

90°			L°	t°
A	C	Z'		
∞	0	∞	0	0
175814	0	0	1	1
145718	0	0	2	2
128120	0	0	3	3
115642	1	0	4	4
105970	2	0	5	5
98077	2	0	6	6
91411	3	0	7	7
85644	4	0	8	8
80567	5	0	9	9
76033	7	0	10	10
71940	8	0	11	11
68212	10	0	12	12
64791	11	0	13	13
61632	13	0	14	14
58700	15	0	15	15
55966	17	0	16	16
53406	19	0	17	17
51002	22	0	18	18
48736	24	0	19	19
46595	27	0	20	20
44567	30	0	21	21
42642	33	0	22	22
40812	36	0	23	23
39069	39	0	24	24
37405	43	0	25	25
35816	46	0	26	26
34295	50	0	27	27
32839	54	0	28	28
31443	58	0	29	29
30103	62	0	30	30
28816	67	0	31	31
27579	72	0	32	32
26389	76	0	33	33
25244	81	0	34	34
24141	87	0	35	35
23078	92	0	36	36
22054	98	0	37	37
21066	103	0	38	38
20113	110	0	39	39
19193	116	0	40	40
18306	122	0	41	41
17449	129	0	42	42
16622	136	0	43	43
15823	143	0	44	44
15051	151	0	45	45
14307	158	0	46	46
13587	166	0	47	47
12893	174	0	48	48
12222	183	0	49	49
11575	192	0	50	50
10950	201	0	51	51
10347	211	0	52	52
9765	221	0	53	53
9204	231	0	54	54
8664	241	0	55	55
8143	252	0	56	56
7641	264	0	57	57
7158	276	0	58	58
6693	288	0	59	59
6247	301	0	60	60
5818	314	0	61	61
5407	328	0	62	62
5012	343	0	63	63
4634	358	0	64	64
4272	374	0	65	65
270°	90°			t°

Table I-A
LATITUDES 66° TO 90°, INCLUSIVE

The following values will make these tables available for all latitudes. They were first computed by Mr. E. B. Collins, for the Byrd expedition to the Antarctic in 1929.
 EXAMPLE.—In flight, November 29, 1929, about 0100, in lat. 89° S., long. 164° W., at G. C. T. 12^h 21^m 10^s, the altitude of the sun by bubble sextant sight at an elevation of 11,000 feet was 20°20'. Find line of position.

(Case II; L. H. A. between 90° and 270°)

Table 1-A

G. C. T.-----	h	m	s	Dec.-----	21° 27'.4 S.
Eq. of t.-----		+11	42		
G. A. T.-----	12	32	52	h_s -----	20° 20'
G. H. A.-----	0	32	52	Corr. bubble sextant.---	-3'
Arc.-----	8°	13'	W.	h_o -----	20° 17'
Long.-----	164°	13'	W.		
L. H. A.-----	204° W. } d 21° 27'.4 S.			A 00001	C 2149 Z' 66°0 N.
Lat.-----	89° S. } b 0° 54'.8 N.			B 45480	D 426
	$d \sim b$ 20° 32'.6 S.			A+B 45481	C+D 2575 Z'' 89°9 S.
h_c -----	20° 32'.6				S 23°9 E.
h_o -----	20° 17'.0				
	15'.6 away from S. 24° E.				

Table II

Explanation of the Construction and Use of Tables

TABLE I-A

L°	t°	1°			2°			L°
		A	C	Z'	A	C	Z'	
66	23 59.8	1.0	2149	89.1	4.4	1848	88.2	66
67	22 59.8	1.0	2167	89.1	4.0	1865	88.2	67
68	21 59.8	0.9	2184	89.1	3.6	1884	88.1	68
69	20 59.8	0.8	2204	89.1	3.3	1903	88.1	69
70	19 59.8	0.8	2225	89.1	3.1	1923	88.1	70
71	18 59.8	0.7	2246	89.1	2.8	1944	88.1	71
72	17 59.9	0.6	2269	89.0	2.5	1967	88.1	72
73	16 59.9	0.6	2293	89.0	2.3	1991	88.1	73
74	15 59.9	0.5	2319	89.0	2.1	2016	88.1	74
75	14 59.9	0.4	2346	89.0	1.8	2044	88.1	75
76	13 59.9	0.4	2375	89.0	1.5	2074	88.1	76
77	12 59.9	0.3	2406	89.0	1.3	2105	88.1	77
78	11 59.9	0.3	2439	89.0	1.1	2140	88.0	78
79	10 59.9	0.2	2479	89.0	1.0	2176	88.0	79
80	9 59.9	0.2	2519	89.0	0.8	2218	88.0	80
81	8 59.9	0.2	2563	89.0	0.6	2262	88.0	81
82	7 59.9	0.1	2617	89.0	0.5	2313	88.0	82
83	6 59.9	0.1	2673	89.0	0.4	2372	88.0	83
84	5 59.9	0.1	2737	89.0	0.3	2439	88.0	84
85	5 00.0	0.1	2820	89.0	0.2	2515	88.0	85
86	4 00.0	0.0	2913	89.0	0.1	2611	88.0	86
87	3 00.0	0.0	3045	89.0	0.1	2737	88.0	87
88	2 00.0	0.0	3214	89.0	0.0	2913	88.0	88
89	1 00.0	0.0	3536	89.0	0.0	3214	88.0	89
90	0 00.0	0.0	∞	89.0	0.0	∞	88.0	90
	181°		179°		182°		178°	
L°	t°	3°			4°			L°
		A	C	Z'	A	C	Z'	
66	23 58.2	9.8	1672	87.3	17.5	1547	86.3	66
67	22 58.3	9.1	1689	87.2	16.1	1565	86.3	67
68	21 58.4	8.3	1708	87.2	14.8	1583	86.3	68
69	20 58.4	7.6	1727	87.2	13.6	1602	86.3	69
70	19 58.5	6.9	1747	87.2	12.4	1622	86.2	70
71	18 58.5	6.3	1768	87.2	11.2	1644	86.2	71
72	17 58.6	5.7	1791	87.1	10.1	1666	86.2	72
73	16 58.7	5.1	1815	87.1	9.0	1691	86.2	73
74	15 58.8	4.5	1841	87.1	8.0	1716	86.2	74
75	14 58.8	4.0	1868	87.1	7.1	1743	86.1	75
76	13 58.9	3.5	1898	87.1	6.2	1773	86.1	76
77	12 59.0	3.0	1929	87.1	5.3	1805	86.1	77
78	11 59.0	2.6	1963	87.1	4.6	1838	86.1	78
79	10 59.1	2.2	2001	87.1	3.8	1875	86.1	79
80	9 59.2	1.8	2042	87.0	3.2	1917	86.1	80
81	8 59.3	1.4	2088	87.0	2.6	1962	86.0	81
82	7 59.4	1.1	2138	87.0	2.1	2012	86.0	82
83	6 59.4	0.9	2196	87.0	1.6	2071	86.0	83
84	5 59.5	0.6	2262	87.0	1.2	2137	86.0	84
85	4 59.6	0.4	2341	87.0	0.7	2216	86.0	85
86	3 59.7	0.3	2436	87.0	0.5	2314	86.0	86
87	2 59.8	0.2	2563	87.0	0.3	2436	86.0	87
88	1 59.8	0.1	2737	87.0	0.1	2611	86.0	88
89	0 59.9	0.0	3045	87.0	0.0	2913	86.0	89
90	0 00.0	0.0	∞	87.0	0.0	∞	86.0	90
	183°		177°		184°		176°	

L°	t°	355°		5°	
		b	A	C	Z'
66	23 55.1	27.3	1450	85.0	85
67	22 55.3	25.1	1468	85.0	85
68	21 55.5	23.2	1486	85.0	85
69	20 55.6	21.1	1505	85.0	85
70	19 55.8	19.3	1526	85.0	85
71	18 56.0	17.5	1547	85.0	85
72	17 56.2	15.8	1570	85.0	85
73	16 56.3	14.0	1594	85.0	85
74	15 56.5	12.5	1619	85.0	85
75	14 56.7	11.1	1646	85.0	85
76	13 56.9	9.7	1675	85.0	85
77	12 57.1	8.3	1708	85.0	85
78	11 57.3	7.1	1742	85.0	85
79	10 57.5	6.0	1780	85.0	85
80	9 57.8	5.0	1820	85.0	85
81	8 58.0	4.0	1865	85.0	85
82	7 58.2	3.1	1916	85.0	85
83	6 58.4	2.4	1974	85.0	85
84	5 58.6	1.7	2040	85.0	85
85	4 58.9	1.2	2120	85.0	85
86	3 59.1	0.7	2216	85.0	85
87	2 59.3	0.4	2340	85.0	85
88	1 59.5	0.1	2515	85.0	85
89	0 59.8	0.0	2820	85.0	85
90	0 00.0	0.0	∞	85.0	85
	185°		175°		
L°	t°	353°		7°	
		b	A	C	Z'
66	23 50.5	53.4	1304	83.0	83
67	22 50.8	49.3	1322	83.0	83
68	21 51.1	45.3	1341	83.0	83
69	20 51.4	41.5	1360	83.0	83
70	19 51.8	37.7	1380	83.0	83
71	18 52.1	34.2	1402	83.0	83
72	17 52.5	30.8	1424	83.0	83
73	16 52.8	27.6	1448	83.0	83
74	15 53.2	24.5	1474	83.0	83
75	14 53.6	21.6	1501	83.0	83
76	13 54.0	18.9	1530	83.0	83
77	12 54.4	16.3	1560	83.0	83
78	11 54.8	13.9	1590	83.0	83
79	10 55.2	11.7	1630	83.0	83
80	9 55.6	9.7	1670	83.0	83
81	8 56.0	7.9	1710	83.0	83
82	7 56.5	6.2	1750	83.0	83
83	6 56.9	4.7	1800	83.0	83
84	5 57.3	3.5	1850	83.0	83
85	4 57.8	2.4	1910	83.0	83
86	3 58.2	1.6	2000	83.0	83
87	2 58.7	0.9	2100	83.0	83
88	1 59.1	0.4	2250	83.0	83
89	0 59.6	0.0	2450	83.0	83
90	0 00.0	0.0	∞	83.0	83
	187°		171°		