EED-DISTANCE TABLE

nots or miles per hour

	90	95	100	105	110	120	150
1.4	1.5	1.6	1.7	1.8	1.8	2	2.5
2.8	3.0	3.2	3.3	3.5	3.7	4	5.0
4.2	4.5	4.7	5.0	5.5	5.5	6	7.5
5.6	6	6.3	6.7	7	7.3	8	10
7.1	7.5	7.9	8.3	8.8	9.2	10	12.5
8.5	9	9.5	10	10.5	11	12	15
9.9	10.5	11.1	11.7	12.3	12.8	14	17.5
11.3	12	12.6	13.3	14	14.7	16	20
12.8	13.5	14.2	15	15.8	16.5	18	22.5
14.1	15	15.8	17	17.5	18.3	20	25
15.5	16.5	17	18	19	20	22	28
17	18	19	20	21	22	24	30
18	20	21	22	23	24	26	33
20	21	22	23	24	24	28	35
21	22	24	25	26	27	30	38
23	24	25	27	28	29	32	40
24	26	27	28	30	31	34	43
26	27	28	30	32	33	36	45
27	29	30	32	33	33	38	48
28	30	32	33	35	37	40	50
30	32	33	35	37	34	42	53
31	33	35	37	39	40	44	55
32	35	36	38	40	42	46	58
34	36	38	40	43	44	48	60
35	38	40	42	44	46	50	63
37	39	41	43	45	45	52	65
38	41	43	45	47	49	54	68
39	42	44	47	49	51	56	70
41	44	46	48	51	53	58	73
42	45	47	50	52	55	60	75
44	47	49	51	54	57	62	78
45	48	51	53	56	59	64	80
47	50	53	55	58	61	66	83
48	51	54	56	60	62	68	85
50	53	56	58	61	64	70	88
51	54	57	60	63	66	72	90
53	56	59	61	65	68	74	93
54	57	60	63	67	70	76	95
56	59	61	65	68	71	78	98
57	60	63	66	70	73	80	100
59	62	65	68	72	75	82	103
60	63	66	70	74	77	84	105
62	65	68	71	75	79	86	108
63	66	70	73	77	81	88	110
64	68	71	75	79	83	90	113
66	69	73	76	81	84	92	115
67	71	74	78	83	86	94	118
68	73	76	80	84	88	96	120
69	74	77	81	86	90	98	123
71	75	79	83	88	92	100	125
72	77	81	85	89	91	102	128
73	78	82	86	91	95	104	130
75	80	84	88	93	97	106	133
76	81	85	90	95	99	108	135
78	83	87	91	96	101	110	138
79	84	88	93	98	103	112	140
80	85	90	95	100	104	114	143
82	87	92	94	102	106	116	145
83	88	93	98	103	108	118	148
85	90	95	100	103	110	120	150

NAVIGATION TABLES

FOR

MARINERS AND AVIATORS

SIXTH EDITION

DREISONSTOK

TABLE I

t° / L°	339° b	21° A	C	Z'	338° h	22° A	C	Z'	t° / L°
0	90 0.0	2985	446	90.0	90 0.0	3253	426	90.0	0
1	88 55.7	2984	446	89.6	88 55.3	3282	426	89.6	1
2	87 51.5	2981	446	89.2	87 50.6	3279	427	89.2	2
3	86 47.2	2976	446	88.8	86 45.9	3273	427	88.8	3
4	85 43.0	2969	447	88.5	85 41.2	3266	427	88.4	4
5	84 38.8	2961	447	88.1	84 36.6	3256	428	88.0	5
6	83 34.6	2950	448	87.7	83 32.0	3245	429	87.6	6
7	82 30.4	2935	449	87.3	82 27.4	3231	430	87.2	7
8	81 26.3	2923	450	86.9	81 22.8	3214	431	86.8	8
9	80 22.3	2907	451	86.6	80 18.4	3196	432	86.4	9
10	79 18.3	2889	452	86.2	79 13.9	3176	433	86.0	10
11	78 14.3	2869	454	85.8	78 9.6	3154	434	85.6	11
12	77 10.4	2847	455	85.4	77 5.3	3130	436	85.2	12
13	76 6.6	2823	457	85.1	76 1.1	3104	438	84.8	13
14	75 2.8	2798	459	84.7	74 56.9	3077	439	84.4	14
15	73 59.2	2771	461	84.3	73 52.9	3047	441	84.0	15
16	72 55.5	2743	463	84.0	72 48.9	3016	443	83.6	16
17	71 52.0	2713	465	83.6	71 45.0	2982	446	83.3	17
18	70 48.6	2681	467	83.2	70 41.3	2947	448	82.9	18
19	69 45.3	2649	470	82.9	69 37.6	2911	451	82.5	19
20	68 42.1	2614	473	82.5	68 34.0	2873	453	82.1	20
21	67 38.9	2578	475	82.2	67 30.6	2833	456	81.8	21
22	66 35.9	2541	478	81.8	66 27.3	2792	459	81.4	22
23	65 33.0	2502	482	81.5	65 24.1	2749	462	81.0	23
24	64 30.2	2462	486	81.1	64 21.0	2704	466	80.7	24
25	63 27.5	2421	488	80.8	63 18.1	2660	469	80.3	25
26	62 25.0	2379	492	80.4	62 15.2	2612	473	80.0	26
27	61 22.5	2335	496	80.1	61 12.6	2565	477	79.6	27
28	60 20.2	2290	500	79.8	60 10.0	2516	480	79.3	28
29	59 18.0	2246	504	79.5	59 7.6	2466	484	78.9	29
30	58 16.0	2199	508	79.1	58 5.4	2414	488	78.6	30
31	57 14.1	2153	512	78.8	57 3.3	2363	493	78.2	31
32	56 12.3	2104	517	78.5	56 1.3	2311	498	77.9	32
33	55 10.6	2056	522	78.2	54 59.5	2257	503	77.6	33
34	54 9.1	2007	527	77.9	53 57.9	2203	508	77.3	34
35	53 7.8	1957	532	77.6	52 56.4	2148	513	77.0	35
36	52 6.5	1907	537	77.3	51 55.1	2092	518	76.6	36
37	51 5.4	1856	543	77.0	50 53.9	2036	524	76.3	37
38	50 4.5	1805	549	76.7	49 52.9	1979	530	76.0	38
39	49 3.7	1753	555	76.4	48 52.0	1923	536	75.7	39
40	48 3.1	1701	561	76.1	47 51.3	1866	542	75.4	40
41	47 2.5	1650	568	75.9	46 50.8	1809	548	75.2	41
42	46 2.2	1597	574	75.6	45 50.4	1752	555	74.9	42
43	45 2.0	1545	581	75.3	44 50.1	1694	562	74.6	43
44	44 1.9	1493	588	75.1	43 50.1	1637	569	74.3	44
45	43 2.0	1441	596	74.8	42 50.2	1580	577	74.1	45
46	42 2.2	1389	604	74.6	41 50.4	1523	585	73.8	46
47	41 2.5	1338	612	74.3	40 50.8	1465	593	73.5	47
48	40 3.0	1287	620	74.1	39 51.4	1409	601	73.3	48
49	39 3.7	1235	629	73.8	38 52.1	1353	609	73.0	49
50	38 4.4	1184	637	73.6	37 53.0	1297	618	72.8	50
51	37 5.4	1134	647	73.4	36 54.0	1241	627	72.6	51
52	36 6.4	1083	656	73.2	35 55.2	1187	637	72.3	52
53	35 7.6	1034	666	73.0	34 56.5	1133	647	72.1	53
54	34 8.9	986	676	72.7	33 57.9	1080	657	71.9	54
55	33 10.4	938	687	72.5	32 59.6	1028	668	71.7	55
56	32 11.9	890	698	72.3	32 1.3	974	679	71.5	56
57	31 13.6	844	709	72.2	31 3.2	923	690	71.3	57
58	30 15.5	798	721	72.0	30 5.2	873	702	71.1	58
59	29 17.4	752	733	71.8	29 7.4	824	714	70.9	59
60	28 19.5	709	746	71.6	28 9.6	776	727	70.7	60
61	27 21.7	666	760	71.4	27 12.0	728	741	70.5	61
62	26 24.0	623	774	71.3	26 14.6	683	755	70.4	62
63	25 26.4	583	789	71.1	25 17.2	637	769	70.2	63
64	24 28.9	543	804	71.0	24 20.0	593	785	70.0	64
65	23 31.5	504	820	70.8	23 22.9	551	801	69.9	65
t°	201°	159°			202°	158°			t°

t° / L°	337° b	23° A	C	Z'
0	90 0.0	3597	408	90.
1	88 54.8	3596	408	89.
2	87 49.6	3593	408	89.
3	86 44.5	3587	409	88.
4	85 39.3	3578	409	88.
5	84 34.2	3567	410	87.
6	83 29.2	3555	411	87.
7	82 24.1	3540	411	87.
8	81 19.2	3521	412	88.
9	80 14.2	3503	414	88.
10	79 9.4	3480	415	85.
11	78 4.6	3456	416	85.
12	76 59.9	3429	418	85.
13	75 55.2	3401	419	84.
14	74 50.7	3370	421	84.
15	73 46.2	3337	423	83.
16	72 41.9	3303	425	83.
17	71 37.6	3265	428	82.
18	70 33.5	3226	430	82.
19	69 29.5	3186	432	82.
20	68 25.6	3144	435	81.
21	67 21.8	3100	438	81.
22	66 18.1	3055	441	81.
23	65 14.6	3008	444	80.
24	64 11.3	2960	447	80.
25	63 8.1	2910	451	79.
26	62 5.0	2858	454	79.
27	61 2.1	2806	458	79.
28	59 59.3	2752	462	78.
29	58 56.7	2697	466	78.
30	57 54.2	2640	471	78.
31	56 51.9	2583	475	77.
32	55 49.8	2525	480	77.
33	54 47.8	2467	485	77.
34	53 46.1	2407	490	76.
35	52 44.4	2347	495	76.
36	51 43.0	2286	500	76.
37	50 41.7	2225	506	75.
38	49 40.6	2163	512	75.
39	48 39.7	2100	518	75.
40	47 38.9	2038	524	74.
41	46 38.3	1975	530	74.
42	45 37.9	1913	537	74.
43	44 37.7	1850	544	73.
44	43 37.7	1786	551	73.
45	42 37.8	1724	559	73.
46	41 38.1	1661	566	73.
47	40 38.5	1599	574	72.
48	39 39.2	1537	583	72.
49	38 40.0	1476	591	72.
50	37 40.9	1415	600	72.
51	36 42.1	1354	609	71.
52	35 43.4	1295	619	71.
53	34 44.8	1235	629	71.
54	33 46.4	1177	639	71.
55	32 48.2	1119	650	70.
56	31 50.1	1063	661	70.
57	30 52.2	1007	672	70.
58	29 54.4	952	684	70.
59	28 56.8	898	686	70.
60	27 59.3	845	709	69.
61	27 2.0	793	723	69.
62	26 4.7	743	737	69.
63	25 7.7	694	751	69.
64	24 10.7	647	766	69.
65	23 13.9	601	782	69.
t°	203°	157°		

TABLE II—$d+b$

′	h. 25° (27 B)	Z″ 64° D	h. 26° (26 B)	Z″ 63° D	h. 27° (25 B)	Z″ 62° D	h. 28° (24 B)	Z″ 61° D	h. 29° (23 B)	Z″ 60° D	Cor. Z″ °	′
0	37405	331	35816	312	34295	293	32839	274	31443	256	1.0	60
1	37378	331	35790	312	34271	293	32815	274	31420	256	1.0	59
2	37351	331	35764	311	34246	292	32792	274	31397	256	1.0	58
3	37324	330	35738	311	34221	292	32768	273	31375	255	1.0	57
4	37297	330	35712	311	34196	292	32744	273	31352	255	1.0	56
5	37270	330	35687	310	34172	291	32720	273	31329	255	.9	55
6	37243	329	35661	310	34147	291	32697	273	31306	255	.9	54
7	37216	329	35635	310	34122	291	32673	272	31284	254	.9	53
8	37189	329	35609	309	34098	290	32650	272	31261	254	.9	52
9	37162	328	35583	309	34073	290	32626	272	31238	254	.9	51
10	37135	328	35558	309	34048	290	32602	271	31216	253	.9	50
11	37108	328	35532	308	34024	289	32579	271	31193	253	.8	49
12	37082	327	35506	308	33999	289	32555	271	31171	253	.8	48
13	37055	327	35481	308	33975	289	32532	270	31148	252	.8	47
14	37028	327	35455	307	33950	288	32508	270	31125	252	.8	46
15	37001	326	35429	307	33925	288	32485	270	31103	252	.8	45
16	36974	326	35404	307	33901	288	32461	270	31080	251	.7	44
17	36948	326	35378	306	33876	288	32438	269	31058	251	.7	43
18	36921	325	35353	306	33852	287	32414	269	31035	251	.7	42
19	36894	325	35327	306	33827	287	32391	269	31013	251	.7	41
20	36867	325	35302	305	33803	287	32367	268	30990	250	.7	40
21	36841	324	35276	305	33779	286	32344	268	30968	250	.7	39
22	36814	324	35251	305	33754	286	32320	268	30945	250	.6	38
23	36787	324	35225	304	33730	286	32297	267	30923	249	.6	37
24	36761	323	35200	304	33705	285	32274	267	30900	249	.6	36
25	36734	323	35174	304	33681	285	32250	267	30878	249	.6	35
26	36708	323	35149	304	33657	285	32227	266	30856	249	.6	34
27	36681	322	35123	303	33632	284	32204	266	30833	248	.6	33
28	36655	322	35098	303	33608	284	32180	266	30811	248	.5	32
29	36628	322	35073	303	33584	284	32157	266	30788	248	.5	31
30	36602	322	35047	302	33559	284	32134	265	30766	247	.5	30
31	36575	321	35022	302	33535	283	32110	265	30744	247	.5	29
32	36549	321	34997	302	33511	283	32087	265	30721	247	.5	28
33	36522	321	34971	301	33487	283	32064	264	30699	246	.5	27
34	36496	320	34946	301	33463	282	32041	264	30677	246	.4	26
35	36469	320	34921	301	33438	282	32018	264	30655	246	.4	25
36	36443	320	34896	300	33414	282	31994	264	30632	246	.4	24
37	36417	319	34870	300	33390	281	31971	263	30610	245	.4	23
38	36390	319	34845	300	33366	281	31948	263	30588	245	.4	22
39	36364	319	34820	299	33342	281	31925	263	30566	245	.4	21
40	36338	318	34796	299	33318	280	31902	262	30544	244	.3	20
41	36311	318	34770	299	33294	280	31879	262	30521	244	.3	19
42	36285	318	34745	298	33269	280	31856	262	30499	244	.3	18
43	36259	317	34719	298	33245	280	31833	261	30477	244	.3	17
44	36233	317	34694	298	33221	279	31810	261	30455	243	.3	16
45	36206	317	34669	298	33197	279	31787	261	30433	243	.3	15
46	36180	316	34644	297	33173	279	31763	260	30411	243	.2	14
47	36154	316	34619	297	33149	278	31740	260	30389	243	.2	13
48	36128	316	34594	297	33125	278	31717	260	30367	242	.2	12
49	36102	315	34569	296	33101	278	31695	260	30345	242	.2	11
50	36076	315	34544	296	33078	277	31672	259	30323	241	.2	10
51	36050	315	34519	296	33054	277	31649	259	30301	241	.2	9
52	36024	314	34494	295	33030	277	31626	259	30279	241	.1	8
53	35998	314	34469	295	33006	276	31603	258	30257	240	.1	7
54	35972	314	34444	295	32982	276	31580	258	30235	240	.1	6
55	35946	313	34420	294	32958	276	31557	258	30213	240	.1	5
56	35920	313	34395	294	32934	276	31534	257	30191	240	.1	4
57	35894	313	34370	294	32910	275	31511	257	30169	239	.1	3
58	35868	312	34345	293	32887	275	31488	257	30147	239	.0	2
59	35842	312	34320	293	32863	275	31466	257	30125	239	.0	1
60	35816	312	34295	293	32839	274	31443	256	30103	239	.0	0
	154°		**153°**		**152°**		**151°**		**160°**			

The azimuth is reckoned from the north when in south latitude, toward the north when in north latitude, from the south ian, toward the west when body is rising or is east of the merid- latitude the azimuth takes the name of the declination. **In zero**

TABLE II

′	h. 30° (22 B)	Z″ 59° D	h. 31° (21 H)	Z″ 58° D	h. 32° (20 B)
0	30103	239	28816	221	27579
1	30081	238	28795	221	27559
2	30059	238	28774	221	27539
3	30037	238	28753	220	27518
4	30016	237	28732	220	27498
5	29994	237	28711	220	27475
6	29972	237	28690	220	27458
7	29950	237	28669	219	27438
8	29928	236	28648	219	27418
9	29907	236	28627	219	27398
10	29885	236	28607	218	27378
11	29863	235	28586	218	27357
12	29841	235	28565	218	27337
13	29820	235	28544	218	27317
14	29798	234	28523	217	27297
15	29776	234	28502	217	27277
16	29755	234	28481	217	27257
17	29733	234	28461	216	27237
18	29712	233	28440	216	27217
19	29690	233	28419	216	27197
20	29668	233	28398	216	27177
21	29647	232	28378	215	27157
22	29625	232	28357	215	27137
23	29604	232	28336	215	27117
24	29582	232	28315	214	27098
25	29561	231	28295	214	27078
26	29539	231	28274	214	27058
27	29518	231	28253	214	27038
28	29496	230	28233	213	27018
29	29475	230	28212	213	26998
30	29453	230	28191	213	26978
31	29432	230	28171	212	26959
32	29410	229	28150	212	26939
33	29389	229	28130	212	26919
34	29367	229	28109	212	26899
35	29346	228	28089	211	26879
36	29325	228	28068	211	26860
37	29303	228	28048	211	26840
38	29282	228	28027	210	26820
39	29261	227	28006	210	26800
40	29239	227	27986	210	26781
41	29218	227	27966	210	26761
42	29197	226	27945	209	26741
43	29176	226	27925	209	26722
44	29154	226	27904	209	26702
45	29133	226	27883	208	26682
46	29112	225	27863	208	26663
47	29091	225	27843	208	26643
48	29069	225	27823	208	26623
49	29048	224	27802	207	26604
50	29027	224	27782	207	26584
51	29006	224	27762	207	26565
52	28985	224	27741	206	26545
53	28964	223	27721	206	26526
54	28942	223	27701	206	26506
55	28921	223	27680	206	26487
56	28900	222	27660	205	26467
57	28879	222	27640	205	26448
58	28858	222	27619	205	26428
59	28837	222	27599	204	26409
60	28816	221	27579	204	26389
	149°		**148°**		**147°**

The azimuth is reckoned from the north wi... when in south latitude, toward the east when ... ian, toward the west when body is setting o... latitude the azimuth takes the name of th...

TABLE II—d+b

Z'' 32°	h₂ 58°	Z'' 31°	h₄ 59°	Z'' 30°	Tan Z''	
D	8 B	D	7 B	D	°	'
9813	7158	9796	6693	9779	1.0	60
9812	7150	9796	6686	9778	1.0	59
9812	7142	9795	6678	9778	1.0	58
9812	7134	9795	6671	9778	1.0	57
9811	7126	9795	6663	9778	.9	56
9811	7119	9794	6656	9777	.9	55
9811	7111	9794	6648	9777	.9	54
9811	7103	9794	6640	9777	.9	53
9810	7095	9794	6633	9776	.9	52
9810	7087	9793	6625	9776	.9	51
9810	7079	9793	6618	9776	.8	50
9809	7071	9793	6610	9776	.8	49
9809	7064	9792	6603	9775	.8	48
9809	7056	9792	6595	9775	.8	47
9808	7048	9792	6588	9775	.8	46
9808	7040	9791	6580	9774	.8	45
9808	7032	9791	6573	9774	.7	44
9808	7024	9791	6565	9774	.7	43
9808	7017	9791	6558	9774	.7	42
9807	7009	9790	6550	9773	.7	41
9807	7001	9790	6543	9773	.7	40
9807	6993	9790	6535	9773	.7	39
9806	6986	9790	6528	9772	.6	38
9806	6978	9789	6520	9772	.6	37
9806	6970	9789	6513	9772	.6	36
9806	6962	9789	6505	9772	.6	35
9805	6954	9788	6498	9771	.6	34
9805	6947	9788	6490	9771	.6	33
9805	6939	9788	6483	9771	.5	32
9804	6931	9788	6475	9770	.5	31
9804	6923	9787	6468	9770	.5	30
9804	6916	9787	6461	9770	.5	29
9803	6908	9787	6453	9770	.5	28
9803	6900	9786	6446	9769	.5	27
9803	6892	9786	6438	9769	.4	26
9803	6885	9786	6431	9769	.4	25
9803	6877	9786	6423	9768	.4	24
9802	6869	9785	6416	9768	.4	23
9802	6862	9785	6409	9768	.4	22
9802	6854	9785	6401	9768	.4	21
9801	6846	9784	6394	9767	.3	20
9801	6839	9784	6386	9767	.3	19
9801	6831	9784	6379	9767	.3	18
9801	6823	9784	6372	9766	.3	17
9800	6816	9783	6364	9766	.3	16
9800	6808	9783	6357	9766	.3	15
9800	6800	9783	6350	9766	.2	14
9799	6793	9782	6342	9765	.2	13
9799	6785	9782	6335	9765	.2	12
9799	6777	9782	6327	9765	.2	11
9799	6770	9782	6320	9764	.2	10
9798	6762	9781	6313	9764	.2	9
9798	6754	9781	6305	9764	.1	8
9798	6747	9781	6298	9763	.1	7
9797	6739	9780	6291	9763	.1	6
9797	6731	9780	6283	9763	.1	5
9797	6724	9780	6276	9763	.1	4
9797	6716	9780	6269	9762	.1	3
9796	6709	9779	6262	9762	.0	2
9796	6701	9779	6254	9762	.0	1
9796	6693	9779	6247	9761	.0	0
	121°		**120°**			

h when in north latitude, from the south
hen body is rising or is east of the merid-
ng or is west of the meridian. **In zero**
f the declination.

'	h₆ 60°	Z'' 29°	h 61°	Z'' 28°	h 62°	Z'' 27°	h 63°	Z'' 26°	h 64°	Z'' 25°	Corr Z''	
	7 B	D	7 B	D	7 B	D	6 B	D	6 B	D	°	'
0	6247	9761	5818	9744	5407	9726	5012	9707	4634	9688		
1	6240	9761	5811	9743	5400	9725	5005	9707	4628	9688	1.0	60
2	6232	9761	5804	9743	5393	9725	4999	9707	4622	9688	1.0	59
3	6226	9761	5797	9743	5386	9725	4993	9706	4616	9687	1.0	58
4	6218	9760	5790	9743	5380	9724	4986	9706	4609	9687	1.0	57
5	6211	9760	5783	9742	5373	9724	4980	9706	4603	9687	.9	56
6	6203	9760	5776	9742	5366	9724	4973	9705	4597	9686	.9	55
7	6196	9759	5769	9742	5360	9724	4967	9705	4591	9686	.9	54
8	6189	9759	5762	9741	5353	9723	4961	9705	4585	9686	.9	53
9	6181	9759	5755	9741	5346	9723	4954	9704	4579	9685	.9	52
10	6174	9759	5748	9741	5340	9723	4948	9704	4573	9685	.9	51
11	6167	9758	5741	9740	5333	9722	4941	9704	4566	9685	.8	50
12	6160	9758	5734	9740	5326	9722	4935	9703	4560	9684	.8	49
13	6153	9758	5727	9740	5320	9722	4929	9703	4554	9684	.8	48
14	6145	9757	5721	9740	5313	9721	4922	9703	4548	9684	.8	47
15	6138	9757	5714	9739	5306	9721	4916	9702	4542	9684	.8	46
16	6131	9757	5707	9739	5300	9721	4910	9702	4536	9683	.8	45
17	6124	9756	5700	9739	5293	9720	4903	9702	4530	9683	.7	44
18	6116	9756	5693	9738	5286	9720	4897	9702	4524	9683	.7	43
19	6109	9756	5686	9738	5280	9720	4890	9701	4518	9682	.7	42
20	6102	9756	5679	9738	5273	9720	4884	9701	4512	9682	.7	41
21	6095	9755	5672	9737	5266	9719	4878	9701	4506	9682	.7	40
22	6088	9755	5665	9737	5260	9719	4871	9700	4500	9681	.7	39
23	6080	9755	5658	9737	5253	9719	4865	9700	4493	9681	.6	38
24	6073	9754	5651	9737	5247	9718	4859	9700	4487	9681	.6	37
25	6066	9754	5645	9736	5240	9718	4852	9699	4481	9680	.6	36
26	6059	9754	5638	9736	5233	9718	4846	9699	4475	9680	.6	35
27	6052	9754	5631	9736	5227	9717	4840	9699	4469	9680	.6	34
28	6045	9753	5624	9735	5220	9717	4833	9698	4463	9679	.6	33
29	6037	9753	5617	9735	5214	9717	4827	9698	4457	9679	.5	32
30	6030	9753	5610	9735	5207	9716	4821	9698	4451	9679	.5	31
31	6023	9752	5603	9734	5201	9716	4815	9697	4445	9678	.5	30
32	6016	9752	5596	9734	5194	9716	4808	9697	4439	9678	.5	29
33	6009	9752	5590	9734	5187	9716	4802	9697	4433	9678	.5	28
34	6002	9751	5583	9734	5181	9715	4796	9696	4427	9677	.5	27
35	5995	9751	5576	9733	5174	9715	4789	9696	4421	9677	.4	26
36	5988	9751	5569	9733	5168	9715	4783	9696	4415	9677	.4	25
37	5980	9751	5562	9733	5161	9714	4777	9696	4409	9676	.4	24
38	5973	9750	5555	9732	5155	9714	4771	9695	4403	9676	.4	23
39	5966	9750	5549	9732	5148	9714	4764	9695	4397	9676	.4	22
40	5959	9750	5542	9732	5142	9713	4758	9695	4391	9675	.4	21
41	5952	9749	5535	9731	5135	9713	4752	9694	4385	9675	.3	20
42	5945	9749	5528	9731	5129	9713	4746	9694	4379	9675	.3	19
43	5938	9749	5521	9731	5122	9712	4739	9694	4373	9675	.3	18
44	5931	9749	5515	9731	5115	9712	4733	9693	4367	9674	.3	17
45	5924	9748	5508	9730	5109	9712	4727	9693	4361	9674	.3	16
46	5917	9748	5501	9730	5102	9711	4721	9693	4355	9673	.3	15
47	5910	9748	5494	9730	5096	9711	4714	9692	4349	9673	.2	14
48	5902	9747	5487	9729	5089	9711	4708	9692	4343	9673	.2	13
49	5895	9747	5481	9729	5083	9711	4702	9692	4337	9672	.2	12
50	5888	9747	5474	9729	5077	9710	4696	9691	4332	9672	.2	11
51	5881	9746	5467	9728	5070	9710	4690	9691	4326	9672	.2	10
52	5874	9746	5460	9728	5064	9710	4683	9691	4320	9671	.2	9
53	5867	9746	5454	9728	5057	9709	4677	9690	4314	9671	.1	8
54	5860	9746	5447	9728	5051	9709	4671	9690	4308	9671	.1	7
55	5853	9745	5440	9727	5044	9709	4665	9690	4302	9670	.1	6
56	5846	9745	5433	9727	5038	9708	4659	9689	4296	9670	.1	5
57	5839	9745	5427	9727	5031	9708	4652	9689	4290	9670	.1	4
58	5832	9744	5420	9726	5025	9708	4646	9689	4284	9669	.1	3
59	5825	9744	5413	9726	5018	9707	4640	9689	4278	9669	.0	2
60	5818	9744	5407	9726	5012	9707	4634	9688	4272	9669	.0	1
											.0	0
	119°		**118°**		**117°**		**116°**		**115°**			

The azimuth is reckoned from the north when in north latitude, from the south when in south latitude, toward the east when body is rising or is east of the merid-ian, toward the west when body is setting or is west of the meridian. **In zero latitude the azimuth takes the name of the declination.**

TABLE II—d÷b

	65°		66°		67°		68°		69°		Cor. Z''	
'	h, 65° / Z'' 24°		h, 66° / Z'' 23°		h, 67° / Z'' 22°		h, 68° / Z'' 21°		h, 69° / Z'' 20°			'
	6 B	D	6 B	D	6 B	D	5 B	D	5 B	D		
0	4272	9669	3927	9649	3597	9628	3283	9606	2985	9584	1.0	60
1	4267	9668	3921	9648	3592	9628	3278	9606	2980	9584	1.0	59
2	4261	9668	3916	9648	3587	9627	3273	9606	2975	9583	1.0	58
3	4255	9668	3910	9648	3581	9627	3268	9605	2970	9583	1.0	57
4	4249	9667	3905	9647	3576	9626	3263	9605	2965	9583	.9	56
5	4243	9667	3899	9647	3571	9626	3258	9605	2961	9582	.9	55
6	4237	9667	3893	9647	3565	9626	3253	9604	2956	9582	.9	54
7	4231	9666	3888	9646	3560	9625	3248	9604	2951	9582	.9	53
8	4225	9666	3882	9646	3555	9625	3243	9603	2946	9581	.9	52
9	4220	9666	3877	9646	3549	9625	3238	9603	2941	9581	.9	51
10	4214	9665	3871	9645	3544	9624	3233	9603	2937	9580	.8	50
11	4208	9665	3865	9645	3539	9624	3228	9602	2932	9580	.8	49
12	4202	9665	3860	9644	3533	9624	3222	9602	2927	9580	.8	48
13	4196	9664	3854	9644	3528	9623	3217	9602	2922	9579	.8	47
14	4190	9664	3849	9644	3523	9623	3212	9601	2917	9579	.8	46
15	4185	9664	3843	9643	3517	9623	3207	9601	2913	9578	.8	45
16	4179	9663	3838	9643	3512	9622	3202	9601	2908	9578	.7	44
17	4173	9663	3832	9643	3507	9622	3197	9600	2903	9578	.7	43
18	4167	9663	3826	9642	3502	9622	3192	9600	2898	9577	.7	42
19	4161	9662	3821	9642	3496	9621	3187	9599	2893	9577	.7	41
20	4156	9662	3815	9642	3491	9621	3182	9599	2889	9577	.7	40
21	4150	9662	3810	9641	3486	9620	3177	9599	2884	9576	.7	39
22	4144	9661	3804	9641	3480	9620	3172	9598	2879	9576	.6	38
23	4138	9661	3799	9641	3475	9620	3167	9598	2874	9575	.6	37
24	4132	9661	3793	9640	3470	9619	3162	9598	2870	9575	.6	36
25	4127	9660	3788	9640	3465	9619	3157	9597	2865	9575	.6	35
26	4121	9660	3782	9640	3459	9619	3152	9597	2860	9574	.6	34
27	4115	9660	3777	9639	3454	9618	3147	9597	2855	9574	.6	33
28	4109	9659	3771	9639	3449	9618	3142	9596	2851	9574	.5	32
29	4103	9659	3766	9639	3444	9618	3137	9596	2846	9573	.5	31
30	4098	9659	3760	9638	3438	9617	3132	9595	2841	9573	.5	30
31	4092	9658	3755	9638	3433	9617	3127	9595	2837	9572	.5	29
32	4086	9658	3749	9638	3428	9617	3122	9595	2832	9572	.5	28
33	4080	9658	3744	9637	3423	9616	3117	9594	2827	9572	.5	27
34	4075	9657	3738	9637	3418	9616	3112	9594	2822	9571	.4	26
35	4069	9657	3733	9637	3412	9615	3107	9594	2818	9571	.4	25
36	4063	9657	3727	9636	3407	9615	3102	9593	2813	9570	.4	24
37	4058	9656	3722	9636	3402	9615	3097	9593	2808	9570	.4	23
38	4052	9656	3716	9636	3397	9614	3093	9592	2804	9570	.4	22
39	4046	9656	3711	9635	3392	9614	3088	9592	2799	9569	.4	21
40	4040	9655	3706	9635	3386	9614	3083	9592	2794	9569	.3	20
41	4035	9655	3700	9634	3381	9613	3078	9591	2790	9568	.3	19
42	4029	9655	3695	9634	3376	9613	3073	9591	2785	9568	.3	18
43	4023	9654	3689	9634	3371	9613	3068	9591	2780	9568	.3	17
44	4018	9654	3684	9633	3366	9612	3063	9590	2776	9567	.3	16
45	4012	9654	3678	9633	3360	9612	3058	9590	2771	9567	.3	15
46	4006	9653	3673	9633	3355	9611	3053	9589	2766	9567	.2	14
47	4000	9653	3667	9632	3350	9611	3048	9589	2762	9566	.2	13
48	3995	9653	3662	9632	3345	9611	3043	9589	2757	9566	.2	12
49	3989	9652	3657	9632	3340	9610	3038	9588	2752	9565	.2	11
50	3983	9652	3651	9631	3335	9610	3034	9588	2748	9565	.2	10
51	3978	9652	3646	9631	3330	9610	3029	9588	2743	9565	.2	9
52	3972	9651	3640	9631	3324	9609	3024	9587	2738	9564	.1	8
53	3966	9651	3635	9630	3319	9609	3019	9587	2734	9564	.1	7
54	3961	9651	3630	9630	3314	9609	3014	9586	2729	9563	.1	6
55	3955	9650	3624	9630	3309	9608	3009	9586	2724	9563	.1	5
56	3950	9650	3619	9629	3304	9608	3004	9586	2720	9563	.1	4
57	3944	9650	3613	9629	3299	9608	2999	9585	2715	9562	.1	3
58	3938	9649	3608	9629	3294	9607	2995	9585	2711	9562	.0	2
59	3933	9649	3603	9628	3289	9607	2990	9585	2706	9561	.0	1
60	3927	9649	3597	9628	3283	9606	2985	9584	2701	9561	.0	0
	114°		113°		112°		111°		110°			

The azimuth is reckoned from the north when in north latitude, from the south when in south latitude, toward the east when body is rising or is east of the meridian, toward the west when body is setting or is west of the meridian. **In zero latitude the azimuth takes the name of the declination.**

TABLE II

	70°		71°		72°
'	h, 70° / Z'' 19°		h, 71° / Z'' 18°		h, 72° / Z'' 17°
	4 B	D	4 B	D	4 B
0	2701	9561	2433	9537	2179
1	2697	9561	2429	9537	2175
2	2692	9560	2424	9536	2171
3	2688	9560	2420	9536	2167
4	2683	9559	2416	9535	2163
5	2678	9559	2411	9535	2159
6	2674	9559	2407	9535	2155
7	2669	9558	2403	9534	2151
8	2665	9558	2398	9534	2147
9	2660	9558	2394	9533	2143
10	2656	9557	2390	9533	2139
11	2651	9557	2385	9532	2134
12	2647	9556	2381	9532	2130
13	2642	9556	2377	9532	2126
14	2637	9556	2372	9531	2122
15	2633	9555	2368	9531	2118
16	2628	9555	2364	9530	2114
17	2624	9554	2360	9530	2110
18	2619	9554	2355	9530	2106
19	2615	9554	2351	9529	2102
20	2610	9553	2347	9529	2098
21	2606	9553	2343	9528	2094
22	2601	9552	2338	9528	2090
23	2597	9552	2334	9527	2086
24	2592	9552	2330	9527	2082
25	2588	9551	2326	9527	2078
26	2583	9551	2321	9526	2074
27	2579	9550	2317	9526	2070
28	2574	9550	2313	9525	2066
29	2570	9550	2309	9525	2062
30	2565	9549	2304	9525	2058
31	2561	9549	2300	9524	2054
32	2556	9548	2296	9524	2050
33	2552	9548	2292	9523	2046
34	2547	9548	2287	9523	2042
35	2543	9547	2283	9522	2038
36	2539	9547	2279	9522	2034
37	2534	9546	2275	9522	2030
38	2530	9546	2271	9521	2026
39	2525	9546	2266	9521	2022
40	2521	9545	2262	9520	2018
41	2516	9545	2258	9520	2014
42	2512	9544	2254	9519	2011
43	2508	9544	2250	9519	2007
44	2503	9544	2246	9519	2003
45	2499	9543	2241	9518	1999
46	2494	9543	2237	9518	1995
47	2490	9542	2233	9517	1991
48	2485	9542	2229	9517	1987
49	2481	9541	2225	9516	1983
50	2477	9541	2221	9516	1979
51	2472	9541	2216	9516	1975
52	2468	9540	2212	9515	1971
53	2464	9540	2208	9515	1968
54	2459	9539	2204	9514	1964
55	2455	9539	2200	9514	1960
56	2450	9539	2196	9513	1956
57	2446	9538	2192	9513	1952
58	2441	9538	2188	9513	1948
59	2437	9537	2183	9512	1944
60	2433	9537	2179	9512	1940
	109°		108°		107°

The azimuth is reckoned from the north when in south latitude, toward the east when in south latitude, toward the west when body is setting or is west of the meridian. **latitude the azimuth takes the name**