 01	1833	1 16 E.	.....	1.3 E.	0 40 s.	.....	0.7 s.	0.3 s.	Blosseville.
			1844	.....	.....	.....	0 02 s.	.....	0.0 s.		Ludlow.
Ipekaddaway .....	9 06	80 09	1844	.....	.....	.....	1 13 s.	.....	1.2 s.	.....	Ludlow.
W. Coast of Ceylon ...	6 15	80 10	1839	1 15 E.	.....	1.3 E.	.....	.....	.....	.....	Powell.
Galle .....	6 03	80 11	1842	0 41 E.	.....	0.7 E.	8 07 s.	.....	8.1 s.	7.9 s.	Belcher.
			1856	0 41 E.	.....	0.7 E.	7 41 s.	.....	7.7 s.		Schlagintweit.
Chavachemy .....	9 40	80 12	1844	.....	.....	.....	0 04 s.	.....	0.1 s.	.....	Ludlow.
Point Pedro .....	9 50	80 15	1844	.....	.....	.....	0 42 N.	.....	0.7 N.	.....	Ludlow.
Trincomalee .....	8 34	81 18	1833	1 08 E.	.....	1.1 E.	.....	.....	.....	.....	Blosseville.
			1837	.....	.....	.....	2 37 s.	.....	2.6 s.	.....	Anon. (Hydr. Office).
At sea (2 observations)	0 42	82 02	1858	0 32 E.	.....	0.5 E.	.....	.....	.....	.....	Novara.
At sea (2 observations)	8 22	82 42	1858	0 44 E.	.....	0.7 E.	.....	.....	.....	.....	Novara.
At sea (2 observations)	6 44	84 08	1858	0 56 E.	.....	0.9 E.	.....	.....	.....	.....	Novara.
At sea (6 observations)	4 02	85 48	1858	0 55 E.	.....	0.9 E.	.....	.....	.....	.....	Novara.
At sea (3 observations)	9 10	92 15	1858	1 46 E.	.....	1.8 E.	.....	.....	.....	.....	Novara.
Saoni Carnicobar .....	9 14	92 45	1858	2 00 E.	.....	2.0 E.	1 19 N.	.....	1.3 N.	8.19	Novara.
Nicobar .....	9 10	92 48	1848	1 53 E.	.....	1.9 E.	1 15 N.	.....	1.3 N.	8.16	Elliot.
Bompoko .....	8 14	93 19	1848	.....	.....	.....	0 23 s.	.....	0.4 s.	.....	Elliot.
Nancovri Harbour ...	8 02	93 35	1848	.....	.....	.....	0 54 s.	.....	0.9 s.	.....	Elliot.
			1858	2 00 E.	.....	2.0 E.	.....	.....	.....	.....	Novara.
Condul Island .....	7 12	93 40	1857	.....	.....	.....	3 00 s.	.....	3.0 s.	.....	Novara.
Galathea Bay .....	6 48	93 50	1858	1 55 E.	.....	1.9 E.	.....	.....	.....	.....	Novara.
At sea (2 observations)	9 05	94 05	1837	2 35 E.	.....	2.6 E.	.....	.....	.....	.....	Bonite.
At sea (2 observations)	7 17	94 30	1858	2 09 E.	.....	2.2 E.	.....	.....	.....	.....	Novara.
Malora Island .....	5 41	95 24	1842	2 22 E.	.....	2.4 E.	5 29 s.	.....	5.5 s.	8.07	Belcher.
Acheen .....	5 36	95 25	1842	2 22 E.	.....	2.4 E.	5 58 s.	.....	6.0 s.	8.06	Belcher.
At sea (3 observations)	7 18	96 40	1837	2 27 E.	.....	2.5 E.	.....	.....	.....	.....	Bonite.
At sea (2 observations)	6 48	97 20	1858	1 53 E.	.....	1.9 E.	.....	.....	.....	.....	Novara.
Goonong Satoolie .....	1 18	97 41	1848	1 44 E.	.....	1.7 E.	14 06 s.	.....	14.1 s.	.....	Elliot.
Sinkel .....	2 17	97 52	1848	1 34 E.	.....	1.6 E.	12 24 s.	.....	12.4 s.	.....	Elliot.
At sea (2 observations)	7 18	97 56	1837	2 34 E.	.....	2.6 E.	.....	.....	.....	.....	Bonite.
Bāros .....	2 01	98 32	1848	1 17 E.	.....	1.3 E.	12 58 s.	.....	13.0 s.	.....	Elliot.
Sibogha .....	1 45	98 56	1848	1 41 E.	.....	1.7 E.	13 03 s.	.....	13.1 s.	.....	Elliot.
Natal .....	0 34	99 20	1848	1 28 E.	.....	1.5 E.	15 32 s.	.....	15.5 s.	.....	Elliot.
Padang Sidompang ...	1 23	99 23	1848	.....	.....	.....	13 47 s.	.....	13.8 s.	.....	Elliot.
Tana Bātoo .....	0 44	99 31	1848	.....	.....	.....	15 03 s.	.....	15.1 s.	.....	Elliot.
Fort Elout .....	0 51	99 32	1848	1 44 E.	.....	1.7 E.	14 48 s.	.....	14.8 s.	.....	Elliot.
Kotanopan .....	0 42	99 43	1848	1 35 E.	.....	1.6 E.	15 20 s.	.....	15.3 s.	.....	Elliot.
Batong .....	0 39	99 47	1848	.....	.....	.....	15 42 s.	.....	15.7 s.	.....	Elliot.
Pionghay .....	0 36	99 52	1848	1 39 E.	.....	1.7 E.	15 50 s.	.....	15.8 s.	.....	Elliot.
Rau .....	0 33	99 57	1848	1 37 E.	.....	1.6 E.	15 37 s.	.....	15.6 s.	.....	Elliot.
Lender .....	0 24	100 04	1848	.....	.....	.....	15 35 s.	.....	15.6 s.	.....	Elliot.
			1837	1 34 E.	.....	1.6 E.	4 25 s.	.....	4.4 s.	4.7 s.	Bonite.
Pulo Penang .....	5 26	100 25	1841	1 30 E.	.....	1.5 E.	4 40 s.	.....	4.7 s.		Belcher.
			1848	1 49 E.	.....	1.8 E.	4 53 s.	.....	4.9 s.	8.19	Elliot.
Pulo Dinding .....	4 13	100 33	1848	1 49 E.	.....	1.8 E.	7 31 s.	.....	7.5 s.	8.19	Elliot.
Dinding Point .....	4 20	100 40	1824	2 26 E.	.....	2.4 E.	.....	.....	.....	.....	Bougainville.
Mount Parcellus .....	2 50	101 20	1824	1 30 E.	.....	1.5 E.	.....	.....	.....	.....	Bougainville.

## NORTH EQUATORIAL ZONE I.—Lat. Equator to 10° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.		
Malacca .....	2 10	102 19	1837	.....	.....	.....	10 48 s.	.....	10.8 s.	.....	Bonite.
			1841	1 36 E.	.....	1.6 E.	11 02 s.	.....	11.0 s.	.....	Belcher.
			1848	1 50 E.	.....	1.8 E.	11 25 s.	.....	11.4 s.	.....	Elliot.
Mount Ophir.....	2 22	102 38	1848	.....	.....	.....	9 55 s.	.....	9.9 s.	.....	Elliot.
Pulo Peesang.....	1 28	103 19	1846	1 31 E.	.....	1.5 E.	.....	.....	.....	.....	Elliot.
Carimons .....	0 59	103 27	1846	1 23 E.	.....	1.4 E.	.....	.....	.....	.....	Elliot.
			1837	.....	.....	.....	12 29 s.	.....	12.5 s.	.....	Bonite.
Singapore .....	1 19	103 57	1843	1 43 E.	.....	1.7 E.	12 27 s.	.....	12.5 s.	.....	Belcher.
			1846	1 36 E.	.....	1.6 E.	12 55 s.	.....	12.9 s.	.....	Elliot.
Pulo Boaya .....	0 09	104 21	1846	1 29 E.	.....	1.5 E.	.....	.....	.....	.....	Elliot.
At sea (4 observations)	4 40	104 50	1837	2 21 E.	.....	2.4 E.	.....	.....	.....	.....	Bonite.
At sea (3 observations)	0 38	105 14	1858	1 21 E.	.....	1.4 E.	.....	.....	.....	.....	Novara.
At sea.....	0 22	106 06	1843	.....	.....	.....	13 08 s.	.....	13.1 s.	.....	Belcher.
Anambas Island .....	3 10	106 19	1825	1 07 E.	.....	1.1 E.	.....	.....	.....	.....	Bougainville.
Victory Island .....	1 19	106 32	1825	1 12 E.	.....	1.2 E.	.....	.....	.....	.....	Bougainville.
At sea.....	1 48	106 40	1858	2 00 E.	.....	2.0 E.	.....	.....	.....	.....	Novara.
At sea.....	1 31	107 10	1843	.....	.....	.....	10 29 s.	.....	10.5 s.	.....	Belcher.
At sea (3 observations)	8 33	107 29	1837	2 10 E.	.....	2.2 E.	.....	.....	.....	.....	Bonite.
At sea (2 observations)	5 30	107 35	1858	2 06 E.	.....	2.1 E.	.....	.....	.....	.....	Novara.
Nantumas .....	4 39	107 51	1831	1 30 E.	.....	1.5 E.	.....	.....	.....	.....	Laplace.
At sea (4 observations)	8 40	108 02	1828	0 37 E.	.....	0.6 E.	.....	.....	.....	.....	Prussian ships.
At sea (2 observations)	1 06	108 05	1829	0 10 E.	.....	0.2 E.	.....	.....	.....	.....	Lütke.
Pigeon Island .....	2 37	108 12	1846	1 32 E.	.....	1.5 E.	19 40 s.	.....	19.7 s.	.....	Belcher.
Permanket.....	1 10	109 04	1848	1 10 E.	.....	1.2 E.	12 36 s.	.....	12.6 s.	8.38	Elliot.
Tanjong Api .....	1 56	109 20	1844	0 09 E.	.....	0.2 E.	11 05 s.	.....	11.1 s.	.....	Belcher.
At sea.....	1 51	109 25	1843	.....	.....	.....	9 22 s.	.....	9.4 s.	.....	Belcher.
Sambas .....	1 22	109 28	1848	1 16 E.	.....	1.3 E.	11 31 s.	.....	11.5 s.	8.33	Elliot.
Mth of Sundu (Borneo)	1 42	109 51	1843	1 29 E.	.....	1.5 E.	10 27 s.	.....	10.5 s.	.....	Belcher.
Santubon .....	1 43	110 20	1843	1 30 E.	.....	1.5 E.	10 36 s.	.....	10.6 s.	.....	Belcher.
Kuching.....	1 33	110 22	1843	1 28 E.	.....	1.5 E.	10 46 s.	.....	10.8 s.	.....	Belcher.
Sarawak.....	1 34	110 29	1848	1 10 E.	.....	1.2 E.	11 15 s.	.....	11.3 s.	8.35	Elliot.
At sea (2 observations)	9 23	111 12	1858	2 00 E.	.....	2.0 E.	.....	.....	.....	.....	Novara.
Moarloo Island.....	5 00	115 08	1843	1 17 E.	.....	1.3 E.	3 10 s.	.....	3.2 s.	.....	Belcher.
At sea.....	7 22	115 08	1843	.....	.....	.....	2 15 N.	.....	2.3 N.	.....	Belcher.
Pulo Labuan.....	5 17	115 18	1848	1 36 E.	.....	1.6 E.	2 52 s.	.....	2.9 s.	8.25	Elliot.
Pulo Teega .....	5 43	115 35	1845	1 16 E.	.....	1.3 E.	1 48 s.	.....	1.8 s.	.....	Belcher.
Amboong .....	6 18	116 19	1844	1 20 E.	.....	1.3 E.	0 35 s.	.....	0.6 s.	.....	Belcher.
Mantanini .....	6 40	116 22	1844	1 38 E.	.....	1.6 E.	0 16 s.	.....	0.3 s.	.....	Belcher.
Batemande Rock .....	6 50	116 32	1845	0 46 E.	.....	1.8 E.	0 41 s.	.....	0.7 s.	.....	Belcher.
At sea.....	8 24	116 35	1844	.....	.....	.....	3 32 N.	.....	3.5 N.	.....	Belcher.
Balambangan.....	7 12	116 49	1845	0 50 E.	.....	0.8 E.	1 20 s.	.....	1.3 s.	.....	Belcher.
At sea.....	9 56	117 09	1844	.....	.....	.....	7 20 N.	.....	7.3 N.	.....	Belcher.
Ganung Tabor .....	2 10	117 30	1845	0 30 E.	.....	0.5 E.	9 04 s.	.....	9.1 s.	.....	Belcher.
Cagayan (Sooloo) .....	6 58	118 24	1845	0 12 E.	.....	0.2 E.	0 56 N.	.....	0.9 N.	.....	Belcher.
Legetan Islands .....	4 19	118 31	1845	0 45 E.	.....	0.8 E.	4 49 s.	.....	4.8 s.	.....	Belcher.
Unsang .....	5 17	119 16	1845	1 02 E.	.....	1.0 E.	2 34 s.	.....	2.6 s.	.....	Belcher.
Samarang Island .....	5 28	120 15	1845	0 40 E.	.....	0.7 E.	1 53 N.	.....	1.9 N.	.....	Belcher.
Koolassian Island.....	6 25	120 25	1845	0 46 E.	.....	0.8 E.	.....	.....	.....	.....	Belcher.
Islet off C. Rivers } (Celebes)	1 20	120 45	1844	1 01 E.	.....	1.0 E.	10 40 s.	.....	10.7 s.	.....	Belcher.
At sea.....	1 34	120 57	1844	.....	.....	.....	9 48 s.	.....	9.8 s.	.....	Belcher.
Solo Bay (Sooloo).....	6 03	121 00	1844	0 34 E.	.....	0.6 E.	1 44 N.	.....	1.7 N.	.....	Belcher.
Cagayan Island.....	9 36	121 15	1844	0 12 E.	.....	0.2 E.	7 38 s.	.....	7.6 s.	.....	Belcher.
Salliolookit Rock .....	6 49	121 24	1844	0 17 E.	.....	0.3 E.	0 20 N.	.....	0.3 N.	.....	Belcher.
Samboangan .....	6 55	122 05	1844	1 12 E.	.....	1.2 E.	1 29 N.	.....	1.5 N.	.....	Belcher.
Samboanga .....	6 54	122 14	1848	1 15 E.	.....	1.3 E.	1 18 N.	.....	1.3 N.	8.16	Elliot.
At sea.....	1 11	122 21	1844	.....	.....	.....	11 00 s.	.....	11.0 s.	.....	Belcher.
Tondāno .....	1 18	124 50	1848	1 08 E.	.....	1.1 E.	10 54 s.	.....	10.9 s.	.....	Elliot.
			1828	1 06 E.	.....	1.1 E.	.....	.....	.....	.....	D'Urville.
Manado Bay .....	1 30	124 50	1845	1 37 E.	.....	1.6 E.	10 22 s.	.....	10.4 s.	10.5 s.	Belcher.
			1848	1 26 E.	.....	1.4 E.	10 44 s.	.....	10.7 s.	.....	Elliot.
Keemah .....	1 22	125 08	1848	1 40 E.	.....	1.7 E.	11 01 s.	.....	11.0 s.	8.41	Elliot.

## NORTH EQUATORIAL ZONE I.—Lat. Equator to 10° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.		
Ternate .....	0 44	127 15	1845	0 40 E.	.....	0.7 E.	11 37 s.	.....	11.6 s.	.....	Belcher.
Syang Island.....	0 18	129 50	1823	0 21 E.	.....	0.4 E.	.....	.....	.....	.....	Duperrey.
At sea (2 observations)	0 03	134 47	1823	1 55 E.	.....	1.9 E.	13 05 s.	.....	13.1 s.	.....	Duperrey.
At sea (2 observations)	8 03	136 10	1828	1 37 E.	.....	1.6 E.	.....	.....	.....	.....	D'Urville.
At sea.....	0 41	143 56	1824	0 53 E.	.....	0.9 E.	12 14 s.	.....	12.2 s.	.....	Duperrey.
Ulean.....	7 22	143 57	1828	3 07 E.	.....	3.1 E.	0 39 N.	.....	0.7 N.	7.81	Lütke.
At sea (28 observations)	8 10	145 47	1828	3 20 E.	.....	3.3 E.	.....	.....	.....	.....	Lütke.
At sea (3 observations)	6 40	147 03	1824	3 20 E.	.....	3.3 E.	0 33 s.	.....	0.6 s.	.....	Duperrey.
At sea.....	7 13	151 33	1824	5 42 E.	.....	5.7 E.	1 11 N.	.....	1.2 N.	.....	Duperrey.
At sea.....	7 02	152 00	1828	5 40 E.	.....	5.7 E.	.....	.....	.....	.....	D'Urville.
At sea (4 observations)	7 29	152 38	1824	4 03 E.	.....	4.1 E.	.....	.....	.....	.....	Duperrey.
Lugunor .....	5 29	153 58	1828	6 29 E.	.....	6.5 E.	0 46 s.	.....	0.8 s.	7.76	Lütke.
At sea (2 observations)	8 28	155 25	1824	6 34 E.	.....	6.6 E.	4 36 N.	.....	4.6 N.	.....	Duperrey.
At sea (22 observations)	6 17	156 20	1828	7 26 E.	.....	7.4 E.	.....	.....	.....	.....	Lütke.
Los Valientes .....	5 46	157 05	1828	7 00 E.	.....	7.0 E.	1 38 N.	.....	1.6 N.	7.72	Lütke.
At sea (5 observations)	8 14	157 45	1858	7 38 E.	.....	7.6 E.	.....	.....	.....	.....	Novara.
At sea.....	6 55	158 02	1827	8 00 E.	.....	8.0 E.	5 16 N.	.....	5.3 N.	7.70	Lütke.
At sea (4 observations)	5 23	159 41	1858	8 33 E.	.....	8.6 E.	.....	.....	.....	.....	Novara.
At sea (7 observations)	3 25	161 06	1858	8 29 E.	.....	8.5 E.	.....	.....	.....	.....	Novara.
At sea (5 observations)	0 58	161 26	1858	8 34 E.	.....	8.6 E.	.....	.....	.....	.....	Novara.
At sea (8 observations)	6 35	162 03	1828	8 47 E.	.....	8.8 E.	.....	.....	.....	.....	Lütke.
At sea (2 observations)	3 31	162 26	1827	8 45 E.	.....	8.8 E.	.....	.....	.....	.....	Lütke.
At sea.....	2 56	162 50	1827	8 58 E.	.....	9.0 E.	1 39 s.	.....	1.7 s.	7.92	Lütke.
At sea.....	4 17	162 54	1827	9 00 E.	.....	9.0 E.	0 37 N.	.....	0.6 N.	7.78	Lütke.
At sea.....	3 47	162 59	1827	.....	.....	.....	0 30 s.	.....	0.5 s.	7.85	Lütke.
Ualan.....	5 21	163 23	1824	9 20 E.	.....	9.3 E.	3 11 N.	.....	3.2 N.	7.79	Duperrey.
At sea (2 observations)	5 50	167 32	1824	8 51 E.	.....	8.9 E.	2 55 N.	.....	2.9 N.		Lütke.
At sea (2 observations)	2 46	172 23	1824	9 07 E.	.....	9.1 E.	4 48 N.	.....	4.8 N.		Duperrey.
At sea (2 observations)	2 46	172 23	1824	9 08 E.	.....	9.1 E.	2 58 N.	.....	3.0 N.		Duperrey.
At sea (2 observations)	0 32	173 11	1824	8 21 E.	.....	8.4 E.	1 25 N.	.....	1.4 N.		Duperrey.
At sea (2 observations)	7 20	229 32	1834	4 13 E.	.....	4.2 E.	.....	.....	.....	.....	Prussian ships.
At sea (2 observations)	0 05	229 54	1830	4 04 E.	.....	4.1 E.	.....	.....	.....	.....	Erman.
At sea (4 observations)	0 10	229 55	1830	.....	.....	.....	4 06 N.	.....	4.1 N.	7.34	Erman.
At sea (2 observations)	0 04	230 44	1830	.....	.....	.....	3 34 N.	.....	3.6 N.	7.53	Erman.
At sea (4 observations)	3 33	231 33	1827	5 00 E.	.....	5.0 E.	.....	.....	.....	.....	Lütke.
At sea (3 observations)	6 24	231 33	1827	5 05 E.	.....	5.1 E.	.....	.....	.....	.....	Lütke.
At sea.....	2 24	232 08	1827	4 42 E.	.....	4.7 E.	8 46 N.	.....	8.8 N.	.....	Lütke.
At sea.....	0 09	232 15	1830	.....	.....	.....	3 28 N.	.....	3.5 N.	.....	Erman.
At sea (2 observations)	0 26	232 26	1830	4 17 E.	.....	4.3 E.	.....	.....	.....	.....	Erman.
At sea.....	0 46	232 43	1830	.....	.....	.....	5 14 N.	.....	5.2 N.	7.37	Erman.
At sea.....	1 33	233 17	1830	.....	.....	.....	7 21 N.	.....	7.4 N.	7.56	Erman.
At sea (3 observations)	7 51	233 26	1829	5 19 E.	.....	5.3 E.	.....	.....	.....	.....	Prussian ships.
At sea (2 observations)	2 15	233 40	1830	4 07 E.	.....	4.1 E.	.....	.....	.....	.....	Erman.
At sea.....	2 42	234 06	1830	.....	.....	.....	9 19 N.	.....	9.3 N.	7.61	Erman.
At sea (12 observations)	2 15	234 45	1831	4 43 E.	.....	4.7 E.	.....	.....	.....	.....	Prussian ships.
At sea.....	4 35	235 37	1830	.....	.....	.....	13 03 N.	.....	13.1 N.	7.72	Erman.
At sea (4 observations)	4 49	235 45	1830	4 31 E.	.....	4.5 E.	.....	.....	.....	.....	Erman.
At sea.....	9 43	235 49	1830	.....	.....	.....	23 06 N.	.....	23.1 N.	8.23	Erman.
At sea (2 observations)	8 33	235 51	1830	.....	.....	.....	20 15 N.	.....	20.3 N.	7.99	Erman.
At sea.....	0 35	235 56	1827	4 46 E.	.....	4.8 E.	5 43 N.	.....	5.7 N.	.....	Lütke.
At sea (2 observations)	7 53	236 14	1830	5 12 E.	.....	5.2 E.	.....	.....	.....	.....	Erman.
At sea (2 observations)	6 51	236 25	1830	.....	.....	.....	17 29 N.	.....	17.5 N.	7.85	Erman.
At sea.....	5 49	236 28	1830	.....	.....	.....	15 32 N.	.....	15.5 N.	7.83	Erman.
At sea (2 observations)	6 12	236 30	1830	4 06 E.	.....	4.1 E.	.....	.....	.....	.....	Erman.
At sea.....	9 33	254 31	1836	8 19 E.	.....	8.3 E.	.....	.....	.....	.....	Bonite.
At sea.....	7 46	256 22	1836	6 43 E.	.....	6.7 E.	.....	.....	.....	.....	Bonite.
At sea.....	6 57	256 54	1836	7 10 E.	.....	7.2 E.	.....	.....	.....	.....	Bonite.
At sea.....	0 22	258 31	1836	7 28 E.	.....	7.5 E.	.....	.....	.....	.....	Bonite.
At sea.....	0 10	262 33	1834	8 43 E.	.....	8.7 E.	.....	.....	.....	.....	FitzRoy.
At sea.....	4 55	263 06	1836	7 32 E.	.....	7.5 E.	.....	.....	.....	.....	Bonite.
At sea.....	4 05	265 31	1836	8 21 E.	.....	8.4 E.	.....	.....	.....	.....	Bonite.
Islets (5 observations).	0 51	268 55	1834	9 35 E.	.....	9.6 E.	.....	.....	.....	.....	FitzRoy.

## NORTH EQUATORIAL ZONE I.—Lat. Equator to 10° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.		
Cocos Island .....	5 34	272 58	1838	8 24 E.	.....	8.4 E.	23 14 N.	.....	23.2 N.	8.81	Belcher.
Chiriqui .....	9 00	278 05	1839	7 28 E.	.....	7.5 E.	31 11 N.	.....	31.2 N.	.....	Barnett.
Chagres .....	9 20	280 00	1831	6 28 E.	.....	6.5 E.	.....	.....	.....	.....	Austin.
			1834	.....	.....	.....	32 30 N.	.....	32.5 N.	.....	Horne.
			1840	6 46 E.	.....	6.8 E.	.....	.....	.....	.....	Barnett.
			1849	6 55 E.	.....	6.9 E.	32 11 N.	.....	32.2 N.	8.75	Emory.
Atacames Bay .....	0 52	280 06	1846	8 49 E.	.....	8.8 E.	.....	.....	.....	.....	Kellett.
Porto Bello .....	9 32	280 22	1830	.....	.....	.....	32 42 N.	.....	32.7 N.	.....	Foster.
Tobago .....	8 48	280 28	1846	6 34 E.	.....	6.6 E.	.....	.....	.....	.....	Kellett.
			1858	.....	.....	.....	.....	.....	.....	9.08	Haig.
Panama .....	8 57	280 29	1837	7 02 E.	.....	7.0 E.	31 52 N.	.....	31.9 N.	9.03	Belcher.
			1849	6 55 E.	.....	6.9 E.	32 00 N.	.....	32.0 N.	8.75	Emory.
			1858	.....	.....	.....	32 21 N.	.....	32.4 N.	9.07	Haig.
			1858	6 17 E.	.....	6.3 E.	31 12 N.	.....	31.2 N.	.....	Friesach.
			1866	5 36 E.	.....	5.6 E.	31 56 N.	.....	31.9 N.	8.97	Harkness.
Cumbal .....	0 30	281 45	1831	.....	.....	.....	18 25 N.	.....	18.4 N.	.....	Boussingault.
Gorgona.....	3 00	281 50	1846	7 24 E.	.....	7.4 E.	.....	.....	.....	8.72	Kellett.
			1849	.....	.....	.....	31 47 N.	.....	31.8 N.	.....	Emory.
Tulcan .....	0 48	282 22	1857	7 08 E.	.....	7.1 E.	.....	.....	.....	.....	Friesach.
Pasto .....	1 12	282 38	1857	7 09 E.	.....	7.2 E.	.....	.....	.....	.....	Friesach.
Buen Ventura .....	3 49	282 44	1846	7 08 E.	.....	7.1 E.	.....	.....	.....	.....	Kellett.
Titeribi .....	6 06	283 09	1825	.....	.....	.....	28 10 N.	.....	28.2 N.	.....	Boussingault.
Popayan.....	2 38	283 20	1831	.....	.....	.....	20 47 N.	.....	20.8 N.	.....	Boussingault.
			1857	6 58 E.	.....	7.0 E.	21 00 N.	.....	21.0 N.	8.05	Friesach.
Carthago .....	4 45	283 54	1830	.....	.....	.....	25 52 N.	.....	25.9 N.	.....	Boussingault.
Rio Suno .....	5 26	284 29	1825	.....	.....	.....	27 20 N.	.....	27.3 N.	.....	Boussingault.
Rio Negro .....	6 18	284 30	1825	.....	.....	.....	28 12 N.	.....	28.2 N.	.....	Boussingault.
Vega de Sapia .....	5 28	284 33	1825	.....	.....	.....	27 14 N.	.....	27.2 N.	.....	Boussingault.
			1830	.....	.....	.....	27 40 N.	.....	27.7 N.	27.5 N.	Boussingault.
Paraneo .....	5 24	284 46	1829	.....	.....	.....	26 37 N.	.....	26.6 N.	.....	Boussingault.
Mariquita .....	5 13	284 58	1825	.....	.....	.....	26 50 N.	.....	26.8 N.	.....	Boussingault.
Santa Fé de Bogotá ...	4 36	285 46	1825	.....	.....	.....	25 51 N.	.....	25.9 N.	.....	Boussingault.
			1829	.....	.....	.....	25 59 N.	.....	26.0 N.	25.6 N.	Boussingault.
			1857	6 10 E.	.....	6.2 E.	24 54 N.	.....	24.9 N.	8.28	Friesach.
Serinza .....	5 46	286 32	1829	.....	.....	.....	28 30 N.	.....	28.5 N.	.....	Boussingault.
Socorro .....	6 41	286 44	1829	.....	.....	.....	29 54 N.	.....	29.9 N.	.....	Boussingault.
Esmeralda.....	3 11	289 17	1846	7 59 E.	.....	8.0 E.	.....	.....	.....	.....	Kellett.
Junction of Wenamu and Cuyuni .....	6 44	298 45	1843	3 53 E.	.....	3.9 E.	33 33 N.	.....	33.6 N.	8.73	Schomburgk.
			.....	.....	.....	.....	.....	.....	.....	.....	.....
Mean of Roraima and "Our Village" }	5 03	299 01	1842	4 07 E.	.....	4.1 E.	31 00 N.	.....	31.0 N.	8.40	Schomburgk.
Torong Yauwise .....	4 17	299 42	1842	3 56 E.	.....	3.9 E.	30 06 N.	.....	30.1 N.	8.46	Schomburgk.
Mouth of Cotinga.....	3 22	299 48	1842	4 32 E.	.....	4.5 E.	28 25 N.	.....	28.4 N.	8.52	Schomburgk.
Tenette .....	2 50	300 12	1842	4 03 E.	.....	4.1 E.	.....	.....	.....	.....	Schomburgk.
Guainia River .....	8 25	300 24	1841	2 47 E.	.....	2.8 E.	.....	.....	.....	.....	Schomburgk.
Pirara.....	3 39	300 40	1842	4 00 E.	.....	4.0 E.	28 46 N.	.....	28.8 N.	8.48	Schomburgk.
Penal Settlement .....	6 24	301 18	1843	3 58 E.	.....	4.0 E.	.....	.....	.....	.....	Schomburgk.
George Town Obser- vatory.....	6 49	301 49	1841	2 41 E.	.....	2.7 E.	34 07 N.	.....	34.1 N.	8.68	Schomburgk.
			.....	.....	.....	.....	.....	.....	.....	.....	.....
Maspityan Village.....	1 25	301 54	1843	3 50 E.	.....	3.8 E.	.....	.....	.....	.....	Schomburgk.
Demerara .....	6 50	302 00	1837	.....	.....	.....	33 57 N.	.....	34.0 N.	.....	Home.
Pianoghotto .....	2 02	303 32	1843	3 33 E.	.....	3.6 E.	.....	.....	.....	.....	Schomburgk.
Salute Islands .....	5 17	307 27	1865	0 04 W.	.....	0.1 W.	34 35 N.	.....	34.6 N.	8.19	Harkness.
At sea (4 observations)	9 39	313 30	1849	0 48 W.	.....	0.8 W.	.....	.....	.....	.....	Hudson.
At sea.....	7 22	320 53	1839	.....	.....	.....	39 32 N.	.....	39.5 N.	8.78	Sullivan.
At sea (3 observations)	7 28	322 32	1829	4 18 W.	.....	4.3 W.	.....	.....	.....	.....	Rumker.
At sea.....	5 10	322 53	1839	.....	.....	.....	36 22 N.	.....	36.4 N.	8.36	Sullivan.
At sea.....	2 07	324 19	1839	.....	.....	.....	32 02 N.	.....	32.0 N.	7.87	Sullivan.
At sea.....	1 10	324 39	1839	.....	.....	.....	30 32 N.	.....	30.5 N.	7.87	Sullivan.
At sea (3 observations)	2 13	326 31	1829	6 38 W.	.....	6.6 W.	.....	.....	.....	.....	Rumker.
At sea (12 observations)	3 44	326 35	1849	8 23 W.	.....	8.4 W.	.....	.....	.....	.....	Hudson.
At sea (2 observations)	7 35	327 58	1846	13 22 W.	.....	13.4 W.	.....	.....	.....	.....	Sullivan.

## NORTH EQUATORIAL ZONE I.—Lat. Equator to 10° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842-5.	Corrected.	Observed.	Cor. to Epoch 1842-5.	Corrected.		
At sea.....	2 30	329 21	1830	.....	.....	.....	30 47 N.	.....	30-8 N.	7-81	Erman.
At sea.....	1 40	329 24	1830	10 28 w.	.....	10-5 w.	.....	.....	.....	.....	Erman.
At sea.....	9 49	329 36	1830	10 00 w.	.....	10-0 w.	.....	.....	.....	.....	Young.
At sea.....	0 26	329 35	1830	.....	.....	.....	27 16 N.	.....	27-3 N.	7-55	Erman.
At sea.....	4 01	329 42	1830	11 08 w.	.....	11-1 w.	.....	.....	.....	.....	Erman.
At sea.....	4 26	329 45	1830	.....	.....	.....	34 30 N.	.....	34-5 N.	7-87	Erman.
At sea.....	5 30	329 48	1846	13 57 w.	.....	14-0 w.	.....	.....	.....	.....	Sullivan.
At sea.....	2 48	329 49	1830	9 57 w.	.....	10-0 w.	.....	.....	.....	.....	Erman.
At sea (2 observations)	0 41	329 56	1852	13 23 w.	.....	13-4 w.	.....	.....	.....	.....	Denham.
At sea (2 observations)	3 25	330 10	1846	12 49 w.	.....	12-8 w.	.....	.....	.....	.....	Sullivan.
At sea.....	8 23	330 14	1851	9 30 w.	.....	9-5 w.	.....	.....	.....	.....	Smith.
At sea.....	0 24	330 19	1840	.....	.....	.....	.....	.....	.....	7-32	Ross.
At sea.....	0 51	330 35	1832	7 20 w.	.....	7-3 w.	.....	.....	.....	.....	FitzRoy.
At sea (4 observations)	3 22	330 36	1846	12 55 w.	.....	12-9 w.	.....	.....	.....	.....	Sullivan.
At sea.....	1 00	330 37	1832	9 23 w.	.....	9-4 w.	.....	.....	.....	.....	FitzRoy.
St. Paul's rocks.....	0 56	330 40	1840	11 50 w.	.....	11-8 w.	27 08 N.	.....	27-1 N.	7-46	Ross.
At sea.....	3 39	330 49	1836	10 27 w.	.....	10-5 w.	.....	.....	.....	.....	FitzRoy.
At sea.....	2 32	330 53	1836	10 23 w.	.....	10-4 w.	.....	.....	.....	.....	FitzRoy.
At sea.....	1 20	330 55	1832	10 39 w.	.....	10-7 w.	.....	.....	.....	.....	FitzRoy.
At sea (2 observations)	5 18	331 03	1852	13 43 w.	.....	13-7 w.	.....	.....	.....	.....	Denham.
At sea.....	2 49	331 06	1846	12 58 w.	.....	13-0 w.	.....	.....	.....	.....	Sullivan.
At sea.....	5 45	331 10	1830	.....	.....	.....	35 25 N.	.....	35-4 N.	7-68	Erman.
At sea.....	1 12	331 16	1838	.....	.....	.....	26 27 N.	.....	26-5 N.	7-48	Sullivan.
At sea.....	2 06	331 25	1839	.....	.....	.....	.....	.....	.....	7-47	Ross.
At sea (2 observations)	3 02	331 33	1852	14 11 w.	.....	14-2 w.	.....	.....	.....	.....	Denham.
At sea.....	1 57	331 38	1839	13 16 w.	.....	13-3 w.	.....	.....	.....	.....	Ross.
At sea.....	2 10	332 10	1832	11 08 w.	.....	11-1 w.	.....	.....	.....	.....	FitzRoy.
At sea.....	7 26	332 36	1830	.....	.....	.....	36 51 N.	.....	36-8 N.	8-19	Erman.
At sea.....	3 18	332 46	1839	12 18 w.	.....	12-3 w.	29 52 N.	.....	29-9 N.	7-52	Ross.
At sea (4 observations)	5 12	332 48	1852	14 44 w.	.....	14-7 w.	.....	.....	.....	.....	Denham.
At sea.....	8 50	332 58	1832	12 44 w.	.....	12-7 w.	.....	.....	.....	.....	FitzRoy.
At sea.....	8 33	333 16	1830	11 42 w.	.....	11-7 w.	.....	.....	.....	.....	Erman.
At sea (2 observations)	9 39	333 24	1830	13 00 w.	.....	13-0 w.	39 12 N.	.....	39-2 N.	8-19	Erman.
At sea (4 observations)	6 36	333 26	1836	14 43 w.	.....	14-7 w.	.....	.....	.....	.....	Du Petit Thouars.
At sea.....	5 13	333 35	1839	.....	.....	.....	.....	.....	.....	7-73	Ross.
At sea (4 observations)	7 58	333 41	1852	15 51 w.	.....	15-9 w.	.....	.....	.....	.....	Denham.
At sea.....	3 33	333 49	1842	.....	.....	.....	.....	.....	.....	8-02	Lefroy.
At sea.....	6 46	333 54	1839	14 58 w.	.....	15-0 w.	.....	.....	.....	7-83	Ross.
At sea (3 observations)	4 45	333 59	1839	14 21 w.	.....	14-4 w.	.....	.....	.....	.....	Du Petit Thouars.
At sea (2 observations)	2 10	333 59	1843	13 15 w.	.....	13-3 w.	26 11 N.	.....	26-2 N.	.....	Ross.
At sea (4 observations)	6 42	334 04	1846	14 45 w.	.....	14-8 w.	.....	.....	.....	.....	H.M.S. 'Fly.'
At sea.....	8 39	334 25	1850	15 50 w.	.....	15-8 w.	.....	.....	.....	.....	Collinson.
At sea (4 observations)	7 58	334 31	1852	15 51 w.	.....	15-9 w.	.....	.....	.....	.....	Denham.
At sea.....	8 48	334 32	1838	.....	.....	.....	37 07 N.	.....	37-1 N.	8-19	Sullivan.
At sea.....	2 51	334 38	1839	14 10 w.	.....	14-2 w.	.....	.....	.....	.....	Ross.
At sea.....	9 48	334 41	1839	.....	.....	.....	39 12 N.	.....	39-2 N.	8-15	Ross.
At sea (2 observations)	1 30	335 07	1839	14 31 w.	.....	14-5 w.	.....	.....	.....	.....	Du Petit Thouars.
At sea (2 observations)	5 53	335 15	1843	14 44 w.	.....	14-7 w.	31 21 N.	.....	31-4 N.	.....	Ross.
At sea.....	5 25	335 15	1850	16 17 w.	.....	16-3 w.	.....	.....	.....	.....	Collinson.
At sea (9 observations)	6 32	335 19	1832	14 23 w.	.....	14-4 w.	.....	.....	.....	.....	Prussian ships.
At sea.....	2 38	335 27	1850	16 07 w.	.....	16-1 w.	.....	.....	.....	.....	Collinson.
At sea.....	4 12	335 30	1838	.....	.....	.....	30 35 N.	.....	30-6 N.	7-41	Sullivan.
At sea (2 observations)	8 58	335 34	1842	15 15 w.	.....	15-3 w.	.....	.....	.....	.....	Bérard.
At sea.....	0 09	335 35	1839	14 53 w.	.....	14-9 w.	.....	.....	.....	.....	Du Petit Thouars.
At sea.....	2 40	335 47	1842	.....	.....	.....	.....	.....	.....	7-67	Lefroy.
At sea.....	4 10	335 49	1850	18 16 w.	.....	18-3 w.	.....	.....	.....	.....	Collinson.
At sea.....	0 50	335 50	1841	.....	.....	.....	19 05 N.	.....	19-1 N.	.....	In the 'John Fleming.'
At sea (3 observations)	7 58	335 51	1852	16 40 w.	.....	16-7 w.	.....	.....	.....	.....	Denham.
At sea.....	1 43	336 07	1842	.....	.....	.....	.....	.....	.....	7-71	Lefroy.
At sea (2 observations)	8 16	336 07	1843	14 23 w.	.....	14-4 w.	34 14 N.	.....	34-2 N.	.....	Ross.
At sea (3 observations)	2 34	336 20	1829	14 08 w.	.....	14-1 w.	.....	.....	.....	.....	Lütke.
At sea (2 observations)	0 44	336 22	1850	15 51 w.	.....	15-9 w.	.....	.....	.....	.....	Dayman.

## NORTH EQUATORIAL ZONE I.—Lat. Equator to 10° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842-5.	Corrected.	Observed.	Cor. to Epoch 1842-5.	Corrected.		
At sea (3 observations)	6 32	336 23	1838	.....	.....	.....	33 45 N.	.....	33·8 N.	7·67	Sullivan.
At sea.....	3 37	336 24	1850	17 10 w.	.....	17·2 w.	.....	.....	.....	.....	Collinson.
At sea (2 observations)	1 50	336 34	1850	.....	.....	.....	23 50 N.	.....	23·8 N.	.....	Dayman.
At sea (2 observations)	6 59	336 50	1842	14 45 w.	.....	14·8 w.	.....	.....	.....	.....	Bérard.
At sea (10 observations)	2 56	337 00	1830	13 51 w.	.....	13·9 w.	.....	.....	.....	.....	Prussian ships.
At sea (2 observations)	6 47	337 13	1841	.....	.....	.....	29 36 N.	.....	29·6 N.	.....	In the 'John Fleming.'
At sea.....	1 18	337 18	1822	12 57 w.	.....	13·0 w.	23 49 N.	.....	23·8 N.	.....	Duperrey.
At sea (2 observations)	3 41	337 19	1841	.....	.....	.....	25 09 N.	.....	25·2 N.	.....	In the 'John Fleming.'
At sea (8 observations)	9 24	337 21	1847	15 07 w.	.....	15·1 w.	.....	.....	.....	.....	Stanley.
At sea (8 observations)	6 40	337 22	1847	15 54 w.	.....	15·9 w.	.....	.....	.....	.....	Stanley.
At sea.....	5 50	337 24	1846	15 11 w.	.....	15·2 w.	.....	.....	.....	.....	Bérard.
At sea (13 observations)	5 25	337 34	1847	15 54 w.	.....	15·9 w.	.....	.....	.....	.....	Stanley.
At sea (6 observations)	1 11	337 36	1847	14 51 w.	.....	14·9 w.	.....	.....	.....	.....	Stanley.
At sea.....	5 39	337 38	1850	13 57 w.	.....	14·0 w.	.....	.....	.....	.....	Dayman.
At sea (11 observations)	6 52	337 56	1828	16 02 w.	.....	16·0 w.	.....	.....	.....	.....	Lütke.
At sea (2 observations)	5 38	338 00	1842	15 00 w.	.....	15·0 w.	.....	.....	.....	.....	Bérard.
At sea (2 observations)	9 25	338 01	1850	.....	.....	.....	34 29 N.	.....	34·5 N.	.....	Dayman.
At sea (16 observations)	4 28	338 07	1847	15 42 w.	.....	15·7 w.	.....	.....	.....	.....	Stanley.
At sea (9 observations)	2 08	338 09	1847	14 49 w.	.....	14·8 w.	.....	.....	.....	.....	Stanley.
At sea.....	2 50	338 19	1822	12 51 w.	.....	12·9 w.	26 37 N.	.....	26·6 N.	.....	Duperrey.
At sea (3 observations)	4 57	338 38	1842	14 47 w.	.....	14·8 w.	.....	.....	.....	.....	Bérard.
At sea (3 observations)	6 44	338 43	1852	17 42 w.	.....	17·7 w.	.....	.....	.....	.....	Denham.
At sea (2 observations)	7 33	339 06	1836	16 56 w.	.....	16·9 w.	.....	.....	.....	.....	Bonite.
At sea (3 observations)	2 28	339 17	1842	15 50 w.	.....	15·8 w.	.....	.....	.....	.....	Bérard.
At sea (3 observations)	9 03	339 21	1837	16 41 w.	.....	16·7 w.	.....	.....	.....	.....	Bonite.
At sea.....	7 00	339 37	1822	12 00 w.	.....	12·0 w.	33 11 N.	.....	33·2 N.	.....	Duperrey.
At sea (2 observations)	0 03	339 47	1842	17 01 w.	.....	17·0 w.	.....	.....	.....	.....	Bérard.
At sea (2 observations)	1 47	340 13	1836	17 30 w.	.....	17·5 w.	.....	.....	.....	.....	Bonite.
At sea (3 observations)	6 42	340 55	1852	17 45 w.	.....	17·8 w.	.....	.....	.....	.....	Denham.
At sea (2 observations)	8 21	340 55	1837	17 22 w.	.....	17·4 w.	.....	.....	.....	.....	Bonite.
At sea.....	9 43	341 00	1843	.....	.....	.....	35 11 N.	.....	35·2 N.	.....	Belcher.
At sea.....	5 37	341 03	1831	.....	.....	.....	28 57 N.	.....	29·0 N.	7·56	Dunlop.
At sea (3 observations)	4 34	341 17	1826	16 47 w.	.....	16·8 w.	.....	.....	.....	.....	Lütke.
At sea.....	5 24	341 57	1837	16 30 w.	.....	16·5 w.	.....	.....	.....	.....	Bonite.
At sea.....	8 27	342 00	1843	.....	.....	.....	31 44 N.	.....	31·7 N.	.....	Belcher.
At sea (2 observations)	4 30	342 06	1837	16 42 w.	.....	16·7 w.	.....	.....	.....	.....	Bonite.
At sea (2 observations)	6 05	342 11	1852	18 42 w.	.....	18·7 w.	.....	.....	.....	.....	Denham.
At sea.....	5 23	342 35	1831	.....	.....	.....	26 13 N.	.....	26·2 N.	7·56	Dunlop.
At sea.....	7 10	342 49	1843	.....	.....	.....	29 24 N.	.....	29·4 N.	.....	Belcher.
At sea.....	0 34	343 21	1837	17 15 w.	.....	17·3 w.	.....	.....	.....	.....	Bonite.
At sea.....	3 16	343 30	1829	16 10 w.	.....	16·2 w.	.....	.....	.....	.....	D'Urville.
At sea.....	5 50	343 39	1843	.....	.....	.....	25 45 N.	.....	25·8 N.	.....	Belcher.
Isles de Los .....	9 27	346 12 {	1826	18 00 w.	.....	18·0 w.	.....	.....	.....	.....	Owen.
			1836	17 43 w.	.....	17·7 w.	.....	.....	.....	.....	Vidal.
At sea.....	1 53	346 20	1831	.....	.....	.....	18 35 N.	.....	18·6 N.	.....	Dunlop.
At sea.....	3 27	346 28	1843	.....	.....	.....	19 29 N.	.....	19·5 N.	.....	Belcher.
			1826	18 48 w.	.....	18·8 w.	.....	.....	.....	.....	Owen.
Sierra Leone .....	8 30	346 44 {	1836	19 23 w.	.....	19·4 w.	.....	.....	.....	.....	Vidal.
			1836	19 36 w.	.....	19·6 w.	.....	.....	.....	.....	Denham.
			1842	.....	.....	.....	27 18 N.	.....	27·3 N.	.....	Allen.
At sea.....	2 15	346 48	1843	.....	.....	.....	15 53 N.	.....	15·9 N.	.....	Belcher.
Moot Island .....	7 39	346 56	1836	19 17 w.	.....	19·3 w.	.....	.....	.....	.....	Vidal.
At sea.....	2 37	347 40	1831	.....	.....	.....	19 44 N.	.....	19·7 N.	7·20	Dunlop.
At sea.....	3 36	347 53	1831	.....	.....	.....	20 05 N.	.....	20·1 N.	7·20	Dunlop.
Gallinas .....	7 00	348 21	1837	18 53 w.	.....	18·9 w.	.....	.....	.....	.....	Vidal.
At sea.....	0 28	349 09	1843	.....	.....	.....	11 28 N.	.....	11·5 N.	.....	Belcher.
Monrovia .....	6 09	349 11	1837	20 07 w.	.....	20·1 w.	.....	.....	.....	.....	Vidal.
Cape Mesurada.....	6 19	349 11	1837	19 29 w.	.....	19·5 w.	.....	.....	.....	.....	Vidal.
At sea.....	3 18	349 16	1839	.....	.....	.....	19 37 N.	.....	19·6 N.	7·20	Dunlop.
			1831	19 00 w.	.....	19·0 w.	.....	.....	.....	.....	Richardson.
Cape Palmas .....	4 22	352 16 {	1836	20 00 w.	.....	20·0 w.	.....	.....	.....	.....	Vidal.
			1845	19 05 w.	.....	19·1 w.	.....	.....	.....	.....	Denham.

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842·5.	Corrected.	Observed.	Cor. to Epoch 1842·5.	Corrected.		
Cape Three Points ...	4 45	357 54	1837	20 03 w.	.....	20·1 w.	.....	.....	.....	.....	Vidal.
Dix Cove .....	4 48	358 03	1838	20 37 w.	.....	20·6 w.	.....	.....	.....	.....	Vidal.
Cape Coast Castle.....	5 06	358 46	1838	20 11 w.	.....	20·2 w.	.....	.....	.....	.....	Vidal.
			1841	.....	.....	.....	11 32 N.	.....	11·5 N.	.....	Allen.
Annamaboe .....	5 10	358 54	1838	20 13 w.	.....	20·2 w.	.....	.....	.....	.....	Vidal.
Accra .....	5 32	359 49	1838	20 18 w.	.....	20·3 w.	.....	.....	.....	.....	Vidal.
			1846	20 39 w.	.....	20·7 w.	.....	.....	.....	.....	Denham.

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## NORTH EQUATORIAL ZONE II.—Lat. 10° N. to 20° N.

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			Observers.
				Observed.	Correction to Epoch 1842·5.	Corrected.	Observed.	Cor. to Epoch 1842·5.	Corrected.	Observed.	Cor. to Epoch 1842·5.	Corrected.	
Yacoba (Bautchi) .....	10 10	9 36	1855	16 13 w.	.....	16·2 w.	.....	.....	.....	.....	.....	.....	Vogel.
Aghadem .....	16 52	13 17	1854	13 48 w.	.....	13·8 w.	.....	.....	.....	.....	.....	.....	Vogel.
Shimotirru .....	18 57	13 17	1854	13 48 w.	.....	13·8 w.	26 03	.....	26·1 N.	.....	.....	.....	Vogel.
Kuka .....	12 55	13 20	1854	14 03 w.	.....	14·1 w.	13 09	.....	13·2 N.	.....	.....	.....	Vogel.
Gondar .....	12 36	37 31	1848	.....	.....	.....	5 46	.....	5·8 N.	.....	.....	.....	D'Hericourt.
Andowa .....	14 18	39 00	1839	.....	.....	.....	8 50	.....	8·8	.....	.....	.....	Lefebore.
.....	.....	.....	1849	.....	.....	.....	9 01	.....	9·0	8·9 N.	.....	.....	D'Hericourt.
Massowa .....	15 36	39 32	1839	.....	.....	.....	10 43	.....	10·7	.....	.....	.....	Lefebore.
.....	.....	.....	1849	.....	.....	.....	12 19	.....	12·3	11·5 N.	.....	.....	D'Hericourt.
Aden .....	12 46	45 10	1834	5 02 w.	.....	5·0 w.	.....	.....	.....	.....	.....	.....	Haines.
.....	.....	.....	1850	.....	.....	.....	4 34	.....	4·6	5·1 N.	.....	.....	Moyes.
.....	.....	.....	1857	4 15 w.	.....	4·3 w.	5 38	.....	5·6	.....	.....	.....	Schlagintweit.
Socotra .....	13 16	52 55	1835	4 30 w.	.....	4·5 w.	.....	.....	.....	.....	.....	.....	Wellsted.
Bombay .....	18 56	72 54	1845	0 13 w.	0 03 w.	0·3 w.	17 59	-03	17·9	8·20	.....	.....	Orlebar.
.....	.....	.....	1847	0 14 E.	0 05 w.	0·2 w.	18 18	-05	18·2	8·37	.....	.....	Montrion.
.....	.....	.....	1856	0 19 E.	0 14 w.	0·1 E.	19 06	-14	18·9	8·48	.....	.....	Schlagintweit.
.....	.....	.....	1867	0 42 E.	0 25 w.	0·3 E.	19 02	-25	18·6	8·53	.....	.....	Chambers.
Mahabaléshvar .....	17 55	73 38	1856	.....	.....	.....	16 26	-14	16·2 N.	.....	.....	.....	Schlagintweit.
Poona .....	18 30	73 52	1856	.....	.....	.....	19 02	-14	18·8 N.	.....	.....	.....	Schlagintweit.
Mangalore .....	12 52	74 49	1870	1 06 E.	0 28 w.	0·6 E.	7 24	-28	6·9 N.	8·13	.....	8·13	Basevi.
Kaladghi .....	16 13	75 30	1856	0 30 E.	0 14 w.	0·3 E.	14 27	-14	14·2 N.	.....	.....	.....	Schlagintweit.
Kalikát .....	11 15	75 45	1838	.....	.....	.....	2 43	+04	2·8 N.	.....	.....	.....	Caldecott.
.....	.....	.....	1846	0 25 E.	0 04 w.	0·4 E.	.....	.....	.....	.....	.....	.....	Montrion.
Penang .....	10 47	75 55	1838	.....	.....	.....	1 11	+04	1·3 N.	.....	.....	.....	Caldecott.
Chetwaye .....	10 32	76 01	1838	.....	.....	.....	1 13	+04	1·3 N.	.....	.....	.....	Caldecott.
Utakamand .....	11 24	76 43	1856	0 57 E.	0 14 w.	0·7 E.	4 27	-14	4·2 N.	8·86	.....	8·86	Schlagintweit.
Moolwar .....	16 35	76 45	1868	1 05 E.	0 26 w.	0·7 E.	14 14	-26	13·8 N.	.....	.....	.....	Koppe.
Beejapore .....	16 50	76 47	1868	1 52 E.	0 26 w.	1·4 E.	15 29	-26	15·1 N.	.....	.....	.....	Koppe.
Bellari .....	15 09	76 54	1856	0 21 E.	0 14 w.	0·1 E.	12 00	-14	11·8 N.	8·83	.....	8·83	Schlagintweit.
Station .....	10 02	77 04	1838	.....	.....	.....	0 00	.....	0·0	.....	.....	.....	Caldecott and Taylor.
Namthabad .....	15 06	77 36	1868	1 11 E.	0 26 w.	0·8 E.	11 41	-26	11·3 N.	8·28	.....	8·28	Basevi.
Bangalore Base .....	13 03	77 40	1868	0 58 E.	0 26 w.	0·6 E.	7 17	-26	6·9 N.	8·17	.....	8·17	Basevi.
Bangalore .....	12 59	77 41	1869	1 12 E.	0 27 w.	0·8 E.	7 12	-27	6·8 N.	8·19	.....	8·19	Basevi.
Pachapolliam .....	11 00	77 41	1868	1 04 E.	0 26 w.	0·6 E.	2 48	-26	2·4 N.	8·05	.....	8·05	Basevi.
Kodungul .....	17 08	77 41	1868	1 29 E.	0 26 w.	1·1 E.	16 37	-26	16·2 N.	8·41	.....	8·41	Basevi.
Somtana .....	19 05	77 42	1868	0 28 E.	0 26 w.	0·0	23 43	-26	23·3 N.	9·16	.....	9·16	Basevi.
Damergidda .....	18 03	77 43	1868	1 29 E.	0 26 w.	1·1 E.	19 33	-26	19·1 N.	8·48	.....	8·48	Basevi.
Kurnool .....	15 50	78 06	1868	1 21 E.	0 26 w.	0·9 E.	13 43	-26	13·3 N.	8·31	.....	8·31	Basevi.
Secunderabad .....	17 27	78 32	1868	1 34 E.	0 26 w.	1·8 E.	17 17	-26	16·9 N.	8·51	.....	8·51	Basevi.
Trichinopoly .....	10 48	78 43	1844	.....	.....	.....	2 28	.....	2·5 N.	.....	.....	.....	Ludlow.
Utatur .....	11 05	78 52	1856	.....	.....	.....	2 50	-14	2·6 N.	.....	.....	.....	Schlagintweit.
Poothocottah .....	10 23	78 52	1838	.....	.....	.....	0 55	.....	0·9	.....	.....	.....	Taylor and Caldecott.
.....	.....	.....	1843	.....	.....	.....	0 57	.....	1·0	1·0 N.	.....	.....	Ludlow.
.....	.....	.....	1844	.....	.....	.....	1 03	.....	1·1	.....	.....	.....	Ludlow.
Trivady .....	10 53	79 09	1844	.....	.....	.....	2 01	.....	2·0 N.	.....	.....	.....	Ludlow.
Munanamelegoody .....	10 03	79 12	1838	.....	.....	.....	0 11	.....	0·2 N.	.....	.....	.....	Taylor and Caldecott.
Tanjore .....	10 46	79 14	1844	.....	.....	.....	2 01	.....	2·0 N.	.....	.....	.....	Ludlow.
Auredearputtanum .....	10 01	79 18	1844	.....	.....	.....	0 39	.....	0·7 N.	.....	.....	.....	Ludlow.
Adrampatám .....	10 17	79 22	1838	1 20 E.	0 04 E.	1·4 E.	.....	.....	.....	.....	.....	.....	Powell.
Combaconum .....	10 58	79 27	1844	.....	.....	.....	2 20	.....	2·3 N.	.....	.....	.....	Ludlow.
Manargoody .....	10 40	79 29	1838	.....	.....	.....	0 52	.....	0·9 N.	.....	.....	.....	Taylor and Caldecott.
Palk's Strait .....	10 05	79 35	1838	1 20 E.	0 04 E.	1·4 E.	.....	.....	.....	.....	.....	.....	Powell.
Sheally .....	11 16	79 47	1838	.....	.....	.....	2 28	.....	2·5 N.	.....	.....	.....	Taylor and Caldecott.
Porto Novo .....	11 29	79 48	1844	.....	.....	.....	3 41	.....	3·7 N.	.....	.....	.....	Ludlow.
Point Calymere .....	10 16	79 49	1844	.....	.....	.....	1 13	.....	1·2 N.	.....	.....	.....	Ludlow.

NORTH EQUATORIAL ZONE II.—Lat. 10° N. to 20° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			Observers.		
				Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842.5.	Corrected.			
Pondicherry .....	11 54	79 50	1837	0 52 E.	0 05 E.	1.0 E.	4 31	.....	4.5	} 4.7 N.	.....	.....	.....	Bonite. { Taylor and Caldecott.	
			1838	.....	.....	4 27	.....	4.5	.....		.....	.....			
			1844	.....	.....	5 05	.....	5.1	.....		.....	.....			
Negapatam .....	10 47	79 51	1838	.....	.....	.....	1 42	.....	1.7	} 2.0 N.	.....	.....	.....	{ Taylor and Caldecott.	
			1844	.....	.....	2 20	.....	2.3	.....		.....	.....			
Karikal .....	10 55	79 53	1828	1 14 E.	0 14 E.	1.5 E.	1 51	+14	2.1 N.	} 2.4 N.	.....	.....	.....	Blosseville. Blosseville.	
			1833	1 02 E.	0 09 E.	1.2 E.	.....	.....	.....		.....	.....			
Tranquebar .....	11 01	79 55	1838	.....	.....	.....	2 05	.....	2.1	} 2.4 N.	.....	.....	.....	{ Taylor and Caldecott.	
			1843	.....	.....	.....	2 40	.....	2.7		.....	.....	.....		
Goodoor .....	14 09	79 55	1843	.....	.....	.....	9 36	.....	9.6 N.	.....	.....	.....	.....	Ludlow.	
Wogelly.....	14 00	79 58	1838	.....	.....	.....	8 49	.....	8.8	} 9.1 N.	.....	.....	.....	{ Taylor and Caldecott.	
			1843	.....	.....	.....	9 23	.....	9.4		.....	.....	.....		
Allumparva .....	12 14	79 59	1838	.....	.....	.....	4 50	.....	4.8 N.	.....	.....	.....	.....	{ Taylor and Caldecott.	
Nellúr .....	14 28	79 59	1838	.....	.....	.....	9 41	.....	9.7 N.	.....	.....	.....	.....	{ Taylor and Caldecott.	
Nailapully .....	13 52	80 00	1843	.....	.....	.....	9 07	.....	9.1 N.	.....	.....	.....	.....	Ludlow.	
Sooloorpet .....	13 41	80 02	1838	.....	.....	.....	8 11	.....	8.2	} 8.5 N.	.....	.....	.....	{ Taylor and Caldecott.	
			1843	.....	.....	.....	8 40	.....	8.7		.....	.....	.....		
Ongole .....	15 30	80 02	1838	.....	.....	.....	11 37	.....	11.6 N.	.....	.....	.....	.....	{ Taylor and Caldecott.	
Rampatan .....	15 03	80 03	1838	.....	.....	.....	10 44	.....	10.7 N.	.....	.....	.....	.....	{ Taylor and Caldecott.	
Allúr .....	14 41	80 04	1838	.....	.....	.....	10 19	.....	10.3 N.	.....	.....	.....	.....	{ Taylor and Caldecott.	
Poodway .....	13 21	80 08	1838	.....	.....	.....	7 17	.....	7.3 N.	.....	.....	.....	.....	{ Taylor and Caldecott.	
Goomerapoondy .....	13 24	80 11	1843	.....	.....	.....	8 09	.....	8.2 N.	.....	.....	.....	.....	Ludlow.	
Sadras .....	12 32	80 12	1838	.....	.....	.....	5 31	.....	5.5	} 5.8 N.	.....	.....	.....	{ Taylor and Caldecott.	
			1843	.....	.....	.....	6 08	.....	6.1		.....	.....	.....		
Red Hills .....	13 10	80 15	1843	.....	.....	.....	7 59	.....	8.0 N.	.....	.....	.....	.....	Ludlow.	
Poonairy .....	13 20	80 16	1843	.....	.....	.....	7 54	.....	7.9 N.	.....	.....	.....	.....	Ludlow.	
Madras .....	13 05	80 17	1838	.....	.....	.....	6 50	.....	6.8	} 7.4 N.	.....	.....	} 8.16	{ Taylor and Caldecott.	
			1843	.....	.....	.....	7 30	.....	7.5		.....	.....			.....
			1846	0 56 E.	0 04 W.	0.9 E.	7 34	- 6	7.5		.....	8.15			.....
			1848	.....	.....	.....	7 52	- 14	7.7		.....	8.10			.....
			1856	0 59 E.	0 14 W.	0.8 E.	7 52	- 14	7.7		.....	8.10			.....
At sea (3 observations)	12 56	80 29	1858	0 52 E.	.....	0.9 E.	.....	.....	.....	.....	.....	.....	.....	Novara.	
At sea (2 observations)	10 48	81 25	1858	0 58 E.	.....	1.0 E.	.....	.....	.....	.....	.....	.....	.....	Novara.	
At sea (2 observations)	13 44	81 29	1858	0 51 E.	.....	0.9 E.	.....	.....	.....	.....	.....	.....	.....	Novara.	
Rajahmandri.....	17 11	81 47	1856	1 25 E.	0 14 W.	1.2 E.	16 24	-14	16.2 N.	9.20	.....	9.20	.....	Schlagintweit.	
Koringa Bay .....	16 45	82 15	1848	0 50 E.	0 06 W.	0.7 E.	.....	.....	.....	.....	.....	.....	.....	Fell.	
Coconada .....	16 56	82 18	1870	1 51 E.	0 28 W.	1.4 E.	.....	.....	.....	.....	.....	.....	.....	Basevi.	
At sea (3 observations)	13 51	82 44	1858	1 14 E.	.....	1.2 E.	.....	.....	.....	.....	.....	.....	.....	Novara.	
At sea (2 observations)	13 28	83 52	1858	1 16 E.	.....	1.3 E.	.....	.....	.....	.....	.....	.....	.....	Novara.	
At sea.....	12 12	85 57	1858	1 12 E.	.....	1.2 E.	.....	.....	.....	.....	.....	.....	.....	Novara.	
At sea (4 observations)	14 32	86 27	1837	2 58 E.	.....	3.0 E.	.....	.....	.....	.....	.....	.....	.....	Bonite.	
At sea (2 observations)	17 45	86 32	1837	2 03 E.	.....	2.1 E.	.....	.....	.....	.....	.....	.....	.....	Bonite.	
At sea (2 observations)	15 32	87 00	1837	2 07 E.	.....	2.1 E.	.....	.....	.....	.....	.....	.....	.....	Bonite.	
At sea (3 observations)	17 06	87 39	1837	2 41 E.	.....	2.7 E.	.....	.....	.....	.....	.....	.....	.....	Bonite.	
At sea (2 observations)	14 28	88 05	1837	2 36 E.	.....	2.6 E.	.....	.....	.....	.....	.....	.....	.....	Bonite.	
At sea (2 observations)	10 36	88 13	1858	1 40 E.	.....	1.7 E.	.....	.....	.....	.....	.....	.....	.....	Novara.	
At sea (2 observations)	13 03	88 33	1837	2 36 E.	.....	2.6 E.	.....	.....	.....	.....	.....	.....	.....	Bonite.	
At sea (3 observations)	19 10	89 03	1837	2 23 E.	.....	2.4 E.	.....	.....	.....	.....	.....	.....	.....	Bonite.	
Port Owen.....	13 05	90 20	1830	2 25 E.	.....	2.4 E.	.....	.....	.....	.....	.....	.....	.....	Laws.	

NORTH EQUATORIAL ZONE II.—Lat. 10° N. to 20° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			Observers.		
				Observed.	Correction to Epoch 1842-5.	Corrected.	Observed.	Cor. to Epoch 1842-5.	Corrected.	Observed.	Cor. to Epoch 1842-5.	Corrected.			
At sea.....	10 05	92 31	1837	1 54 E.	.....	1-9 E.	.....	.....	.....	.....	.....	.....	Bonite.		
Cheduba Island .....	19 00	93 00	1830	2 30 E.	.....	2-5 E.	.....	.....	.....	.....	.....	.....	Laws.		
Kyonk Phyon .....	19 29	93 29	1830	2 06 E.	.....	2-1 E.	.....	.....	.....	.....	.....	.....	Laws.		
Cheduba Straits .....	18 30	93 45	1830	2 45 E.	.....	2-8 E.	.....	.....	.....	.....	.....	.....	Laws.		
Diamond Island .....	15 51	94 18	1826	3 00 E.	.....	3-0 E.	.....	.....	.....	.....	.....	.....	Crawford.		
Rangoon .....	16 46	96 17	1833	0 50 E.	.....	0-8 E.	} 0-8 E.	17 52	.....	17-9	} 17-9 N.	.....	.....	Blosseville.	
			1837	.....	.....	.....		17 53	.....	17-9		.....	.....	.....	Taylor.
			1837	.....	.....	.....		17 57	.....	18-0		.....	.....	.....	Pelly.
Tores Island .....	12 00	97 00	1835	3 00 E.	.....	3-0 E.							Laws.		
Moulmein .....	16 30	97 46	1846	2 20 E.	.....	2-3 E.		17 46	.....	17-8 N.		8-52	.....	Elliot.	
Bentink .....	15 33	97 51	1830	2 25 E.	.....	2-4 E.								Laws.	
Hastings Island .....	10 07	98 21	1846	2 13 E.	.....	2-2 E.		4 19	.....	4-3 N.		8-20	.....	Elliot.	
Touranne .....	16 07	108 17	1837	1 54 E.	.....	1-9 E.		19 01	.....	19-0 N.			.....	Bonite.	
At sea (2 observations)	16 45	109 04	1837	0 38 E.	.....	0-6 E.							.....	Bonite.	
At sea.....	14 26	109 16	1837	0 30 W.	.....	0-5 W.							.....	Bonite.	
Turtle Island.....	14 20	109 20	1825	1 00 E.	.....	1-0 E.							.....	Bougainville.	
At sea (2 observations)	10 50	112 54	1858	1 58 E.	.....	2-0 E.							.....	Novara.	
At sea (4 observations)	12 30	114 10	1829	0 04 E.	.....	0-1 E.							.....	Lütke.	
At sea.....	19 42	114 14	1843	.....	.....	.....		22 30	.....	22-5 N.			.....	Belcher.	
At sea.....	12 26	115 13	1858	1 28 E.	.....	1-5 E.							.....	Novara.	
At sea (8 observations)	17 36	115 53	1830	0 17 E.	.....	0-3 E.							.....	Prussian ships.	
At sea (2 observations)	19 25	116 09	1858	0 53 E.	.....	0-9 E.							.....	Novara.	
At sea.....	16 12	116 35	1843	.....	.....	.....		19 13	.....	19-2 N.			.....	Belcher.	
At sea (3 observations)	17 06	116 48	1858	1 03 E.	.....	1-1 E.							.....	Novara.	
At sea (2 observations)	13 45	117 02	1829	1 47 E.	.....	1-8 E.							.....	Prussian ships.	
At sea (2 observations)	13 14	117 33	1858	0 42 E.	.....	0-7 E.							.....	Novara.	
At sea.....	15 23	118 05	1858	1 16 E.	.....	1-3 E.							.....	Novara.	
At sea.....	13 49	118 21	1843	.....	.....	.....		14 18	.....	14-3 N.			.....	Belcher.	
At sea (2 observations)	19 22	119 04	1851	0 03 W.	.....	0-1 W.							.....	Collinson.	
At sea.....	11 28	119 06	1843	.....	.....	.....		10 10	.....	10-2 N.			.....	Belcher.	
At sea (2 observations)	14 27	119 25	1858	0 33 E.	.....	0-6 E.							.....	Novara.	
At sea (3 observations)	15 41	119 34	1837	0 00	.....	0-0							.....	Bonite.	
At sea (3 observations)	16 58	119 47	1837	0 16 E.	.....	0-3 E.							.....	Bonite.	
Cabras Island .....	13 52	119 53	1843	.....	.....	.....		15 11	.....	15-2 N.			.....	Belcher.	
Damaram Island .....	10 59	119 56	1843	.....	.....	.....		8 05	.....	8-1 N.			.....	Belcher.	
At sea (2 observations)	17 20	120 02	1833	1 00 E.	.....	1-0 E.							.....	Prussian ships.	
At sea (2 observations)	18 24	120 07	1837	0 26 W.	.....	0-4 W.							.....	Bonite.	
At sea.....	13 11	120 16	1844	0 56 E.	.....	0-9 E.		13 21	.....	13-4 N.			.....	Belcher.	
Apo Island .....	12 40	120 24	1846	0 09 E.	.....	0-2 E.		12 30	.....	12-5 N.			.....	Belcher.	
Calamiane.....	12 13	120 25	1844	0 38 E.	.....	0-6 E.		12 08	.....	12-1 N.			.....	Belcher.	
At sea.....	12 38	120 42	1844	.....	.....	.....		13 21	.....	13-4 N.			.....	Belcher.	
Cavite.....	14 27	120 55	1846	0 48 E.	.....	0-8 E.		16 05	.....	16-1 N.			.....	Belcher.	
			1829	0 10 E.	.....	0-2 E.		16 16	.....	16-3			.....	Lütke.	
Manilla .....	14 36	120 58	1830	1 00 E.	.....	1-0 E.	} 0-5 E.				} 16-4 N.		.....	Laplace.	
			1836	0 30 E.	.....	0-5 E.		16 30	.....	16-5				.....	Bonite.
			1844	0 18 E.	.....	0-3 E.		16 26	.....	16-4			8-40	.....	Belcher.
Garsa Island.....	12 13	121 09	1846	0 38 E.	.....	0-6		11 30	.....	11-5 N.			.....	Belcher.	
Panagatan .....	11 51	121 19	1844	0 15 E.	.....	0-3		10 58	.....	11-0 N.			.....	Belcher.	
Marcignin Island .....	11 36	121 37	1846	0 45 E.	.....	0-8		10 27	.....	10-5 N.			.....	Belcher.	
At sea (8 observations)	18 56	123 13	1828	0 44 W.	.....	0-7 W.							.....	Lütke.	
At sea (2 observations)	18 45	129 50	1837	0 12 W.	.....	0-2 W.							.....	Bonite.	
At sea (3 observations)	18 28	134 50	1837	0 21 E.	.....	0-4 E.							.....	Bonite.	
At sea (6 observations)	17 25	135 25	1828	0 03 E.	.....	0-1 E.							.....	Lütke.	
At sea (3 observations)	18 08	135 54	1833	0 36 E.	.....	0-6 E.							.....	Prussian ships.	
At sea (2 observations)	12 48	137 24	1831	1 12 E.	.....	1-2 E.							.....	Prussian ships.	
At sea (3 observations)	12 09	137 45	1828	1 34 E.	.....	1-6 E.							.....	Lütke.	
At sea (2 observations)	19 36	140 28	1851	1 10 W.	.....	1-2 W.							.....	Collinson.	
At sea (2 observations)	18 32	140 35	1837	0 57 E.	.....	1-0 E.							.....	Bonite.	
At sea.....	16 05	140 58	1858	2 16 E.	.....	2-3 E.							.....	Novara.	
At sea (2 observations)	12 18	140 58	1831	2 15 E.	.....	2-3 E.							.....	Prussian ships.	
At sea (8 observations)	12 25	143 20	1828	2 35 E.	.....	2-6 E.							.....	Lütke.	
At sea (8 observations)	18 18	144 25	1830	3 27 E.	.....	3-5 E.							.....	Prussian ships.	

## NORTH EQUATORIAL ZONE II.—Lat. 10° N. to 20° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			Observers.
				Observed.	Correction to Epoch 1842·5.	Corrected.	Observed.	Cor. to Epoch 1842·5.	Corrected.	Observed.	Cor. to Epoch 1842·5.	Corrected.	
Guahan Island .....	13 26	144 44	1828	1 36 E.	.....	1·6 E. } 2·3 E.	.....	.....	.....	.....	.....	.....	Dumont d'Urville.
At sea (2 observations)	13 18	144 46	1829	2 57 E.	.....	3·0 E.	12 52	.....	12 9 N.	.....	.....	.....	Lütke.
Agagna or Guahan ...	13 28	144 50	1858	3 51 E.	.....	3·9 E.	.....	.....	.....	.....	.....	.....	Novara.
			1819	4 39 E.	.....	.....	12 47	.....	12 8 N.	.....	.....	.....	Freycinet.
At sea (2 observations)	18 42	145 09	1851	0 35 W.	.....	0·6 W.	.....	.....	.....	.....	.....	.....	Collinson.
Assumption Island ...	19 48	145 24	1827	5 42 E.	.....	5·7 E.	.....	.....	.....	.....	.....	.....	Beechey.
Gugnan Island .....	17 35	145 54	1819	3 30 E.	.....	.....	.....	.....	.....	.....	.....	.....	Freycinet.
At sea (2 observations)	18 51	146 10	1837	3 34 E.	.....	3·6 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea.....	17 40	146 15	1819	3 50 E.	.....	.....	21 43	.....	21 7 N.	.....	.....	.....	Freycinet.
At sea.....	19 48	147 11	1819	3 50 E.	.....	.....	24 47	.....	24 8 N.	.....	.....	.....	Freycinet.
At sea (3 observations)	12 01	149 03	1858	5 28 E.	.....	5·5 E.	.....	.....	.....	.....	.....	.....	Novara.
At sea.....	16 05	149 58	1858	2 16 E.	.....	2·3 E.	.....	.....	.....	.....	.....	.....	Novara.
At sea (2 observations)	18 50	151 23	1837	5 34 E.	.....	5·6 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea (2 observations)	14 29	152 54	1831	6 45 E.	.....	6·8 E.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea (4 observations)	11 50	153 23	1858	6 09 E.	.....	6·2 E.	.....	.....	.....	.....	.....	.....	Novara.
At sea (5 observations)	11 03	154 42	1858	6 40 E.	.....	6·7 E.	.....	.....	.....	.....	.....	.....	Novara.
At sea (8 observations)	17 17	155 13	1830	6 55 E.	.....	6·9 E.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea (2 observations)	18 40	157 07	1836	7 15 E.	.....	7·3 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea (2 observations)	17 23	157 40	1851	4 52 E.	.....	4·9 E.	.....	.....	.....	.....	.....	.....	Collinson.
At sea (3 observations)	12 13	157 58	1828	7 46 E.	.....	7·8 E.	.....	.....	.....	.....	.....	.....	Lütke.
At sea.....	18 26	161 43	1836	9 24 E.	.....	9·4 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea.....	11 27	161 52	1828	8 24 E.	.....	8·4 E.	14 17	.....	14 3 N.	7·54	.....	7·54	Lütke.
At sea (4 observations)	17 27	162 30	1828	8 45 E.	.....	8·8 E.	.....	.....	.....	.....	.....	.....	Lütke.
At sea (2 observations)	17 38	163 42	1851	6 19 E.	.....	6·3 E.	.....	.....	.....	.....	.....	.....	Collinson.
At sea.....	18 44	163 55	1827	8 45 E.	.....	8·8 E.	27 55	.....	27 9 N.	7·69	.....	7·69	Lütke.
Escholtz Island .....	11 30	165 30	1825	10 52 E.	.....	10·9 E.	.....	.....	.....	.....	.....	.....	Kotzebue.
At sea (12 observations)	16 02	166 22	1830	10 08 E.	.....	10·1 E.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea (2 observations)	18 11	166 30	1836	9 28 E.	.....	9·5 E.	.....	.....	.....	.....	.....	.....	Bonite.
Button Island .....	11 20	169 51	1825	11 18 E.	.....	11·3 E.	.....	.....	.....	.....	.....	.....	Kotzebue.
Ailu Island .....	10 15	170 00	1825	10 54 E.	.....	10·9 E.	.....	.....	.....	.....	.....	.....	Kotzebue.
At sea (2 observations)	17 43	171 11	1851	8 50 E.	.....	8·8 E.	.....	.....	.....	.....	.....	.....	Collinson.
At sea (2 observations)	19 30	172 02	1836	11 23 E.	.....	11·4 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea (11 observations)	10 28	174 40	1830	11 19 E.	.....	11·3 E.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea.....	19 31	177 57	1836	10 21 E.	.....	10·4 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea (3 observations)	18 00	180 38	1851	7 25 E.	.....	7·4 E.	.....	.....	.....	.....	.....	.....	Collinson.
At sea (11 observations)	17 17	184 55	1831	11 03 E.	.....	11·1 E.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea (3 observations)	19 06	191 06	1851	6 40 E.	.....	6·7 E.	.....	.....	.....	.....	.....	.....	Collinson.
At sea.....	18 32	191 09	1836	12 04 E.	.....	12·1 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea (10 observations)	18 16	193 47	1831	9 40 E.	.....	9·7 E.	.....	.....	.....	.....	.....	.....	Prussian ships.
Owyhee .....	19 43	203 50	1819	9 50 E.	.....	9·8 E.	.....	.....	.....	.....	.....	.....	Freycinet.
			1824	10 14 E.	.....	10·2 E.	37 58	.....	38 0 N.	8·21	.....	8·21	Byron.
			1830	.....	.....	.....	39 18	.....	39 3 N.	.....	.....	.....	Douglas.
Kowroa .....	19 37	203 59	1836	7 43 E.	.....	7·7 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea (3 observations)	19 14	204 45	1836	8 33 E.	.....	8·6 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea (2 observations)	19 13	209 43	1836	8 03 E.	.....	8·1 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea (2 observations)	18 59	214 25	1836	7 31 E.	.....	7·5 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea (10 observations)	17 35	215 52	1831	6 44 E.	.....	6·7 E.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea (2 observations)	18 46	218 33	1836	7 09 E.	.....	7·2 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea.....	15 44	221 27	1828	6 53 E.	.....	6·9 E.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea (4 observations)	17 30	222 44	1827	7 18 E.	.....	7·3 E.	.....	.....	.....	.....	.....	.....	Lütke.
At sea (12 observations)	18 49	223 21	1853	.....	.....	.....	33 40	.....	33 7 N.	.....	.....	.....	Trollope.
At sea (2 observations)	18 00	224 24	1836	5 50 E.	.....	5·8 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea.....	13 13	227 00	1827	5 49 E.	.....	5·8 E.	30 05	.....	30 1 N.	8·65	.....	8·65	Lütke.
At sea (3 observations)	11 42	228 34	1827	6 04 E.	.....	6·1 E.	.....	.....	.....	.....	.....	.....	Lütke.
At sea (12 observations)	12 05	228 50	1831	5 53 E.	.....	5·9 E.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea (2 observations)	17 02	232 19	1836	7 17 E.	.....	7·3 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea.....	11 28	236 06	1830	5 08 E.	.....	5·1 E.	.....	.....	.....	.....	.....	.....	Erman.
At sea.....	11 18	236 14	1830	.....	.....	.....	25 45	.....	25 8 N.	8·42	.....	8·42	Erman.
At sea.....	12 18	236 20	1830	.....	.....	.....	27 15	.....	27 3 N.	8·35	.....	8·35	Erman.
At sea.....	13 37	236 28	1830	5 30 E.	.....	5·5 E.	29 45	.....	29 8 N.	8·55	.....	8·55	Erman.
At sea.....	15 15	236 47	1830	5 30 E.	.....	5·5 E.	32 28	.....	32 5 N.	8·77	.....	8·77	Erman.

## NORTH EQUATORIAL ZONE II.—Lat. 10° N. to 20° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.	
At sea.....	16 58	237 04	1836	6 21 E.	.....	6.4 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea.....	16 56	237 06	1830	.....	.....	.....	35 34	.....	35.6 N.	8.86	.....	8.86	Erman.
At sea.....	18 36	237 27	1830	.....	.....	.....	39 03	.....	39.1 N.	9.06	.....	9.06	Erman.
At sea.....	19 40	237 38	1830	.....	.....	.....	40 15	.....	40.3 N.	9.22	.....	9.22	Erman.
At sea (2 observations)	16 53	241 33	1836	6 26 E.	.....	6.4 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea (3 observations)	16 17	244 45	1836	5 50 E.	.....	5.8 E.	.....	.....	.....	.....	.....	.....	Bonite.
Clarion Island .....	18 21	245 19	1839	8 05 E.	.....	8.1 E.	37 03	.....	37.1 N.	9.52	.....	9.52	Belcher.
At sea (2 observations)	12 35	246 41	1836	5 49 E.	.....	5.8 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea (2 observations)	11 19	248 45	1836	6 40 E.	.....	6.7 E.	.....	.....	.....	.....	.....	.....	Bonite.
Socorro Island .....	18 43	249 06	1839	6 56 E.	.....	6.9 E.	40 44	.....	40.7 N.	9.87	.....	9.87	Belcher.
At sea (2 observations)	10 38	253 42	1836	7 22 E.	.....	7.4 E.	.....	.....	.....	.....	.....	.....	Bonite.
Acapulco .....	16 50	260 10	1828	9 07 E.	.....	9.1 E.	.....	.....	.....	.....	.....	.....	Beechey.
			1838	8 13 E.	.....	8.2 E.	37 57	.....	38.0	10.03	.....	10.06	Belcher.
			1838	8 17 E.	.....	8.3 E.	39 05	.....	39.1	.....	.....	.....	La Vénus.
			1866	8 22 E.	.....	8.4 E.	39 54	.....	39.9	10.09	.....	.....	Harkness.
Mexico .....	19 26	260 55	1856	8 46 E.	.....	8.8 E.	41 26	.....	41.4 N.	10.11	.....	10.11	Müller & Sonntag.
Chalco .....	19 18	261 09	1856	9 03 E.	.....	9.1 E.	43 12	.....	43.2 N.	10.35	.....	10.35	Müller & Sonntag.
Hamacas .....	19 03	261 21	1856	8 28 E.	.....	8.5 E.	42 34	.....	42.6 N.	10.28	.....	10.28	Müller & Sonntag.
San Andres .....	18 59	262 45	1856	8 13 E.	.....	8.2 E.	42 38	.....	42.6 N.	10.31	.....	10.31	Müller & Sonntag.
Near Orizaba.....	18 53	262 56	1856	8 28 E.	.....	8.5 E.	42 51	.....	42.9 N.	10.34	.....	10.34	Müller & Sonntag.
Potrero .....	18 56	263 12	1856	8 39 E.	.....	8.7 E.	42 51	.....	42.9 N.	10.33	.....	10.33	Müller & Sonntag.
Mirador.....	19 13	263 23	1856	8 02 E.	.....	8.0 E.	43 50	.....	43.8 N.	10.43	.....	10.43	Müller & Sonntag.
Vera Cruz .....	19 12	263 51	1839	8 22 E.	.....	8.4 E.	.....	.....	.....	.....	.....	.....	Behard.
			1856	8 17 E.	.....	8.3 E.	43 58	.....	44.0 N.	10.45	.....	10.45	Müller & Sonntag.
At sea (2 observations)	19 33	266 20	1838	9 32 E.	.....	9.5 E.	.....	.....	.....	.....	.....	.....	Behard.
At sea (4 observations)	19 57	266 46	1839	9 39 E.	.....	9.7 E.	.....	.....	.....	.....	.....	.....	Behard.
Lerma .....	19 49	269 26	1847	8 02 E.	.....	8.0 E.	.....	.....	.....	.....	.....	.....	Barnett.
Campeche .....	19 51	269 29	1839	9 27 E.	.....	9.5 E.	.....	.....	.....	.....	.....	.....	Behard.
Realejo .....	12 28	272 52	1838	7 53 E.	.....	7.9 E.	34 37	.....	.....	.....	.....	.....	Belcher.
South Key .....	16 03	273 01	1844	7 45 E.	.....	7.8 E.	.....	.....	.....	.....	.....	.....	Lawrence.
Nicaragua .....	10 56	276 18	1834	.....	.....	.....	34 05	.....	34.1	.....	.....	.....	Home.
			1839	7 00 E.	.....	7.0 E.	34 43	.....	34.7	.....	.....	.....	Barnett.
Cape Gracias a Dios...	15 00	276 42	1833	.....	.....	.....	41 04	.....	41.1 N.	.....	.....	.....	Barnett.
The Hobbies .....	16 04	276 49	1833	6 00 E.	.....	6.0 E.	.....	.....	.....	.....	.....	.....	Barnett.
Cayman Island .....	19 14	278 55	1822	.....	.....	.....	48 48	.....	48.8 N.	10.90	.....	10.90	Sabine.
At sea (3 observations)	19 40	279 03	1838	4 37 E.	.....	4.6 E.	.....	.....	.....	.....	.....	.....	Behard.
Beacon Key .....	15 48	280 09	1844	6 00 E.	.....	6.0 E.	.....	.....	.....	.....	.....	.....	Lawrence.
Port Royal and Kingston } .....	17 56	283 09	1829	.....	.....	.....	46 55	.....	46.9	10.90	.....	.....	Sabine.
			1822	4 54 E.	0 20 W.	4.6 E.	.....	.....	.....	.....	.....	.....	Owen.
			1832	5 13 E.	0 10 W.	5.1 E.	.....	.....	.....	.....	.....	.....	Foster.
			1834	.....	.....	.....	47 19	.....	47.3	.....	.....	.....	Barnett.
			1834	.....	.....	.....	47 04	.....	47.1	.....	.....	.....	Home.
			1837	4 18 E.	0 05 W.	4.2 E.	.....	.....	.....	.....	.....	.....	Milne.
			1847	3 40 E.	0 05 E.	3.8 E.	.....	.....	.....	.....	.....	.....	Barnett.
			1857	3 43 E.	0 15 E.	4.0 E.	46 32	.....	46.5	10.44	.....	.....	Friesach.
Point Morant .....	17 55	283 44	1831	5 13 E.	0 11 W.	5.0 E.	.....	.....	.....	.....	.....	.....	Austin.
Cartagena .....	10 25	284 25	1837	5 41 E.	0 05 W.	5.6 E.	.....	.....	.....	.....	.....	.....	Milne.
Cumberland Harbour.	19 55	284 45	1837	3 31 E.	0 05 W.	3.4 E.	.....	.....	.....	.....	.....	.....	Milne.
Barranguilla .....	10 59	284 54	1857	5 24 E.	0 15 E.	5.7 E.	.....	.....	.....	.....	.....	.....	Friesach.
Santa Marta .....	11 15	285 45	1837	5 29 E.	0 05 W.	5.4 E.	.....	.....	.....	.....	.....	.....	Milne.
			1857	5 04 E.	0 15 E.	5.3 E.	36 34	.....	36.6	9.52	.....	9.52	Friesach.
Alta Vela .....	17 28	288 21	1835	.....	.....	.....	47 39	.....	47.7 N.	.....	.....	.....	Home.
At sea (2 observations)	19 43	290 50	1838	0 21 W.	0 04 W.	0.4 W.	.....	.....	.....	.....	.....	.....	Behard.
Curaçoa .....	12 06	291 04	1833	.....	.....	.....	38 39	.....	38.7 N.	.....	.....	.....	Zahrtmann.
Caracas .....	10 31	293 03	1836	.....	.....	.....	37 16	.....	37.3 N.	.....	.....	.....	Home.
Porto Rico.....	18 29	293 46	1852	.....	.....	.....	50 15	.....	50.3 N.	.....	.....	.....	Norwegian Offi- [cers.
At sea (2 observations)	19 39	294 06	1838	1 09 W.	0 04 W.	1.2 W.	.....	.....	.....	.....	.....	.....	Behard.
St. Thomas .....	18 20	295 04	1834	.....	.....	.....	49 29	.....	49.5	.....	.....	.....	Zahrtmann.
			1846	.....	.....	.....	49 40	.....	49.7	.....	.....	.....	Schomburgk.
			1865	0 40 E.	.....	.....	49 38	.....	49.6	10.43	.....	10.43	Harkness.
Sainte Croix .....	17 45	295 16	1853	1 32 E.	.....	1.5 E.	.....	.....	.....	.....	.....	.....	Lang.
Dominica .....	15 18	295 27	1826	1 15 E.	.....	1.3 E.	.....	.....	.....	.....	.....	.....	Zahrtmann.

## NORTH EQUATORIAL ZONE II.—Lat. 10° N. to 20° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.	
At sea.....	19 39	295 51	1838	0 01 E.	.....	0.0	.....	.....	.....	.....	.....	.....	Bérard.
Anguilla Island.....	18 14	296 51	1846	0 56 E.	.....	0.9 E.	50 15	.....	50.3 N.	.....	.....	.....	Barnett.
At sea (2 observations)	19 53	297 17	1838	0 39 E.	.....	0.7 E.	.....	.....	.....	.....	.....	.....	Behard.
Antigua.....	17 08	298 08	1840	0 42 E.	.....	0.7 E.	49 11	.....	49.2 N.	.....	.....	.....	Milne.
			1848	0 46 E.	.....	0.8 E.							
Trinidad (Port Spain).	10 39	298 25	1822	.....	.....	.....	39 02	.....	39.0	8.98	.....	8.98	Sabine.
			1822	4 00 E.	.....	4.0 E.	.....	.....	39.0 N.				
			1830	.....	.....	.....	39 00	.....	39.0				
At sea.....	19 48	299 17	1838	2 30 E.	.....	2.5 E.	.....	.....	.....	.....	.....	.....	Owen.
Barbadoes.....	13 05	300 23	1833	1 29 E.	.....	1.5 E.	43 57	.....	44.0 N.	.....	.....	.....	Phillips.
			1839	1 13 E.	.....	1.2 E.							
			1846	1 27 E.	.....	1.5 E.							
At sea (3 observations)	11 47	311 23	1849	2 00 w.	.....	2.0 w.	.....	.....	.....	.....	.....	.....	Schomburgk.
At sea.....	18 28	317 07	1839	.....	.....	.....	52 57	.....	53.0 N.	9.84	.....	9.84	Hudson.
At sea.....	15 40	317 36	1839	.....	.....	.....	50 07	.....	50.1 N.	9.73	.....	9.73	Sullivan.
At sea.....	12 50	318 28	1839	.....	.....	.....	47 05	.....	47.1 N.	9.35	.....	9.35	Sullivan.
At sea (5 observations)	17 35	318 38	1829	3 47 w.	.....	3.8 w.	.....	.....	.....	.....	.....	.....	Rumker.
At sea (3 observations)	14 08	318 45	1829	4 09 w.	.....	4.2 w.	.....	.....	.....	.....	.....	.....	Rumker.
At sea.....	10 07	319 51	1839	.....	.....	.....	42 27	.....	42.5 N.	9.09	.....	9.09	Sullivan.
At sea.....	18 18	321 24	1846	11 24 w.	.....	11.4 w.	.....	.....	.....	.....	.....	.....	Sullivan.
At sea.....	17 02	321 51	1846	9 38 w.	.....	9.6 w.	.....	.....	.....	.....	.....	.....	Sullivan.
At sea.....	19 19	321 51	1839	11 56 w.	.....	11.9 w.	.....	.....	.....	.....	.....	.....	Du Petit Thouars.
At sea.....	15 21	322 28	1846	10 49 w.	.....	10.8 w.	.....	.....	.....	.....	.....	.....	Sullivan.
At sea.....	16 36	323 27	1839	11 13 w.	.....	11.2 w.	.....	.....	.....	.....	.....	.....	Du Petit Thouars.
At sea.....	13 55	325 01	1839	11 34 w.	.....	11.6 w.	.....	.....	.....	.....	.....	.....	Du Petit Thouars.
At sea.....	17 40	325 36	1829	12 29 w.	.....	12.5 w.	.....	.....	.....	.....	.....	.....	Lütke.
At sea.....	10 20	325 50	1842	.....	.....	.....	.....	.....	.....	9.02	.....	9.02	Lefroy.
At sea.....	19 05	326 25	1830	.....	.....	.....	52 42	.....	52.7 N.	9.58	.....	9.58	Erman.
At sea (3 observations)	17 36	326 36	1829	12 39 w.	.....	12.7 w.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea.....	11 58	327 30	1839	11 42 w.	.....	11.7 w.	.....	.....	.....	.....	.....	.....	Du Petit Thouars.
At sea.....	14 32	327 40	1850	11 15 w.	.....	11.3 w.	.....	.....	.....	.....	.....	.....	Young.
At sea (2 observations)	16 18	328 52	1830	12 36 w.	.....	12.6 w.	49 03	.....	49.1 N.	9.17	.....	9.17	Erman.
At sea (3 observations)	19 22	329 33	1846	16 22 w.	.....	16.4 w.	.....	.....	.....	.....	.....	.....	Bérard.
At sea.....	18 47	329 36	1830	13 02 w.	.....	13.0 w.	.....	.....	.....	.....	.....	.....	Erman.
At sea (3 observations)	18 05	329 58	1850	17 12 w.	.....	17.2 w.	.....	.....	.....	.....	.....	.....	Dayman.
At sea (3 observations)	18 11	330 00	1843	13 52 w.	.....	13.9 w.	49 35	.....	49.6 N.	.....	.....	.....	Ross.
At sea (2 observations)	14 53	330 21	1830	12 58 w.	.....	13.0 w.	.....	.....	.....	.....	.....	.....	Erman.
At sea.....	14 03	330 30	1838	.....	.....	.....	45 26	.....	45.4 N.	.....	.....	.....	Sullivan.
At sea.....	14 36	330 43	1830	.....	.....	.....	46 31	.....	46.5 N.	9.58	.....	9.58	Erman.
At sea (2 observations)	11 32	330 43	1858	16 04 w.	.....	16.1 w.	.....	.....	.....	.....	.....	.....	Novara.
At sea.....	12 36	331 29	1830	12 23 w.	.....	12.4 w.	44 03	.....	44.1 N.	.....	.....	.....	Erman.
At sea (2 observations)	17 35	331 32	1837	14 12 w.	.....	14.2 w.	.....	.....	.....	.....	.....	.....	Bonite.
At sea (2 observations)	13 18	331 34	1830	13 01 w.	.....	13.0 w.	.....	.....	.....	.....	.....	.....	Erman.
At sea (2 observations)	16 47	331 34	1850	.....	.....	.....	47 28	.....	47.5 N.	.....	.....	.....	Dayman.
At sea (3 observations)	11 15	332 17	1830	13 39 w.	.....	13.7 w.	.....	.....	.....	.....	.....	.....	Erman.
At sea (2 observations)	14 55	332 19	1843	13 49 w.	.....	13.8 w.	45 12	.....	45.2 N.	.....	.....	.....	Ross.
At sea (2 observations)	14 38	332 22	1850	16 34 w.	.....	16.6 w.	.....	.....	.....	.....	.....	.....	Collinson.
At sea.....	11 03	332 25	1830	.....	.....	.....	41 54	.....	41.9 N.	8.64	.....	8.64	Erman.
At sea (3 observations)	15 36	332 48	1850	17 17 w.	.....	17.3 w.	.....	.....	.....	.....	.....	.....	Dayman.
At sea (2 observations)	18 13	333 16	1833	16 38 w.	.....	16.6 w.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea (2 observations)	10 20	333 25	1830	13 06 w.	.....	13.1 w.	40 49	.....	40.8 N.	8.10	.....	8.10	Erman.
At sea.....	14 03	333 30	1838	.....	.....	.....	45 26	.....	45.4 N.	8.65	.....	8.65	Sullivan.
At sea.....	10 08	333 32	1830	13 10 w.	.....	13.2 w.	.....	.....	.....	.....	.....	.....	Erman.
At sea (2 observations)	11 34	333 35	1850	16 36 w.	.....	16.6 w.	.....	.....	.....	.....	.....	.....	Collinson.
At sea.....	12 17	333 35	1832	13 43 w.	.....	13.7 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea (3 observations)	12 50	333 38	1852	16 38 w.	.....	16.6 w.	.....	.....	.....	.....	.....	.....	Denham.
At sea (7 observations)	11 48	333 38	1829	14 23 w.	.....	14.4 w.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea.....	12 05	333 40	1838	.....	.....	.....	42 45	.....	42.8 N.	8.46	.....	8.46	Sullivan.
At sea.....	10 24	333 47	1852	16 49 w.	.....	16.8 w.	.....	.....	.....	.....	.....	.....	Denham.
At sea (2 observations)	14 22	334 10	1837	14 49 w.	.....	14.8 w.	.....	.....	.....	.....	.....	.....	Bonite.
At sea (2 observations)	12 53	334 16	1843	14 19 w.	.....	14.3 w.	42 02	.....	42.0 N.	.....	.....	.....	Ross.

## NORTH EQUATORIAL ZONE II.—Lat. 10° N. to 20° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.	
At sea (2 observations)	13 20	334 17	1842	13 25 w.	.....	13.4 w.	.....	.....	.....	.....	.....	.....	Bérard.
At sea (2 observations)	14 57	334 18	1843	16 00 w.	.....	16.0 w.	.....	.....	.....	.....	.....	.....	Pasley.
At sea (3 observations)	11 53	334 29	1843	13 41 w.	.....	13.7 w.	40 41	.....	40.7 N.	.....	.....	.....	Ross.
At sea (3 observations)	15 44	334 30	1852	17 50 w.	.....	17.8 w.	.....	.....	.....	.....	.....	.....	Denham.
At sea (4 observations)	14 18	334 30	1850	17 07 w.	.....	17.1 w.	.....	.....	.....	.....	.....	.....	Dayman.
At sea.....	13 45	334 34	1822	15 15 w.	.....	15.3 w.	45 06	.....	45.1 N.	.....	.....	.....	Duperrey.
At sea.....	15 49	334 35	1822	15 15 w.	.....	15.3 w.	47 21	.....	47.4 N.	.....	.....	.....	Duperrey.
At sea (2 observations)	11 13	334 35	1842	15 00 w.	.....	15.0 w.	.....	.....	.....	.....	.....	.....	Bérard.
At sea.....	15 10	334 39	1853	.....	.....	.....	43 20	.....	43.3 N.	.....	.....	.....	Trollope.
At sea.....	13 20	334 40	1832	14 49 w.	.....	14.8 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea.....	16 35	334 42	1842	17 00 w.	.....	17.0 w.	.....	.....	.....	.....	.....	.....	Bérard.
At sea.....	10 00	334 44	1840	15 47 w.	.....	15.8 w.	.....	.....	.....	.....	.....	.....	Ross.
At sea.....	16 42	334 46	1852	18 23 w.	.....	18.4 w.	.....	.....	.....	.....	.....	.....	Denham.
At sea (3 observations)	14 16	334 50	1853	.....	.....	.....	42 20	.....	42.3 N.	.....	.....	.....	Trollope.
At sea (2 observations)	17 32	334 55	1841	.....	.....	.....	45 42	.....	45.7 N.	.....	.....	.....	The John Fleming.
Antonio.....	17 10	334 57	1822	15 03 w.	.....	15.1 w.	.....	.....	.....	.....	.....	.....	Duperrey.
Porto Grande .....	16 53	334 57	1841	.....	.....	.....	48 44	.....	48.7	47.9 N.	.....	.....	Fishbourne.
			1841	.....	.....	.....	48 56	.....	48.9		.....	.....	Trollope.
			1842	.....	.....	.....	45 35	.....	45.6		.....	.....	Allen.
			1853	.....	.....	.....	48 33	.....	48.6		.....	.....	Trollope.
At sea (3 observations)	11 58	335 02	1828	13 51 w.	.....	13.9 w.	.....	.....	.....	.....	.....	.....	Lütke.
At sea.....	11 19	335 07	1840	.....	.....	.....	41 01	.....	41.0 N.	8.35	.....	8.35	Ross.
At sea.....	13 14	335 20	1843	15 15 w.	.....	15.3 w.	.....	.....	.....	.....	.....	.....	Pasley.
At sea.....	18 20	335 30	1838	.....	.....	.....	50 45	.....	50.8 N.	8.84	.....	8.84	Sullivan.
At sea.....	12 12	335 30	1840	16 26 w.	.....	16.4 w.	.....	.....	.....	.....	.....	.....	Ross.
At sea.....	18 38	335 30	1853	.....	.....	.....	45 13	.....	45.2 N.	.....	.....	.....	Trollope.
At sea (4 observations)	13 04	335 31	1850	17 55 w.	.....	17.9 w.	.....	.....	.....	.....	.....	.....	Dayman.
At sea.....	12 39	335 35	1840	.....	.....	.....	43 17	.....	43.3 N.	8.54	.....	8.54	Ross.
At sea (2 observations)	12 22	335 50	1837	16 02 w.	.....	16.0 w.	.....	.....	.....	.....	.....	.....	Bonite.
At sea.....	11 42	336 00	1838	.....	.....	.....	39 14	.....	39.2 N.	.....	.....	.....	Stanley.
At sea (2 observations)	10 42	336 02	1843	12 49 w.	.....	12.8 w.	38 02	.....	38.0 N.	.....	.....	.....	Ross.
At sea (2 observations)	13 00	336 12	1850	.....	.....	.....	41 10	.....	41.2 N.	.....	.....	.....	Dayman.
At sea (3 observations)	15 13	336 21	1832	15 43 w.	.....	15.7 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea.....	14 43	336 21	1836	17 02 w.	.....	17.0 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea.....	10 13	336 28	1837	16 59 w.	.....	17.0 w.	.....	.....	.....	.....	.....	.....	Du Petit Thouars.
At sea.....	14 56	336 28	1840	16 26 w.	.....	16.4 w.	.....	.....	.....	.....	.....	.....	Ross.
Porto Praya .....	14 54	336 30	1822	15 00 w.	.....	15.0 w.	45 26	.....	45.4	45.4 N.	8.93	.....	Owen.
			1822	.....	.....	.....	45 45	.....	45.8		.....	.....	Sabine.
			1826	18 30 w.	.....	18.5 w.	.....	.....	.....		.....	.....	Dumont d'Urville.
			1826	.....	.....	.....	.....	.....	.....		.....	.....	King.
			1836	16 30 w.	.....	16.5 w.	45 46	.....	45.8		8.82	.....	FitzRoy.
			1840	16 26 w.	.....	16.4 w.	45 25	.....	45.4		8.66	.....	Ross.
			1840	.....	.....	.....	45 19	.....	45.3		8.65	.....	Crozier.
			1843	18 12 w.	.....	18.2 w.	44 52	.....	44.9		.....	.....	Belcher.
At sea.....	13 36	336 36	1846	17 04 w.	.....	17.1 w.	.....	.....	.....	.....	.....	.....	Bérard.
At sea (10 observations)	17 45	336 47	1847	18 16 w.	.....	18.3 w.	.....	.....	.....	.....	.....	.....	Stanley.
At sea (8 observations)	12 17	336 48	1847	14 58 w.	.....	15.0 w.	.....	.....	.....	.....	.....	.....	Stanley.
At sea.....	17 50	336 50	1832	17 06 w.	.....	17.1 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea.....	17 10	336 55	1840	.....	.....	.....	47 52	.....	47.9 N.	8.72	.....	8.72	Ross.
At sea.....	19 50	336 56	1826	18 30 w.	.....	18.5 w.	.....	.....	.....	.....	.....	.....	Lütke.
At sea (2 observations)	11 44	336 58	1837	17 16 w.	.....	17.3 w.	.....	.....	.....	.....	.....	.....	Du Petit Thouars.
At sea.....	12 37	337 11	1826	14 15 w.	.....	14.3 w.	.....	.....	.....	.....	.....	.....	D'Urville.
At sea (4 observations)	12 42	337 13	1846	17 07 w.	.....	17.1 w.	.....	.....	.....	.....	.....	.....	Bérard.
At sea.....	16 01	337 26	1838	.....	.....	.....	44 33	.....	44.6 N.	.....	.....	.....	Stanley.
At sea.....	19 06	337 43	1832	17 39 w.	.....	17.7 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea (4 observations)	12 38	337 44	1850	18 08 w.	.....	18.1 w.	.....	.....	.....	.....	.....	.....	Dayman.
At sea.....	18 42	337 50	1839	17 58 w.	.....	18.0 w.	.....	.....	.....	.....	.....	.....	Ross.
At sea.....	19 31	338 03	1832	18 06 w.	.....	18.1 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea.....	19 24	338 06	1850	16 03 w.	.....	16.1 w.	.....	.....	.....	.....	.....	.....	Dayman.
At sea.....	10 08	338 07	1840	.....	.....	.....	49 47	.....	49.8 N.	8.77	.....	8.77	Ross.
At sea.....	13 43	338 18	1843	.....	.....	.....	41 51	.....	41.9 N.	.....	.....	.....	Belcher.
At sea (3 observations)	10 41	338 32	1837	16 15 w.	.....	16.3 w.	.....	.....	.....	.....	.....	.....	Bonite.



## NORTH EQUATORIAL ZONE II.—Lat. 10° N. to 20° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			Observers.
				Ob- served.	Correction to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	
At sea (2 observations)	12 23	339 10	1836	16 54 w.	.....	16·9 w.	.....	.....	.....	.....	.....	.....	Bonite. Belcher. Bonite. Belcher.
At sea.....	11 53	339 37	1843	.....	.....	.....	39 27	.....	39·5 N.	.....	.....	.....	
At sea (2 observations)	18 16	339 54	1836	19 48 w.	.....	19·8 w.	.....	.....	.....	.....	.....	.....	
At sea.....	10 35	340 26	1843	15 35 w.	.....	15·6 w.	.....	.....	.....	.....	.....	.....	
At sea.....	10 55	340 28	1845	.....	.....	.....	35 23	.....	35·4 N.	.....	.....	.....	Belcher. Denham. Sabine. Owen.
At sea.....	12 52	340 50	1846	19 04 w.	.....	19·1 w.	.....	.....	.....	.....	.....	.....	
Gambia River .....	13 08	343 27	1822	.....	.....	.....	40 23	.....	40·4 } 40·4 N.	8·55	.....	.....	
			1826	17 54 w.	.....	17·9 w. } 17·9 w.	.....	.....	.....	.....	.....	8·55	
Guancho.....	11 40	344 15	1846	19 12 w.	.....	19·2 w.	.....	.....	.....	.....	.....	.....	Denham. Denham. Owen. Denham.
Bulama.....	11 33	344 21	1846	19 10 w.	.....	19·2 w.	.....	.....	.....	.....	.....	.....	
Bissao.....	11 52	344 23	1826	18 11 w.	.....	18·2 w.	.....	.....	.....	.....	.....	.....	
			1846	20 13 w.	.....	20·2 w. } 19·2 w.	.....	.....	.....	.....	.....	.....	

## NORTH EQUATORIAL ZONE III.—LATITUDE 20° TO 30° N.

*Authorities.*

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Haines .....		
Brown .....		
Blosseville .....		
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Campbell .....		
Fisher .....		
Boileau .....		
Broun .....		
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Gerard .....		
Blosseville .....	{	Reports of the Great Trigonometrical Survey of India (Dehra Doon).
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 Beechey ..... }  
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 Berghaus ..... }  
 Milne ..... }  
 Austin ..... } L. S. Kämtz, MSS.  
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 Emory ..... } United States Coast-Survey Reports.  
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 Bethune ..... }  
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- Sabine ..... } Pendulum and other Experiments (London, 1825).

## NORTH EQUATORIAL ZONE III.—Lat. 20° N. to 30° N.

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.	
Mourzouk .....	25 52	14 12	1853	13 05 w.	.....	13.1 w.	38 38	.....	38.6 N.	.....	.....	.....	Vogel.
Tejeri .....	24 19	14 52	1854	13 09 w.	.....	13.2 w.	.....	.....	.....	.....	.....	.....	Vogel.
Gastrone .....	24 53	15 10	1854	13 13 w.	.....	13.2 w.	.....	.....	.....	.....	.....	.....	Vogel.
Sokna .....	29 15	15 30	1853	.....	.....	.....	43 22	.....	43.4 N.	.....	.....	.....	Vogel.
Sinai .....	28 33	34 10	1847	.....	.....	.....	36 41	.....	36.7 N.	.....	.....	.....	D'Hericourt.
Ras Mahomet .....	27 43	34 22	1832	9 48 w.	.....	9.8 w.	.....	.....	.....	.....	.....	.....	Becquerel.
Kassance Island .....	24 58	37 12	1832	7 51 w.	.....	7.9 w.	.....	.....	.....	.....	.....	.....	Becquerel.
Grane .....	29 23	47 58	1825	6 00 w.	.....	6.0 w.	.....	.....	.....	.....	.....	.....	Haines.
Telodji Island .....	29 27	48 16	1824	5 22 w.	.....	5.4 w.	.....	.....	.....	.....	.....	.....	Haines.
Manamah .....	29 58	48 25	1827	4 50 w.	.....	4.8 w.	.....	.....	.....	.....	.....	.....	Haines.
Karnak .....	29 10	50 15	1824	4 35 w.	.....	4.6 w.	.....	.....	.....	.....	.....	.....	Haines.
Jask Bay .....	25 48	57 45	1829	3 20 w.	.....	3.3 w.	.....	.....	.....	.....	.....	.....	Haines.
Gutter Bay .....	25 10	62 02	1829	1 20 w.	.....	1.3 w.	.....	.....	.....	.....	.....	.....	Haines.
Karráchee .....	24 46	67 01	1848	0 17 E.	.....	0.3 E.	.....	.....	.....	.....	.....	.....	Fenner.
			1856	0 06 E.	.....	0.1 E.	.....	.....	.....	.....	.....	.....	Schlagintweit.
Vari Creek .....	23 52	67 49	1848	0 12 E.	.....	0.2 E.	.....	.....	.....	.....	.....	.....	Grieve.
Sevan .....	26 25	67 57	1856	0 35 E.	.....	0.6 E.	.....	.....	.....	.....	.....	.....	Schlagintweit.
Mouth of the Tir River .....	23 38	68 05	1848	0 24 E.	.....	0.4 E.	.....	.....	.....	.....	.....	.....	Grieve.
Near Moinda Point .....	23 36	68 22	1848	0 51 E.	.....	0.9 E.	.....	.....	.....	.....	.....	.....	Grieve.
Neráni Creek .....	23 23	68 25	1848	0 13 E.	.....	0.3 E.	.....	.....	.....	.....	.....	.....	Grieve.
Lalchatta Tomb .....	28 47	68 36	1848	1 12 E.	.....	1.2 E.	.....	.....	.....	.....	.....	.....	Grieve.
Yáku Swamp .....	23 07	68 37	1848	0 29 E.	.....	0.5 E.	.....	.....	.....	.....	.....	.....	Grieve.
Shikarpur .....	27 55	68 52	1856	.....	.....	.....	36 02	.....	36.0 N.	9.89	.....	9.89	Schlagintweit.
Abdullah Shah .....	22 25	69.00	1848	0 43 E.	.....	0.7 E.	.....	.....	.....	.....	.....	.....	Campbell.
Bhuj .....	23 17	69 40	1856	0 12 E.	.....	0.2 E.	28 25	.....	28.4 N.	9.11	.....	9.11	Schlagintweit.
Tomb .....	22 58	70 01	1848	1 27 E.	.....	1.5 E.	.....	.....	.....	.....	.....	.....	Campbell.
Rajkot .....	22 13	71 07	1856	0 13 E.	.....	0.2 E.	.....	.....	.....	.....	.....	.....	Schlagintweit.
Surat .....	21 06	72 57	1848	1 00 E.	.....	1.0 E.	.....	.....	.....	.....	.....	.....	Grieve.
Mean of 8 stations in Rajvara .....	27 00	75 00	1835	0 52 E.	.....	0.9 E.	.....	.....	.....	.....	.....	.....	Boileau.
Chickulda .....	21 24	75 56	1867	1 54 E.	.....	1.9 E.	25 42	.....	25.7 N.	8.86	.....	8.86	Basevi.
Kurnal .....	29 38	76 46	1828	1 31 E.	.....	1.5 E.	.....	.....	.....	.....	.....	.....	Broun.
Bhopal .....	23 16	77 22	1828	0 39 E.	.....	0.7 E.	.....	.....	.....	.....	.....	.....	Hodgson.
Sironi .....	24 09	77 39	1828	0 57 E.	.....	1.0 E.	.....	.....	.....	.....	.....	.....	Hodgson.
Badgaon .....	20 44	77 39	1868	0 55 E.	.....	0.9 E.	22 41	.....	22.7 N.	8.64	.....	8.64	Basevi.
Kalianpur .....	24 07	77 42	1867	1 49 E.	.....	1.8 E.	30 18	.....	30.3 N.	9.09	.....	9.09	Basevi.
Ehmadpur .....	23 36	77 43	1867	2 06 E.	.....	2.1 E.	29 54	.....	29.9 N.	8.95	.....	8.95	Basevi.
Meerut .....	29 00	77 44	1856	1 48 E.	0 14 W.	1.6 E.	.....	.....	.....	.....	.....	.....	Schlagintweit.
			1867	2 46 E.	0 25 W.	2.4 E.	39 07	-0 25	38.7 N.	9.55	.....	9.55	Basevi.
Pahargurk .....	24 56	77 44	1867	2 10 E.	0 25 W.	1.8 E.	31 59	.....	32.0 N.	9.09	.....	9.09	Basevi.
Dholpur .....	26 45	77 55	1823	1 25 E.	0 19 E.	1.7 E.	.....	.....	.....	.....	.....	.....	Hodgson.
			1823	1 25 E.	0 19 E.	1.7 E.	.....	.....	.....	.....	.....	.....	Gerard.
Agra .....	27 09	78 02	1823	1 23 E.	0 19 E.	1.7 E.	.....	.....	.....	.....	.....	.....	Hodgson.
			1856	1 20 E.	0 14 W.	1.1 E.	.....	.....	.....	.....	.....	.....	Schlagintweit.
			1867	2 46 E.	0 25 W.	2.4 E.	36 01	.....	36.0	9.34	.....	.....	Basevi.
Aligárh .....	27 54	78 04	1856	1 37 E.	0 14 W.	1.4 E.	36 59	.....	37.0 N.	.....	.....	.....	Schlagintweit.
Sagér .....	23 50	78 43	1856	.....	.....	.....	29 59	.....	30.0 N.	.....	.....	.....	Schlagintweit.
Nágrí .....	20 25	78 53	1856	.....	.....	.....	22 50	.....	22.8 N.	9.37	.....	9.37	Schlagintweit.
Ramnuggér .....	29 24	79 10	1869	.....	.....	.....	40 06	-0 27	39.7 N.	9.60	.....	9.60	Montgomerie.
Nynsee Tal .....	29 23	79 30	1856	2 28 E.	0 14 W.	2.2 E.	38 34	-0 14	38.3	9.86	.....	9.86	Schlagintweit.
			1869	.....	.....	.....	39 50	-0 27	39.4	9.58	.....	9.58	Montgomerie.
Nauagau .....	25 56	79 32	1823	1 19 E.	0 19 E.	1.6 E.	.....	.....	.....	.....	.....	.....	Hodgson.
Bheem Tal .....	29 21	79 35	1869	.....	.....	.....	40 08	-0 27	39.7 N.	.....	.....	.....	Montgomerie.
Bagesir .....	29 50	79 48	1869	.....	.....	.....	40 53	-0 27	40.4 N.	9.72	.....	9.72	Montgomerie.
Jáblpur .....	23 10	79 56	1856	1 11 E.	0 14 W.	1.0 E.	28 31	.....	28.5 N.	9.86	.....	9.86	Schlagintweit.
Lukhnów .....	26 51	80 56	1856	2 37 E.	0 14 W.	2.4 E.	35 19	.....	35.3 N.	10.02	.....	10.02	Schlagintweit.
Benáres .....	25 18	83 00	1856	1 50 E.	0 14 W.	1.6 E.	32 41	.....	32.7 N.	9.29	.....	9.29	Schlagintweit.
Sigauli .....	26 47	84 44	1856	.....	.....	.....	35 40	.....	35.7 N.	.....	.....	.....	Schlagintweit.
Patna .....	25 37	85 08	1856	1 54 E.	0 14 W.	1.7 E.	33 33	.....	33.6 N.	9.22	.....	9.22	Schlagintweit.
Kathmándu .....	27 42	85 12	1856	2 36 E.	0 14 W.	2.4 E.	37 34	.....	37.6 N.	8.73	.....	8.73	Schlagintweit.
Kissengáni .....	26 06	87 56	1856	2 20 E.	.....	2.3 E.	35 12	.....	35.2 N.	8.19	.....	8.19	Schlagintweit.
Falut .....	27 06	87 59	1856	2 25 E.	.....	2.4 E.	36 55	.....	36.9 N.	8.32	.....	8.32	Schlagintweit.

NORTH EQUATORIAL ZONE III.—Lat. 20° N. to 30° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			Observers.
				Ob- served.	Correction to Epoch 1842-5.	Corrected.	Ob- served.	Cor. to Epoch 1842-5.	Corrected.	Ob- served.	Cor. to Epoch 1842-5.	Corrected.	
Tonglo .....	27 02	88 04	1856	2 31 E.	.....	2-5 E.	36 25	.....	36-4 N.	8-54	.....	8-54	Schlagintweit.
Darjeeling .....	27 03	88 15	1856	2 48 E.	.....	2-8 E.	36 33	.....	36-6 N.	8-15	.....	8-15	Schlagintweit.
Diamond Harbour .....	22 11	88 11	1837	3 06 E.	.....	3-1 E.	26 38	.....	26-6 N.	.....	.....	.....	Bonite.
Calcutta.....	22 33	88 20	1827	2 38 E.	.....	2-6 E.	.....	.....	.....	.....	.....	.....	Blosseville.
			1828	2 41 E.	.....	2-7 E.	.....	.....	.....	.....	.....	.....	Hodgson.
			1829	2 24 E.	.....	2-4 E.	.....	.....	.....	.....	.....	.....	Hodgson.
			1829	2 32 E.	.....	2-5 E.	.....	.....	.....	.....	.....	.....	Hodgson.
			1833	2 38 E.	.....	2-6 E.	26 33	.....	26-6	.....	.....	.....	Blosseville.
			1856	2 25 E.	.....	2-4 E.	28 15	.....	28-3	9-11	.....	.....	Schlagintweit.
Chandernagore .....	22 50	88 23	1833	2 40 E.	.....	2-7 E.	26 47	.....	26-8 N.	.....	.....	.....	Blosseville.
Rampur Bolea .....	24 22	88 34	1856	.....	.....	.....	32 01	.....	32-0 N.	7-90	.....	7-90	Schlagintweit.
Kulna .....	22 46	89 37	1856	2 30 E.	.....	2-5 E.	29 20	.....	29-3 N.	.....	.....	.....	Schlagintweit.
Surajganj .....	24 23	89 43	1856	.....	.....	.....	32 04	.....	32-1 N.	.....	.....	.....	Schlagintweit.
Dhaka .....	23 43	90 20	1856	2 21 E.	.....	2-4 E.	31 01	.....	31-0 N.	.....	.....	.....	Schlagintweit.
Chérra Púnji.....	25 14	91 41	1856	2 20 E.	.....	2-3 E.	33 37	.....	33-6 N.	9-45	.....	9-45	Schlagintweit.
Gohatti .....	26 06	91 44	1856	2 00 E.	.....	2-0 E.	35 19	.....	35-3 N.	9-54	.....	9-54	Schlagintweit.
Silbét .....	24 53	91 47	1825	2 29 E.	.....	2-5 E.	.....	.....	.....	.....	.....	.....	Fisher.
Udelguri .....	26 46	91 57	1856	2 36 E.	.....	2-6 E.	36 28	.....	36-5 N.	9-62	.....	9-62	Schlagintweit.
Naragin .....	26 54	92 06	1856	4 43 E.	.....	4-7 E.	37 08	.....	37-1 N.	9-11	.....	9-11	Schlagintweit.
Tezpur .....	26 35	92 47	1856	0 23 E.	.....	0-4 E.	37 15	.....	37-3 N.	9-75	.....	9-75	Schlagintweit.
Dibrugarh .....	27 32	94 58	1856	0 46 E.	.....	0-8 E.	38 30	.....	38-5 N.	9-88	.....	9-88	Schlagintweit.
Macao.....	22 11	113 30	1827	1 58 E.	0 15 W.	1-7 E.	29 57	.....	30-0	.....	.....	.....	Beechey.
			1830	1 30 E.	0 12 W.	1-3 E.	.....	.....	.....	.....	.....	.....	Laplace.
			1837	1 00 E.	0 05 W.	0-9 E.	30 32	.....	30-5	.....	.....	.....	Darondeau.
			1843	0 35 E.	.....	0-6 E.	30 01	.....	30-0	8-98	.....	.....	Belcher.
Sampanchow .....	22 43	113 40	1841	0 22 E.	.....	0-4 E.	30 26	.....	30-4 N.	9-03	.....	9-03	Belcher.
At sea .....	21 57	114 08	1836	1 04 E.	.....	1-1 E.	.....	.....	.....	.....	.....	.....	Bonite.
Hong Kong .....	22 16	114 10	1843	0 37 E.	.....	0-6 E.	30 03	.....	30-1	8-95	.....	.....	Belcher.
			1851	.....	.....	.....	29 40	.....	29-7	.....	.....	.....	Collinson.
			1858	.....	.....	.....	31 08	.....	31-1	8-95	.....	.....	Novara.
Kooloon Point .....	22 17	114 10	1855	0 30 E.	.....	0-6 E.	.....	.....	.....	.....	.....	.....	Richards.
At sea .....	20 14	114 46	1843	.....	.....	.....	26 38	.....	26-6 N.	.....	.....	.....	Belcher.
Harlem Bay .....	22 34	114 52	1845	0 25 E.	.....	0-4 E.	.....	.....	.....	.....	.....	.....	Collinson.
Heichichin.....	22 50	115 45	1845	1 32 E.	.....	1-5 E.	.....	.....	.....	.....	.....	.....	Collinson.
Capchi .....	22 50	116 04	1844	0 36 E.	.....	0-6 E.	.....	.....	.....	.....	.....	.....	Collinson.
Chinhæ .....	23 00	116 31	1844	0 01 E.	.....	0-0	.....	.....	.....	.....	.....	.....	Collinson.
Namocce .....	23 26	116 54	1844	0 47 E.	.....	0-8 E.	.....	.....	.....	.....	.....	.....	Collinson.
Tongahan .....	23 43	117 22	1844	0 38 E.	.....	0-6 E.	.....	.....	.....	.....	.....	.....	Collinson.
Red Bay.....	24 02	117 54	1844	0 31 E.	.....	0-5 E.	.....	.....	.....	.....	.....	.....	Collinson.
Amoy .....	24 27	118 03	1841	0 45 E.	.....	0-8 E.	.....	.....	.....	.....	.....	.....	Collinson.
Horton Bay .....	24 32	118 32	1844	1 30 E.	.....	1-5 E.	.....	.....	.....	.....	.....	.....	Collinson.
Chinchui .....	24 49	118 41	1844	0 25 E.	.....	0-4 E.	.....	.....	.....	.....	.....	.....	Collinson.
At sea (4 observations)	24 07	118 51	1858	0 12 W.	0 16 E.	0-1 E.	.....	.....	.....	.....	.....	.....	Novara.
Pescadores.....	23 30	119 30	1843	0 29 E.	.....	0-5 E.	.....	.....	.....	.....	.....	.....	Collinson.
At sea (2 observations)	24 11	119 37	1828	1 18 E.	0 14 W.	1-1 E.	.....	.....	.....	.....	.....	.....	Lütke.
Temple Point, R. Mina	26 08	119 38	1855	1 08 W.	0 13 E.	0-9 W.	.....	.....	.....	.....	.....	.....	Richards.
River Mina .....	26 09	119 40	1843	0 30 W.	.....	0-5 W.	.....	.....	.....	.....	.....	.....	Collinson.
Haitan Strait .....	25 22	119 45	1843	0 16 E.	.....	0-3 E.	.....	.....	.....	.....	.....	.....	Collinson.
Samsah .....	26 26	119 55	1844	1 10 E.	.....	1-2 E.	.....	.....	.....	.....	.....	.....	Collinson.
Whitedogs.....	25 58	119 57	1843	0 58 E.	.....	1-0 E.	.....	.....	.....	.....	.....	.....	Collinson.
Port in Formosa .....	23 06	120 05	1855	0 34 W.	0 13 E.	0-4 W.	.....	.....	.....	.....	.....	.....	Richards.
Saracen Point .....	22 36	120 17	1855	0 34 W.	0 13 E.	0-4 W.	.....	.....	.....	.....	.....	.....	Richards.
Pehseangshan .....	26 42	120 23	1843	2 01 E.	.....	2-0 E.	.....	.....	.....	.....	.....	.....	Collinson.
Pehquan.....	27 10	120 32	1844	1 03 E.	.....	1-1 E.	.....	.....	.....	.....	.....	.....	Collinson.
Torshan.....	26 59	120 44	1842	2 26 E.	.....	2-4 E.	.....	.....	.....	.....	.....	.....	Collinson.
Namki .....	27 26	121 06	1842	0 55 E.	.....	0-9 E.	.....	.....	.....	.....	.....	.....	Collinson.
Tongtashan .....	27 48	121 07	1842	1 54 E.	.....	1-9 E.	.....	.....	.....	.....	.....	.....	Collinson.
Samasama .....	22 38	121 26	1845	0 19 E.	.....	0-3 E.	30 45	.....	30-8 N.	.....	.....	.....	Belcher.
Ningpo .....	29 53	121 33	1842	2 55 E.	.....	2-9 E.	.....	.....	.....	.....	.....	.....	Collinson.
Killon Harbour.....	25 09	121 47	1845	0 40 W.	.....	0-7 W.	.....	.....	.....	.....	.....	.....	Collinson.
St. George .....	29 06	121 54	1842	1 00 E.	.....	1-0 E.	.....	.....	.....	.....	.....	.....	Collinson.
Taichow Isles .....	28 26	121 54	1842	1 24 E.	.....	1-4 E.	.....	.....	.....	.....	.....	.....	Collinson.

## NORTH EQUATORIAL ZONE III.—Lat. 20° N. to 30° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.	
San Miguel, Batan ...	20 28	121 56	1844	0 30 W.	.....	0.5 W.	27 23	.....	27.4 N.	.....	.....	.....	Belcher.
Sherpoo .....	29 13	121 57	1842	1 17 E.	.....	1.3 E.	.....	.....	.....	.....	.....	.....	Collinson.
Tree a top .....	29 42	122 01	1840	1 40 E.	.....	1.7 E.	.....	.....	.....	.....	.....	.....	Collinson.
Kevesan Isles .....	29 57	122 11	1840	1 56 E.	.....	1.9 E.	.....	.....	.....	.....	.....	.....	Collinson.
Hayes .....	29 52	122 14	1840	1 21 E.	.....	1.4 E.	.....	.....	.....	.....	.....	.....	Collinson.
Heishai Isles .....	28 51	122 14	1842	1 52 E.	.....	1.9 E.	.....	.....	.....	.....	.....	.....	Collinson.
Keechee .....	24 25	124 02	1843	1 03 W.	.....	1.1 W.	33 40	.....	33.7 N.	.....	.....	.....	Belcher.
At sea .....	29 34	124 09	1858	1 40 W.	.....	1.7 W.	.....	.....	.....	.....	.....	.....	Novara.
Patchung-san .....	24 21	124 12	1843	1 25 W.	.....	1.4 W.	33 43	.....	33.7 N.	.....	.....	.....	Belcher.
At sea (5 observations)	22 15	124 24	1851	2 20 W.	.....	2.3 W.	.....	.....	.....	.....	.....	.....	Collinson.
Typinsan .....	24 44	125 15	1844	1 23 W.	.....	1.4 W.	34 04	.....	34.1 N.	.....	.....	.....	Belcher.
Loo Choo Islands .....	26 13	127 39	1827	0 41 E.	.....	0.7 E.	36 13	.....	36.2 N.	.....	.....	.....	Belcher.
			1845	1 35 W.	.....	1.6 W.							
			1853	1 00 W.	.....	1.0 W.							
Water Islands .....	29 52	129 48	1845	0 36 W.	.....	0.6 W.	44 52	.....	44.9 N.	.....	.....	.....	Belcher.
			1851	3 24 W.	.....	3.4 W.							
			1858	0 03 W.	.....	0.1 W.							
At sea (5 observations)	22 23	132 25	1851	3 24 W.	.....	3.4 W.	.....	.....	.....	.....	.....	.....	Collinson.
At sea .....	20 47	133 25	1858	0 03 W.	.....	0.1 W.	.....	.....	.....	.....	.....	.....	Novara.
At sea (6 observations)	26 29	138 52	1851	2 00 W.	.....	2.0 W.	.....	.....	.....	.....	.....	.....	Collinson.
At sea (3 observations)	22 08	139 16	1828	0 25 E.	.....	0.4 E.	.....	.....	.....	.....	.....	.....	Lütke.
Port Lloyd .....	27 05	139 54	1827	1 09 E.	.....	1.2 E.	.....	.....	.....	.....	.....	.....	Beechey.
At sea (3 observations)	27 04	141 22	1828	0 01 W.	.....	0.0	.....	.....	.....	.....	.....	.....	Lütke.
Parry Island .....	27 43	142 08	1827	2 37 E.	.....	2.6 E.	.....	.....	.....	.....	.....	.....	Beechey.
Bonin Island .....	27 07	142 24	1828	0 06 W.	.....	0.1 W.	36 48	.....	36.8	37.2 N.	8.64	.....	Lütke.
			1851	0 15 W.	.....	0.3 W.							
			1827	8 40 E.	.....	8.7 E.							
At sea (3 observations)	22 00	161 06	1827	8 40 E.	.....	8.7 E.	37 35	.....	37.6	.....	.....	.....	Collinson.
At sea (7 observations)	27 37	161 29	1827	7 06 E.	.....	7.1 E.	.....	.....	.....	.....	.....	.....	Lütke.
At sea .....	20 10	173 19	1836	11 42 E.	.....	11.7 E.	.....	.....	.....	.....	.....	.....	Bonite.
At sea .....	29 54	183 06	1851	.....	.....	.....	47 04	.....	47.1 N.	.....	.....	.....	Collinson.
At sea (4 observations)	28 35	187 41	1851	13 42 E.	.....	13.7 E.	.....	.....	.....	.....	.....	.....	Collinson.
At sea .....	29 40	191 49	1848	.....	.....	.....	52 28	.....	52.5 N.	.....	.....	.....	Moore.
At sea .....	27 44	193 41	1848	.....	.....	.....	51 45	.....	51.8 N.	.....	.....	.....	Moore.
At sea .....	26 17	195 12	1848	.....	.....	.....	50 43	.....	50.7 N.	.....	.....	.....	Moore.
At sea (2 observations)	24 42	195 41	1851	11 55 E.	.....	11.9 E.	.....	.....	.....	.....	.....	.....	Collinson.
At sea (5 observations)	24 25	197 34	1848	.....	.....	.....	48 46	.....	48.8 N.	.....	.....	.....	Moore.
At sea (2 observations)	27 58	198 09	1853	10 25 E.	.....	10.4 E.	.....	.....	.....	.....	.....	.....	Trollope.
At sea .....	27 36	198 20	1852	11 09 E.	.....	11.2 E.	.....	.....	.....	.....	.....	.....	Crane.
At sea (2 observations)	25 48	199 10	1853	9 44 E.	.....	9.7 E.	.....	.....	.....	.....	.....	.....	Trollope.
At sea (2 observations)	22 23	199 19	1851	6 20 E.	.....	6.3 E.	.....	.....	.....	.....	.....	.....	Collinson.
At sea (2 observations)	24 21	200 12	1852	10 11 E.	.....	10.2 E.	.....	.....	.....	.....	.....	.....	Crane.
At sea (3 observations)	23 58	200 23	1853	.....	.....	.....	41 16	.....	41.3 N.	.....	.....	.....	Trollope.
At sea (2 observations)	23 36	200 25	1853	9 24 E.	.....	9.4 E.	.....	.....	.....	.....	.....	.....	Trollope.
Oahu .....	21 17	202 00	1824	9 52 E.	.....	9.9 E.	41 39	.....	41.5 N.	.....	.....	.....	Byron.
			1827	10 26 E.	.....	10.4 E.							
			1830	.....	.....	.....							
			1837	10 39 E.	.....	10.7 E.							
Honolulu .....	21 19	202 18	1838	10 39 E.	.....	10.7 E.	41 35	.....	41.6	42.1 N.	8.66	.....	Beechey.
			1836	10 11 E.	.....	10.2 E.	41 17	.....	41.3				
			1837	10 00 E.	.....	10.0 E.	42 04	.....	42.1				
			1840	9 17 E.	.....	9.3 E.	.....	.....	.....				
			1852	9 10 E.	.....	9.2 E.	.....	.....	.....				
Mowi .....	20 52	203 19	1859	9 42 E.	.....	9.7 E.	.....	.....	.....				
			1817	8 49 E.	.....	8.8 E.	41 39	.....	41.6 N.	10.70	.....	10.70	Bonite.
			1838	8 46 E.	.....	8.8 E.	.....	.....	.....				
			1848	.....	.....	.....	42 36	.....	42.6 N.				
			1831	8 28 E.	.....	8.5 E.	.....	.....	.....				
			1828	7 50 E.	.....	7.8 E.	.....	.....	.....				
At sea .....	25 21	213 56	1827	13 00 E.	.....	13.0 E.	47 38	.....	47.6 N.	.....	.....	.....	Prussian ships.
At sea (2 observations)	26 58	216 42	1827	11 47 E.	.....	11.8 E.	.....	.....	.....	.....	.....	.....	Moore.
At sea .....	23 26	218 02	1827	11 06 E.	.....	11.1 E.	46 03	.....	46.1 N.	9.43	.....	9.43	Prussian ships.
At sea (2 observations)	22 33	218 20	1827	11 06 E.	.....	11.1 E.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea .....	21 19	218 57	1827	10 00 E.	.....	10.0 E.	43 08	.....	43.1 N.	.....	.....	.....	Lütke.
At sea (2 observations)	21 10	237 50	1830	7 34 E.	.....	7.6 E.	42 15	.....	42.3 N.	9.42	.....	9.42	Erman.

## NORTH EQUATORIAL ZONE III.—Lat. 20° N. to 30° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			Observers.
				Observed.	Correction to Epoch 1842·5.	Corrected.	Observed.	Cor. to Epoch 1842·5.	Corrected.	Observed.	Cor. to Epoch 1842·5.	Corrected.	
At sea (2 observations)	23 06	238 07	1830	8 10 E.	.....	8·2 E.	44 48	.....	44·8 N.	9·62	.....	9·62	Erman.
At sea (3 observations)	28 53	238 32	1830	9 00 E.	.....	9·0 E.	53 14	.....	53·2 N.	10·50	.....	10·50	Erman.
At sea (2 observations)	25 40	238 40	1830	.....	.....	.....	48 50	.....	48·8 N.	10·07	.....	10·07	Erman.
At sea.....	26 36	239 02	1830	.....	.....	.....	50 14	.....	50·2 N.	10·23	.....	10·23	Erman.
At sea (3 observations)	27 24	239 02	1830	11 50 E.	.....	11·8 E.	.....	.....	.....	.....	.....	.....	Erman.
At sea (3 observations)	28 09	239 04	1830	10 04 E.	.....	10·1 E.	52 09	.....	52·2 N.	10·37	.....	10·37	Erman.
St. Bartholomew .....	27 40	245 07	1839	10 46 E.	.....	10·8 E.	51 41	.....	51·7 N.	11·20	.....	11·20	Belcher.
Magdalena Bay .....	24 38	247 53	1837	8 17 E.	.....	8·3 E.	50 43	.....	50·7	.....	.....	.....	Vénus.
			1839	9 15 E.	.....	9·4 E.	46 34	.....	46·6 } 48·6 N.	10·66	.....	10·75	Belcher.
			1866	10 41 E.	.....	10·7 E.	48 32	.....	48·5	10·84	.....	.....	Harkness.
St. Luke's Bay .....	22 52	250 07	1839	8 38 E.	.....	8·6 E.	45 39	.....	45·7 N.	10·63	.....	10·63	Belcher.
Mazatlan .....	23 11	253 36	1828	9 48 E.	.....	9·8 E.	.....	.....	.....	.....	.....	.....	Beechey.
			1837	8 33 E.	.....	8·6 E.	47 45	.....	47·7 } 47·2 N.	.....	.....	10·75	Vénus.
			1839	9 24 E.	.....	9·4 E.	46 39	.....	46·7	10·75	.....	.....	Belcher.
San Blas .....	21 32	254 44	1837	9 09 E.	.....	9·2 E.	46 09	.....	46·2	.....	.....	10·66	Vénus.
			1838	8 47 E.	.....	8·8 E.	44 36	.....	44·6 } 45·4 N.	10·66	.....	.....	Belcher.
Presidio del Norte ...	29 34	255 35	1852	10 16 E.	.....	10·3 E.	55 41	.....	55·7 N.	.....	.....	.....	Emory.
Eagle Pass .....	28 42	259 30	1852	10 01 E.	.....	10·0 E.	55 31	.....	55·5 N.	.....	.....	.....	Emory.
Fort M'Intosh .....	27 30	259 55	1852	10 00 E.	.....	10·0 E.	54 07	.....	54·1 N.	.....	.....	.....	Emory.
Ringgold's Barracks...	26 23	261 17	1853	9 15 E.	.....	9·3 E.	52 27	.....	52·5 N.	.....	.....	.....	Emory & U. S. C. S.
Rio Grande .....	25 57	262 52	1853	9 01 E.	.....	9·0 E.	52 24	.....	52·4 N.	.....	.....	.....	U. S. Coast Survey.
Jupiter .....	28 55	264 40	1853	9 09 E.	.....	9·2 E.	57 12	.....	57·2 N.	12·15	.....	12·15	U. S. Coast Survey.
East Base .....	29 13	265 05	1853	9 05 E.	.....	9·1 E.	57 42	.....	57·7 N.	12·15	.....	12·15	U. S. Coast Survey.
Dollar Point .....	29 26	265 07	1848	8 57 E.	.....	9·0 E.	57 55	.....	57·9 N.	12·31	.....	12·31	U. S. Coast Survey.
At sea (2 observations)	21 08	265 13	1839	11 11 E.	.....	11·2 E.	.....	.....	.....	.....	.....	.....	Behard.
Mouth of Sabine River	29 44	266 08	1840	8 40 E.	.....	8·7 E.	58 33	.....	58·6 N.	.....	.....	.....	Graham.
Sabine River .....	29 44	266 08	1840	8 40 E.	.....	8·7 E.	.....	.....	.....	.....	.....	.....	U. S. Coast Survey.
Côte Blanche .....	29 44	268 18	1860	8 22 E.	.....	8·4 E.	59 09	.....	59·2 N.	12·42	.....	12·42	U. S. Coast Survey.
Arenas .....	22 07	268 36	.....	.....	.....	.....	49 32	.....	49·5 N.	.....	.....	.....	Barnett.
Isle Dernière .....	29 02	269 04	1853	8 19 E.	.....	8·3 E.	.....	.....	.....	.....	.....	.....	U. S. Coast Survey.
New Orleans .....	29 57	269 56	1834	.....	.....	.....	60 15	.....	60·3	.....	.....	.....	Nicollet.
			1857	8 00 E.	.....	8·0 E.	59 30	.....	59·5 } 59·9 N.	12·52	.....	12·50	Friesach.
			1858	7 52 E.	.....	7·9 E.	59 47	.....	59·8	12·49	.....	.....	U. S. Coast Survey.
Fort Livingstone .....	29 17	270 11	1853	7 38 E.	.....	7·6 E.	.....	.....	.....	.....	.....	.....	U. S. Coast Survey.
Light House .....	28 59	270 39	1840	.....	.....	.....	58 46	.....	58·8 N.	.....	.....	.....	Graham.
Cubitt .....	29 10	270 46	1859	7 32 E.	.....	7·5 E.	58 54	.....	58·9 N.	12·35	.....	12·35	U. S. Coast Survey.
Barrel Key .....	29 54	270 53	1858	.....	.....	.....	59 48	.....	59·8 N.	12·37	.....	12·37	U. S. Coast Survey.
S. E. Pass .....	29 05	270 58	1859	.....	.....	.....	58 45	.....	58·8 N.	12·35	.....	12·35	U. S. Coast Survey.
Passe à l'outre .....	29 11	270 59	1860	7 30 E.	.....	7·5 E.	58 47	.....	58·8 N.	12·33	.....	12·33	U. S. Coast Survey.
At sea (4 observations)	21 42	271 26	1839	9 52 E.	.....	9·9 E.	.....	.....	.....	.....	.....	.....	Behard.
At sea (4 observations)	21 50	271 30	1838	9 19 E.	.....	9·3 E.	.....	.....	.....	.....	.....	.....	Behard.
Contoy Island .....	21 32	273 11	1838	.....	.....	.....	49 48	.....	49·8	.....	.....	.....	Barnett.
Women's Islands .....	21 12	273 20	1831	6 10 E.	.....	6·2 E.	.....	.....	.....	.....	.....	.....	Lawrence.
			1844	6 40 E.	.....	6·7 E.	.....	.....	.....	.....	.....	.....	Lawrence.
St. Joseph .....	29 52	274 37	1843	6 24 E.	.....	6·4 E.	.....	.....	.....	.....	.....	.....	U. S. Coast Survey.
Cape San Blas .....	29 40	274 38	1854	6 07 E.	.....	6·1 E.	.....	.....	.....	.....	.....	.....	U. S. Coast Survey.
St. George's Island ...	29 37	274 57	1853	6 02 E.	.....	6·0 E.	.....	.....	.....	.....	.....	.....	U. S. Coast Survey.
Apalichola .....	29 43	275 01	1860	6 12 E.	.....	6·2 E.	60 19	.....	60·3 N.	12·45	.....	12·45	U. S. Coast Survey.
C. San Antonio .....	21 52	275 02	1847	6 00 E.	.....	6·0 E.	.....	.....	.....	.....	.....	.....	Barnett.
Dog Island .....	29 47	275 24	1853	5 51 E.	.....	5·9 E.	.....	.....	.....	.....	.....	.....	U. S. Coast Survey.
Depôt Key .....	29 07	276 57	1852	5 20 E.	.....	5·3 E.	59 55	.....	59·9 N.	12·25	.....	12·25	U. S. Coast Survey.
Tortugas .....	24 28	277 07	1843	6 15 E.	.....	6·3 E.	.....	.....	.....	.....	.....	.....	U. S. Coast Survey.
Egmont Key .....	27 36	277 15	1843	5 25 E.	.....	5·4 E.	.....	.....	.....	.....	.....	.....	U. S. Coast Survey.
At sea (3 observations)	23 47	277 30	1839	7 38 E.	.....	7·6 E.	.....	.....	.....	.....	.....	.....	Behard.
Havannah .....	23 09	277 38	1822	.....	.....	.....	51 55	.....	51·9	11·25	.....	.....	Sabine.
			1857	5 15 E.	.....	5·3 E.	.....	.....	52·0 } 52·0 N.	.....	.....	11·25	U. S. Coast Survey.
			1857	5 18 E.	.....	5·3 E.	52 00	.....	52·0	11·25	.....	.....	Friesach.
Sand Key .....	24 27	278 07	1849	5 29 E.	.....	5·5 E.	54 26	.....	54·4 N.	11·62	.....	11·62	U. S. Coast Survey.
Key West .....	24 33	278 12	1850	4 46 E.	.....	4·8 E.	.....	.....	.....	.....	.....	.....	U. S. Coast Survey.
			1860	4 51 E.	.....	4·9 E.	54 39	.....	54·7 N.	11·66	.....	11·66	U. S. Coast Survey.
At sea .....	28 22	279 35	1841	4 57 E.	.....	5·0 E.	.....	.....	.....	.....	.....	.....	Barnett.
Cape Florida .....	25 40	279 51	1850	4 25 E.	.....	4·4 E.	56 13	.....	56·2 N.	11·90	.....	11·90	U. S. Coast Survey.

NORTH EQUATORIAL ZONE III.—Lat. 20° N. to 30° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			Observers.
				Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842.5.	Corrected.	
At sea.....	29 17	280 24	1841	4 52 E.	.....	4.9 E.	.....	.....	.....	.....	.....	.....	Barnett.
Nassau .....	25 05	282 39	1839	3 07 E.	.....	3.1 E.	.....	.....	.....	.....	.....	.....	Milne.
			1841	.....	.....	.....	56 13	55.2	56.3 N.	.....	.....	.....	Barnett.
			1843	.....	.....	.....	56 23	56.4	.....	.....	.....	.....	Barnett.
St. Jago (Cuba).....	20 00	283 57	1837	3 39 E.	.....	3.7 E.	.....	.....	.....	.....	.....	.....	Milne.
San Domingo .....	21 33	284 15	1837	4 02 E.	.....	4.0 E.	.....	.....	.....	.....	.....	.....	Milne.
At sea.....	27 55	285 24	1842	2 07 E.	.....	2.1 E.	.....	.....	.....	.....	.....	.....	Jehenne.
Barracon, Cuba.....	20 22	285 26	1831	3 17 E.	.....	3.3 E.	50 07	50.1 N.	.....	.....	.....	.....	Austin and Foster.
Wadlingo Island .....	23 57	285 35	1831	2 31 E.	.....	2.5 E.	.....	.....	.....	.....	.....	.....	Smith.
Crooked Island.....	22 07	285 36	1831	4 27 E.	.....	4.5 E.	.....	.....	.....	.....	.....	.....	Austin.
			1835	5 13 E.	.....	5.2 E.	.....	.....	.....	.....	.....	.....	Foster.
Crooked Island.....	22 47	285 39	1837	2 34 E.	.....	2.6 E.	.....	.....	.....	.....	.....	.....	Milne.
Cape Maize .....	20 14	285 48	1831	2 27 E.	.....	2.5 E.	.....	.....	.....	.....	.....	.....	Austin.
At sea (3 observations)	28 06	307 46	1849	8 00 W.	.....	8.0 W.	.....	.....	.....	.....	.....	.....	Hudson.
At sea (2 observations)	22 16	309 10	1849	9 30 W.	.....	9.5 W.	.....	.....	.....	.....	.....	.....	Hudson.
At sea (2 observations)	21 27	310 50	1838	5 45 W.	.....	5.8 W.	.....	.....	.....	.....	.....	.....	Behard.
At sea (2 observations)	21 26	316 20	1838	8 20 W.	.....	8.3 W.	.....	.....	.....	.....	.....	.....	Behard.
At sea (3 observations)	28 26	316 26	1839	13 44 W.	.....	13.7 W.	.....	.....	.....	.....	.....	.....	Du Petit Thouars.
At sea (5 observations)	27 19	316 32	1829	8 49 W.	.....	8.8 W.	.....	.....	.....	.....	.....	.....	Rumker.
At sea.....	23 49	316 40	1839	.....	.....	.....	58 47	58.8 N.	10.51	.....	10.51	.....	Sulivan.
At sea.....	21 32	316 43	1839	.....	.....	.....	56 50	56.8 N.	10.23	.....	10.23	.....	Sulivan.
At sea.....	24 43	316 55	1839	.....	.....	.....	59 47	59.8 N.	10.56	.....	10.56	.....	Sulivan.
At sea.....	25 48	317 19	1839	.....	.....	.....	60 50	60.8 N.	10.70	.....	10.70	.....	Sulivan.
At sea.....	28 36	317 30	1839	.....	.....	.....	62 52	62.9 N.	10.89	.....	10.89	.....	Sulivan.
At sea.....	27 10	317 49	1839	.....	.....	.....	62 02	62.0 N.	10.75	.....	10.75	.....	Sulivan.
At sea.....	27 51	318 27	1839	.....	.....	.....	62 27	62.5 N.	10.85	.....	10.85	.....	Sulivan.
At sea (2 observations)	26 05	318 39	1839	12 34 W.	.....	12.6 W.	.....	.....	.....	.....	.....	.....	Du Petit Thouars.
At sea (2 observations)	29 56	318 45	1838	17 06 W.	.....	17.1 W.	.....	.....	.....	.....	.....	.....	Novara.
At sea (4 observations)	27 43	319 02	1851	15 16 W.	.....	15.3 W.	.....	.....	.....	.....	.....	.....	Smith.
At sea.....	26 32	319 46	1846	13 17 W.	.....	13.3 W.	.....	.....	.....	.....	.....	.....	Sulivan.
At sea.....	29 27	319 50	1846	14 24 W.	.....	14.4 W.	.....	.....	.....	.....	.....	.....	Sulivan.
At sea.....	24 00	320 08	1839	11 30 W.	.....	11.5 W.	.....	.....	.....	.....	.....	.....	Du Petit Thouars.
At sea.....	29 34	320 11	1830	.....	.....	.....	63 11	63.2 N.	10.61	.....	10.61	.....	Erman.
At sea (2 observations)	20 57	320 31	1846	11 56 W.	.....	11.9 W.	.....	.....	.....	.....	.....	.....	Sulivan.
At sea.....	22 34	320 56	1839	11 20 W.	.....	11.3 W.	.....	.....	.....	.....	.....	.....	Du Petit Thouars.
At sea (2 observations)	28 07	321 13	1830	14 36 W.	.....	14.6 W.	61 52	61.9 N.	10.45	.....	10.45	.....	Erman.
At sea (6 observations)	27 46	321 26	1829	14 03 W.	.....	14.1 W.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea.....	24 32	321 40	1859	14 59 W.	.....	15.0 W.	.....	.....	.....	.....	.....	.....	Novara.
At sea.....	22 52	321 51	1830	12 12 W.	.....	12.2 W.	.....	.....	.....	.....	.....	.....	Erman.
At sea.....	26 25	321 51	1830	13 05 W.	.....	13.1 W.	60 49	60.8 N.	10.58	.....	10.58	.....	Erman.
At sea (2 observations)	29 42	322 12	1850	15 40 W.	.....	15.7 W.	62 24	62.4 N.	.....	.....	.....	.....	Dayman.
At sea (3 observations)	22 25	322 22	1834	12 08 W.	.....	12.1 W.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea (2 observations)	24 15	322 44	1830	11 26 W.	.....	11.4 W.	58 22	58.4 N.	10.13	.....	10.13	.....	Erman.
At sea (4 observations)	27 00	323 05	1850	16 50 W.	.....	16.8 W.	.....	.....	.....	.....	.....	.....	Dayman.
At sea (4 observations)	27 25	323 21	1829	15 40 W.	.....	15.7 W.	.....	.....	.....	.....	.....	.....	Lütke.
At sea.....	23 00	323 23	1850	12 56 W.	.....	12.9 W.	.....	.....	.....	.....	.....	.....	Smith.
At sea.....	21 04	323 25	1829	12 50 W.	.....	12.8 W.	.....	.....	.....	.....	.....	.....	Lütke.
At sea.....	25 34	323 29	1850	11 00 W.	.....	11.0 W.	.....	.....	.....	.....	.....	.....	Young.
At sea.....	29 15	323 40	1836	17 10 W.	.....	17.2 W.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea.....	22 48	323 54	1838	9 40 W.	.....	9.7 W.	.....	.....	.....	.....	.....	.....	Behard.
At sea.....	28 07	324 00	1836	17 06 W.	.....	17.1 W.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea.....	22 06	324 20	1830	11 30 W.	.....	11.5 W.	.....	.....	.....	.....	.....	.....	Erman.
At sea (4 observations)	24 27	324 30	1850	16 11 W.	.....	16.2 W.	.....	.....	.....	.....	.....	.....	Dayman.
At sea (2 observations)	29 02	324 37	1846	17 43 W.	.....	17.7 W.	.....	.....	.....	.....	.....	.....	Bérard.
At sea (2 observations)	24 10	324 40	1850	.....	.....	.....	57 33	57.6 N.	.....	.....	.....	.....	Dayman.
At sea (2 observations)	21 08	324 47	1830	12 25 W.	.....	12.4 W.	54 44	54.7 N.	9.68	.....	9.68	.....	Erman.
At sea.....	29 53	324 52	1843	16 12 W.	.....	16.2 W.	62 04	62.1 N.	.....	.....	.....	.....	Ross.
At sea.....	26 19	325 00	1843	14 01 W.	.....	14.0 W.	59 10	59.2 N.	.....	.....	.....	.....	Ross.
At sea.....	28 12	325 11	1843	16 30 W.	.....	16.5 W.	60 45	60.8 N.	.....	.....	.....	.....	Ross.
At sea.....	24 53	325 27	1843	15 17 W.	.....	15.3 W.	57 43	57.7 N.	.....	.....	.....	.....	Ross.
At sea (2 observations)	29 17	325 31	1837	17 30 W.	.....	17.5 W.	.....	.....	.....	.....	.....	.....	Bonite.
At sea.....	25 00	325 41	1836	16 05 W.	.....	16.1 W.	.....	.....	.....	.....	.....	.....	FitzRoy.

## NORTH EQUATORIAL ZONE III.—Lat. 20° to 30° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			Observers.
				Ob- served.	Correction to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	
At sea (2 observations)	22 55	325 42	1838	10 05 w.	.....	10·1 w.	.....	.....	.....	.....	.....	.....	Behard.
At sea (3 observations)	28 27	325 53	1846	17 47 w.	.....	17·8 w.	.....	.....	.....	.....	.....	.....	Bérard.
At sea.....	21 49	326 00	1850	13 20 w.	.....	13·3 w.	.....	.....	.....	.....	.....	.....	Young.
At sea.....	23 41	326 11	1836	15 20 w.	.....	15·3 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea.....	25 23	326 35	1846	17 05 w.	.....	17·1 w.	.....	.....	.....	.....	.....	.....	Bérard.
At sea.....	23 36	326 37	1843	13 46 w.	.....	13·8 w.	56 15	.....	56·3 N.	.....	.....	.....	Ross.
At sea (2 observations)	25 57	327 11	1837	16 36 w.	.....	16·6 w.	.....	.....	.....	.....	.....	.....	Bonite.
At sea.....	22 10	327 24	1843	14 53 w.	.....	14·9 w.	54 26	.....	54·4 N.	.....	.....	.....	Ross.
At sea.....	20 40	327 29	1850	16 11 w.	.....	16·2 w.	.....	.....	.....	.....	.....	.....	Dayman.
At sea.....	23 02	327 30	1838	10 30 w.	.....	10·5 w.	.....	.....	.....	.....	.....	.....	Bérard.
At sea.....	20 50	327 51	1843	14 37 w.	.....	14·6 w.	.....	.....	.....	.....	.....	.....	Ross.
At sea.....	21 32	329 31	1837	14 38 w.	.....	14·6 w.	.....	.....	.....	.....	.....	.....	Bonite.
At sea (2 observations)	25 39	331 58	1838	17 02 w.	.....	17·0 w.	.....	.....	.....	.....	.....	.....	Bérard.
At sea (2 observations)	22 51	334 00	1851	19 08 w.	.....	19·1 w.	.....	.....	.....	.....	.....	.....	Collinson.
At sea (5 observations)	22 35	334 38	1830	19 06 w.	.....	19·1 w.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea.....	28 34	336 24	1851	21 25 w.	.....	21·4 w.	.....	.....	.....	.....	.....	.....	Collinson.
At sea (2 observations)	21 29	336 28	.....	.....	.....	.....	47 49	.....	47·8 N.	.....	.....	.....	Trollope.
At sea.....	29 54	336 46	1850	.....	.....	.....	59 44	.....	59·7 N.	.....	.....	.....	Collinson.
At sea (2 observations)	21 33	337 20	1841	.....	.....	.....	49 41	.....	49·7 N.	.....	.....	.....	The John Fleming.
At sea (7 observations)	27 42	337 22	1830	20 16 w.	.....	20·3 w.	.....	.....	.....	.....	.....	.....	Prussian ships.
At sea (2 observations)	23 42	337 44	1841	.....	.....	.....	51 47	.....	51·8 N.	.....	.....	.....	The John Fleming.
At sea (3 observations)	21 58	337 46	1826	17 52 w.	.....	17·9 w.	.....	.....	.....	.....	.....	.....	Dumont d'Urville.
At sea (3 observations)	21 44	337 48	1826	19 52 w.	.....	19·9 w.	.....	.....	.....	.....	.....	.....	Lütke.
At sea (2 observations)	21 24	337 52	1842	19 45 w.	.....	19·8 w.	.....	.....	.....	.....	.....	.....	Bérard.
At sea.....	24 41	337 52	.....	.....	.....	.....	51 02	.....	51·0 N.	.....	.....	.....	Trollope.
At sea.....	22 24	338 29	1842	20 00 w.	.....	20·0 w.	.....	.....	.....	.....	.....	.....	Bérard.
At sea.....	20 22	338 29	1846	19 40 w.	.....	19·7 w.	.....	.....	.....	.....	.....	.....	Denham.
At sea (2 observations)	20 30	338 35	1832	18 22 w.	.....	18·4 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea (2 observations)	22 23	338 36	1846	18 58 w.	.....	19·0 w.	.....	.....	.....	.....	.....	.....	Stanley.
At sea.....	26 31	338 56	.....	.....	.....	.....	52 07	.....	52·1 N.	.....	.....	.....	Trollope.
At sea.....	23 10	339 15	1838	.....	.....	.....	53 26	.....	53·4 N.	9·01	.....	9·01	Sullivan.
At sea.....	20 54	339 18	1840	.....	.....	.....	.....	.....	.....	8·91	.....	8·91	Ross.
At sea.....	21 41	339 20	1832	18 30 w.	.....	18·5 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea.....	21 10	339 35	1837	18 42 w.	.....	18·7 w.	.....	.....	.....	.....	.....	.....	Du Petit Thouars.
At sea (2 observations)	22 20	339 40	1832	18 28 w.	.....	18·5 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea.....	24 26	339 52	1822	16 33 w.	.....	16·6 w.	55 22	.....	55·4 N.	.....	.....	.....	Duperrey.
At sea.....	22 20	340 04	1840	19 25 w.	.....	19·4 w.	.....	.....	.....	8·98	.....	8·98	Ross.
At sea.....	23 09	340 13	1832	18 47 w.	.....	18·8 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea.....	21 50	340 28	1837	20 03 w.	.....	20·1 w.	.....	.....	.....	.....	.....	.....	Du Petit Thouars.
At sea.....	23 38	340 43	1840	19 30 w.	.....	19·5 w.	.....	.....	.....	.....	.....	.....	Ross.
At sea.....	23 40	340 45	1840	.....	.....	.....	52 54	.....	52·9 N.	9·08	.....	9·08	Ross.
At sea.....	23 50	340 51	1840	19 12 w.	.....	19·2 w.	.....	.....	.....	.....	.....	.....	Ross.
At sea (2 observations)	26 58	340 52	1846	20 28 w.	.....	20·5 w.	.....	.....	.....	.....	.....	.....	Denham.
At sea (2 observations)	22 49	340 52	1836	20 35 w.	.....	20·6 w.	.....	.....	.....	.....	.....	.....	Bonite.
At sea.....	29 12	340 56	1846	20 26 w.	.....	20·4 w.	.....	.....	.....	.....	.....	.....	Denham.
At sea.....	24 57	340 57	1838	.....	.....	.....	55 00	.....	55·0 N.	9·09	.....	9·09	Sullivan.
At sea.....	23 31	341 10	1837	19 55 w.	.....	19·9 w.	.....	.....	.....	.....	.....	.....	Du Petit Thouars.
At sea.....	24 31	341 17	1840	20 15 w.	.....	20·3 w.	.....	.....	.....	.....	.....	.....	Ross.
At sea.....	24 40	341 18	1832	19 53 w.	.....	19·9 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea.....	24 51	341 18	1840	.....	.....	.....	53 43	.....	53·7 N.	9·11	.....	9·11	Ross and Crozier.
At sea (5 observations)	26 38	341 23	1826	21 19 w.	.....	21·3 w.	.....	.....	.....	.....	.....	.....	Lütke.
At sea.....	25 33	341 55	1840	21 33 w.	.....	21·6 w.	.....	.....	.....	.....	.....	.....	Ross.
At sea.....	25 26	341 58	1832	19 50 w.	.....	20·0 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea (2 observations)	27 08	341 59	1842	21 00 w.	.....	21·0 w.	.....	.....	.....	.....	.....	.....	Bérard.
At sea.....	26 01	342 25	1840	.....	.....	.....	54 03	.....	54·1 N.	9·30	.....	9·30	Ross.
At sea (2 observations)	27 39	342 36	1822	18 45 w.	.....	18·8 w.	.....	.....	.....	.....	.....	.....	Duperrey.
At sea.....	27 59	343 00	1842	21 00 w.	.....	21·0 w.	.....	.....	.....	.....	.....	.....	Bérard.
At sea.....	26 48	343 04	1837	21 54 w.	.....	21·9 w.	.....	.....	.....	.....	.....	.....	Dumoulin.
At sea.....	26 59	343 12	1832	20 04 w.	.....	20·1 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea.....	27 30	343 14	1826	22 04 w.	.....	22·1 w.	.....	.....	.....	.....	.....	.....	Lütke.
Peak of Teneriffe *	28 16	343 21	1842	23 40 w.	.....	23·7 w.	.....	.....	.....	.....	.....	.....	Deville.
At sea (2 observations)	25 36	343 30	1836	21 25 w.	.....	21·4 w.	.....	.....	.....	.....	.....	.....	Bonite.

\* Not used in the Map.

## NORTH EQUATORIAL ZONE III.—Lat. 20° N. to 30° N. (contd.)

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force.	
				Observed.	Correction to Epoch 1842·5.	Corrected.	Observed.	Cor. to Epoch 1842·5.	Corrected.	Observed.	Corrected.
At sea (2 observations)	29 31	343 39	1832	20 44 w.	.....	20·7 w.	.....	.....	.....	.....	.....
At sea (2 observations)	28 16	343 42	1832	20 22 w.	.....	20·4 w.	.....	.....	.....	.....	.....
Santa Cruz.....	28 28	343 45	1822	21 00 w.	.....	21·0 w.	57 06	.....	57·1	57·4 N.	9·46
			1826	22 37 w.	.....	22·6 w.	.....	.....	.....		.....
			1836	.....	.....	.....	57 28	.....	57·5		.....
			1837	22 50 w.	.....	22·8 w.	.....	.....	.....		.....
			1837	.....	.....	.....	57 47	.....	57·8		9·56
			1838	.....	.....	.....	57 21	.....	57·4		.....
			1838	.....	.....	.....	57 40	.....	57·7		9·39
			1840	20 31 w.	.....	20·5 w.	57 05	.....	57·1		9·41
			1842	.....	.....	.....	57 17	.....	57·3		.....
At sea.....	28 43	344 38	1837	20 38 w.	.....	20·6 w.	.....	.....	.....	.....	.....
At sea.....	29 15	345 15	1842	22 00 w.	.....	22·0 w.	.....	.....	.....	.....	.....
At sea (2 observations)	28 17	345 20	1836	21 53 w.	.....	21·9 w.	.....	.....	.....	.....	.....
At sea.....	29 53	345 30	1822	21 00 w.	.....	21·0 w.	57 40	.....	57·7 N.	.....	.....

## NORTH EQUATORIAL ZONE IV.—LATITUDE 30° TO 40° N.

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NETISM.

(continued).

Force in British units.			Observers.
Ob- served.	Cor. to Epoch 1842.5.	Corrected.	
.....	.....	.....	FitzRoy.
.....	.....	.....	FitzRoy.
9.46	.....	} 9.45	Duperrey.
.....	.....		Dumont d'Urville.
.....	.....		Bethune.
.....	.....		Vidal.
9.56	.....		Wickham.
.....	.....		Stanley.
9.39	.....		Sullivan.
9.41	.....		Ross.
.....	.....		Blackwood.
.....	.....	.....	Dumoulin.
.....	.....	.....	Bérard.
.....	.....	.....	Bonite.
.....	.....	.....	Duperrey.

° N.

Duperrey; and for a few  
by Professor L. S. Kämtz.

ssian Language).

don).

Commonson,        <sup>Amcharus,</sup> } MSS. in the British Hydrographic Office.  
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## NORTH EQUATORIAL ZONE IV.—Lat. 30° N. to 40° N.

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.	
				Observed.	Correction to Epoch 1842·5.	Corrected.	Observed.	Cor. to Epoch 1842·5.	Corrected.			
At sea.....	38 58	0 58	1846	19 48 w.	.....	19·8 w.	.....	.....	.....	.....	Bérard.	
At sea (3 observations)	37 04	1 03	1842	17 40 w.	.....	17·7 w.	.....	.....	.....	.....	Bérard.	
At sea (2 observations)	38 49	1 05	1842	17 30 w.	.....	17·5 w.	.....	.....	.....	.....	Bérard.	
Algiers .....	36 47	3 04	1842	18 35 w.	.....	18·6 w.	57 21	.....	57·4	57·3 N.	9·54	Aimé.
			1843	.....	.....	57 08	+ 3	57·2	.....	9·60	Norwegian Officers.	
Port Mahon .....	39 52	4 20	1842	.....	.....	.....	59 59	.....	60·0 N.	9·68	Norwegian Officers.	
Bougia .....	36 50	5 00	1832	18 24 w.	0 50 E.	17·6 w.	.....	.....	.....	.....	Bérard.	
At sea (3 observations)	38 09	5 31	1859	16 17 w.	1 25 W.	17·7 w.	.....	.....	.....	.....	Novara.	
Djegelli .....	36 50	5 45	1832	18 16 w.	0 50 E.	17·4 w.	.....	.....	.....	.....	Bérard.	
Cap de Fer .....	37 05	7 09	1832	17 33 w.	0 50 E.	16·7 w.	.....	.....	.....	.....	Bérard.	
Bona .....	36 54	7 46	1832	17 39 w.	0 50 E.	16·8 w.	.....	.....	.....	.....	Bérard.	
Galita Island .....	37 31	8 56	1833	17 07 w.	0 45 E.	16·4 w.	.....	.....	.....	.....	Bérard.	
At sea (2 observations)	38 20	11 32	1859	14 21 w.	1 25 W.	15·8 w.	.....	.....	.....	.....	Novara.	
Tripoli .....	32 54	13 14	1821	16 35 w.	1 45 E.	14·8 w.	.....	.....	.....	.....	Smith.	
			1828	17 08 w.	1 10 E.	16·0 w.	.....	.....	.....	.....	Beechey.	
			1853	14 20 w.	0 55 W.	15·3 w.	15·4 w.	.....	.....	.....	Vogel.	
			.....	.....	.....	49 21	+ 38	50·0 N.	.....	.....	.....	
At sea (2 observations)	38 25	14 00	1859	13 16 w.	1 25 W.	14·7 w.	.....	.....	.....	.....	Novara.	
Valetta .....	35 54	14 31	1829	15 15 w.	1 05 E.	14·2 w.	54 18	- 45	53·5	53·5 N.	9·27	Fisher.
			1839	15 25 w.	0 15 E.	15·2 w.	53 28	+ 3	53·5	.....	Caligny.	
			1843	.....	.....	.....	52 17	+ 1	53·5	.....	Norwegian Officers.	
			1862	.....	.....	.....	.....	.....	.....	.....	Shadwell.	
Catania .....	37 30	15 05	1830	16 28 w.	1 00 E.	15·5 w.	.....	.....	.....	.....	Fisher.	
Cape Mesurata .....	32 23	15 17	1828	17 05 w.	1 10 E.	15·9 w.	.....	.....	.....	.....	Beechey.	
Messina .....	38 11	15 34	1830	17 12 w.	1 00 E.	16·2 w.	56 29	- 36	55·9	55·9 N.	9·34	Fisher.
At sea.....	39 38	18 31	1841	.....	.....	.....	55 49	- 3	55·8	.....	Norwegian Officers.	
At sea.....	39 38	18 31	1859	10 46 w.	1 25 W.	12·2 w.	.....	.....	.....	.....	Novara.	
Corfu .....	39 38	19 55	1857	10 48 w.	1 15 W.	12·1 w.	55 42	+ 45	56·5 N.	9·40	Schaub.	
Bengazi .....	32 07	20 03	1828	15 00 w.	1 10 E.	13·8 w.	.....	.....	.....	.....	Beechey.	
Zante .....	37 48	20 55	1857	10 23 w.	1 15 W.	11·6 w.	53 30	+ 45	54·3 N.	9·25	Schaub.	
Marza Suza .....	32 55	21 20	1828	14 29 w.	1 10 E.	13·3 w.	.....	.....	.....	.....	Beechey.	
Cape Matapan .....	36 21	22 25	1839	12 00 w.	0 15 E.	11·8 w.	.....	.....	.....	.....	Caligny.	
Cerigo .....	36 07	23 02	1857	9 32 w.	1 15 W.	10·8 w.	51 14	+ 37	51·9 N.	9·14	Schaub.	
Bombah .....	32 23	23 12	1857	9 29 w.	1 15 W.	10·7 w.	46 04	+ 37	46·7 N.	8·84	Schaub.	
Athens .....	37 58	23 46	1843	.....	.....	.....	53 53	+ 3	53·9 N.	9·31	Norwegian Officers.	
Tenedos .....	39 51	23 45	1839	11 36 w.	0 17 E.	11·3 w.	.....	.....	.....	.....	Caligny.	
Milo .....	36 43	24 27	1843·0	.....	.....	.....	52 13	+ 3	52·3 N.	9·25	Norwegian Officers.	
Candia .....	35 25	25 11	1823	12 00 w.	1 37 E.	10·4 w.	.....	.....	.....	.....	Smith.	
			1857	8 44 w.	1 15 W.	10·0 w.	49 54	+ 37	50·5 N.	9·07	Schaub.	
			1830	10 36 w.	1 02 E.	9·6 w.	54 34	- 30	54·1	54·0 N.	9·38	Fisher.
Smyrna .....	38 26	27 07	1843	.....	.....	.....	53 48	+ 3	53·9	.....	Norwegian Officers.	
Rhodes .....	36 26	28 17	1857	7 30 w.	1 15 W.	8·8 w.	50 50	+ 30	51·3 N.	9·15	Schaub.	
Alexandria.....	31 11	29 54	1839	.....	.....	.....	43 48	- 6	43·7	43·8 N.	8·05	D'Abbadie.
			1847	.....	.....	.....	43 47	+ 10	44·0	.....	8·74	D'Hericourt.
			1857	7 10 w.	1 15 W.	8·4 w.	43 19	+ 30	43·8	.....	.....	Schaub.
Adalia .....	36 52	30 45	1857	6 20 w.	1 15 W.	7·6 w.	51 32	+ 30	52·0 N.	9·19	Schaub.	
Cairo .....	30 03	31 15	1857	7 08 w.	1 15 W.	8·4 w.	41 24	+ 30	49·1 N.	.....	Schlagintweit.	
Tineh .....	31 04	32 32	1848	.....	.....	.....	43 19	+ 9	43·5 N.	.....	D'Hericourt.	
Suez .....	30 00	32 36	1848	.....	.....	.....	41 37	+ 12	41·8	41·7 N.	.....	D'Hericourt.
			1856	5 23 w.	1 10 W.	6·6 w.	41 11	+ 28	41·7	.....	.....	Schlagintweit.
Limassol .....	34 40	33 06	1857	6 03 w.	1 15 W.	7·3 w.	47 59	+ 21	48·3 N.	9·04	Schaub.	
Jaffa .....	32 03	34 48	1857	5 18 w.	1 15 W.	6·6 w.	44 15	+ 15	44·5 N.	8·84	Schaub.	
Beyrout .....	33 52	35 33	1857	5 19 w.	1 15 W.	6·6 w.	46 42	+ 15	47·0 N.	9·01	Schaub.	
Latakia .....	35 31	35 50	1857	4 59 w.	1 15 W.	6·2 w.	48 43	+ 15	49·0 N.	9·12	Schaub.	
Port William .....	37 00	38 00	1836	.....	.....	.....	50 35	- 4	50·5 N.	8·77	Estcourt.	
Babylon .....	32 30	44 15	1853	4 00 w.	0 44 W.	4·7 w.	.....	.....	.....	.....	Rawlinson.	
Ararat .....	39 42	44 15	1829	4 29 w.	0 52 E.	3·6 w.	53 07	- 6	53·0 N.	.....	Parrot.	
Bassora .....	30 30	47 53	1836	4 05 w.	0 24 E.	3·7 w.	40 25	- 2	40·4 N.	8·60	Estcourt.	
Sara Island .....	38 53	49 00	1862	0 03 E.	1 20 W.	1·3 w.	52 15	.....	52·3 N.	9·71	Ivatinsk.	
Kuriskchi Kaman.....	39 01	49 23	1862	0 25 E.	1 20 W.	0·9 w.	52 19	.....	52·3 N.	9·70	Ivatinsk.	
Enzili .....	37 29	49 36	1862	0 15 E.	1 20 W.	1·1 w.	.....	.....	.....	.....	Ivatinsk.	
Lefil-rud .....	37 24	50 20	1862	0 34 E.	1 20 W.	0·8 w.	50 24	.....	50·4 N.	9·63	Ivatinsk.	
Tehaabi-djet .....	37 11	50 25	1862	0 25 E.	1 20 W.	0·9 w.	50 06	.....	50·1 N.	9·59	Ivatinsk.	

## NORTH EQUATORIAL ZONE IV.—Lat. 30° N. to 40° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.		
Fin .....	33 57	51 15	1859	0 08 W.	1 06 W.	1.2 W.	45 59	.....	44.0 N.	9.40	Lenz.
Sergende .....	35 48	51 30	1859	0 10 W.	1 06 W.	1.3 W.	48 03	.....	48.1 N.	.....	Lenz.
Sardobe-nud .....	36 41	51 34	1862	0 27 E.	1 20 W.	0.9 W.	49 33	.....	49.6 N.	9.59	Ivatinsk.
Ispahan .....	32 40	51 45	1859	0 00	1 20 W.	1.3 W.	44 15	.....	44.3 N.	9.35	Lenz.
Meledisir .....	36 43	52 47	1862	0 49 E.	1 20 W.	0.5 W.	49 35	.....	49.6 N.	9.61	Ivatinsk.
Agurkinshi Island .....	39 05	53 11	1862	2 07 E.	1 20 W.	0.8 E.	52 30	.....	52.5 N.	9.88	Ivatinsk.
Tcheseikin .....	39 33	53 13	1862	1 55 E.	1 20 W.	0.6 E.	52 57	.....	53.0 N.	9.96	Ivatinsk.
Boltshi Island .....	36 54	54 04	1862	1 12 E.	1 20 W.	0.1 W.	49 51	.....	49.9 N.	9.66	Ivatinsk.
Jesd .....	31 54	54 30	1859	0 01 E.	1 06 W.	1.1 W.	42 42	.....	42.7 N.	9.31	Lenz.
Astrabad .....	36 51	54 30	1859	1 04 E.	1 06 W.	0.0	49 53	.....	49.9 N.	9.48	Lenz.
Siared .....	36 42	54 30	1859	.....	.....	.....	49 51	.....	49.9 N.	.....	Lenz.
Strachrud .....	36 25	55 00	1859	0 52 E.	1 06 W.	0.2 W.	48 38	.....	48.6 N.	9.58	Lenz.
Tebbes .....	33 36	56 52	1859	0 58 E.	1 06 W.	0.1 W.	45 32	.....	45.5 N.	9.49	Lenz.
Kirman .....	30 18	57 15	1859	0 21 E.	1 06 W.	0.8 W.	41 02	.....	41.0 N.	9.74	Lenz.
Chubbis .....	30 25	57 45	1859	0 35 E.	1 06 W.	0.5 W.	40 56	.....	40.9 N.	9.38	Lenz.
Ssabsewar .....	36 12	57 45	1859	.....	.....	.....	49 31	.....	49.5 N.	.....	Lenz.
Tun .....	34 00	58 07	1859	1 15 E.	1 06 W.	0.2 E.	45 57	.....	46.0 N.	9.66	Lenz.
Madan .....	36 28	58 22	1859	1 26 E.	1 06 W.	0.3 E.	48 59	.....	49.0 N.	9.94	Lenz.
Djumea .....	34 21	58 37	1859	1 26 E.	1 03 W.	0.3 E.	46 36	.....	46.6 N.	9.69	Lenz.
Tschach .....	32 16	58 46	1859	1 11 E.	1 06 W.	0.1 E.	.....	.....	.....	.....	Lenz.
Bassiran .....	31 57	59 00	1859	1 20 E.	1 06 W.	0.2 E.	43 46	.....	43.8 N.	9.45	Lenz.
Birdjand .....	32 53	59 15	1859	.....	.....	.....	41 34	.....	41.6 N.	.....	Lenz.
Meshed .....	36 18	59 37	1859	2 00 E.	1 06 W.	0.9 E.	49 16	.....	49.3 N.	9.95	Lenz.
Nech Village .....	31 32	60 00	1859	1 13 E.	1 06 W.	0.1 E.	43 00	.....	43.0 N.	.....	Lenz.
Turbet .....	35 15	60 37	1859	1 58 E.	1 06 W.	0.9 E.	48 20	.....	48.3 N.	9.90	Lenz.
Lasch .....	31 43	61 30	1859	.....	.....	.....	43 16	.....	43.3 N.	.....	Lenz.
Gurian .....	34 21	61 30	1859	1 58 E.	1 06 W.	0.9 E.	47 25	.....	47.4 N.	9.95	Lenz.
Anar Dörre .....	32 46	61 37	1859	.....	.....	.....	44 42	.....	44.7 N.	9.70	Lenz.
Sabsor .....	33 18	62 00	1859	.....	.....	.....	45 21	.....	45.4 N.	9.76	Lenz.
Herat .....	34 21	62 07	1859	1 55 E.	1 06 W.	0.8 E.	46 38	.....	46.6 N.	9.87	Lenz.
Déra Ismaél Khan .....	31 40	70 56	1856	0 58 E.	0 40 W.	0.3 E.	44 23	-14	44.2 N.	10.70	Schlagintweit.
Peshawur .....	34 03	71 33	1856	2 28 E.	0 40 W.	1.8 E.	46 26	-14	46.2 N.	10.89	Schlagintweit.
Moulton .....	30 10	71 35	1856	0 54 E.	0 40 W.	0.2 E.	.....	.....	.....	.....	Schlagintweit.
Spáhpur .....	32 14	72 33	1856	1 20 E.	0 40 W.	0.7 E.	.....	.....	.....	.....	Schlagintweit.
Raulpíndi .....	33 37	73 00	1856	3 06 E.	0 40 W.	2.4 E.	45 56	-14	45.7 N.	9.90	Schlagintweit.
Márrí .....	33 51	73 23	1856	3 21 E.	0 40 W.	2.7 E.	46 03	-14	45.8 N.	9.63	Schlagintweit.
Mozafferabad .....	34 22	73 31	1856	3 24 E.	0 40 W.	2.7 E.	47 20	-14	47.1 N.	9.83	Schlagintweit.
Lahore .....	31 34	74 15	1856	2 02 E.	0 40 W.	1.4 E.	43 17	-14	43.1 N.	9.86	Schlagintweit.
Táshing .....	35 16	74 41	1856	4 18 E.	0 40 W.	3.6 E.	48 24	-14	48.2 N.	10.75	Schlagintweit.
Dáver .....	34 34	74 46	1856	.....	.....	.....	47 42	-14	47.5 N.	.....	Schlagintweit.
Srinaggar .....	34 05	74 49	1847	2 45 E.	0 10 W.	2.6 E.	46 40	-5	46.6 N.	.....	Cunningham.
Dras .....	34 28	75 43	1856	3 00 E.	0 28 W.	2.5 E.	46 58	-14	46.7 N.	9.99	Schlagintweit.
Skardo .....	35 20	75 44	1856	4 05 E.	0 28 W.	3.6 E.	46 51	-14	46.6 N.	10.12	Schlagintweit.
Chorkonda .....	35 33	75 56	1856	2 53 E.	0 28 W.	2.4 E.	48 21	-14	48.1 N.	10.94	Schlagintweit.
Tso-Ka .....	35 58	76 03	1856	.....	.....	.....	48 43	-14	48.5 N.	.....	Schlagintweit.
Kargil .....	34 30	76 04	1856	3 10 E.	0 28 W.	2.7 E.	49 19	-14	49.1 N.	.....	Schlagintweit.
Mulbe .....	34 20	76 07	1847	2 44 E.	0 10 W.	2.6 E.	47 57	-14	47.7 N.	10.20	Schlagintweit.
Ambála .....	30 21	76 49	1856	2 26 E.	0 28 W.	2.0 E.	46 56	-5	46.9 N.	.....	Cunningham.
Pádum .....	33 28	76 54	1856	3 41 E.	0 28 W.	3.2 E.	40 48	-14	40.6 N.	.....	Schlagintweit.
Kárdong .....	32 34	77 01	1856	3 23 E.	0 28 W.	2.9 E.	45 52	-14	45.6 N.	.....	Schlagintweit.
Sultanpur .....	31 58	77 06	1856	3 03 E.	0 28 W.	2.6 E.	44 28	-14	44.2 N.	10.96	Schlagintweit.
Simla .....	31 06	77 08	1856	2 56 E.	0 28 W.	2.5 E.	43 52	-14	43.6 N.	.....	Schlagintweit.
Leh .....	34 08	77 15	1847	2 47 E.	0 10 W.	2.6 E.	42 30	-14	42.3 N.	9.71	Schlagintweit.
.....	.....	.....	1856	3 23 E.	0 28 W.	2.9 E.	46 43	-5	46.6 N.	.....	Cunningham.
.....	.....	.....	.....	.....	.....	.....	46 53	-14	46.7 N.	10.11	Schlagintweit.
Sasser Pass .....	35 06	77 28	1856	3 32 E.	0 28 W.	3.1 E.	48 18	-14	48.1 N.	.....	Schlagintweit.
Karakorum Pass .....	35 47	77 30	1856	3 34 E.	0 28 W.	3.1 E.	49 14	-14	49.0 N.	10.93	Schlagintweit.
Rámpur .....	31 31	77 37	1856	.....	.....	.....	42 46	-14	42.5 N.	.....	Schlagintweit.
Súget .....	36 10	77 50	1856	4 22 E.	0 28 W.	3.9 E.	50 12	-14	50.0 N.	.....	Schlagintweit.
Vangtu Bridge .....	31 37	77 54	1856	.....	.....	.....	43 23	-14	43.2 N.	.....	Schlagintweit.
Massuri .....	30 29	78 00	1856	.....	.....	.....	41 15	-14	41.0 N.	10.81	Schlagintweit.

## NORTH EQUATORIAL ZONE IV.—Lat. 30° N. to 40° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.		
Müd .....	31 56	78 01	1856	3 44 E.	0 14 W.	3.5 E.	44 18	-14	44.1 N.	.....	Schlagintweit.
Sümgal .....	36 08	78 05	1856	.....	.....	.....	50 05	-14	49.9 N.	10.88	Schlagintweit.
Dehra Doon .....	30 20	78 06	1869	3 06 E.	0 27 W.	2.7 E.	41 31	-27	41.1 N.	9.74	Walker.
Masoori .....	30 27	78 10	1867	2 37 E.	0 25 W.	2.2 E.	41 41	-25	41.3 N.	9.75	Walker and Basevi.
Tsomoriri .....	32 45	78 17	1856	3 10 E.	0 14 W.	2.9 E.	45 20	-14	45.1 N.	.....	Schlagintweit.
Ussilla .....	31 08	78 18	1856	.....	.....	.....	42 13	-14	42.0 N.	10.96	Schlagintweit.
2 Stations in Rukchu..	33 13	78 26	1847	.....	.....	.....	45 01	-5	44.9 N.	.....	Cunningham.
Tsomognalari .....	33 40	78 39	1856	3 22 E.	0 14 W.	3.1 E.	46 34	-14	46.3 N.	9.97	Schlagintweit.
Hänle .....	32 48	78 56	1847	.....	.....	.....	44 23	-5	44.3 N.	.....	Cunningham.
Lara .....	32 09	79 09	1847	.....	.....	.....	43 37	-5	43.5 N.	.....	Cunningham.
Mána .....	30 47	79 21	1856	2 45 E.	0 14 W.	2.5 E.	41 25	-14	41.2 N.	10.53	Schlagintweit.
Milum .....	30 35	79 55	1856	2 40 E.	0 14 W.	2.4 E.	40 32	-14	40.3 N.	10.49	Schlagintweit.
Pekin .....	39 57	116 28	1831	1 48 W.	0 11 W.	2.0 W.	54 50	+38	55.5 N.	11.01	Fuss.
			1835	2 10 W.	0 7 W.	2.3 W.	.....	.....	.....	.....	Kowanko.
			1842	.....	.....	.....	55 42	.....	55.7 N.	11.13	Repertorium, Bd. VII.
			1852	.....	.....	.....	56 02	-35	55.5 N.	.....	Schatskoff.
			1868	2 25 W.	0 26 E.	2.0 W.	57 00	-94	55.4 N.	11.42	Fritsche.
Pehio .....	38 57	117 50	1816	2 16 W.	?	.....	.....	.....	.....	.....	Basil Hall.
Illon Lake .....	38 00	120 00	1816	2 16 W.	?	.....	.....	.....	.....	.....	Basil Hall.
Shanghai .....	31 15	121 29	1858	1 50 W.	0 08 E.	1.7 W.	45 21	-32	44.8 N.	.....	Novara.
Woosung .....	31 24	121 30	1841	1 37 W.	.....	1.6 W.	.....	.....	.....	.....	Collinson.
At sea (2 observations)	31 25	121 32	1858	1 24 W.	.....	1.4 W.	.....	.....	.....	.....	Novara.
Cheaton Bay .....	37 36	121 34	1816	2 16 W.	?	.....	.....	.....	.....	.....	Basil Hall.
Reef Island .....	30 14	121 36	1842	2 00 W.	.....	2.0 W.	.....	.....	.....	.....	Collinson.
Just in the Way .....	30 00	121 54	1840	0 10 W.	.....	0.2 W.	.....	.....	.....	.....	Collinson.
Stewart .....	30 00	121 56	1840	0 05 W.	.....	0.2 W.	.....	.....	.....	.....	Collinson.
Fishers Peak .....	30 12	122 03	1841	2 22 W.	.....	2.4 W.	.....	.....	.....	.....	Collinson.
Chusan .....	30 03	122 07	1840	2 18 W.	.....	2.3 W.	.....	.....	.....	.....	Collinson.
At sea (3 observations)	31 15	122 09	1858	1 47 W.	.....	1.8 W.	.....	.....	.....	.....	Novara.
Sheppey Island .....	30 10	122 10	1841	2 31 W.	.....	2.5 W.	.....	.....	.....	.....	Collinson.
Gutzlaff Island .....	31 10	122 11	1842	1 25 W.	.....	1.4 W.	.....	.....	.....	.....	Collinson.
Shaweishan .....	31 25	122 14	1840	0 30 W.	.....	0.5 W.	.....	.....	.....	.....	Collinson.
At sea (4 observations)	30 51	122 36	1858	1 37 W.	.....	1.6 W.	.....	.....	.....	.....	Novara.
At sea (4 observations)	31 10	122 47	1858	1 30 W.	.....	1.5 W.	.....	.....	.....	.....	Novara.
Saddle Group .....	30 42	122 47	1841	0 20 W.	.....	0.3 W.	.....	.....	.....	.....	Collinson.
At sea (2 observations)	31 15	122 47	1858	1 30 W.	.....	1.5 W.	.....	.....	.....	.....	Novara.
Alceste Island .....	34 00	124 45	1816	2 03 W.	?	.....	.....	.....	.....	.....	Basil Hall.
At sea .....	30 44	125 46	1855	2 17 W.	.....	2.3 W.	.....	.....	.....	.....	Richards.
Amherst Island .....	34 22	126 05	1816	2 30 W.	?	.....	.....	.....	.....	.....	Basil Hall.
At sea .....	31 14	126 34	1855	1 56 W.	.....	1.9 W.	.....	.....	.....	.....	Richards.
Quelpart Island .....	33 30	126 53	1845	2 30 W.	.....	2.5 W.	46 54	.....	46.9 N.	.....	Belcher.
Black Island .....	34 16	127 13	1845	2 24 W.	.....	2.4 W.	48 23	.....	48.4 N.	.....	Belcher.
Nangasaki Bay .....	32 43	129 44	1845	2 35 W.	.....	2.6 W.	45 00	.....	45.0 N.	.....	Belcher.
At sea (3 observations)	35 45	132 10	1855	3 02 W.	.....	3.0 W.	.....	.....	.....	.....	Richards.
At sea (2 observations)	37 24	134 51	1855	3 56 W.	.....	3.9 W.	.....	.....	.....	.....	Richards.
At sea .....	39 28	137 39	1855	3 32 W.	.....	3.5 W.	.....	.....	.....	.....	Richards.
Simoda Harb. (Japan)	34 39	138 58	1854	0 52 W.	.....	0.9 W.	.....	.....	.....	.....	American Expedition.
Sagonin .....	35 27	139 40	1854	0 25 W.	.....	0.4 W.	.....	.....	.....	.....	American Expedition.
At sea (2 observations)	32 30	141 20	1854	.....	.....	.....	43 30	.....	43.5 N.	.....	Collinson.
At sea (2 observations)	33 16	144 55	1854	.....	.....	.....	44 44	.....	44.7 N.	.....	Collinson.
At sea (2 observations)	31 16	145 23	1854	.....	.....	.....	42 25	.....	42.4 N.	.....	Collinson.
At sea .....	33 41	146 00	1828	1 14 E.	.....	1.2 E.	.....	.....	.....	.....	Lütke.
At sea (2 observations)	36 36	148 11	1854	.....	.....	.....	48 06	.....	48.1 N.	.....	Collinson.
At sea (4 observations)	37 44	149 21	1828	1 42 E.	.....	1.7 E.	.....	.....	.....	.....	Lütke.
At sea (3 observations)	37 40	152 51	1853	.....	.....	.....	48 57	.....	49.0 N.	.....	Collinson.
At sea .....	39 07	159 03	1827	4 38 E.	.....	4.6 E.	51 32	.....	51.5 N.	8.87	Lütke.
At sea .....	32 59	161 49	1827	5 21 E.	.....	5.4 E.	40 40	.....	40.7 N.	8.65	Lütke.
At sea (4 observations)	32 02	162 52	1819	7 37 E.	.....	7.6 E.	.....	.....	.....	.....	Freycinet.
At sea (2 observations)	38 35	171 20	1850	.....	.....	.....	52 57	.....	53.0 N.	.....	Collinson.
At sea .....	35 54	173 50	1850	.....	.....	.....	51 04	.....	51.1 N.	.....	Collinson.
At sea (2 observations)	33 16	177 05	1850	.....	.....	.....	49 26	.....	49.4 N.	.....	Collinson.
At sea .....	39 19	179 03	1848	.....	.....	.....	55 33	.....	55.6 N.	.....	Moore.

## NORTH EQUATORIAL ZONE IV.—Lat. 30° N. to 40° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.		
At sea.....	30 19	181 20	1850	.....	.....	.....	47 46	.....	47.8 N.	.....	Collinson.
At sea.....	39 56	184 43	1848	.....	.....	.....	58 30	.....	58.5 N.	.....	Moore.
At sea.....	38 50	185 43	1848	.....	.....	.....	57 27	.....	57.5 N.	.....	Moore.
At sea.....	38 22	186 34	1848	.....	.....	.....	54 44	.....	54.7 N.	.....	Moore.
At sea.....	37 13	188 14	1848	.....	.....	.....	57 25	.....	57.4 N.	.....	Moore.
At sea.....	35 03	188 54	1848	.....	.....	.....	56 40	.....	56.7 N.	.....	Moore.
At sea.....	33 27	189 21	1848	.....	.....	.....	55 06	.....	55.1 N.	.....	Moore.
At sea.....	31 43	190 00	1848	.....	.....	.....	54 05	.....	53.8 N.	.....	Moore.
At sea (3 observations)	37 27	193 26	1852	15 15 E.	.....	15.3 E.	.....	.....	.....	.....	Crane.
At sea (2 observations)	35 19	194 03	1852	12 50 E.	.....	12.8 E.	.....	.....	.....	.....	Crane.
At sea (2 observations)	33 16	194 37	1852	13 04 E.	.....	13.1 E.	.....	.....	.....	.....	Crane.
At sea (2 observations)	31 30	195 24	1852	12 51 E.	.....	12.9 E.	.....	.....	.....	.....	Crane.
At sea (3 observations)	30 51	197 21	1852	13 09 E.	.....	13.2 E.	.....	.....	.....	.....	Crane.
At sea.....	38 21	213 30	1827	17 18 E.	.....	17.3 E.	.....	.....	.....	.....	Lütke.
At sea.....	30 19	215 30	1827	13 28 E.	.....	13.5 E.	.....	.....	.....	.....	Lütke.
At sea.....	39 47	219 12	1846	17 07 E.	.....	17.1 E.	.....	.....	.....	.....	Kellett.
At sea.....	38 15	226 00	1846	15 52 E.	.....	15.9 E.	.....	.....	.....	.....	Kellett.
At sea.....	37 50	230 00	1846	15 50 E.	.....	15.8 E.	.....	.....	.....	.....	Kellett.
At sea.....	37 23	232 10	1846	15 34 E.	.....	15.6 E.	.....	.....	.....	.....	Kellett.
At sea.....	35 31	233 12	1830	11 55 E.	.....	11.9 E.	.....	.....	.....	.....	Erman.
At sea.....	34 50	233 28	1830	12 10 E.	.....	12.2 E.	.....	.....	.....	.....	Erman.
At sea.....	31 51	234 15	1830	11 40 E.	.....	11.7 E.	56 15	.....	56.3 N.	10.83	Erman.
At sea.....	31 25	234 31	1830	11 53 E.	.....	11.9 E.	.....	.....	.....	.....	Erman.
At sea.....	39 12	235 09	1830	.....	.....	.....	63 47	.....	63.8 N.	11.61	Erman.
At sea.....	30 31	235 38	1830	10 26 E.	.....	10.4 E.	55 03	.....	55.1 N.	10.52	Erman.
At sea.....	35 25	235 42	1846	15 40 E.	.....	15.7 E.	.....	.....	.....	.....	Kellett.
At sea.....	38 16	235 47	1830	13 08 E.	.....	13.1 E.	.....	.....	.....	.....	Erman.
Mendocino Bay.....	39 18	236 13	1857	16 35 E.	0 15 W.	16.3 E.	.....	.....	.....	.....	U. S. Coast Survey.
At sea.....	37 05	236 15	1830	14 53 E.	.....	14.9 E.	.....	.....	.....	.....	Erman.
Ross Mountain.....	38 30	236 54	1860	16 23 E.	0 18 W.	16.1 E.	.....	.....	.....	.....	U. S. Coast Survey.
Port Bodega.....	38 18	236 58	1839	15 20 E.	0 03 E.	15.4 E.	62 53	.....	62.9 N.	12.22	Belcher.
			1842	16 00 E.	.....	16.0 E.	.....	.....	.....	.....	Duffot de Mofras.
Punta de los Reyes ..	38 00	237 00	1857	15 45 E.	0 15 W.	15.5 E.	.....	.....	.....	.....	U. S. Coast Survey.
Bodega Camp .....	38 18	237 00	1860	16 19 E.	0 18 W.	16.0 E.	.....	.....	.....	.....	U. S. Coast Survey.
South Farallone Light	37 42	237 01	1857	15 40 E.	0 15 W.	15.4 E.	.....	.....	.....	.....	U. S. Coast Survey.
At sea.....	37 42	237 15	1830	14 49 E.	.....	14.8 E.	.....	.....	.....	.....	Erman.
Point Boneta.....	37 49	237 29	1852	15 27 E.	0 10 W.	15.3 E.	.....	.....	.....	.....	U. S. Coast Survey.
			1827	15 27 E.	0 25 E.	15.9 E.	62 35	.....	62.6 N.	.....	Beechey.
			1830	14 51 E.	0 12 E.	15.1 E.	62 38	.....	62.6 N.	12.01	Erman.
San Francisco .....	37 46	237 33	1831	.....	.....	.....	62 58	.....	63.0 N.	11.95	Douglas.
			1838	15 20 E.	0 04 E.	15.4 E.	62 00	.....	62.0 N.	12.08	Belcher.
			1852	15 30 E.	0 10 W.	15.3 E.	62 32	.....	62.5 N.	.....	Emory and U. S. C. S.
			1866	16 26 E.	0 24 W.	16.0 E.	62 22	.....	62.4 N.	12.17	Harkness.
San Francisco Soleno..	38 17	237 36	1831	.....	.....	.....	63 24	.....	63.4 N.	12.07	Douglas.
San Jose.....	37 32	238 00	1831	.....	.....	.....	62 52	.....	62.9 N.	12.02	Douglas.
			1827	15 38 E.	0 23 E.	16.0 E.	.....	.....	.....	11.95	Beechey.
			1831	.....	.....	.....	62 08	.....	62.1 N.	11.90	Douglas.
Monterey .....	36 38	238 06	1837	14 30 E.	0 08 E.	14.6 E.	61 15	.....	61.3 N.	.....	La Venus.
			1839	14 13 E.	0 05 E.	14.3 E.	61 04	.....	61.1 N.	11.98	Belcher.
			1843	.....	.....	.....	61 59	.....	62.0 N.	.....	Perry.
			1851	14 58 E.	0 10 W.	14.8 E.	.....	.....	.....	.....	U. S. Coast Survey.
La Soledad .....	36 24	238 36	1831	.....	.....	.....	62 04	.....	62.1 N.	11.94	Douglas.
San Antonio .....	36 01	238 42	1831	.....	.....	.....	61 46	.....	61.8 N.	11.85	Douglas.
Sacramento .....	38 34	238 43	1852	.....	.....	.....	64 03	.....	64.1 N.	.....	Emory.
San Miguel .....	35 45	239 00	1831	.....	.....	.....	61 40	+11	61.9 N.	11.82	Douglas.
San Luis Obispo .....	35 11	239 16	1831	.....	.....	.....	61 17	+11	61.5 N.	11.83	Douglas.
			1854	14 17 E.	0 12 W.	14.1 E.	59 42	-12	59.5 N.	11.90	U. S. Coast Survey.
La Purissima.....	34 40	239 33	1831	.....	.....	.....	60 53	+11	61.1 N.	11.75	Douglas.
Point Conception .....	34 27	239 33	1850	13 50 E.	0 08 W.	13.7 E.	.....	.....	.....	.....	U. S. Coast Survey.
Santa Inez .....	34 36	239 49	1831	.....	.....	.....	60 53	+11	61.1 N.	11.81	Douglas.
			1831	.....	.....	.....	60 48	+11	61.0 N.	11.87	Douglas.
Santa Barbara .....	34 24	240 18	1839	13 28 E.	0 03 E.	13.5 E.	58 54	+ 3	59.0 N.	11.74	Belcher.
			1854	13 30 E.	0 08 E.	13.6 E.	.....	.....	.....	.....	U. S. Coast Survey.



## NORTH EQUATORIAL ZONE IV.—Lat. 30° N. to 40° N. (continued).

Station.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch. 1842.5.	Corrected.		
San Pedro .....	33 43	241 45	1839	13 08 E.	0 03 W.	13.1 E.	58 21	+ 6	58.5 N.	11.54	Belcher.
			1853	13 30 E.	0 08 W.	13.4 E.	59 32	-24	59.1 N.	12.12	U. S. Coast Survey.
			1839	12 21 E.	0 03 E.	12.4 E.	57 06	+ 6	57.2 N.	11.58	Belcher.
San Diego .....	3 40	242 50	1851	12 29 E.	0 08 W.	12.4 E.	57 35	-16	57.3 N.	11.65	U. S. Coast Survey.
			1853	12 32 E.	0 11 W.	12.4 E.	57 39	-22	57.3 N.	11.72	U. S. Coast Survey.
Mean of Santa Maria } and Santa Isabel.. }	33 05	243 14	1849	12 55 E.	0 07 W.	12.8 E.	58 45	-14	58.5 N.	.....	Emory.
San Quintin .....	30 22	244 01	1839	12 06 E.	0 02 E.	12.1 E.	54 30	+ 6	54.6 N.	11.41	Belcher.
Soda Lake .....	35 03	244 01	1854	13 51 E.	0 06 W.	13.8 E.	61 07	-24	60.7 N.	12.25	U. S. Officers.
Sand Camp .....	35 06	244 14	1854	.....	.....	.....	60 49	-24	60.4 N.	12.24	U. S. Officers.
Marl Spring .....	35 11	244 27	1854	13 59 E.	0 06 W.	13.9 E.	60 56	-24	60.5 N.	12.20	U. S. Officers.
New River .....	32 42	244 35	1849	.....	.....	.....	58 19	-14	58.1 N.	.....	U. S. Officers.
Painte Creek .....	35 06	245 06	1854	14 17 E.	0 06 W.	14.2 E.	61 10	-24	60.8 N.	12.26	U. S. Officers.
Gila Junction .....	32 43	245 07	1851	12 50 E.	0 05 W.	12.8 E.	58 30	-18	58.2 N.	.....	Emory.
Colorado R., 3 Stations	34 45	245 36	1854	13 48 E.	0 06 W.	13.7 E.	60 45	-24	60.4 N.	12.22	U. S. Officers.
Colorado R., 2 Stations	34 23	245 54	1854	14 08 E.	0 06 W.	14.0 E.	60 34	-24	60.2 N.	12.26	U. S. Officers.
3 Stations (Mean).....	32 45	246 11	1851	.....	.....	.....	58 33	-18	58.3 N.	.....	U. S. Officers.
Big Horn Springs.....	35 01	246 24	1854	14 18 E.	0 06 W.	14.2 E.	61 02	-24	61.6 N.	12.23	U. S. Officers.
Williams R., 6 Stations	34 21	246 25	1854	.....	.....	.....	60 20	-24	59.9 N.	12.19	U. S. Officers.
White Cliff Creek.....	35 08	246 29	1854	14 42 E.	0 06 W.	14.6 E.	60 48	-24	60.4 N.	12.36	U. S. Officers.
Williams R., 4 Stations	34 25	246 31	1854	13 46 E.	0 06 W.	13.7 E.	.....	.....	.....	.....	U. S. Officers.
White Cliff Creek.....	35 12	246 39	1854	.....	.....	.....	61 14	-24	60.8 N.	12.42	U. S. Officers.
7 Stations .....	32 51	246 43	1851	.....	.....	.....	58 50	-18	58.5 N.	.....	U. S. Officers.
Williams River .....	35 07	246 47	1854	13 40 E.	0 06 W.	13.6 E.	61 17	-24	60.9 N.	12.14	U. S. Officers.
Pueblo Creek .....	34 57	247 14	1854	13 59 E.	0 06 W.	13.9 E.	61 13	-24	60.8 N.	12.39	U. S. Officers.
Cedar Creek .....	35 21	247 40	1854	13 49 E.	0 06 W.	13.7 E.	62 06	-24	61.7 N.	12.55	U. S. Officers.
Le Roux Spring .....	35 17	248 20	1854	13 52 E.	0 06 W.	13.8 E.	61 33	-24	61.2 N.	12.44	U. S. Officers.
7 Stations .....	33 08	248 26	1851	.....	.....	.....	59 18	-18	59.0 N.	.....	U. S. Officers.
10 Stations (Mean) ...	33 06	249 19	1851	.....	.....	.....	59 16	-18	59.0 N.	.....	U. S. Officers.
Nogales and Santa } Cruz R. (Mean).... }	31 20	249 19	1855	11 59 E.	0 07 W.	11.9 E.	57 20	-26	56.9 N.	11.51	U. S. Officers.
San Pedro .....	32 59	249 20	1851	12 25 E.	0 04 W.	12.4 E.	.....	.....	.....	.....	U. S. Officers.
Colorado, Chiquito } R., 6 Stations ... }	35 09	249 21	1854	.....	.....	.....	61 50	-24	61.4 N.	12.50	U. S. Officers.
Colorado, Chiquito } R., 4 Stations ... }	35 08	249 24	1854	13 35 E.	0 06 W.	13.5 E.	.....	.....	.....	.....	U. S. Officers.
Colorado, Chiquito ...	34 53	249 56	1851	13 42 E.	0 04 W.	13.6 E.	62 15	-18	62.0 N.	12.53	U. S. Officers.
10 Stations .....	33 03	250 03	1851	.....	.....	.....	59 29	-18	59.2 N.	.....	U. S. Officers.
Rio Puerco .....	34 58	250 08	1851	14 00 E.	0 04 W.	13.9 E.	61 46	-18	61.5 N.	12.51	U. S. Officers.
Lithodendron Creek...	35 02	250 19	1851	13 33 E.	0 04 W.	13.5 E.	61 57	-18	61.7 N.	12.50	U. S. Officers.
Carriso Creek .....	35 07	250 28	1854	13 54 E.	0 06 W.	13.8 E.	62 05	-24	61.7 N.	12.54	U. S. Officers.
Navajo Spring .....	35 06	250 40	1854	13 23 E.	0 06 W.	13.3 E.	61 58	-24	61.6 N.	12.56	U. S. Officers.
Jacobs Well .....	35 04	250 46	1854	13 44 E.	0 06 W.	13.6 E.	62 00	-24	61.6 N.	12.55	U. S. Officers.
San Bernardino.....	31 20	250 46	1855	11 45 E.	0 07 W.	11.6 E.	57 19	-26	56.9 N.	11.58	U. S. Officers.
Cedar Forest .....	35 01	251 05	1854	13 01 E.	0 06 W.	12.9 E.	61 40	-24	61.3 N.	12.59	U. S. Officers.
Arch Spring .....	35 05	251 12	1854	.....	.....	.....	61 55	-24	61.5 N.	12.62	U. S. Officers.
San Luis Springs.....	31 20	251 12	1855	11 45 E.	0 06 W.	11.7 E.	57 37	-26	57.2 N.	11.70	U. S. Officers.
Zuñi River.....	35 06	251 21	1854	13 24 E.	0 06 W.	13.3 E.	62 02	-24	61.6 N.	12.63	U. S. Officers.
Aqua del Perro .....	31 21	251 40	1855	11 59 E.	0 06 W.	11.9 E.	57 28	-26	57.0 N.	11.45	U. S. Officers.
Ojo de Inez .....	32 45	251 46	1851	.....	.....	.....	59 18	-18	59.0 N.	.....	U. S. Officers.
Inscription Rock .....	35 03	251 46	1854	12 57 E.	0 06 W.	12.9 E.	62 03	-24	61.7 N.	12.59	U. S. Officers.
Copper Mines .....	32 47	251 56	1851	11 22 E.	0 04 W.	11.3 E.	59 17	-18	59.0 N.	.....	U. S. Officers.
Agua Fria .....	35 02	252 02	1854	13 26 E.	0 06 W.	13.3 E.	62 05	-24	61.7 N.	12.66	U. S. Officers.
Carrizalillo .....	31 51	252 04	1855	12 02 E.	0 06 W.	11.9 E.	58 31	-26	58.1 N.	11.73	U. S. Officers.
Espia .....	31 21	252 04	1855	12 05 E.	0 06 W.	12.0 E.	57 59	-26	57.6 N.	11.77	U. S. Officers.
Covera .....	35 05	252 34	1854	13 49 E.	0 06 W.	13.7 E.	62 26	-24	62.0 N.	12.67	U. S. Officers.
Rio San Jose .....	35 01	252 46	1854	13 46 E.	0 06 W.	13.7 E.	63 18	-24	62.9 N.	12.67	U. S. Officers.
Doña Ana .....	32 22	253 13	1851	12 07 E.	0 04 W.	12.1 E.	59 06	-18	58.8 N.	.....	U. S. Officers.
Isleta .....	34 54	253 20	1854	13 13 E.	0 06 W.	13.1 E.	62 24	-12	62.2 N.	12.65	U. S. Officers.
Albuquerque .....	35 06	253 22	1854	13 25 E.	0 06 W.	13.3 E.	62 28	-12	62.3 N.	12.67	U. S. Officers.
Frontera.....	31 48	253 27	1852	12 24 E.	0 05 W.	12.3 E.	59 05	-10	58.9 N.	.....	U. S. Officers.
Emory's Initial Point,	31 47	253 32	1855	11 55 E.	0 06 W.	11.8 E.	58 39	-13	58.4 N.	11.92	U. S. Officers.

## NORTH EQUATORIAL ZONE IV.—Lat. 30° N. to 40° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.		
San Elcearis .....	31 35	253 44	1852	.....	.....	.....	58 57	—10	58.8 N.	.....	U. S. Officers.
Mouth of Canon .....	31 02	254 23	1852	12 01 E.	0 05 W.	11.9 E.	57 38	—10	57.5 N.	11.28	Emory.
Fort of Brazos River... On Trinity Waters, 3 Stations .....	33 00	260 43	1854	11 12 E.	.....	11.2 E.	.....	.....	.....	.....	U. S. Officers.
	33 34	261 45	1854	10 27 E.	.....	10.5 E.	.....	.....	.....	.....	U. S. Officers.
Near Sabine River ...	32 01	266 00	1840	.....	.....	.....	61 37	.....	61.6 N.	.....	Graham.
Gaines Ferry .....	31 28	266 15	1840	8 41 E.	.....	8.7 E.	60 57	.....	61.0 N.	.....	Graham.
Natchitoches .....	31 44	266 55	1834	.....	.....	.....	62 11	.....	62.2 N.	.....	Nicollet.
Natchez .....	31 34	268 35	1834	.....	.....	.....	62 11	.....	62.2 N.	.....	Nicollet.
Newport .....	38 34	268 54	1839	9 21 E.	.....	9.4 E.	.....	.....	.....	.....	Goebel.
Monticello .....	38 57	269 55	1841	.....	.....	.....	69 39	.....	69.7 N.	.....	Loomis.
			1835	8 49 E.	.....	8.8 E.	.....	.....	.....	.....	
			1839	.....	.....	.....	69 31	.....	69.5 N.	.....	
St. Louis .....	38 38	269 56	1841	.....	.....	.....	69 24	.....	69.4 N.	69.5 N.	Locke.
			1841	.....	.....	.....	69 27	.....	69.5 N.	.....	Loomis.
			1857	.....	.....	.....	.....	.....	.....	13.15	Nicollet.
				.....	.....	.....	.....	.....	.....		Friesach.
Alton .....	38 54	269 56	1841	.....	.....	.....	69 25	.....	69.4 N.	.....	Loomis.
Upper Alton .....	38 55	269 57	1841	.....	.....	.....	69 46	.....	69.8 N.	.....	Loomis.
Edwardsville .....	38 50	270 07	1841	.....	.....	.....	69 58	.....	70.0 N.	.....	Loomis.
Bunker's Hill .....	39 04	270 07	1841	.....	.....	.....	69 49	.....	69.8 N.	.....	Loomis.
Cat Island .....	30 15	270 54	1847	7 12 E.	0 05 E.	7.3 E.	.....	.....	.....	.....	Barnett.
Mississippi City .....	30 23	270 59	1855	7 22 E.	0 13 E.	7.6 E.	.....	.....	.....	.....	U. S. Coast Survey.
East Pascagoula .....	30 21	271 28	1847	7 13 E.	0 05 E.	7.3 E.	60 27	—01	60.4 N.	12.61	U. S. Coast Survey.
			1855	7 09 E.	0 13 E.	7.4 E.	.....	.....	.....	.....	U. S. Coast Survey.
			1835	7 12 E.	0 07 W.	7.1 E.	61 38	.....	61.6 N.	.....	U. S. Coast Survey.
Mobile .....	30 42	271 58	1847	7 04 E.	0 05 E.	7.2 E.	60 51	—03	60.8 N.	12.61	U. S. Coast Survey.
			1857	6 52 E.	0 15 E.	7.1 E.	.....	.....	.....	.....	U. S. Coast Survey.
Fort Morgan .....	30 14	272 00	1847	7 04 E.	0 05 E.	7.2 E.	.....	.....	.....	.....	U. S. Coast Survey.
New Harmony .....	38 11	272 12	1840	.....	.....	.....	69 04	.....	69.1 N.	13.46	Locke.
Mount Vernon .....	37 59	272 13	1840	.....	.....	.....	68 56	.....	68.9 N.	13.47	Locke.
Tuscaloosa .....	33 12	272 18	1835	.....	.....	.....	64 22	.....	64.4 N.	.....	U. S. Coast Survey.
Lower Peach Tree .....	31 50	272 27	1857	6 02 E.	0 15 E.	6.3 E.	62 17	—03	62.2 N.	12.83	U. S. Coast Survey.
Princeton .....	38 23	272 30	1840	.....	.....	.....	69 23	.....	69.4 N.	13.48	Locke.
Vincennes .....	38 43	272 35	1840	.....	.....	.....	69 51	.....	69.9 N.	13.56	Locke.
			1841	.....	.....	.....	69 53	.....	69.9 N.	.....	Loomis.
Barkly Pensacola .....	30 25	272 48	1858	6 47 E.	0 16 E.	7.1 E.	61 06	—03	61.1 N.	12.68	U. S. Coast Survey.
			1861	6 42 E.	0 19 E.	7.0 E.	60 39	—04	60.6 N.	13.50	U. S. Coast Survey.
Nashville .....	36 10	273 11	1834	6 51 E.	0 08 W.	6.7 E.	67 05	.....	67.1 N.	.....	Nicollet.
Paoli .....	38 35	273 25	1840	.....	.....	.....	69 34	.....	69.6 N.	13.44	Locke.
Montgomery .....	32 22	273 42	1855	5 18 E.	0 13 E.	5.5 E.	63 05	—02	63.1 N.	12.93	U. S. Coast Survey.
Hurricane Island .....	30 04	274 21	1854	6 12 E.	0 12 E.	6.4 E.	.....	.....	.....	.....	U. S. Coast Survey.
Louisville .....	38 03	274 30	1840	.....	.....	.....	69 54	.....	69.9 N.	13.53	Locke.
Eufala .....	31 54	274 52	1860	5 12 E.	0 18 E.	5.5 E.	63 06	—03	63.1 N.	12.68	U. S. Coast Survey.
Richmond .....	39 49	275 13	1845	4 52 E.	0 03 E.	4.9 E.	71 20	.....	71.3 N.	13.61	Locke.
Frankfort .....	38 14	275 20	1840	.....	.....	.....	69 55	.....	69.9 N.	13.43	Locke.
Oxford .....	39 30	275 22	1845	4 50 E.	0 03 E.	4.9 E.	71 10	.....	71.2 N.	13.66	Locke.
Tallahassee .....	30 28	275 24	1835	.....	.....	.....	61 23	.....	61.4 N.	.....	U. S. Coast Survey.
Hamilton .....	39 23	275 28	1840	.....	.....	.....	70 58	.....	71.0 N.	13.63	Locke.
			1840	.....	.....	.....	70 27	.....	70.5 N.	13.59	Locke.
Cincinnati .....	39 00	275 35	1841	.....	.....	.....	70 28	.....	70.5 N.	.....	Loomis.
			1845	4 04 E.	0 03 E.	4.1 E.	70 29	.....	70.5 N.	.....	Locke.
Williamstown .....	38 36	275 38	1840	.....	.....	.....	70 04	.....	70.1 N.	13.50	Locke.
Lexington .....	38 06	275 42	1840	.....	.....	.....	69 55	.....	69.9 N.	13.38	Locke.
Clay's Ferry .....	37 54	275 42	1840	.....	.....	.....	69 49	.....	69.8 N.	13.43	Locke.
Dayton .....	39 44	275 43	1840	.....	.....	.....	71 22	.....	71.4 N.	13.60	Locke.
Mason .....	39 22	275 47	1840	.....	.....	.....	70 54	.....	70.9 N.	13.57	Locke.
St. Mark's Light .....	30 04	275 48	1852	5 29 E.	0 10 E.	5.7 E.	.....	.....	.....	.....	U. S. Coast Survey.
Carrolton .....	39 38	275 51	1845	4 45 E.	0 03 E.	4.8 E.	71 10	.....	71.2 N.	13.62	Locke.
Lebanon .....	39 26	275 54	1840	.....	.....	.....	71 03	.....	71.1 N.	13.60	Locke.
Knoxville .....	35 59	276 06	1833	.....	.....	.....	67 06	.....	67.1 N.	.....	Nicollet.
Springfield .....	39 54	276 09	1840	4 30 E.	0 02 W.	4.5 E.	71 27	.....	71.5 N.	13.55	Locke.
Macon .....	32 50	276 22	1855	4 37 E.	0 13 E.	4.8 E.	63 51	—03	63.8 N.	12.79	U. S. Coast Survey.

NORTH EQUATORIAL ZONE IV.—Lat. 30° N. to 40° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842-5.	Corrected.	Observed.	Cor. to Epoch 1842-5.	Corrected.		
Athens .....	33 57	276 35	1834	.....	.....	.....	65 40	.....	65° 7' N.	.....	U. S. Coast Survey.
Columbus .....	39 57	276 58	1840	.....	.....	.....	71 05	.....	71° 1' N.	13-53	Locke.
			1841	.....	.....	.....	71 04	.....	71° 1' N.	.....	Loomis.
			1845	2 29 E.	0 03 E.	2-5 E.	71 04	.....	71° 1' N.	.....	Locke.
Warm Spring .....	35 50	277 12	1833	.....	.....	.....	67 39	.....	67° 7' N.	.....	Nicollet.
Ashville .....	35 36	277 30	1833	.....	.....	.....	67 25	.....	67° 4' N.	.....	Nicollet.
Hebron .....	39 59	277 31	1841	.....	.....	.....	71 10	.....	71° 2' N.	.....	Loomis.
Marietta Island.....	39 25	278 32	1845	2 25 E.	0 09 E.	2-6 E.	71 22	.....	71° 4' N.	13-62	Locke.
Fernandina .....	30 41	278 32	1857	4 02 E.	.....	4-0 E.	62 07	-03	62° 1' N.	12-59	U. S. Coast Survey.
Savannah .....	32 05	278 55	1852	3 40 E.	0 30 E.	4-2 E.	63 40	-02	63° 6' N.	12-62	U. S. Coast Survey.
			1857	3 28 E.	0 45 E.	4-2 E.	63 44	-03	63° 7' N.	.....	U. S. Coast Survey.
Columbia .....	34 00	278 58	1854	3 02 E.	0 36 E.	3-6 E.	66 08	-02	66° 1' N.	13-04	U. S. Coast Survey.
Tybee Island .....	32 02	279 09	1852	3 32 E.	0 30 E.	4-0 E.	63 38	-04	63° 6' N.	12-57	U. S. Coast Survey.
Port Royal .....	32 18	279 22	1859	3 04 E.	0 51 E.	3-9 E.	64 08	-03	64° 1' N.	.....	U. S. Coast Survey.
Edisto Island .....	32 33	279 50	1850	2 54 E.	0 24 E.	3-3 E.	64 04	-01	64° 1' N.	12-65	U. S. Coast Survey.
Charlestown .....	32 41	280 07	1841	2 24 E.	.....	2-4 E.	64 37	.....	64° 6' N.	.....	Barnett.
Breach Inlet .....	32 46	280 11	1849	2 17 E.	0 21 E.	2-6 E.	64 32	-01	64° 5' N.	12-69	U. S. Coast Survey.
At sea.....	30 54	280 15	1841	3 04 E.	.....	3-1 E.	.....	.....	.....	.....	Barnett.
At sea.....	31 54	280 29	1841	2 33 E.	.....	2-6 E.	.....	.....	.....	.....	Barnett.
Allston .....	33 22	280 48	1853	2 07 E.	0 33 E.	2-7 E.	65 30	-02	65° 5' N.	13-03	U. S. Coast Survey.
Frostburg .....	39 41	281 04	1840	.....	.....	.....	71 31	.....	71° 5' N.	.....	Bache.
Cumberland .....	39 56	281 13	1844	.....	.....	.....	71 36	.....	71° 6' N.	.....	Locke.
Raleigh .....	35 47	281 22	1854	0 45 E.	0 36 E.	1-4 E.	68 12	-02	68° 2' N.	13-31	U. S. Coast Survey.
At sea (3 observations)	32 14	281 34	1841	2 26 E.	.....	2-4 E.	.....	.....	.....	.....	Barnett.
Smithville .....	33 55	281 59	1859	0 38 E.	0 51 E.	1-5 E.	66 17	-03	66° 2' N.	13-01	U. S. Coast Survey.
Irwin's Mill } .....	39 47	282 04	1840	0 58 W.	.....	1-0 W.	71 47	.....	71° 8' N.	.....	Bache.
Mercersburg }			1842	.....	.....	.....	.....	.....	.....	.....	13-40
Wilmington .....	34 14	282 04	1854	1 14 E.	0 36 E.	1-8 E.	66 47	-02	66° 8' N.	13-13	U. S. Coast Survey.
Chambersburg .....	39 55	282 20	1842	.....	.....	.....	71 57	.....	72° 0' N.	13-53	Locke.
Brown's Island .....	38 18	282 33	1856	1 02 W.	0 42 E.	0-3 W.	70 38	-03	70° 6' N.	13-42	Schott.
Mayo Isl., Richmond..	37 32	282 34	1856	0 15 W.	0 52 E.	0-6 E.	69 48	-03	69° 8' N.	13-35	Schott.
Roslyn .....	37 14	282 36	1852	0 27 W.	0 30 E.	0-1 W.	69 17	-02	69° 3' N.	13-04	U. S. Coast Survey.
Mount Saint Mary's...	39 41	282 42	1842	.....	.....	.....	71 46	.....	71° 8' N.	13-55	Locke.
Mount Vernon .....	38 41	282 53	1844	.....	.....	.....	70 56	.....	70° 9' N.	13-49	Locke.
Washington .....	38 53	283 00	1842	1 37 W.	.....	1-6 W.	71 18	.....	71° 3' N.	13-51	Gillis, U. S. C. S. and Lefroy.
At sea.....	32 55	283 03	1839	0 15 E.	.....	0-3 E.	.....	.....	.....	.....	Bérard.
Soper's Hill .....	39 05	283 03	1850	2 07 W.	0 24 E.	1-7 W.	71 57	-02	71° 9' N.	13-37	U. S. Coast Survey.
Hill's Hill .....	38 54	283 07	1850	2 19 W.	0 24 E.	1-9 W.	71 12	-02	71° 2' N.	13-39	U. S. Coast Survey.
At sea.....	34 20	283 10	1839	1 05 E.	.....	1-1 E.	.....	.....	.....	.....	Bérard.
Rosanne .....	39 18	283 17	1845	2 11 W.	0 09 E.	2-0 W.	72 07	.....	72° 1' N.	13-20	U. S. Coast Survey.
Webb's Hill .....	39 05	283 20	1850	2 08 W.	0 24 E.	1-7 W.	71 24	-02	71° 4' N.	13-42	U. S. Coast Survey.
Baltimore .....	39 18	283 22	1842	2 03 W.	.....	2-1 W.	71 41	.....	71° 7' N.	13-49	U. S. C. S. and Lefroy.
Marriott .....	38 52	283 24	1846	2 09 W.	0 16 E.	1-9 W.	71 11	.....	71° 2' N.	13-17	U. S. Coast Survey.
Annapolis .....	38 56	283 25	1845	2 14 W.	0 12 E.	2-0 W.	.....	.....	.....	.....	U. S. Coast Survey.
Fort M <sup>c</sup> Henry .....	39 16	283 25	1847	2 19 W.	0 15 E.	2-1 W.	.....	.....	.....	.....	U. S. Coast Survey.
			1856	2 29 W.	0 42 E.	1-8 W.	71 46	-03	71° 7' N.	13-43	U. S. Coast Survey.
Finlay .....	39 24	283 29	1846	2 17 W.	0 12 E.	2-1 W.	71 49	.....	71° 8' N.	13-18	U. S. Coast Survey.
Taylor .....	39 00	283 32	1846	2 16 W.	0 12 E.	2-1 W.	71 30	.....	71° 5' N.	13-32	U. S. Coast Survey.
North Point .....	39 12	283 34	1846	1 37 W.	0 12 E.	1-4 W.	71 30	.....	71° 5' N.	13-18	U. S. Coast Survey.
Bodkin Light .....	39 08	283 35	1847	2 02 W.	0 15 E.	1-8 W.	71 43	-01	71° 7' N.	13-35	U. S. Coast Survey.
South Base Point .....	38 54	283 38	1845	2 24 W.	0 09 E.	2-3 W.	71 37	.....	71° 6' N.	13-34	U. S. Coast Survey.
Kent Island .....	39 02	283 41	1849	2 30 W.	0 21 E.	2-2 W.	71 17	-01	71° 3' N.	13-11	U. S. Coast Survey.
Old Point Comfort ..	37 00	283 42	1856	1 15 W.	0 42 E.	0-6 W.	69 32	-03	69° 5' N.	13-32	U. S. Coast Survey.
Norfolk .....	36 51	283 43	1856	1 36 W.	0 42 E.	0-9 W.	69 29	-03	69° 4' N.	13-31	U. S. Coast Survey.
Gosport .....	36 49	283 43	1865	2 38 W.	1 15 E.	1-4 W.	69 38	-06	69° 5' N.	13-54	Harkness.
Osborne's Ruin .....	39 28	283 43	1845	2 32 W.	0 09 E.	2-4 W.	71 48	.....	71° 8' N.	13-26	U. S. Coast Survey.
Pool's Island.....	39 17	283 44	1847	2 29 W.	0 15 E.	2-2 W.	71 50	.....	71° 8' N.	13-21	U. S. Coast Survey.
Stevenson's Point .....	36 06	283 49	1847	1 40 W.	0 15 E.	2-4 W.	68 55	.....	68° 9' N.	12-95	U. S. Coast Survey.
Oxford .....	38 41	283 50	1856	2 41 W.	0 42 E.	2-0 W.	70 58	-03	70° 9' N.	13-44	U. S. Coast Survey.
Susquehanna Light ..	39 32	283 55	1847	2 14 W.	0 15 E.	2-0 W.	71 52	.....	71° 9' N.	13-13	U. S. Coast Survey.
At sea.....	33 55	283 57	1841	0 52 E.	.....	.....	.....	.....	.....	.....	Barnett.

## NORTH EQUATORIAL ZONE IV.—Lat. 30° N. to 40° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.		
Cape Henry .....	36 56	284 00	1841	0 45 w.	0 03 w.	0.8 w.	.....	.....	.....	.....	Nicollet.
			1856	1 28 w.	0 42 E.	0.8 w.	69 39	-03	69.6 N.	13.29	U. S. Coast Survey.
Cape Charles .....	37 07	284 02	1856	1 35 w.	0 42 E.	0.9 w.	69 43	-03	69.7 N.	13.34	U. S. Coast Survey.
Scott .....	37 21	284 06	1856	1 38 w.	0 42 E.	0.9 w.	70 02	-03	70.0 N.	13.38	U. S. Coast Survey.
Fredericton .....	39 35	284 09	1840	.....	.....	.....	71 40	.....	71.7 N.	.....	Bache.
Shellbank .....	36 03	284 16	1847	1 45 w.	0 15 E.	1.5 w.	68 38	-01	68.6 N.	12.94	U. S. Coast Survey.
Joynes .....	37 42	284 23	1856	2 03 w.	0 42 E.	1.4 w.	70 21	-03	70.3 N.	13.35	U. S. Coast Survey.
Wilmington .....	39 45	284 26	1846	2 31 w.	0 12 E.	2.3 w.	71 25	.....	71.4 N.	13.38	Locke.
Sawyer .....	39 43	284 26	1846	2 48 w.	0 12 E.	2.6 w.	71 58	.....	72.0 N.	13.49	Locke.
Fort Delaware .....	39 35	284 26	1846	3 17 w.	0 12 E.	3.1 w.	71 35	.....	71.6 N.	13.38	Locke.
Bodie's Island .....	35 48	284 28	1847	1 13 w.	0 15 E.	1.0 w.	68 18	-01	68.3 N.	12.86	U. S. Coast Survey.
Bombay Hook .....	39 22	284 30	1846	3 18 w.	0 12 E.	3.1 w.	71 38	.....	71.6 N.	13.36	Locke.
Snead .....	37 58	284 34	1856	2 18 w.	0 42 E.	1.6 w.	70 31	-03	70.5 N.	13.34	U. S. Coast Survey.
Delaware City .....	39 35	284 39	1842	3 30 w.	.....	3.5 w.	71 46	.....	71.8 N.	.....	Barnett.
Pine Mount .....	39 25	284 40	1846	3 14 w.	0 12 E.	3.0 w.	71 41	.....	71.7 N.	13.48	Locke.
Hawkins .....	39 26	284 42	1846	2 56 w.	0 12 E.	2.7 w.	71 44	.....	71.7 N.	13.45	Locke.
Mason's Landing .....	38 14	284 45	1856	2 23 w.	0 42 E.	1.7 w.	70 45	-03	70.7 N.	13.36	U. S. Coast Survey.
Dagsborough .....	38 36	284 45	1856	2 41 w.	0 42 E.	2.0 w.	71 03	-03	71.0 N.	13.39	U. S. Coast Survey.
Lewes's Landing .....	38 49	284 48	1846	2 45 w.	0 12 E.	2.6 w.	.....	.....	.....	.....	U. S. Coast Survey.
			1846	3 20 w.	0 12 E.	3.1 w.	72 15	.....	72.3 N.	.....	Locke.
Chew .....	39 48	284 50	1846	3 45 w.	0 12 E.	3.6 w.	72 14	.....	72.2 N.	13.45	U. S. Coast Survey.
Girard College .....	39 58	284 50	1842	3 30 w.	.....	3.5 w.	71 59	.....	72.0 N.	13.50	Observatory.
Pilot Town .....	38 47	284 50	1846	2 43 w.	0 12 E.	2.5 w.	71 19	.....	71.3 N.	13.40	U. S. C. S. and Locke.
Egg Island Light .....	39 11	284 52	1846	3 03 w.	0 12 E.	2.9 w.	71 45	.....	71.8 N.	13.43	U. S. C. S. and Locke.
Davis .....	38 20	284 54	1853	2 33 w.	0 33 E.	2.0 w.	70 58	-02	70.9 N.	13.28	U. S. Coast Survey.
Cape Henlopen .....	38 47	284 55	1856	3 04 w.	0 42 E.	2.4 w.	71 22	-03	71.3 N.	13.41	U. S. Coast Survey.
Port Norris .....	39 15	284 59	1846	3 04 w.	0 12 E.	2.9 w.	71 40	.....	71.7 N.	13.39	U. S. C. S. and Locke.
At sea .....	34 33	285 00	1841	0 34 w.	.....	0.6 w.	.....	.....	.....	.....	Barnett.
Cape May .....	38 56	285 01	1846	3 05 w.	0 12 E.	2.9 w.	71 26	.....	71.4 N.	13.36	Locke.
			1855	3 45 w.	0 39 E.	3.1 w.	71 34	-03	71.5 N.	13.23	Schott.
Town Bank .....	38 59	285 03	1846	3 00 w.	0 12 E.	2.8 w.	71 24	.....	71.4 N.	13.39	Locke.
At sea .....	35 08	285 28	1841	1 57 w.	.....	2.0 w.	.....	.....	.....	.....	Barnett.
At sea .....	34 20	285 30	1839	1 05 F.	.....	1.1 E.	.....	.....	.....	.....	Bérard.
Absecum Light .....	39 22	285 35	1860	4 54 w.	0 54 E.	4.0 w.	71 47	-04	71.7 N.	13.45	U. S. Coast Survey.
At sea (2 observations) .....	37 35	285 36	1841	0 23 w.	.....	0.4 w.	.....	.....	.....	.....	Barnett.
Tuckerton .....	39 36	285 40	1846	.....	.....	.....	72 12	.....	72.2 N.	13.29	U. S. Coast Survey.
At sea .....	35 29	285 40	1841	2 29 w.	.....	2.5 w.	.....	.....	.....	.....	Barnett.
Tucker's Island .....	39 31	285 44	1846	4 28 w.	0 12 E.	4.3 w.	.....	.....	.....	.....	U. S. Coast Survey.
Long Beach .....	39 30	285 45	1860	5 19 w.	0 54 E.	4.4 w.	71 59	-04	71.9 N.	13.43	U. S. Coast Survey.
Barnegat Light .....	39 46	285 54	1860	5 24 w.	0 54 E.	4.5 w.	72 05	-04	72.0 N.	13.36	U. S. Coast Survey.
At sea .....	35 59	286 14	1841	2 00 w.	.....	2.0 w.	.....	.....	.....	.....	Barnett.
At sea .....	39 55	288 50	1839	2 14 w.	.....	2.2 w.	.....	.....	.....	.....	Bérard.
At sea .....	38 45	289 09	1841	6 44 w.	.....	6.7 w.	.....	.....	.....	.....	Barnett.
At sea (2 observations) .....	39 28	290 25	1841	6 06 w.	.....	6.1 w.	.....	.....	.....	.....	Barnett.
At sea (2 observations) .....	38 46	291 00	1839	8 15 w.	.....	8.3 w.	.....	.....	.....	.....	Bérard.
At sea .....	39 52	291 20	1841	6 37 w.	.....	6.6 w.	.....	.....	.....	.....	Barnett.
At sea .....	37 06	291 28	1849	6 45 w.	.....	6.8 w.	.....	.....	.....	.....	Hudson.
Bermuda .....	32 23	295 13	1831	6 59 w.	.....	7.0 w.	65 18	.....	65.3 N.	.....	Austin and Foster.
			1837	6 40 w.	.....	6.7 w.	.....	.....	.....	.....	Milne.
			1846	6 53 w.	.....	6.9 w.	65 24	.....	65.4 N.	.....	Barnett.
At sea .....	37 10	300 23	1850	11 16 w.	.....	11.3 w.	.....	.....	.....	.....	Gaint.
At sea (2 observations) .....	38 48	300 25	1839	9 33 w.	.....	9.6 w.	.....	.....	.....	.....	Bérard.
At sea (2 observations) .....	33 10	300 27	1849	8 15 w.	.....	8.3 w.	.....	.....	.....	.....	Hudson.
At sea .....	32 18	300 42	1842	8 46 w.	.....	8.8 w.	.....	.....	.....	.....	Jehenne.
At sea .....	39 50	301 20	1839	10 11 w.	.....	10.2 w.	.....	.....	.....	.....	Bérard.
At sea .....	37 42	306 12	1850	13 15 w.	.....	13.3 w.	.....	.....	.....	.....	Lunt.
At sea .....	34 59	310 59	1850	9 40 w.	.....	9.7 w.	.....	.....	.....	.....	Young.
At sea .....	32 02	314 50	1829	12 53 w.	.....	12.9 w.	.....	.....	.....	.....	Rumker.
At sea .....	31 24	315 04	1851	14 02 w.	.....	14.0 w.	.....	.....	.....	.....	Smith.

## NORTH EQUATORIAL ZONE IV.—Lat. 30° N. to 40° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.		
At sea (4 observations)	32 21	317 17	1830	14 52 w.	.....	14.9 w.	.....	.....	.....	.....	Prussian ships.
At sea	30 00	318 05	1839	.....	.....	.....	64 05	.....	64.1 N.	.....	Sullivan.
At sea (2 observations)	34 30	318 12	1830	16 47 w.	.....	16.8 w.	67 27	.....	67.5 N.	11.16	Erman.
At sea (2 observations)	34 58	318 20	1830	17 16 w.	.....	17.3 w.	67 30	.....	67.5 N.	11.07	Erman.
At sea (2 observations)	33 39	318 32	1830	17 02 w.	.....	17.0 w.	66 06	.....	66.1 N.	11.12	Erman.
At sea (2 observations)	32 51	318 57	1830	16 54 w.	.....	16.9 w.	65 21	.....	65.4 N.	10.94	Erman.
At sea	31 57	319 00	1839	.....	.....	.....	64 55	.....	64.9 N.	11.01	Sullivan.
At sea (2 observations)	32 45	319 01	1830	15 46 w.	.....	15.8 w.	.....	.....	.....	.....	Erman.
At sea (2 observations)	31 46	319 09	1839	15 56 w.	.....	15.9 w.	.....	.....	.....	.....	Du Petit Thouars.
At sea (2 observations)	30 25	319 23	1830	14 59 w.	.....	15.0 w.	64 16	.....	64.3 N.	11.01	Erman.
At sea (2 observations)	32 13	319 39	1859	19 48 w.	.....	19.8 w.	.....	.....	.....	.....	Novara.
At sea (3 observations)	33 52	319 46	1850	17 37 w.	.....	17.6 w.	.....	.....	.....	.....	Lunt.
At sea (2 observations)	36 16	319 52	1830	18 35 w.	.....	18.6 w.	68 17	.....	68.3 N.	11.23	Erman.
At sea	30 44	319 58	1830	15 14 w.	.....	15.2 w.	.....	.....	.....	.....	Erman.
At sea (2 observations)	31 08	320 07	1830	15 54 w.	.....	15.9 w.	64 39	.....	64.5 N.	10.87	Erman.
At sea	34 04	320 12	1839	17 22 w.	.....	17.4 w.	.....	.....	.....	.....	Du Petit Thouars.
At sea	30 48	320 16	1846	17 47 w.	.....	17.8 w.	.....	.....	.....	.....	Sullivan.
At sea	34 27	320 54	1839	.....	.....	.....	67 50	.....	67.8 N.	11.16	Sullivan.
At sea (ship's head on } 16 points) .....	37 55	320 58	1859	23 52 w.	.....	23.9 w.	.....	.....	.....	.....	Novara.
At sea (3 observations)	36 21	321 02	1859	22 37 w.	.....	22.6 w.	.....	.....	.....	.....	Novara.
At sea (2 observations)	32 12	321 07	1840	18 21 w.	.....	18.4 w.	.....	.....	.....	.....	Sullivan.
At sea (2 observations)	37 19	321 10	1830	18 30 w.	.....	18.5 w.	68 24	.....	68.4 N.	11.40	Erman.
At sea (2 observations)	36 47	321 20	1829	17 10 w.	.....	17.2 w.	.....	.....	.....	.....	Rumker.
At sea (5 observations)	32 52	321 33	1830	16 10 w.	.....	16.2 w.	.....	.....	.....	.....	Prussian ships.
At sea	37 05	321 35	1842	21 02 w.	.....	21.0 w.	.....	.....	.....	.....	Jehenne.
At sea	37 39	321 45	1830	19 43 w.	.....	19.7 w.	.....	.....	.....	.....	Erman.
At sea	35 09	321 58	1839	.....	.....	.....	67 35	.....	67.6 N.	11.23	Sullivan.
At sea	33 46	322 10	1846	19 15 w.	.....	19.3 w.	.....	.....	.....	.....	Sullivan.
At sea (2 observations)	35 48	322 30	1837	18 05 w.	.....	18.1 w.	.....	.....	.....	.....	Bonite.
At sea	36 53	322 30	1839	.....	.....	.....	68 15	.....	68.3 N.	11.22	Sullivan.
At sea	38 25	322 50	1830	21 25 w.	.....	21.4 w.	69 08	.....	69.1 N.	11.21	Erman.
At sea (7 observations)	37 39	322 51	1830	21 50 w.	.....	21.8 w.	.....	.....	.....	.....	Prussian ships.
At sea	37 48	323 07	1839	19 57 w.	.....	20.0 w.	.....	.....	.....	.....	Du Petit Thouars.
At sea (5 observations)	32 34	323 10	1829	18 28 w.	.....	18.5 w.	.....	.....	.....	.....	Lütke.
At sea	33 54	323 13	1837	18 02 w.	.....	18.0 w.	.....	.....	.....	.....	Bonite.
At sea (3 observations)	32 15	323 13	1846	18 43 w.	.....	18.7 w.	.....	.....	.....	.....	Bérard.
At sea (4 observations)	39 17	323 32	1859	27 47 w.	.....	27.8 w.	.....	.....	.....	.....	Novara.
At sea (2 observations)	34 15	323 32	1846	18 32 w.	.....	18.5 w.	.....	.....	.....	.....	Bérard.
At sea (2 observations)	31 28	323 33	1843	18 08 w.	.....	18.1 w.	63 27	.....	63.5 N.	.....	Ross.
At sea	38 21	323 40	1839	.....	.....	.....	69 42	.....	69.7 N.	11.16	Sullivan.
At sea	39 07	323 41	1830	22 06 w.	.....	22.1 w.	.....	.....	.....	.....	Erman.
At sea	31 04	324 03	1836	18 28 w.	.....	18.5 w.	.....	.....	.....	.....	FitzRoy.
At sea (2 observations)	33 40	324 05	1843	20 45 w.	.....	20.8 w.	65 01	.....	65.0 N.	.....	Ross.
At sea	39 15	324 36	1830	23 11 w.	.....	23.2 w.	.....	.....	.....	.....	Erman.
At sea	37 09	324 36	1846	23 37 w.	.....	23.6 w.	.....	.....	.....	.....	Sullivan.
At sea	32 03	324 55	1836	18 22 w.	.....	18.4 w.	.....	.....	.....	.....	FitzRoy.
At sea (3 observations)	36 01	325 07	1843	20 28 w.	.....	20.5 w.	66 57	.....	67.0 N.	.....	Ross.
At sea (2 observations)	30 31	325 09	1837	18 25 w.	.....	18.4 w.	.....	.....	.....	.....	Bonite.
At sea (2 observations)	36 37	325 14	1850	.....	.....	.....	67 16	.....	67.3 N.	.....	Rattlesnake.
At sea (3 observations)	37 36	325 16	1843	23 39 w.	.....	23.7 w.	68 43	.....	68.7 N.	.....	Ross.
At sea (2 observations)	38 51	325 25	1843	25 23 w.	.....	25.4 w.	69 12	.....	69.2 N.	.....	Ross.
At sea	37 55	325 35	1846	23 35 w.	.....	23.6 w.	.....	.....	.....	.....	Sullivan.
At sea	39 32	325 54	1839	20 55 w.	.....	20.9 w.	.....	.....	.....	.....	Du Petit Thouars.
At sea (3 observations)	34 50	325 56	1846	19 03 w.	.....	19.1 w.	.....	.....	.....	.....	Bérard.
At sea (2 observations)	39 51	326 50	1843	26 55 w.	.....	26.9 w.	69 34	.....	69.6 N.	.....	Ross.
At sea (3 observations)	36 38	328 14	1846	20 53 w.	.....	20.9 w.	.....	.....	.....	.....	Bérard.
At sea	35 38	328 28	1836	21 34 w.	.....	21.6 w.	.....	.....	.....	.....	Fitz Roy.
Flores	39 24	328 48	1844	27 30 w.	.....	27.5 w.	.....	.....	.....	.....	Vidal.
Corvo	39 41	328 53	1842	27 30 w.	.....	27.5 w.	.....	.....	.....	.....	Vidal.

## NORTH EQUATORIAL ZONE IV.—Lat. 30° N. to 40° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842.5.	Corrected.	Observed.	Cor. to Epoch 1842.5.	Corrected.		
Fayal .....	38 32	331 22	1829	25 55 w.	.....	25.9 w.	.....	.....	.....	.....	Lütke.
			1850	.....	.....	.....	65 53	.....	65.9 N.	.....	Rattlesnake.
At sea (2 observations)	37 32	331 33	1836	23 05 w.	.....	23.1 w.	.....	.....	.....	.....	FitzRoy.
Pico .....	38 28	331 36	1842	27 00 w.	.....	27.0 w.	.....	.....	.....	.....	Vidal.
Graciosa .....	39 05	331 56	1844	26 46 w.	.....	26.8 w.	.....	.....	.....	.....	Vidal.
Terceira .....	38 39	332 47	1836	24 19 w.	.....	24.3 w.	68 06	.....	68.1 N.	.....	FitzRoy.
At sea .....	38 45	332 52	1836	24 21 w.	.....	24.4 w.	.....	.....	.....	.....	FitzRoy.
			1831	24 31 w.	.....	24.5 w.	67 34	.....	67.6 N.	.....	Austin and Foster.
St. Michaels .....	37 46	334 19	1836	24 15 w.	.....	24.3 w.	.....	.....	.....	.....	FitzRoy.
			1844	25 45 w.	.....	25.7 w.	.....	.....	.....	.....	Vidal.
Santa Maria .....	36 57	334 55	1844	25 17 w.	.....	25.3 w.	.....	.....	.....	.....	Vidal.
At sea (2 observations)	38 39	334 58	1859	26 42 w.	.....	26.7 w.	.....	.....	.....	.....	Novara.
At sea (2 observations)	36 34	337 01	1846	20 49 w.	.....	20.8 w.	.....	.....	.....	.....	Bérard.
At sea (2 observations)	38 11	338 09	1859	26 15 w.	.....	26.3 w.	.....	.....	.....	.....	Novara.
At sea (7 observations)	38 10	341 22	1830	25 31 w.	.....	25.5 w.	.....	.....	.....	.....	Prussian ships.
At sea .....	37 05	341 35	1842	21 02 w.	.....	21.0 w.	.....	.....	.....	.....	Jehenne.
At sea (mean of 2 observations) .....	36 06	342 20	1846	21 00 w.	.....	21.0 w.	.....	.....	.....	.....	Bérard.
			1822	.....	.....	.....	62 12	-2 20	59.9	9.81	Sabine.
			1826	.....	.....	.....	62 00	-1 52	60.1	.....	King.
Funchal .....	32 38	343 05	1839	.....	.....	.....	60 16	-0 21	59.9	9.88	Norwegian Officers.
			1840	.....	.....	.....	60 23	-0 14	60.2	9.71	Ross.
			1841	.....	.....	.....	59 50	-0 07	59.7	.....	Fishbourne.
At sea .....	30 47	343 10	1840	.....	.....	.....	.....	.....	.....	9.56	Ross.
At sea .....	33 00	343 50	1832	23 00 w.	.....	23.0 w.	.....	.....	.....	.....	FitzRoy.
At sea (2 observations)	36 34	344 08	1826	22 00 w.	.....	22.0 w.	.....	.....	.....	.....	Lütke.
At sea (2 observations)	31 24	344 13	1826	23 45 w.	.....	23.8 w.	.....	.....	.....	.....	Lütke.
At sea .....	37 20	344 30	1836	23 54 w.	.....	23.9 w.	.....	.....	.....	.....	FitzRoy.
At sea .....	34 35	344 48	1838	.....	.....	.....	61 07	.....	61.1 N.	9.47	Sullivan.
At sea .....	38 41	345 00	1836	23 35 w.	.....	23.6 w.	.....	.....	.....	.....	FitzRoy.
At sea .....	37 28	346 04	1838	.....	.....	.....	63 02	.....	63.0 N.	9.56	Sullivan.
At sea .....	35 07	346 10	1843	23 34 w.	.....	23.6 w.	.....	.....	.....	.....	Pasley.
At sea .....	30 02	346 18	1836	22 24 w.	.....	22.4 w.	.....	.....	.....	.....	Bonite.
At sea (2 observations)	36 42	347 05	1859	23 10 w.	.....	23.2 w.	.....	.....	.....	.....	Novara.
At sea (2 observations)	30 59	347 08	1842	22 30 w.	.....	22.5 w.	.....	.....	.....	.....	Bérard.
At sea .....	39 30	347 51	1840	.....	.....	.....	.....	.....	.....	10.46	Ross.
At sea .....	33 16	348 08	1838	20 01 w.	.....	20.0 w.	.....	.....	.....	.....	Bérard.
At sea (2 observations)	33 34	349 05	1836	24 32 w.	.....	24.5	.....	.....	.....	.....	Bonite.
At sea (2 observations)	32 40	349 24	1842	22 22 w.	.....	22.4	.....	.....	.....	.....	Bérard.
At sea (2 observations)	35 53	350 20	1859	21 32 w.	.....	21.5	.....	.....	.....	.....	Novara.
Lisbon .....	38 43	350 51	1842	23 33 w.	.....	23.6 w.	61 19	.....	61.3 N.	9.79	Lamont.
At sea .....	36 00	352 13	1836	22 20 w.	.....	22.3 w.	.....	.....	.....	.....	Bonite.
At sea .....	35 25	352 15	1846	21 05 w.	.....	21.1 w.	.....	.....	.....	.....	Bérard.
At sea (2 observations)	34 49	352 17	1842	22 00 w.	.....	22.0 w.	.....	.....	.....	.....	Bérard.
At sea (2 observations)	35 11	352 30	1838	21 09 w.	.....	21.2 w.	.....	.....	.....	.....	Bérard.
At sea (3 observations)	35 57	353 37	1846	20 29 w.	.....	20.5 w.	.....	.....	.....	.....	Bérard.
At sea (mean of 2 observations) .....	35 43	353 45	1846	20 27 w.	.....	20.5 w.	.....	.....	.....	.....	Bérard.
Cadiz .....	36 28	353 48	1842	22 05 w.	.....	22.1 w.	58 44	.....	58.7 N.	9.55	Lamont.
			1845	.....	.....	.....	59 27	.....	59.5 N.	.....	Norwegian Officers.
Seville .....	37 23	353 59	1842	22 10 w.	.....	22.2 w.	59 33	.....	59.6 N.	9.59	Lamont.
Tangiers .....	35 47	354 12	1845	.....	.....	.....	58 47	.....	58.8 N.	9.55	Norwegian Officers.
Gibraltar* .....	36 10	354 40	1844	.....	.....	.....	59 15	.....	59.3	9.72	Norwegian Officers.
			1857	19 13 w.	1 53 w.	21.1 w.	57 39	+0 40	58.3	.....	Novara.
At sea .....	36 03	355 20	1854	19 51 w.	.....	19.9 w.	.....	.....	.....	.....	Novara.
Malaga* .....	36 43	355 32	1842	21 36 w.	.....	21.6 w.	58 29	.....	58.5 N.	9.93	Lamont.
At sea .....	36 26	356 02	1846	19 15 w.	.....	19.3 w.	.....	.....	.....	.....	Bérard.

\* The 'Novara' entries in this portion of the Zone are those most distant from the Mean Epoch. The only land station of the 'Novara' is Gibraltar. The latitude and longitude of Gibraltar are so near to those of Malaga that it seems quite justifiable to apply to the 'Novara' result, at the first-named station, the secular change corrections employed at the last-named station by so high an authority as LAMONT, viz. 7.5 Declination and 2.7 Inclination annually. These rates have been employed by Dr. LAMONT's own directions, in reducing his observations to the epoch of 1842, in the preceding and present Papers (Nos. XIII. and XIV.).

## NORTH EQUATORIAL ZONE IV.—Lat. 30° N. to 40° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842·5.	Corrected.	Observed.	Cor. to Epoch 1842·5.	Corrected.		
Tembleque.....	39 42	356 30	1842	21 46 w.	.....	21·8 w.	61 01	.....	61·0 N.	9 67	Lamont.
Granada .....	37 10	356 33	1842	21 26 w.	.....	21·4 w.	58 40	.....	58·7 N.	9·50	Lamont.
At sea.....	35 48	357 00	1842	18 30 w.	.....	18·5 w.	.....	.....	.....	.....	Bérard.
Almeria .....	36 52	357 29	1842	20 57 w.	.....	21·0 w.	58 07	.....	58·1 N.	9·46	Lamont.
At sea.....	36 15	357 34	1858	19 23 w.	.....	19·4 w.	.....	.....	.....	.....	Novara.
At sea (2 observations)	35 52	357 41	1842	18 40 w.	.....	18·7 w.	.....	.....	.....	.....	Bérard.
At sea (2 observations)	37 43	358 06	1846	19 41 w.	.....	19·7 w.	.....	.....	.....	.....	Bérard.
At sea.....	36 46	358 52	1838	19 47 w.	.....	19·8 w.	.....	.....	.....	.....	Bérard.
Cartagena .....	37 36	358 58	1842	20 29 w.	.....	20·5 w.	58 22	.....	58·4 N.	9·44	Lamont.
At sea (3 observations)	36 21	359 06	1846	18 58 w.	.....	19·0 w.	.....	.....	.....	.....	Bérard.
Valencia.....	39 29	359 35	1842	20 32 w.	.....	20·5 w.	60 08	.....	60·1 N.	9·60	Lamont.
At sea (2 observations)	36 10	359 42	1846	19 18 w.	.....	19·3 w.	.....	.....	.....	.....	Bérard.

A few observations are subjoined which should have been included in Zone I.

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.	Observers.
				Observed.	Correction to Epoch 1842·5.	Corrected.	Observed.	Cor. to Epoch 1842·5.	Corrected.		
Mean Point .....	4 18	6 05	1841	.....	.....	.....	2 33 N.	.....	2·6 N.	.....	Fishbourne.
			1841	.....	.....	.....	2 29 N.	.....	2·5 N.	.....	Fishbourne.
			1841	.....	.....	.....	2 30 N.	.....	2·5 N.	.....	Fishbourne.
Eboe .....	5 40	6 27	1841	.....	.....	.....	4 46 N.	.....	4·8 N.	.....	Fishbourne.
Cliff of Idda .....	7 04	7 00	1841	.....	.....	.....	7 45 N.	.....	7·8 N.	.....	Fishbourne.
Fernando Po.....	3 45	8 45	1841	.....	.....	.....	2 14 s.	.....	2·2 s.	.....	Fishbourne.
Sierra Leone .....	8 30	346 44	1841	.....	.....	.....	26 30 N.	.....	26·5 N.	.....	Fishbourne.
Liberia .....	6 25	349 30	1841	.....	.....	.....	22 57 N.	.....	23·0 N.	.....	Fishbourne.
Grunville .....			1841	.....	.....	.....	19 02 N.	.....	19·0 N.	.....	Fishbourne.
Sinou .....	5 00	351 00	1841	.....	.....	.....	18 58 N.	.....	19·0 N.	.....	Fishbourne.
Cape Coast Castle.....	5 06	358 46	1841	.....	.....	.....	11 26 N.	.....	11·4 N.	.....	Fishbourne.
Accra .....	5 32	359 49	1841	.....	.....	.....	11 24 N.	.....	11·4 N.	.....	Fishbourne.

In the following Tables I have placed in comparison with each other, the values of the magnetic Elements at every fifth degree of latitude between 40° N. and the Equator, and at every tenth degree of longitude between 0° and 360°, as shown (1) in the Table published by MM. GAUSS and WEBER, in the 'Atlas des Erdmagnetismus' (Leipsic, 1840), and (2) in the Tables and Maps of the present paper. For the values of the Magnetic Force, which in the Atlas of MM. GAUSS and WEBER are expressed in the Arbitrary Scale, of which the fundamental value is 1·372, or (as written by M. GAUSS) 1372—the Force in London in 1836, I have substituted the Absolute Values corresponding to 10·28 as the Absolute Force in London at the same Epoch, in the scale which was originally adopted in conformity with the Report of the Committee of Physics of the Royal Society, 1840, page 21. In all the three Elements there are some blanks in the columns derived from the data in the present paper, owing to observations being either wanting or insufficient in those localities.



## Declination.

Latitudes.	Gauss.		Sabine.		Gauss.		Sabine.		Gauss.		Sabine.		Gauss.		Sabine.		Gauss.		Sabine.		Latitudes.				
	Long. 0° E.		Long. 10° E.		Long. 20° E.		Long. 30° E.		Long. 40° E.		Long. 50° E.														
°	°	'	°	'	°	'	°	'	°	'	°	'	°	'	°	'	°	'	°	'	°				
40 N.	24	20 W.	20	35 W.	20	48 W.	16	54 W.	16	13 W.	12	41 W.	11	03 W.	8	58 W.	5	49 W.	4	23 W.	1	04 W.	0	55 W.	40 N.
35 N.	23	48 W.	.....	.....	20	57 W.	16	37 W.	16	49 W.	12	39 W.	11	52 W.	8	38 W.	6	40 W.	5	06 W.	1	50 W.	1	53 W.	35 N.
30 N.	23	17 W.	.....	.....	21	06 W.	.....	.....	17	25 W.	12	40 W.	12	43 W.	9	06 W.	7	32 W.	5	49 W.	2	36 W.	2	57 W.	30 N.
25 N.	22	50 W.	.....	.....	21	16 W.	.....	.....	18	03 W.	12	53 W.	13	35 W.	9	37 W.	8	26 W.	6	26 W.	3	02 W.	3	42 W.	25 N.
20 N.	22	25 W.	.....	.....	21	29 W.	.....	.....	18	44 W.	13	13 W.	14	30 W.	10	15 W.	9	22 W.	7	09 W.	4	11 W.	4	19 W.	20 N.
15 N.	22	10 W.	.....	.....	21	46 W.	.....	.....	19	28 W.	13	40 W.	15	30 W.	10	54 W.	10	25 W.	7	52 W.	5	04 W.	4	50 W.	15 N.
10 N.	21	58 W.	.....	.....	22	08 W.	.....	.....	20	18 W.	14	17 W.	16	36 W.	11	36 W.	11	34 W.	8	45 W.	6	01 W.	5	38 W.	10 N.
05 N.	21	51 W.	.....	.....	22	34 W.	18	20 W.	21	13 W.	15	20 W.	17	50 W.	12	27 W.	12	53 W.	9	43 W.	7	17 W.	6	35 W.	05 N.
00 N.	21	49 W.	.....	.....	23	04 W.	19	32 W.	22	14 W.	16	31 W.	19	14 W.	13	39 W.	14	26 W.	10	54 W.	8	45 W.	7	50 W.	00 N.
Long. 60° E.		Long. 70° E.		Long. 80° E.		Long. 90° E.		Long. 100° E.		Long. 110° E.															
40 N.	2	42 E.	1	18 E.	4	56 E.	3	05 E.	5	47 E.	.....	.....	4	55 E.	.....	.....	2	52 E.	.....	.....	0	24 E.	0	22 W.	40 N.
35 N.	2	03 E.	0	34 E.	4	33 E.	1	55 E.	5	25 E.	3	07 E.	4	41 E.	.....	.....	2	48 E.	.....	.....	0	30 E.	0	00	35 N.
30 N.	1	27 E.	0	08 W.	4	06 E.	1	05 E.	5	07 E.	2	12 E.	4	32 E.	.....	.....	2	48 E.	.....	.....	0	40 E.	.....	.....	30 N.
25 N.	0	52 E.	1	19 W.	3	41 E.	0	23 E.	4	49 E.	1	18 E.	4	23 E.	.....	.....	2	49 E.	.....	.....	0	53 E.	.....	.....	25 N.
20 N.	0	14 E.	2	08 W.	3	14 E.	0	01 E.	4	31 E.	0	58 E.	4	13 E.	1	54 E.	2	49 E.	.....	.....	1	05 E.	1	08 E.	20 N.
15 N.	0	27 W.	2	38 W.	2	44 E.	0	25 W.	4	10 E.	0	47 E.	4	00 E.	1	44 E.	2	47 E.	.....	.....	1	15 E.	1	22 E.	15 N.
10 N.	1	15 W.	3	04 W.	2	07 E.	0	40 W.	3	42 E.	0	40 E.	3	41 E.	1	35 E.	2	39 E.	.....	.....	1	22 E.	1	11 E.	10 N.
05 N.	2	14 W.	3	42 W.	1	20 E.	1	06 W.	3	04 E.	0	28 E.	3	12 E.	1	17 E.	2	22 E.	2	00 E.	1	21 E.	1	23 E.	05 N.
00 N.	3	29 W.	4	42 W.	0	17 E.	2	01 W.	2	11 E.	.....	.....	2	30 E.	.....	.....	1	54 E.	.....	.....	1	12 E.	.....	.....	00 N.
Long. 120° E.		Long. 130° E.		Long. 140° E.		Long. 150° E.		Long. 160° E.		Long. 170° E.															
40 N.	1	34 W.	1	54 W.	2	21 W.	.....	.....	1	39 W.	2	00 W.	0	27 E.	1	04 E.	3	35 E.	4	24 E.	7	15 E.	9	02 E.	40 N.
35 N.	1	20 W.	1	28 W.	2	02 W.	.....	.....	1	18 W.	1	13 W.	0	47 E.	1	37 E.	3	51 E.	4	51 E.	7	20 E.	9	23 E.	35 N.
30 N.	1	00 W.	1	03 W.	1	35 W.	1	53 W.	0	47 W.	0	34 W.	1	18 E.	2	17 E.	4	17 E.	5	33 E.	7	33 E.	9	43 E.	30 N.
25 N.	0	37 W.	0	34 W.	1	03 W.	1	12 W.	0	09 W.	0	00	1	57 E.	2	58 E.	4	50 E.	6	02 E.	7	53 E.	10	02 E.	25 N.
20 N.	0	12 W.	0	06 W.	0	27 W.	0	31 W.	0	34 E.	1	07 E.	2	43 E.	3	44 E.	5	30 E.	6	48 E.	8	16 E.	10	18 E.	20 N.
15 N.	0	12 E.	0	18 E.	0	10 E.	0	10 E.	1	21 E.	1	48 E.	3	32 E.	4	12 E.	6	12 E.	7	17 E.	8	42 E.	10	32 E.	15 N.
10 N.	0	34 E.	0	41 E.	0	47 E.	.....	.....	2	13 E.	2	27 E.	4	23 E.	4	40 E.	6	56 E.	7	35 E.	9	07 E.	11	00 E.	10 N.
05 N.	0	52 E.	0	53 E.	1	22 E.	.....	.....	2	55 E.	.....	.....	5	13 E.	5	08 E.	7	38 E.	.....	.....	9	30 E.	.....	.....	05 N.
00 N.	1	04 E.	1	09 E.	1	51 E.	.....	.....	3	37 E.	.....	.....	5	58 E.	.....	.....	8	16 E.	.....	.....	9	49 E.	.....	.....	00 N.
Long. 180° E.		Long. 190° E.		Long. 200° E.		Long. 210° E.		Long. 220° E.		Long. 230° E.															
40 N.	10	55 E.	.....	.....	14	05 E.	.....	.....	16	28 E.	.....	.....	17	56 E.	.....	.....	18	28 E.	.....	.....	18	08 E.	.....	.....	40 N.
35 N.	10	41 E.	.....	.....	13	25 E.	.....	.....	15	17 E.	14	21 E.	16	16 E.	15	23 E.	16	27 E.	15	24 E.	15	59 E.	14	40 E.	35 N.
30 N.	10	33 E.	.....	.....	12	49 E.	.....	.....	14	10 E.	12	32 E.	14	12 E.	12	56 E.	14	37 E.	12	56 E.	14	05 E.	12	26 E.	30 N.
25 N.	10	29 E.	.....	.....	12	15 E.	.....	.....	13	06 E.	10	47 E.	13	14 E.	10	35 E.	12	55 E.	10	35 E.	12	25 E.	10	16 E.	25 N.
20 N.	10	27 E.	.....	.....	11	42 E.	.....	.....	12	03 E.	.....	.....	11	49 E.	8	57 E.	11	22 E.	8	20 E.	10	56 E.	8	05 E.	20 N.
15 N.	10	26 E.	.....	.....	11	09 E.	.....	.....	11	02 E.	.....	.....	10	29 E.	.....	.....	9	56 E.	.....	.....	9	36 E.	6	37 E.	15 N.
10 N.	10	23 E.	.....	.....	10	36 E.	.....	.....	10	03 E.	.....	.....	9	14 E.	.....	.....	8	38 E.	.....	.....	8	31 E.	5	11 E.	10 N.
05 N.	10	20 E.	.....	.....	10	05 E.	.....	.....	9	09 E.	.....	.....	8	07 E.	.....	.....	7	29 E.	.....	.....	7	27 E.	.....	.....	05 N.
00 N.	10	15 E.	.....	.....	9	36 E.	.....	.....	8	22 E.	.....	.....	7	10 E.	.....	.....	6	32 E.	.....	.....	6	39 E.	.....	.....	00 N.
Long. 240° E.		Long. 250° E.		Long. 260° E.		Long. 270° E.		Long. 280° E.		Long. 290° E.															
40 N.	16	57 E.	.....	.....	14	52 E.	14	45 E.	11	45 E.	11	56 E.	7	29 E.	7	37 E.	2	03 E.	0	00	4	20 W.	8	00 W.	40 N.
35 N.	14	56 E.	13	51 E.	13	16 E.	12	44 E.	10	52 E.	11	18 E.	7	36 E.	7	40 E.	3	21 E.	2	14 E.	1	47 W.	4	12 W.	35 N.
30 N.	13	13 E.	11	51 E.	11	58 E.	11	17 E.	10	10 E.	10	18 E.	7	40 E.	7	33 E.	4	18 E.	3	32 E.	0	04 E.	1	28 W.	30 N.
25 N.	11	47 E.	9	56 E.	10	55 E.	9	41 E.	9	39 E.	9	29 E.	7	45 E.	7	27 E.	5	03 E.	4	31 E.	1	31 E.	0	37 E.	25 N.
20 N.	10	32 E.	8	14 E.	10	03 E.	8	35 E.	9	14 E.	8	49 E.	7	51 E.	7	23 E.	5	41 E.	5	12 E.	2	39 E.	2	04 E.	20 N.
15 N.	9	29 E.	6	48 E.	9	22 E.	7	25 E.	8	58 E.	8	10 E.	8	00 E.	7	18 E.	6	15 E.	5	38 E.	3	38 E.	3	15 E.	15 N.
10 N.	8	36 E.	5	23 E.	8	50 E.	6	26 E.	8	49 E.	7	24 E.	8	12 E.	7	39 E.	6	49 E.	6	25 E.	4	30 E.	4	30 E.	10 N.
05 N.	7	53 E.	.....	.....	8	28 E.	6	07 E.	8	47 E.	7	25 E.	8	30 E.	.....	.....	7	23 E.	7	14 E.	5	19 E.	5	29 E.	05 N.
00 N.	7	21 E.	.....	.....	8	14 E.	.....	.....	8	52 E.	.....	.....	8	53 E.	.....	.....	8	00 E.	.....	.....	6	08 E.	6	19 E.	00 N.
Long. 300° E.		Long. 310° E.		Long. 320° E.		Long. 330° E.		Long. 340° E.		Long. 350° E.															
40 N.	11	03 W.	14	08 W.	17	17 W.	19	15 W.	22	17 W.	.....	.....	25	34 W.	.....	.....	26	57 W.	.....	.....	26	29 W.	.....	.....	40 N.
35 N.	7	31 W.	9	16 W.	13	17 W.	14	00 W.	18	24 W.	18	13 W.	22	18 W.	.....	.....	24	35 W.	.....	.....	25	04 W.	.....	.....	35 N.
30 N.	4	52 W.	6	31 W.	10	09 W.	10	52 W.	15	13 W.	15	24 W.	19	30 W.	19	04 W.	22	27 W.	.....	.....	23	42 W.	.....	.....	30 N.
25 N.	2	49 W.	4	01 W.	7	40 W.	8	28 W.	12	37 W.	12	51 W.	17	07 W.	16	36 W.	20	36 W.	19	42 W.	22	35 W.	.....	.....	25 N.
20 N.	1	12 W.	1	34 W.	5	42 W.	6	10 W.	10	31 W.	10	48 W.	15	08 W.	15	13 W.	19	00 W.	18	01 W.	21	34 W.	.....	.....	20 N.
15 N.	0	08 E.	0	31 E.	4	06 W.	3	52 W.	8	47 W.	8	55 W.	13	29 W.	13	31 W.	17	38 W.	.....	.....	20	41 W.	.....	.....	15 N.
10 N.	1	16 E.	1	44 E.	2	46 W.	1	59 W.	7	16 W.	7	17 W.	12	06 W.	12	16 W.	16	30 W.	.....	.....	19	58 W.	.....	.....	10 N.
05 N.	2	17 E.	2	48 E.	1	36 W.	0	22 W.	6	08 W.	6	00 W.	10	56 W.	11	23 W.	15	32 W.	.....	.....	19	22 W.	.....	.....	05 N.
00 N.	3	14 E.	3	44 E.	0	33 W.	0	34 E.	5	02 W.	4	53 W.	9	54 W.	10	43 W.	14	42 W.	15	39 W.	18	52 W.	19	26 W.	00 N.



## Inclination.

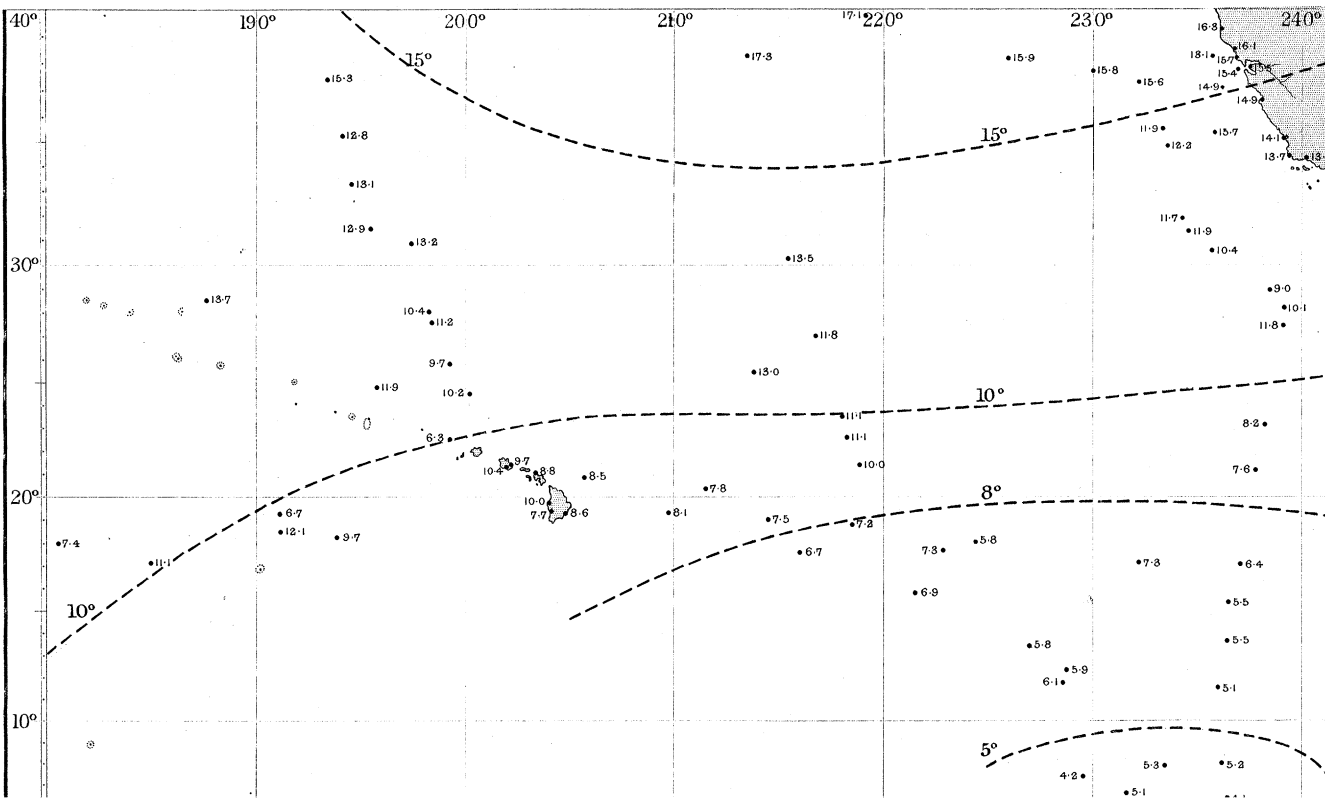
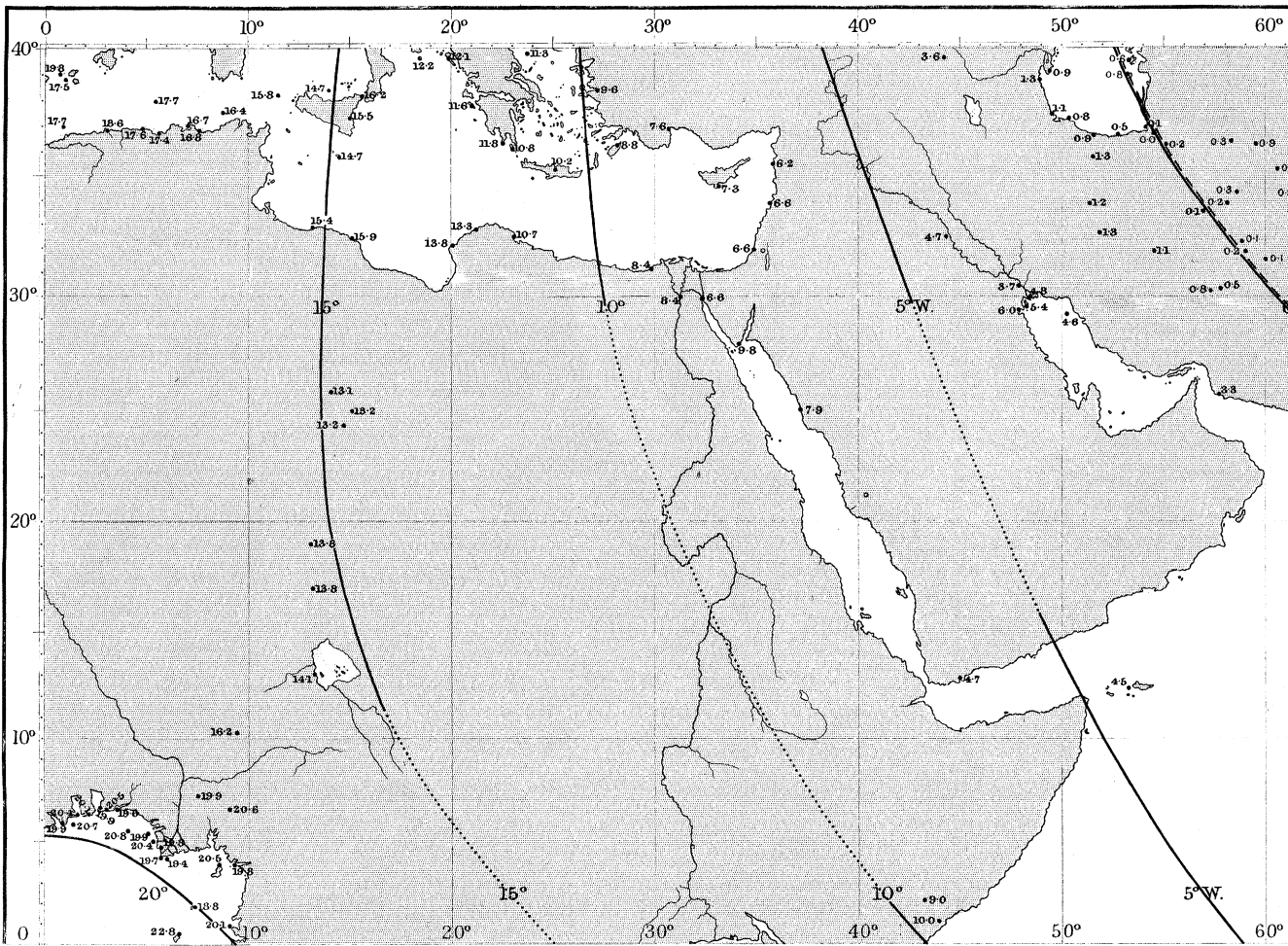
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	Long. 0° E.		Long. 10° E.		Long. 20° E.		Long. 30° E.		Long. 40° E.		Long. 50° E.						
°	°	'	°	'	°	'	°	'	°	'	°	'	°	'	°	'	°
40 N.	60 44 N.	61 00 N.	57 04 N.	58 55 N.	53 38 N.	57 25 N.	50 53 N.	55 40 N.	49 12 N.	54 55 N.	48 47 N.	54 10 N.	40 N.				
35 N.	56 22 N.	.....	51 56 N.	54 07 N.	47 37 N.	51 25 N.	44 03 N.	49 11 N.	41 47 N.	47 41 N.	41 07 N.	47 16 N.	35 N.				
30 N.	51 25 N.	50 05 N.	46 05 N.	46 30 N.	40 47 N.	43 06 N.	36 17 N.	40 56 N.	33 20 N.	40 15 N.	32 21 N.	40 00 N.	30 N.				
25 N.	45 49 N.	44 18 N.	39 31 N.	39 25 N.	33 17 N.	34 06 N.	27 34 N.	31 21 N.	23 52 N.	30 20 N.	22 31 N.	30 00 N.	25 N.				
20 N.	39 31 N.	37 53 N.	32 12 N.	29 42 N.	24 38 N.	23 53 N.	18 01 N.	21 05 N.	13 32 N.	20 00 N.	11 48 N.	19 38 N.	20 N.				
15 N.	32 28 N.	27 56 N.	24 09 N.	19 31 N.	15 29 N.	13 58 N.	7 53 N.	11 29 N.	2 42 N.	10 00 N.	0 36 N.	9 08 N.	15 N.				
10 N.	24 44 N.	18 37 N.	15 30 N.	9 04 N.	5 54 N.	4 52 N.	2 26 S.	2 23 N.	8 08 S.	0 25 N.	10 32 S.	1 04 S.	10 N.				
05 N.	16 22 N.	9 31 N.	6 28 N.	1 34 N.	3 46 S.	3 22 S.	12 27 S.	.....	18 24 S.	.....	20 58 S.	.....	05 N.				
00 N.	7 36 N.	.....	2 38 S.	.....	12 58 S.	.....	21 44 S.	.....	27 42 S.	.....	30 24 S.	.....	00 N.				
Long. 60° E.		Long. 70° E.		Long. 80° E.		Long. 90° E.		Long. 100° E.		Long. 110° E.							
40 N.	49 32 N.	.....	51 08 N.	.....	53 02 N.	.....	54 45 N.	.....	55 50 N.	.....	56 06 N.	.....	40 N.				
35 N.	41 56 N.	47 15 N.	43 49 N.	47 35 N.	46 06 N.	48 24 N.	48 10 N.	49 40 N.	49 32 N.	50 41 N.	49 55 N.	51 06 N.	35 N.				
30 N.	33 14 N.	40 00 N.	35 26 N.	40 08 N.	38 10 N.	40 34 N.	40 39 N.	41 17 N.	42 18 N.	42 22 N.	42 51 N.	42 40 N.	30 N.				
25 N.	23 27 N.	30 15 N.	25 59 N.	30 56 N.	29 08 N.	31 52 N.	32 06 N.	32 51 N.	34 06 N.	34 02 N.	34 49 N.	34 42 N.	25 N.				
20 N.	12 44 N.	20 00 N.	15 33 N.	20 50 N.	19 11 N.	21 53 N.	22 32 N.	23 10 N.	24 51 N.	24 47 N.	25 47 N.	25 54 N.	20 N.				
15 N.	1 28 N.	9 17 N.	4 28 N.	9 27 N.	8 24 N.	10 59 N.	12 06 N.	13 13 N.	14 42 N.	15 00 N.	15 49 N.	16 03 N.	15 N.				
10 N.	9 48 S.	1 28 S.	6 47 S.	0 51 S.	2 43 S.	0 22 N.	1 09 N.	2 32 N.	3 56 N.	4 46 N.	5 12 N.	6 00 N.	10 N.				
05 N.	20 27 S.	.....	17 36 S.	11 41 S.	13 37 S.	10 19 S.	9 47 S.	7 49 S.	6 58 S.	5 34 S.	5 33 S.	4 00 S.	05 N.				
00 N.	30 04 S.	.....	27 29 S.	.....	23 47 S.	.....	20 09 S.	.....	17 27 S.	.....	16 03 S.	.....	00 N.				
Long. 120° E.		Long. 130° E.		Long. 140° E.		Long. 150° E.		Long. 160° E.		Long. 170° E.							
40 N.	55 33 N.	.....	54 28 N.	.....	53 15 N.	.....	52 21 N.	.....	52 05 N.	53 40 N.	52 38 N.	54 20 N.	40 N.				
35 N.	49 23 N.	50 54 N.	48 15 N.	49 29 N.	46 59 N.	47 30 N.	46 06 N.	46 12 N.	46 00 N.	46 28 N.	46 48 N.	48 38 N.	35 N.				
30 N.	42 22 N.	42 38 N.	41 12 N.	42 01 N.	39 56 N.	40 32 N.	39 09 N.	40 00 N.	39 16 N.	40 45 N.	40 27 N.	42 58 N.	30 N.				
25 N.	34 24 N.	34 56 N.	33 16 N.	34 37 N.	32 03 N.	33 41 N.	31 27 N.	33 23 N.	31 55 N.	34 15 N.	33 32 N.	37 00 N.	25 N.				
20 N.	25 27 N.	26 09 N.	24 24 N.	25 44 N.	23 20 N.	25 17 N.	23 20 N.	25 22 N.	23 52 N.	27 00 N.	26 02 N.	30 00 N.	20 N.				
15 N.	15 38 N.	16 09 N.	14 43 N.	15 55 N.	13 54 N.	15 33 N.	13 55 N.	15 50 N.	15 18 N.	18 24 N.	18 01 N.	22 09 N.	15 N.				
10 N.	5 11 N.	6 23 N.	4 31 N.	6 13 N.	4 01 N.	5 40 N.	4 29 N.	6 23 N.	6 22 N.	9 38 N.	9 35 N.	14 08 N.	10 N.				
05 N.	5 25 S.	3 05 S.	5 49 S.	3 16 S.	5 55 S.	3 52 S.	4 59 S.	3 00 S.	2 38 S.	0 31 N.	0 58 N.	5 37 N.	05 N.				
00 N.	15 41 S.	13 34 S.	15 45 S.	13 15 S.	15 27 S.	13 25 S.	14 07 S.	.....	11 25 S.	.....	7 35 S.	.....	00 N.				
Long. 180° E.		Long. 190° E.		Long. 200° E.		Long. 210° E.		Long. 220° E.		Long. 230° E.							
40 N.	53 55 N.	55 00 N.	55 47 N.	56 00 N.	57 59 N.	57 35 N.	60 16 N.	59 40 N.	62 32 N.	61 45 N.	64 42 N.	.....	40 N.				
35 N.	48 27 N.	52 00 N.	50 39 N.	.....	53 05 N.	.....	55 30 N.	55 41 N.	57 47 N.	57 14 N.	59 55 N.	58 55 N.	35 N.				
30 N.	42 31 N.	46 08 N.	45 04 N.	49 23 N.	47 43 N.	51 35 N.	50 13 N.	51 38 N.	52 28 N.	52 28 N.	54 31 N.	53 15 N.	30 N.				
25 N.	36 04 N.	40 42 N.	38 59 N.	43 21 N.	41 50 N.	45 18 N.	44 20 N.	46 28 N.	46 29 N.	47 11 N.	48 25 N.	47 30 N.	25 N.				
20 N.	29 04 N.	33 17 N.	32 21 N.	37 16 N.	35 20 N.	38 53 N.	37 46 N.	40 11 N.	39 44 N.	40 35 N.	41 30 N.	40 37 N.	20 N.				
15 N.	21 32 N.	26 09 N.	25 07 N.	.....	28 10 N.	31 39 N.	30 27 N.	32 24 N.	32 09 N.	32 41 N.	33 40 N.	32 38 N.	15 N.				
10 N.	13 31 N.	19 03 N.	17 18 N.	.....	20 18 N.	.....	22 21 N.	.....	23 43 N.	23 37 N.	24 55 N.	23 16 N.	10 N.				
05 N.	5 09 N.	11 20 N.	9 00 N.	.....	11 50 N.	.....	13 32 N.	.....	14 30 N.	14 33 N.	15 19 N.	13 55 N.	05 N.				
00 N.	3 21 S.	.....	0 22 N.	.....	2 55 N.	.....	4 14 N.	.....	4 45 N.	.....	5 12 N.	.....	00 N.				
Long. 240° E.		Long. 250° E.		Long. 260° E.		Long. 270° E.		Long. 280° E.		Long. 290° E.							
40 N.	66 44 N.	65 00 N.	68 39 N.	67 10 N.	70 24 N.	69 10 N.	71 54 N.	70 37 N.	73 02 N.	72 00 N.	73 40 N.	.....	40 N.				
35 N.	61 56 N.	60 35 N.	63 52 N.	62 01 N.	65 42 N.	63 41 N.	67 22 N.	65 20 N.	68 44 N.	66 53 N.	69 40 N.	68 07 N.	35 N.				
30 N.	56 30 N.	54 22 N.	58 27 N.	55 54 N.	60 24 N.	57 46 N.	62 15 N.	59 46 N.	63 53 N.	61 21 N.	65 07 N.	62 53 N.	30 N.				
25 N.	50 19 N.	48 05 N.	52 19 N.	49 28 N.	54 24 N.	51 14 N.	56 29 N.	53 11 N.	58 24 N.	55 17 N.	59 58 N.	57 19 N.	25 N.				
20 N.	43 18 N.	41 02 N.	45 20 N.	42 14 N.	47 35 N.	44 03 N.	49 57 N.	46 16 N.	52 13 N.	48 37 N.	54 08 N.	57 53 N.	20 N.				
15 N.	35 22 N.	32 59 N.	37 25 N.	34 20 N.	39 53 N.	36 21 N.	42 35 N.	38 48 N.	45 15 N.	41 30 N.	47 35 N.	43 59 N.	15 N.				
10 N.	26 27 N.	23 36 N.	28 32 N.	25 08 N.	31 13 N.	27 41 N.	34 17 N.	30 44 N.	37 23 N.	33 29 N.	40 07 N.	36 32 N.	10 N.				
05 N.	16 38 N.	14 03 N.	18 43 N.	15 15 N.	21 36 N.	17 56 N.	25 02 N.	20 47 N.	28 37 N.	24 35 N.	31 54 N.	28 17 N.	05 N.				
00 N.	6 15 N.	.....	8 15 N.	.....	11 15 N.	.....	14 59 N.	.....	19 00 N.	.....	22 46 N.	.....	00 N.				
Long. 300° E.		Long. 310° E.		Long. 320° E.		Long. 330° E.		Long. 340° E.		Long. 350° E.							
40 N.	73 43 N.	.....	73 07 N.	.....	71 50 N.	70 55 N.	69 54 N.	68 20 N.	67 21 N.	65 30 N.	64 14 N.	63 00 N.	40 N.				
35 N.	70 01 N.	68 27 N.	69 42 N.	68 12 N.	68 37 N.	66 57 N.	66 43 N.	64 39 N.	63 59 N.	62 06 N.	60 30 N.	59 25 N.	35 N.				
30 N.	65 47 N.	63 50 N.	65 44 N.	64 08 N.	64 50 N.	63 07 N.	62 58 N.	61 07 N.	60 06 N.	58 12 N.	56 13 N.	54 25 N.	30 N.				
25 N.	60 57 N.	59 19 N.	61 10 N.	60 21 N.	60 28 N.	59 28 N.	58 39 N.	56 51 N.	55 37 N.	53 41 N.	51 19 N.	50 00 N.	25 N.				
20 N.	55 28 N.	52 43 N.	55 59 N.	54 02 N.	55 28 N.	53 50 N.	53 42 N.	52 03 N.	50 29 N.	48 47 N.	45 44 N.	44 09 N.	20 N.				
15 N.	49 17 N.	46 01 N.	50 06 N.	47 36 N.	49 46 N.	48 13 N.	48 02 N.	46 26 N.	44 39 N.	42 53 N.	39 27 N.	37 36 N.	15 N.				
10 N.	42 19 N.	39 10 N.	43 28 N.	41 08 N.	43 20 N.	41 42 N.	41 38 N.	40 13 N.	38 04 N.	36 01 N.	32 25 N.	28 10 N.	10 N.				
05 N.	34 29 N.	31 02 N.	35 59 N.	33 32 N.	36 08 N.	35 04 N.	34 26 N.	33 13 N.	30 42 N.	27 49 N.	24 40 N.	18 48 N.	05 N.				
00 N.	25 49 N.	.....	27 41 N.	.....	28 00 N.	.....	26 25 N.	.....	22 35 N.	.....	16 16 N.	9 47 N.	00 N.				

## Force in British Units.

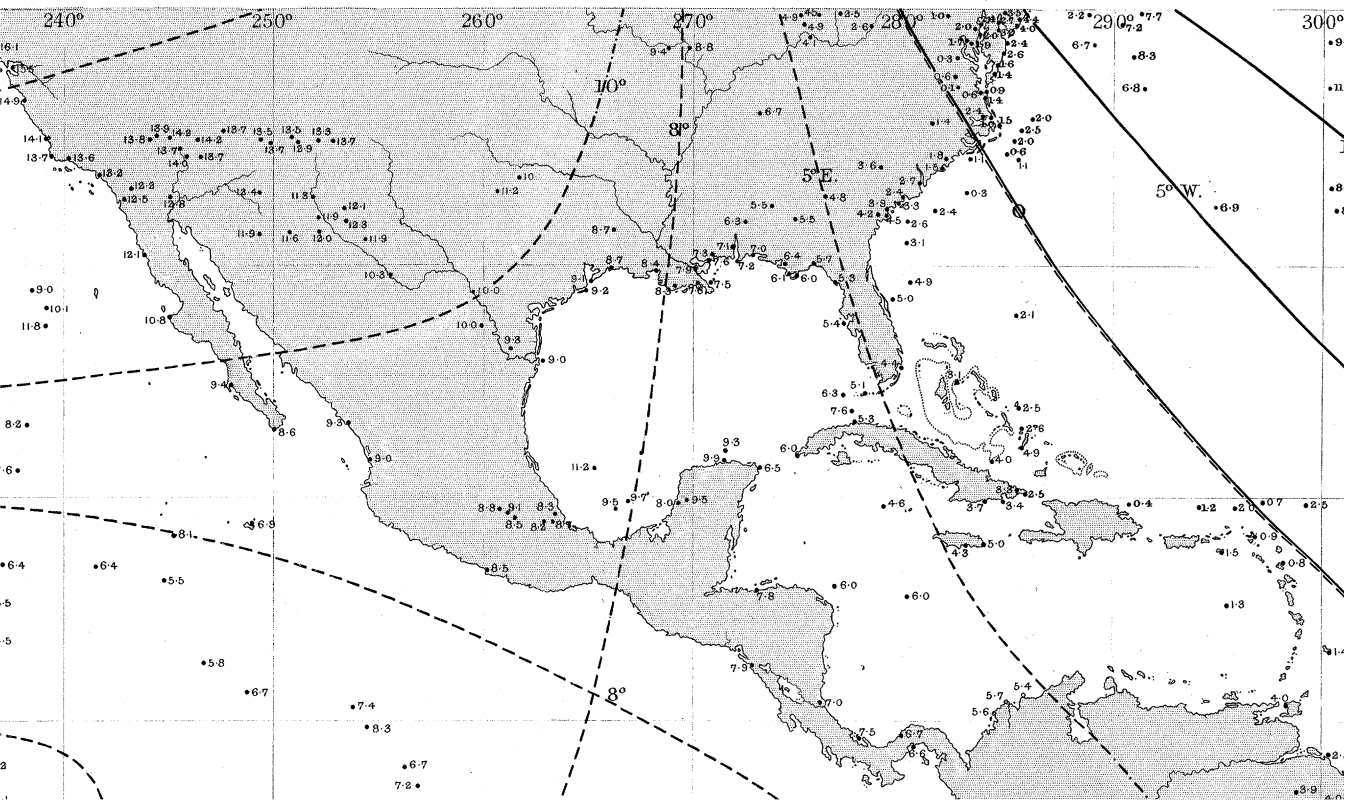
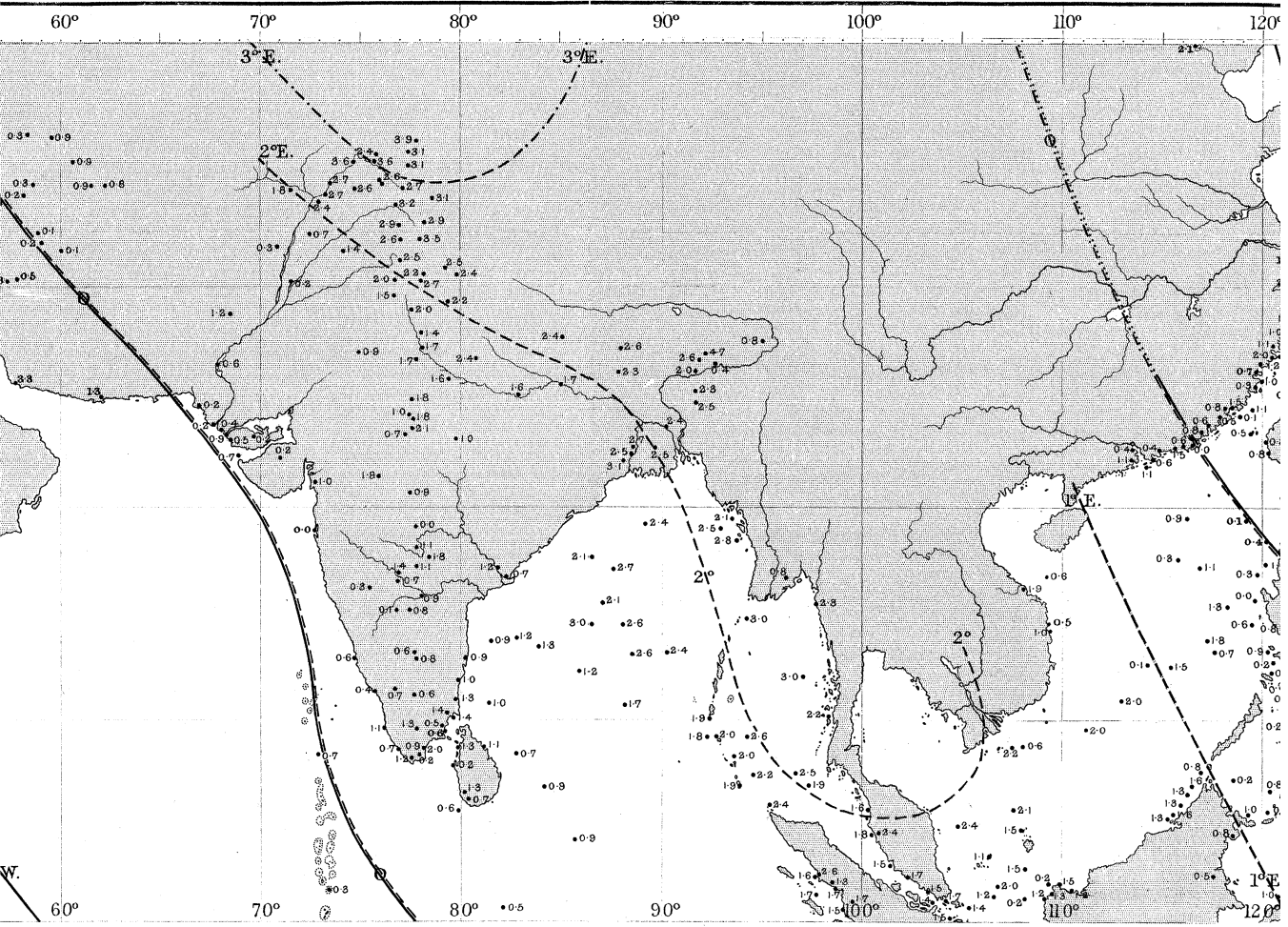
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	Long. 0° E.		Long. 10° E.		Long. 20° E.		Long. 30° E.		Long. 40° E.		Long. 50° E.		
°													°
40 N.	9.85	.....	9.53	.....	9.33	.....	9.28	.....	9.36	.....	9.57	.....	40 N.
35 N.	9.49	.....	9.12	.....	8.88	.....	8.77	9.1	8.82	9.4	9.01	.....	35 N.
30 N.	9.08	8.9	8.67	.....	8.39	.....	8.26	8.4	8.29	8.6	8.45	9.0	30 N.
25 N.	8.61	8.6	8.21	.....	7.92	.....	7.78	7.7	7.81	7.9	7.96	8.3	25 N.
20 N.	8.16	8.3	7.76	.....	7.49	.....	7.38	.....	7.42	.....	7.57	.....	20 N.
15 N.	7.70	8.1	7.33	.....	7.12	.....	7.07	.....	7.16	.....	7.32	.....	15 N.
10 N.	7.26	7.6	6.97	.....	6.84	.....	6.88	.....	7.02	.....	7.20	.....	10 N.
05 N.	6.87	7.0	6.68	.....	6.66	.....	6.79	.....	7.01	.....	7.23	.....	05 N.
00 N.	6.55	.....	6.47	.....	6.56	.....	6.79	.....	7.07	.....	7.32	.....	00 N.
	Long. 60° E.		Long. 70° E.		Long. 80° E.		Long. 90° E.		Long. 100° E.		Long. 110° E.		
40 N.	9.88	.....	10.23	.....	10.56	.....	10.80	11.3	10.94	.....	10.93	.....	40 N.
35 N.	9.30	9.7	9.64	10.0	9.97	10.4	10.23	10.7	10.36	10.7	10.36	10.6	35 N.
30 N.	8.72	9.3	9.04	9.5	9.35	9.8	9.60	9.9	9.73	9.9	9.72	9.9	30 N.
25 N.	8.19	8.8	8.48	9.1	8.75	9.3	8.98	9.4	9.11	9.4	9.11	9.4	25 N.
20 N.	7.78	8.1	8.01	8.6	8.25	8.8	8.45	8.9	8.56	8.9	8.57	8.9	20 N.
15 N.	7.50	.....	7.69	8.1	7.87	.....	8.03	8.4	8.14	8.6	8.15	8.6	15 N.
10 N.	7.37	.....	7.53	.....	7.66	.....	7.78	.....	7.87	8.2	7.90	8.4	10 N.
05 N.	7.39	.....	7.51	.....	7.61	.....	7.71	.....	7.79	.....	7.83	.....	05 N.
00 N.	7.51	.....	7.62	.....	7.72	.....	7.80	.....	7.89	.....	7.96	.....	00 N.
	Long. 120° E.		Long. 130° E.		Long. 140° E.		Long. 150° E.		Long. 160° E.		Long. 170° E.		
40 N.	10.78	.....	10.53	.....	10.25	.....	9.98	.....	9.82	.....	9.79	.....	40 N.
35 N.	10.19	10.5	9.93	.....	9.64	.....	9.37	9.1	9.20	8.9	9.17	8.9	35 N.
30 N.	9.57	9.8	9.31	.....	9.02	8.9	8.76	8.7	8.59	8.5	8.56	8.5	30 N.
25 N.	8.97	9.2	8.73	8.9	8.46	8.7	8.21	8.4	8.05	8.2	8.01	8.1	25 N.
20 N.	8.45	8.8	8.24	8.5	7.99	8.4	7.76	8.1	7.60	7.9	7.56	7.8	20 N.
15 N.	8.06	8.5	7.89	8.2	7.67	8.1	7.45	7.8	7.29	.....	7.22	.....	15 N.
10 N.	7.84	8.2	7.70	.....	7.51	.....	7.30	.....	7.13	.....	7.03	.....	10 N.
05 N.	7.81	.....	7.67	.....	7.53	.....	7.34	.....	7.14	.....	7.01	.....	05 N.
00 N.	7.97	.....	7.90	.....	7.76	.....	7.55	.....	7.33	.....	7.15	.....	00 N.
	Long. 180° E.		Long. 190° E.		Long. 200° E.		Long. 210° E.		Long. 220° E.		Long. 230° E.		
40 N.	9.89	.....	10.14	.....	10.50	.....	10.93	.....	11.39	.....	11.82	12.0	40 N.
35 N.	9.29	.....	9.55	.....	9.93	.....	10.39	.....	10.87	.....	11.33	11.1	35 N.
30 N.	8.68	.....	8.95	.....	9.34	.....	9.79	.....	10.27	.....	10.74	10.4	30 N.
25 N.	8.13	.....	8.39	.....	8.75	8.8	9.19	9.2	9.65	.....	10.10	9.8	25 N.
20 N.	7.65	.....	7.89	.....	8.22	8.3	8.62	8.6	9.05	8.9	9.46	9.2	20 N.
15 N.	7.29	.....	7.48	.....	7.76	7.8	8.11	8.1	8.49	8.4	8.86	8.7	15 N.
10 N.	7.05	.....	7.19	.....	7.42	.....	7.69	.....	8.03	7.9	8.35	8.2	10 N.
05 N.	6.97	.....	7.01	.....	7.20	.....	7.43	.....	7.69	.....	7.97	.....	05 N.
00 N.	7.04	.....	7.05	.....	7.15	.....	7.32	.....	7.53	.....	7.74	.....	00 N.
	Long. 240° E.		Long. 250° E.		Long. 260° E.		Long. 270° E.		Long. 280° E.		Long. 290° E.		
40 N.	12.20	.....	12.50	.....	12.68	.....	12.75	.....	12.70	13.6	12.53	.....	40 N.
35 N.	11.74	11.7	12.06	12.4	12.28	12.8	12.39	13.1	12.37	13.1	12.24	12.7	35 N.
30 N.	11.16	10.9	11.50	11.5	11.75	12.0	11.89	12.4	11.91	12.4	11.81	12.2	30 N.
25 N.	10.51	10.2	10.86	10.7	11.12	11.2	11.29	11.6	11.34	11.7	11.28	11.5	25 N.
20 N.	9.85	9.6	10.18	10.1	10.44	10.5	10.62	10.8	10.69	10.9	10.67	10.8	20 N.
15 N.	9.21	9.0	9.51	9.4	9.75	9.8	9.92	10.0	10.01	10.1	10.00	10.0	15 N.
10 N.	8.64	8.5	8.90	8.8	9.11	9.0	9.25	9.2	9.33	9.2	9.34	9.2	10 N.
05 N.	8.20	8.0	8.40	8.2	8.56	8.4	8.66	8.5	8.70	8.5	8.69	8.5	05 N.
00 N.	7.92	.....	8.07	.....	8.15	7.8	8.19	7.8	8.19	7.8	8.13	7.8	00 N.
	Long. 300° E.		Long. 310° E.		Long. 320° E.		Long. 330° E.		Long. 340° E.		Long. 350° E.		
40 N.	12.27	.....	11.93	.....	11.54	.....	11.11	.....	10.67	.....	10.23	10.0	40 N.
35 N.	12.00	.....	11.68	11.8	11.30	.....	10.86	10.7	10.40	10.2	9.93	9.5	35 N.
30 N.	11.61	11.8	11.32	11.3	10.95	10.8	10.52	10.3	10.04	9.7	9.55	9.1	30 N.
25 N.	11.12	11.2	10.85	10.8	10.51	10.4	10.09	9.8	9.62	9.2	9.12	8.8	25 N.
20 N.	10.54	10.6	10.31	10.2	9.99	9.8	9.60	9.3	9.14	8.8	8.64	8.5	20 N.
15 N.	9.90	9.8	9.70	9.6	9.42	9.2	9.05	8.8	8.51	8.4	8.14	8.2	15 N.
10 N.	9.24	9.1	9.07	8.9	8.81	8.7	8.47	8.3	8.07	8.0	7.65	7.8	10 N.
05 N.	8.60	8.4	8.45	8.3	8.20	8.1	7.89	7.8	7.55	.....	7.18	7.3	05 N.
00 N.	8.03	7.8	7.87	7.7	7.65	.....	7.38	.....	7.07	.....	6.77	6.9	00 N.

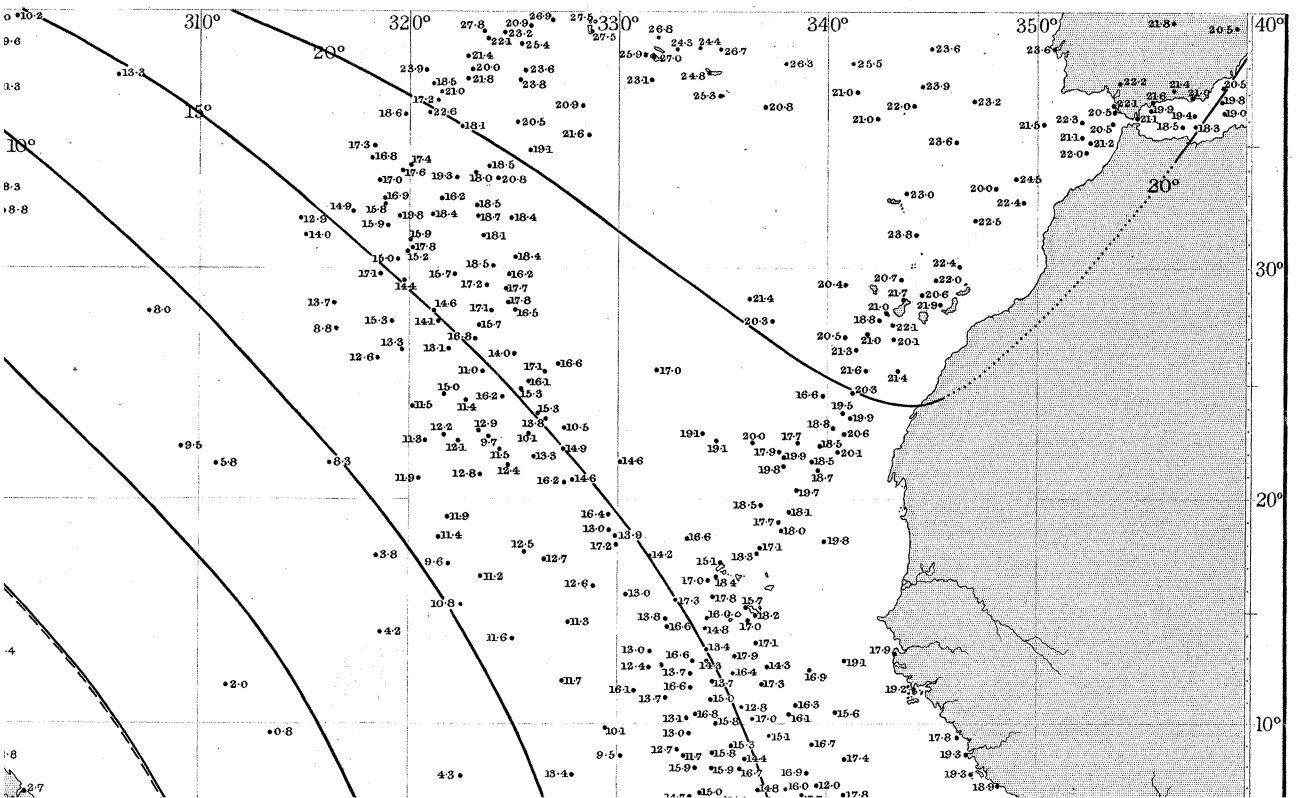
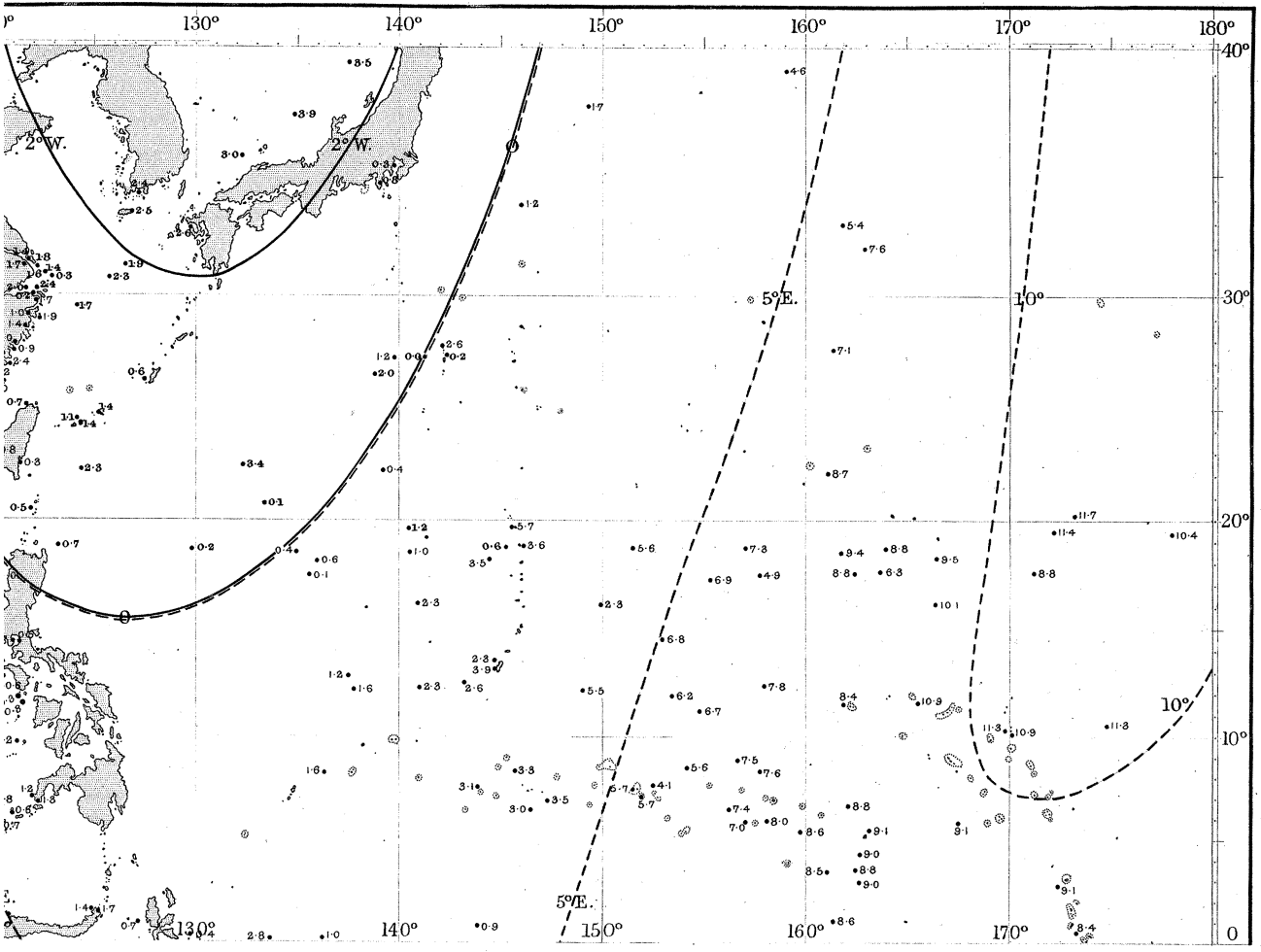
# MAGNETIC SURVEY

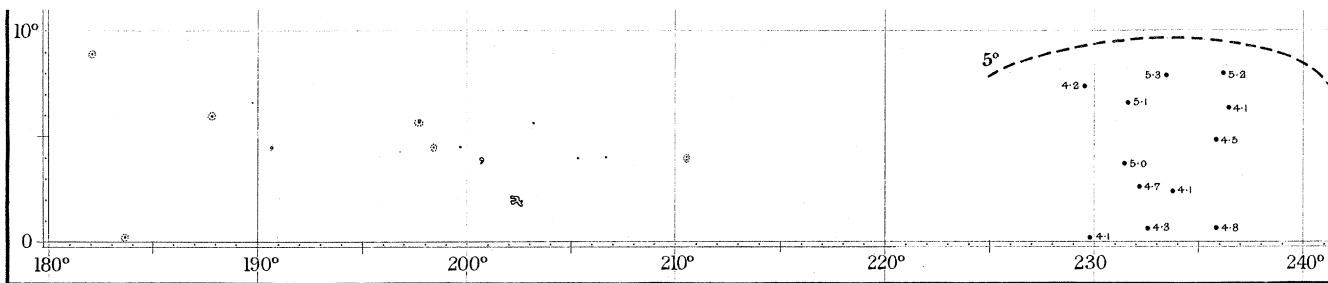
(Sabine)

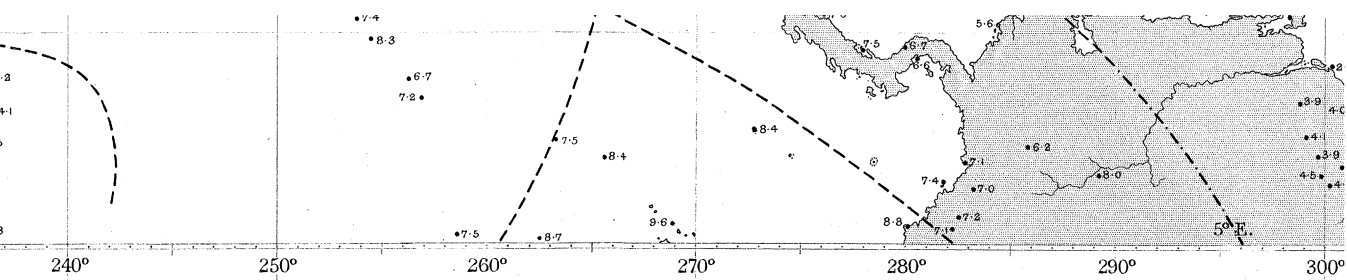


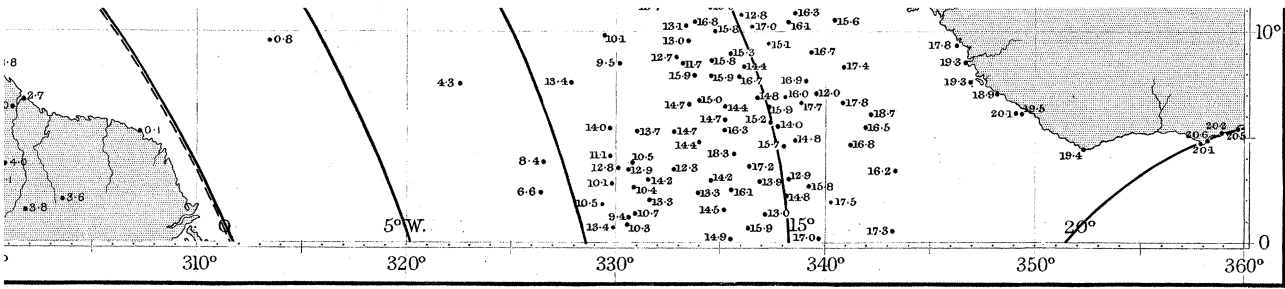
VEY — between the parallel of 10°N. and the Equator — Epoch 1846









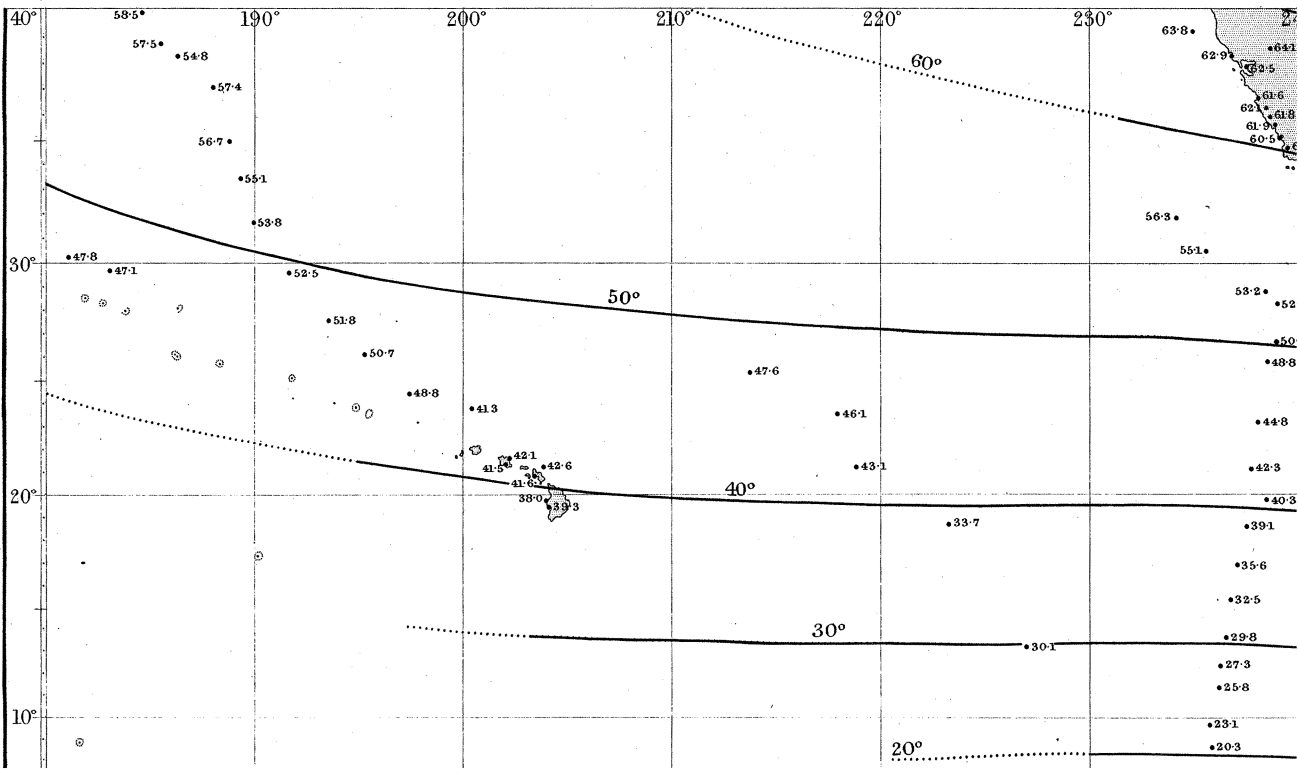
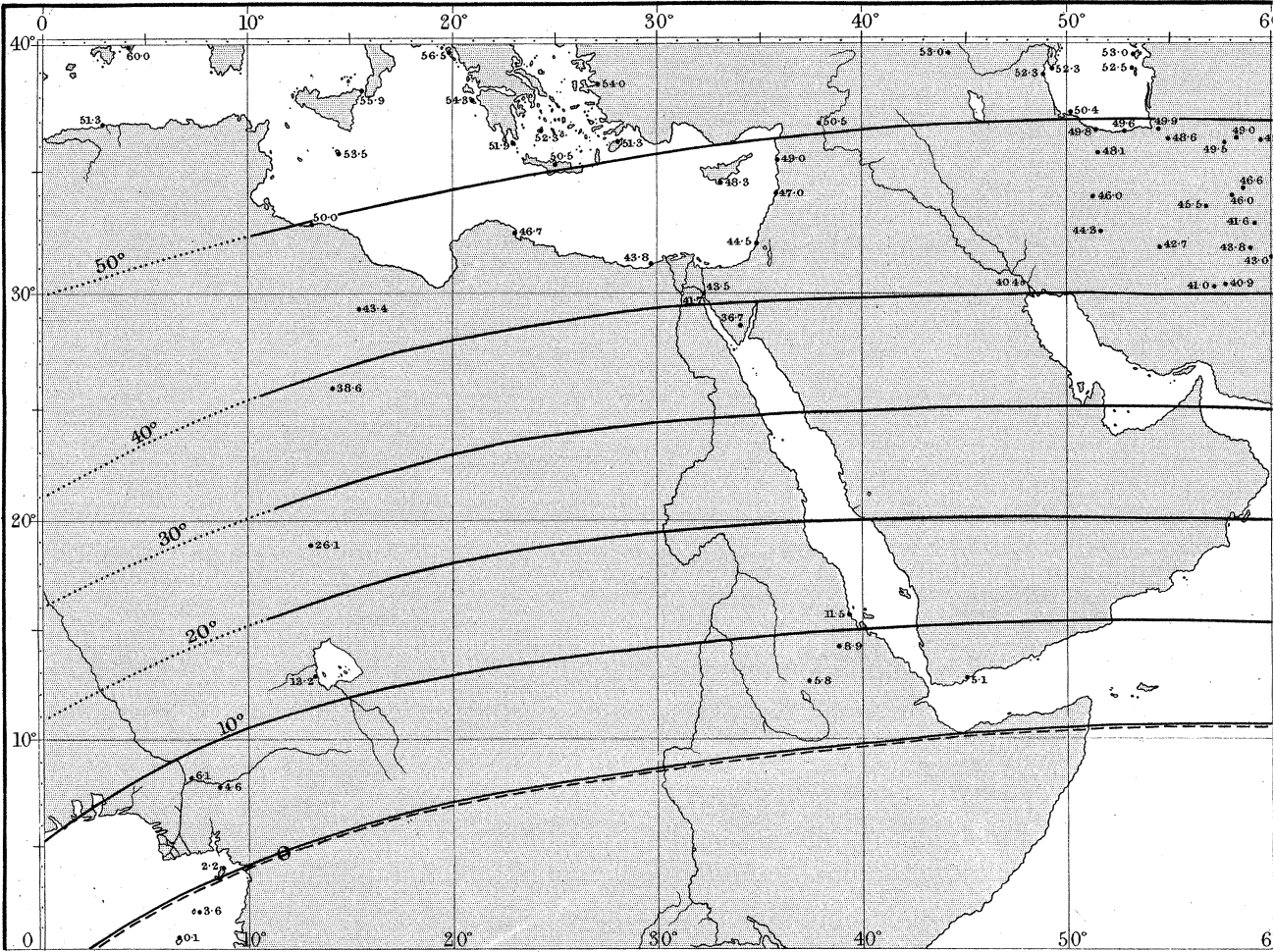


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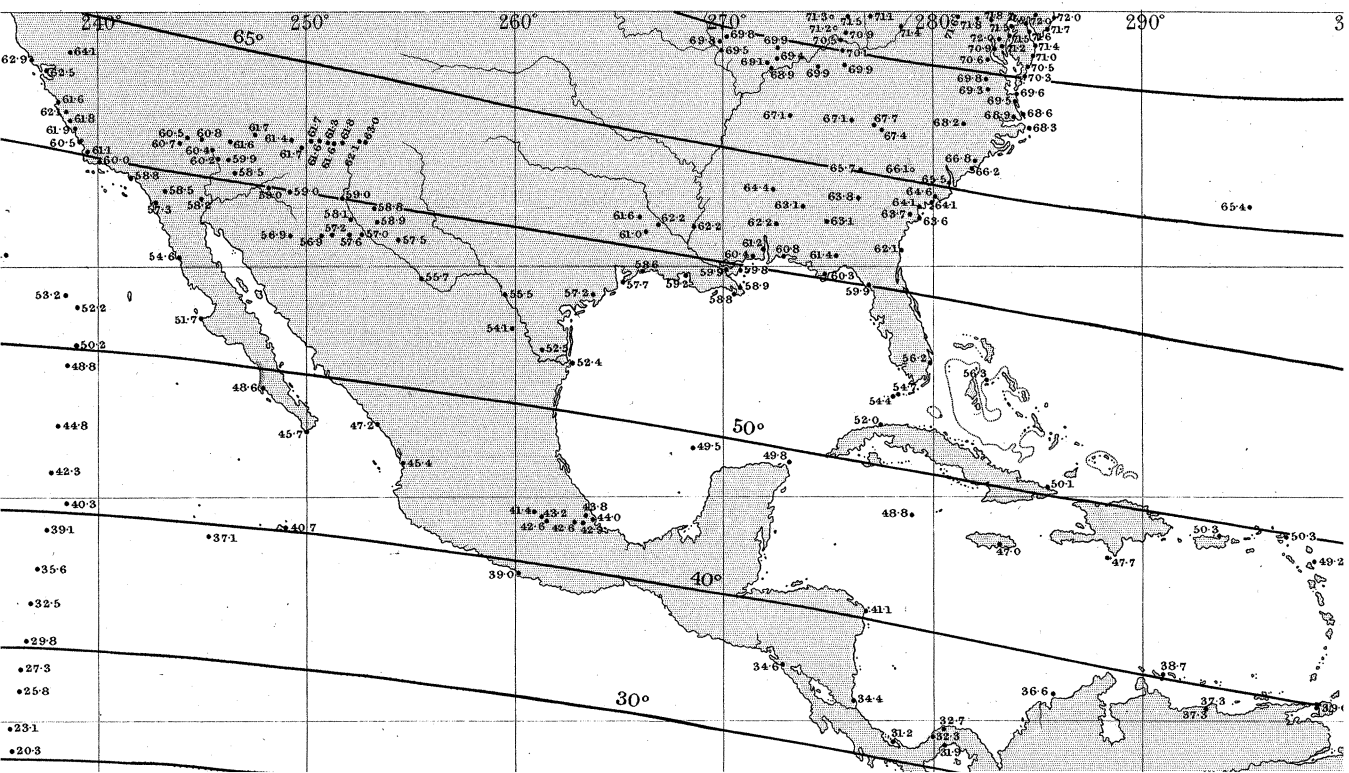
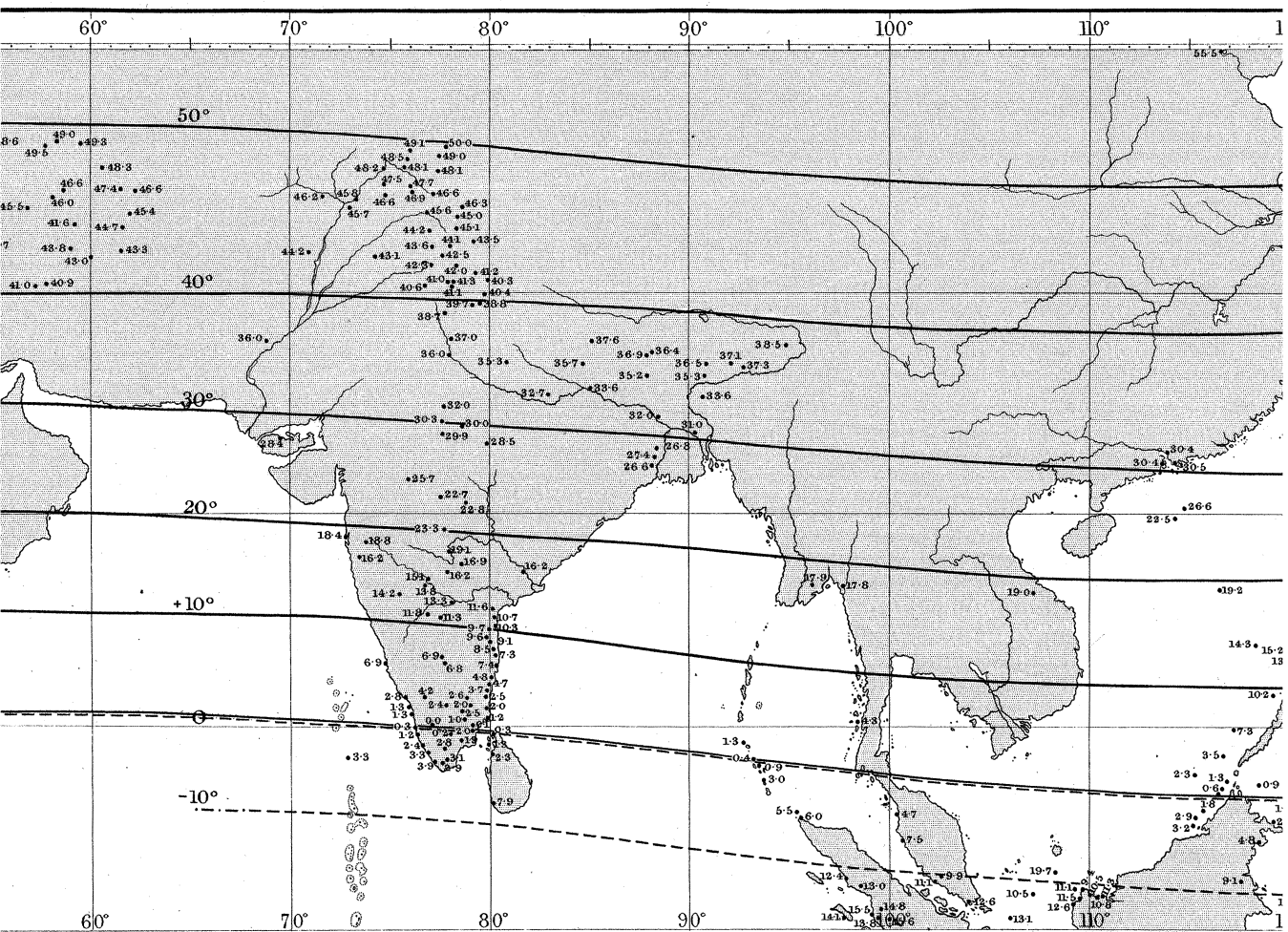


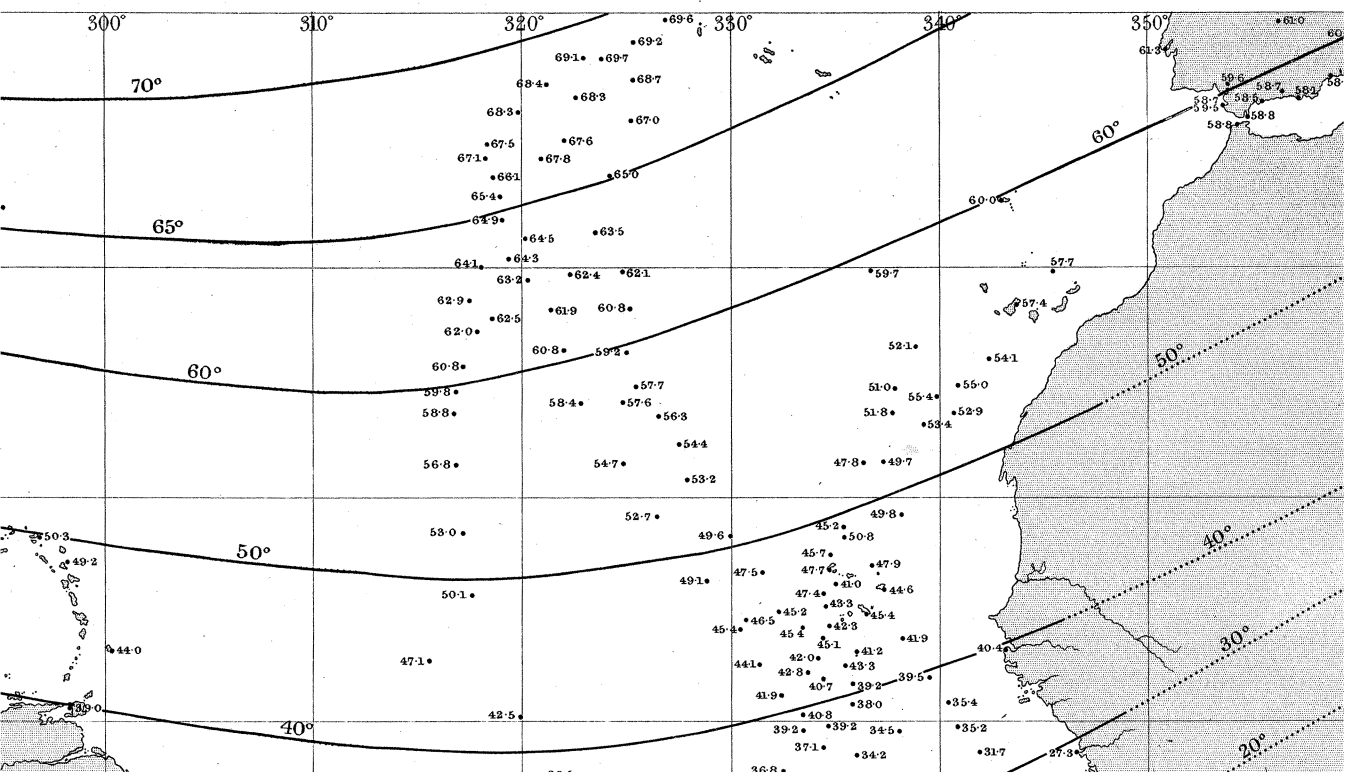
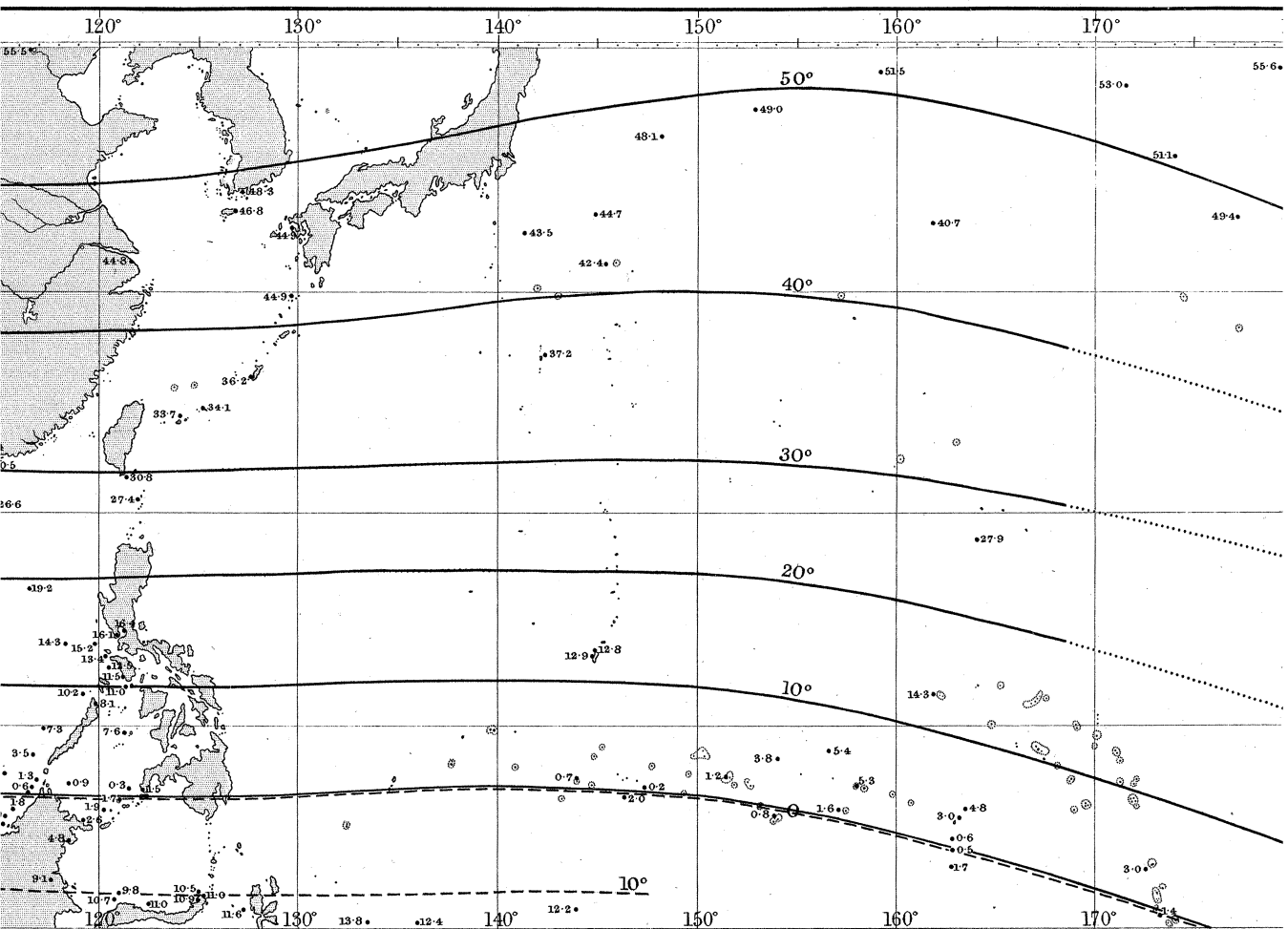
# MAGNETIC SURVE

(Sabine)

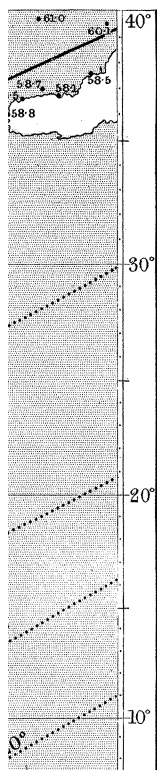
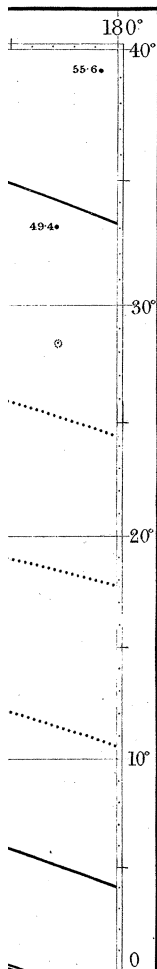


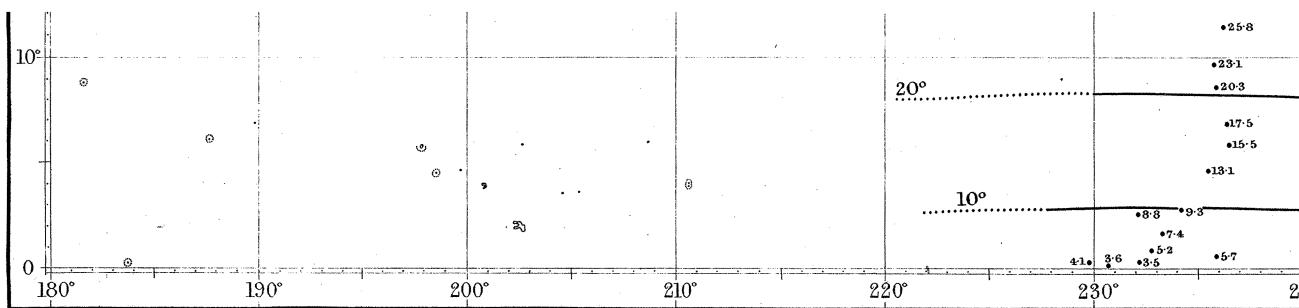
# RV EY - between the parallel of 40°N. and the Equator - Epoch 18

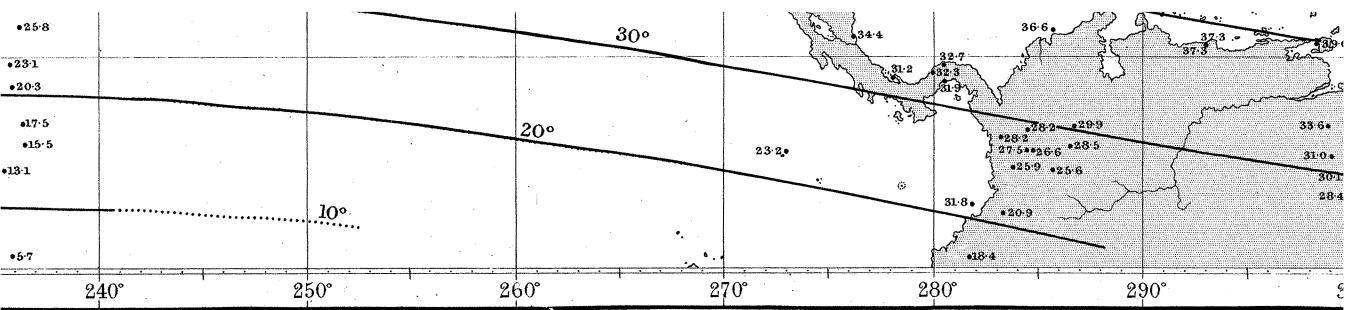


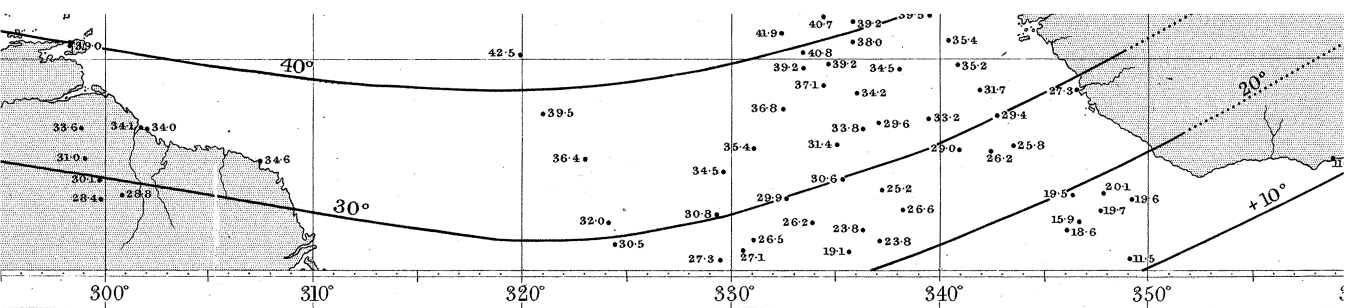


v. Plate 27.

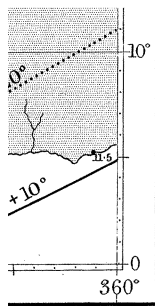








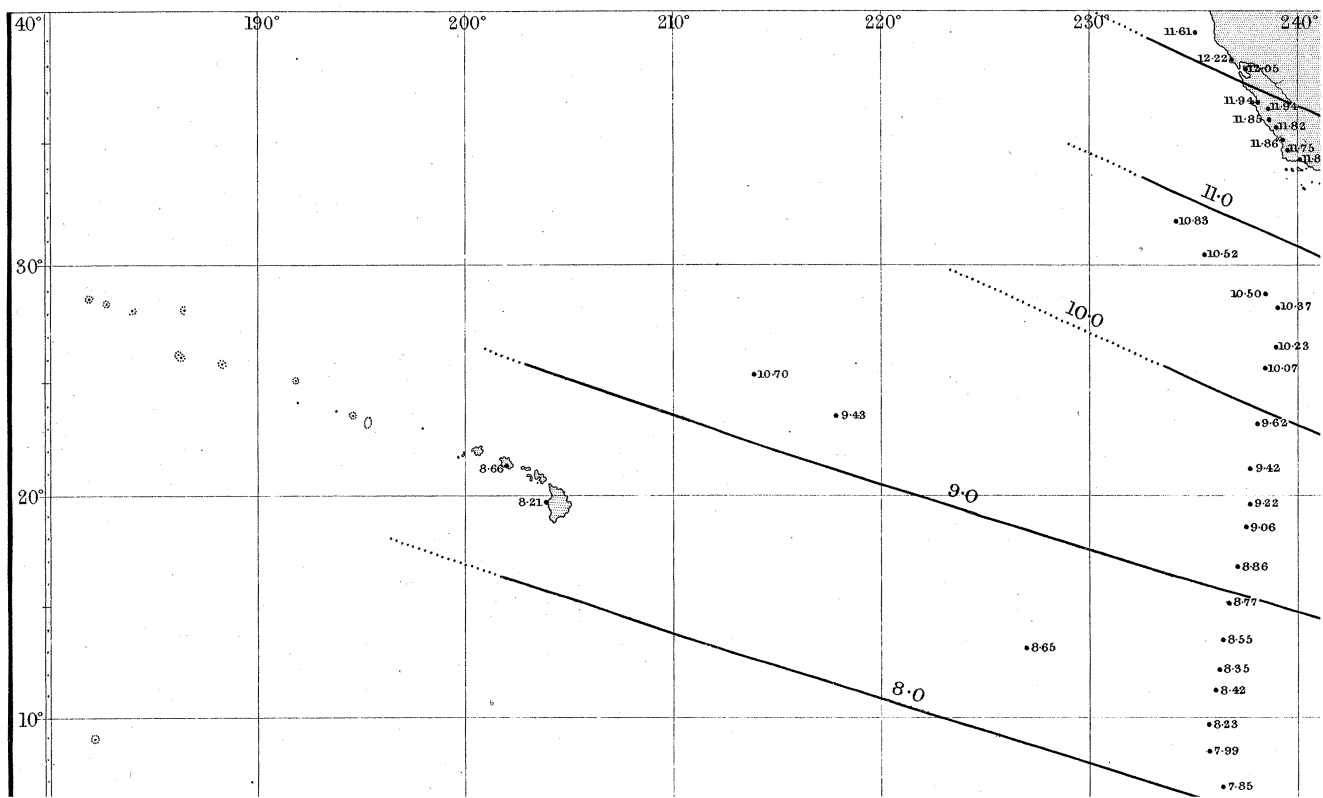
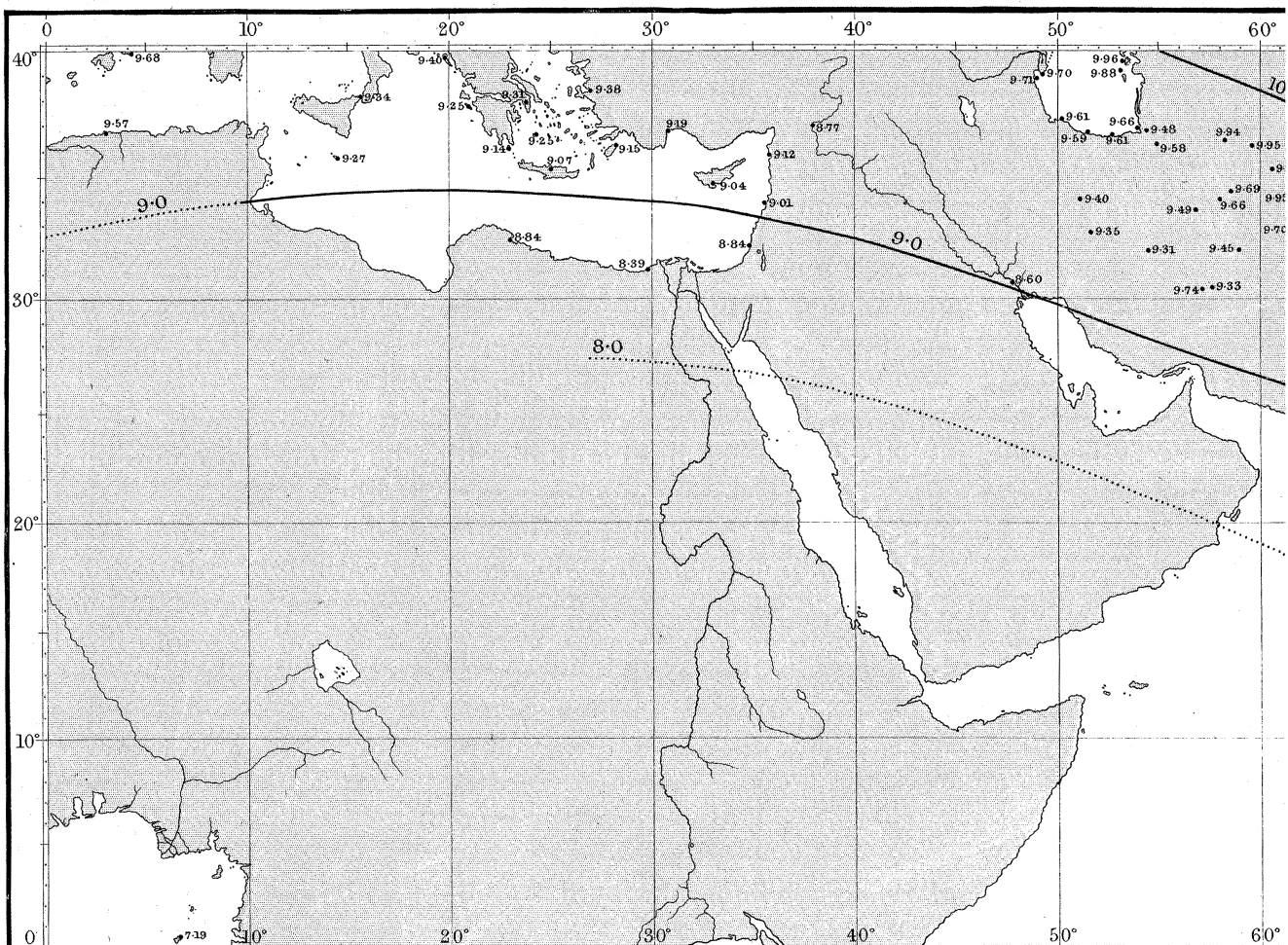
Engraved by Malby



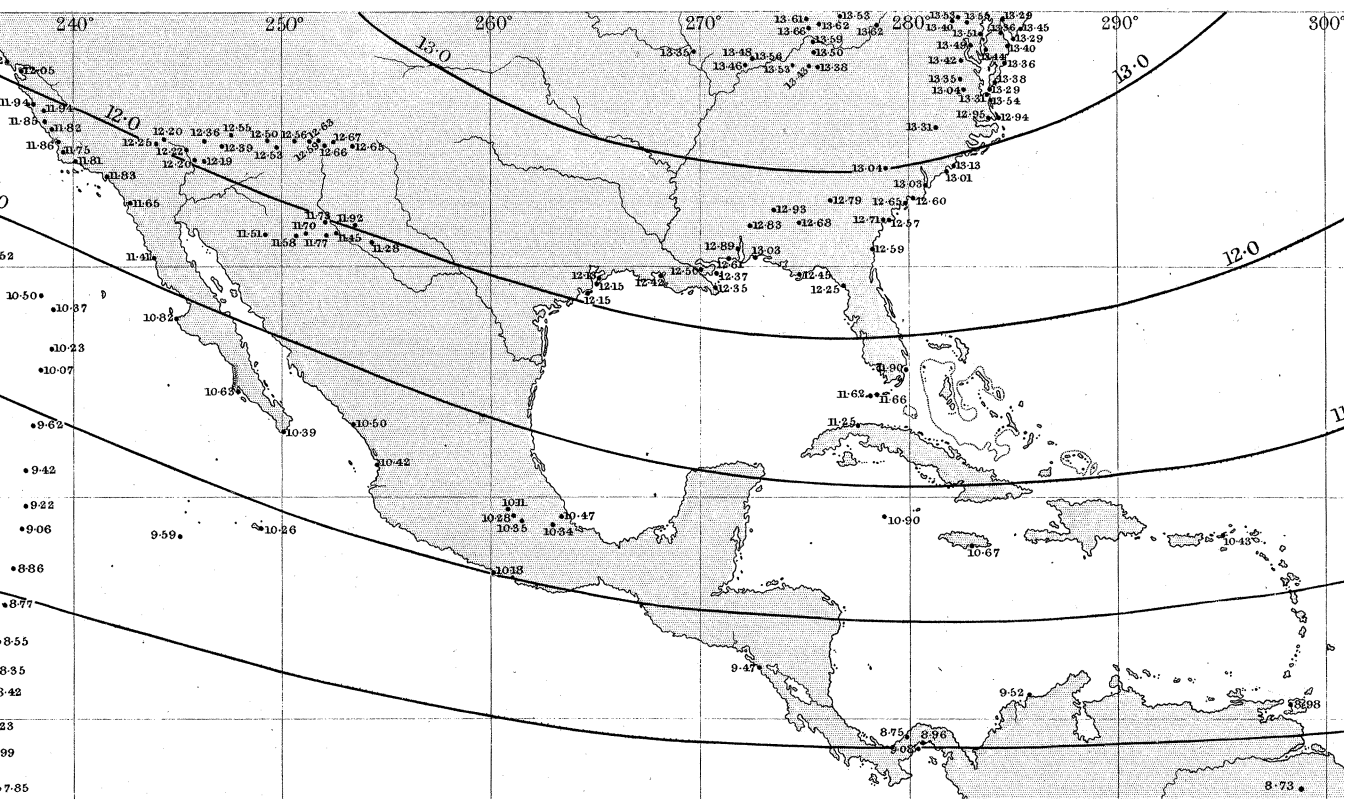
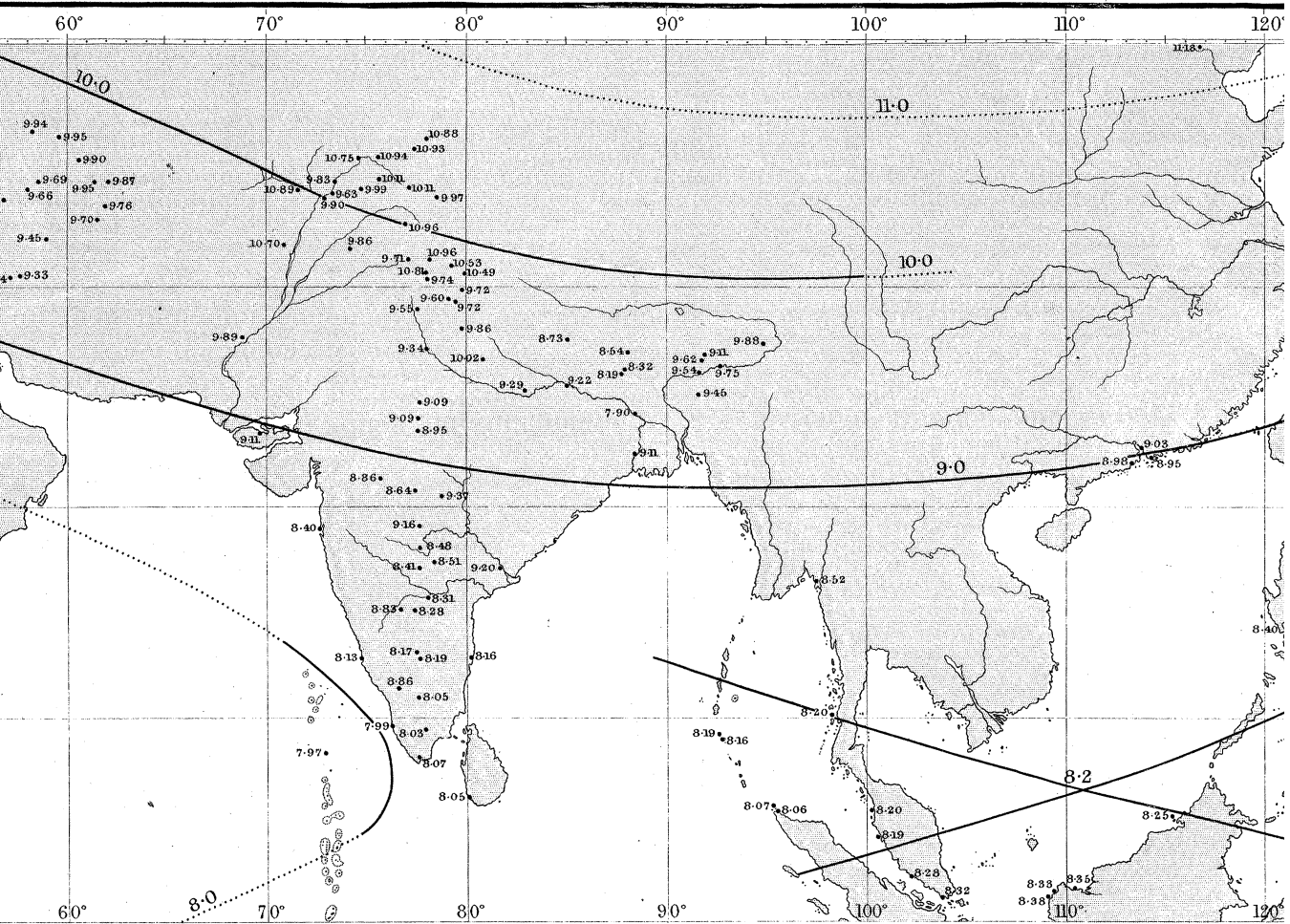
Designed by Malby & Sons.

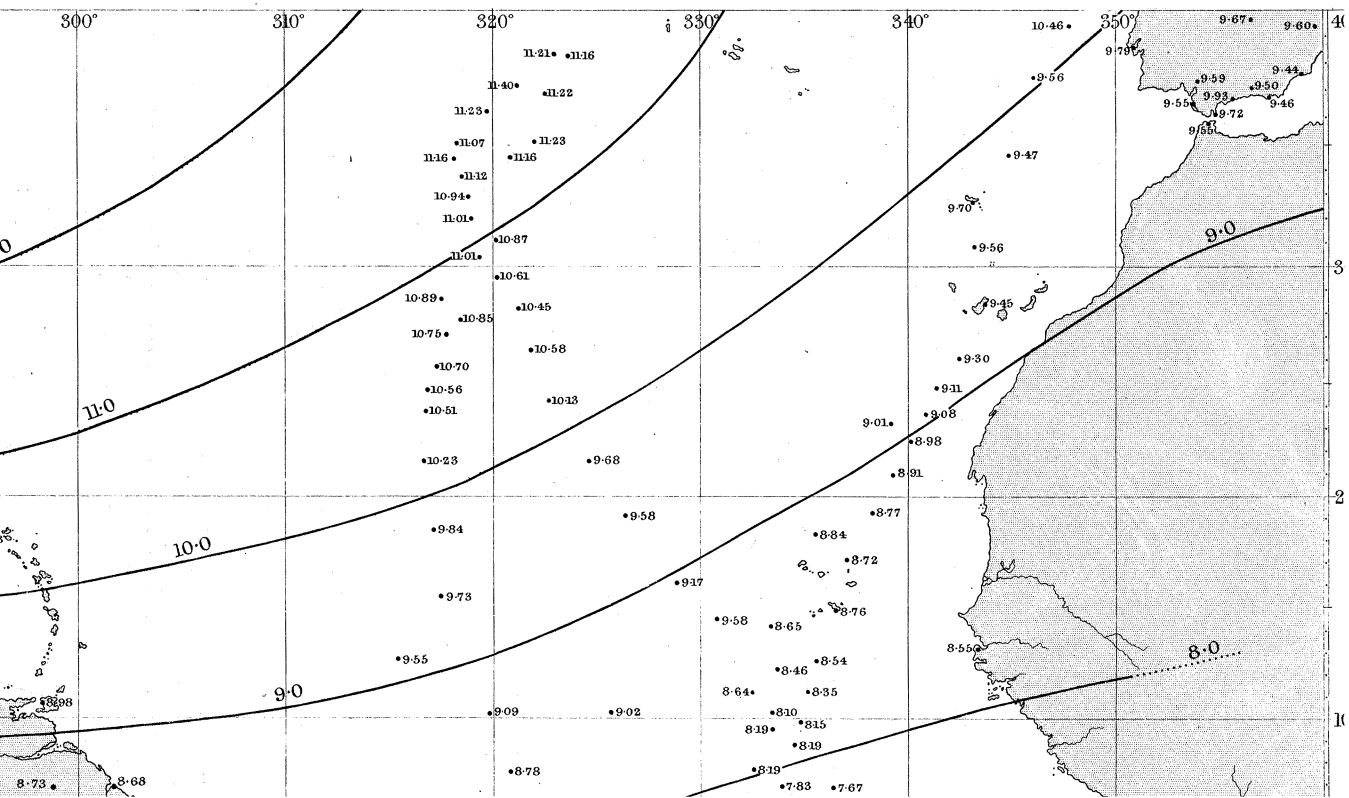
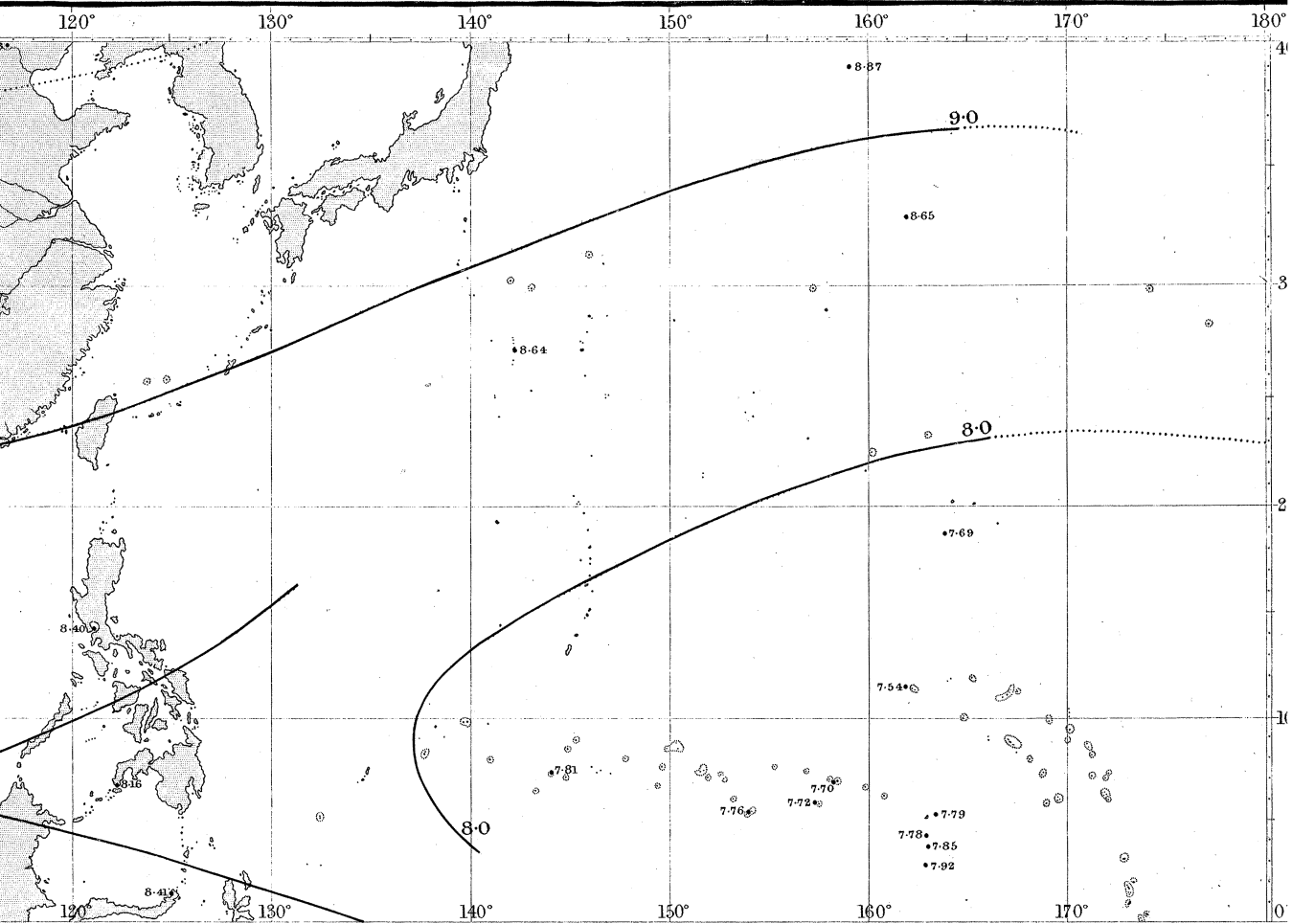


(Sabine)

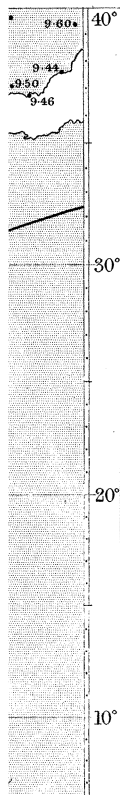
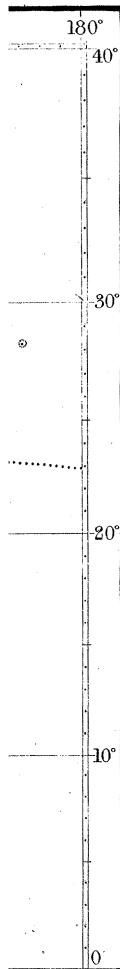


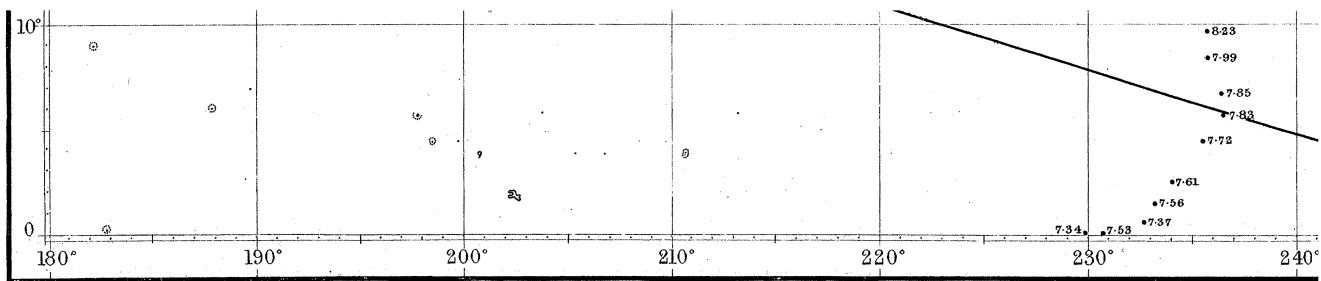
# **URVEY** — *between the parallel of 40°N. and the Equator* — Epoch 18.

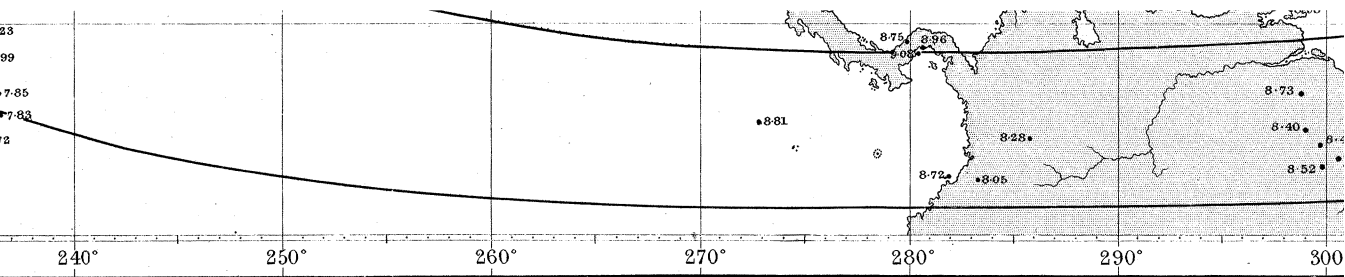


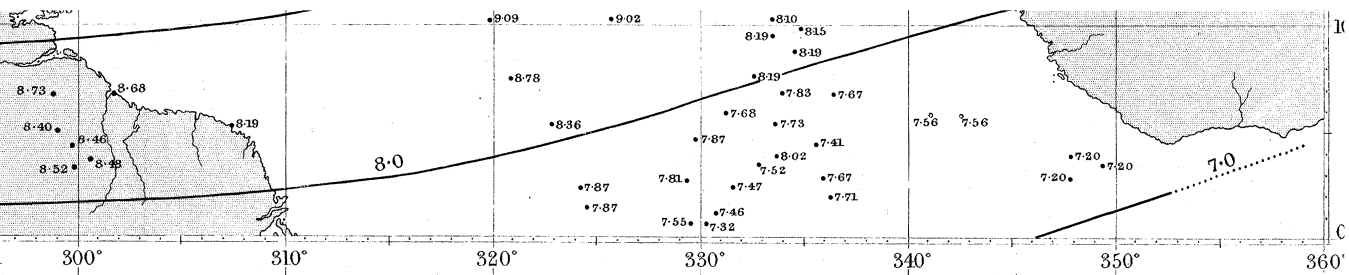


late 28.

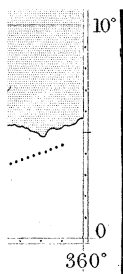








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## NORTH EQUATORIAL ZONE III.—Lat. 20° N. to 30° N. (continued).

Stations.	Lat. N.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			Observers.
				Observed.	Correction to Epoch 1842-5.	Corrected.	Observed.	Cor. to Epoch 1842-5.	Corrected.	Observed.	Cor. to Epoch 1842-5.	Corrected.	
At sea (2 observations)	29 31	343 39	1832	20 44 w.	.....	20-7 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
At sea (2 observations)	28 16	343 42	1832	20 22 w.	.....	20-4 w.	.....	.....	.....	.....	.....	.....	FitzRoy.
Santa Cruz.....	28 28	343 45	1822	21 00 w.	.....	21-0 w.	57 06	.....	57-1	9-46	.....	.....	Duperrey.
			1826	22 37 w.	.....	22-6 w.	.....	.....	.....	.....	.....	.....	Dumont d'Urville.
			1836	.....	.....	.....	57 28	.....	57-5	.....	.....	.....	Bethune.
			1837	22 50 w.	.....	22-8 w.	.....	.....	.....	.....	.....	.....	Vidal.
			1837	.....	.....	21-7 w.	57 47	.....	57-8	9-56	.....	9-45	Wickham.
			1838	.....	.....	.....	57 21	.....	57-4	.....	.....	.....	Stauley.
			1838	.....	.....	.....	57 40	.....	57-7	9-39	.....	.....	Sullivan.
			1840	20 31 w.	.....	20-5 w.	57 05	.....	57-1	9-41	.....	.....	Ross.
			1842	.....	.....	.....	57 17	.....	57-3	.....	.....	.....	Blackwood.
At sea.....	28 43	344 38	1837	20 38 w.	.....	20-6 w.	.....	.....	.....	.....	.....	.....	Dumoulin.
At sea.....	29 15	345 15	1842	22 00 w.	.....	22-0 w.	.....	.....	.....	.....	.....	.....	Bérard.
At sea (2 observations)	28 17	345 20	1836	21 53 w.	.....	21-9 w.	.....	.....	.....	.....	.....	.....	Bonite.
At sea.....	29 53	345 30	1822	21 00 w.	.....	21-0 w.	57 40	.....	57-7 s.	.....	.....	.....	Duperrey.

## NORTH EQUATORIAL ZONE IV.—LATITUDE 30° TO 40° N.

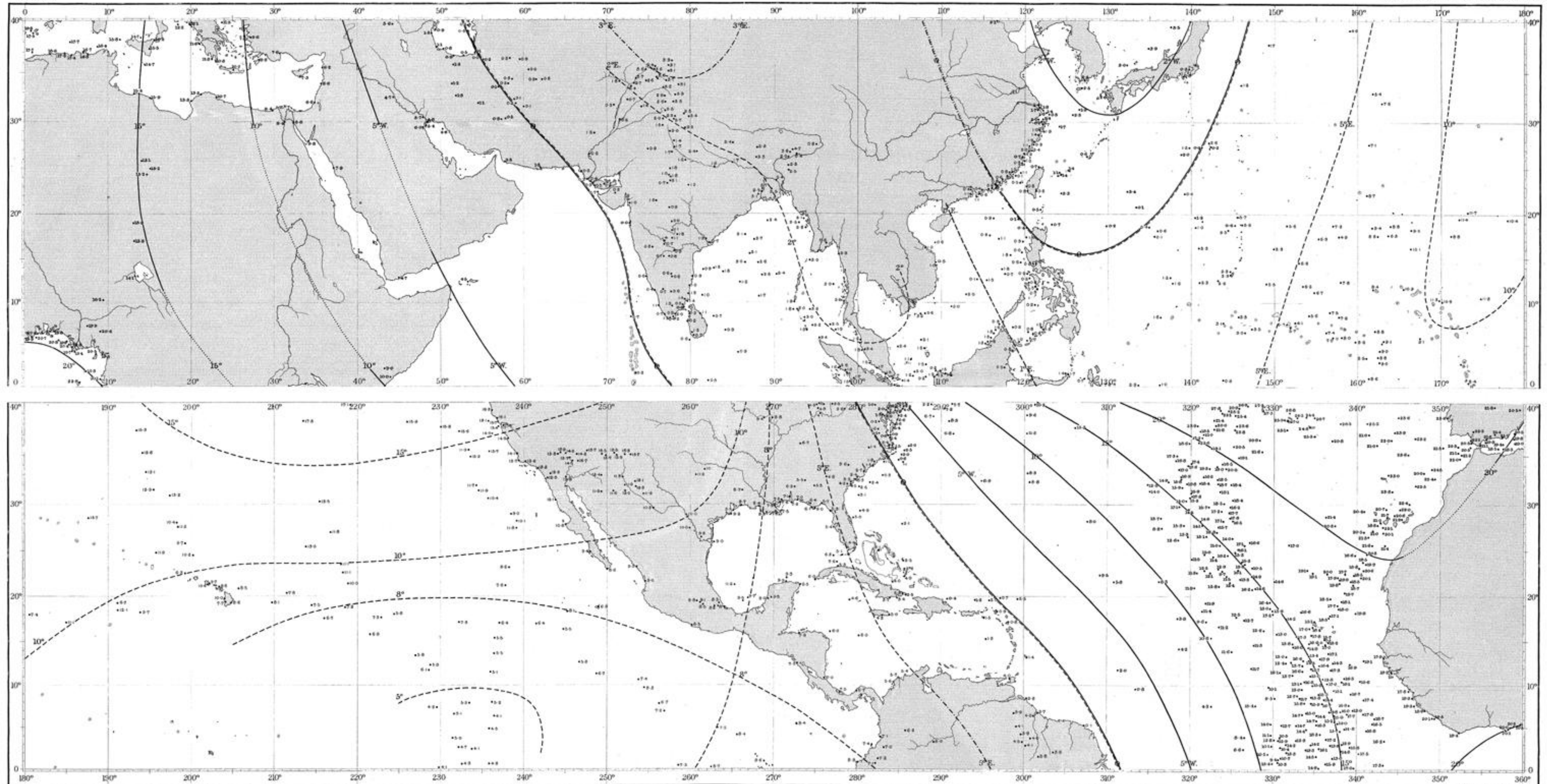
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- D'Abbadie, D'Hericourt, Esteourt, Rawlinson, Parrot, and Freycinet ..... { L. S. Kämtz, MSS.
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- Erman ..... Reise um die Erde (Berlin, 1841).

# MAGNETIC SURVEY — *between the parallel of 10° N. and the Equator — Epoch 1840-45. Declination.*

(Sabine)

Phil. Trans. 1875. Plate 26.

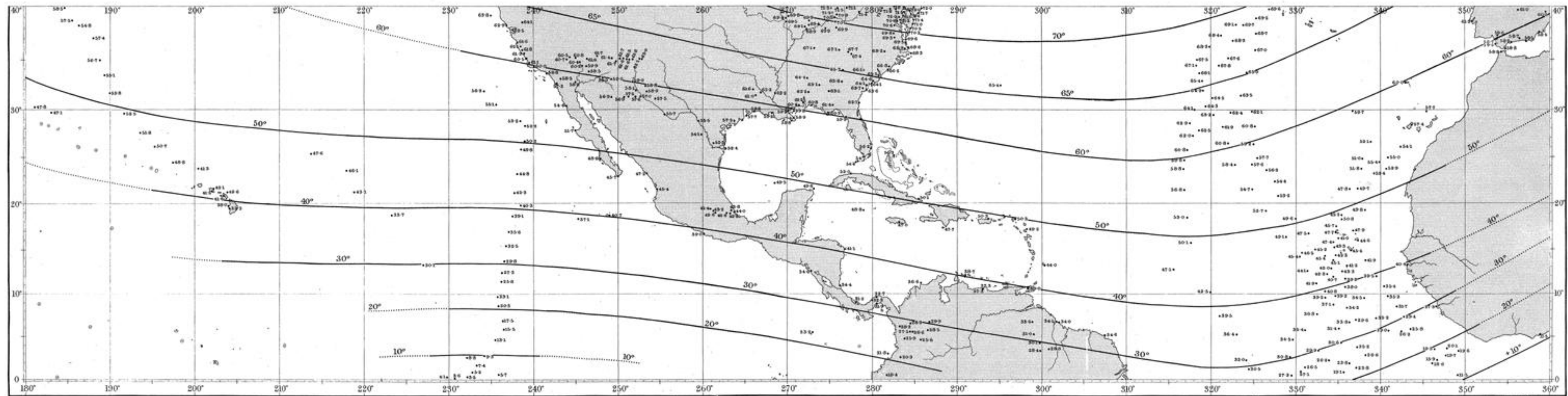
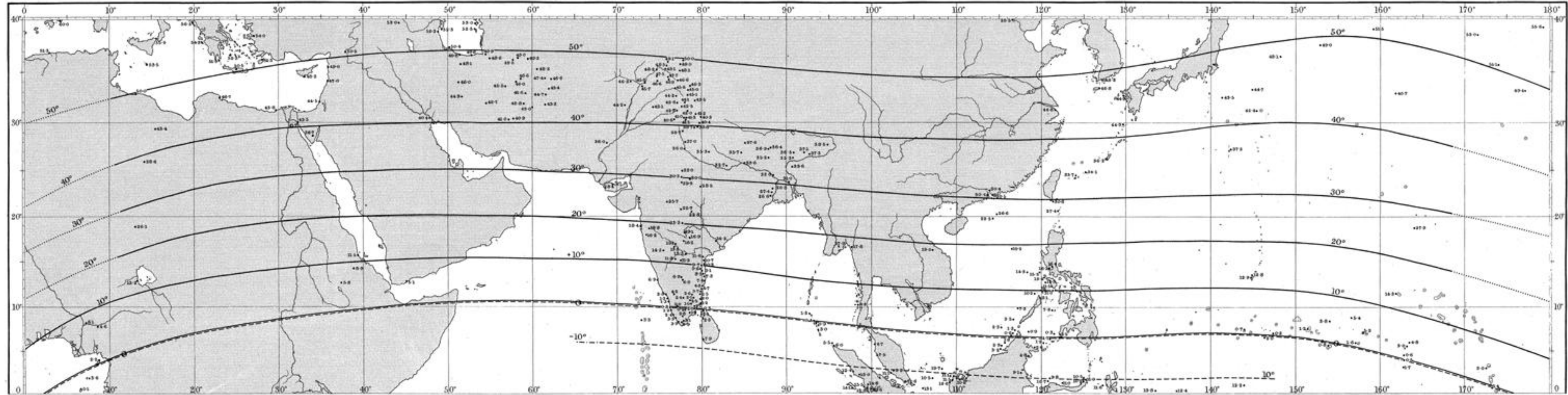




# MAGNETIC SURVEY *between the parallel of 40°N. and the Equator... Epoch 1840-45. Inclination.*

Phil. Trans. 1875. Plate 27.

(Sabine)





# MAGNETIC SURVEY *between the parallel of 40°N and the Equator - Epoch 1840-45. Intensity.*

Phil. Trans. 1875. Plate 28.

(Sabine)

