[v]

XVII.	On the Place Called Ca.			v		·	•	_			
	and Walt										
xvIII	. Further					•	,	U		v	
	ROMANES,	M.A.,	F.L.S.,	&c.	Comn	nunicat	ed by	Profes	ssor H	UXLEY,	LL.D.,
	Sec. R.S.			•					• •	• • •	. 659
Index			• •	•			•	•			. 753

ERRATA.

Page 464, line 19. Aji Bārang, for Lat. 2° 25′ S. read 7° 25′ S.

Page 475, line 2. Declination. At sea—Lat. 17° 15′ S., Long. 292° 45′ E. should be expunged.

XIII. Contributions to Terrestrial Magnetism.—No. XV. By General Sir Edward Sabine, R.A., K.C.B., F.R.S.

Received June 14,—Read June 15, 1876.

[Plates 17-19.]

The paper now offered to the Society forms the XVth and last of a series of papers printed in the Philosophical Transactions, entitled "Contributions to Terrestrial Magnetism." The whole Fifteen Numbers are related to each other as "Contributions to the Magnetic Survey of the Globe." Four of them (viz. XI., XIII., XIV., and the present paper) contain the complete statement of this Survey in the double form of "Catalogue" or "Tables" and of "Magnetic Maps;" of these maps there are twelve, one for each of the three magnetic elements in each of the four papers. The present paper consists (as did its last predecessor, No. XIV.) of four zones, each 10° in breadth:—

Zone 1,	comprehending	trom	the	equator	to	10°S.
Zone 2,	• ••	,,	lat.	10° S.	,,	20° S.
Zone 3,	,,	, ,,	lat.	20° S.	,,	$30^{\circ}\mathrm{S}$.
Zone 4,	99 ·	,,	lat.	30° S.	,,	40° S.

In the Tables the observations are entered in each zone in the succession of their longitudes, beginning with the meridian of Greenwich. The statements in the introduction to No. XIII. regarding the different magnetic elements apply to the present paper, as they did also to the preceding paper (No. XIV.).

The question of correction for secular change next presents itself. Happily the greater part of the observations were made within, or very near to, the "mean epoch," viz. 1840–1845. Sea observations were not generally corrected for differences of epoch in the previous papers; but in the present paper such corrections have been introduced for observations within the range of places (land stations) where the rate of secular change has been sufficiently established.

Nos. XI. & XIII., published earlier, comprise the northern and southern portions of the globe, from either pole to lat. 40°. These are the regions which have long been recognized as offering to the magnetician at once the most arduous and the most important field of research. In the middle or equatorial portions of the globe, comprised in the last and present papers, the magnetic relations are simpler, and the laying down of the lines representing them derives much aid from the adjacent portions of the North and South Polar Maps. Therefore, both as regards observations and treatment, less abundant as well as less exact evidence may, it may be hoped, suffice.

3 U

SOUTH EQUATORIAL ZONE I.—EQUATOR TO 10° S.

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Rokeby MSS. in the Magnetic Office.
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Denham
H.M.S. 'Hecate' MSS. in the Hydrographic Office.
RichardsMSS. in the Hydrographic Office.

SOUTH EQUATORIAL ZONE I.—Equator to 10° S.

					Declinat	ion.		Inclin	ation.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
Anno Bona Cape Lopez Magumba Loango St. Paul de Loanda	3 23 4 40	5 38 8 40 10 35 11 42 13 09	1829 1826 1826 1826 1825	0 / 21 01 w. 19 48 w. 21 24 w. 20 36 w. 22 00 w.		° 21·0 w. 19·8 w. 21·4 w. 20·6 w. 22·0 w.	0 /		o 				Boteler. Owen. Owen. Owen. Owen.
Congo River Assumption Island Providence Island Seychelles	9 46 9 14	13 12 46 28 51 05 55 31	1826 1824 1824 1825 1830 1842	21 42 w. 12 54 w. 8 54 w. 6 30 w. 7 31 w. 2 01 w.		21·7 w. 12·9 w. 8·9 w. 6·5 w. 7·5 w. 2·0 w.	32 03 s.		32·1 s.	8:01		8·01	Owen. Owen. Owen. Laplace. Belcher.
At sea (2 observations) At sea (3 observations) At sea (5 observations) At sea (2 observations) At sea (2 observations)	7 37 0 39 7 06	81 52 82 52 82 52 83 33 83 40	1837 1857 1857 1837 1857	0 25 w. 0 19 w. 0 29 E. 0 48 E. 0 16 E.		0·4 w. 0·3 w. 0·5 E. 0·8 E.							Bonite. Novara. Novara. Bonite. Novara.
At sea (2 observations) Balembangan Peesang Bonjol Menindjo	0 12 0 08	84 05 100 10 100 12 100 14 100 14	1857 1847 1847 1847 1847	0 50 E. 1 37 E. 1 47 E. 1 36 E. 1 32 E.		0.8 E. 1.6 E. 1.8 E. 1.6 E. 1.5 E.	16 47 s. 16 33 s. 16 39 s. 17 01 s.		16·8 s. 16·5 s. 16·7 s. 17·0 s.			•••••	Novara. Elliot. Elliot. Elliot. Elliot.
Fort de Kock Padang Padang Panjang Solok Fort Vande Capellen	0 59 0 22 0 47	100 27 100 31 100 43 100 56 101 03	1847 1847 1847 1847 1847	1 09 E. 1 24 E. 1 34 E. 1 39 E. 1 28 E.		1·1 E. 1·4 E. 1·6 E. 1·7 E. 1·5 E.	17 00 s. 18 32 s. 17 48 s. 17 51 s. 17 12 s.		17·0 s. 18·5 s. 17·8 s. 17·9 s. 17·2 s.	8:40		8·40 	Elliot. Elliot. Elliot. Elliot. Elliot.
Payacombo Bua Pānjāng Sijonjong At sea (2 observations) At sea (2 observations)	$ \begin{array}{c c} 0 & 28 \\ 0 & 42 \\ 8 & 49 \end{array} $	101 05 101 08 101 20 101 33 102 19	1847 1847 1847 1851 1826	1 30 E. 1 22 E. 1 22 E. 0 24 W. 0 22 W.		1·5 E. 1·4 E. 1·4 E. 0·4 W. 0·4 W.	16 38 s. 17 11 s. 17 50 s.		16.6 s. 17.2 s. 17.8 s.				Elliot. Elliot. Elliot. Kellett. Prussian ships.
Bencoolen	$\begin{array}{c c} 0 & 12 \\ 9 & 21 \end{array}$	102 29 102 44 104 37 105 17 105 20	1847 1851 1846 1829 1847	1 05 E. 0 17 W. 1 19 E. 1 13 W. 1 13 E.		1·1 E. 0·3 W. 1·3 E. 1·2 W. 1·2 E.	23 54 s. 26 16 s.		23·9 s. 26·3 s.	8.66		8•66 8·83	Elliot. Kellett. Elliot. Lütke. Elliot.
Cheringin	6 47	105 47 105 49 105 55 106 00 {	1846 1846 1846 1842 1846	0 51 E. 0 21 E. 0 59 E. 1 07 E. 0 58 E.		0.9 E. 0.3 E. 1.0 E. 1.1 E. 1.0 E.	27 34 s. 28 41 s. 28 09 s. 26 38 s. 26 32 s.		27.6 s. 28.7 s. 28.1 s. o 26.6 s. 26.5 s. }26.6 s.	8·90 8·83 8·91 8·82		8·90 8·83 8·91 8·82	Elliot. Elliot. Elliot. Belcher. Elliot.
At sea (5 observations At sea (2 observations Gonong Dādap Chelangkahan Woorong Goonong	0 18 6 28 6 54	*106 00 106 01 106 06 106 07 106 10	1824 1841 1846 1846 1846	0 36 w 0 53 E. 0 14 E. 0 40 E.		0.6 w. 0.9 E. 0.2 E. 0.7 E.	13 50 s. 27 32 s. 28 24 s. 27 33 s.		13.8 s. 27.5 s. 28.4 s. 27.5 s.	8·96 8·84 8·92		8.96 8.84 8.92	Prussian ships. Stanley. Elliot. Elliot. Elliot.
At sea (5 observations Ceram	6 07 7 31	106 13 106 15 106 19 106 25 106 26	1845 1846 1846 1858 1846	1 45 E. 0 34 E. 0 10 E. 1 00 E. 0 35 E.		1·7 E. 0·6 E. 0·2 E. 1·0 E. 0·6 E.	27 14 s. 29 44 s. 28 31 s.		27·2 s. 29·7 s. 28·5 s.	8·83 9·11 9·01		8·83 9·11 9·01	H.M.S. 'Fly.' Elliot. Elliot. Novara. Elliot.
Chilotoe	7 05	106 27 106 34 106 37 106 38 106 41	1846 1842 1846 1846 1828	0 28 E. 0 32 E. 0 13 E. 0 31 E.		0.5 E. 0.5 E. 0.2 E. 0.5 E.	28 54 s. 22 47 s. 29 22 s. 30 08 s. 25 33 s.		28.9 s. 22.8 s. 29.4 s. 30.1 s. 25.5 s.	9·02 9·03 9·04		9·02 9·03 9·04	Elliot. Belcher. Elliot. Elliot. Blosseville.
Karang Teugga At sea (3 observations At sea (2 observations Batavia	6 58 4 57 1 32 6 10	106 48 106 54 106 57 106 58	1846 1858 1842 1828 1846 1858	1 13 E. 0 26 E. 0 31 E. 0 47 E. 1 05 E.		1·2 E. 0·4 E. 0·5 E. 0·8 E. 1·1 E. } 0·8 E.	28 24 s. 16 40 s. 25 56 s. 27 05 s. 27 35 s.		la= a . l	9.02		9·02 8·87	Elliot. Novara. Belcher. Blosseville. Elliot. Novara.

SOUTH EQUATORIAL ZONE I.—Equator to 10° S. (continued).

					Declinat	ion.		Inclina	tion.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch. 1842·5.	Corrected.	Observers.
At sea (2 observations) Tegu Pangerango Bejong Petair Sidang Bārang	6 43 6 51 7 14	0 / 106 59 106 59 106 59 107 02 107 10	1858 1846 1846 1846 1846	0 / 1 42 E. 0 12 E. 0 16 E. 0 05 E.		0 1 7 E. 0 2 E. 0 3 E. 0 1 E.	28 45 s. 29 46 s. 29 37 s. 30 15 s.		0 28·7 s. 29·8 s. 29·6 s. 30·3 s.	9·11 9·01		9·11 9·01	Novara, Elliot. Elliot. Elliot. Elliot.
Chunjūr Bandong Permangpek Garoet Samadang	6 56 7 39 7 14	107 10 107 41 107 45 107 55 108 05	1846 1846 1846 1846 1847	1 35 E. 0 26 E. 0 20 E. 0 25 E. 0 30 E.		1 6 E. 0 4 E. 0 3 E. 0 4 E. 0 5 E.	28 26 s. 28 34 s. 30 15 s. 29 02 s. 28 00 s.		28·4 s. 28·6 s. 30·3 s. 29·0 s. 28·0 s.	8·97 9·04 9·06 9·06 9·00		8·97 9·04 9·06 9·06 9·00	Elliot. Elliot. Elliot. Elliot. Elliot.
Kandang Aur Cherūgnūktok Chāwee Indramāyu Cheribon	7 38 7 10 6 20	108 05 108 10 108 23 108 26 108 42	1847 1847 1847 1847 1847	0 18 E. 0 18 E. 0 33 E. 0 41 E. 0 32 E.		0·3 E. 0·3 E. 0·5 E. 0·7 E. 0·5 E.	30 11 s. 28 42 s. 27 31 s. 27 52 s.		30·2 s. 28·7 s. 27·5 s. 27·9 s.	9·13 9·07 8·96		9·13 9·07 8·96	Elliot. Elliot. Elliot. Elliot. Elliot.
Banjeer Kalipoochen Chilāchap Aji Bārang Tegal	7 39 7 44 2 25	108 42 108 53 108 57 109 04 109 16	1847 1847 1847 1847 1847	0 28 E. 0 58 E. 0 37 E. 0 55 E. 0 38 E.		0·5 E. 1·0 E. 0·6 E. 0·9 E.	29 10 s. 29 54 s. 29 46 s. 27 22 s. 28 05 s.		29·2 s. 29·9 s. 29·8 s. 27·4 s. 28·1 s.	9·12 9·12 9·13		9·12 9·12 9·01	Elliot. Elliot. Elliot. Elliot. Elliot.
Kārang Bolong Pantiānak At sea (2 observations) Succadāna Munoori	0 01 3 24 1 16	109 27 109 30 109 45 109 57 110 04	1847 1846 1841 1846 1847	0 32 E. 1 31 E. 1 23 E. 0 18 E.		0·5 E. 1·5 E. 1·4 E. 0·3 E.	29 56 s. 12 45 s. 19 40 s. 17 02 s. 29 21 s.		29·9 s. 12·7 s. 19·7 s. 17·0 s. 29·3 s.	9·16 8·33 8·46 9·13		9·16 8·33 8·46 9·13	Elliot. Elliot. Stanley. Elliot. Elliot.
Pulo Kumpal Ambarawa Samarang Balembang Japara	7 16 7 00 7 24	110 07 110 29 110 31 110 37 110 38	1840 1847 1847 1847 1847	0 39 E. 0 33 E. 0 24 E. 0 25 E.		0·7 E. 0·5 E. 0·4 E. 	19 49 s. 29 28 s. 27 05 s. 29 02 s. 27 30 s.		19·8 s. 29·5 s. 27·1 s. 29·0 s. 27·5 s.	8·74 9·15 8·92 8·98		8·74 9·15 8·92 8·98	Belcher. Elliot. Elliot. Elliot.
Solo Patchitan Nyjāwee Kedeeri Bankāwa, Solo River	8 13 7 24 7 48	110 54 111 06 111 29 112 00 112 21	1847 1847 1847 1847 1847	0 36 E. 0 20 E. 0 29 E. 0 28 E. 0 29 E.		0.6 E. 0.3 E. 0.5 E. 0.5 E.	29 13 s. 30 36 s. 29 00 s. 29 52 s. 27 47 s.		29·2 s. 30·6 s. 29·0 s. 29·9 s. 27·8 s.	9·12 9·16 9·19 9·12 9·07		9·12 9·16 9·19 9·12 9·07	Elliot. Elliot. Elliot. Elliot. Elliot.
Soorabāya	7 18	112 45 { 112 59 113 43	1844 1847 1860 1860 1847	0 58 E. 0 52 E. 1 20 E. 1 15 E. 0 30 E.		1·0 E. 0·9 E. 1·3 E. 1·2 E. 0·5 E.	28 48 s. 28 53 s. 27 08 s.		28·8 s. 28·8 s. 28·8 s	8·81 9·22 9·00		} 9·02 9·00	H.M.S. 'Fly.' Elliot. Denham. Denham. Elliot.
Sūmenap At sea (10 observations Solombo Island At sea (4 observations Kangelang Island	5 35 8 22	113 51 114 19 114 23 114 41 115 00	1847 1845 1840 1860 1825	0 44 E. 0 46 E. 1 24 E. 0 44 E. 0 00		0·7 E. 0·8 E. 1·4 E. 0·7 E. 0·0	27 46 s. 24 16 s. 	1	27·8 s. 24·3 s.	9·10 8·99 		9·10 8·99	Elliot. H.M.S. 'Fly.' Belcher. Denham. Bougainville.
Pulo Kuneeang At sea (2 observations At sea (3 observations Macassar At sea	9 14 9 28 5 08	115 17 115 39 117 29 119 23 121 59	1847 1860 1860 1840 1824	0 32 E. 1 24 E. 1 00 E. 0 29 E. 1 00 E.		0·5 E. 1·4 E. 1·0 E. 0·5 E. 1·0 E.	27 26 s 23 42 s. 24 02 s.		27·4 s. 23·7 s. 24·0 s.	9·09 8·98 		9·09 8·98 	Elliot. Denham. Denham. Belcher. Duperrey.
At sea On shore (2 observns. At sea (6 observations At sea (6 observations Bouro Island	9 55	124 19 124 52 125 45 126 55 127 06	1827 1840 1848 1848 1848	0 16 E.		0·3 E 1·1 E.	30 06 s. 31 00 s. 30 35 s. 20 23 s.		30 1 s. 31 0 s. 30 6 s. 20 4 s.	8.84		8·84	D'Urville. Stanley. Rattlesnake. Rattlesnake. Belcher.
Cayeli	3 42 9 48 9 20	127 21 127 38 128 10 { 128 33 128 52 129 07	1823 1848 1823 1840 1843 1848 1841	0 32 E. 0 28 E. 1 14 E. 1 19 E.		0·5 E. 0·5 E. 1·2 E. 1·3 E. 	20 08 s. 30 10 s. 20 32 s. 21 10 s		20 1 s. 30·2 s. 20·5 s. 21·2 s. } 20·9 s. 30·5 s. 22·6 s.	9·40 8 94 		9·40 8·94 9·26	Duperrey. Rattlesnake. Duperrey. Belcher. H.M.S. 'Fly.' Rattlesnake. Stanley.

SOUTH EQUATORIAL ZONE I.—Equator to 10° S. (continued).

	<u> </u>				Declinat	ion.		Inclina	tion.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea (2 observations) Offak Amsterdam Island On shore (2 observns.) Doreri Island	0 02 0 20	129 21 130 42 132 08 133 35 133 59 {	1827 1823 1840 1840 1824 1827	2 30 E. 1 02 E. 1 24 E. 1 36 E. 2 06 E.		0 2·5 E. 1·0 E. 1·4 E. 0 1·6 E. 2·1 E. } 1·8 E.	0 / 13 31 s. 15 09 s. 25 27 s.		13·5 s. 15·1 s. 25·5 s.	8·36 8·50		8·36 8·50	D'Urville. Duperrey. Belcher. Stanley. Duperrey. D'Urville.
At sea (6 observations) Shell Rock Jobie Island At sea At sea	1 57 1 50 0 20	136 12 136 21 136 41 138 19 140 12	1827 1840 1840 1823 1823	2 50 E. 3 00 E. 4 09 E. 2 00 E. 2 10 E.		2·8 E. 3·0 E. 4·1 E. 2·0 E. 2·2 E.	18 16 s. 17 28 s. 12 41 s. 16 08 s.		18·3 s. 17·5 s. 12·7 s. 16·1 s.	8·70 8·65		8·70 8·65	D'Urville. Belcher. Belcher. Duperrey. Duperrey.
At sea (7 observations) Britannia Island Atsea (11 observations) Darnley Island At sea (11 observations)	3 19 9 04 9 35	142 47 143 29 143 40 143 45 143 51	1827 1840 1845 1845 1845	3 16 E. 4 55 E. 3 55 E. 3 44 E.		3·3 E. 4·9 E. 3·9 E. 	22 02 s. 32 06 s.		22·0 s. 32·1 s.	8·65 9·16		8·65 9·16	D'Urville. Belcher. H.M.S. 'Fly.' H.M.S. 'Fly.' H.M.S. 'Fly.'
At sea Bramble Cay Atsea (10 observations Redscar Bay At sea (6 observations	8 10 9 18	144 04 144 15 144 50 146 52 148 35	1823 1849 1845 1849 1827	5 12 E. 4 23 E. 5 06 E. 5 20 E. 5 40 E.		5·2 E. 4·4 E. 5·1 E. 5·3 E. 5·7 E.	17 57 s.		17·9 s.			 	Duperrey. Dayman. H.M.S. 'Fly.' Dayman. D'Urville.
At sea At sea New Ireland Port Praslin Banka Island	4 42 4 41 4 50	150 55 152 40 152 44 152 48 154 29	1823 1827 1840 1823 1823	5 00 E. 6 40 E. 7 13 E. 6 48 E. 7 20 E.		5·0 E. 6·7 E. 7·2 E. 6·8 E. 7·3 E.	17 28 s. 20 49 s. 20 40 s.		17.5 s. 20.8 s. 20.7 s.	8.80		8·80 	Duperrey. D'Urville. Belcher. Duperrey. Duperrey.
At sea	2 38 5 59 8 12	156 00 160 39 160 44 161 09 161 48	1823 1858 1858 1858 1858	6 36 E. 8 24 E. 7 33 E. 7 48 E. 9 24 E.		6·6 E. 8·4 E. 7·5 E. 7·8 E. 9·4 E.	20 08 s.		20·1 s.				Duperrey. Novara. Novara. Novara. Novara.
At sea	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	174 19 175 07 175 15 176 02 176 45	1824 1824 1824 1824 1824	7 45 E. 7 45 E. 7 45 E. 8 05 E. 8 30 E.		7·7 E. 7·7 E. 7·7 E. 8·1 E. 8·5 E.	8 04 s. 3 25 s. 6 28 s. 12 25 s. 15 11 s.		8·1 s. 3·4 s. 6·5 s. 12·4 s. 15·2 s.				Duperrey. Duperrey. Duperrey. Duperrey. Duperrey.
At sea) 7 55) 3 10) 0 46	177 24 200 19 201 12 201 50 215 17	1824 1863 1863 1863 1848	10 32 E. 6 17 E. 5 06 E. 6 12 E. 5 06 E.		10·5 E. 6·3 E. 5·1 E. 6·2 E. 5·1 E.	16 34 s.		16·6 s.				Duperrey. Richards. Richards. Richards. H.M.S. 'Fly.'
At sea	9 22 8 37 9 32	215 35 215 43 216 06 216 09 216 22	1830 1830 1830 1845 1845	4 59 E. 4 32 E. 3 40 E. 3 55 E.		5·0 E. 4·5 E. 3·7 E. 3·9 E.	15 19 s.		15·3 s. 	8·12		8·12	Erman. Erman. Erman. H.M.S. 'Fly.' H.M.S. 'Fly.'
At sea (2 observations At sea (3 observations At sea (2 observations At sea At sea (3 observations	7 03 5 43 5 14	216 32 217 00 217 45 218 25 218 45	1830 1830 1830 1830 1830	4 41 E. 4 24 E. 4 08 E.		4·7 E. 4·4 E. 4·1 E.	12 11 s. 10 07 s. 7 50 s. 4 03 s.		12·2 s. 10·1 s. 7·7 s. 4·1 s.	7·63 7·73 7·66 7·55		7·63 7·73 7·66 	Erman. Erman. Erman. Erman. Erman.
At sea (2 observations At sea	2 53 1 52 8 56	219 38 219 45 220 17 220 20 220 45	1830 1830 1830 1840 1830	4 17 E. 4 26 E. 6 16 E.		4·3 E. 4·4 E. 6·3 E.	1 08 s. 14 06 s. 0 01 s.		1·1 s. 14·1 s. 0·0	7·42 7·93 7·50		7·42 7·93 7·50	Erman. Erman. Erman. Belcher. Erman.
Ile Christine	1 59 2 14 9 44 1 1 38	220 50 220 50 221 06 221 20 221 58 222 06	1838 1830 1830 1859 1830 1830	4 12 E. 4 55 E. 4 12 E.		4·2 E. 4·9 E. 4·2 E.	18 15 s. 18 45 s. 0 35 n.		18·3 s. 18·7 s. 0·6 n.	7·47 8·20 7·44		7·47 8·20 7·44	Vénus (La). Erman. Erman. Friesach. Erman. Erman.

SOUTH EQUATORIAL ZONE I.—Equator to 10° S. (continued).

					Declinat	tion.		Inclina	tion.	For	ce in Br	itish units.	
Stations.	Lat.S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At seaAt sea (2 observations) At seaAt sea (4 observatious)	1 29 1 40	0 ' 222 48 223 09 224 04 224 24	1830 1830 1830 1830	0 / 4 16 E. 4 34 E.		4·3 E. 4·6 E.	0 50 n. 0 15 n.		0.8 n. 0.3 n.	7·51 7·34		7·51 7·34	Erman. Erman. Erman. Erman.
At sea (3 observations) At sea (3 observations) At sea (2 observations) At sea (2 observations)	1 53 1 53	225 31 226 26 226 59 227 03	1830 1830 1830 1830	3 43 E. 3 38 E.		3·7· E. 3·6 E. 	0 11 s. 0 06 n. 0 11 s. 0 09 n.		0·2 s. 0·1 n. 0·2 s. 0·1 n.	7·29 7·48 7·62		7·29 7·48 7·62	Erman. Erman. Erman.
At sea (2 observations) At sea	1 29 0 53	227 35 227 37 228 02 228 16	1830 1830 1830 1830	3 19 E. 4 29 E.		3·3 E. 4·5 E.	1 19 n. 2 22 n.	 	1·3 n. 2·4 n.	7·69 7·32		7·69 7·32	Erman. Erman. Erman. Erman.
At seaAt sea (3 observations) At seaAt sea	$\begin{array}{c c}0&05\\0&12\end{array}$	231 26 231 26 231 57 233 17	1830 1830 1830 1827	4 44 E. 4 53 E.		4·7 E. 4·9 E.	3 11 n. 3 09 n. 2 11 n.		3·2 n. 3·1 n. 2·2 n.	7·39 7·44		7·39 7·44	Erman. Erman. Erman. Lütke.
At sea. At sea. At sea. At sea.	1 15	234 31 235 30 236 04 236 26	1827 1827 1827 1827	5 09 E. 4 19 E. 3 59 E. 4 00 E.		5·1 E. 4·3 E. 4·0 E. 4·0 E.	1 34 n. 2 14 n. 0 36 n. 0 28 s.		1.6 n. 2.2 n. 0.6 n. 0.5 s.				Lütke. Lütke. Lütke. Lütke.
At sea (5 observations) At sea	4 20 0 04 6 01	238 01 238 13 238 30 240 08 240 39	1834 1827 1857 1827 1857	4 07 E. 4 24 E. 4 10 E. 4 19 E. 5 29 E.		4·1 E. 4·4 E. 4·2 E. 4·3 E. 5·5 E.	3 54 s. 6 54 s.		3·9 s. 6·9 s.				Prussian ships. Lütke. Richards. Lütke. Richards.
At sea (6 observations) At sea (8 observations) At sea	3 00 9 38 4 19	242 42 242 43 243 25 244 38 246 04	1857 1830 1827 1857 1835	6 00 E. 4 35 E. 5 45 E. 6 08 E. 6 06 E.		6·0 E. 4·6 E. 5·7 E. 6·1 E. 6·1 E.	15 04 s.		 15 1 s. 				Richards. Prussian ships. Lütke. Richards. FitzRoy.
At sea (3 observations) At sea (3 observations) At sea (12 observations) At sea (3 observations) At sea (5 observations)	6 27 5 20 7 11 6 16 9 04	246 35 246 48 250 04 253 08 253 14	1835 1857 1857 1835 1857	6 15 E. 6 02 E. 6 39 E. 7 13 E. 7 02 E.		6·3 E. 6·0 E. 6·6 E. 7·2 E. 7·0 E.							Prussian ships. Richards. Richards. FitzRoy. Richards.
At sea (7 observations) At sea (2 observations) At sea (2 observations) At sea (2 observations)	6 50 4 06 9 50 0 31	254 41 256 35 260 56 261 17	1827 1835 1828 1835	7 29 E. 7 15 E. 8 49 E. 8 40 E.		7·5 E. 7·3 E. 8·8 E. 8·7 E.							Prussian ships. FitzRoy. Prussian ships. FitzRoy.
$ \begin{array}{c} \sum\limits_{\substack{\text{Corolloy}\\Co$	1 15 0 15 0 50 1 00 7 32	269 28 { 269 29 270 23 272 18 274 54	1838 1846 1835 1835 1836 1823	8 50 E. 9 30 E. 9 35 E. 8 20 E. 10 47 E.		8·8 E. 9·5 E. 9·6 E. 8·3 E. 10·8 E.	8 14 n. 9 29 n. 8 41 n. 3 51 s.		8·2 n. 9·5 n. 8·7 n. 3·9 s.				Vénus (La). Kellett. FitzRoy. FitzRoy. Bonite. Duperrey.
At sea	9 55 3 50 6 23 1 25 7 17	274 54 274 58 275 17 275 40 278 34	1833 1835 1823 1836 1823	10 18 E. 9 25 E. 10 48 E. 7 37 E. 8 23 E.		10·3 E. 9·4 E. 10·8 E. 7·6 E. 8·4 E.	0 51 s. 0 56 n.		0.9 s. 0.9 s.				Prussian ships. FitzRoy. Duperrey. Bonite. Duperrey.
Payta	5 06	278 54	1823 1832 1835 1836 1838 1866	8 56 E. 9 00 E. 9 00 E. 8 53 E.		8.9 E. 9.0 E. 9.0 E. 8.9 E.	3 56 n. 4 40 n. 4 25 n. 4 32 n. 4 58 n.		3·9 n. 4·7 n. ······ 4·4 n. 4·5 n. 5·0 n.	7:39		7:39	Duperrey. Boussingault. FitzRoy. Bonite. La Vénus. Harkness.
Tumbez River	8 23 3 51 3 31 8 54 3 18	279 10 279 20 279 30 279 32 279 32	1823 1827 1835 1823 1836	7 42 E. 9 51 E. 8 50 E. 7 42 E. 8 55 E.	4444	7·7 E. 9·9 E. 8·8 E. 7·7 E. 8·9 E.	1 41 s. 2 19 s.		1.7 s. 2.3 s.				Duperrey. Prussian ships. FitzRoy. Duperrey. Bonite.

SOUTH EQUATORIAL ZONE I.—Equator to 10° S. (continued).

					Declinat	ion.		Inclin	ation.	For	ce in Br	ritish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842 5.		Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
PunaGuayaquil	° ′ 2 47 2 13	280 05 { 280 06 {	1835 1836 1838 1832 1835	9 00 E. 8 27 E. 8 56 E.	o /	9·0 E. 8·5 E. 8·9 E. 8·5 E.	9 46 n. 9 01 n. 12 15 n.		9.8 N. 9.0 N. 12.3 N.				FitzRoy. Bonite. Belcher. Boussingault. FitzRoy.
Pacasmayo Point (5 stations)	7 23 8 59 0 14 1 42 9 28	280 12 280 29 281 16 281 16 281 32	1835 1836 1831 1831 1835	9 25 E. 9 03 E. 9 30 E.		9·4 E. 9·1 E 9·5 E.	16 32 n. 12 35 n.		16·5 n. 12·6 n.				FitzRoy. Bonite. Boussingault. Boussingault. FitzRoy.
Para	1 26	311 30 { 315 39 {	1830 1838 1822 1828 1832 1835	1 14 E 0 31 w. 2 00 E.	1 00 w. 1 10 w. 0 50 w.	0·2 E 1·7 W. 1·2 E	23 27 N. 24 08 N. 23 06 N. 23 21 N. 23 31 N.		23·5 n. 24·1 n. 23·1 n. 23·3 n. 23·5 n.				Foster. Home. Sabine. Foster. Owen. Home.
Ceara At sea (3 observations) At sea At sea		321 29 321 36 324 44 325 03	1865 1842 1839 1839	8 29 w. 6 19 w. 	2 06 E.	6·4 w. 6·3 w.	21 23 n. 27 32 n. 22 32 n.		21·4 n. 27·5 n. 22·5 n.	6·99 7·62 7·30		6·99 7·62 7·30	Harkness. Jehenne. Sulivan. Sulivan.
Pernambuco	8 03	$\begin{bmatrix} 325 & 09 \\ 325 & 10 \\ 325 & 20 \end{bmatrix}$	1836 1839 1865 1836 1839	5 54 w. 11 00 w. 5 10 w.	0 47 w. 2 40 E. 0 45 w.	6·7 w. 8·3 w. 5·9 w.	13 13 N. 13 09 N. 12 08 N. 15 57 N.	$\begin{vmatrix} -0 & 7 \\ +0 & 45 \\ \dots & 1 \end{vmatrix}$	13·0 n. 13·0 n. 12·9 n. 15·9 n.	6·74 6·54 		6·64 7·03	FitzRoy. Sulivan. Harkness. FitzRoy. Sulivan.
At sea (4 observations) At sea At sea (7 observations) At sea At sea	7 39 7 28 2 16 6 20	325 52 326 48 327 02 327 20 327 24	1829 1837 1829 1839 1840	3 58 w. 9 45 w. 5 25 w.	1 31 w. 0 38 w.	5·5 w. 10·4 w. 7·0 w.	15 57 N		 15·9 n.	7·16 6·72		7·16	Rumker. Du Petit Thouars. Rumker. Sulivan. Ross.
At sea	3 51 7 16 7 50 3 50	327 26 327 27 327 28 327 35 327 39	1837 1840 1840 1832 1837	9 30 w. 8 57 w. 7 00 w. 9 45 w.	0 38 w. 9 17 w. 1 13 w. 0 38 w.	10·1 w. 9·2 w. 8·2 w. 10·4 w.	12 08 N		12·1 N.	6·65		6·65 	Du Petit Thouars. Ross. Ross. FitzRoy. Du Petit Thouars.
At sea	4 49 2 36 9 21 3 54	327 43 327 52 327 58 328 00 328 03	1840 1837 1840 1832 1838	10 10 w. 7 53 w.		10·8 w. 9·1 w.	17 49 N. 9 36 N. 6 41 N.		17·8 N. 9·6 N. 6·7 N.	6·90 6·52 		6·90 6·52 	Ross. Du Petit Thouars. Ross. FitzRoy. Stanley.
At seaAt sea (2 observations At seaAt sea	9 47 7 57 3 18	328 05 328 07 328 31 328 31 328 41	1830 1840 1830 1840 1840	8 39 w. 8 39 w. 9 01 w. 10 15 w.	1 27 w.	10·1 w. 8·9 w. 10·5 w. 10·5 w.	9 36 n. 18 44 n.		9·6 n. 18·7 n.	6·49 7·02		6·49 7·02	Erman. Ross. Erman. Ross. Ross.
At sea	6 21 5 19 9 03	328 50 328 57 329 04 329 05 329 06	1838 1830 1830 1846 1830	8 53 w. 9 15 w. 8 58 w.	1 27 w. 0 25 E. 1 27 w.	10·3 w. 8·8 w. 10·4 w.	21 55 N. 17 42 N. 20 29 N		21·9 n. 17·7 n. 20·5 n.	7·25 6·82 6·92		7·25 6·82 6·92	Sulivan. Erman. Erman. Sulivan. Erman.
At sea	6 46 3 18 5 10	329 06 329 07 329 11 329 16 329 17	1842 1846 1846 1846 1840	9 27 w. 9 46 w. 9 50 w. 9 46 w.	0 24 E. 0 24 E. 0 24 E.	9·5 w. 10·4 w. 9·4 w. 9·4 w.	23 04 n.		23·1 N.	7.19		7·19	Jehenne. Sulivan. Sulivan. Sulivan. Ross.
At sea	1 53 2 56 7 30	329 20 329 24 329 31 329 33 329 34	1837 1830 1830 1826 1846	12 20 w. 9 37 w. 8 43 w. 10 18 w.	0 38 w. 1 27 w. 1 55 w. 0 24 E.	13·0 w. 11·1 w. 10·6 w. 9·9 w.	23 27 N		23·5 n.	7-37		7·37 	Du Petit Thouars. Erman. Erman. Lütke. Sulivar.

SOUTH EQUATORIAL ZONE I.—Equator to 10° S. (continued).

					Declinat	cion.		Inclinat	ion.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842.5.	Corrected.	Observers.
At sea	0 28	329 39 329 43 329 48 330 02 330 02	1830 1830 1832 1840 1840	9 19 w. 9 51 w. 8 26 w. 11 01 w.	1 27 w. 1 27 w. 1 27 w. 1 13 w. 0 17 w.	10·8 w. 11·3 w. 9·7 w. 	24 28 N		° 24·5 n.	7.19		7·19	Erman. Erman. FitzRoy. Ross. Pasley.
At sea	4 15 7 47	330 03 330 08 330 40 330 48 330 53	1846 1840 1848 1847 1847	10 54 w. 10 35 w. 13 41 w.	0 24 E. 0 17 W. 0 31 E.	10·5 w. 10·9 w. 13·2 w.	15 19 n. 10 26 n.		15·3 n. 10·4 n.	6.76		 6·76	Sulivan. Ross. Stanley. Stanley. Rattlesnake.
At sea	6 53	331 08 331 16 331 23 331 32 332 08	1842 1842 1830 1842 1838	13 04 w. 12 00 w. 9 30 w. 11 14 w.	1 27 w.	13·1 w. 12·0 w. 10·9 w. 11·2 w.	20 13 N.		20·2 n.				Jehenne. Bérard. Prussian ships. H.M.S. 'Fly.' Stanley.
At sea (3 observations) At sea At sea (2 observations) At sea	8 56 7 01	332 12 332 50 332 56 333 00 333 06	1847 1843 1843 1847 1843	10 12 w. 11 52 w. 14 30 w. 11 10 w.	0 31 E.	10·2 w. 11·9 w. 14·0 w. 11·2 w.	14 58 n. 7 24 n. 11 01 n. 13 25 n.		15·0 n. 7·4 n. 11·0 n. 13·4 n.	6.89		6.89	Rattlesnake. Ross. Ross. Stanley. Ross.
At sea At sea (2 observations) At sea At sea At sea (3 observations)	6 06 1 53	333 13 333 26 333 27 333 39 333 53	1843 1842 1842 1843 1847	11 36 w. 13 46 w. 12 48 w.		11·6 w. 13 8 w. 12·8 w.	16 15 n. 13 48 n. 19 59 n. 17 58 n.		16:3 n. 13:8 n. 20:0 n. 18:0 n.	6·74 6·94	 	6·74 6·94	Ross. Jehenne. H.M.S. 'Fly.' Ross. Rattlesnake.
At sea (3 observations) At sea (2 observations) At sea (3 observations) At sea (3 observations)	7 00 2 48	334 00° 334 23 334 34 334 43 334 56	· 1847 1826 1836 1842 1842	12 51 w. 11 24 w. 12 38 w. 14 27 w. 15 15 w.	0 31 E. 1 55 w. 0 45 w.	12·3 w. 13·3 w. 13·4 w. 14·5 w. 15·3 w.	22 34 n.		22·6 N.				Ross. Lütke. Bonite. H.M.S. 'Fly.' Bérard.
At sea (3 observations) At sea (3 observations) At sea (8 observations) At sea (3 observations) At sea (3 observations)	$egin{array}{cccc} 4 & 01 \\ 2 & 43 \\ 0 & 28 \\ \end{array}$	335 13 335 20 335 34 335 42 335 44	1850 1850 1830 1847 1850	13 52 w.	1 27 w.	15·3 w.	11 20 n. 15 21 n. 20 10 n. 6 36 n.		11·3 n. 15·3 n. 20·2 n. 6·6 n.	6·93 7·22 7·04 6·90		6·93 7·22 7·04 6·90	Rattlesnake. Rattlesnake. Prussian ships. Rattlesnake. Rattlesnake.
At sea	$\begin{bmatrix} 0 & 19 \\ 0 & 34 \\ 6 & 20 \end{bmatrix}$	335 46 335 50 336 00 336 05 336 23	1842 1847 1850 1822 1822	14 29 w. 15 05 w. 11 30 w. 12 00 w.	0 34 E. 2 33 W. 2 33 W.	14·5 w. 14·5 w. 14·1 w. 14·5 w.	20 40 n. 11 07 n. 16 44 n.		20·7 n. 11·1 n. 16·7 n.	7:50		7·50	Jehenne. Stanley. Rattlesnake. Duperrey. Duperrey.
At sea (3 observations) At sea (2 observations) At sea (2 observations) At sea	$\begin{vmatrix} 0 & 57 \\ 2 & 35 \\ 9 & 45 \end{vmatrix}$	336 33 336 52 337 44 337 53 338 00	1826 1822 1839 1831 1846	11 30 w. 13 12 w. 15 23 w.	2 03 w. 2 33 w. 0 24 w.	13·5 w. 15·7 w. 15·8 w.	19 09 n. 3 09 n. 18 33 n.		19·1 n. 3·1 n. 18·5 n.	7·12		 7·12	D'Urville. Duperrey. Du Petit Thouars. Dunlop. H.M.S. 'Fly.'
At sea (4 observations) At sea (2 observations) At sea At sea At sea (2 observations)	3 18 1 05	338 40 338 43 338 45 338 52 339 02	1829 1836 1839 1842 1826	15 24 w, 14 33 w. 15 58 w. 13 10 w.	1 40 w. 0 48 w. 0 24 w. 2 03 w.	17·1 w. 15·3 w. 16·4 w. 15·2 w.				7.43		 7·43	Lütke. Bonite. Du Petit Thouars. Lefroy. D'Urville.
At sea At sea (6 observations) At sea (3 observations) At sea (2 observations) At sea	8 10 2 50 3 10 1 48 6 02	339 50 340 10 340 14 340 39 341 02	1831 1851 1846 1846 1831	18 07 w. 17 32 w.	1 20 в. 0 26 в.	16·8 w. 17·1 w.	5 12 n. 11 35 n. 8 24 n.		5·2 n. 11·6 n. 8·4 n.	6.80		6.80	Dunlop, Kellett. H.M.S. 'Fly.' Bérard. Dunlop.
At sea At sea (3 observations) At sea. At sea (2 observations) At sea (4 observations) At sea	4 03 9 49	341 04 341 16 341 20 341 37 341 45 342 02 342 04	1842 1839 1846 1831 1836 1846 1842	16 33 w. 18 02 w. 15 57 w. 18 08 w.	0 27 w. 0 28 E. 0 51 w. 0 28 E.	17·0 w. 17·6 w. 17·6 w. 16·8 w. 17·7 w.	11 28 N		11·5 N.	7·01 6·79		7·01 6·79	Lefroy. Du Petit Thouars. Bérard. Dunlop. FitzRoy. H.M.S. 'Fly.' Lefroy.

SOUTH EQUATORIAL ZONE I.—Equator to 10° S. (continued).

0		Long. E.	Date.										1
1				Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
	06 52 41 58	342 08 342 31 342 49 343 10 343 20	1846 1831 1842 1824 1839	0 / 15 45 w. 19 15 w.	o ' 2 32 w. 0 27 w.	° 18·3 w. 19·7 w.	6 45 n. 14 40 n.	0 / 	6·8 n. 14·7 n.	6·62 6·68 		6·62 6·68 	H.M.S. 'Fly.' Dunlop. Lefroy. Prussian ships. Prussian ships.
At sea	23 17 17 17 04	343 28 343 32 343 44 344 04 344 06 344 36	1846 1846 1843 1851 1846 1831	19 14 w. 19 09 w. 20 01 w.	0 27 E. 1 20 E.	18·8 w. 19·1 w. 18·7 w.	3 04 n. 0 30 n. 1 54 n. 17 22 n.		3·1 n. 0·5 n. 1·9 n. 17·4 n.	6·48 6·43		6·48 6·43	Bérard. H.M.S. 'Fly.' Ross. Kellett. H.M.S. 'Fly.' Dunlop.
At sea (2 observations) 6 5 At sea (6 observations) 8 0	02 3 55 3 03 3 59 3	344 40 344 48 344 57 345 08 345 25 345 32	1837 1832 1839 1846 1843 1846	17 45 w. 17 21 w. 18 39 w.	0 44 w. 2 44 w. 0 27 w.	18·5 w. 20·1 w. 19·1 w.	0 40 s. 0 19 n. 1 50 s.		0·7 s. 0·3 s. 1·8 s.	6:36		6·36 	Bonite. Prussian ships. Du Petit Thouars. H.M.S. 'Fly.' Ross. H.M.S. 'Fly.'
Ascension * 7 5	54	345 36	1830 1834 1836 1839 1842 1842 1846 1861 1863 1864	20 10 w. 17 36 w. 18 31 w. 19 16 w. 19 16 w. 21 45 w. 21 38 w.	1 12 w. 0 36 w. 0 18 w 0 24 E.	21·4 w. 18·2 w. 18·8 w. 18·9 w. 18·9 w.	1 57 N. 1 39 N. 0 06 N. 0 08 S 4 47 S. 5 57 S.	-0 51	0·1 s. 0·1 s. 0·1 s. 0·7 s. 0·1 s. 0·2 s.	6·61 6·08 6·33		6·61 6·08 6·33	Foster. Allen. FitzRoy. Du Petit Thouars. Allen. Belcher. Bérard. Denham. H.M.S. 'Hecate.' Rokeby.
	$egin{array}{c c} 45 & 3 \\ 04 & 42 \\ \end{array}$	345 37 345 43 345 44 345 44 345 50	1834 1829 1837 1846 1843	18 57 w. 18 19 w. 18 41 w. 19 21 w.	1 16 w, 2 01 w. 0 48 w. 0 31 E.	20·2 w. 20·3 w. 19·5 w. 18·8 w.	0 17 N.		0·3 N.				Prussian ships. Lütke. Bonite. H.M.S. 'Fly.' Ross.
	04 11	345 55 346 03 346 05 346 22	1851 1846 1842 1842	21 00 w. 19 21 w.	1 30 E. 0 31 E. 	19:5 w. 18:8 w.				6·59 6·18		6·59 6·18	Kellett. Bérard. Lefroy. Lefroy.
At sea (2 observations) 9 (59 03	346 31 346 44 347 02 347 47	1836 1846 1839 1846	17 40 w. 19 16 w. 19 17 w.	0 58 w. 0 31 w. 0 31 E.	18·6 w. 19·8 w. 18·8 w.	4 48 s.		4·8 s.	6:30		6·30 	FitzRoy. H.M.S. 'Fly.' Du Petit Thouars Bérard.

^{*} The effects of local disturbance on land being so great, the mean Declination is assumed from results of observations made on board ships in the anchorage.

SOUTH EQUATORIAL ZONE II.—LATITUDE 10° TO 20° S.

Authorities.

	\cdot
FitzRoy	Voyage of the 'Beagle,' 1849.
Belcher	
Sulivan	
Wickham	
Dunlop	Soling in Dhil Trong 1840, 1849, and 1849
Crozier	Sabine in Phil. Trans. 1840, 1842, and 1843.
Erebus	
Terror	
Pagoda	
Ross	
Jehenne	
Pasley	Sabine in Phil. Trans. 1842 and 1849; and StHelena Observations, vol. i.
Du Petit Thouars	
Stanley	
Owen	
Laplace	
Duperrey	
Prussian Ships	
Lütke	
Dumont d'Urville	
	L. S. Kämtz, MSS.
Kotzebue	
Irland	
Bruce	
Lartigue	
Rumker	
Beechey	
Smythe	StHelena Observations, vol. ii.
Bonite	Voyage (Paris, 1842).
La Vénus	Voyage autour du Monde (Paris, 1841).
Bérard	MSS. in Mag. Office, received from Admiral Duperrey.
Novara (Austrian Frigate).	Reise um die Erde (Wien, 1862–65).
Erman	Reise um die Erde (Berlin, 1841).
Livingstone (Charles)	MSS. in Mag. Office.
Elliot	Phil. Trans. (1851), Art. xii.
Harkness	Smithsonian Contrib. vol. xviii.
Friesach	Mem. Imp. Acad. of Sciences, Vienna, vols. xxix. to xliv.
Rattlesnake	MSS. in the Hydrographic Office.
Richards	MSS. in the Hydrographic Office.
Kellett	MSS. in the Hydrographic Office.
Denham	MSS. in the Hydrographic Office.
'Fly'	MSS. in the Hydrographic Office.
'Hecate'	
Trecate	MSS. in the Hydrographic Office.

SOUTH EQUATORIAL ZONE II.—Lat. 10° to 20° S.

					Declina	tion.		Inclin	ation.	For	ce in Br	ritish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea (3 observations) Cape Negro Cape Frio Benguela Tette	15 47 18 23 12 34	$egin{array}{cccc} \circ & \prime & \\ 0 & 44 \\ 11 & 46 \\ 11 & 57 \\ 13 & 14 \\ 33 & 28 \end{array}$	1846 1825 1825 1825 1858 1858	23 00 w. 23 18 w. 22 00 w. 15 07 w.	1 10 w. 1 10 w. 1 10 w. 1 10 w.	24·2 w. 24·5 w. 23·2 w. 15·1 w.	30 57 48 10		° 31·0 s. 48·2 s. } 48·2 s.	6·23 7·83		6·23 } 7·83	H.M.S. 'Fly.' Owen. Owen. Owen. Livingstone. Livingstone.
Dakanamois Island Expedition Island Quillimane Juan de Nova Coffin Island	18 25 18 01 17 15	35 01 35 51 36 56 42 30 43 42	1859 1858 1825 1825 1825	14 56 w. 14 57 w. 21 00 w. 18 00 w. 18 00 w.		14·9 w. 15·0 w. 21·0 w. 18·0 w. 18·0 w.	48 41 51 10 		48·7 s. 51·2 s. 	7·86 7·74 		7·86 7·74 	Livingstone. Livingstone. Owen. Owen. Owen.
Barren Island Comoro Bembatoo-ka Majambo Bay Glorious Islands	12 10 15 43 15 14	43 53 44 20 46 15 47 00 47 19	1825 1825 1825 1842 1825	17 48 w. 12 30 w. 15 00 w. 12 10 w. 13 00 w.		17·8 w. 12·5 w. 15·0 w. 12·2 w. 13·0 w.	48 19		48·3 s.	8.46		8·46	Owen. Owen. Owen. Belcher. Owen.
Passandava	19 55 18 10 12 15	48 10 48 47 49 31 49 34 49 49	1825 1825 1825 1825 1825	12 30 w. 12 00 w. 13 00 w. 11 00 w. 14 00 w.		12·5 w. 12·0 w. 13·0 w. 11·0 w. 14·0 w.				•••••			Owen. Owen. Owen. Owen. Owen.
N'Goney Sandy Island	15 54 19 54 16 22	50 25 54 21 57 55 59 44 61 13	1825 1830 1845 1824 1836	13 00 w. 11 00 w. 9 27 w. 9 54 w. 8 35 w.		13·0 w. 11·0 w. 9·4 w. 9·9 w. 8·6 w.						••••	Owen. Laplace. Pagoda. Owen. FitzRoy.
At sea (2 observations) At sea. At sea. At sea. At sea. At sea.	19 50 19 04 18 27	62 57 65 32 68 10 69 29 70 39	1836 1837 1837 1837 1837	7 51 w. 8 16 w. 5 45 w. 5 54 w. 5 02 w.		7·8 w. 8·3 w. 5·7 w. 5·9 w. 5·0 w.	······						FitzRoy. Bonite. Bonite. Bonite. Bonite.
At sea (4 observations) At sea (3 observations) At sea At sea (3 observations) At sea	18 48 17 15	70 39 71 24 71 55 73 01 73 51	1836 1846 1837 1836 1837	4 45 w. 4 36 w. 3 40 w. 4 09 w.		4·7 w. 4·6 w. 3·7 w. 4·1 w.	50 24		50·4 s.	9·18		9·18	FitzRoy. H.M.S. 'Fly.' Bonite. FitzRoy. Bonite.
At sea (3 observations) At sea (2 observations) At sea	19 11 13 44 17 55	74 52 75 47 76 33 77 49 79 26	1846 1834 1837 1846 1846	4 46 w. 3 36 w.		4·8 w. 3·6 w.	48 40 48 52 48 31		48·7 s. 48·9 s. 48·5 s.	9·16 9·16 9·13		9·16 9·16 9·13	H.M.S. 'Fly.' Prussian ships. Bonite. H.M.S. 'Fly.' H.M.S. 'Fly.'
At sea	17 30 19 57 18 33	81 02 81 27 82 56 84 03 85 10	1837 1846 1851 1824 1857	7 42 w. 0 37 w. 3 24 w.		0·7 w. 7·7 w. 0·6 w. 3·4 w.	47 27 48 23		47·5 s. 48·4 s.	9·19		9·19 	Bonite. H.M.S. 'Fly.' Kellett. Duperrey. Novara.
At sea (3 observations At sea (3 observations At sea (6 observations At sea (6 observations At sea) 17 23) 16 56	85 18 85 20 85 24 87 30 89 15	1857 1846 1833 1851 1846	4 22 w. 2 40 w. 6 09 w.		4·4 w. 2·7 w. 6·1 w.	48 30		48 5 s. 48 5 s.	9.32		9·32 9·43	Novara. H.M.S. 'Fly.' Prussian ships. Kellett. H.M.S. 'Fly.'
At sea (2 observations At sea (2 observations At sea (2 observations At sea (2 observations At sea (2 observations	16 20 13 58 14 27	89 23 90 16 91 12 93 08 93 28	1836 1851 1827 1851 1846	0 38 w 5 28 w 2 21 w 4 30 w		0·6 w. 5·5 w. 2·3 w. 4·5 w.	48 44		48·7 s.				FitzRoy. Kellett. Prussian ships. Kellett. H.M.S. 'Fly.'
At sea	18 41 13 06 19 33	96 18	1836 1860 1851 1846 1836 1848	0 04 w 5 35 w 3 40 w 1 12 w 1 11 w		0·1 w. 5·6 w. 3·7 w. 1·2 w. 1·2 w. 1·2 w.	48 43		48·7 s. 39·3 s. } 39·3 s	9.88		9·88 } 9·40	FitzRoy. Denham. Kellett. H.M.S. 'Fly.' FitzRoy. Elliot.

SOUTH EQUATORIAL ZONE II.—Lat. 10° to 20° S. (continued).

					Declinat	ion.		Inclina	ation.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea (3 observations) At sea (2 observations) At sea (7 observations) At sea (9 observations) At sea (20 observations)	$ \begin{array}{c cccc} 11 & 52 \\ 10 & 40 \\ 15 & 45 \end{array} $	97 24 97 42 97 42 99 12 100 40 103 02	1829 1851 1851 1860 1860	3 01 w. 2 35 w. 2 01 w. 3 40 w. 1 43 w.		3·0 w. 2·6 w. 2·0 w. 3·7 w. 1·7 w.	o /		0				Lütke. Kellett. Kellett. Denham. Denham.
At sea (3 observations) At sea (6 observations) At sea (2 observations) At sea (3 observations) Atsea (12 observations)	18 55 13 50 17 49	103 17 103 47 105 08 105 25 107 50	1829 1848 1829 1848 1860	2 33 w. 2 27 w. 0 30 w.		2·5 w. 2·5 w. 0·5 w.	46 43		46·7 s. 44·9 s.	10·15 10·16		10·15 10·16	Lütke. Rattlesnake. Lütke. Rattlesnake. Denham.
At sea (3 observations) At sea (3 observations) At sea (3 observations) At sea (6 observations) At sea (8 observations)	13 46 13 36 18 19	111 00 113 23 115 04 115 05 116 09	1848 1848 1848 1827 1860	0 59 w. 0 26 E.		1·0 w. 0·4 E.	39 46 38 14 37 52		39·8 s. 38·2 s. 37·9 s. 	9.93		9-93 	Rattlesnake. Rattlesnake. Rattlesnake. Dumontd'Urville. Denham.
At sea (3 observations) At sea (3 observations) At sea (3 observations) At sea (5 observations) At sea (6 observations)	10 21 12 23 16 35	117 56 119 11 119 33 120 44 121 05	1848 1860 1848 1827 1848	1 19 E. 0 24 w.		1·3 E 0·4 w	36 53 35 27 34 44		36·9 s. 	9·78 9·70 9·66		9·78 9·70 9·66	Rattlesnake. Denham. Rattlesnake. Dumont d' Urville. Rattlesnake.
At sea (9 observations) Point Swan Port Usborne Timor, Koepang Fort At sea (3 observations)	16 21 16 39 10 10	121 09 123 03 123 34 123 36 124 01	1827 1838 1838 1863 1848	0 28 w. 1 24 E.		0·5 w. 1·4 E.	43 07 43 26 32 58 32 27		43·1 s. 43·4 s. 33·0 s. 32·5 ś.	9·92 10·04 9·58 9·55		9·92 10·04 9·58 9·55	Dumont d'Urville. Wickham. Wickham. H.M.S. 'Hecate.' Rattlesnake.
Port George IV At sea (6 observations) At sea (4 observations) At sea (3 observations) At sea (8 observations)	11 25. 11 13	124 40 124 57 125 59 128 57 131 45	1838 1848 1860 1860 1848	1 07 E. 2 21 E.		1·1 E. 2·4 E.	41 29 31 24 33 12		41·5 s. 31·4 s. 33·2 s.	10·00 9·47 9·38		10·00 9·47 9·38	Wickham. Rattlesnake. Denham. Denham. Rattlesnake.
Port Essington, on shore	11 23 11 23	132 12 132 12	1845 1848	2 10 E.		2 2 E.	35 21 35 15		35·3 s. 35·3 s.	9.49		9·49 9·68	H.M.S. 'Fly.'
Don't Products (5)	11 14	132 12	1848			·····	33 48		33·8 s.	9.44		9·44	Rattlesnake.
Evans Bay, C. York Mount Adolphus	10 32 10 44 10 39 11 56	$142 12 \\ 142 31 { \\ 142 40 \\ 143 39 }$	1860 1848 1863 1843 1843	4 44 E. 6 25 E. 4 00 E. 3 12 E.		4·7 E. 	33 11 32 45 33 48 35 31		33·2 s. 33·0 s. 32·8 s. 35·5 s.	9·41 9·43 9·68		9·41 9·43 9·68	Denham. Rattlesnake. H.M.S. 'Hecate.' H.M.S. 'Fly.' H.M.S. 'Fly.'
R. Sir Ch. Hardy Raine Island (3 obs.) Raine Island (1 obs.)	13 39 11 56 11 36 11 36 14 40	143 45 143 47 144 02 144 02 145 28 {	1848 1831 1860 1844 1843 1848	5 30 E. 5 21 E. 4 00 E. 6 50 E.		5·5 E. 5·3 E. 4·0 E. 6·8 E.	38 12 35 01 39 30 39 32		38·2 s. 35·0 s. 39·5 s. 39·5 s. } 39·5 s.	9·60 10·04 10·12		9·60 10·08	Rattlesnake. Richardson. Denham. H.M.S. 'Fly.' H.M.S. 'Fly.' Rattlesnake.
		U	1843 1863	6 53 E. 6 30 E.	•••••	6·9 E. 6·5 E. } 6·7 E.	45 01 44 37		$egin{array}{c} 45.0 \text{ s.} \\ 44.6 \text{ s.} \end{array} \Big\} \ 44.8 \text{ s.}$	10·57 10·96		} 10.76	H.M.S. 'Fly.' H.M.S. 'Hecate.'
ingham Bay	17 55 19 43	146 10 147 50	1848 1843	6 58 E.		7·0 E.	44 13 47 15		44·2 s. 47·3 s.	10·66 10·67		10·66 10·67	Rattlesnake. H.M.S. 'Fly.'
Barnard I. No. 2(3obs.)	17 07 11 18	150 02 151 13 152 07 152 51 155 53	1860 1848 1860 1849 1860	7 11 E. 8 03 E. 8 30 E.		7·2 E. 8·1 E. 8·5 E.	44 09 32 42 		44·1 s. 32·7 s.				Denham. Rattlesnake. Denham. Rattlesnake. Denham.
(6 observations))	19 53 10 17	158 21 162 40	1859 1858	9 22 E. 9 11 E.	0.16 n	9·4 E.							Denham. Novara.
At sea (6 observations)	11 59	162 40 169 24 169 29	1828 1840	10 02 E. 11 37 E.	0 16 E. 0 14 W. 0 03 W.	9·4 E. 9·8 E. 11·6 E.	39 53		 39·9 s.	10·40		 10·40	Novara. Dumont d'Urville. Belcher.

SOUTH EQUATORIAL ZONE II.—Lat. 10° to 20° S. (continued).

					Declinat	tion.		Inclin	ation.	For	ce in Br	ritish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea (13 observations) At sea	16 48 18 24 18 20	177 02 178 10	1855 1823 1826 1840 1840	11 34 E. 8 00 E. 10 49 E. 10 21 E. 10 25 E.	0 19 w. 0 16 w. 0 02 w. 0 02 w.	° 11.6 E. 7.7 E. 10.5 E. 10.3 E. 10.4 E.	31 17 36 30 36 69		31·3 s. 36·5 s. 36·1 s.	 11·34 9·78		 11·34 9·78	Denham. Duperrey. Dumontd'Urville. Belcher. Belcher.
Viwa (2 observations) Levuka	17 41 17 53 17 48	178 36 178 50 179 20 179 23 179 34	1855 1855 1855 1855 1855	9 38 E. 10 07 E. 8 57 E. 9 25 E. 10 41 E.		9·6 E. 10·1 E. 8·9 E. 9·4 E. 10·7 E.							Denham, Denham, Denham, Denham, Denham,
Totoya(3 observations) Matuku (3 observtns.) At sea (8 observations) Vavao Island	19 09 16 00	180 10	1855 1855 1863 1837 1840	11 00 E. 11 02 E. 8 44 E. 9 34 E.	0 02 w.	11.0 b. 11.0 e. 8.7 e. 9.5 e. 9.5 e.	35 25 35 07		$egin{array}{ccc} & \circ & \\ 35.4 & \mathrm{s.} \\ 35.1 & \mathrm{s.} \end{array} brace 35.3 & \mathrm{s.}$			 } 9.65	Denham. Denham. Richards. Anonymous. Belcher.
Upolu Island Apia Hr., Upolu Island At sea At sea (5 observations) Tutuila	13 50 11 56 13 01	188 14 188 34 189 53	1824 1863 1824 1863 1837	6 58 E. 9 16 E. 10 47 E. 7 54 E.	0 18 w. 0 18 w.	6·7 E. 9·3 E. 10·5 E. 7·9 E.	27 32 24 12 26 04		27·5 s. 24·2 s. 26·1 s.	9.08		9.08	Kotzebue. H.M.S. 'Hecate.' Duperrey. Richards. Anonymous.
At sea (2 observations) At sea (4 observations) At sea (11 observations) At sea (4 observations) At sea (2 observations)	20 48 10 25 18 38	197 58	1863 1835 1863 1835 1835	7 34 E. 9 28 E. 7 07 E. 9 09 E. 7 43 E.	0 07 w. 0 03 w. 0 03 w.	7.6 E. 9.3 E. 7.1 E. 9.1 E. 7.7 E.							Richards. FitzRoy. Richards. FitzRoy. FitzRoy.
Bellingshausen Island At sea (4 observations) Manpiti Island Raiatea At sea (3 observations)	17 26 16 26 16 42	207 48 208 37	1824 1835 1823 1837 1835	6 00 E. 7 37 E. 7 10 E. 7 57 E.	0 09 w. 0 03 w. 0 09 w. 0 03 w.	5·8 E. 7·6 E. 7·0 E. 7·9 E.	28 44		28·7 s.				Kotzebue. FitzRoy. Duperrey. Anonymous. FitzRoy.
At sea	19 06 19 28 17 25	209 52 209 52 210 13	1830 1830 1830 1830 1859	6 22 E. 7 25 E. 7 10 E.	0 06 w.	6·3 E. 7·4 E. 7·2 E.	31 59 29 16		32·0 s. 29·3 s.	9.44		9·44 	Erman. Erman. Erman. Erman. Novara.
At sea			1830 1837 1838 1859 1859	6 11 E. 6 54 E. 7 27 E.		6·2 E. 6·9 E. 7·4 E.	27 05 29 07 27 07 28 43 29 21		27·1 s. 29·1 s. 27·1 s. 28·7 s. 29·3 s. 28·6 s.	8·62 8·40 8·57		8.62	Erman. Anonymous. La Vénus. Friesach. Novara.
Otaheite	17 29	210 30	1823 1824 1826 1830 1831 1835 1837 1840	6 40 E. 6 50 E. 7 33 E. 7 30 E. 7 34 E. 7 10 E. 6 30 E.		6·7 E. 6·8 E. 7·5 E. 7·5 E. 7·6 E. 7·2 E. 6·5 E.	30 04 29 03 30 26 30 14 30 18		30·1 s. 29·0 s. 30·4 s. 30·2 s. 30·3 s.	8·85 8·68		8.77	Duperrey. Kotzebue. Beechey. Erman. Irland. FitzRoy. Bruce. Belcher.
At sea (3 observations At sea (2 observations At sea (3 observations At sea (2 observations At sea (4 observations	15 57 14 46 14 43	210 41 211 41 212 06	1859 1830 1830 1830 1859	6 51 E. 7 02 E. 6 35 E. 6 10 E. 6 29 E.		6.8 E. 7.0 E. 6.6 E. 6.2 E. 6.5 E.	24 23		24·4 s.	8·19		8·19	Novara. Erman. Erman. Erman. Novara.
At sea (2 observations At sea (2 observations At sea (2 observations At sea (2 observations At sea (2 observations	15 04 14 33 13 27	214 02 214 08	1830 1830 1830 1830 1830	6 19 E. 6 58 E. 6 20 E. 5 46 E.		6·3 E. 7·0 E. 6·3 E. 5·8 E.	24 55 22 57		24·9 s. 23·0 s.	8·46 8·33		8·46 8·33	Erman. Erman. Erman. Erman. Erman.
At sea (2 observations At sea (2 observations At sea (7 observations At sea (2 observations	11 58 13 37	$\begin{vmatrix} 214 & 30 \\ 214 & 31 \end{vmatrix}$	1830 1830 1859 1830	5 58 E. 5 09 E.		6.0 E. 5.1 E.	21 19 19 23 		21·3 s. 19·4 s.	8·45 8·27		8·45 8·27 	Erman. Erman. Novara. Erman.

SOUTH EQUATORIAL ZONE II.—Lat. 10° to 20° S. (continued).

The second section of the second seco				on kateron makeon mak	Declinat	ion.	**************************************	Inclinat	tion.	For	ce in Bri	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea (2 observations) At sea (7 observations) At sea (7 observations) At sea (2 observations) Bow Island	14 26 13 49 12 57	214 55 216 30 217 27 217 53 219 07	1830 1859 1859 1859 1840	7 12 E. 6 21 E. 6 26 E. 6 43 E.		7·2 E. 6·3 E. 6·4 E. 6·7 E.	17 48 		o 17·8 s. 	8.16		8·16 	Erman. Novara. Novara. Novara. Belcher.
Moller Island At sea (2 observations Predpriatir Island At sea (2 observations Lanciers Island	17 43 14 00 15 58	219 30 219 54 220 07	1823 1859 1824 1859 1825	6 32 E. 6 05 E. 5 00 E. 6 46 E. 7 03 E.		6.5 E. 6.1 E. 5.0 E. 6.8 E. 7.0 E.						•••••	Duperrey. Novara. Kotzebue. Novara. Beechey.
Narcisse Island At sea (2 observations Clermont Tonnere Isl. At sea (5 observations At sea (2 observations	$ \begin{array}{c cccccccccccccccccccccccccccccccccc$	221 30 222 15 223 34 225 30 227 20	1823 1859 1823 1859 1859	5 22 E. 6 20 E. 4 51 E. 6 44 E. 7 07 E.		5·4 E. 6·3 E. 4·8 E. 6·7 E. 7·1 E.						•••••	Duperrey. Novara. Duperrey. Novara. Novara.
At sea) 11 30) 10 03	231 58 234 55	1835 1835 1835 1835 1827	6 20 E. 5 35 E. 5 14 E. 5 16 E. 5 54 E.		6·3 E. 5·6 E. 5·2 E. 5·3 E. 5·9 E.						•••••	FitzRoy. FitzRoy. FitzRoy. FitzRoy. Lütke.
At sea	17 17	251 20 257 05 260 34 260 43 261 08	1827 1857 1827 1857 1857	8 05 E. 8 32 E. 9 01 E. 9 49 E. 10 23 E.		8·1 E. 8·5 E. 9·0 E. 9·8 E. 10·4 E.	20 36		20·6 s.	7.89		7.89	Lütke. Richards. Lütke. Richards. Prussian ships.
At sea (2 observations At sea (4 observations At sea (5 observations At sea (17 observations At sea (3 observations	$egin{array}{c c} 12 & 21 \\ 17 & 27 \\ 19 & 07 \\ \end{array}$	265 31 268 07	1857 1825 1857 1857 1830	11 02 E. 10 03 E. 11 46 E. 12 56 E. 10 33 E.		11·0 E. 10·0 E. 11·8 E. 12·9 E. 10·5 E.			·····				Richards. Prussian ships. Richards. Richards. Prussian ships.
At sea	11 12	281 44 282 24	1836 1832 1835 1836	9 02 E. 10 31 E. 9 54 E. 11 30 E.		9.0 E. 10.5 E. 9.9 E. 11.5 E.						······	Bonite. Prussian ships. FitzRoy. Bonite.
Callao	. 12 03	282 53	1823 1827 1835 1836 1838 1838 1866	9 30 E. 10 40 E. 10 18 E. 10 23 E. 10 44 E. 10 17 E. 10 30 E.		9.5 E. 10.7 E. 10.3 E. 10.4 E. 10.7 E. 10.3 E. 10.5 E.	8 33 7 03 6 14 6 49 6 28		8·5 s. 7·0 s. 6·2 s. 6·8 s. 6·5 s.	7·59 7·05		7:32	Duperrey. Prussian ships. FitzRoy. Bonite. Belcher. La Vénus. Harkness.
At sea	12 04 14 06 16 52	283 07 283 14 283 15	1823 1858 1823 1823 1823	8 02 E. 10 40 E. 9 33 E. 9 16 E. 9 47 E.		8·0 E. 10·7 E. 9·5 E. 9·3 E. 9·8 E.	8 26 7 10 9 55 14 50 20 11		8·4 s. 7·2 s. 9·9 s. 14·8 s. 20·2 s.	7.07		7:07	Duperrey. Friesach. Duperrey. Duperrey. Duperrey.
Sangallan Island Pisco (2 stations) At sea San Juan (3 stations) At sea	. 14 00 . 17 53 . 15 43	283 46 284 50 285 22	1823 1835 1836 1835 1836	9 33 E 10 15 E 11 10 E 10 50 E 10 25 E		9·5 E. 10·2 E. 11·2 E. 10·8 E. 10·4 E.				••••			Duperrey. FitzRoy. Bonite. FitzRoy. Bonite.
At sea (6 observations Puno, Peru Jacua, Peru Mellends Islay (4 stations)	$egin{array}{c c} & 15 & 50 \\ & 18 & 01 \\ & 17 & 02 \end{array}$	$egin{array}{c cccc} 287 & 18 \\ 287 & 28 \\ 287 & 53 \\ \hline \end{array}$	1829 1860 1859 1823 1835	10 38 E 10 44 E 11 08 E 10 00 E 10 58 E		10·6 E. 10·7 E. 11·1 E. 10·0 E. 11·0 E.	7 58		8·0 s.	6.77		6·77 	Prussian ships. Friesach. Friesach. Lartique. FitzRoy.
Arequipa Ylo La Paz, Bolivia Arica	17 36	288 35	1835 1823 1860 1827 1835 1858	12 27 E 10 15 E 10 30 E 10 45 E 11 00 E 10 53 E	i	12·4 E. 10·2 E. 10·5 E. 10·7 E. 11·0 E. 10·9 E.	10 00 8 38 13 40		10·0 s. 8·6 s. 13·7 s. 113·7 s.	6.75		6·75 6·71 } 6·85	Friesach. Lartigue. Friesach. Prussian ships. FitzRoy. Friesach.

SOUTH EQUATORIAL ZONE II.—Lat. 10° to 20° S. (continued).

					Declina	tion.		Inclina	ation.	For	ce in B	ritish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842.5.		Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
Mean of (4 stations) At sea At sea At sea (4 observations) Abrolhos Island	17 15 18 25 17 19	289 40 292 45 321 05 321 11 321 18	1835 1837 1843 1832 1832	0 ' 11 30 E. 4 36 W. 3 10 W. 1 18 W. 2 00 W.	0 59 w. 0 59 w.	0 11:5 E. 4:6 W. 3:3 W. 2:3 W. 3:0 W.	0 1		0				FitzRoy. Bonite. Pasley. FitzRoy. FitzRoy.
Bahia	12 59	321 30	1832 1837 1839 1842 1865	4 18 w. 3 30 w. 7 57 w.	1 16 w 3 00 E.	5·6 w. 3·5 w. 5·0 w.	4 56 5 35 5 01 4 24		4.9 N. 5.6 N. 5.0 N. 4.4 N.	6·43 6·23			FitzRoy. Wickham. Sulivan. Bérard. Harkness.
At sea (5 observations) At sea (4 observations) At sea (4 observations) At sea (4 observations) At sea (3 observations)	13 23 17 36 18 01	321 30 321 32 321 32 321 39 321 43	1832 1832 1832 1832 1842	2 19 w. 1 52 w. 1 56 w. 2 19 w. 4 50 w.	1 19 w. 1 18 w. 1 19 w. 1 19 w.	3·6 w. 3·2 w. 3·2 w. 3·6 w. 4·8 w.							FitzRoy. FitzRoy. FitzRoy. FitzRoy. Bérard.
At sea (2 observations) At sea (5 observations) At sea	12 46 13 36 15 43	322 05 322 18 322 20 322 46 323 00	1842 1836 1839 1832 1838	3 45 w. 3 15 w. 3 17 w.	0 52 w. 1 18 w.	3·7 w. 4·1 w. 4·6 w.	4 22 		 4·4 n.	6.61		6·61	Bérard. FitzRoy. Sulivan. FitzRoy. Sulivan.
At sea	15 10 18 50 17 13	323 24 323 26 323 26 323 29 323 37	1837 1839 1842 1829 1836	7 20 w. 4 08 w. 0 26 w. 4 18 w.	0 31 w. 1 40 w. 0 49 w.	7·8 w. 4·1 w. 2·1 w. 5·1 w.	1 37 		1.6 N.	6·50 		6·50 	Du Petit Thouars. Sulivan. Bérard. Rumker. FitzRoy.
At sea	17 41 17 35 15 44	323 42 323 43 323 47 323 58 324 04	1838 1847 1847 1839 1837	7 00 w. 7 28 w.	0 34 w. 0 42 w.	6·6 w. 8·2 w.	1 25 4 17 0 22		1·4 s. 4·3 s. 0·4 s. 	6·61 6·33 6·47		6·61 6·33 6·47	Sulivan. Stanley. Rattlesnake. Sulivan. Du Petit Thouars.
At sea (2 observations) At sea	18 48 12 01 17 52	324 04 324 16 324 17 324 36 324 41	1832 1836 1842 1839 1838	3 02 w. 3 41 w. 8 00 w.	1 18 w. 0 42 w. 	4·3 w. 4·4 w. 8·0 w.	3 37 1 50		3·6 s. 1·8 N.	6·40 6·60		6·40 6·60	FitzRoy. Bonite. Bérard. Sulivan. Sulivan.
At sea (4 observations) At sea. At sea. At sea (3 observations) At sea.	15 10 19 45 17 48	$324 50 \\ 324 52$	1829 1837 1830 1826 1830	3 23 w. 7 35 w. 3 25 w. 3 11 w. 4 39 w.	1 34 w. 0 38 w. 1 27 w. 1 55 w. 1 27 w.	5·0 w. 8·2 w. 4·9 w. 5·1 w. 6·1 w.	7 25		 7·4 s.	5.86		5·86	Rumker. Du Petit Thouars. Erman. Lütke. Erman.
At sea At sea (2 observations) At sea At sea At sea (2 observations)	18 14 19 56 18 30	325 01 325 05 325 09	1830 1829 1839 1830 1830	4 06 w. 1 34 w. 4 28 w. 4 40 w.	1 27 w. 1 30 w. 1 45 w. 1 45 w.	5·5 w. 3·1 w. 6·2 w. 6·4 w.	7 40 7 07		7·7 s. 7·1 s. 	5·82 6·30		5·82 6·30 	Erman. Prussian ships. Sulivan. Erman. Prussian ships.
At sea (3 observations) At sea At sea At sea At sea	16 48 10 08	325 41	1847 1836 1838 1830 1837	8 13 w. 4 56 w. 4 31 w. 8 12 w.	0 24 E. 0 45 W. 1 27 W. 0 38 W.	7·8 w. 5·7 w. 6·0 w. 8·8 w.	0 35 10 50 4 34 		0.6 s. 10.8 n. 4.6 s.	6·37 6·82 5·73	······	6:37 6:82 5:73	Rattlesnake. Bonite. Sulivan. Erman. Du Petit Thouars.
At sea At sea (2 observations) At sea At sea. At sea (4 observations) At sea (3 observations)	14 59 15 12 13 43	326 02 326 26 326 40 326 51 327 00 327 01	1830 1830 1830 1836 1823 1826	5 15 w. 6 50 w. 6 45 w. 4 55 w. 5 24 w.	1 27 w. 1 27 w. 0 45 w. 2 16 w. 1 55 w.	6·7 w. 8·3 w. 7·5 w. 7·2 w. 7·3 w.	2 00 0 27 		2·0 s. 0·4 n.	5·89 6·12		5·89 6·12	Erman. Erman. Erman. Bonite. Prussian ships. Lütke.
At sea	. 14 24 . 13 22 . 12 38 . 12 38 . 11 44	327 01 327 15 327 36 327 36 327 36 327 39	1830 1830 1830 1847 1830 1830	6 08 w. 6 43 w. 7 16 w. 9 56 w. 7 25 w.	1 27 w. 1 27 w. 1 27 w. 0 31 E. 1 27 w.	7·6 w. 8·2 w. 8·7 w. 9·4 w. 8·9 w.	1 30 3 20 6 30		1.5 N. 3.3 N. 6.5 N.	6·26 5·93		6·26 5·93 	Erman. Erman. Erman. Stanley. Erman. Erman.

SOUTH EQUATORIAL ZONE II.—Lat. 10° to 20° S. (continued).

					Declinat	tion.		Inclina	tion.	For	rce in Bı	ritish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea (3 observations) At sea At sea At sea At sea (4 observations)	10 49 10 58 12 48	327 45 327 52 327 58	1847 1842 1830 1847 1828	10 45 w. 7 11 w. 9 01 w. 5 25 w.	0 / 1 27 w. 0 31 E. 1 42 w.	0 10·7 w. 8·6 w. 8·5 w. 7·1 w.	3 06		3·1 n.	6.37		6:37 	Rattlesnake. Bérard. Erman. Stanley. Prussian ships.
At sea (2 observations) At sea At sea At sea At sea At sea	11 03 13 15 12 32	328 22 328 34 328 57	1833 1839 1836 1839 1839	4 54 w. 8 06 w. 8 25 w.	1 15 w. 0 45 w. 0 24 w.	6·1 w. 8·8 w. 8·8 w.				6·38 6·29		6·38 6·29	Prussian ships. Erebus. Bonite. Erebus. Ross.
At sea At sea At sea (2 observations) At sea At sea	18 11 12 29 12 37 15 35 17 20	329 10 329 16	1846 1846 1833 1846 1846	9 11 w. 9 13 w. 7 30 w. 8 31 w. 9 01 w.	0 24 E. 0 24 E. 1 15 W. 0 24 E. 0 24 E.	8·8 w. 8·8 w. 8·7 w. 8·1 w. 8·6 w.							Sulivan. Sulivan. Prussian ships. Sulivan. Sulivan.
At sea. At sea. At sea (2 observations) At sea. At sea.	10 15 13 42 14 00	329 26 329 28	1846 1847 1839 1839 1839	9 00 w. 12 28 w. 8 29 w. 8 33 w.	0 24 E. 0 31 E. 0 24 W. 0 24 W.	8·6 w. 12·0 w. 8·9 w. 9·0 w.				6.16		6·16	Sulivan. Stanley. Ross. Erebus. Ross.
At sea At sea (3 observations) At sea (3 observations) At sea (3 observations)	15 04 14 00 15 45	329 58 330 06 330 17 330 20 330 27	1846 1839 1842 1842 1836	8 58 w. 8 00 w.	0 21 E 0 45 w.	8·6 w. 8·7 w.	0 12 3 13		0·2 n. 3·2 s.	6·16 6·50 6·41		6·16 6·50 6·41	Sulivan. Erebus. H.M.S. 'Fly.' H.M.S. 'Fly.' Bonite.
At sea	16 52 16 57 18 10 18 02 19 07	330 27 330 30 330 33 330 36 330 42	1839 1839 1842 1839 1839	9 09 w. 9 28 w. 9 48 w.	0 24 w. 0 24 w. 0 24 w. 0 24 w.	9·5 w. 9·9 w. 10·2 w.	6 58		7·0 s.	6·12 6·30 		6·12 6·30 	Erebus. Ross. H.M.S. 'Fly.' Erebus. Ross.
	19 01 11 30 12 08 12 08 12 08 10 05	330 45 330 48 330 55 331 05 331 48	1839 1842 1836 1836 1836	8 43 w. 8 40 w. 9 24 w.	0 45 w. 0 45 w. 0 45 w.	8·5 w. 9·4 w. 10·1 w.	4 40		4·7 N.	6·10 6·51 		6·10 6·51 	Erebus. H.M.S. 'Fly.' FitzRoy. FitzRoy. Bonite.
At sea (2 observations)	19 47 18 09	332 07 332 45 332 48 333 06 333 10	1826 1831 1831 1859 1831	7 18 w.	1 39 w. 1 55 E.	9·0 w. 12·5 w.	10 13 7 10 4 02		10·2 s. 7·2 s. 4·0 s.	6·44 6·29 6·59		6·44 6·29 6·59	Dumont d'Urville. Dunlop. Dunlop. Novara. Dunlop.
At sea (2 observations) At sea (2 observations)	19 22 14 31 18 44 15 59 12 51	333 37 334 30 335 34 336 00 336 10	1859 1831 1850 1850 1831	13 52 w.	1 55 E.	12·0 w.	1 05 9 29 4 58 0 35		1·1 s. 9·5 s. 5·0 s. 0·6 n.	6·52 6·54 6·45 6·59		6·52 6·54 6·45 6·59	Novara. Dunlop. Rattlesnake. Rattlesnake. Dunlop.
At sea (2 observations) At sea	11 25 10 12 10 06	336 14 336 37 337 42 340 27 341 02	1850 1836 1831 1842 1836	13 06 w. 15 23 w. 15 57 w.	0 52 w. 0 52 w.	14·0 w. 15·4 w. 16·8 w.	1 34 1 38 		1.6 s. 1.6 n.	6·60 6·52 		6·60 6·52 	Rattlesnake. FitzRoy. Dunlop. Jehenne. FitzRoy.
At sea (4 observations)	11 59 12 09 19 20	342 37 343 46 344 09 345 01 345 44 345 45	1842 1842 1846 1842 1840 1840	16 00 w. 17 10 w. 20 58 w. 17 36 w. 18 44 w.	0 28 E. 0 12 w.	16·0 w. 17·2 w. 20·5 w. 17·6 w. 18·9 w.				6.11		6·11	Jehenne. Jehenne. Bérard. Jehenne. Ross. Terror.
At sea	18 53 18 43 17 44 17 30 17 37 17 23	345 46 346 00 346 10 346 15 346 23 346 29	1840 1840 1840 1840 1840 1840	17 46 w.	0 13 w. 0 13 w. 	18·0 w 19·6 w				6·12 6·12 6·14 			Erebus. Ross. Terror. Erebus. Ross. Terror.

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SOUTH EQUATORIAL ZONE II.—Lat. 10° to 20° S. (continued).

					Declinat	ion.		Inclina	tion.	For	ce in Br	ritish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842.5.	Corrected.	Observers.
At sea	17 08 13 07 16 43	346 40 346 43 347 00 347 02 347 07	1840 1840 1842 1840 1840	20 12 w. 19 41 w. 19 32 w.	0 13 w. 0 15 w.	20·4 w. 19·7 w. 19·8 w.	0 /			6·12 6·09			Erebus. Ross. Jehenne. Terror. Ross.
At sea. At sea. At sea. At sea. At sea. At sea.	16 22 15 25 10 34	347 17 347 25 347 50 347 54 347 58	1840 1840 1840 1837 1840	18 18 w. 18 05 w. 20 52 w.	0 15 w. 0 44 w. 0 17 w.	18·5 w. 18·8 w. 21·1 w.			•••••	6·11 6·12			Erebus. Ross. Terror. Bonite. Ross.
At sea	15 15 15 24 15 20	347 58 348 01 348 06 348 07 348 09	1840 1840 1840 1840 1840	20 40 w.	0 17 w.	21 0 w.				6·15 6·15 6·09 6·11	•••••		Terror. Erebus. Ross. Erebus. Erebus.
At sea	15 31 15 44 15 37	348 09 348 15 348 15 348 27 348 32	1840 1840 1840 1840 1840	20 16 w. 19 10 w. 19 11 w.	0 17 w.	20·5 w. 19·4 w. 19·5 w.				6.34	•••••	•••••	Terror. Ross. Ross. Ross. Terror.
At sea	$\begin{vmatrix} 15 & 30 \\ 11 & 12 \\ 12 & 13 \end{vmatrix}$		1840 1840 1851 1832 1846	18 56 w. 21 52 w. 19 14 w.	1 30 в.	19·2 w. 20·4 w. 20·6 w.	 11 43 s.		11·7 s.	6.07			Ross. Erebus. Kellett. Prussian ships. H.M.S. 'Fly.
At sea. At sea. At sea. At sea. At sea. At sea.	10 47 11 22 14 33	349 22 349 31 349 32 349 37 349 42	1840 1825 1839 1840 1837	18 40 w. 20 14 w. 18 40 w.	0 28 w.	21·0 w. 20·7 w. 19·4 w.	3 04 s.		3·1 s.	6·13 6·11			Terror. Duperrey. Du Petit Thouars. Erebus. Bonite.
At seaAt sea (3 observations At seaAt sea	12 53 14 28 13 44	349 54 350 08 350 19 350 20 350 21	1840 1829 1840 1840 1840	19 31 w. 20 39 w. 		19·8 w. 22·2 w. 				6·21 6·20 6·19			Ross. Lütke. Terror. Terror. Terror.
At sea	14 53 14 08 14 11	350 28 350 28	1840 1840 1840 1840 1840	21 24 w 21 33 w		21.6 w. 21.8 w.				6·27 6·11 6·26			Terror. Terror. Terror. Ross. Ross.
At sea	13 37 14 19 13 02	350 33 350 33 350 53	1840 1840 1840 1836 1846	19 56 w	 0 39 w.	20·6 w.	16 14 s		 16·2 s.	6·11 6·16 6·09 			Erebus. Erebus. Erebus. FitzRoy. H.M.S. 'Fly.'
At sea) 14 14 14 08	351 19 351 31	1839 1825 1840 1840 1840	21 16 w 18 45 w 21 13 w 21 32 w	1 45 w. 0 15 w.	21.6 w. 20.5 w. 21.5 w. 21.8 w.	8 47 s		88s.	6.18			Du Petit Thouars. Duperrey. Ross. Erebus. Ross.
At sea	. 14 19 14 36 15 03 14 26	351 53 351 53 351 54 351 57	1840 1840 1840 1840 1840 1840	21 08 w		21·4 w.				6·21 6·26 6·18 6·18			Terror. Terror. Ross. Erebus. Erebus. Ross.
At sea (5 observations At sea	. 13 36 . 14 11 . 13 43 . 13 34	352 00 352 00 352 01 352 02	1839 1840 1840 1840 1840 1840	21 47 w 21 06 w 22 09 w	0 15 w.	22·1 w. 21·3 w. 22·4 w.				6·25 6·16 			Du Petit Thouars. Terror. Ross. Erebus. Ross. Terror.

The second secon					Declina	tion.		Inclina	tion.	For	ce in Bri	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea	15 26 15 27	352 06 352 12 352 20 352 30 352 31	1840 1836 1840 1840 1851	19 52 w. 21 39 w. 21 27 w. 23 16 w.	0 39 w. 0 15 w. 0 15 w. 1 10 e.	20·5 w. 21·9 w. 21·7 w. 22·1 w.	0 /		·····	6·13			Erebus. Prussian ships. Ross. Ross. Kellett.
At sea	15 17 14 30	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1840 1840 1840 1836 1840	19 50 w.	0 39 w.	 19·5 w.				6·18 6·28 6·14 6·19		•••••	Terror. Terror. Erebus. FitzRoy. Erebus.
At sea	18 33 18 29 15 00	352 52 352 52 352 55 352 58 353 00	1839 1840 1840 1846 1846	22 18 w. 23 11 w. 21 52 w.	0 21 w. 0 15 w. 0 15 w.	22·6 w. 23·4 w. 22·1 w.	19 53 s.		 19·9 s.	6·16 6·10		•••••	Du Petit Thouars. Terror. Ross. H.M.S. 'Fly.' Ross.
At sea	15 19 17 38	353 19	1840 1840 1840 1840 1840	21 37 w. 21 29 w.	0 15 w. 0 15 w.	21·9 w. 21·7 w.			•••••	6·26 6·21 6·14			Terror. Terror. Erebus. Ross. Ross.
At sea			1840 1840 1840 1840	20 54 w.	0 15 w.	21·1 w.				6·16 6·15 6·12		•••••	Terror. Ross. Terror. Terror.
At sea	15 07 15 10 15 21	353 36 353 44 354 05 354 07 354 08	1840 1840 1840 1840 1840	23 27 w.	0 15 w.	23.7 w.	••••			6·17 6·21 6·26 6·18		•••••	Terror. Erebus. Terror. Ross. Erebus.
St. Helena Observa- tory, Longwood *	15 55	354 17	1840 1840 1841 1842 1843 1844 1845 1846 1847	22 53 w. 22 58 w. 23 05 w. 23 14 w. 23 20 w. 23 27 w.		23·2 w.	21 15 s. 21 26 s. 21 25 s. 21 45 s. 21 56 s. 21 55 s. 22 14 s. 22 37 s. 22 49 s.		21·6 s.	6.08			Ross. Observatory.
Sister's Walk, St. }	15 55	354 18	1840 1840 1842 1846	•••••			18 21 s. 17 01 s. 19 23 s.			6·28 6·28 6·29			Crozier. Ross. Belcher. Smythe.
Anchorage, St. Helena		$354 \ 17 $ $\left\{ 354 \ 19 \right\}$	1836 1839 1846 1840	18 00 w. 22 17 w. 23 11 w.			17 55 s.			6.13			FitzRoy. Du Petit Thouars. Bérard. Terror.
At sea At sea (3 observations) At sea At sea (5 observations) At sea (5 observations)	16 08 16 27 19 32	354 26 354 39 355 24 355 51 356 10	1836 1846 1842 1846 1846	19 43 w. 24 03 w. 22 46 w. 23 38 w.	0 32 w. 0 17 E. 0 17 E.	20·2 w. 24·0 w. 22·5 w. 23·3 w.	22 05 s.		22·1 s.	6.16			FitzRoy. H.M.S. 'Fly.' Jehenne. Bérard. Bérard.
At sea (2 observations) At sea (3 observations) At sea (3 observations) At sea (8 observations) At sea (3 observations)	17 11 17 33 17 12	356 20 356 16 356 21 356 22 356 24	1842 1846 1834 1851 1846	24 39 w. 20 17 w. 24 53 w. 23 50 w.	0 42 w. 1 05 E. 0 18 E.	24.6 w. 21.0 w. 23.8 w. 23.5 w.	24 06 s.		24·1 s.	6.17			Jehenne. H.M.S. 'Fly.' Prussian ships. Kellett. Bérard.
At sea	18 19 18 52 18 01	356 32 357 08 357 15 357 30 358 14	1837 1829 1842 1829 1846	22 28 w. 23 09 w. 25 15 w. 20 36 w.	0 27 w. 1 08 w. 1 08 w.	22·9 w. 24·3 w. 25·3 w. 21·7 w.	27 02 s.		 27·0 s,	6.28			Bonite. Lütke. Jehenne. Prussian ships. H.M.S. 'Fly.'

^{*} The observations at St. Helena and the adjacent anchorage being so much affected by local attraction, the only data entered in the Map are those obtained at the Observatory, the site of which (Longwood) was carefully decided on as the least objectionable place.

SOUTH EQUATORIAL ZONE III.—LATITUDE 20° TO 30° S.

Authorities.

	TT 1 D 11 (D 1 10/0)
Bonite	Voyage de la Bonite (Paris, 1842).
FitzRoy	Voyage of the 'Beagle,' 1849.
Du Petit Thouars	Sabine in Philosophical Transactions, 1849.
Moore	
Clerk	
Dayman	
Sulivan	Contributions to Terrestrial Magnetism (Sabine in Phil. Trans. 1840).
Dunlop	Contributions to Terresultar magnetism (Sastine in Thir, Trans. 1040).
Pagoda	
Erebus	
Terror	
La Vénus	Voyage de la Vénus (Paris, 1841).
Bérard	MSS. received from Admiral Duperrey.
Blosseville	Schlagintweit, Sci. Mission to India and High Asia (Leipzig and London, 1861).
Novara (Austrian Frigate).	Reise um die Erde (Wien, 1862–65).
Domham	MSS. in the Magnetic Office, Kew Observatory, received from the Hydrographic
Denham	Office.
Belcher	MS. in the Mag. Office, and Contrib. to Terr. Mag. (Sabine in Phil. Trans. 1840).
Erman	Reise um die Erde (Berlin, 1841).
Prussian Ships	
Jehenne	
Duperrey	
Owen	
Burchell	
Dumont d'Urville	
Young	L. S. Kämtz, MSS. in the Magnetic Office, Kew Observatory.
King	
Laplace	
Rumker	
Foster	
Biscoe	
Lütke	
Friesach	Mem. Imp. Acad. of Sciences, Vienna, vols. xxix. to xliv.
$\mathrm{Beechey}\ldots\ldots\ldots$	Contributions to Terrestrial Magnetism (Sabine in Phil. Trans. 1840).
Helmreicher	Sabine in Phil. Trans. 1849, and L. S. Kämtz, MS.
Harkness	Smithsonian Contrib. vol. xviii.
Stanley	Sabine in Phil. Trans. 1849.
Pasley	Sabine in Phil. Trans. 1849.
Kellett	MSS. in the Magnetic Office, Kew Observatory, received from Admiral Kellett.
Ross	Sabine in Phil. Trans. 1849.
Rattlesnake	MSS. in the Hydrographic Office.
H.M.S. 'Fly'	MSS. in the Hydrographic Office.
H.M.S. 'Hecate'	MSS. in the Hydrographic Office.
H.M.S. 'Nassau'	MSS. in the Hydrographic Office.
Richards	H.M.S. 'Plumper;' MSS. in the Hydrographic Office.

SOUTH EQUATORIAL ZONE III.—Lat. 20° to 30° S.

					Declinat	ion.		Inclina	tion.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842:5.	Corrected.	Observers.
At sea (4 observations) At sea (3 observations) At sea (3 observations) At sea	$\begin{vmatrix} 21 & 50 \\ 22 & 25 \\ 20 & 51 \end{vmatrix}$	0 28 0 59 2 07 2 38 2 58	1851 1829 1829 1839 1851	25 18 w. 23 10 w. 23 57 w. 25 27 w. 26 06 w.	0 50 E. 1 12 w. 1 12 w. 0 14 w. 0 40 E.	24·5 w. 24·4 w. 25·1 w. 25·7 w. 25·4 w.	o /		·····				Kellett. Prussian ships. Lütke. Du Petit Thouars. Kellett.
At sea (3 observations) At sea (4 observations) At sea (2 observations) At sea (6 observations) At sea (3 observations)	$\begin{vmatrix} 23 & 04 \\ 22 & 37 \\ 26 & 03 \end{vmatrix}$	3 00 4 36 4 51 5 30 5 35	1846 1829 1836 1851 1846	24 08 w. 24 11 w. 26 50 w.	1 12 w. 0 27 w. 0 40 E.	25·3 w. 24·6 w. 26·2 w.	34 39 s. 38 53 s.		34.6 s. 38.9 s.	6·34 6·56		6·34 6·56	H.M.S. 'Fly.' Prussian ships. FitzRoy. Kellett. H.M.S. 'Fly.'
At sea (3 observations) At sea	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	6 03 7 28 7 30 7 33 8 05	1829 1839 1846 1839 1842	25 45 w. 26 28 w. 26 28 w. 28 00 w.	1 12 w. 0 27 w. 0 27 w. 0 02 w.	27·0 w. 26·9 w. 26·9 w. 28·0 w.	42 16 s.		42·3 s.	6.58		6·58	Lütke. Du Petit Thouars. H.M.S. 'Fly.' Du Petit Thouars. Jehenne.
At sea (2 observations) At sea	$\begin{vmatrix} 27 & 23 \\ 27 & 21 \\ 29 & 02 \end{vmatrix}$	8 19 8 32 8 38 9 18 9 47	1832 1839 1839 1824 1851	27 03 w. 27 08 w. 26 44 w. 25 30 w. 27 43 w.	0 42 w. 0 14 w. 0 14 w. 1 14 w. 0 20 E.	27·7 w. 27·4 w. 27·0 w. 26·7 w. 27·4 w.	41 17 s.		41·3 s.				Prussian ships. Du Petit Thouars. Du Petit Thouars. Duperrey. Kellett.
At sea. At sea (3 observations) At sea. At sea. At sea.	$egin{array}{c cccc} 26 & 52 \\ 24 & 31 \\ 28 & 26 \\ \hline \end{array}$	9 55 9 56 10 34 10 53 10 58	1837 1846 1837 1837 1839	26 06 w. 25 11 w. 23 50 w. 26 51 w.	0 22 w. 0 22 w. 0 22 w. 0 22 w. 0 07 w.	26·5 w. 25·5 w. 24·2 w. 27·0 w.	45 07 s.		45·1 s.	6.83		6·83 	Bonite. H.M.S. 'Fly.' Bonite. Bonite. Du Petit Thouars.
At sea (3 observations) At sea Cape Voltas Litakou At sea (2 observations)	29 45 28 44 27 06	12 17 13 08 16 26 24 35 34 43	1846 1837 1825 1824 1836	28 15 w. 29 00 w. 27 07 w. 21 16 w.	0 11 w. 0 35 w.	284 w. 296 w. 271 w. 213 w.	46 56 s.		46·9 s.	7.05		7·05	H.M.S. 'Fly.' Bonite. Owen. Burchell. FitzRoy.
At sea (6 observations) At sea (7 observations) At sea (4 observations) At sea (5 observations) At sea (2 observations)	28 57 28 57 28 57	37 45 37 49 37 52 37 55 38 38	1845 1845 1845 1845 1834	23 37 w. 23 37 w.		23·6 w. 23·6 w.	59 14 s. 59 08 s.		59·2 s. 59·1 s.	8·20 8·32		8·20 8·32	Moore. Pagoda. Clerk. Moore. Prussian ships.
At sea (3 observations) At sea Bassa da India At sea (5 observations) At sea (12 observations)	29 21 21 29 28 36	38 50 39 06 39 35 40 14 40 14	1846 1845 1825 1845 1861	21 54 w. 22 34 w. 24 23 w.		21·9 w. 22·6 w. 24·4 w.	60 38 s. 60 01 s.		60·6 s. 60·0 s. 	8·54 8·10 		8·54 8·10 	H.M.S. 'Fly.' Dayman. Owen. Pagoda. Denham.
Europa Island At sea (4 observations) At sea (3 observations) At sea (6 observations) At sea (4 observations)	$egin{array}{c c} 28 & 35 \\ 27 & 28 \\ 29 & 09 \\ \hline \end{array}$	40 19 40 24 40 44 41 11 42 01	1825 1845 1836 1846 1845	21 00 w. 21 08 w. 		21·0 w. 21·1 w.	58 54 s. 58 18 s. 59 01 s.		58·9 s. 58·3 s. 59·0 s.	8·45 8·47 8·37		8·45 8·47 8·37	Owen. Clerk. FitzRoy. H.M.S. 'Fly.' Clerk.
At sea (4 observations) At sea. At sea (3 observations) At sea. At sea (4 observations)	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	42 07 42 18 42 21 42 40 43 00	1845 1845 1851 1845 1845	21 57 w. 24 31 w. 		21·9 w. 24·5 w. 	59 37 s. 58 10 s. 58 52 s.		59.6 s. 58.2 s. 58.9 s.	8·14 8·43		8·14 8·43	Pagoda. Dayman. Kellett. Moore. Clerk.
At sea (3 observations) St. Augustin Bay At sea Mourondoca At sea (14 observations) At sea (2 observations)	23 35 29 34 20 18 27 26	43 07 43 50 43 53 44 17 45 09 45 33	1845 1825 1837 1825 1861 1837	21 19 w. 20 48 w. 24 26 w. 18 42 w. 20 31 w. 22 21 w.		21·3 w. 20·8 w. 24·4 w. 18·7 w. 20·5 w. 22·3 w.			•••••				Pagoda. Owen. Bonite. Owen. Denham. Bonite.
At sea At sea At sea (4 observations) At sea (5 observations) At sea (4 observations) At sea	$egin{array}{c c} 26 & 54 \\ 27 & 14 \\ 27 & 12 \\ 27 & 12 \\ \end{array}$	45 34 45 47 45 50 46 02 46 09 46 42	1838 1845 1845 1845 1845 1836	21 02 w. 20 25 w. 16 16 w.		21·0 w. 20·4 w. 16·3 w.	58 41 s. 58 32 s. 58 44 s.		58 7 s. 58 5 s. 58 7 s.	8·68 8·46		8·68 8·46	Prussian ships. Dayman. Moore. Pagoda. Clerk. FitzRoy.

					Declinat	tion.		Inclina	ation.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.		Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea	24 17 26 49	0 / 47 17 47 20 48 14 48 20 48 44	1837 1827 1824 1845 1829	0 / 18 52 w. 17 00 w. 19 43 w. 24 01 w.		° 18·9 w. 17·0 w. 19·7 w. 24·0 w.	58 46 s.		58·8 s.	8.72		8·72	Bonite. Owen. Prussian ships. Moore. Lütke.
At sea (4 observations) At sea (3 observations) At sea (2 observations) At sea (5 observations)	26 30 25 47	49 06 49 12 49 20 49 40 49 47	1845 1845 1845 1845 1861	16 23 w. 15 09 w. 16 49 w.		16·4 w. 15·1 w. 16·8 w.	58 43 s. 58 36 s.		58·7 s. 58·6 s.	8·35 8·69 		8·35 8·69 	Dayman. Clerk. Pagoda. Pagoda. Denham.
At sea (5 observations) At sea At sea (3 observations) At sea At sea (5 observations)	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	50 24 51 29 51 48 51 58 52 30	1829 1845 1845 1837 1851	20 10 w. 14 22 w. 16 45 w. 18 24 w.		20·2 w. 14·4 w. 16·7 w. 18·4 w.	58 34 s.		58·6 s.	8.53		8 53	Prussian ships. Dayman. Pagoda. Bonite. Kellett.
At sea (4 observations) At sea	24 28 21 50 23 17	53 00 53 21 53 25 53 31 53 34	1845 1837 1845 1837 1845	13 44 w. 16 12 w. 15 47 w.		13·7 w. 16·2 w. 15·8 w.	54 51 s. 54 38 s.		54·6 s.	8·70 8·83		8·70 8·83	Pagoda. Bonite. Moore. Bonite. Clerk.
At sea	$\begin{vmatrix} 21 & 36 \\ 26 & 30 \end{vmatrix}$	$\begin{bmatrix} 54 & 20 \\ 54 & 35 \\ 54 & 36 \\ 54 & 52 \end{bmatrix}$ $\begin{bmatrix} 55 & 30 \end{bmatrix}$	1837 1846 1837 1829 1824 1827 1837	15 15 w. 13 57 w. 15 21 w. 13 46 w. 14 58 w. 14 10 w.		15·2 w. 13·9 w. 15·3 w. 13·8 w. 15·0 w. 14·2 w.	61 59 s. 55 33 s.		62·0 s. 55·5 s.	9.40		9·40	Bonite. H.M.S. 'Fly.' Bonite. Lütke. Duperrey. Blosseville. Bonite.
At sea (2 observations) At sea	20 50 20 59 23 38 24 08 29 22 24 45	55 32 55 36 56 09 56 11 56 54 56 58 57 03 57 15	1845 1837 1837 1861 1847 1847 1845	11 15 w. 11 04 w. 12 23 w. 14 06 w.		11·2 w. 11·1 w. 12·4 w. 14·1 w. 	55 12 s. 56 14 s. 60 44 s. 59 13 s 60 08 s		55·2 s.) 56·2 s. 60·7 s. 59·2 s. 60·1 s.	9·21 9·30 8·95		9·21 9·30 8·95	La Vénus. Pagoda. Bonite. Bonite. Denham. Rattlesnake. Rattlesnake. Dayman. H.M.S. 'Fly.'
Port Louis		57 31	1824 1836 1845 1845 1845 1847	13 46 w. 11 18 w. 9 44 w.		13·8 w. 11·3 w. 9·7 w.	53 47 s 54 01 s 54 14 s 53 38 s 53 49 s		53·8 s. 54·0 s. 54·2 s. 53·6 s. 53·8 s.	8·66 8·65 		8.65	Duperrey. FitzRoy. Clerk and Moore. Moore. Pagoda. Rattlesnake.
At sea (6 observations At sea (6 observations At sea (3 observations At sea	$\begin{vmatrix} 27 & 05 \\ 26 & 00 \\ 24 & 36 \end{vmatrix}$	57 49 57 52 58 35 58 37 58 43	1847 1847 1847 1845 1837	9 25 w.		9·4 w.	54 00 s 58 52 s 58 01 s 58 17 s		54·0 s. 58·9 s. 58·0 s. 58·3 s.	9·18 9·32 9·36 8·83		9·18 9·32 9·36 8·83	Rattlesnake. Rattlesnake. Rattlesnake. Dayman. Bonite.
At sea (4 observations At sea (3 observations At sea	$egin{pmatrix} 20 & 30 \\ 24 & 43 \\ 26 & 52 \\ \end{bmatrix}$	59 42 59 42 59 46 60 11 60 31	1845 1845 1845 1846 1847	9 44 w		9·7 w	53 59 s 57 59 s 59 11 s 58 44 s		54 0 s. 58 0 s. 59 2 s. 58 7 s.	8·77 8·87 9·25 9·41		8·77 8·87 9·25 9·41	Clerk. Pagoda. Dayman. H.M.S. 'Fly.' Rattlesnake.
At sea (6 observations At sea (3 observations At sea	$egin{pmatrix} 27 & 33 \\ 24 & 50 \\ 23 & 07 \\ \end{pmatrix}$	61 00 61 11 62 00	1851 1847 1845 1824 1832	14 41 w. 12 41 w. 11 44 w.		14 7 w 12 7 w. 11 7 w.	59 06 s 58 15 s		59·1 s. 58·3 s.	9·44 8·97		9·44 8·97	Kellett. Rattlesnake. Dayman. Prussian ships.
At sea (3 observations At sea (8 observations At sea	$egin{pmatrix} 22 & 21 \\ 24 & 23 \\ 20 & 40 \\ 20 & 39 \\ \end{pmatrix}$	62 26 62 54 62 58 63 01	1846 1861 1845 1845 1845 1847	10 40 w 8 27 w		10·7 w 8·4 w	58 22 s 57 57 s 53 53 s 59 36 s	5	58·4 s. 57·9 s. 53·9 s. 59·6 s.	9·49 8·82 8·79 		9·49 8·82 8·79 	H.M.S. 'Fly.' Denham. Dayman. Moore. Pagoda. Rattlesnake.

					Declinati	on.		Inclinat	tion.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch. 1842·5.	Corrected.	Observers.
At sea (4 observations) At sea (3 observations) At sea At sea At sea (2 observations)	25 26 20 02 23 52	64 17 64 25 64 59 64 59 65 05	1851 1838 1837 1845 1834	13 55 w. 11 25 w. 7 51 w. 8 36 w.		o 13·9 w. 11·4 w. 7·8 w. 8·6 w.	6 52 s.		56.9 s.	8.96		8·96	Kellett. Prussian ships. Bonite. Dayman. Prussian ships.
At sea (3 observations) At sea (4 observations) At sea (5 observations) At sea (3 observations) At sea (3 observations)	21 02 21 01 21 01	65 25 66 02 66 10 66 24 66 25	1846 1845 1845 1845 1829	7 46 w. 9 06 w.		7·8 w. 9·1 w.	55 50 s. 54 03 s.		55·8 s. 54·1 s. 	9·54 8·85 8·83		9·54 8·85 8·83	H.M.S. 'Fly,' Clerk. Moore. Pagoda. Lütke.
At sea (7 observations) At sea (8 observations) At sea (2 observations) At sea (5 observations) At sea (3 observations)	21 12 21 12 21 12	66 50 67 29 67 29 67 29 67 30	1845 1845 1845 1845 1847	7 37 w.		7·6 w.	53 49 s. 53 39 s. 53 59 s. 59 22 s.		53.8 s. 53.6 s. 54.0 s. 59.4 s.	9·00 8·92 9·72		9·00 8·92 9·72	Moore. Clerk. Pagoda. Moore. Rattlesnake.
At sea (2 observations) At sea (7 observations) At sea (8 observations) At sea (3 observations) At sea (5 observations)	$\begin{vmatrix} 23 & 00 \\ 21 & 11 \\ 21 & 11 \end{vmatrix}$	67 34 67 53 67 54 67 54 67 54	1851 1861 1845 1845 1845	12 05 w. 8 58 w. 6 34 w.		12·1 w. 9·0 w. 6·6 w.	53 02 s. 53 46 s.		53 0 s. 53 8 s.	9·01 9·04		9·01 9·04	Kellett. Denham. Clerk. Pagoda. Moore.
At sea	$\begin{array}{ccc} 21 & 06 \\ 21 & 00 \end{array}$	68 04 68 12 68 12 68 33 69 24	1845 1845 1845 1846 1846	8 00 w.		8·0 w.	53 01 s. 53 10 s. 53 40 s. 53 01 s.		53·0 s. 53·2 s. 53·7 s. 53·0 s.	8·92 9·09 9·06		8·92 9·09 9·06	Moore. Pagoda. Clerk. H.M.S. 'Fly.' Moore.
At sea (2 observations) At sea (5 observations) At sea	$ \begin{array}{c ccc} 20 & 26 \\ 22 & 41 \\ 20 & 26 \end{array} $	69 37 69 48 69 54 70 36 70 46	1845 1845 1845 1845 1845	6 07 w.		6·1 w.	52 19 s. 55 54 s. 52 51 s.		52·3 s. 55·9 s. 52·8 s.	9·10 9·03 8·98		9·10 9·03 8·98	Pagoda. Moore. Dayman. Moore. Clerk.
At sea (2 observations) At sea (4 observations) At sea	22 30 22 33 23 35	70 49 71 07 72 20 72 32 73 18	1845 1851 1851 1861 1840	6 35 w. 10 10 w. 8 50 w. 10 22 w,		6·6 w. 10·2 w. 8·8 w. 10·4 w.	55 04 s.		55·1 s.	9.07		9·07 	Pagoda. Kellett. Dayman. Denham. Prussian ships.
At sea (4 observations) At sea (4 observations)		73 20 74 18 75 13 75 54 76 10	1845 1845 1829 1851 1845	5 54 w. 6 57 w. 9 06 w.		5·9 w. 6·9 w. 9·1 w.	54 41 s. 54 45 s.		54·7 s. 54·7 s.	9·11 9·26		9·11 9·26	Pagoda. Dayman. Lütke. Kellett. Dayman.
At sea (8 observations) At sea (3 observations) At sea (12 observations) At sea (12 observations) At sea (3 observations)	$ \begin{bmatrix} 20 & 28 \\ 20 & 39 \\ 20 & 39 \end{bmatrix} $	76 22 76 23 77 43 77 43 77 45	1845 1845 1845 1845 1845	6 01 w. 5 22 w.		6·0 w 5·4 w.	52 20 s. 51 59 s. 51 58 s.		52·3 s. 52·0 s. 52·0 s.	9·16 9·27 9·24 		9·16 9·27 9·24	Clerk. Pagoda. Clerk. Moore. Pagoda.
At sea	20 44 20 44	78 08 78 31 78 31 78 34 79 03	1845 1845 1845 1845 1861	5 29 w. 9 25 w.		5·5 w. 9·4 w.	54 26 s. 52 00 s. 52 03 s. 		54·4 s. 52·0 s. 52·1 s.	9·27 9·25 9·28		9·27 9·25 9·28 	Dayman. Moore. Clerk. Pagoda. Denham.
At sea (5 observations) At sea (7 observations) At sea (8 observations) At sea (3 observations) At sea	20 36 21 09 22 34	79 10 79 20 79 22 79 27 80 10 82 00	1845 1845 1845 1851 1845 1845	4 43 w. 8 47 w.		4·7 w. 8·8 w.	51 46 s. 51 50 s. 54 23 s. 51 05 s.		51·8 s. 51·8 s. 54·4 s. 51·1 s.	9·09 9·34 9·45 9·35		9·09 9·34 9·45 9·35	Moore. Pagoda. Clerk. Kellett. Dayman. Moore.
At sea (8 observations) At sea (5 observations) At sea	20 25 22 08 20 31 23 34	82 22 82 32 84 17 84 41 84 43 84 49	1845 1845 1845 1829 1857	5 08 w. 4 30 w. 7 47 w. 10 01 w.		5·1 w. 5·1 w. 4·5 w. 7·8 w. 10·0 w.	51 39 s. 53 52 s.		51·6 s. 53·9 s. 	9·42 9·37 		9·42 9·37 	Clerk. Pagoda. Dayman. Lütke. Novara, Novara.

SOUTH EQUATORIAL ZONE III.—Lat. 20° to 30° S. (continued).

					Declinat	ion.		Inclinat	tion.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	II Un-	Cor. to Epoch 1842.5.	Corrected.	Observers.
At sea (5 observations) At sea (4 observations) At sea (3 observations) At sea	20 38 20 37 22 11	85 02 85 26 85 32 86 30 86 58	1845 1845 1845 1845 1860	o ' 5 20 w. 7 19 w.		5·3 w. 7·3 w.	51 21 s. 51 14 s. 53 20 s.		51·4 s. 51·2 s. 53·3 s.	9·46 9·48 9·55		9·46 9·48 9·55	Moore. Clerk. Pagoda. Dayman. Denham.
At sea (5 observations) At sea (8 observations) At sea (5 observations) At sea (4 observations) At sea (2 observations)	20 46 20 46 21 44	87 50 87 59 88 06 89 38 89 42	1845 1845 1845 1845 1845	4 45 w. 4 23 w.		4·7 w. 4·4 w.	51 33 s. 50 57 s. 51 45 s.		51·5 s. 50·9 s. 51·7 s.	9·73 9·70 9·85		9·73 9·70 9·85	Moore. Clerk. Pagoda. Moore. Pagoda.
At sea (4 observations) At sea	$\begin{vmatrix} 22 & 17 \\ 22 & 46 \\ 22 & 47 \end{vmatrix}$	89 44 89 57 90 40 91 00 91 16	1845 1845 1845 1845 1845	5 56 w.		5·9 w.	52 17 s. 53 11 s. 52 49 s. 53 11 s.		52·3 s. 53·2 s. 52·8 s. 53·2 s.	9·94 9·65 9·92 9·57	······	9·94 9·65 9·92 9·57	Clerk. Dayman. Pagoda. Clerk. Dayman.
At sea (3 observations) At sea	$egin{array}{c c} 24 & 05 \\ 22 & 54 \\ 24 & 17 \\ \hline \end{array}$	92 07 92 11 93 48 93 50 94 06	1845 1845 1845 1845 1845	6 34 w. 5 31 w.		6·6 w. 6·5 w.	52 44 s. 53 26 s. 54 07 s.		52·7 s. 53·4 s. 54·1 s.	10·24 10·02 10·13 		10·24 10·02 10·13	Moore. Pagoda. Dayman. Moore. Pagoda.
At sea (6 observations) At sea (5 observations)	$\begin{vmatrix} 23 & 50 \\ 24 & 00 \end{vmatrix}$	95 40 95 46 95 56 96 06 96 33	1845 1845 1845 1845 1848	6 10 w.		6·2 w	53 44 s. 54 26 s. 54 16 s. 58 51 s.		53·7 s. 54·4 s. 54·3 s. 58·8 s.	10·00 10·32 10·23 11·02		10·00 10·32 10·23 11·02	Dayman. Pagoda. Moore. Clerk. Rattlesnake.
At sea (6 observations) At sea (4 observations) At sea (4 observations) At sea (4 observations) At sea (9 observations)	$egin{array}{c c} 24 & 01 \\ 24 & 01 \\ 24 & 01 \\ \hline \end{array}$	97 11 97 25 97 30 97 34 97 34	1846 1845 1845 1845 1848	7 08 w.		7·1 w.	50 14 s. 54 18 s, 54 03 s. 54 51 s.		50·2 s. 54·3 s. 54·1 s. 54·8 s.	9·95 10·35 10·33		9·95 10·35 10·33 	H.M.S. 'Fly.' Moore. Clerk. Pagoda. Rattlesnake.
At sea (4 observations)	$egin{array}{c c} 23 & 58 \ 20 & 11 \ \hline \end{array}$	98 47 99 06 99 13 99 21 99 23	1846 1845 1829 1845 1827	3 02 w. 5 14 w. 5 30 w.		3·0 w. 5·2 w. 5·5 w.	49 55 s. 53 46 s. 		49·9 s. 53·8 s. 	10·04 10·35 		10·04 10·35 	H.M.S. 'Fly.' Moore. Lütke. Pagoda. D'Urville.
At sea (6 observations)	$\begin{vmatrix} 24 & 00 \\ 21 & 36 \\ 24 & 50 \end{vmatrix}$	99 23 99 33 100 30 101 31 102 28	1845 1845 1846 1845 1845	 5 32 w.		5·5 w.	54 28 s. 54 20 s. 51 50 s. 54 44 s.		54·5 s. 54·3 s. 51·8 s. 54·7 s.	10·24 10·54 10·19 10·60		10·24 10·54 10·19 10·60	Clerk. Dayman. H.M.S. 'Fly.' Dayman. Pagoda.
At sea (3 observations) At sea	$\begin{vmatrix} 25 & 52 \\ 23 & 22 \\ 24 & 45 \end{vmatrix}$	102 50 102 58 103 18 103 48 104 26	1846 1845 1827 1846 1845	3 00 w.		3·0 w.	52 44 s. 55 50 s. 55 34 s. 56 54 s.		52·7 s. 55·8 s. 55·6 s. 56·9 s.	10·34 10·65 10·71 10·98		10·34 10·65 10·71 10·98	H.M.S. 'Fly.' Dayman. D'Urville. H.M.S. 'Fly.' Dayman.
At sea (4 observations) At sea	$egin{array}{c c} 28 & 04 \\ 26 & 00 \\ 22 & 04 \\ \hline \end{array}$	104 55 105 06 105 11 105 13 105 15	1845 1845 1845 1836 1846	3 40 w.		3·7 w.	55 05 s. 58 33 s. 55 09 s. 56 47 s.		55·1 s. 58·5 s. 55·2 s. 56·8 s.	10·84 11·19 11·01 10·79		10·84 11·19 11·01 	Moore. Dayman. Clerk. FitzRoy. H.M.S. 'Fly.'
At sea (3 observations) At sea	29 40 27 35 27 41 27 47	105 16 105 28 106 32 106 35 106 36 106 49	1845 1845 1845 1845 1845 1845	5 30 w. 6 33 w.		5·5 w. 6·5 w. 	59 37 s. 57 26 s. 57 17 s. 59 30 s.		59·6 s. 57·4 s. 57·3 s. 59·5 s.	11·52 11·07 11·16 11·23		11·52 11·07 11·16 11·23	Pagoda. Dayman. Moore. Pagoda. Clerk. Moore.
At sea (2 observations) At sea (4 observations) At sea (3 observations) At sea (2 observations) At sea (3 observations)	29 20 27 30 27 28	106 55 106 55 108 28 108 49 111 45	1845 1845 1846 1836 1846	6 30 w. 5 09 w.		6·5 w. 5·1 w.	59 19 s. 58 49 s. 57 38 s.		59·3 s. 58·8 s. 57·6 s.	11·64 11·22 11·66		11·64 11·22 	Pagoda. Clerk. H.M.S. 'Fly.' FitzRoy. H.M.S. 'Fly.'
							11		Carrier of the Carrie	11			

(**************************************	(7-7-1) Terror (19-1)	Declinat	ion.		Inclina	tion.	For	rce in Bı	ritish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ub-	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
Dirk Hartog Islands	25 52	113 04	1858	o ' 2 57 w.		o 3·0 w.			o 			•••••	Denham.
Shark's Bay (23 ob- servations)	25 59 25 04	113 28 113 30	1858 1858	2 42 w. 3 02 w.		2·7 w. 3·0 w.			•••••			•••••	Denham. Denham.
Port Molle No. 2 Percy Island Port Bowen Keppel Island Facing Island, Port Curtis	20 20 21 40 22 31 22 09 23 51	148 55 150 17 { 150 49 150 56 151 04	1844 1847 1859 1843 1847	8 04 E. 8 50 E.		8·1 E. 8·8 E.	47 19 s. 49 02 s. 50 16 s. 50 48 s. 51 30 s.		47·3 s. 49·0 s. 50·3 s. 50·8 s. 51·5 s.	10.55		10·55 10·96 	H.M.S. 'Fly.' Rattlesnake. Denham. H.M.S. 'Fly.' Rattlesnake. Rattlesnake.
Sandy Cape	24 43 27 06 21 02	153 25 {	1843 5 1849 1858 1863 1859	7 50 E. 9 43 E. 9 19 E. 8 44 E.		7·8 E	52 24 s. 55 18 s.		52·4 s. 55·3 s. 	11·14 11·72 		11·14 11·72 	H.M.S. 'Fly.' Rattlesnake. Denham. H.M.S. 'Hecate.' Denham.
Cato Bank (2 observations)	23 15 22 10 21 16	155 39	1858 1858 1859	9 21 E. 9 43 E. 9 00 E.		9·3 E. 9·7 E. 9·0 E.							Denham. Denham.
At sea (3 observations) At sea (2 observations) At sea (2 observations) Observatory Islet (4) observations)	25 17	157 28 157 49	1858 1858 1858 1858	9 52 E. 8 59 E. 9 24 E. 9 20 E.		9·9 E. 9·0 E. 9·4 E. 9·3 E.							Novara. Novara. Novara. Denham.
Bellona Shoal (2 observations)) 21 03	160 17 164 56	1858 1855 1827 1855	9 32 E. 10 54 E. 11 14 E. 12 38 E.		9·5 E. 10·9 E. 11·2 E. 12·6 E.			•••••				Denham. D'Urville. Denham.
Norfolk Island (5) observations)	28 24	167 53 168 33	1855 1855 1828 1855	12 34 E. 12 55 E. 11 30 E. 11 01 E.		12·6 E. 12·9 E. 11·5 E. 11·0 E.							Denham. D'Urville. Denham.
At sea (6 observations At sea (3 observations At sea (6 observations Conway Reef (4 observations)) 28 00	172 21 173 03	1855 1863 1863 1855	12 58 E. 10 34 E. 11 29 E. 10 34 E.		13 0 E. 10 6 E. 11 5 E. 10 6 E.						•••••	Denham. Richards. Richards. Denham.
At sea (8 observations At sea	$egin{pmatrix} 29 & 04 \\ 23 & 03 \\ 29 & 41 \\ \end{pmatrix}$	176 24 176 56 179 08	1855 1824 1863 1835 1854	12 57 E. 10 00 E. 10 40 E. 13 20 E. 8 36 E.		12·9 E. 10·0 E. 10·7 E. 13·3 E. 8·6 E.							Denham. Duperrey. Richards. FitzRoy. Denham.
At sea (2 observations At sea (3 observations At sea (2 observations At sea (2 observations	$\begin{vmatrix} 23 & 09 \\ 22 & 57 \end{vmatrix}$	180 21 180 30	1854 1854 1854 1854	10 00 E. 10 05 E. 10 35 E. 10 43 E.		10 0 E. 10 1 E. 10 6 E. 10 7 E.			•••••			•••••	Denham. Denham. Denham. Denham.
Minerva Reefs (North and South) At sea (4 observations At sea (2 observations At sea (4 observations) 21 57	181 25 181 35	1854 1835 1854 1854	10 47 E. 11 27 E. 9 18 E. 10 44 E.		10·8 E. 11·4 E. 9·3 E. 10·7 E.						•••••	Denham. FitzRoy. Denham. Denham.
Sunday Island At sea (2 observations At sea (4 observations At sea (2 observations	$\begin{vmatrix} 21 & 30 \\ 29 & 06 \end{vmatrix}$	182 15 182 30	1854 1863 1863 1863	11 19 E. 10 20 E. 10 26 E. 9 58 E.		11·3 E. 10·3 E. 10·4 E. 10·0 E.							Denham. Richards. Denham. Denham.

SOUTH EQUATORIAL ZONE III.—Lat. 20° to 30° S. (continued).

	-		Asmustra esperante		Declina	tion.		Inclina	tion.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea (3 observations) At sea (2 observations) At sea (3 observations) At sea (2 observations) At sea (2 observations)	26 08 28 39 28 19	183 02 183 19	1863 1863 1863 1863	0 / 11 42 E. 10 39 E. 10 54 E. 11 45 E. 11 12 E.	o /	° 11·7 E. 10·6 E. 10·9 E. 11·7 E. 11·2 E.	o /		o 				Denham. Denham. Denham. Denham. Denham.
At sea (5 observations) At sea (3 observations) At sea (3 observations) At sea (4 observations) At sea (4 observations)	$ \begin{array}{ccccccccccccccccccccccccccccccccccc$	183 57 184 29 184 5 9	1863 1863 1863 1863 1827	10 33 E. 10 04 E. 9 48 E. 10 31 E. 10 48 E.		10·5 E. 10·1 E. 9·8 E. 10·5 E. 10·8 E.							Denham. Denham. Denham. Denham. Dumont d'Urville.
At sea (2 observations) At sea (2 observations) At sea (4 observations) Rarotonga Island At sea (3 observations)	22 41 20 48 21 12	190 59	1854 1835 1835 1840 1859	9 17 E. 10 58 E. 9 28 E. 8 34 E. 8 48 E.	0 03 E. 9 17 w.	9·3 E. 11·0 E. 9·5 E. 8·6 E. 8·5 E.	36 09 s.		36·2 s.	9.96		9·96	Denham. FitzRoy. FitzRoy. Belcher. Novara.
At sea	23 17 22 58 20 11	209 33 209 45 209 47 209 51 209 55	1830 1830 1859 1830 1830	7 19 E. 8 56 E. 7 25 E. 8 55 E.	0 12 E. 0 17 W. 0 12 E. 0 12 E.	7 5 E. 8 6 E. 7 6 E. 9 1 E.	36 33 s.		36·5 s.	9.00		9.00	Erman. Erman. Novara. Erman. Erman.
At sea (2 observations) At sea At sea (2 observations) At sea (5 observations) At sea	27 43 25 03 21 42	210 09	1830 1830 1830 1859 1830	8 24 E. 8 03 E. 7 24 E. 7 21 E.	0 12 E. 0 12 E. 0 17 W.	8·6 E. 8·2 E. 7·1 E. 7·3 E.	43 06 s. 44 03 s. 40 20 s.		43·1 s. 44·0 s. 40·3 s. 	10·18 10·00 9·57		10·18 10·00 9·57	Erman, Erman, Erman, Novara, Erman,
At sea	29 00 29 06 28 56	211 08 212 45 213 24	1830 1830 1830 1830 1830	8 16 E. 7 57 E. 7 54 E. 8 40 E.		8·3 E. 7·9 E. 7·9 E. 8·7 E.	45 25 s.		45·4 s.	9-77		9.77	Erman. Erman, Erman. Erman. Erman,
At sea	25 02 23 57 27 32	213 42 226 52 227 10 229 08 268 05	1830 1825 1859 1859 1827	9 31 E. 6 00 E. 7 39 E. 8 17 E. 10 45 E.	······································	9·5 E. 6·0 E. 7·6 E. 8·3 E. 10·7 E.	32 06 s.		32·1 s.	8.13		8·13	Erman. Beechey. Novara. Novara. Lütke.
At sea (5 observations) At sea (9 observations) At sea (3 observations) At sea	$\begin{vmatrix} 20 & 43 \\ 22 & 15 \\ 24 & 26 \end{vmatrix}$	273 23 276 45	1827 1857 1857 1857 1827	11 26 E. 13 04 E. 13 55 E. 15 10 E. 13 17 E.		11·4 E. 13·1 E. 13·9 E. 15·2 E. 13·3 E.							Lütke. Richards. Richards. Richards. Lütke.
At sea	26 25 28 27	278 56 279 43 280 47 281 59 283 22	1827 1857 1850 1830 1857	12 47 E. 16 33 E. 14 47 E. 11 16 E. 14 58 E.		12·8 E. 16·5 E. 14·8 E. 11·3 E. 15·0 E.	40 01 s.		40 0 s.	8.96		8·96 	Lütke. Richards. Young. Prussian ships. Richards.
At sea (5 observations) At sea At sea At sea Coquimbo	28 01 25 19 20 28	286 32 286 33 286 52 287 36 288 34 {	1827 1836 1836 1836 1828 1868	14 05 E. 12 52 E. 13 00 E. 11 08 E. 14 24 E. 14 17 E.		14·1 E. 12·9 E. 13·0 E. 11·1 E. 14·4 E. 14·3 E.	29 55 s.		29·9 s.	7:31		7·31	Prussian ships. Bonite. Bonite. Bonite. Beechey. H.M.S. 'Nassau.'
Mean of 3 stations Huasco (3 stations) At sea Mean of 3 stations Copiapo	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	288 40 288 52	1835 1835 1836 1835 1827	14 21 E. 13 33 E. 11 30 E. 13 31 E. 13 25 E.		14·3 E. 13·5 E. 11·5 E. 13·5 E. 13·4 E.							FitzRoy. FitzRoy. Bonite. FitzRoy. Prussian ships.
Lavata (3 stations) Cobija (2 stations) Near R. Loa (2 stations) Rio Parana Corrientes Fort Asuncion, Paraguay	$egin{array}{c c} 23 & 00 \\ 21 & 44 \\ 29 & 00 \\ 27 & 27 \\ \end{array}$	289 30 289 46 300 56 301 16	1835 1835 1835 1846 1846 1860	13 25 E. 12 39 E. 12 03 E. 10 40 E. 9 24 E. 8 29 E.		13·4 E. 12·6 E. 12·1 E. 10·7 E. 9·4 E. 8·5 E.	18 04 s.		18·1 s.	6.51		6·51	FitzRoy. FitzRoy. FitzRoy. Sulivan. Sulivan. Friesach.

SOUTH EQUATORIAL ZONE III.—Lat. 20° to 30° S. (continued).

					Declinat	ion.		Inclina	ation.	For	ce in Br	ritish units.	A TO A STATE OF THE STATE OF TH
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
St. Catherine	27 26	311 27	1827 1832 1836 1838 1860	6 30 E. 6 30 E. 3 00 E.	1 31 w. 1 01 w. 1 45 E.	° 5·0 E. 5·5 E. 4·7 E.	0 / 21 40 s. 21 07 s. 19 47 s.		0 21.7 s. 21.1 s. 19.8 s.	6.32		 6·32	King. FitzRoy. Beechey. Sulivan. Friesach.
At sea	27 56 26 35 29 03	312 42	1832 1837 1838 1836 1827	6 27 E. 4 30 E. 5 14 E. 6 24 E.	0 58 w. 0 38 w. 0 36 w. 1 25 w.	5·5 E. 3·9 E. 4·6 E. 5·0 E.	21 17 s. 24 27 s.		21·3 s. 24·5 s.	6·43 7·18		6·43 	FitzRoy. Du Petit Thouars. Sulivan. Bonite. Lütke.
At sea	28 20 27 20	313 43 314 10 314 12 314 18 314 35	1830 1836 1827 1837 1830	3 10 E. 3 59 E. 2 44 E. 4 14 E.	0 35 w. 1 25 w. 0 30 w. 1 08 w.	2·6 E. 2·6 E. 2·2 E. 3·1 E.	25 33 s		25·6 s.	6.60		6·60 	Erman. Bonite. Lütke. Du Petit Thouars. Erman.
	27 58 27 50 25 50	314 35 314 36 315 10 315 12 315 44	1832 1830 1830 1830 1830	4 29 E. 4 10 E. 3 33 E. 3 33 E.	0 58 w. 1 09 w. 1 09 w. 1 09 w.	3·4 E. 3·0 E. 2·4 E. 2·4 E.	22 01 s.		22 0 s.	6.39		6·39 	FitzRoy. Erman. Erman. Erman. Erman.
$egin{array}{lll} \mathbf{A} \mathbf{t} & \mathrm{sea}. & \dots & \dots \\ \mathbf{A} \mathbf{t} & \mathrm{sea}. & \dots & \dots \end{array}$	29 47 26 49 24 35	315 46 315 50 315 54 315 55 315 58	1830 1839 1836 1838 1831	3 06 E. 2 55 E.	0 35 w. 1 03 w.	2·5 E 1·9 E.	19 46 s. 24 00 s. 17 55 s.		19·8 s. 24·0 s. 17·9 s.	6·27 6·60 6·51		6·27 6·60 6·51	Erman. Sulivan. Bonite. Sulivan. Prussian ships.
At sea (2 observations) At sea (2 observations) At sea	24 18 23 30 25 02	316 23 316 29 316 32 316 40 316 41 316 49	1837 1830 1830 1837 1830 1860	2 04 E. 1 12 E. 2 00 E. 2 40 E. 1 24 W.	0 30 w. 1 09 w. 0 30 w. 1 09 w. 1 53 w.	1 6 E. 0 0 1 5 E. 1 5 E. 3 3 W.	15 55 s. 11 55 s.		 15·9 s. 11·9 s.	6·12 6·11		6·12 	Du Petit Thouars. Erman. Erman. Du Petit Thouars. Erman. Friesach.
Rio de Janeiro	22 55	316 51	1825 1826 1827 1830 1832 1832 1836 1837 1838–9 1838 1839 1849 1847 1857 1866 1867	3 11 E. 2 37 E. 3 00 E. 2 09 E. 2 00 E. 2 00 E 0 51 E 0 13 E 0 45 w. 2 49 w.	1 53 w. 1 47 w. 1 41 w. 1 21 w. 1 08 w. 1 08 w. 0 36 w 0 16 E 1 37 E. 2 36 E.	1·3 E. 0·8 E. 1·3 E. 0·8 E. 0·9 E. 0·3 E. 0·5 E. 0·9 E. 0·9 E. 0·9 E. 0·9 E.	14 04 s. 14 35 s. 13 35 s. 13 37 s. 12 54 s. 13 19 s. 13 00 s. 13 01 s. 13 37 s. 13 05 s. 13 10 s. 14 14 s. 15 14 8 s. 16 14 7 s.		1441 s. 1446 s. 1346 s. 1346 s. 1249 s. 1349 s. 1349 s. 1349 s. 1349 s. 1341 s. 1342 s. 1342 s. 1448 s	6·88 6·72 6·40 6·41 6·40 6·39 6·38 6·25 6·08 6·03		6:39	Beechey. King. Lütke. Erman. Laplace. FitzRoy. Beechey. Du Petit Thouars. Sulivan. Sulivan. Sulivan. Sulivan. Helmreicher. Rattlesnake. Novara. Harkness. H.M.S. 'Nassau.'
At sea (2 observations) At sea (2 observations) At sea At sea	23 35 23 16 23 09	316 51 317 01 317 04 317 05 317 09	1830 1832 1830 1839 1847	2 54 E. 1 48 E. 2 59 E. 0 47 E.	1 39 w. 1 03 w. 1 35 w. 0 27 E.	1·3 E. 0·7 E. 1·4 E. 1·2 E.	13 55 s.		 13·9 s.	6:37		6·37	Erman. FitzRoy. Erman. Sulivan. Stanley.
At sea. (2 observations) At sea	24 38 24 40 25 23	317 17 317 19 317 35 317 36 317 41	1830 1844 1839 1836 1830	1 39 E. 1 00 E. 1 09 E. 1 39 E.	1 35 w. 0 09 E. 0 45 w. 1 27 w.	0·1 E. 1·1 E. 0·4 E. 0·2 E.	16 57 s.		 16·9 s. 	6·34		6·34	Erman. Pasley. Sulivan. Bonite. Erman.
-	23 11 23 00 24 07	318 02 318 03 { 318 07	1829 1828 1831 1836	3 12 E. 1 07 E. 0 12 E. 0 30 E.	1 34 w. 1 42 w. 1 20 w. 0 44 w.	1.6 E. 0.6 W. 1.1 W. 0.2 W.		AND		OF WEIGHT STATE OF THE		Accordance and accord	Rumker. Foster. Kellett. Bonite.

					Declinat	ion.		Inclinat	tion.	Fore	ce in Bri	itish Units.	·
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842 5.	Corrected.	Ob- served.	Cor. to Epoch 1842.5.	Corrected.	Observers.
At seaAt seaAt seaAt seaAt seaAt seaAt seaAt seaAt seaAt sea	29 17	318 13 318 13 318 25	1836 1843 1830 1844 1836	0 00 1 03 E. 0 00 0 23 E.	0 44 w. 1 15 w. 0 10 w. 0 39 w.	0 1 8 E. 0 0 0 0 2 W. 0 2 W. 0 3 W.	0 1		o 				Bonite. Pasley. Erman. Pasley. Bonite.
At sea	23 51	318 45 318 51 319 03	1844 1830 1830 1832 1837	0 00 0 28 E. 0 15 E. 2 12 W.	1 15 w. 1 03 w. 0 33 w.	0·0 0·8 w. 0·8 w. 2·7 w.	16 27 s.		16·5 s.				Pasley. Erman. Erman. FitzRoy. Du Petit Thouars.
At sea	25 57 24 15 23 11	319 19 319 21 319 36 319 49 320 31	1847 1847 1830 1826 1830	1 33 w. 0 50 w. 3 18 E.	0 30 E. 1 15 w. 1 27 w.	1·0 w. 2·1 w. 2·8 w.	17 43 s. 16 35 s. 17 27 s.		17·7 s. 16·6 s. 17·5 s.	6·54 6·45 6·56		6·54 6·45 	Stanley. Rattlesnake. Erman. Prussian ships. Erman.
At sea	25 54	321.00	1843 1847 1847 1829 1830	3 00 w. 3 01 w. 3 24 E. 1 15 w.	0 27 E. 1 21 w. 1 15 w.	3·0 w. 2·6 w. 2·0 w. 2·5 w.	10 54 s.		10·9 s.	6.37		6·37 	Pasley. Stanley. Rattlesnake. Rumker. Erman.
At sea (3 observations At sea (3 observations At sea	$egin{array}{c c} 27 & 26 \\ 23 & 27 \\ 21 & 21 \\ 20 & 12 \\ \hline \end{array}$	321 49 321 50 321 58 322 06	1826 1847 1839 1833 1847 1847	0 09 E. 2 20 w. 5 05 w.	1 39 w. 0 57 w. 0 27 E.	1·5 w. 3·3 w. 4·6 w.	20 31 s. 12 52 s. 8 15 s		20·5 s. 12·9 s. 8·3 s.	6·17		6·17 6·26	Prussian ships. Rattlesnake. Sulivan. Prussian ships. Stanley. Rattlesnake.
At sea	$egin{array}{c c} 24 & 58 \\ 27 & 23 \\ 23 & 05 \\ \end{array}$	$\begin{array}{ c c c c }\hline 322 & 46 \\ 322 & 48 \\ 323 & 39 \\ \hline \end{array}$	1847 1830 1857 1839 1847	2 20 w. 1 21 w. 3 54 w.	0 27 E. 1 15 W. 1 27 E.	1 9 w. 2 6 w. 2 4 w.	13 00 s 22 36 s		 13·0 s. 22·6 s.	6·09 6·46		6 09 6 46	Stanley. Erman. Novara. Sulivan. Rattlesnake.
At sea (2 observations At sea	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} 324 & 26 \\ 324 & 42 \\ 324 & 52 \end{vmatrix}$	1830 1830 1830 1830 1830	2 29 w. 3 45 w. 3 19 w. 3 33 w.	1 15 w. 1 15 w.	3.7 w. 5.0 w. 4.6 w. 4.8 w.	18 35 s 9 47 s 7 56 s		18.6 s. 9.8 s. 7.9 s.	6·36 6·03 5·44		6:36 6:03 5:44	Erman. Erman. Erman. Erman. Erman.
At sea	$egin{array}{c cccc} 24 & 58 \\ 20 & 29 \\ 24 & 03 \\ \end{array}$	325 03 325 07 325 09	1842 1830 1826 1830 1830	3 30 w 2 49 w 2 00 w 3 17 w 3 05 w	1 15 w. 1 39 w. 1 15 w.	3·5 w. 4·1 w. 3·6 w. 4·5 w. 4·3 w.							Bérard, Erman, Lütke, Erman,
At sea (2 observations At sea At sea At sea (2 observations	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} 325 & 15 \\ 325 & 34 \\ 325 & 55 \end{vmatrix}$	1830 1830 1839 1839 1857	3 12 w 6 36 w		4·4 w. 5·1 w.	16 07 s 12 37 s 10 55 s		16·1 s. 12·6 s. 10·9 s.	6 05 6 00 6 21 		6·05 6·00 6·21	Erman. Erman. Sulivan. Sulivan. Novara.
At sea (2 observations At sea	$egin{pmatrix} 21 & 11 \\ 28 & 36 \\ 25 & 38 \\ \end{bmatrix}$	$\begin{vmatrix} 329 & 31 \\ 329 & 42 \\ 329 & 54 \end{vmatrix}$	1842 1822 1850 1826 1826	4 30 w 3 20 w 4 55 w 6 10 w	2 00 w. 1 39 w.	4 5 w. 5 3 w. 6 6 w. 7 8 w.	12 42 s 20 55 s		12·7 s. 20·9 s.	6·54 		6:54	Bérard. Duperrey. Rattlesnake. D'Urville. D'Urville.
At sea. At sea (3 observations Island of Trinidad At sea (3 observations At sea. At sea.	27 28 20 31 3) 20 15 21 30	330 38 330 38 330 44 330 46	1839 1842 1839 1842 1839 1839	8 01 w 5 40 w 9 43 w		8·4 w. 5·7 w. 10·1 w.	12 03 s		12·1 s.	6·09 6·23 6·12		6·09 6·23 	Ross. Bérard. Erebus. H.M.S. 'Fly.' Ross. Erebus.
At sea At sea At sea (2 observations At sea At sea	$egin{array}{c cccc} 22 & 40 \\ 23 & 14 \\ 23 & 19 \\ \hline \end{array}$	330 52 330 55 330 56	1839 1839 1839 1839 1830	9 01 w 7 45 w 6 04 w	0 21 w.	9·4 w. 8·1 w. 7·3 w.				6·13		6·13 6·17 	Erebus. Ross. Erebus. Ross. Biscoe.

					Declinati	on.		Inclina	tion.	Fore	e in Bri	tish Units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea	$ \begin{array}{r} 24 & 28 \\ 24 & 42 \\ 25 & 50 \end{array} $	$\begin{vmatrix} 331 & 57 \\ 332 & 05 \\ 332 & 20 \end{vmatrix}$	1839 1839 1839 1842 1839	7 08 w.	0 21 w.	7·5 w.	20 37 s.		20 6 s.	6·21 6·20 6·28 6·20		6·21 6·20 6·28 6·20	Erebus. Erebus. Ross. H.M.S. 'Fly.' Erebus.
At sea	$\begin{vmatrix} 26 & 58 \\ 26 & 37 \end{vmatrix}$	333 22 333 24 333 26	1831 1839 1839 1839 1839	9 24 w. 8 02 w.	0 21 w. 0 21 w. 0 21 w.	9·7 w. 8·4 w.	12 12 s.		12·2 s.	6·37 6·24 6·29		6·37 6·24 6·29	Dunlop. Erebus. Ross. Ross. Erebus.
At sea	$ \begin{array}{r} 28 & 16 \\ 26 & 52 \\ 27 & 30 \end{array} $	333 48 334 00 334 00	1839 1859 1850 1842 1839	12 45 w.	1 39 E.	11·1 w.	20 40 s. 24 16 s.		20·7 s. 24·3 s.	6·28 6·51 6·30 6·26		6·38 6·51 6·30 6·26	Erebus. Novara. Rattlesnake. H.M.S. 'Fly.' Erebus.
At sea	$\begin{vmatrix} 29 & 05 \\ 23 & 06 \\ 26 & 30 \end{vmatrix}$	334 33 334 39 334 39	1839 1842 1831 1859 1850	10 04 w. 13 33 w.	0 21 w. 1 22 E.	10·4 w. 12·2 w.	25 16 s. 15 12 s. 12 32 s.		25·3 s. 15·2 s. 12·5 s.	6·41 6·29 6·42		6·41 6·29 6·42	Ross. H.M.S. 'Fly.' Dunlop. Novara. Rattlesnake.
At sea (4 observations) At sea (4 observations) At sea (3 observations) At sea (2 observations) At sea	25 11 23 10 27 44	334 51	1859 1859 1850 1839 1839	13 19 w. 13 23 w. 9 37 w.	1 22 E. 1 22 E. 0 17 w.	12·0 w. 12·0 w. 9·9 w.	15 19 s.		15·3 s.	6·27 6·33		6·27 6·33	Novara. Novara. Rattlesnake. Erebus. Ross.
At sea (2 observations) At sea At sea At sea At sea	$\begin{vmatrix} 25 & 30 \\ 26 & 55 \\ 26 & 53 \end{vmatrix}$	335 19 335 20 335 21 335 26 335 28	1839 1839 1839 1839 1839	10 35 w. 9 48 w.	0 17 w. 0 17 w. 0 17 w.	10·9 w. 10·1 w.				6·24 6·29 6·19		6·24 6·29 6·19	Erebus. Ross. Ross. Erebus. Erebus.
At sea	26 20 25 32 26 12	335 43 335 43 335 53 336 12 336 40	1839 1850 1850 1839 1831	10 22 w.	0 17 w.	10·6 w.	21 06 s. 19 09 s. 26 02 s.		21·1 s. 19·2 s. 26·0 s.	6.56 6.56 6.21 6.44		6·56 6·56 6·21 6·44	Ross. Rattlesnake. Rattlesnake. Erebus. Dunlop.
At sea	29 06	337 25	1831 1839 1831 1839 1831	11 10 w.	0 17 w.	11·4 w.	17 45 s. 26 20 s. 24 57 s.		17·7 s. 26·3 s. 24·9 s.	6·22 6·44 6·24 6·14		6·22 6·44 6·24 6·14	Dunlop. Ross. Dunlop. Erebus. Dunlop.
At sea At sea (2 observations) At sea At sea At sea	27 44 26 12 27 02	339 12 339 15	1839 1839 1831 1831 1840	12 00 w.	0 17 w.	12·3 w.	19 50 s. 23 46 s.		19·8 s. 23·8 s.	6·24 6·37 6·07 6·08		6·24 6·37 6·07 6·08	Ross. Erebus. Dunlop. Dunlop. Terror.
At sea	$\begin{vmatrix} 28 & 19 \\ 25 & 56 \\ 28 & 03 \end{vmatrix}$	$ \begin{array}{r} 340 \ 10 \\ 340 \ 34 \\ 341 \ 41 \end{array} $	1840 1840 1831 1840 1840	13 23 w.	0 12 w.	13·6]w.	22 01 s.		22·0 s.	6·20 6·14 6·05 6·20		6·20 6·14 6·05 6·20	Ross. Erebus. Dunlop. Terror. Erebus.
At sea	27 48 27 33 27 26 27 26	341 50 341 53 342 27 342 28 342 29 342 55	1840 1840 1840 1840 1840 1840	13 13 w. 13 41 w.	0 12 w. 0 12 w.	13·4 w. 13·9 w. 				6·15 6·13 6·22 6·20		6·15 6·13 6·22 6·20	Ross. Terror. Ross. Terror. Erebus. Terror.
At sea. At sea (2 observations) At sea. At sea. At sea. At sea.	25 34 26 50 26 46 24 28	342 55 342 58 342 58 342 58 342 58 343 00 343 02	1840 1840 1840 1840 1840 1840	14 11 w	0 12 w.	14·4 w.				6·17 6·18 6·18 6·11	•••••	6·17 6·18 6·18 6·11	Ross. Erebus. Terror. Erebus. Terror. Ross.

			<u> </u>		Declinati	on.		Inclina	tion.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842 5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea (2 observations) At sea At sea At sea (3 observations) At sea	$\begin{vmatrix} 22 & 56 \\ 22 & 54 \\ 22 & 41 \end{vmatrix}$	343 05 343 30 343 36 343 42 344 13	1840 1840 1840 1840 1840	0 / 14 59 w.		0 15·0 w.				6·08 6·12 6·08 6·08		6·08 6·12 6·08 6·08	Erebus. Terror. Ross. Erebus. Terror.
At sea (2 observations) At sea	$\begin{bmatrix} 20 & 31 \\ 20 & 20 \\ 20 & 20 \end{bmatrix}$	344 17 345 05 345 07 345 12 345 53	1840 1840 1840 1840 1846	17 50 w.		17·8 w.			•••••	6·07 6·00 6·07		6·07 6·00 6·07	Erebus. Terror. Ross. Erebus. Bérard.
At sea	27 03 26 51 27 54	346 33 346 33 346 37 346 42 346 43	1840 1840 1840 1840 1840	17 53 w.		17 9 w.				6·32 6·21 6·26 6·25		6·32 6·21 6·26 6·25	Ross. Erebus. Terror. Terror. Erebus.
At sea At sea (2 observations) At sea At sea At sea	26 08 26 03 26 10	346 43 347 03 247 07 347 18 347 49	1840 1840 1840 1840 1840	18 30 w. 17 51 w. 19 55 w.		18·5 w. 17·8 w. 19·9 w.				6·19 6·16		6·19 6·16	Ross. Erebus. Terror. Ross. Ross.
At sea	25 18 25 20	347 41 347 54 347 54 348 12 348 14	1840 1840 1840 1840 1840	18 19 w.		 18·3 w.				6·21 6·15 6·14 6·14		6·21 6·15 6·14 6·14	Erebus. Terror. Erebus. Erebus. Ross.
At sea (5 observations) At sea (2 observations)	24 33 24 41	348 15 348 34 348 39 348 39 348 46	1840 1840 1840 1840 1840	20 21 w.		 20·3 w.				6·32 6·11 6·12 6·26		6·32 6·11 6·12 6·26	Terror. Terror. Erebus. Ross. Erebus.
At sea At sea (3 observations) At sea (4 observations) At sea At sea	23 47 23 37 29 56	349 15 350 29 350 35 350 42 350 52	1846 1840 1840 1840 1840	19 56 w. 19 55 w.		19·9 w. 19·9 w.				6·12 6·10 6·27		6·12 6·10 6·27	Bérard, Erebus. Terror. Terror. Ross.
At sea (2 observations)	$\begin{array}{cccc} 22 & 00 \\ 22 & 21 \end{array}$	351 04 351 05 351 19 351 22 351 25	1840 1840 1840 1840 1840	21 39 w. 22 17 w.		21·6 w. 22·3 w. 				6·14 6·12 6·19		6·14 6·12 6·19	Ross. Erebus. Ross. Erebus. Terror.
At sea (2 observations) At sea (4 observations) At sea (2 observations) At sea. At sea. At sea.	$\begin{array}{c cc} 22 & 00 \\ 20 & 51 \\ 20 & 15 \\ 20 & 22 \end{array}$	351 27 351 30 351 54 352 04 352 06 353 32	1840 1840 1840 1840 1840 1846	23 12 w. 21 09 w.		23·2 w. 21·1 w.				6·15 6·20 6·17 6·14		6·15 6·20 6·17 	Erebus. Terror. Erebus. Ross. Terror. Bérard.

SOUTH EQUATORIAL ZONE IV.—LATITUDE 30° TO 40° S.

Authorities.

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Moore		
Clerk		
Pagoda		
Erebus		
Terror		
Bethune	Contributions to Terrestrial Magnetism (Sabine in Philosophical	Transactions,
Wickham	1840 and 1849).	
Dayman		
Sulivan		
Stanley		
Ross		
Crozier		
1		
Pasley	Sabine in Phil. Trans. 1849.	
	waoine in Tim. Irane, 1040.	
D'Urville		
Lütke		
Prussian Ships		
Jehenne		
Owen		
Bellamy		
Stirling		
Duperrey >	L. S. Kämtz, MSS. in the Magnetic Office, Kew Observatory.	
Bougainville		
Herd		
Cécille		
Laplace		
King		
Morrell		
Kotzebue		
FitzRoy	Voyage of the 'Beagle' (1849).	
Rattlesnake	H.M.S. 'Rattlesnake,' MSS. in the Hydrographic Office.	
Belcher	MSS. in the Magnetic Office, and Sabine in Phil. Trans. 1840.	
Anonymous	MSS. in the Magnetic Office, received from Hydrographic Office.	
D'OrbignyI	L. S. Kämtz, MSS.	
Biscoe	L. S. Kämtz, MSS.	
Rumker	L. S. Kämtz, MSS.	
Denham	MSS. in Magnetic Office, received from Hydrographic Office.	
	MSS. in Magnetic Office, received from Admiral Sir E. Belcher.	
	Smithsonian Contributions, vol. xviii.	
	MSS. in the Hydrographic Office.	
	MSS. in the Hydrographic Office.	
	Astronomical Expedition from Santiago de Chilé to Buenos Ayres.	
, , , , , , , , , , , , , , , , , , , ,	H.M.S. 'Acheron,' MSS. in the Hydrographic Office.	
	H.M.S. 'Pandora,' MSS. in the Hydrographic Office.	
	H.M.S. 'Pandora,' MSS. in the Hydrographic Office.	
	H.M.S. 'Herald,' MSS. in the Hydrographic Office.	
	H.M.S. 'Hecate,' MSS. in the Hydrographic Office.	

SOUTH EQUATORIAL ZONE IV.—Lat. 30° to 40° S.

					Declinat	ion.		Inclin	ation.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea	38 52 32 00 31 57	0 16 1 01 1 48 2 02 2 17	1831 1847 1840 1840 1840	23 41 w. 24 07 w.	0 15 E. 0 06 W.	23·4 w. 24·2 w.	• ' 43 44 s.		• 43.7 s	6·82 6·64 6·63		6·82 6·64 6·63	Dunlop. Stanley. Ross. Terror. Ross.
At sea. At sea (3 observations) At sea. At sea. At sea.	$\begin{vmatrix} 32 & 39 \\ 38 & 00 \end{vmatrix}$	3 16 3 37 4 18 4 20 4 20	1831 1847 1840 1844 1840				44 48 s. 48 06 s. 52 00 s.		44 8 s. 48 1 s. 52 0 s.	6·82 7·27 6·85 6·67		6·82 7·27 6·85 	Dunlop. Rattlesnake. Ross. Smith. Terror.
At sea	35 23 38 19 39 45	4 24 4 25 4 37 4 40 5 40	1840 1857 1847 1831 1840	24 49 w. 26 19 w. 24 30 w.	0 06 w. 0 44 E. 0 14 E.	25·9 w. 25·6 w. 24·3 w.	46 24 s.		46·4 s.	6·89 6·89		6·89 6·89	Ross. Novara. Stanley. Dunlop. Terror.
At sea	33 14 39 10 35 58	5 48 6 03 6 20 7 17 7 30	1840 1840 1831 1826 1840	26 48 w. 24 40 w.	0 04 w. 0 33 w.	26·9 w. 25·2 w.	46 55 s.		46·9 s.	6·84 6·97 6·91		6·84 6·97 6·91	Ross. Ross. Dunlop. D'Urville. Ross.
At sea	38 28 33 29	7 32 7 37 7 45 7 48 9 02	1849 1847 1844 1840 1840	27 13 w.	0 04 w.	27·3 w.	49 33 s. 53 03 s		49·5 s. 53·0 s.	6·88 7·35 6·91		6·88 7·35 6·91	Terror. Rattlesnake. Smith. Ross. Terror.
At sea	$\begin{vmatrix} 33 & 27 \\ 37 & 10 \\ 33 & 01 \end{vmatrix}$	9 04 9 06 9 28 9 52 9 55	1840 1840 1847 1840 1840	28 27 w. 27 12 w. 28 21 w.		28·5 w. 27·0 w. 28·4 w.				6·93 7·04		6·93 7·04	Ross. Ross. Stanley. Ross. Terror.
At sea	33 08 39 00 36 48	10 07 10 11 10 12 10 19 10 37	1842 1840 1831 1847 1840	26 00 w. 29 22 w.		26·0 w. 29·5 w.	48 31 s 50 27 s		48·5 s. 50·4 s.	6·97 6·97 7·43		6·97 6·97 7·43	Bérard. Ross. Dunlop. Rattlesnake. Ross.
At sea	33 08 36 41 33 11	11 37 11 43 11 48 11 57 12 00	1839 1840 1847 1840 1844	26 21 w.	0 07 w.	26·5 w.	50 50 s 55 42 s		50·8 s. 55·7 s.	7·15 7·48 6·99		7·15 7·48 [6·99	Du Petit Thouars. Terror. Rattlesnake. Ross. Smith.
At sea	$egin{array}{c c} 31 & 25 \\ 35 & 24 \\ 37 & 25 \\ \end{array}$	13 21 13 23 13 24	1847 1839 1845 1845 1845	27 50 w. 27 19 w. 25 40 w.		27·8 w. 27·3 w. 25·7 w.	51 19 s 51 44 s		51 3 s. 51 7 s.	6·99 7·23		6·99 7·23	Stanley. Du Petit Thouars. Moore. Clerk. Pagoda.
At sea (3 observations At sea At sea (3 observations At sea At sea	. 33 00 34 14 32 56	13 36 13 44 13 48	1845 1840 1857 1840 1847	28 44 w. 29 31 w. 28 27 w.	0 15 е.	28·7 w. 29·3 w. 28·5 w.	51 35 s		51·6 s.	7·12 7·16 		7·12 7·16	Clerk. Ross. Novara. Terror. Stanley.
At sea	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	14 00 14 02	1845 1840 1831 1847 1837	27 15 w 28 35 w		27·3 w	51 16 s 49 55 s 52 12 s		51·3 s. 49·9 s. 52·2 s. 	6.92 7.09 7.19 7.60		6·92 7·09 7·19 7·60	Moore and Clerk. Ross. Dunlop. Rattlesnake. Bonite.
At sea (4 observations At sea	32 53 38 43 38 42 38 37 39 18	14 21 14 25 14 27 14 27 14 28	1829 1840 1845 1845 1845 1845 1836	27 40 w. 29 36 w. 25 09 w. 28 20 w. 28 53 w.		27·9 w. 29·6 w. 25·1 w. 28·3 w. 28·9 w.	53 31 s 52 39 s		53·5 s. 52·6 s.	7·33 7·55		7:33 7:55	Lütke. Ross. Pagoda. Moore. Clerk. Pagoda. Prussian ships.

SOUTH EQUATORIAL ZONE IV.—Lat. 30° to 40° S. (continued).

					Declinat	tion.		Inclina	ation.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.		Ob- served.	Cor. to Epoch 1842:5.	Corrected.	Observers.
At sea (7 observations) At sea (4 observations) At sea (4 observations) At sea (6 observations) At sea.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0 / 14 38 14 41 15 08 15 09 15 20	1845 1845 1845 1845 1840	28 39 w.		28 7 w.	54 12 s. 54 14 s. 51 27 s.		54·2 s. 54·2 s. 51·5 s.	7·22 7·41 7·25 7·27		7·22 7·41 7·25 7·27	Moore. Clerk. Pagoda. Moore. Terror.
At sea	$\begin{vmatrix} 32 & 57 \\ 33 & 21 \\ 39 & 42 \end{vmatrix}$	15 24 15 27 15 38 15 44 15 52	1840 1842 1837 1844 1840	31 16 w. 31 22 w. 29 23 w.		31·3 w. 31·4 w. 	57 06 s.		57·1 s.	7·15		7·15 	Ross. Jehenne. Bonite. Smith. Ross.
At sea	32 03 33 28 39 11	15 51 15 52 15 57 15 59 16 04	1837 1837 1839 1843 1843	28 43 w. 27 16 w. 26 37 w. 28 22 w. 26 38 w.		28·7 w. 27·3 w. 26·6 w. 28·4 w. 26·6 w.							Bonite. Bonite. Du Petit Thouars. Ross. Crozier.
At sea (3 observations) At sea At sea At sea (6 observations) At sea	35 59 32 44 30 39	16 15 16 22 16 27 16 28 16 36	1846 1843 1840 1846 1840	27 50 w.		27·8 w.	52 39 s. 51 03 s.		52·6 s. 51·1 s.	7·24 7·44 7·29 7·37		7·24 7·44 7·29 7·37	H.M.S. 'Fly.' Crozier. Terror. H.M.S. 'Fly.' Terror.
At sea. At sea. At sea. At sea.	$\begin{vmatrix} 38 & 26 \\ 33 & 01 \\ 35 & 42 \end{vmatrix}$	16 37 16 39 16 41 16 44 16 46	1840 1843 1840 1843 1840	29 24 w. 27 11 w.		29·4 w. 27·2 w.				7·12 7·31 7·27		7·12 7·31 7·27	Ross. Ross. Terror. Crozier. Ross.
At sea	$\begin{vmatrix} 32 & 16 \\ 32 & 49 \end{vmatrix}$	16 46 16 52 16 53 16 55 16 55	1840 1840 1840 1840 1840	29 29 w. 29 25 w.		29·5 w. 29·4 w.				7·52 7·31 7·41		7·52 7·31 7·41	Terror. Terror. Ross. Ross. Ross.
At sea (3 observations) At sea. At sea. At sea (4 observations) At sea.	32 17 38 47 33 56	16 57 17 00 17 00 17 04 17 07	1846 1840 1840 1851 1840	29 20 w. 29 34 w.		29·3 w. 29·6 w.	53 11 s. 		53·2 s. 	7·47 7·22 7·49		7·47 7·22 7·49	H.M.S. 'Fly.' Ross. Terror. Kellett. Ross.
At sea	39 22 37 16 38 58	17 08 17 24 17 24 17 26 17 34	1840 1831 1840 1840 1840	29 46 w.		29·8 w.	50 59 s.		51·0 s.	7·34 7·41 7·64 7·31		7·34 7·41 7·64 7·31	Ross. Dunlop. Terror. Terror. Terror.
At sea (4 observations) At sea At sea At sea (7 observations) At sea (3 observations)	$\begin{vmatrix} 32 & 31 \\ 32 & 31 \\ 34 & 46 \end{vmatrix}$	17 36 17 41 17 45 17 46 17 50	1845 1840 1840 1845 1840	29 51 w.		29·9 w.	53 34 s. 52 56 s.		53·6 s. 52·9 s.	7 11 7·15 7·38 7·35		7·11 7·15 7·38 7·35	Pagoda. Ross. Terror. Moore. Clerk.
At sea	34 20 34 38 34 18	17 51 17 57 17 58 18 03 18 04	1840 1840 1839 1840 1840	30 10 w. 27 45 w. 29 33 w.		30·2 w. 27·7 w. 29·5 w.				7·36 7·42		7·36 7·42	Ross. Ross. Du Petit Thouars. Ross. Terror.
At sea (3 observations) At sea At sea (3 observations) At sea	33 56 36 10	18 09 18 10 18 22 18 25	1857 1840 1842 1840	30 58 w.		31·0 w. 	57 29 s.		57·5 s.	7·45 7·77 7·46		7·45 7·77 7·46	Novara. Ross. H.M.S. 'Fly.' Terror.
Simon's Bay	34 11	18 26	1825 1829 1836 1837 1837 1839 1840 1840	28 12 w. 28 00 w. 28 30 w. 29 09 w. 29 04 w. 29 40 w.	0 26 w. 0 20 w. 0 10 w. 0 05 w. 0 04 w. 0 04 w.	28.6 w. 28.3 w. 28.7 w. 29.2 w. 29.1 w. 29.7 w.	52 35 s. 52 26 s. 52 54 s. 53 22 s. 53 08 s.	$ \begin{array}{r} +29 \\ +29 \\ +18 \\ & \dots \end{array} $	53·1 s. 52·9 s. 53·4 s. 53·7 s. 53·3 s.	7.57		7.46	Owen. Bellamy. FitzRoy. Bethune. Wickham. Du Petit Thouars. Ross. Ross and Crozier.

SOUTH EQUATORIAL ZONE IV.—Lat. 30° to 40° S. (continued).

					Declina	tion.		Inclina	tion.	For	ce in Br	itish units.	
Stations.	Lat.S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842 5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
Cape of Good Hope Observatory}	33 56	18 29 {	1841 1842 1843 1844 1844 1845 1845 1845 1845 1846 1847 1848 1849 1850 1851	29 07 w. 29 06 w. 29 04 w. 29 06 w. 29 07 w. 29 07 w. 29 09 w. 29 12 w. 29 14 w. 29 16 w. 29 18 w.	0 02 w	29·1 w. 29·1 w.	53 09 s. 53 14 s. 53 19 s. 53 28 s. 53 37 s. 53 37 s. 53 38 s. 53 28 s. 53 33 s. 53 41 s. 53 52 s. 53 53 s. 53 53 s. 53 52 s. 53 58 s.		533 s. 532 s. 533 s. 533 s. 534 s. 537 s. 534 s. 533 s. 533 s. 533 s. 533 s. 533 s. 533 s. 533 s. 533 s.	7·49 7·53 7·58		7.53	Observatory.
Cape Observatory At sea (2 observations) At sea (16 observations)	35 14	$18 \ 29 \left\{ \begin{array}{c} 18 \ 27 \\ 18 \ 27 \end{array} \right.$	1842 1845 1857 1840 1845	29 10 w. 29 34 w. 29 15 w.	0 22 E.	29·2 w. 29·2 w. 29·2 w. 29·3 w.	53 12 s. 53 30 s. 54 36 s. 54 32 s.	- 13 -1 15	53·3 s. } 53·3 s.	7·43 7·50 7·71 7·37		} 7·55 7·37	Belcher. Moore. Novara. Ross. Pagoda.
At sea At sea (3 observations) At sea At sea At sea	34 18 35 52	18 35 18 35 18 40 18 41 18 47	1840 1857 1839 1840 1840	30 05 w. 29 21 w. 29 38 w. 30 08 w.		30·1 w. 29·3 w. 29·6 w. 30·1 w.	54 18 s.		 54·3 s.	7·48		 7·48	Ross. Novara. Du Petit Thouars. Ross. Ross.
At sea (2 observations) At sea (2 observations) At sea (3 observations) At sea. At sea.	34 20 35 46 35 47	19 00 19 00 19 02 19 05 19 19	1840 1851 1837 1832 1840	30 18 w. 31 09 w. 28 54 w.	0 15 w.	30·3 w. 31·1 w. 29·1 w.	55 24 s.		55·4 s. 	7.40		 7·40	Ross. Kellett. Bonite. Prussian ships. Erebus.
At sea (3 observations) At sea (3 observations) At sea At sea At sea	34 55 34 48 39 06	19 31 19 33 19 33 20 00 20 04	1846 1845 1845 1831 1840	28 57 w.		28·9 w.	53 23 s. 54 50 s. 52 03 s.		53·4 s. 54·8 s. 52·1 s.	7·65 7·37 7·27 7·46		7·65 7·37 7·27 7·46	H.M.S. 'Fly.' Pagoda, Dayman, Dunlop, Terror.
At sea (2 observations) At sea (3 observations) At sea	37 33 39 55 36 16	20 24 20 25 20 35 20 42 20 42	1845 1826 1840 1840 1840	28 47 w. 29 20 w. 31 09 w. 30 15 w.	0 22 w.	28·8 w. 29·7 w. 31·1 w. 30·3 w.				7.47		 7·47	Pagoda, D'Urville, Ross. Ross. Erebus.
At sea	35 07 36 07 36 25	20 46 20 46 20 55 21 15 21 16	1845 1845 1840 1840 1840	27 56 w. 30 40 w.		27·9 w	55 08 s. 55 50 s. 55 38 s.		55·1 s. 55·8 s. 55·6 s.	7:59		7·59 	Pagoda. Clerk. Ross. Ross. Ross.
At sea (4 observations) At sea	36 35 37 19 38 13	21 20 21 20 21 26 21 30 21 37	1840 1840 1840 1840 1840	32 10 w. 30 51 w.		32·2 w. 30·9 w. 				7·57 7·83 7·92		7·57 7·83 7·92	Ross. Erebus. Erebus. Erebus.
At sea (5 observations) At sea (2 observations) At sea (6 observations) At sea (4 observations)	35 40 35 10 35 40	21 40	1840 1845 1846 1845	29 16 w.	 	29·3 w.	56 03 s. 55 28 s. 55 31 s.		56·1 s. 55·5 s. 55·5 s.	7·80 7·74		7·80 7·74	Ross. Pagoda. H.M.S. 'Fly.' Moore.
At sea (4 observations) At sea	34 29 34 37 38 11	21 40 21 44 21 50 22 00	1845 1845 1851 1840	30 48 w.	•••••	30·8 w.	55 18 s. 55 36 s. 55 35 s.		55·3 s. 55·6 s. 55·6 s.	7·68		7·68 	Clerk. Dayman. Kellett. Ross.
At sea (4 observations) At sea At sea (2 observations) At sea	34 04 34 49	22 09 22 45 22 52 23 00	1829 1845 1836 1831	28 40 w. 27 41 w.	0 18 w. 0 09 w.	29·0 w. 27·8 w.	56 43 s. 54 01 s.	·····	56·7 s. 54·0 s.	······ 7·57		7.57	Lütke. Dayman. FitzRoy. Dunlop.

					Declinat	tion.		Inclina	tion.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea	35 46 35 39	23 05 23 11 23 35 23 35 24 16	1844 1846 1845 1845 1845	° ' 29 26 w.		29·4 w.	59 32 s. 56 37 s. 56 08 s. 56 32 s.		59·5 s. 56·6 s. 56·1 s. 56·5 s.	8·00 7·74 7·52		8·00 7·74 7·52	Smith. H.M.S. 'Fly.' Clerk. Pagoda. Dayman.
At sea (2 observations) At sea (3 observations) At sea	38 07 38 04 34 36	24 24 24 43 25 00 25 23 25 31	1829 1857 1831 1845 1845	28 01 w. 30 25 w. 	0 15 w. 0 17 E. 	28·3 w. 30·1 w.	55 10 s. 56 35 s. 56 45 s.		55·2 s. 56·6 s. 56·7 s.	7·94 7·65		7·94 7·65	Prussian ships. Novara. Dunlop. Dayman. Dayman.
At sea	36 50 37 58 34 27	25 40 25 48 26 22 26 23 26 50	1837 1846 1842 1861 1845	26 54 w. 29 25 w. 28 41 w.		26·9 w	56 08 s. 59 01 s.		56·1 s. 59·0 s.	8·22 8·33		8·22 8·33	Bonite. H.M.S. 'Fly.' H.M.S. 'Fly.' Denham. Pagoda.
At sea	34 02 34 18 34 31	26 52 26 53 27 03 27 04 27 40	1844 1845 1851 1845 1847	30 40 w.		30·7 w.	61 47 s. 57 23 s. 57 06 s. 57 19 s.		61·8 s. 57·4 s. 57·1 s. 57·3 s.	7·58 7·58 7·93 8·29		7·58 7·58 7·93 8·29	Smith. Dayman. Kellett. Clerk. Rattlesnake.
At sea (2 observations) At sea (6 observations) At sea	36 11 39 50 34 04	27 53 27 54 28 36 28 55 29 30	1834 1846 1844 1829 1847	28 38 w. 30 10 w.	0 08 w. 0 11 w.	28·8 w	57 19 s. 62 08 s. 58 31 s.		57·3 s. 62·1 s. 58·5 s.	8·11 8·45		8·11 8·45	Prussian ships. H.M.S. 'Fly.' Smith. Lütke. Rattlesnake.
At sea At sea (4 observations) At sea (4 observations) At sea At sea (5 observations)	$\begin{vmatrix} 32 & 54 \\ 39 & 16 \end{vmatrix}$	29 34 29 36 29 49 30 27 30 44	1845 1845 1845 1831 1851	28 44 w. 29 23 w.		28·7 w. 29·4 w.	58 16 s. 57 34 s. 58 11 s.		58·3 s. 57·6 s. 58·2 s.	7·69 7·84 8·24		7·69 7·84 8·24	Dayman. Clerk. Pagoda. Dunlop. Kellett.
At sea (3 observations) At sea (5 observations) At sea (9 observations) At sea (4 observations) At sea	31 06 31 09	30 54 31 26 31 31 31 34 31 42	1846 1845 1845 1845 1837	26 46 w. 29 21 w.		26·8 w. 29·3 w.	59 39 s. 57 24 s. 57 28 s.		59 6 s. 57 4 s. 57 5 s.	8·53 7·96 7·95		8·53 7·96 7·95	H.M.S. 'Fly.' Moore. Pagoda. Clerk. Bonite.
At sea	$\begin{vmatrix} 30 & 35 \\ 30 & 33 \end{vmatrix}$	32 21 32 36 33 13 33 19 33 30	1845 1847 1845 1845 1831	25 09 w.		25·1 w.	58 32 s. 59 39 s. 57 19 s. 59 05 s.		58·5 s. 59·7 s. 57·3 s. 59·1 s.	7·84 8·50 8·13 8·39		7·84 8·50 8·13 8·39	Dayman. Rattlesnake. Pagoda. Clerk, Dunlop.
At sea (3 observations) At sea (2 observations) At sea (6 observations) At sea (6 observations) At sea (4 observations)	30 27 30 30 31 25	33 36 33 41 33 42 33 52 34 25	1846 1845 1845 1861 1829	27 28 w. 27 24 w. 27 59 w.	0 13 w.	27·5 w. 27·4 w. 28·2 w.	59 07 s. 56 37 s.		59·1 s. 56·6 s.	8·14 8·28		8·14 8·28 	H.M.S. 'Fly.' Moore. Pagoda. Denham. Lütke.
At sea	32 18 39 16	34 40 34 59 35 17 35 37 35 55	1837 1851 1837 1831 1845	22 35 w. 27 09 w. 26 25 w. 26 29 w.	0 05 w. 0 05 w. 	22·7 w. 27·2 w. 26·5 w. 26·5 w.	60 01 s.		60·0 s.	8 24		8·24	Bonite. Kellett. Prussian ships. Dunlop. Pagoda.
At sea (3 observations) At sea	30 10 37 30	36 06 36 17 37 27 38 06 38 57	1846 1845 1831 1851 1837	26 10 w. 26 05 w.	0 05 w.	26·2 w. 26·2 w.	59 06 s. 59 08 s. 58 11 s. 		59·1 s. 59·1 s. 58·2 s. 	8·14 8·06 8·09		8·14 8·06 8·09	H.M.S. 'Fly.' Dayman. Dunlop. Kellett. Bonite.
At sea	35 10 30 31 30 36 30 58 35 54	39 07 40 50 41 46 42 23 42 44 43 16 44 08	1831 1831 1839 1846 1829 1831 1826	23 50 w. 26 21 w. 30 30 w.	0 13 w.	23·8 w. 26·6 w. 30·8 w.	58 33 s. 59 54 s. 58 22 s. 61 08 s.		58·5 s. 59·9 s. 58·4 s. 61·1 s.	8·32 8·54 8·74 8·92		8·32 8·54 8·74 8·92	Dunlop. Dunlop. Prussian ships. H.M.S. 'Fly.' Lütke. Dunlop. D'Urville.

SOUTH EQUATORIAL ZONE IV.—Lat. 30° to 40° S. (continued).

	Lat. S.	Long. E.	Date.	Declination.			Inclination.			Force in British units.			
Stations.				Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	00-	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea (3 observations) At sea (3 observations) At sea	35 29 35 01 30 21	45 23 48 00 48 06 48 15 51 24	1847 1842 1831 1846 1846	o /	0 1	·····	63 20 s. 63 49 s. 60 27 s. 60 35 s. 62 05 s.	•••••	63·3 s. 63·8 s. 60·5 s. 60·6 s. 62·1 s.	9·10 9·18 8·84 8·99		9·10 9·18 8·84 	Rattlesnake. H.M.S. 'Fly.' Dunlop. H.M.S. 'Fly.' H.M.S. 'Fly.'
At sea	34 33	52 48 53 00 54 10 55 16 55 20	1831 1847 1847 1842 1831				62 46 s. 64 10 s. 64 04 s. 64 17 s. 63 13 s.		62.8 s. 64.2 s. 64.1 s. 64.3 s. 63.2 s.	9·52 9·45 9·61 9·41 9·52		9.52 9.45 9.61 9.41 9.52	Dunlop. Rattlesnake. Rattlesnake. H.M.S. 'Fly.' Dunlop.
At sea	39 34 37 46 38 00	59 15 60 55 63 38 64 16 65 44	1831 1844 1831 1826 1844	24 38 w.	0 16 w.	24·9 w.	63 54 s. 67 27 s. 63 51 s. 67 19 s.		63 9 s. 67 5 s. 63 9 s. 67 3 s.	9·67 9·59 		9·67 9·59 	Dunlop. Smith. Dunlop. D'Urville. Smith.
At sea	31 50 38 31 38 15	66 04 67 56 68 45 69 31 70 05	1831 1847 1844 1831 1847				64 10 s. 65 39 s. 66 45 s. 65 04 s. 66 30 s.		64·2 s. 65·7 s. 66·7 s. 65·1 s. 66·5 s.	9·82 10·12 10·34 10·23		9·82 10·12 10·34 10·23	Dunlop. Rattlesnake. Smith. Dunlop. Rattlesnake.
At sea	38 08 39 31	70 10 71 55 73 35 74 00 74 02	1844 1847 1844 1831 1847				67 06 s. 67 31 s. 66 45 s. 65 02 s. 67 36 s.	•••••	67·1 s. 67·5 s. 66·7 s. 65·0 s. 67·6 s.	10·35 10·27 10·74		10·35 10·27 10·74	Smith. Rattlesnake. Smith. Dunlop. Rattlesnake.
At sea	38 43	75 22 76 44 77 31 77 50	1844 1844 1842 1857 1844	23 25 w.	0 15 E.	23·2 w.	66 42 s. 66 54 s. 66 58 s. 66 56 s. 67 14 s.		66.7 s. 66.9 s. 67.0 s. 66.9 s 67.2 s.	11·19 11·33		11·19 11·33	Smith. Smith. H.M.S. 'Fly.' Novara. Smith.
At sea (3 observations) At sea At sea (6 observations) At sea At sea (2 observations)	39 04 35 30 39 27	77 50 79 45 80 01 81 00 82 43	1857 1844 1847 1831 1857	21 47 w. 18 12 w.	0 15 E. 0 15 E.	21·5 w. 17·9 w.	67 17 s. 67 20 s. 66 07 s.		67·3 s. 67·3 s. 66·1 s.	11.00		11.00	Novara, Smith. Rattlesnake. Dunlop. Novara.
At sea	31 50 36 45	84 00 84 12 84 34 85 27 87 32	1844 1847 1857 1826 1847	13 58 w. 18 40 w.	0 15 E. 0 16 w.	13·7 w. 18·9 w.	67 43 s. 67 19 s. 67 37 s.		67·7 s. 67·3 s. 67·6 s.	11.15		11·15 11·26	Smith. Rattlesnake. Novara. D'Urville. Rattlesnake.
At sea (3 observations) At sea (3 observations) At sea (2 observations) At sea (3 observations) At sea (3 observations)	35 50 35 57 36 15	88 50 91 02 92 43 94 42 95 30	1842 1847 1826 1847 1842	16 12 w.	0 08 w.	16·3 w.	67 46 s. 67 45 s. 67 55 s. 67 49 s.		67.8 s. 67.7 s. 67.9 s. 67.8 s.	11·18 11·52 11·83 11·82		11·18 11·52 11·83 11·82	H.M.S. 'Fly.' Rattlesnake. D'Urville. Rattlesnake. H.M.S. 'Fly.'
At sea (6 observations At sea (3 observations At sea	39 43 39 52 30 05	99 51	1848 1842 1844 1827 1847	7 02 w.	0 07 w.	7 1 w.	60 23 s 68 33 s 69 00 s 68 50 s		60·4 s. 68·6 s. 69·0 s. 68·8 s.	12·12		12·12 12·46	Rattlesnake. H.M.S. 'Fly.' Smith. D'Urville. Rattlesnake.
At sea) 35 15) 38 43	102 00 103 09 104 44 105 44 106 38	1844 1847 1848 1842 1847				69 00 s 69 34 s 64 26 s 69 30 s 70 14 s		69·0 s. 69·6 s. 64·4 s. 69·5 s. 70·2 s.	12·47 12·28 12·66		12·47 12·28 12·66	Smith. Rattlesnake. Rattlesnake. H.M.S. 'Fly.' Rattlesnake.
At sea (2 observations At sea	33 37 30 25 38 57 33 47 32 24	108 24 109 07 110 20 111 04 111 26	1826 1845 1845 1847 1845 1845 1845	12 50 w. 7 20 w.		12·8 w. 7·3 w.	62 18 s 70 28 s 63 23 s 62 22 s 62 14 s		62·3 s. 70·5 s. 63·4 s. 62·4 s. 62·2 s.	12·01 12·82 12·06 11·79 12·09		12·01 12·82 12·06 11·79 12·09	D'Urville. Dayman. Pagoda. Rattlesnake. Dayman. Moore. Clerk.

SOUTH EQUATORIAL ZONE IV.—Lat. 30° to 40° S. (continued).

					Declinat	ion.		Inclina	ation.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch. 1842·5.	Corrected.	Observers.
At sea (5 observations) At sea	$\begin{vmatrix} 34 & 58 \\ 34 & 16 \\ 34 & 18 \end{vmatrix}$	112 59 113 01	1845 1845 1845 1845 1846	6 36 w. 6 37 w.		6·6 w. 6·6 w.	65 16 s. 64 44 s. 65 39 s.		65·3 s. 64·7 s. 65·6 s.	12·63 12·30 12·62		12·63 12·30 12·62	Pagoda. Dayman. Clerk. Pagoda. H.M.S. 'Fly.'
At sea	39 34 35 30 35 09	114 14 114 20 114 35 114 41 114 42	1845 1847 1845 1826 1845	9 28 w. 5 41 w.		9·5 w. 5·7 w.	65 48 s. 71 05 s. 64 54 s.		65·8 s. 71·1 s. 64·9 s.	13·08 12·53		13·08 12·53	Dayman. Rattlesnake. Moore. D'Urville. Pagoda.
At sea (4 observations) At sea	37 00 38 04 31 55	114 44 115 10 115 20 115 22 115 24	1845 1845 1842 1846 1829	5 20 w.		 5·3 w.	65 28 s. 66 35 s. 67 35 s. 63 26 s.		65.5 s. 66.6 s. 67.6 s. 63.4 s.	12·65 13·17 12·22		12·65 13·17 	Clerk. Dayman. H.M.S. 'Fly.' H.M.S. 'Fly.' Stirling.
At sea	35 42 32 03	115 33 115 40 115 41 { 115 47 {	1845 1845 1827 1837 1843 1846	5 59 w. 4 17 w. 4 30 w.		6·0 w. 4·3 w. 	66 44 s. 		66·7 s. 62·4 s. 62·7 s. 63·1 s.	12·39 12·19 12·52		12.39 12.19 12.52	Dayman. Pagoda. Stirling. Wickham. H.M.S. 'Fly.' H.M.S. 'Fly.'
At sea (3 observations) At sea (5 observations) At sea (4 observations) At sea (4 observations) At sea (3 observations)	38 40 38 52 38 40	116 15	1836 1845 1845 1845 1845	7 22 w. 6 56 w. 4 31 w.		7·4 w. 6·9 w. 4·5 w.	68 04 s. 68 49 s.		68·1 s. 68·8 s.	12·90 13·02		12·90 13·02	FitzRoy. Moore. Clerk. Pagoda. Pagoda.
At sea At sea (8 observations) At sea (4 observations) At sea (4 observations) At sea (4 observations)	36 11 36 12	116 42 116 43 116 48 116 50 116 57	1845 1845 1845 1845 1845	4 52 w.		4·9 w.	66 27 s. 66 00 s. 65 28 s. 66 46 s.		66.5 s. 66.0 s. 65.5 s. 66.8 s.	12·85 12·51 12·54 12·70		12.85 12.51 12.54 12.70	Dayman. Pagoda. Moore. Clerk. Clerk.
At sea (6 observations) At sea	35 28 35 18 35 21	116 57 117 04 117 07 117 11 117 28	1845 1845 1845 1846 1845	6 55 w.		6·9 w.	66 21 s. 65 48 s. 66 03 s. 65 24 s.		66·3 s. 65·8 s. 66·1 s. 65·4 s.	12·57 12·75 12·51 12·69		12·57 12·75 12·51 12·69	Moore. Pagoda. Clerk. H.M.S. 'Fly.' Moore.
At sea	35 12 35 22 39 54		1845 1845 1845 1847 1847	6 20 w.		6·3 w.	67 19 s. 65 53 s. 71 58 s. 65 59 s.		67·3 s. 65·9 s. 72·0 s. 66·0 s.	12·90 13·34		12·90 13·34	Dayman. Pagoda. Dayman. Rattlesnake. Moore.
King George's Sound	35 02	117 56	1826 1836 1845 1845 1845 1845 1845 1845 1845	5 35 w. 5 36 w. 5 33 w. 5 42 w.		5·6 w. 5·6 w. 5·6 w. 5·6 w. 5·6 w.	64 41 s. 65 11 s. 64 51 s. 64 55 s. 64 52 s. 65 07 s. 65 02 s.		64.7 s. 65.2 s. 64.9 s. 64.9 s. 64.9 s. 65.1 s. 65.0 s. 	12·80 12·65 12·61 12·65 12·53 		12.65	D'Urville. FitzRoy. Clerk. Clerk. Moore. Moore. Moore. Moore. Pagoda. Denham.
At seaAt sea (2 observations) At sea	$\begin{vmatrix} 36 & 42 \\ 36 & 00 \end{vmatrix}$	118 06 118 35 118 40 118 57	1845 1845 1836 1845	5 57 w. 5 45 w.		5·9 w. 5·7 w.	67 03 s. 67 08 s.		67·1 s. 67·1 s.	12.86		 12·86	Pagoda. Dayman. FitzRoy. Dayman.
At sea (3 observations) At sea (3 observations) At sea	36 02 37 13	119 26 120 33 120 40 121 58	1846 1846 1845 1845	•••••	 	•••••	65 22 s. 66 03 s. 68 06 s. 67 07 s.		65·4 s. 66·1 s. 68·1 s. 67·1 s.	12·33 12·52 		12·33 12·52 	H.M.S. 'Fly.' H.M.S. 'Fly.' Dayman. Dayman.
At sea	38 21	122 29 122 46 123 25	1845 1845 1836	3 19 w.	······	 3·3 w.	67 39 s. 67 27 s.		67·7 s. 67·5 s.	13.31		13·31 	Dayman. Dayman. FitzRoy.

	1				Declina	tion.		Inclina	tion.	For	ce in Bri	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842.5.	Corrected.		Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea (3 observations) At sea	$\begin{vmatrix} 38 & 00 \\ 39 & 25 \end{vmatrix}$	$123 \ 38 \ 124 \ 04$	1846 1844 1844 1826	0 / 3 35 w.		° 3·6 w.	66 24 s. 68 21 s. 69 40 s.		66·4 s. 68·3 s. 69·7 s.	12·68 13·48 13·43		12·68 13·48 13·43	H.M.S. 'Fly.' Dayman. Dayman. D'Urville.
At sea (3 observations) At sea (3 observations) At sea (6 observations)	34 55 35 25	124 58 125 10 127 33 130 02	1845 1846 1846 1846				65 40 s. 67 41 s. 66 42 s.		65.7 s. 67.7 s. 66.7 s.	13·27 12·86 12·91 12·75		13·27 12·86 12·91 12·75	Dayman. H.M.S. 'Fly.' H.M.S. 'Fly.' H.M.S. 'Fly.'
At sea (4 observations) At sea (3 observations) At sea (3 observations) At sea (3 observations)	35 45 35 40		1826 1846 1846 1846	0 37 w.	•••••	0.6 w. 	66 47 s. 66 26 s. 66 21 s.		66.8 s. 66.4 s. 66.3 s.	12·68 12·62 12·60		12·68 12·62 12·60	D'Urville. H.M.S. 'Fly.' H.M.S. 'Fly.' H.M.S. 'Fly.'
Glenelg At sea (3 observations) At sea (3 observations) At sea (3 observations)	36 15 37 48	138 33 138 37 139 30 141 36	1846 1846 1846 1846	6 16 E.	•••••	6·3 E.	65 28 s. 65 58 s. 66 46 s. 67 16 s.		65·5 s. 66·0 s. 66·8 s. 67·3 s.	12·89 12·50 12·99 12·98		12·89 12·50 12·99 12·98	H.M.S. 'Fly.' H.M.S. 'Fly.' H.M.S. 'Fly.' H.M.S. 'Fly.'
Port Philip	37 29	146 41	1846 1848 1826 1841	9 09 E. 8 31 E. 10 38 E.	******	9·1 E. 8·5 E. 10·6 E.	66 57 s. 67 15 s.		66.9 s. 67.1 s. 67.1 s	13·16 13·19 		} 13·17 	H.M.S. 'Fly.' Rattlesnake, D'Urville, Terror.
At sea (10 observations) At sea (4 observations) At sea	38 17 37 50 37 36	$\begin{vmatrix} 150 & 22 \\ 150 & 58 \end{vmatrix}$	1841 1841 1841 1841 1841	11 01 E 11 18 E.		11·0 E 11·3 E.	66 57 s. 66 36 s.		66·9 s. 66·6 s.	13·37 13·15 		13·37 13·15	Erebus. Terror. Erebus. Erebus. Terror.
Garden Island, Port Jackson	33 51	151 17	1824 1825 1826 1831 1836 1837 1838 1841 1841 1841 1841 1842 1844 1845 1848 1849 1852 1858	8 56 E. 8 03 E. 9 17 E		8·9 E. 8·1 E. 9·3 E. 	62 18 s 62 53 s. 62 51 s. 62 48 s. 62 48 s. 62 59 s. 62 42 s 62 37 s. 62 45 s. 62 41 s. 62 44 s. 62 41 s.		62·3 s	12·48 12·62 12·60 12·73 12·63 12·88 12·78 12·59 		12-67	Duperrey. Bougainville. D'Urville. Bethune. Dunlop. FitzRoy. Anonymous. Wickham. Terror. Erebus. Terror. Erebus. Erebus. H.M.S. 'Fly.' H.M.S. 'Fly.' Rattlesnake. Rattlesnake. Kerr. Novara.
At sea (4 observations At sea (19 observations At sea (3 observations At sea	33 51 35 14	151 20 151 29	1841 1841 1841 1826	9 09 е.		9·1 B.	62 58 s 62 47 s		63·0 s. 62·8 s. 	13.02		13·02	Terror. Erebus. Terror. D'Urville.
At sea (4 observations At sea (10 observations At sea (5 observations At sea (13 observations	$\begin{vmatrix} 37 & 10 \\ 37 & 21 \end{vmatrix}$	151 33	1841 1841 1841 1841	11 32 E. 9 31 E.		11·5 E. 9·5 E.	66 22 s 66 01 s		66·4 s. 66·0 s.	13.07		13.07	Terror. Terror. Erebus. Erebus.
At sea (3 observations At sea (3 observations At sea (4 observations Port Stephens	36 21 36 01	151 39 151 48	1841 1841 1841 1842 1844	9 45 E.		9·8 E	66 11 s 65 04 s 61 24 s 61 29 s		66·2 s. 65·1 s. 61·4 s. 61·5 s.	12·89 12·30 12·30		12·89 12·30 12·30	Erebus. Terror. Erebus. H.M.S. 'Fly.' H.M.S. 'Fly.'
At sea (8 observations At sea (4 observations At sea (3 observations At sea (2 observations	3) 33 58 3) 33 58 3) 34 09	153 35 153 36 153 42	1858 1841 1841 1850 1841	8 58 E. 10 07 E.		9 0 E. 10 1 E.	62 30 s		62·5 s. 61·6 s.	12·76 12·41		12·76 12·41	Novara. Terror. Terror. Rattlesnake. Erebus.

					Declinat	ion.		Inclina	tion.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea (7 observations) At sea (5 observations) At sea (4 observations) At sea (5 observations) At sea (3 observations)	33 52 33 56 33 51	153 58 154 07 156 38 157 18 157 23	1826 1841 1841 1841 1858	9 05 E. 11 07 E.	0 16 w.	9·1 E. 10·9 E.	62 47 s. 61 46 s. 62 07 s.		62·8 s. 61·8 s. 62·1 s.	12·69 12·58 12·49		12·69 12·58 12·49	D'Urville. Erebus. Terror. Erebus. Novara.
At sea (5 observations) At sea (2 observations) At sea (4 observations) At sea (5 observations) At sea (5 observations)	33 09 33 31 33 27	158 10 159 18 160 20 160 43 161 04	1854 1863 1841 1841 1855	8 30 E. 11 47 E. 12 04 E.	0 12 w. 10 13 w.	8·3 E. 11·8 E. 11·9 E.	61 04 s 61 30 s		61·1 s. 61·5 s.	12·52 12·40		12·52 12·40	Denham. Richards. Terror. Erebus. Denham.
At sea (4 observations) At sea (2 observations) At sea (8 observations) At sea (3 observations) At sea (10 observations)	$\begin{vmatrix} 32 & 22 \\ 33 & 33 \\ 32 & 41 \end{vmatrix}$	161 24 161 47 162 01 162 04 162 47	1854 1858 1841 1863 1841	10 49 E. 11 16 E. 12 02 E. 12 10 E. 14 26 E.	0 12 w. 0 16 w.	10·6 E. 11·0 E. 12·0 E. 12·2 E. 14·4 E.							Denham. Novara. Erebus. Richards. Terror.
At sea (5 observations) At sea (4 observations) At sea (4 observations) At sea (2 observations) At sea (3 observations)	33 42 33 42 34 35	163 42 163 50 164 05 164 32 165 04	1841 1841 1841 1836 1863	13 27 E. 12 34 E.	0 05 E.	13·5 E. 12·6 E.	60 48 s 60 52 s 		60·8 s. 60·9 s.	12·30 12·42 		12·30 12·42 	Erebus. Terror. Terror. FitzRoy. Richards.
At sea (3 observations) At sea (2 observations) At sea (8 observations) At sea (3 observations) At sea (5 observations)	33 41 33 41 33 36	165 19 166 23 166 26 166 27 166 28	1850 1841 1841 1858 1841	13 34 E. 12 39 E.	0 16 w.	13·6 E. 12·4 E.	56 11 s 60 07 s		56·2 s. 60·1 s.	12·18		12·18	Rattlesnake. Erebus. Erebus. Novara. Erebus.
At sea (16 observations) At sea (10 observations) At sea (4 observations) At sea (3 observations) At sea (7 observations)	33 44 33 45 33 17	166 29 166 37 166 38 166 41 167 22	1841 1841 1841 1854 1863	13 40 E 11 30 E. 12 21 E.	0 12 w.	13·7 E 11·3 E. 12·3 E.	59 55 s		59·9 s.	12·19		12·19	Terror. Terror. Terror. Denham. Richards.
At sea (7 observations) At sea (5 observations) At sea (9 observations) At sea (5 observations) At sea (3 observations)	33 34 33 33 33 22	167 35 167 37 167 38 167 40 167 48	1841 1841 1841 1841 1850	13 27 E.		13·5 E.	59 58 s 59 39 s 59 47 s		60·0 s. 59·7 s. 59·8 s.	11·99 12·12 11·88		11·99 12·12 11·88	Erebus. Terror. Terror. Erebus. Rattlesnake.
At sea (12 observations) At sea (3 observations) At sea (6 observations) At sea (2 observations) At sea (4 observations)	33 00 31 28 33 25	168 04 168 22 168 25 169 15 169 20	1841 1850 1850 1854 1841	15 02 E. 12 28 E.	0 12 w.	15·0 E 12·3 E.	57 16 s 55 37 s		57·3 s. 55·6 s.	11·35 12·04		11 35 12 04	Terror. Rattlesnake. Rattlesnake. Denham. Terror.
At sea (9 observations) At sea (5 observations) At sea (11 observations) At sea (4 observations) At sea (3 observations)	$egin{array}{c c} 32 & 58 \\ 33 & 42 \\ 32 & 12 \\ \end{array}$	169 20 169 44	1841 1841 1841 1841 1850	12 54 E.		12·9 E.	58 43 s 59 04 s 58 33 s 57 21 s		58·7 s. 59·1 s. 58·5 s. 57·3 s.	12·04 11·60		12·04 11·60	Terror. Erebus. Erebus. Erebus. Rattlesnake.
At sea (6 observations At sea (11 observations At sea (8 observations At sea (5 observations At sea (6 observations	32 11 33 57 33 55	171 01 171 58 171 59	1841 1841 1841 1841 1841				57 28 s 58 24 s 58 24 s		57·5 s. 58·4 s. 58·4 s.	11·91 11·86		11·91 11·86	Terror. Terror. Erebus. Terror. Erebus.
At sea (6 observations At sea (7 observations Three Kings Islands At sea (2 observations At sea (9 observations At sea (5 observations) 33 58 34 06) 33 51) 34 15	172 06 172 10 172 32 172 33	1841 1841 1852 1854 1841 1841	14 55 E. 14 02 E. 13 45 E.	0 12 w.	14 9 E. 13 8 E. 13 7 E.	58 14 s		58·2 s. 58·8 s.	12·00 11·97		12·00	Terror. Terror. Drury. Denham. Terror. Terror.
Parengarenga At sea (3 observations At sea (4 observations Hokianga Cape Kara Kara At sea (2 observations	34 22 34 35 35 32 34 47	173 21 173 23 173 25	1852 1850 1827 1851 1852 1836	13 30 E. 13 34 E. 13 15 E. 13 35 E.		13·5 E. 13·8 E. 13·2 E. 13·7 E.	57 32 s 59 46 s		57·5 s. 59·8 s.	11·56 12·10		11·56 12·10 	Drury. Rattlesnake. D'Urville. Kerr. Drury. FitzRoy.

GENERAL SIR EDWARD SABINE ON TERRESTRIAL MAGNETISM.

					Declinat	tioń.		Inclin	ation.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea (11 observations) Hokianga At sea (6 observations) At sea (7 observations) At sea (5 observations)	35 31 34 29 34 24	173 28 173 32 173 36 173 43 173 47	1841 1825 1841 1841 1841	13 56 E. 13 23 E. 13 42 E.	0 17 E.	° 13·9 E. 13·7 E. 13·7 E.	58 26 s. 59 00 s.		58·4 s. 59·0 s.	12·13		 12·13	Erebus. Herd. Erebus. Terror.
Wangaroa	33 22	173 47 { 173 48 173 57	1853 1854 1858 1854	14 10 E. 12 26 E. 13 57 E.	0 16 w. 0 12 w.	14·2 E. 12·2 E. 13·7 E.	58 27 s.		58·4 s. 			•••••	Kerr. Drury. Novara. Denham.
Bay of Islands	35 16	174 00 {	1824 1827 1835 1838 1838 1841 1841 1841 1841 1849	13 22 E. 13 08 E. 14 00 E. 13 30 E. 13 36 E. 	0 18 E. 0 15 E. 0 07 E. 0 04 E. 0 04 E 0 07 W. 0 08 W.	13·7 E. 13·4 E. 14·1 E. 13·6 E. 13·6 E. 13·7 E. 14·2 E. 13·3	59 35 s. 59 32 s. 58 58 s. 59 36 s. 59 36 s. 59 31 s. 59 33 s.		59·6 s. 59·5 s. 59·0 s. 59·4 s. 59·4 s. 59·5 s. 59·5 s.	12·05 12·06 11·94		12.01	Duperrey. D'Urville. FitzRoy. Cécille. La Vénus. Erebus. Terror. Ereror. Erebus. Stokes. Rattlesnake.
Wangaruru Harbour At sea(10 observations)	$\begin{vmatrix} 36 & 20 \\ 35 & 24 \end{vmatrix}$	174 11 174 22 174 23	1849 1852 1849 1841 1849	14 45 E. 14 25 E. 14 20 E.		14·7 E. 14·4 E. 14·3 E.	60 43 s. 59 28 s.		60·7 s. 59·5 s.	12·10 		12·10 	Stokes. Kerr. Stokes. Erebus. Stokes.
At sea (2 observations) Auckland Harbour At sea (3 observations)	36 50	174 39 174 49 { 174 54	1841 1841 1848 1851 1854	13 53 E. 14 11 E. 14 03 E.	0 12 w.	13·9 E. 14·0 E 13·9 E.	61 10 s. 60 43 s.		61·2 s. 60·7 s. 60·7 s.	12·07 12·33 12·50		12·07 } 12·41 	Erebus. Novara. Stokes. Kerr. Denham.
Waiheki Island	35 53 32 01	175 32	1853 1848 1858 1835 1852	13 33 E. 12 50 E. 14 15 E.	0 16 w. 0 07 w.	13·5 E. 12·6 E. 14·1 E.	59 56 s. 61 19 s.		59·9 s. 61·3 s.				Kerr. Stokes. Novara. FitzRoy. Kerr.
Tauranga Harbour At sea(12 observations) At sea(14 observations) Ahuriri Opotiki	36 05 37 11 39 29	176 11 176 17 176 29 176 55 177 18	1853 1841 1827 1855 1855	15 00 E. 14 11 E. 16 00 E. 14 46 E.	0 15 E.	15·0 E. 14·4 E. 16·0 E. 14·8 E.	59 20 s. 		59·3 s.				Drury. Terror. D'Urville. Drury. Drury.
At sea	36 20 36 27 36 39	177 27 177 34 177 58	1859 1841 1841 1841 1855	13 12 E 14 24 E. 14 49 E.	0 17 w.	12·9 E. 14·4 E. 14·8 E.	59 54 s.		 59 9 s. 	12·11 12·38		12·11 12·08	Novara. Terror. Erebus. Erebus. Drury.
Cape Runaway	31 31 37 32	178 00 178 05 178 21 { 178 50	1855 1854 1853 1855 1854	14 47 E. 13 18 E. 14 47 E. 12 12 E.	0 12 w. 0 12 w. 0 12 w.	14·8 E. 13·1 E. 14·8 E. 12·0 E.	59 41 s.		59·7 s.			•••••	Drury. Denham. Kerr. Drury. Denham.
At sea (2 observations) At sea (10 observations) At sea (8 observations) At sea (13 observations)	38 03 38 14	179 32 179 47	1841 1841 1841 1841	14 55 E.		14·9 E. 14·7 E.				12·09 12·24 		12·09 12·24 	Erebus. Terror. Terror. Erebus.
At sea (6 observations) At sea (15 observations) At sea (3 observations) At sea	38 16	179 51 179 58 181 14 181 20	1841 1841 1850 1827	12 00 E.	0 15 E.	 12·3 E.	60 34 s. 60 37 s. 56 18 s.		60·6 s. 60·6 s. 56·3 s.	11.32		 11·32 	Erebus. Terror. Rattlesnake. D'Urville.
At sea (10 observations) At sea (17 observations) At sea (11 observations)	38 54	181 22 182 05 182 17 182 30	1859 1841 1841 1841	12 36 E.	0 17 w.	12·3 E. 	61 21 s. 61 34 s.		 61·3 s. 61·6 s.	12.29		12·29 	Novara. Terror. Terror. Erebus.

SOUTH EQUATORIAL ZONE IV.—Lat. 30° to 40° S. (continued).

					Declina	tion.		Inclina	ation.	For	ce in B	ritish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.		Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
At sea (4 observations) At sea (11 observations) At sea (13 observations) At sea (8 observations)	39 29 39 10	182 42 182 43	1841 1841 1841 1841	0 / 16 55 E. 14 43 E.	o /	0 16 9 E. 14 7 E.	o /		o	12·10 12·27		12·10 12·27	Erebus. Terror. Erebus. Terror.
At sea (16 observations) At sea (3 observations) At sea (3 observations) At sea (3 observations)	35 29 36 25	183 46 185 27	1841 1850 1850 1850		•••••		61 15 s. 56 18 s. 56 46 s. 57 19 s.		61 3 s. 56 3 s. 56 8 s. 57 3 s.	11·20 11·39 11·38		11·20 11·39 11·38	Terror. Rattlesnake. Rattlesnake. Rattlesnake.
At sea (2 observations) At sea (3 observations) At sea (3 observations) At sea (3 observations)	$\begin{bmatrix} 37 & 40 \\ 38 & 29 \end{bmatrix}$	190 54 193 54	1859 1850 1850 1859	11 40 E. 10 58 E.	0 17 w. 0 17 w.	11·4 E. 10·7 E.	57 20 s. 57 43 s.		57·3 s. 57·7 s.	11·23 11·49		11·23 11·49	Novara. Rattlesnake. Rattlesnake. Novara.
At sea (3 observations) At sea (3 observations) At sea (3 observations) At sea	34 59 32 14	197 37 197 47 202 35 213 18	1850 1859 1859 1830	11 02 E. 9 59 E. 8 24 E.	0 17 w. 0 17 w. 0 17 w. 0 12 E.	10.7 E. 9.7 E. 8.6 E.	58 24 s. 47 21 s.		58·4 s. 47·3 s.	11·32 10·44		11·32 10·44	Rattlesnake. Novara. Novara. Erman.
At sea	$\begin{array}{c} 32 \ 41 \\ 34 \ 35 \end{array}$	216 48	1830 1830 1830 1830	8 29 E. 7 44 E. 7 34 E.	0 12 E. 0 12 E. 0 12 E. 0 12 E.	8·7 E. 7·9 E. 7·8 E.	49 35 s. 51 14 s.	••••	49.6 s. 51.2 s.	10·57 10·34 		10·57 10·34 	Erman. Erman. Erman.
At sea	35 02 36 17	218 18 218 42 220 05 220 14	1830 1830 1830 1830	7 30 E. 6 24 E.	0 12 E. 0 12 E.	7·7 E 6·6 E.	54 16 s. 52 26 s. 52 18 s.		54·3 s. 52·4 s. 52·3 s.	11·18 10·44 10·62		11·18 10·44 10·62	Erman. Erman. Erman. Erman.
	35 21 34 28 30 40	220 21 220 33 236 28 241 34	1830 1830 1859 1859	8 15 E. 9 34 E. 10 42 E.	0 12 E. 0 17 w. 0 17 w.	8·5 E. 9·3 E. 10·4 E.	50 34 s.		50·6 s.	10.82		10·82 	Erman. Erman. Novara. Novara.
At sea	36 17 33 45 38 01 33 38	279 06	1827 1832 1836 1830	12 58 E. 16 00 E. 15 33 E. 17 13 E.	0 15 E. 0 10 E. 0 06 E.	13·2 E. 16·2 E. 15·7 E. 17·2 E.	 44 50 s.		44·8 s.				Prussian ships. Laplace. Bonite. King.
At sea	36 15	281 35 282 48 283 20 283 59	1859 1834 1836 1827	17 51 E. 17 27 E. 18 24 E. 16 34 E.		17·9 E. 17·5 E. 18·4 E. 16·6 E.							Novara. FitzRoy. Bonite. Lütke.
At sea	33 16 34 28 32 17 34 52	284 41 284 51 285 09 285 09	1859 1836 1859 1836	17 07 E. 16 05 E. 15 09 E. 17 31 E.		17·1 E. 16·1 E. 15·1 E. 17·5 E.						•••••	Novara. Bonite. Novara. Bonite.
At sea (4 observations) At sea (3 observations) At sea (4 observations) Mocha Island	36 37		1828 1827 1859 1823	16 27 E. 16 38 E. 15 11 E. 17 22 E.		16·5 E. 16·6 E. 15·2 E. 17·4 E.							Prussian ships. Lütke, Novara. Morrell.
Mean of 3 stations At sea (3 observations) Valdivia (2 stations)	33 12	286 15 286 24 286 37	1835 1827 1835	17 10 E. 15 50 E. 18 18 E.		17·2 E. 15·8 E. 18·3 E.	 46 46 s.		 46·8 s.				FitzRoy. Prussian ships. FitzRoy.
Concepcion	36 42	286 50	1823 1824 1825 1827 1829 1835	16 16 E. 15 00 E. 16 49 E. 17 02 E. 16 47 E. 16 48 E.		16·3 E. 15·0 E. 16·8 E. 17·0 E. 16·8 E.	44 42 s. 45 33 s. 45 10 s. 43 15 s.		44·7 s. 45·5 s. 45·2 s. 43·3 s.	9.60		9-60	Duperrey. Kotzebue. Beechey. Lütke. King. FitzRoy.
Near Maule (2 stations) At sea (2 observations) At sea	38 18 33 07 33 04	287 10 287 30 287 48 287 51 288 15	1835 1835 1836 1834 1835	16 36 E. 17 38 E. 14 19 E. 17 16 E. 16 34 E.		16·6 E. 17·6 E. 14·3 E. 17·3 E. 16·6 E.							FitzRoy. FitzRoy. Bonite. FitzRoy. FitzRoy.
At sea (2 observations) At sea	38 18 33 07 33 04	287 30 287 48 287 51	1835 1836 1834	17 38 E. 14 19 E. 17 16 E.	•••••	17·6 E. 14·3 E. 17·3 E.						•••••	FitzRoy. Bonite. FitzRoy.

SOUTH EQUATORIAL ZONE IV.—Lat. 30° to 40° S. (continued).

					Declinat	ion.		Inclina	ation.	For	ce in Bı	ritish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Observers.
Valparaiso	33 02	288 19 {	1823 1825 1827 1830 1831 1835 1836 1837 1838 1838 1838 1859 1866	15 41 E. 15 52 E. 14 26 E. 15 18 E. 15 00 E. 15 18 E. 15 35 E. 15 36 E. 15 40 E. 15 51 E.	0 /	0 15.7 E. 15.9 E. 14.4 E. 15.3 E. 15.0 E. 15.6 E	39 56 s. 40 11 s. 38 03 s. 37 05 s. 38 20 s. 38 43 s. 38 12 s. 35 40 s. 35 23 s. 54 23 s.		0 39·9 s. 40·2 s 38·1 s. 37·1 s. 38·3 s. 38·3 s. 38·2 s. 35·7 s. 35·4 s. 34·4 s.	7·94 7·76 7·62		777	Morrell. Beechey. Lütke. King. Laplace. FitzRoy. Beechey. La Vénus. La Vénus. La Vénus. Harkness. H.M.S. 'Nassau.'
PapudaBay(2 stations) Chaco de Montenegro. Santiago Casucha de la Cumbro Upsallata Mendoza	32 46 33 26 32 49 32 34	288 27 289 20 289 22 289 50 290 33 291 03	1835 1852 1852 1852 1852 1852	15 18 E. 16 22 E. 16 27 E. 15 06 E. 15 05 E.		15·3 E. 16·4 E. 16·5 E. 15·1 E.	35 10 s. 35 37 s. 34 52 s. 34 23 s.		35·2 s. 35·6 s. 34·9 s. 	7·94 7·94 7·73 7·76		7·94 7·94 7·73 7·76	FitzRoy. Macrae. Macrae. Macrae. Macrae. Macrae. Macrae.
Acorocorto San Luis de la Punta. Villa de la Concepcion Peje tree Station Colorado River (4) stations) Blanco Bay Hermosa Mount (5) stations) At sea (4 observations)	33 17 33 07 32 58 39 47 38 57 39 01 39 00	297 55 298 01 { 298 03 298 21	1852 1852 1852 1852 1852 1835 1828 1833 1832	14 56 E. 14 40 E. 13 28 E. 13 00 E. 15 40 E. 13 39 E. 15 00 E. 15 08 E.	0 28 w. 0 56 w. 0 36 w. 0 40 w. 0 36 w.	14·9 E. 14·7 E. 13·5 E. 13·0 E. 15·2 E. 12·7 E. 14·4 E. 14·5 E. 14·6 E.	34 26 s. 33 25 s. 32 38 s. 31 50 s. 43 12 s.		34·4 s. 33·4 s. 32·6 s. 31·8 s. 43·2 s.	7·73 7·63 7·50 7·40		7.73 7.63 7.50 7.40 	Macrae. Macrae. Macrae. Macrae. FitzRoy. D'Orbigny. FitzRoy. FitzRoy. FitzRoy.
El Rosario Bahada de Santa Fé Buenos Ayres Uruguay River Sandy Island Colonia	31 41 34 36 33 41	299 34 301 38 { 301 53 301 55	1852 1846 1829 1833 1852 1845 1845	12 01 E. 13 14 E. 13 10 E. 11 40 E. 11 45 E. 12 06 E. 11 14 E.	0 16 E. 0 52 W. 0 36 W. 0 10 E. 0 10 E.	12·0 E. 13·5 E. 12·3 E. 11·1 E. 11·8 E. 12·3 E. 11·4 E. 11·7 E.	30 57 s		30·9 s. 32·2 s. 	7.32		7·27 7·32	Macrae. Sulivan. D'Orbigny. FitzRoy. Macrae. Sulivan. Sulivan.
Cape Corrientes (4 stations)	38 00 34 42 35 48	302 21 302 28 302 53	1832 1832 1832	13 50 E. 11 33 E. 12 37 E.	0 42 w. 0 42 w. 0 42 w.	13·1 E. 10·9 E. 11·9 E.							FitzRoy. FitzRoy. FitzRoy.
At sea (7 observations At sea (3 observations At sea	34 51 35 41 38 50	303 12	1832 1838	12 13 E. 11 49 E.	0 42 w.	11.5 E. 11.1 E.	40 15 s		 40·3 s.	8.09		8.09	FitzRoy. FitzRoy. Sulivan.
At sea (3 observations At sea (3 observations At sea (3 observations	34 50	303 35	1832 1833 1832	12 36 E. 11 46 E. 12 28 E.	0 40 w.	11.9 E. 11.2 E. 11.8 E.							FitzRoy. FitzRoy. FitzRoy.
Monte Video	. 34 53	303 47	1827 1829 1830 1833 1836 1838 1843 1844 1852 1866 1867	12 07 E. 11 43 E. 11 42 E. 12 40 E. 10 35 E 10 42 E. 10 53 E. 10 13 E. 9 21 E.	0 52 w. 0 48 w. 0 36 w. 0 24 w. 0 06 E. 0 40 E. 1 36 E.	11·1 E, 10·9 E, 10·9 E, 10·2 E, 10·2 E, 10·7 E, 11·0 E, 10·9 E, 10·9 E, 10·9 E,	36 28 s 34 51 s 34 50 s 34 03 s 32 07 s 31 06 s 31 02 s		36·5 s. 	7·52 7·27 7·05 6·95		7.20	King. D'Orbigny. Duperrey. FitzRoy. Bonite. Sulivan. Sulivan. Sulivan. Macrae. Harkness. H.M.S. 'Nassau.'
Gorriti	34 57 . 35 14 . 38 37 . 35 52	305 13 305 45	1829 1833 1836 1837 1836	13 48 E. 12 28 E. 10 57 E. 10 34 E. 8 40 E.	0 36 w. 0 24 w. 0 20 w.	12·9 E. 11·9 E. 10·5 E. 10·2 E. 8·3 E.	35 06 s		35·1 s. 				King. FitzRoy. Bonite. Du Petit Thouars. Bonite.

					Declina	tion.		Inclina	tion.	Fore	e in Bri	tish Units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5,	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842.5.	Corrected.	Observers.
At sea	35 01 34 57	306 48 306 51 307 30 307 57	1836 1836 1836 1832	0 / 8 25 E. 10 14 E. 9 10 E. 10 27 E.	0 24 w. 0 24 w. 0 24 w. 0 24 w. 0 40 w.	8·0 E. 9·8 E. 8·8 E. 9·8 E.	o /		o 				Bonite. Bonite. Bonite. FitzRoy.
At sea	37 48 39 49		1830 1827 1830 1837	12 00 E. 12 12 E. 11 44 E. 6 33 E.	0 48 w. 1 00 w. 0 48 w. 0 20 w.	11·2 E. 11·2 E. 10·9 E. 6·2 E.	40 19 s.		40·3 s.	7·36		7·36	Biscoe. Lütke. Erman. Du Petit Thouars.
At sea. At sea. At sea. At sea.	38 29 33 42	309 26 309 31 309 39 309 40	1836 1830 1836 1830	8 18 E. 11 19 E. 6 56 E.	0 24 w. 0 48 w. 0 24 w.	7·9 E. 10·5 E. 6·5 E.	37 53 s.		 37:9 s.	7.36		7·36	Bonite. Erman. Bonite. Erman.
At sea (2 observations) At sea	37 55 37 09 36 54	309 54 309 55 310 00	1830 1830 1830	9 44 E. 9 34 E.	0 48 w. 0 48 w.	8·9 e. .8·8 e.	36 42 s.		36·7 s.	7·31		7·31	Erman. Erman. Erman.
At sea	31 44 34 49	310 40 310 55	1830 1838 1830 1832	8 21 E. 8 08 E. 6 55 E.	0 48 w. 0 56 w. 0 45 w.	7·5 E. 7·2 E. 6·2 E.	34 21 s. 28 22 s. 		34·3 s. 28·4 s. 	6·79 7·12		6·79 7·12 	Erman. Sulivan. Erman. FitzRoy.
At sea (3 observations) At sea	30 56 36 46	311 43 312 10	1827 1836 1830 1830	8 26 E. 4 44 E. 11 00 E. 7 18 E.	1 07 w. 0 27 w. 0 56 w. 0 56 w.	7·3 E. 4·3 E. 10·1 E. 6·4 E.							Lütke. Bonite. Biscoe. Erman.
At seaAt sea (7 observations) At sea	32 18 33 12	312 15 312 43 312 58 313 22	1830 1830 1831 1830	7 17 E. 6 46 E. 5 15 E.	0 56 w. 0 52 w. 0 56 w.	6·3 E. 5·9 E. 4·3 E.	30 03 s.		30·1 s. 	6.97		6·97 	Erman. Erman. Prussian ships. Erman.
At sea (3 observations) At sea (2 observations) At sea (3 observations) At sea (2 observations)	37 32 36 01	315 34	1850 1826 1850 1830	9 50 E. 6 15 E.	1 06 w. 0 56 w.	8·7 E. 5·3 E.	31 53 s. 30 11 s.		31.9 s. 30.2 s.	7·46 7·04		7·46 	Rattlesnake. Prussian ships. Rattlesnake. Biscoe.
		316 08 316 15	1850 1839 1846 1839	4 15 E.	0 24 в.	4.7 E.	29 04 s. 36 15 s. 34 30 s.		29·1 s. 36·3 s. 34·5 s.	6·99 7·35 7·07		6·99 7·35 7·07	Rattlesnake. Sulivan. Sulivan. Sulivan.
At sea	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	318 18 318 30 318 45 320 21	1843 1844 1846 1850	0 00 0 00 2 10 E.	0 06 E. 0 18 E.	0·0 0·1 e. 2·5 e.	28 49 s.		28·8 s.	6.97		6:97	Pasley. Pasley. Sulivan. Rattlesnake.
At sea	31 26 30 22 31 20 34 31	320 34 321 00 322 06 322 41	1844 1844 1844 1850	1 20 w. 1 00 w. 1 17 w.	0 06 E. 0 06 E. 0 06 E.	1·2 w. 0·9 w. 1·2 w.	27 40 s.		27·7 s.	6.93		6.93	Pasley. Pasley. Pasley. Rattlesnake.
	39 10 33 10 33 13 30 50	322 47 323 06 323 09 323 14	1859 1847 1847 1847	2 10 w. 2 48 w. 2 24 w.	1 14 E. 0 20 E. 0 20 E.	0·9 w. 2·5 w. 2·1 w.	28 00 s.		28·0 s.	6·72 		6·72	Novara. Rattlesnake. Stanley. Stanley.
At sea (3 observations) At sea (2 observations) At sea (3 observations) At sea	33 34	323 16 323 46 324 03 324 14	1847 1829 1829 1847	1 38 E. 4 14 E. 2 49 W.	1 05 w. 1 05 w. 0 24 E.	0·5 E. 3·1 E. 2·4 w.	25 02 s.		25·0 s.	6.57		6·57 	Rattlesnake. Rumker. Rumker. Stanley.
At sea (3 observations) At sea (3 observations) At sea (3 observations) At sea	32 12	324 23 325 52 326 48 326 57	1847 1850 1847 1847	2 37 w.	0 24 в.	 2·2 w.	31 27 s. 24 50 s. 33 55 s.		31·5 s. 24·8 s. 33·9 s.	6·87 6·89 6·80		6·87 6·89 6·80	Rattlesnake. Rattlesnake. Rattlesnake. Stanley.
At sea (3 observations) At sea At sea (3 observations) At sea (3 observations)	37 24 37 22	327 30 328 42 328 55 332 00	1850 1847 1847 1847	4 09 w.	0 24 E.	3·7 w.	22 23 s. 34 30 s. 34 52 s.		22·4 s. 34·5 s. 34·9 s.	6·67 6·86		6·67 6·86	Rattlesnake. Stanley. Rattlesnake. Rattlesnake.

					Declinat	ion.		Inclina	tion.	For	ce in Br	itish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	Ob- served.	Cor. to Epoch 1842:5.	Corrected.	Observers.
At sea	36 32 30 00	332 01 333 25 335 07 335 40	1847 1847 1857 1847	6 32 w. 7 51 w. 10 51 w.	0 24 E. 0 24 E. 1 15 E.	6·1 w. 7·5 w. 9·6 w.	° ′ 34 51 s.		34·9 s.	6.83		6.83	Stanley. Stanley. Novara. Rattlesnake.
At sea (3 observations) At sea (3 observations) At sea	30 13 36 31	336 28	1846 1826 1847 1842	7 40 w. 7 34 w. 10 00 w. 12 40 w.	0 20 E. 1 22 W. 0 23 E.	7·3 w. 8·9 w. 9·6 w. 12·7 w.							Bérard. D'Urville. Stanley. Bérard.
At sea. At sea. At sea. At sea. At sea.	35 18 30 47		1831 1846 1831 1831	11 03 w.	0 12 E.	10·9 w.	27 11 s. 28 05 s. 30 13 s.		27·2 s. 28·1 s. 30·2 s.	6·44 6·52 6·59		6:44 6:52 6:59	Dunlop. Bérard. Dunlop. Dunlop.
At sea (3 observations) At sea (3 observations) At sea At sea	36 08 35 31	338 30 338 40 340 26 341 00	1842 1847 1847 1831	 13 07 w.	0 18 E.	 12·8 w. 	31 45 s. 35 45 s. 32 46 s.		31·8 s 35·7 s. 32·8 s.	6·47 6·79 6·67		6·47 6·79 6·67	H.M.S. 'Fly.' Rattlesnake. Stanley. Dunlop.
At sea (2 observations) At sea (6 observations) At sea. At sea.	36 16 37 01	341 07 341 09	1846 1847 1847 1847	13 10 w. 11 13 w. 11 58 w.	0 12 E. 0 18 E. 0 18 E.	13·0 w. 10·9 w. 11·7 w.	35 54 s		35·9 s. 	6.74		6.74	Bérard. Rattlesnake. Stanley. Stanley.
At sea (3 observations) At sea	38 02 38 08	343 00 343 31	1826 1847 1847 1831	12 20 w. 13 07 w.	1 22 w. 0 27 E. 	13·7 w. 12·7 w. 	39 32 s 35 44 s		39·5 s. 35·7 s.	6·59 6·59		6·90 6·59	D'Urville. Stanley. Rattlesnake. Dunlop.
At seaAt seaAt seaAt seaAt seaAt seaAt sea	36 36 31 36	347 32	1846 1831 1857 1847	17 16 w. 19 40 w. 14 30 w.	0 21 E. 1 27 E. 0 27 E.	16·9 w. 18·2 w. 14·1 w.	38 02 s		38·0 s.	6.59		6·59 	Bérard. Dunlop. Novara. Stanley.
At sea (2 observations) At sea At sea (2 observations) At sea (3 observations)	37 12 30 15		1842 1831 1840 1847	16 00 w.		16·0 w. 	39 16 s 41 49 s		39·3 s. 41·8 s.	6·74 6·37 6·89		6·74 6·37 6·89	Bérard. Dunlop. Ross. Rattlesnake.
At seaAt seaAt seaAt seaAt sea	30 58 37 37	352 40 353 26 353 36 353 40	1847 1840 1831 1840	18 40 w. 21 48 w.	0 27 E. 0 15 w.	18·2 w. 22·1 w. 	40 50 s		40.8 s.	6·82 6·39		6·82 6·39	Stanley. Ross. Dunlop. Terror.
At sea (4 observations) At sea	36 05 35 27	355 21	1840 1847 1847 1840	20 02 w. 21 54 w.	0 27 E. 0 15 w.	19·6 w. 22·1 w.	42 19 s		42·3 s.	6·35 6·83		6·35 6·83 	Ross. Stanley. Rattlesnake. Ross.
At sea	. 37 40 . 34 00	$\begin{vmatrix} 355 & 51 \\ 356 & 02 \end{vmatrix}$	1847 1831 1857 1840	21 43 w. 23 40 w.		21 3 w. 22 5 w.	41 51 s	s	41·9 s.	6·89 6·39		6·89 6·39	Stanley. Dunlop. Novara. Terror.
At sea	35 23 35 24	356 39 356 45	1840 1847 1847 1847	23 08 w. 22 41 w		22·7 w. 22·4 w.	43 33 8	 	43·5 s.	6·53 6·93		6·53 6·93 	Ross. Stanley. Rattlesnake. Stanley.
At sea	. 31 13 . 36 58	358 26 358 28	1842 1840 1847 1847	21 00 w 22 16 w	·	21·0 w. 21·9 w.	44 21 8	 	44·3 s.	6·42 7·02		6·42 7·02	Bérard. Terror. Stanley. Rattlesnake.
At sea	.0101	359 26 359 26	1840 1840 1840 1847	23 29 w	0 10 w.	23·7 w.	45 46	S	45·8 s.	6·53 6·64 7·16		6·53 6·64 7·16	Ross. Ross. Rattlesnake.
At sea	. 31 13	359 31	1840 1840 1840	23 02 w 23 08 w		23·2 w. 23·3 w.				6 57		6.57	Terror. Ross. Ross.

SOUTH EQUATORIAL ZONE IV.—Lat. 30° to 40° S.	. (continued).
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					Declinat	ion.		Inclina	tion.	For	ce in Br	ritish units.	
Stations.	Lat. S.	Long. E.	Date.	Ob- served.	Correction to Epoch 1842.5.	Corrected.	Ob- served.	Cor. to Epoch 1842·5.	Corrected.	(I (JD-	Cor. to Epoch 1842.5.	~	Observers.
	0 1	0 1		0 1	0 1	0	0 /		0				
At sea	31 28	359 38	1847 1840 1842	22 28 w. 23 41 w.		22·2 w. 23·9 w. 	43 53 s.		 43·9 s.	6.63		6.63	Stanley. Ross. H.M.S. 'Fly.'
At sea	30 37	359 40 359 48 359 48	1840 1840 1840	23 08 w. 23 23 w. 	0 10 w. 0 10 w.	23·3 w. 23·5 w.	•••••		•••••	6·56		6·56	Ross. Ross. Terror.
At sea (4 observations) At sea At sea (2 observations) At sea	30 10 31 19	359 50 359 53 359 53 359 54	1840 1840 1840 1840							6·57 6·39 6·56 6·56		6·57 6·39 6·56 6·56	Ross. Terror. Ross. Terror.

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 the Equator and 40° S., 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.

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

Inclination.

Lati-	Gauss. Sabine.	Gauss. Sabine.	Gauss. Sabine.	Gauss. Sabine.	Gauss. Sabine.	Gauss. Sabine.	Lati-
tudes.	Long. 0° E.	Long. 10° E.	Long. 20° E.	Long. 30° E.	Long. 40° E.	Long. 50° E.	tudes.
00 s. 05 s. 10 s. 15 s. 20 s. 25 s. 30 s. 40 s.	7 36 N. 8 31 s. 9 57 s. 16 11 s. 18 03 s. 23 40 s. 25 21 s. 30 18 s. 31 40 s. 34 56 s. 37 03 s. 41 33 s. 45 19 s	0 ' 2 38 s 11 27 s 19 36 s 26 53 s. 37 29 s. 37 29 s. 38 24 s. 41 46 s. 42 42 s. 45 31 s. 46 11 s. 49 37 s. 49 03 s. 52 19 s.	0 ' 12 58 s. 21 30 s. 29 04 s. 35 30 s. 40 49 s. 45 02 s. 48 21 s. 51 10 s. 50 55 s. 53 49 s. 52 57 s. 56 19 s.	0 ' 21 44 s. 29 58 s. 36 59 s. 42 45 s. 47 19 s. 52 22 s. 53 22 s. 54 50 s. 55 14 s. 57 32 s. 56 37 s. 60 18 s.	58 44 s. 60 41 s.	30 24 s. 38 29 s. 45 11 s. 50 33 s. 47 50 s. 54 41 s. 52 23 s. 57 42 s. 56 13 s. 59 50 s. 61 12 s. 62 11 s.	00 s. 05 s. 10 s. 15 s. 20 s. 25 s. 30 s. 35 s. 40 s.
	Long. 60° E.	Long. 70° E.	Long. 80° E.	Long. 90° E.	Long. 100° E.	Long. 110° E.	***************************************
00 s. 05 s. 10 s. 15 s. 20 s. 25 s. 30 s. 35 s. 40 s.	30 04 s. 32 22 s. 32 22 s. 45 18 s. 40 34 s. 50 54 s. 46 47 s. 55 17 s. 52 11 s. 60 56 s. 61 47 s. 62 37 s. 63 51 s	27 29 s. 30 35 s. 36 08 s. 38 59 s. 49 28 s. 45 25 s. 54 18 s. 51 11 s. 58 05 s. 56 07 s. 63 09 s. 64 52 s. 31 07 s.	23 47 s. 32 50 s. 40 37 s. 47 09 s. 52 31 s. 50 22 s. 56 52 s. 55 19 s. 63 10 s. 65 30 s.	20 09 s. 29 33 s. 35 28 s. 44 46 s. 42 54 s. 50 38 s. 49 19 s. 55 31 s. 54 35 s. 59 35 s. 59 41 s. 65 52 s	42 54 s. 41 22 s. 49 09 s. 47 59 s. 54 27 s. 53 50 s.	16 03 s. 22 18 s. 34 16 s. 32 02 s. 41 44 s. 40 00 s. 48 11 s. 46 44 s. 53 43 s. 53 13 s. 58 32 s. 62 45 s. 66 29 s	00 s. 05 s. 10 s. 15 s. 20 s. 25 s. 30 s. 35 s. 40 s.
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00 s. 05 s. 10 s. 15 s. 20 s. 25 s. 30 s. 35 s. 40 s.	3 21 s. 6 40 s. 19 56 s. 16 45 s. 27 38 s. 26 43 s. 35 35 s. 41 29 s. 43 46 s. 47 38 s. 51 05 s. 53 21 s. 57 25 s	0 22 N. 8 20 s. 19 40 s. 24 58 s. 27 20 s. 32 33 s. 34 46 s. 45 58 s. 45 17 s. 51 53 s. 57 22 s.	2 55 N	4 14 n. 6 17 s. 16 17 s. 16 17 s. 16 17 s. 16 17 s. 23 15 s. 25 17 s. 31 16 s. 32 56 s. 45 06 s. 46 04 s. 51 00 s. 56 21 s	39 06 s. 38 50 s.	5 12 N. 5 04 s. 5 13 s. 15 02 s. 24 09 s. 32 24 s. 39 38 s. 45 58 s. 51 30 s. 56 23 s.	00 s. 05 s. 10 s. 15 s. 20 s. 25 s. 30 s. 35 s. 40 s.
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Force in British Units.

	Gauss.	Sabine.	Gauss.	Sabine.	Gauss.	Sabine.	Gauss.	Sabine.	Gauss.	Sabine.	Gauss.	Sabine.	
Lati- tudes.		Approximate and reconstruction					Gauss.	Babine.	Gauss.	babine.	,		Lati- tudes.
	Long. 0° E.		Long. 10° E.		Long. 20° E.		Long. 30° E.		Long. 40° E.		Long. 50° E.		vaces.
0	-												0
00 s,	6.55		6.47		6.56		6.79	,	7.07		7.32		00 s.
05 s.	6.32		6.34		6.54		6.85		7.19		7.48		05 s.
10 s.	6.18		6.28	•••••	6.57		6.94		7.33		7.66	8.0	10 s.
15 s.	6.12		6.31	••••	6.63		7.05		7.47		7.84	8.2	15 s.
20 s.	6.15		6.37		6.73		7.16		7.61	8.0	8 02	8.4	20 s.
25 s.	6.25	1	6.49		6 86	7.2	7.29	7.7	7.76	8.2	8.21	8.7	25 s.
	6.43	•••••	6.67	•••••	7.03	7.3	7.47	7.8	7.95	8.4	8.44	8.9	
30 s.		•••••		7.0									30 s.
35 s.	6.70	•••••	6.92	7.0	7.27	7·6	7.70	8.1	8.19	8.7	8.72	9.3	35 s.
40 s.	7.06		7.27	7.5	7.60	7.9	8.02	8.5	8.52	9.0	9.08	9.6	40 s.
	Long. 60° E.		Long. 70° E.		Long. 80° E.		Long. 90° E.		Long. 100° E.		Long. 110° E.		
00 s.	7.51		7.62		7.72		7.80		7.89		7.96		00 s.
05 s.	7 69	8.1	7.83	•••••	7.93	1	8.04	1	8.16	•••••	8.26	• • • • • • • • • • • • • • • • • • • •	05 s.
				0.6				•••••		0.0		0.2	
10 s.	7.91	8.3	8.08	8.6	8.24		8.39		8.56	9.2	8.71	9.3	10 s.
15 s.	8.13	8.5	8.38	8.8	8.60	9.0	8.82	9.3	9.06	9.5	9.27	9.7	15 s.
20 s.	8.37	8.8	8.69	9.0	9.00	9.5	9.31	9.8	9 63	10.0	9.91	10.3	20 s.
25 s.	8.63	9.0	9.03	9.5	9.44	9.9	9.85	10.4	10.25	10.7	10.61	11.0	25 s.
30 s.	8.92	9.4	9.41	9.9	9.91	10.5	10.41	11.0	10.91	11.4	11.34	11.7	30 s.
35 s.	9.26	9.8	9.83	10.4	10.42	11.0	11.01	11.6	11.58	12.0	12.09	12.4	35 s.
40 s.	9.68	10.2	10.31	10.8	10.97	11.5	11.63	12.1	12.26	12.5	12.83	13.0	40 s.
	Long. 120° E.		Long. 130° E.		Long. 140° E.		Long. 150° E.		Long. 160° E.		Long. 170° E.		
00 ~	7.07		700		7.70		7.55		7 00		7.15		00 s.
00 s.		0.0				0.1		0.0		•••••		•••••	
05 s.	8.31	8.9	8.28		8.15	9.1	7.94	9.0	7.69	•••••	7.46	•••••	05 s.
10 s.	8.81	9.4	8.81	9.5	8.68	9.6	8.49	9.5	8.21		7.94	•••••	10 s.
15 s.	9.42	9.9	9.46	10.0	9.37	10.1	9.16	10.1	8.88	9.9	8.57		15 s.
20 s.	10.13	10.5	10.21	10.7	10.15	10.7	9.96	10.7	9.66	10.5	9.34	10.2	20 s.
25 s.	10.88	11.3	11.02	11.4	11.00	11.4	10.83	11.4	10.55	11.1	10.22	10.8	25 s.
30 s	11.68	12.0	11.87	12.1	11.90	12.2	11.76	12.1	11.51	11.8	11.18	11.4	30 s.
35 s.	12.49	12.7	12.73	12.9	12.81	12.8	12.72	12.7	12.49	12.4	12.19	12.0	35 s.
40 s.	13.28		13.57		13.70		13.66		13.48	12.9	13.20		40 s.
Andrew Printers Springer	Long. 180° E.		Long. 190° E.		Long. 200° E.		Long. 210° E.		Long. 220° E.		Long. 230° E.		
İ											Hong. 200 H.		
00 s.	7.04		7.05		7.15		7.32		7.53		7.74		00 s.
05 s.	7.30		7.23		7.27		7.38		7.54	,	7.70		05 s.
10 s.	7.72	9.0	7.59		7.57		7.63	8.2	7.74	8.0	7.86		10 s.
15 s.	8.30	9.5	8.13	9.2	8.05		8.05	8.7	8.12	8.5	8.19	1	15 s.
												•••••	
20 s.	9.04	9.9	8.81	9.6	8 69	9.3	8.64	9.1	8.65	8.9	8.66		20 s.
25 s.	9.90	10.5	9.63	10.1	9.46	9.9	9.36	9.7	9.31	9.5	9.26	• • • • • • • • • • • • • • • • • • • •	25 s.
30 s.	10.85	11.0	10.56	10.7	10.33	10.3	10.18	10.2	10.06	10.0	9.94		30 s.
35 s.	11.86	11.6	11.54	11.3	11.28	10.9	11.07	10.8	10.88	10.6	10.69		35 s.
40 s.	12.88		12.56		12.26		11.99		11.73		11.47		40 s.
10 5.	1200	******				NAME OF STREET OF STREET							1000
	Long. 240° E.		Long. 250° E.		Long. 260° E.		Long. 270° E.		Long. 280° E.		Long. 290° E.		
00 s.	7.92		8.06		8.15		8.19		8.19		8.13		00 s.
	7.83	1	7.91		7.93	1	7.89		7.81		7.70		05 s.
05 s.				•	7.89	•••••	7.77	1	7.61	1	7.42		
10 s.	7.94		7.95	•••••		•••••						6.0	10 s.
15 s.	8.21		8.16	• • • • • • • • • • • • • • • • • • • •	8.03	•••••	7.82		7.58	•••••	7.31	6.9	15 s.
20 s.	8.63		8.52		8.31		8.03		7.70		7.37	6.8	20 s.
25 s.	9.16		8.98		8.71		8.36		7.97	7.7	7.56	7.0	25 s.
30 s.	9.78		9.53	•••••	9.20		8.79		8.33	8.1	7.87	7.5	30 s.
35 s.	10.45		10.14		9.75		9.29		8.79		8.29	8.1	35 s.
40 s.	11.16		10.79		10.35		9.85		9.32		8.78		40 s.
	Long. 300° E.		Long. 310° E.		Long. 320° E.		Long. 330° E.		Long. 340° E.		Long. 350° E.		1
	0.00		# OF										-
00 s.	8.03	•••••	7.87		7.65		7.38		7.07	1	6.77	•••••	00 s.
05 s.	7.56		7.38		7.17	6.9	6.92	6.9	6.67	6.7	6.44		05 s.
10 s.	6.48	6.9	7.02	6.8	6.80	6.6	6.58	6.5	6.37	6.4	6.21		10 s.
	7.06	6.7	6.81	6.6	6.57	6.4	6.36	$6\cdot 2$	6.18		6.09		15 s.
15 0				6.5	6.49	6.3	6.27	1	6.12		6 07		
15 s.					11.42	0.0	0.27		1 0.14		0.07		20 s.
20 s.	7.04	6.6	6.75					1	0.10	1	0.15	0.0	0.5
20 s. 25 s.	7·04 7·18	6.8	6.83	6.6	6.54	6.4	6.32		6.18		6.15	6.2	25 s.
20 s.	7·04 7·18 7·44	6·8 7·0	6·83 7·05		6·54 6·73	6·4 6·6	6·32 6·49	6.4	6 35		6.33	6.2	30 s.
20 s. 25 s. 30 s.	7·04 7·18 7·44	6·8 7·0	6.83	6.8	6.54	6.4	6.32			• • • • • • • • • • • • • • • • • • • •			30 s.
20 s. 25 s.	7·04 7·18	6.8	6·83 7·05	6.6	6·54 6·73	6·4 6·6	6·32 6·49	6.4	6 35	1	6.33	1	

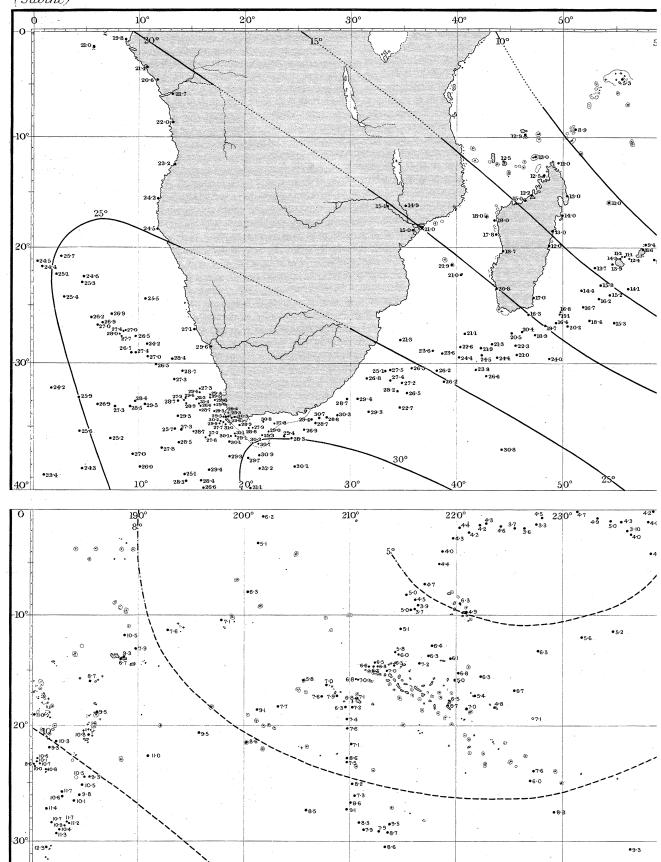
In the preceding Numbers of these Contributions the great assistance received for many years past from the Hydrographic Office of the Admiralty has been thankfully acknowledged. In tracing now the last lines of the present number, which completes the series, these acknowledgments must be expressed anew, and with redoubled earnestness; for without the cordial and truly invaluable assistance of Captain Evans, and of Staff-Commander E. W. CREAK of his Department, its preparation, under the weight of broken health and increasing weakness, would have been impossible.

ERRATA IN CONTRIBUTION No. XV.

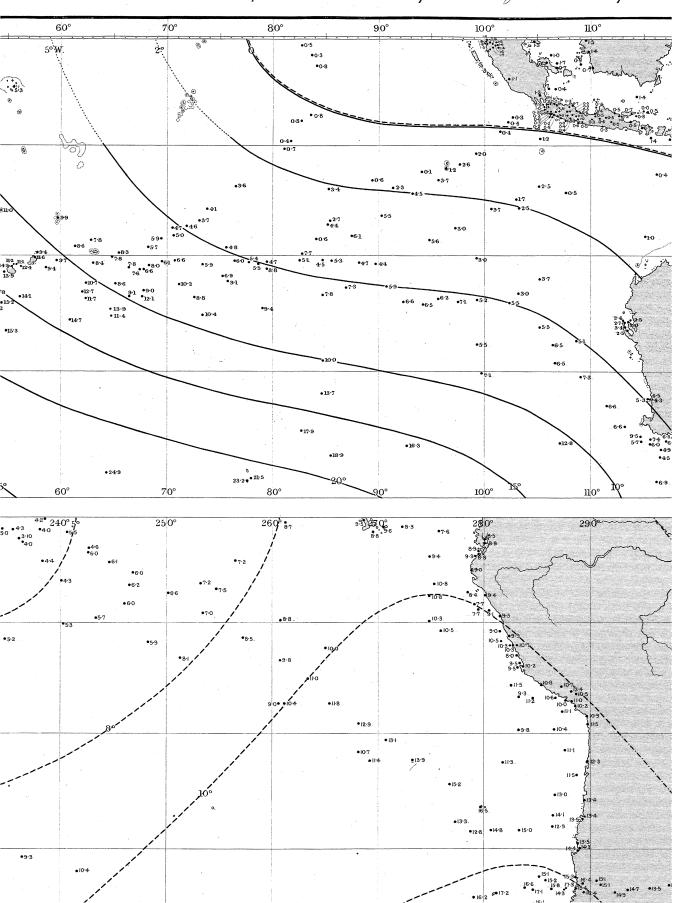
Page 464, line 19. Aji Bārang, for Lat. 2° 25′ S. read 7° 25′ S.
Page 475, line 2. Declination. At sea—Lat. 17° 15′ S., Long. 292° 45′ E. should be expunged.

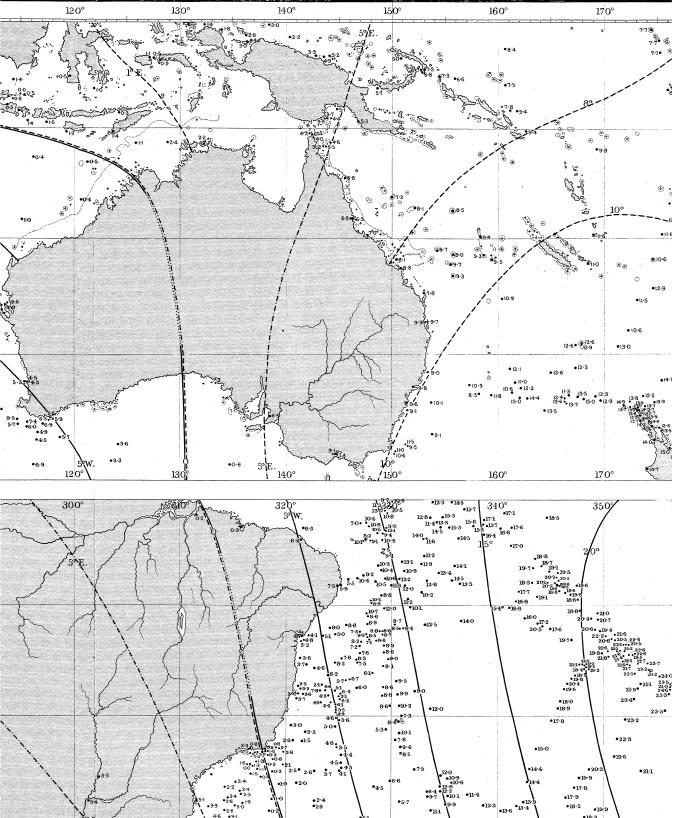
MAGNETIC SURV

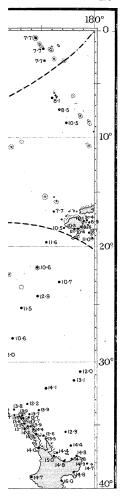


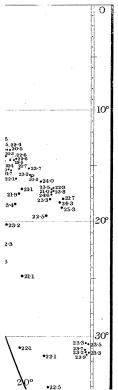


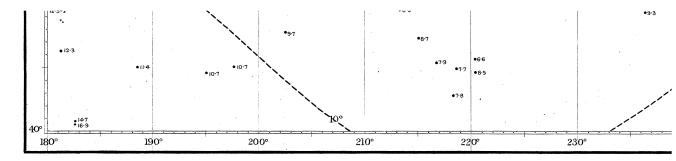
URVEY_ between the Equator and the parallel of 40°S._Epoch

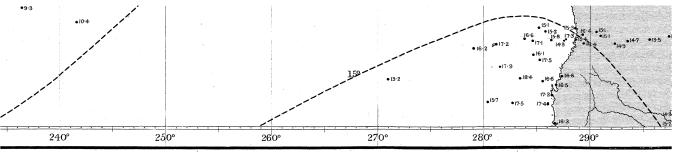


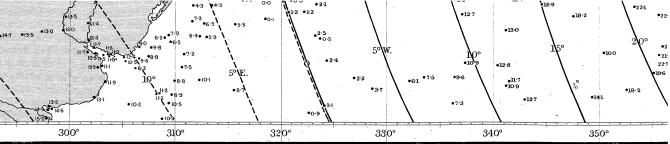




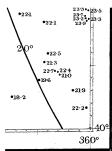








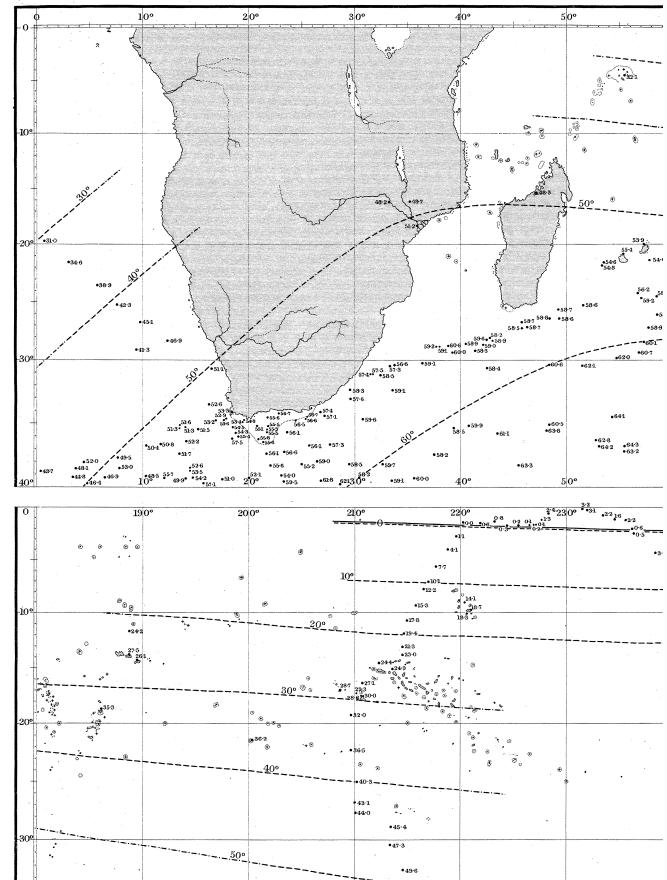
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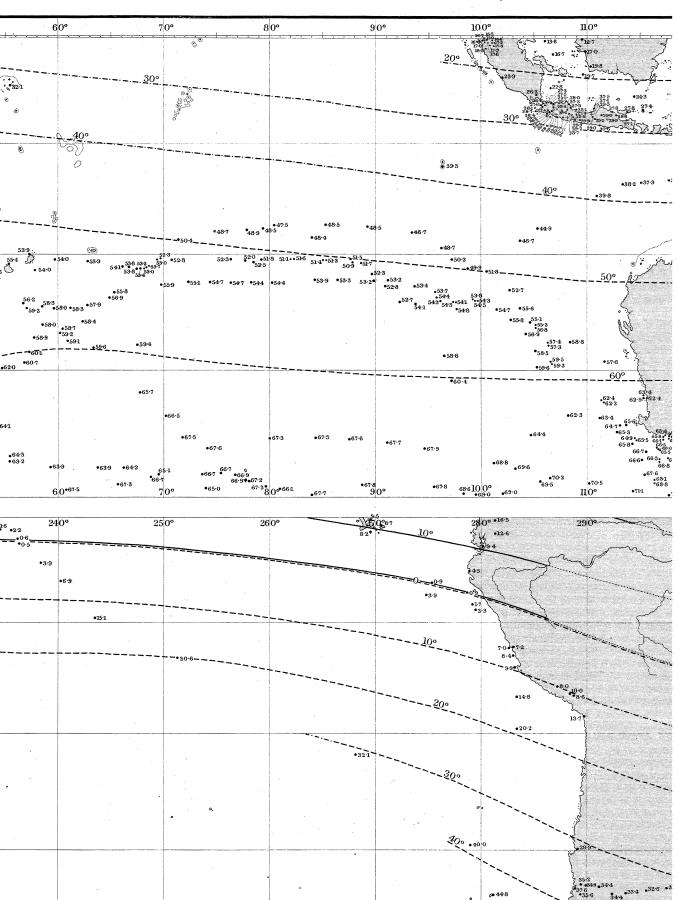
Engraved by Malby & Sons

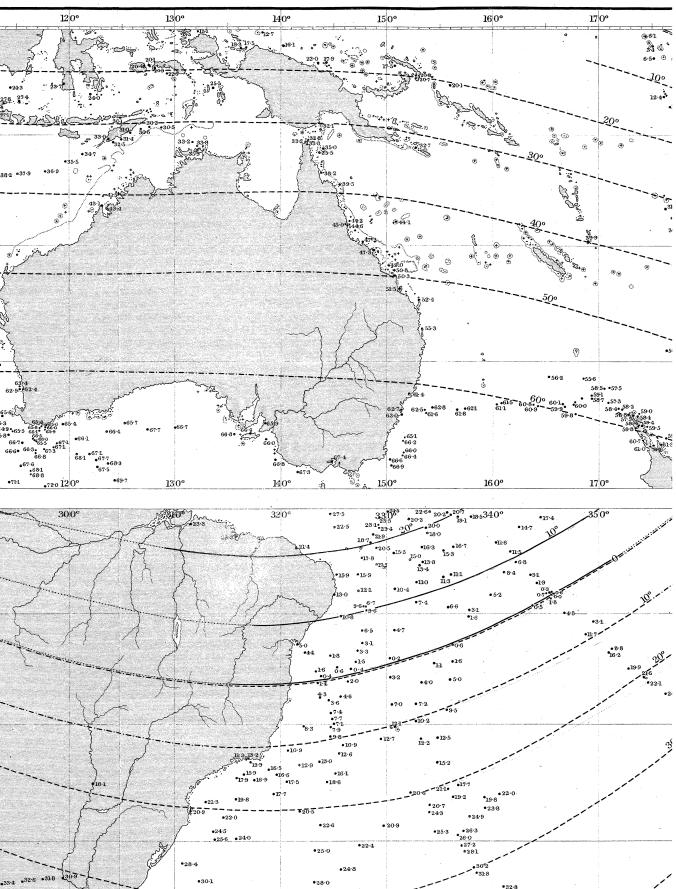
MAGNETIC SURV

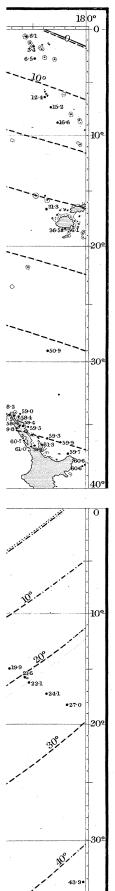


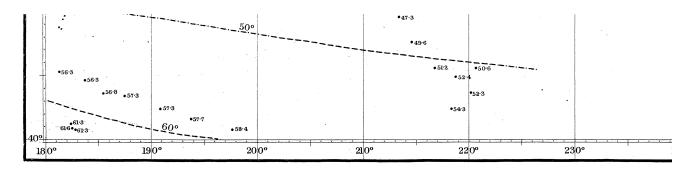


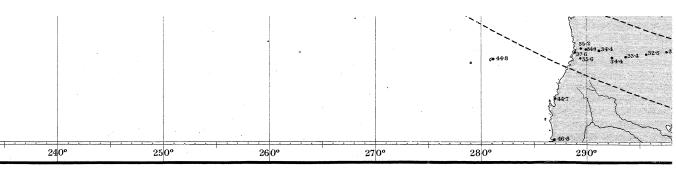
URVEY_ between the Equator and the parallel of 40°S._Epoch

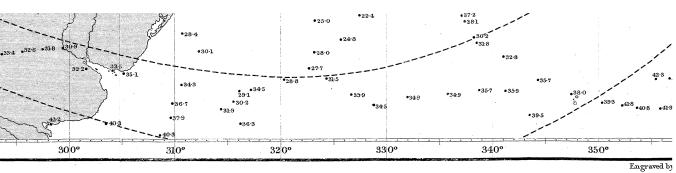


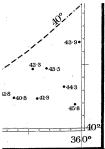






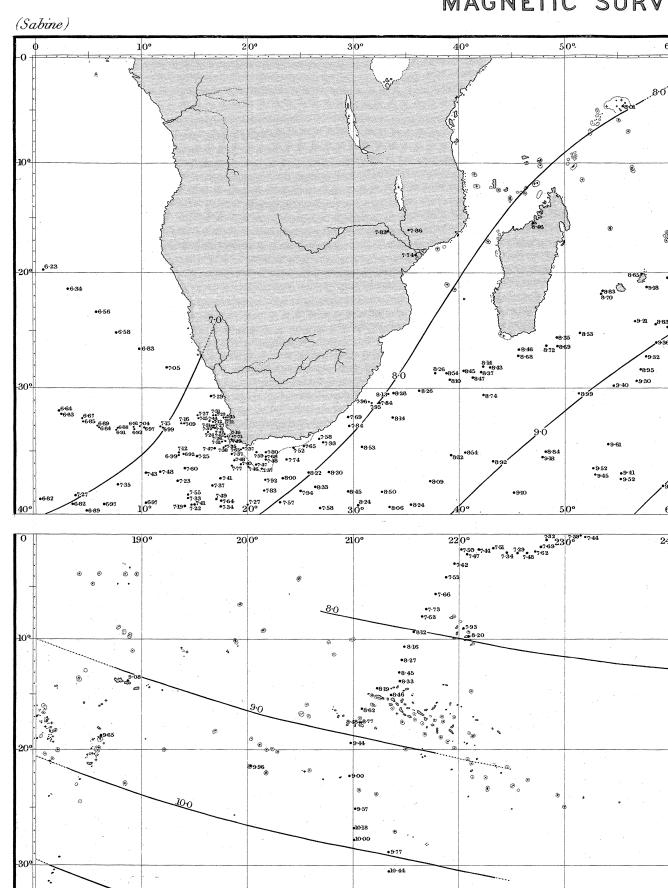




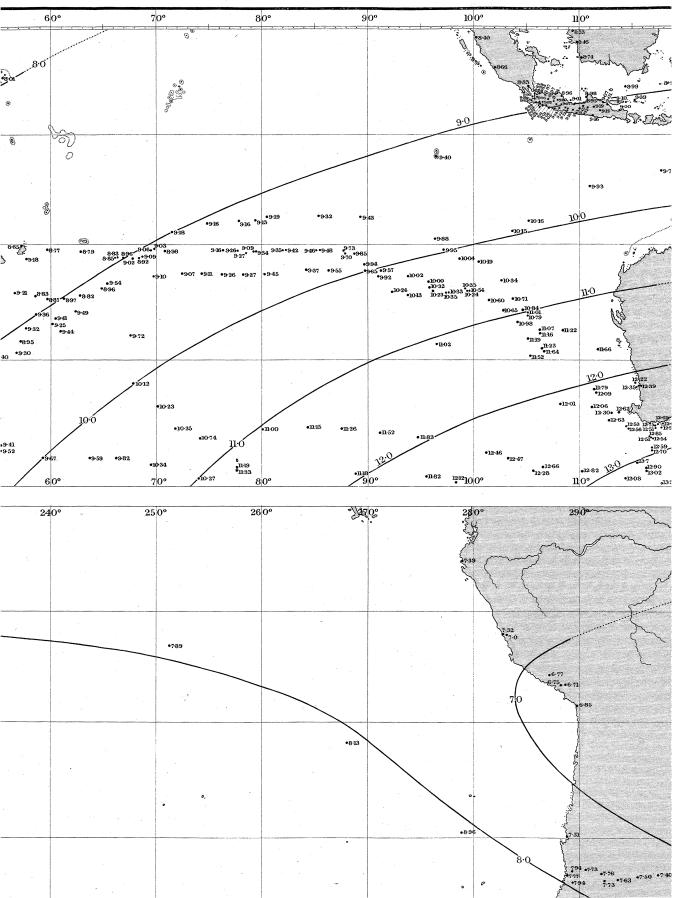


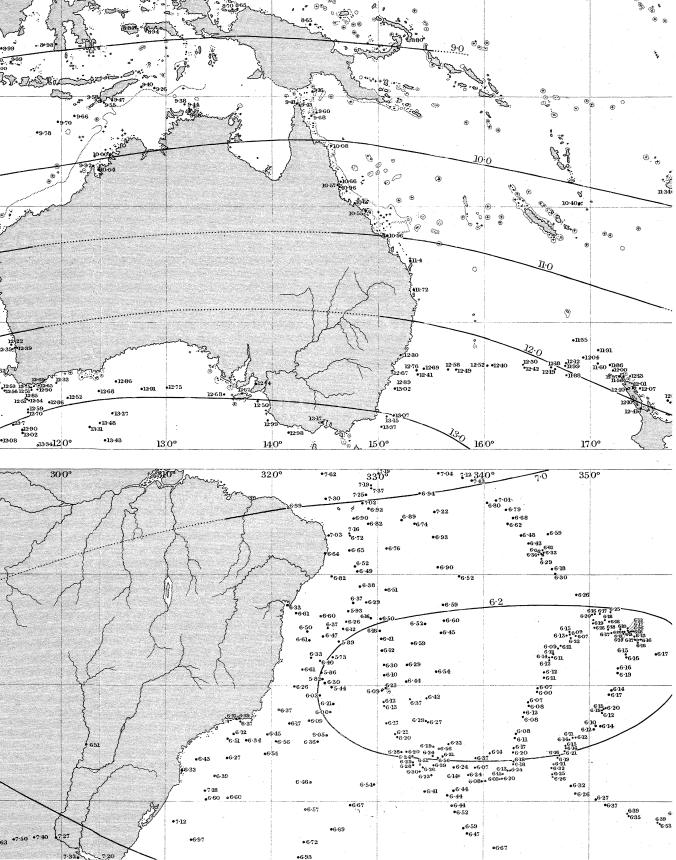
Engraved by Malby & Sons.

MAGNETIC SURV



JRVEY_between the Equator and the parallel of 40°S._Epoch

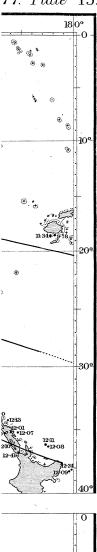


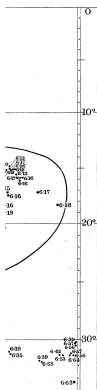


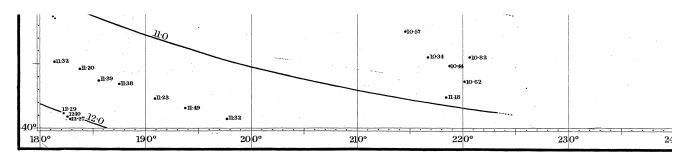
150°

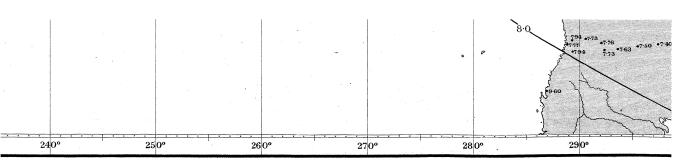
160°

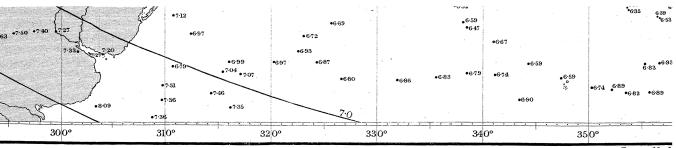
77. Plate 19.



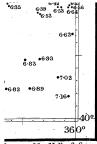








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