

Army-Navy-Commerce Reports:

ANC-5. Strength of Aircraft Elements, January 1938. (For sale by the Superintendent of Documents, Government Printing Office, Washington, D. C., 25 cents.)

ANC-1 (1). Spanwise Air Load Distribution, April 1938. (For sale by the Superintendent of Documents, Government Printing Office, Washington, D. C., 60 cents.)

Miscellaneous publications:

Tabulation of Air Navigation Radio Aids, published monthly.

The Airway Radio Range. A description of the use of the Civil Aeronautics Authority radio range stations. 31 pp., 14 illus.

CONVENIENT ABBREVIATIONS

In the solution of navigational problems and the tabulation of data, the use of suitable abbreviations saves time and affords greater clarity. The following abbreviations are often used and will be found very convenient in practice:

a = Altitude difference (intercept).	Long = Longitude.
AP = Airport.	LP = Line of position.
AS = Air speed.	M = Meridian of observer.
Bn = Beacon.	MC = Magnetic course.
CC = Compass course.	MH = Magnetic heading.
CH = Compass heading.	mph = Miles per hour.
Corr = Correction.	NA = Nautical Almanac.
D = Drift angle.	O = Origin, or starting point.
D/F = Direction finding.	Par = Parallax.
DR = Dead reckoning.	RA = Right ascension.
Dec = Declination.	R/A = Radius of action.
+ = north dec.	RBn = Marine radiobeacon.
- = south dec.	RC = Radio compass (naval radio direction finder station).
Dev = Deviation.	Ref = Refraction.
ETA = Estimated time of arrival.	RM = Radio marker beacon.
G = Greenwich.	RRa = Radio range station.
GCT = Greenwich civil time.	RS = Radio station (commercial broadcast).
GHA = Greenwich hour angle.	SD = Semidiameter.
GS = Ground speed.	SP = Seaplane port.
GST = Greenwich sidereal time.	TC = True course.
H _c = Computed altitude (from assumed or DR position).	TH = True heading.
HD = Hourly difference.	Var = Variation.
HE = Height of eye.	W = Wind (direction and velocity).
H _o = Observed altitude (sextant altitude corrected for refraction, etc.).	WC = Wind correction angle.
HP = Horizontal parallax.	Z = Azimuth or bearing.
H _s = Sextant altitude (uncorrected).	☾ = Moon.
IC = Index correction.	* = Star.
Lat = Latitude.	☉ = Sun.
LHA = Local hour angle.	T = Vernal equinox (first point of Aries).

THE LINE OF POSITION TABLE

The Line of Position Table is an abridged form of the Dead Reckoning Altitude and Azimuth Table, prepared by Lt. Arthur A. Age-ton, United States Navy, and published by the United States Hydrographic Office as H. O. No. 211. It is reproduced here by the courtesy of that Bureau. Those desiring further information as to the derivation and other uses of the table are referred to the original publication.

Table 9.—Line of position table

WHEN LHA (E OR W) IS GREATER THAN 90°, TAKE "K" FROM BOTTOM OF TABLE

	0°00'		1°00'		2°00'		3°00'		4°00'		5°00'		
	A	B	A	B	A	B	A	B	A	B	A	B	
0		0.0	175814	6.6	145718	26.5	128120	59.6	115641	105.9	105970	165.6	60
1	353027	0.0	175097	6.8	145358	26.9	127880	60.2	115461	106.9	105926	166.7	59
2	323524	0.0	174391	7.1	145000	27.3	127640	60.9	115282	107.7	105883	167.8	58
3	307915	0.0	173696	7.3	144646	27.8	127408	61.6	115103	108.6	105839	168.9	57
4	293421	0.0	173012	7.5	144295	28.3	127166	62.2	114925	109.5	105797	170.0	56
5	283730	0.0	172339	7.8	143946	28.7	126931	62.9	114747	110.4	105754	171.1	55
6	275812	0.1	171676	8.0	143600	29.2	126697	63.6	114571	111.3	105713	172.3	54
7	269118	0.1	171023	8.2	143257	29.6	126465	64.3	114395	112.2	104971	173.4	53
8	263318	0.1	170379	8.5	142916	30.1	126233	65.0	114220	113.1	104830	174.5	52
9	258203	0.1	169745	8.7	142579	30.6	126003	65.7	114045	114.0	104690	175.7	51
10	253627	0.2	169121	9.0	142243	31.1	125774	66.4	113872	114.9	104550	176.8	50
11	249488	0.2	168505	9.3	141911	31.5	125546	67.1	113699	115.9	104411	178.0	49
12	245709	0.3	167897	9.5	141581	32.0	125320	67.8	113526	116.8	104272	179.3	48
13	242233	0.3	167298	9.8	141253	32.5	125094	68.5	113354	117.7	104133	180.5	47
14	239015	0.4	166708	10.1	140928	33.0	124870	69.2	113183	118.7	103995	181.4	46
15	236018	0.4	166125	10.3	140605	33.5	124647	69.9	113013	119.6	103857	182.6	45
16	233215	0.5	165550	10.6	140285	34.0	124425	70.6	112843	120.5	103720	183.7	44
17	230533	0.5	164982	10.9	139967	34.5	124204	71.3	112674	121.5	103583	184.9	43
18	228100	0.6	164422	11.2	139651	35.0	123986	72.1	112506	122.4	103447	186.1	42
19	225752	0.7	163868	11.5	139338	35.5	123766	72.8	112338	123.4	103311	187.4	41
20	223525	0.7	163322	11.8	139027	36.0	123549	73.5	112171	124.3	103175	188.2	40
21	221406	0.8	162783	12.1	138718	36.5	123332	74.3	112005	125.3	103040	189.6	39
22	219385	0.9	162250	12.4	138411	37.1	123117	75.0	111839	126.2	102905	190.8	38
23	217455	1.0	161724	12.7	138106	37.6	122903	75.8	111674	127.2	102771	192.0	37
24	215607	1.1	161204	13.0	137804	38.1	122690	76.5	111510	128.2	102637	193.2	36
25	213834	1.1	160690	13.3	137504	38.6	122478	77.3	111346	129.2	102504	194.4	35
26	212130	1.2	160182	13.6	137205	39.2	122267	78.0	111183	130.1	102371	195.6	34
27	210491	1.3	159680	13.9	136909	39.7	122057	78.8	111020	131.1	102238	196.8	33
28	208912	1.4	159184	14.2	136615	40.3	121848	79.5	110858	132.1	102106	198.0	32
29	207388	1.5	158693	14.6	136322	40.8	121639	80.3	110696	133.1	101974	199.2	31
30	205916	1.7	158208	14.9	136032	41.4	121432	81.1	110536	134.1	101843	200.4	30
31	204492	1.8	157728	15.2	135744	41.9	121226	81.9	110375	135.1	101712	201.6	29
32	203113	1.9	157254	15.6	135457	42.5	121021	82.6	110216	136.1	101581	202.8	28
33	201777	2.0	156784	15.9	135173	43.0	120817	83.4	110057	137.1	101451	204.1	27
34	200480	2.1	156320	16.2	134890	43.6	120614	84.2	109898	138.1	101321	205.3	26
35	199221	2.3	155861	16.6	134609	44.2	120412	85.0	109740	139.1	101192	206.5	25
36	197998	2.4	155406	16.9	134330	44.7	120211	85.8	109583	140.1	101063	207.8	24
37	196808	2.5	154956	17.3	134052	45.3	120010	86.6	109426	141.1	100934	209.0	23
38	195650	2.7	154511	17.6	133777	45.9	119811	87.4	109270	142.2	100806	210.3	22
39	194522	2.8	154070	18.0	133503	46.5	119612	88.2	109115	143.2	100678	211.5	21
40	193422	2.9	153633	18.4	133231	47.1	119415	89.0	108960	144.2	100550	212.8	20
41	192350	3.1	153201	18.7	132961	47.6	119218	89.8	108805	145.2	100423	214.0	19
42	191303	3.2	152774	19.1	132692	48.2	119022	90.6	108651	146.3	100296	215.3	18
43	190282	3.4	152350	19.5	132425	48.8	118827	91.4	108498	147.3	100170	216.5	17
44	189283	3.6	151931	19.9	132159	49.4	118633	92.3	108345	148.4	100044	217.9	16
45	188307	3.7	151515	20.3	131896	50.0	118440	93.1	108193	149.4	99918	219.1	15
46	187353	3.9	151104	20.6	131633	50.7	118248	93.9	108041	150.5	99793	220.3	14
47	186419	4.1	150696	21.0	131373	51.3	118056	94.7	107890	151.5	99668	221.6	13
48	185505	4.2	150292	21.4	131114	51.9	117866	95.6	107739	152.6	99544	222.9	12
49	184609	4.4	149892	21.8	130856	52.5	117676	96.4	107589	153.6	99420	224.2	11
50	183732	4.6	149495	22.2	130600	53.1	117487	97.3	107439	154.7	99296	225.5	10
51	182872	4.8	149103	22.6	130346	53.7	117299	98.1	107290	155.8	99172	226.8	9
52	182029	5.0	148713	23.1	130093	54.4	117112	99.0	107141	156.9	99049	228.1	8
53	181201	5.2	148327	23.5	129841	55.0	116925	99.8	106993	157.9	98926	229.4	7
54	180390	5.4	147945	23.9	129591	55.7	116739	100.7	106846	158.9	98804	230.7	6
55	179593	5.6	147566	24.3	129342	56.3	116554	101.6	106698	160.1	98682	232.0	5
56	178810	5.8	147190	24.7	129095	56.9	116370	102.4	106552	161.2	98560	233.3	4
57	178042	6.0	146817	25.2	128849	57.6	116187	103.3	106406	162.3	98439	234.6	3
58	177287	6.2	146448	25.6	128605	58.2	116004	104.2	106260	163.4	98318	235.9	2
59	176544	6.4	146081	26.0	128362	58.9	115823	105.0	106115	164.5	98197	237.2	1
60	175814	6.6	145718	26.5	128120	59.6	115641	105.9	105970	165.6	98076	238.6	0
	A	B	A	B	A	B	A	B	A	B	A	B	
	179°00'		178°00'		177°00'		176°00'		175°00'		174°00'		

Table 9.—Line of position table—Continued

ALWAYS TAKE "Z" FROM BOTTOM OF TABLE, EXCEPT WHEN "K" IS SAME NAME AND GREATER THAN LATITUDE. IN WHICH CASE TAKE "Z" FROM TOP OF TABLE

	6°00'		7°00'		8°00'		9°00'		10°00'		11°00'		
	A	B	A	B	A	B	A	B	A	B	A	B	
0	98076	239	91411	325	85644	426	80567	538	76033	665	71940	805	60
1	97957	240	91308	326	85555	425	80487	540	75961	667	71875	808	59
2	97837	241	91205	328	85465	428	80407	542	75890	669	71810	810	58
3	97717	243	91103	330	85376	430	80328	544	75819	672	71746	813	57
4	97598	244	91001	331	85286	432	80249	546	75747	674	71681	815	56
5	97480	245	90899	333	85197	434	80170	548	75676	676	71616	818	55
6	97361	247	90798	334	85108	435	80091	550	75605	678	71552	820	54
7	97243	248	90696	336	85020	437	80012	552	75534	680	71488	823	53
8	97126	249	90595	337	84931	439	79933	554	75464	683	71423	825	52
9	97008	251	90494	339	84843	441	79855	556	75393	685	71359	828	51
10	96891	252	90394	341	84755	443	79777	558	75322	687	71295	830	50
11	96774	253	90293	342	84667	444	79698	560	75252	690	71231	833	49
12	96658	255	90193	344	84579	446	79620	562	75182	692	71167	835	48
13	96542	256	90093	345	84492	448	79542	564	75112	694	71104	838	47
14	96426	257	89994	347	84404	450	79465	566	75042	696	71040	840	46
15	96310	259	89894	349	84317	452	79387	568	74972	699	70976	843	45
16	96195	260	89795	350	84230	454	79309	570	74902	701	70913	845	44
17	96080	262	89696	352	84143	455	79232	573	74832	703	70850	848	43
18	95966	263	89597	353	84056	457	79155	575	74763	706	70786	850	42
19	95851	264	89499	355	83969	459	79078	577	74693	708	70723	853	41
20	95737	266	89401	357	83884	461	79001	579	74624	710	70660	855	40
21	95624	267	89303	358	83797	463	78924	581	74555	712	70597	858	39
22	95510	269	89205	360	83711	465	78847	583	74486	715	70534	860	38
23	95397	270	89107	362	83626	467	78771	585	74417	717	70471	863	37
24	95285	271	89010	363	83540	468	78694	587	74348	719	70409	865	36
25	95172	273	88913	365	83455	470	78618	589	74279	722	70346	868	35
26	95060	274	88816	366	83369	472	78542	591	74210	724	70284	870	34
27	94948	276	88719	368	83284	474	78466	593	74142	726	70221	873	33
28	94836	277	88623	370	83199	476	78390	595	74073	729	70159	876	32
29	94725	279	88526	371	83114	478	78315	598	74005	731	70097	878	31
30	94614	280	88430	373	83030	480	78239	600	73937	733	70034	881	30
31	94503	281	88334	375	82945	482	78164	602	73869	736	69972	883	29
32	94393	283	88239	376	82861	483	78088	604	73801	738	69910	886	28
33	94283	284	88143	378	82777	485	78013	606	73733	740	69849	888	27
34	94173	286	88048	380	82693	487	77938	608	73665	743	69787	891	26
35	94063	287	87953	381	82609	489	77863	610	73597	745	69725	894	25
36	93954	289	87858	383	82526	491	77788	612	73530	747	69664	896	24
37	93845	290	87764	385	82442	493	77714	615	73462	750	69602	899	23
38	93736	292	87669	387	82359	495	77639	617	73395	752	69541	901	22
39	93628	293	87575	388	82276	497	77565	619	73328	755	69479	904	21
40	93519	295	87481	390	82193	499	77491	621	73260	757	69418	907	20
41	93411	296	87387	392	82110	501	77417	623	73193	759	69357	909	19
42	93304	298	87294	393	82027	503	77343	625	73127	762	69296	912	18
43	93196	299	87201	395	81945	504	77269	627	73060	764	69235	914	17
44	93089	301	87107	397	81863	506	77195	630	72993	766	69174	917	16
45	92982	302	87015	399	81780	508	77122	632	72926	769	69113	920	15
46	92876	304	86922	400	81698	510	77048	634	72860	771	69053	922	14
47	92769	305	86829	402	81617	512	76975	636	72794	774	68992	925	13
48	92663	307	86737	404	81535	514	76902	638	72727	776	68931	928	12
49	92558	308	86645	405	81453	516	76828	641	72661	779	68871	930	11
50	92452	310	86553	407	81372	518	76756	643	72595	781	68811	933	10
51	92347	311	86461	409	81291	520	76683	645	72529	783	68750	935	9
52	92242	313	86370	411	81210	522	76610	647	72463	786	68690	938	8
53	92137	314	86278	412	81129	524	76537	649	72397	788	68630	941	7
54	92032	316	86187	414	81048	526	76465	652	72332	791	68570	943	6
55	91928	317	86096	416	80967	528	76393	654	72266	793	68510	946	5
56	91824	319	86006	418	80887	530	76320	656	72201	796	68450	949	4
57	91720	320	85915	419	80807	532	76248	658	72135	798	68391	951	3
58	91617	322	85825	421	80727	534	76176	660	72070	800	68331	954	2
59	91514	323	85734	423	80647	536	76105	663	72005	803	68272	957	1
60	91411	325	85644	425	80567	538	76033	665	71940	805	68212	960	0
	A	B	A	B	A	B	A	B	A	B	A	B	
	173°00'		172°00'		171°00'		170°00'		169°00'		168°00'		

Table 9.—Line of position table—Continued

WHEN LHA (E OR W) IS GREATER THAN 90°, TAKE "K" FROM BOTTOM OF TABLE

	12°00'		13°00'		14°00'		15°00'		16°00'		17°00'		
	A	B	A	B	A	B	A	B	A	B	A	B	
0	68212	960	64791	1128	61632	1310	58700	1506	55966	1716	53406	1940	60
1	68153	962	64736	1130	61582	1313	58653	1509	55922	1719	53365	1944	59
2	68093	965	64682	1133	61531	1316	58606	1512	55878	1723	53324	1948	58
3	68034	968	64627	1136	61481	1319	58559	1516	55834	1727	53283	1952	57
4	67975	970	64573	1139	61430	1322	58512	1519	55790	1730	53241	1956	56
5	67916	973	64518	1142	61380	1325	58465	1523	55746	1734	53200	1960	55
6	67857	976	64464	1145	61330	1329	58418	1526	55703	1738	53159	1964	54
7	67798	978	64410	1148	61279	1332	58372	1529	55659	1741	53118	1967	53
8	67739	981	64356	1151	61229	1335	58325	1533	55615	1745	53077	1971	52
9	67681	984	64302	1154	61179	1338	58278	1536	55572	1749	53036	1975	51
10	67622	987	64248	1157	61129	1341	58232	1540	55528	1752	52995	1979	50
11	67563	989	64194	1160	61079	1344	58185	1543	55484	1756	52954	1983	49
12	67505	992	64140	1163	61029	1348	58138	1546	55441	1760	52914	1987	48
13	67447	995	64086	1166	60979	1351	58092	1550	55397	1763	52873	1991	47
14	67388	997	64032	1169	60929	1354	58046	1553	55354	1767	52832	1995	46
15	67330	1000	63978	1172	60879	1357	57999	1557	55311	1771	52791	1999	45
16	67272	1003	63925	1175	60830	1360	57953	1560	55267	1774	52751	2003	44
17	67214	1006	63871	1178	60780	1364	57907	1564	55224	1778	52710	2007	43
18	67156	1008	63818	1181	60730	1367	57860	1567	55181	1782	52670	2010	42
19	67098	1011	63764	1184	60681	1370	57814	1571	55138	1785	52629	2014	41
20	67040	1014	63711	1187	60631	1373	57768	1574	55095	1789	52588	2018	40
21	66982	1017	63658	1190	60582	1377	57722	1578	55051	1793	52548	2022	39
22	66925	1020	63605	1193	60533	1380	57676	1581	55008	1796	52508	2026	38
23	66867	1022	63551	1196	60483	1383	57630	1584	54965	1800	52467	2030	37
24	66810	1025	63498	1199	60434	1386	57584	1588	54922	1804	52427	2034	36
25	66752	1028	63445	1202	60385	1390	57538	1591	54880	1808	52387	2038	35
26	66695	1031	63392	1205	60336	1393	57493	1595	54837	1811	52346	2042	34
27	66638	1033	63340	1208	60287	1396	57447	1598	54794	1815	52306	2046	33
28	66580	1036	63287	1211	60238	1399	57401	1602	54751	1819	52266	2050	32
29	66523	1039	63234	1214	60189	1403	57355	1605	54708	1823	52226	2054	31
30	66466	1042	63181	1217	60140	1406	57310	1609	54666	1826	52186	2058	30
31	66409	1045	63129	1220	60091	1409	57265	1612	54623	1830	52146	2062	29
32	66352	1047	63076	1223	60042	1412	57219	1616	54581	1834	52106	2066	28
33	66296	1050	63024	1226	59994	1416	57174	1619	54538	1837	52066	2070	27
34	66239	1053	62971	1229	59945	1419	57128	1623	54496	1841	52026	2074	26
35	66182	1056	62919	1232	59896	1422	57083	1627	54453	1845	51986	2078	25
36	66126	1059	62867	1235	59848	1425	57038	1630	54411	1849	51946	2082	24
37	66069	1061	62815	1238	59800	1429	56992	1634	54368	1853	51906	2086	23
38	66013	1064	62763	1241	59751	1432	56947	1637	54326	1856	51867	2090	22
39	65957	1067	62711	1244	59703	1435	56902	1641	54284	1860	51827	2094	21
40	65900	1070	62659	1247	59654	1439	56857	1644	54242	1864	51787	2098	20
41	65844	1073	62607	1250	59606	1442	56812	1648	54199	1868	51747	2102	19
42	65788	1076	62555	1253	59558	1445	56767	1651	54157	1871	51708	2106	18
43	65732	1079	62503	1257	59510	1449	56722	1655	54115	1875	51668	2110	17
44	65676	1081	62451	1260	59462	1452	56677	1658	54073	1879	51629	2114	16
45	65620	1084	62400	1263	59414	1455	56632	1662	54031	1883	51589	2118	15
46	65564	1087	62348	1266	59366	1459	56588	1665	53989	1887	51550	2122	14
47	65509	1090	62296	1269	59318	1462	56543	1669	53947	1890	51510	2126	13
48	65453	1093	62245	1272	59270	1465	56498	1673	53905	1894	51471	2130	12
49	65398	1096	62194	1275	59222	1469	56454	1676	53864	1898	51432	2134	11
50	65342	1099	62142	1278	59175	1472	56409	1680	53822	1902	51392	2138	10
51	65287	1101	62091	1281	59127	1475	56365	1683	53780	1906	51353	2143	9
52	65231	1104	62040	1284	59079	1479	56320	1687	53738	1910	51314	2147	8
53	65176	1107	61989	1288	59032	1482	56276	1691	53697	1913	51275	2151	7
54	65121	1110	61938	1291	58984	1485	56231	1694	53655	1917	51236	2155	6
55	65066	1113	61887	1294	58937	1489	56187	1698	53614	1921	51197	2159	5
56	65011	1116	61836	1297	58889	1492	56143	1701	53572	1925	51158	2163	4
57	64956	1119	61785	1300	58842	1495	56099	1705	53531	1929	51119	2167	3
58	64901	1122	61734	1303	58795	1499	56054	1709	53489	1933	51080	2171	2
59	64846	1125	61683	1306	58748	1502	56010	1712	53448	1936	51041	2175	1
60	64791	1128	61632	1310	58700	1506	55966	1716	53406	1940	51002	2179	0
	A	B	A	B	A	B	A	B	A	B	A	B	
	167°00'		166°00'		165°00'		164°00'		163°00'		162°00'		

Table 9.—Line of position table—Continued

ALWAYS TAKE "Z" FROM BOTTOM OF TABLE, EXCEPT WHEN "K" IS SAME NAME AND GREATER THAN LATITUDE, IN WHICH CASE TAKE "Z" FROM TOP OF TABLE

	18°00'		19°00'		20°00'		21°00'		22°00'		23°00'		
	A	B	A	B	A	B	A	B	A	B	A	B	
0	51002	2179	48736	2433	46595	2701	44567	2985	42642	3283	40812	3597	60
1	50963	2183	48699	2437	46560	2706	44534	2990	42611	3288	40782	3603	59
2	50924	2188	48662	2442	46525	2711	44501	2994	42580	3294	40753	3608	58
3	50885	2192	48626	2446	46491	2715	44468	2999	42549	3299	40723	3613	57
4	50846	2196	48589	2450	46456	2720	44436	3004	42518	3304	40693	3619	56
5	50808	2200	48553	2455	46422	2724	44403	3009	42486	3309	40664	3624	55
6	50769	2204	48516	2459	46387	2729	44370	3014	42455	3314	40634	3630	54
7	50730	2208	48480	2463	46353	2734	44337	3019	42424	3319	40604	3635	53
8	50692	2212	48443	2468	46318	2738	44305	3024	42393	3324	40575	3640	52
9	50653	2216	48407	2472	46284	2743	44272	3029	42362	3329	40545	3646	51
10	50615	2221	48371	2477	46249	2748	44239	3033	42331	3335	40516	3651	50
11	50576	2225	48334	2481	46215	2752	44207	3038	42300	3340	40486	3657	49
12	50538	2229	48298	2485	46181	2757	44174	3043	42269	3345	40457	3662	48
13	50499	2233	48262	2490	46146	2761	44142	3048	42238	3350	40427	3667	47
14	50461	2237	48225	2494	46112	2766	44109	3053	42207	3355	40398	3673	46
15	50423	2241	48189	2499	46078	2771	44077	3058	42176	3360	40368	3678	45
16	50385	2246	48153	2503	46044	2775	44044	3063	42145	3366	40339	3684	44
17	50346	2250	48117	2507	46009	2780	44012	3068	42115	3371	40310	3689	43
18	50308	2254	48081	2512	45975	2785	43979	3073	42084	3376	40280	3695	42
19	50270	2258	48045	2516	45941	2789	43947	3078	42053	3381	40251	3700	41
20	50232	2262	48009	2521	45907	2794	43914	3083	42022	3386	40222	3705	40
21	50194	2266	47973	2525	45873	2799	43882	3088	41991	3391	40192	3711	39
22	50156	2271	47937	2530	45839	2804	43850	3092	41961	3397	40163	3716	38
23	50117	2275	47901	2534	45805	2808	43818	3097	41930	3402	40134	3722	37
24	50080	2279	47865	2539	45771	2813	43785	3102	41899	3407	40105	3727	36
25	50042	2283	47829	2543	45737	2818	43753	3107	41869	3412	40076	3733	35
26	50004	2287	47793	2547	45703	2822	43721	3112	41838	3418	40046	3738	34
27	49966	2292	47758	2552	45669	2827	43689	3117	41808	3423	40017	3744	33
28	49928	2296	47722	2556	45635	2832	43657	3122	41777	3428	39988	3749	32
29	49890	2300	47686	2561	45601	2836	43624	3127	41746	3433	39959	3755	31
30	49852	2304	47650	2565	45567	2841	43592	3132	41716	3438	39930	3760	30
31	49815	2309	47615	2570	45534	2846	43560	3137	41685	3444	39901	3766	29
32	49777	2313	47579	2574	45500	2851	43528	3142	41655	3449	39872	3771	28
33	49739	2317	47544	2579	45466	2855	43496	3147	41625	3454	39843	3777	27
34	49702	2321	47508	2583	45433	2860	43464	3152	41594	3459	39814	3782	26
35	49664	2325	47472	2588	45399	2865	43432	3157	41564	3465	39785	3788	25
36	49626	2330	47437	2592	45365	2870	43400	3162	41533	3470	39756	3793	24
37	49589	2334	47402	2597	45332	2874	43369	3167	41503	3475	39727	3799	23
38	49551	2338	47366	2601	45298	2879	43337	3172	41473	3480	39698	3804	22
39	49514	2343	47331	2606	45265	2884	43305	3177	41443	3486	39669	3810	21
40	49477	2347	47295	2610	45231	2889	43273	3182	41412	3491	39641	3815	20
41	49439	2351	47260	2615	45198	2893	43241	3187	41382	3496	39612	3821	19
42	49402	2355	47225	2619	45164	2898	43210	3192	41352	3502	39583	3826	18
43	49365	2360	47189	2624	45131	2903	43178	3197	41322	3507	39554	3832	17
44	49327	2364	47154	2628	45097	2908	43146	3202	41291	3512	39525	3838	16
45	49290	2368	47119	2633	45064	2913	43114	3207	41261	3517	39497	3843	15
46	49253	2372	47084	2637	45031	2917	43083	3212	41231	3523	39468	3849	14
47	49216	2377	47049	2642	44997	2922	43051	3217	41201	3528	39439	3854	13
48	49179	2381	47014	2646	44964	2927	43020	3222	41171	3533	39411	3860	12
49	49141	2385	46978	2651	44931	2932	42988	3227	41141	3539	39382	3865	11
50	49104	2390	46943	2656	44898	2936	42956	3233	41111	3544	39353	3871	10
51	49067	2394	46908	2660	44864	2941	42925	3238	41081	3549	39325	3876	9
52	49030	2398	46873	2665	44831	2946	42893	3243	41051	3555	39296	3882	8
53	48993	2403	46839	2669	44798	2951	42862	3248	41021	3560	39268	3888	7
54	48957	2407	46804	2674	44765	2956	42830	3253	40991	3565	39239	3893	6
55	48920	2411	46769	2678	44732	2961	42799	3258	40961	3571	39211	3899	5
56	48883	2416	46734	2683	44699	2965	42768	3263	40931	3576	39182	3904	4
57	48846	2420	46699	2688	44666	2970	42736	3268	40902	3581	39154	3910	3
58	48809	2424	46664	2692	44633	2975	42705	3273	40872	3587	39125	3916	2
59	48772	2429	46630	2697	44600	2980	42674	3278	40842	3592	39097	3921	1
60	48736	2433	46595	2701	44567	2985	42642	3283	40812	3597	39069	3927	0
	A	B	A	B	A	B	A	B	A	B	A	B	
	161°00'		160°00'		159°00'		158°00'		157°00'		156°00'		

Table 9.—Line of position table—Continued

WHEN LHA (E OR W) IS GREATER THAN 90°, TAKE "K" FROM BOTTOM OF TABLE

	24°00'		25°00'		26°00'		27°00'		28°00'		29°00'		
	A	B	A	B	A	B	A	B	A	B	A	B	
0	39069	3927	37405	4272	35816	4634	34295	5012	32839	5406	31443	5818	60
1	39040	3932	37378	4278	35790	4640	34270	5018	32815	5413	31420	5825	59
2	39012	3938	37351	4284	35764	4646	34246	5025	32792	5420	31397	5832	58
3	38984	3944	37324	4290	35738	4651	34221	5031	32768	5426	31375	5839	57
4	38955	3949	37297	4296	35712	4659	34196	5038	32744	5433	31352	5846	56
5	38927	3955	37270	4302	35686	4665	34172	5044	32720	5440	31329	5853	55
6	38899	3961	37243	4308	35661	4671	34147	5051	32697	5447	31306	5860	54
7	38871	3966	37216	4314	35635	4677	34122	5057	32673	5454	31284	5867	53
8	38842	3972	37189	4320	35609	4683	34097	5064	32649	5460	31261	5874	52
9	38814	3978	37162	4326	35583	4690	34073	5070	32625	5467	31238	5881	51
10	38786	3983	37135	4332	35558	4696	34048	5076	32602	5474	31216	5888	50
11	38758	3989	37108	4337	35532	4702	34024	5083	32579	5481	31193	5895	49
12	38730	3995	37081	4343	35506	4708	33999	5089	32555	5487	31170	5902	48
13	38702	4000	37055	4349	35481	4714	33974	5096	32532	5494	31148	5909	47
14	38674	4006	37028	4355	35455	4721	33950	5102	32508	5501	31125	5917	46
15	38645	4012	37001	4361	35429	4727	33925	5109	32484	5508	31103	5924	45
16	38617	4017	36974	4367	35404	4733	33901	5115	32461	5515	31080	5931	44
17	38589	4023	36948	4373	35378	4739	33876	5122	32438	5521	31058	5938	43
18	38561	4029	36921	4379	35353	4746	33852	5128	32414	5528	31035	5945	42
19	38533	4035	36894	4385	35327	4752	33827	5135	32391	5535	31013	5952	41
20	38506	4040	36867	4391	35302	4758	33803	5142	32367	5542	30990	5959	40
21	38478	4046	36841	4397	35276	4764	33779	5148	32344	5549	30968	5966	39
22	38450	4052	36814	4403	35251	4771	33754	5155	32320	5555	30945	5973	38
23	38422	4057	36787	4409	35225	4777	33730	5161	32297	5562	30923	5980	37
24	38394	4063	36761	4415	35200	4783	33705	5168	32274	5569	30900	5988	36
25	38366	4069	36734	4421	35174	4789	33681	5174	32250	5576	30878	5995	35
26	38338	4075	36708	4427	35149	4796	33657	5181	32227	5583	30856	6002	34
27	38311	4080	36681	4433	35123	4802	33632	5187	32204	5590	30833	6009	33
28	38283	4086	36655	4439	35098	4808	33608	5194	32180	5596	30811	6016	32
29	38255	4092	36628	4445	35073	4815	33584	5200	32157	5603	30788	6023	31
30	38227	4098	36602	4451	35047	4821	33559	5207	32134	5610	30766	6030	30
31	38200	4103	36575	4457	35022	4827	33535	5214	32110	5617	30744	6038	29
32	38172	4109	36549	4463	34997	4833	33511	5220	32087	5624	30721	6045	28
33	38144	4115	36522	4469	34971	4840	33487	5227	32064	5631	30699	6052	27
34	38117	4121	36496	4475	34946	4846	33462	5233	32041	5638	30677	6059	26
35	38089	4127	36469	4481	34921	4852	33438	5240	32018	5645	30655	6066	25
36	38061	4132	36443	4487	34896	4859	33414	5247	31994	5651	30632	6073	24
37	38034	4138	36417	4493	34870	4865	33390	5253	31971	5658	30610	6080	23
38	38006	4144	36390	4499	34845	4871	33366	5260	31948	5665	30588	6088	22
39	37979	4150	36364	4506	34820	4878	33342	5266	31925	5672	30566	6095	21
40	37951	4155	36338	4512	34795	4884	33318	5273	31902	5679	30544	6102	20
41	37924	4161	36311	4518	34770	4890	33293	5280	31879	5686	30521	6109	19
42	37896	4167	36285	4524	34744	4897	33269	5287	31856	5693	30499	6116	18
43	37869	4173	36259	4530	34719	4903	33245	5293	31833	5700	30477	6124	17
44	37841	4179	36233	4536	34694	4910	33221	5300	31810	5707	30455	6131	16
45	37814	4185	36206	4542	34669	4916	33197	5306	31786	5714	30433	6138	15
46	37786	4190	36180	4548	34644	4922	33173	5313	31763	5720	30411	6145	14
47	37759	4196	36154	4554	34619	4929	33149	5320	31740	5727	30389	6153	13
48	37732	4202	36128	4560	34594	4935	33125	5326	31717	5734	30367	6160	12
49	37704	4208	36102	4566	34569	4941	33101	5333	31694	5741	30345	6167	11
50	37677	4214	36076	4573	34544	4948	33077	5340	31672	5748	30322	6174	10
51	37650	4220	36050	4579	34519	4954	33054	5346	31648	5755	30300	6181	9
52	37623	4225	36024	4585	34494	4961	33030	5353	31626	5762	30278	6189	8
53	37595	4231	35998	4591	34469	4967	33006	5360	31603	5769	30256	6196	7
54	37568	4237	35972	4597	34445	4973	32982	5366	31580	5776	30235	6203	6
55	37541	4243	35946	4603	34420	4980	32958	5373	31557	5783	30213	6210	5
56	37514	4249	35920	4609	34395	4986	32934	5380	31534	5790	30191	6218	4
57	37486	4255	35894	4615	34370	4993	32910	5386	31511	5797	30169	6225	3
58	37459	4261	35868	4622	34345	4999	32887	5393	31488	5804	30147	6232	2
59	37432	4266	35842	4628	34320	5005	32863	5400	31466	5811	30125	6240	1
60	37405	4272	35816	4634	34295	5012	32839	5406	31443	5818	30103	6247	0
	A	B	A	B	A	B	A	B	A	B	A	B	
	155°00'		154°00'		153°00'		152°00'		151°00'		150°00'		

Table 9.—Line of position table—Continued

ALWAYS TAKE "Z" FROM BOTTOM OF TABLE, EXCEPT WHEN "K" IS SAME NAME AND GREATER THAN LATITUDE, IN WHICH CASE TAKE "Z" FROM TOP OF TABLE

	30°00'		31°00'		32°00'		33°00'		34°00'		35°00'		
	A	B	A	B	A	B	A	B	A	B	A	B	
0	30103	6247	28816	6693	27579	7158	26389	7641	25244	8143	24141	8663	60
1	30081	6254	28795	6701	27559	7166	26370	7649	25225	8151	24123	8672	59
2	30059	6262	28774	6709	27539	7174	26350	7657	25206	8160	24105	8681	58
3	30037	6269	28753	6716	27518	7182	26331	7665	25188	8168	24087	8690	57
4	30016	6276	28732	6724	27498	7190	26311	7674	25169	8177	24069	8699	56
5	29994	6284	28711	6731	27478	7197	26292	7682	25150	8185	24051	8708	55
6	29972	6291	28690	6739	27458	7205	26273	7690	25132	8194	24033	8717	54
7	29950	6298	28669	6747	27438	7213	26253	7698	25113	8202	24015	8726	53
8	29928	6305	28648	6754	27418	7221	26234	7707	25094	8211	23997	8734	52
9	29907	6313	28627	6762	27398	7229	26214	7715	25076	8219	23979	8743	51
10	29885	6320	28606	6770	27377	7237	26195	7723	25057	8228	23961	8752	50
11	29863	6328	28586	6777	27357	7245	26176	7731	25038	8237	23943	8761	49
12	29841	6335	28565	6785	27337	7253	26157	7740	25020	8245	23925	8770	48
13	29820	6342	28544	6791	27317	7261	26137	7748	25001	8254	23907	8779	47
14	29798	6350	28523	6800	27297	7269	26118	7756	24983	8262	23889	8788	46
15	29776	6357	28502	6808	27277	7277	26099	7764	24964	8271	23871	8797	45
16	29755	6364	28481	6815	27257	7285	26079	7773	24946	8280	23854	8806	44
17	29733	6372	28461	6823	27237	7293	26060	7781	24927	8288	23836	8815	43
18	29711	6379	28440	6831	27217	7301	26041	7789	24909	8297	23818	8824	42
19	29690	6386	28419	6839	27197	7309	26022	7798	24890	8305	23800	8833	41
20	29668	6394	28398	6846	27177	7317	26002	7806	24872	8314	23782	8842	40
21	29647	6401	28378	6854	27157	7325	25983	7814	24853	8323	23764	8850	39
22	29625	6409	28357	6862	27137	7333	25964	7823	24835	8331	23747	8859	38
23	29604	6416	28336	6869	27117	7341	25945	7831	24816	8340	23729	8868	37
24	29582	6423	28315	6877	27098	7349	25926	7839	24798	8349	23711	8877	36
25	29560	6431	28295	6885	27078	7357	25907	7848	24779	8357	23693	8886	35
26	29539	6438	28274	6893	27058	7365	25887	7856	24761	8366	23675	8895	34
27	29517	6446	28253	6900	27038	7373	25868	7864	24742	8375	23658	8904	33
28	29496	6453	28233	6908	27018	7381	25849	7873	24724	8383	23640	8913	32
29	29475	6461	28212	6916	26998	7389	25830	7881	24706	8392	23622	8922	31
30	29453	6468	28191	6923	26978	7397	25811	7889	24687	8401	23605	8931	30
31	29432	6475	28171	6931	26958	7405	25792	7898	24669	8409	23587	8940	29
32	29410	6483	28150	6939	26939	7413	25773	7906	24650	8418	23569	8949	28
33	29389	6490	28130	6947	26919	7421	25754	7914	24632	8427	23551	8958	27
34	29367	6498	28109	6954	26899	7429	25735	7923	24614	8435	23534	8967	26
35	29346	6505	28089	6962	26879	7437	25716	7931	24595	8444	23516	8976	25
36	29325	6513	28068	6970	26860	7445	25697	7940	24577	8453	23498	8986	24
37	29303	6520	28047	6978	26840	7453	25678	7948	24559	8461	23481	8995	23
38	29282	6528	28027	6986	26820	7462	25659	7956	24540	8470	23463	9004	22
39	29261	6535	28006	6993	26800	7470	25640	7965	24522	8479	23446	9013	21
40	29239	6543	27986	7001	26781	7478	25621	7973	24504	8488	23428	9022	20
41	29218	6550	27965	7009	26761	7486	25602	7982	24486	8496	23410	9031	19
42	29197	6558	27945	7017	26741	7494	25583	7990	24467	8505	23393	9040	18
43	29175	6565	27925	7024	26722	7502	25564	7998	24449	8514	23375	9049	17
44	29154	6573	27904	7032	26702	7510	25545	8007	24431	8523	23358	9058	16
45	29133	6580	27884	7040	26682	7518	25526	8015	24413	8531	23340	9067	15
46	29112	6588	27863	7048	26663	7526	25507	8024	24395	8540	23323	9076	14
47	29091	6595	27843	7056	26643	7535	25488	8032	24376	8549	23305	9085	13
48	29069	6603	27823	7064	26623	7543	25469	8041	24358	8558	23288	9094	12
49	29048	6610	27802	7071	26604	7551	25451	8049	24340	8567	23270	9104	11
50	29027	6618	27782	7079	26584	7559	25432	8058	24322	8575	23252	9113	10
51	29006	6625	27761	7087	26565	7567	25413	8066	24304	8584	23235	9122	9
52	28985	6633	27741	7095	26545	7575	25394	8075	24286	8593	23218	9131	8
53	28964	6640	27721	7103	26526	7584	25375	8083	24267	8602	23200	9140	7
54	28942	6648	27701	7111	26506	7592	25356	8091	24249	8611	23183	9149	6
55	28921	6655	27680	7118	26486	7600	25338	8100	24231	8620	23165	9158	5
56	28900	6663	27660	7126	26467	7608	25319	8108	24213	8628	23148	9168	4
57	28879	6671	27640	7134	26447	7616	25300	8117	24195	8637	23130	9177	3
58	28858	6678	27619	7142	26428	7625	25281	8125	24177	8646	23113	9186	2
59	28837	6686	27599	7150	26409	7633	25262	8134	24159	8655	23095	9195	1
60	28816	6693	27579	7158	26389	7641	25244	8143	24141	8663	23078	9204	0
	A	B	A	B	A	B	A	B	A	B	A	B	
	149°00'		148°00'		147°00'		146°00'		145°00'		144°00'		

Table 9.—Line of position table—Continued

WHEN LHA (E OR W) IS GREATER THAN 90°, TAKE "K" FROM BOTTOM OF TABLE

	36°00'		37°00'		38°00'		39°00'		40°00'		41°00'		
	A	B	A	B	A	B	A	B	A	B	A	B	
0	23078	9204	22054	9765	21066	10347	20113	10950	19193	11575	18306	12222	60
1	23061	9213	22037	9775	21080	10357	20097	10960	19178	11585	18291	12233	59
2	23043	9223	22020	9784	21033	10367	20082	10970	19163	11596	18277	12244	58
3	23026	9232	22003	9794	21017	10376	20066	10980	19148	11606	18262	12255	57
4	23009	9241	21987	9803	21001	10386	20050	10991	19133	11617	18248	12266	56
5	22991	9250	21970	9813	20985	10396	20035	11001	19118	11628	18233	12277	55
6	22974	9259	21953	9822	20969	10406	20019	11011	19103	11638	18219	12288	54
7	22957	9269	21937	9832	20953	10416	20004	11021	19088	11649	18204	12299	53
8	22939	9278	21920	9843	20937	10426	19988	11032	19073	11660	18190	12310	52
9	22922	9287	21903	9851	20921	10436	19973	11042	19058	11670	18175	12321	51
10	22905	9296	21887	9861	20905	10446	19957	11052	19043	11681	18161	12332	50
11	22887	9305	21870	9870	20888	10456	19942	11063	19028	11692	18146	12343	49
12	22870	9315	21853	9880	20872	10466	19926	11073	19013	11702	18132	12354	48
13	22853	9324	21837	9889	20856	10476	19911	11083	18998	11713	18117	12365	47
14	22836	9333	21820	9899	20840	10486	19895	11094	18983	11724	18103	12376	46
15	22818	9342	21803	9909	20824	10496	19880	11104	18968	11734	18089	12387	45
16	22801	9352	21787	9918	20808	10505	19864	11114	18953	11745	18074	12398	44
17	22784	9361	21770	9928	20792	10515	19849	11124	18939	11756	18060	12410	43
18	22767	9370	21754	9937	20776	10525	19834	11135	18924	11766	18045	12421	42
19	22750	9380	21737	9947	20760	10535	19818	11145	18909	11777	18031	12432	41
20	22732	9389	21720	9957	20744	10545	19803	11156	18894	11788	18017	12443	40
21	22715	9398	21704	9966	20728	10555	19787	11166	18879	11799	18002	12454	39
22	22698	9407	21687	9976	20712	10565	19772	11176	18864	11809	17988	12465	38
23	22681	9417	21671	9986	20696	10575	19756	11187	18849	11820	17974	12476	37
24	22664	9426	21654	9995	20680	10585	19741	11197	18834	11831	17959	12487	36
25	22647	9435	21638	10005	20665	10595	19726	11207	18820	11842	17945	12499	35
26	22630	9445	21621	10015	20649	10605	19710	11218	18805	11852	17931	12510	34
27	22612	9454	21605	10024	20633	10615	19695	11228	18790	11863	17916	12521	33
28	22595	9463	21588	10034	20617	10625	19680	11239	18775	11874	17902	12532	32
29	22578	9473	21572	10044	20601	10635	19664	11249	18760	11885	17888	12543	31
30	22561	9482	21555	10053	20585	10646	19649	11259	18746	11895	17873	12554	30
31	22544	9492	21539	10063	20569	10656	19634	11270	18731	11906	17859	12565	29
32	22527	9501	21522	10073	20553	10666	19618	11280	18716	11917	17845	12577	28
33	22510	9510	21506	10082	20537	10676	19603	11291	18701	11928	17831	12588	27
34	22493	9520	21489	10092	20522	10686	19588	11301	18686	11939	17816	12599	26
35	22476	9529	21473	10102	20506	10696	19572	11311	18672	11949	17802	12610	25
36	22459	9538	21457	10112	20490	10706	19557	11322	18657	11960	17788	12622	24
37	22442	9548	21440	10121	20474	10716	19541	11332	18642	11971	17774	12633	23
38	22425	9557	21424	10131	20458	10726	19527	11343	18627	11982	17760	12644	22
39	22408	9566	21407	10141	20442	10736	19511	11353	18613	11993	17745	12655	21
40	22391	9576	21391	10151	20427	10746	19496	11364	18598	12004	17731	12667	20
41	22374	9585	21375	10160	20411	10756	19481	11374	18583	12014	17717	12678	19
42	22357	9595	21358	10170	20395	10767	19466	11385	18569	12025	17703	12689	18
43	22340	9604	21342	10180	20379	10777	19450	11395	18554	12036	17689	12700	17
44	22323	9614	21326	10190	20364	10787	19435	11406	18539	12047	17674	12711	16
45	22306	9623	21309	10199	20348	10797	19420	11416	18525	12058	17660	12723	15
46	22289	9632	21293	10209	20332	10807	19405	11427	18510	12069	17646	12734	14
47	22272	9642	21277	10219	20316	10817	19390	11437	18495	12080	17632	12745	13
48	22256	9651	21260	10229	20301	10827	19375	11448	18481	12091	17618	12757	12
49	22239	9661	21244	10239	20285	10838	19359	11458	18466	12102	17604	12768	11
50	22222	9670	21228	10248	20269	10848	19344	11469	18451	12112	17590	12779	10
51	22205	9680	21212	10258	20254	10858	19329	11479	18437	12123	17575	12790	9
52	22188	9689	21195	10268	20238	10868	19314	11490	18422	12134	17561	12802	8
53	22171	9699	21179	10278	20222	10878	19299	11501	18408	12145	17547	12813	7
54	22154	9708	21163	10288	20207	10888	19284	11511	18393	12156	17533	12824	6
55	22138	9718	21147	10298	20191	10899	19269	11522	18378	12167	17519	12836	5
56	22121	9727	21131	13007	20175	10909	19253	11532	18364	12178	17505	12847	4
57	22104	9737	21114	10317	20160	10919	19238	11543	18349	12189	17491	12859	3
58	22087	9746	21098	10327	20144	10929	19223	11553	18335	12200	17477	12870	2
59	22070	9756	21082	10337	20128	10939	19208	11564	18320	12211	17463	12881	1
60	22054	9765	21066	10347	20113	10950	19193	11575	18306	12222	17449	12893	0
	A	B	A	B	A	B	A	B	A	B	A	B	
	143°00'		142°00'		141°00'		140°00'		139°00'		138°00'		

Table 9.—Line of position table—Continued

ALWAYS TAKE "Z" FROM BOTTOM OF TABLE, EXCEPT WHEN "K" IS SAME NAME AND GREATER THAN LATITUDE, IN WHICH CASE TAKE "Z" FROM TOP OF TABLE

	42°00'		43°00'		44°00'		45°00'		46°00'		47°00'		
	A	B	A	B	A	B	A	B	A	B	A	B	
0	17449	12893	16622	13587	15823	14307	15051	15051	14307	15823	13587	16622	60
1	17435	12904	16608	13599	15810	14317	15039	15064	14294	15836	13575	16635	59
2	17421	12915	16595	13611	15797	14331	15028	15077	14282	15846	13564	16649	58
3	17407	12927	16581	13623	15784	14343	15014	15089	14270	15862	13552	16662	57
4	17393	12938	16567	13634	15771	14355	15001	15102	14258	15875	13540	16676	56
5	17379	12950	16554	13646	15758	14368	14988	15115	14246	15888	13528	16689	55
6	17365	12961	16540	13658	15744	14380	14976	15127	14233	15901	13517	16703	54
7	17351	12972	16527	13670	15731	14392	14963	15140	14221	15915	13505	16717	53
8	17337	12984	16513	13682	15718	14404	14951	15153	14209	15928	13493	16730	52
9	17323	12995	16500	13694	15705	14417	14938	15165	14197	15941	13481	16744	51
10	17309	13007	16487	13706	15692	14429	14925	15178	14185	15954	13470	16757	50
11	17295	13018	16473	13717	15679	14441	14913	15191	14173	15967	13458	16771	49
12	17281	13030	16460	13729	15666	14453	14900	15204	14161	15980	13446	16785	48
13	17267	13041	16446	13741	15653	14466	14888	15216	14149	15994	13435	16798	47
14	17253	13053	16433	13753	15640	14478	14875	15229	14136	16007	13423	16812	46
15	17239	13064	16419	13765	15627	14490	14863	15242	14124	16020	13411	16826	45
16	17225	13075	16406	13777	15614	14503	14850	15255	14112	16033	13400	16839	44
17	17212	13087	16392	13789	15602	14515	14838	15267	14100	16046	13388	16853	43
18	17198	13098	16379	13800	15589	14527	14825	15280	14088	16060	13376	16867	42
19	17184	13110	16366	13812	15576	14540	14813	15293	14076	16073	13365	16880	41
20	17170	13121	16352	13824	15563	14552	14800	15306	14064	16086	13353	16894	40
21	17156	13133	16339	13836	15550	14564	14788	15318	14052	16099	13341	16908	39
22	17142	13144	16325	13848	15537	14577	14775	15331	14040	16112	13330	16922	38
23	17128	13156	16312	13860	15524	14589	14763	15344	14028	16126	13318	16935	37
24	17114	13168	16299	13872	15511	14601	14750	15357	14016	16139	13306	16949	36
25	17101	13179	16285	13884	15498	14614	14738	15370	14004	16152	13295	16963	35
26	17087	13191	16272	13896	15485	14626	14725	15382	13992	16166	13283	16977	34
27	17073	13202	16259	13908	15472	14639	14713	15395	13980	16179	13272	16990	33
28	17059	13214	16245	13920	15469	14651	14701	15408	13968	16192	13260	17004	32
29	17046	13225	16232	13932	15457	14663	14688	15421	13956	16205	13248	17018	31
30	17032	13237	16219	13944	15444	14676	14676	15434	13944	16219	13237	17032	30
31	17018	13248	16205	13956	15431	14688	14663	15447	13932	16232	13225	17045	29
32	17004	13260	16192	13968	15418	14701	14651	15459	13920	16245	13214	17059	28
33	16990	13272	16179	13980	15395	14713	14639	15472	13908	16259	13202	17073	27
34	16977	13283	16166	13992	15382	14726	14626	15485	13896	16272	13191	17087	26
35	16963	13295	16152	14004	15370	14738	14614	15498	13884	16285	13179	17101	25
36	16949	13306	16139	14016	15357	14750	14601	15511	13872	16299	13168	17114	24
37	16935	13318	16126	14028	15344	14763	14589	15524	13860	16312	13156	17128	23
38	16922	13330	16112	14040	15331	14775	14577	15537	13848	16325	13144	17142	22
39	16908	13341	16099	14052	15318	14788	14564	15550	13836	16339	13133	17156	21
40	16894	13353	16086	14064	15306	14800	14552	15563	13824	16352	13121	17170	20
41	16880	13365	16073	14076	15293	14813	14540	15576	13812	16366	13110	17184	19
42	16867	13376	16060	14088	15280	14825	14527	15589	13800	16379	13098	17198	18
43	16853	13388	16046	14100	15267	14839	14515	15602	13788	16392	13087	17212	17
44	16839	13400	16033	14112	15255	14850	14503	15614	13777	16406	13075	17226	16
45	16825	13411	16020	14124	15242	14863	14490	15627	13765	16419	13064	17239	15
46	16812	13423	16007	14136	15229	14875	14478	15640	13753	16433	13053	17253	14
47	16798	13435	15994	14149	15216	14888	14466	15653	13741	16446	13041	17267	13
48	16785	13446	15980	14161	15204	14900	14453	15666	13729	16460	13030	17281	12
49	16771	13458	15967	14173	15191	14913	14441	15679	13717	16473	13018	17295	11
50	16757	13470	15954	14185	15178	14925	14429	15692	13705	16487	13007	17309	10
51	16744	13481	15941	14197	15165	14938	14417	15705	13694	16500	12995	17323	9
52	16730	13493	15928	14209	15153	14951	14404	15718	13682	16513	12984	17337	8
53	16717	13505	15915	14221	15140	14963	14392	15731	13670	16527	12972	17351	7
54	16703	13517	15901	14233	15127	14976	14380	15744	13658	16540	12961	17365	6
55	16689	13528	15888	14246	15115	14988	14368	15758	13646	16554	12950	17379	5
56	16676	13540	15875	14258	15102	15001	14355	15771	13634	16567	12938	17393	4
57	16662	13552	15862	14270	15089	15014	14343	15784	13623	16581	12927	17407	3
58	16649	13564	15849	14282	15077	15026	14331	15797	13611	16595	12915	17421	2
59	16635	13575	15836	14294	15064	15039	14319	15810	13599	16608	12904	17435	1
60	16622	13587	15823	14307	15051	15051	14307	15823	13587	16622	12893	17449	0
	A	B	A	B	A	B	A	B	A	B	A	B	
	187°00'		136°00'		135°00'		134°00'		133°00'		132°00'		

Table 9.—Line of position table—Continued

WHEN LHA (E OR W) IS GREATER THAN 90°. TAKE "K" FROM BOTTOM OF TABLE

	48°00'		49°00'		50°00'		51°00'		52°00'		53°00'		
	A	B	A	B	A	B	A	B	A	B	A	B	
0	12893	17449	12222	18306	11575	19193	10950	20113	10347	21066	9765	22054	60
1	12881	17463	12211	18320	11564	19208	10939	20128	10337	21082	9756	22070	59
2	12870	17477	12200	18335	11553	19223	10929	20144	10327	21098	9746	22087	58
3	12859	17491	12189	18349	11543	19238	10919	20160	10317	21114	9737	22104	57
4	12847	17505	12178	18364	11532	19253	10909	20175	10307	21131	9727	22121	56
5	12836	17519	12167	18378	11522	19269	10899	20191	10298	21147	9718	22138	55
6	12824	17533	12156	18393	11511	19284	10888	20207	10288	21163	9708	22154	54
7	12813	17547	12145	18408	11501	19299	10878	20222	10278	21179	9699	22171	53
8	12802	17561	12134	18422	11490	19314	10868	20238	10268	21195	9689	22188	52
9	12790	17576	12123	18437	11479	19329	10859	20254	10258	21212	9680	22205	51
10	12779	17590	12112	18451	11469	19344	10849	20269	10248	21228	9670	22222	50
11	12768	17604	12102	18466	11458	19359	10838	20285	10239	21244	9661	22239	49
12	12757	17618	12091	18481	11448	19375	10827	20301	10229	21260	9651	22256	48
13	12745	17632	12080	18495	11437	19390	10817	20316	10219	21277	9642	22272	47
14	12734	17646	12069	18510	11427	19405	10807	20332	10209	21293	9632	22289	46
15	12723	17660	12058	18525	11416	19420	10797	20348	10199	21309	9623	22306	45
16	12711	17674	12047	18539	11406	19435	10787	20364	10190	21326	9614	22323	44
17	12700	17689	12036	18554	11395	19450	10777	20379	10180	21342	9604	22340	43
18	12689	17703	12025	18569	11385	19466	10767	20395	10170	21358	9595	22357	42
19	12678	17717	12014	18583	11374	19481	10756	20411	10160	21375	9585	22374	41
20	12666	17731	12004	18598	11364	19496	10746	20427	10151	21391	9576	22391	40
21	12655	17745	11993	18613	11353	19511	10736	20442	10141	21407	9566	22408	39
22	12644	17760	11982	18627	11343	19527	10726	20458	10131	21424	9557	22425	38
23	12633	17774	11971	18642	11332	19542	10716	20474	10121	21440	9548	22442	37
24	12622	17788	11960	18657	11322	19557	10706	20490	10112	21457	9538	22459	36
25	12610	17802	11949	18672	11311	19572	10696	20506	10102	21473	9529	22476	35
26	12599	17816	11939	18686	11301	19588	10686	20522	10092	21489	9520	22493	34
27	12588	17831	11928	18701	11291	19603	10676	20537	10082	21506	9510	22510	33
28	12577	17845	11917	18716	11280	19618	10666	20553	10073	21522	9501	22527	32
29	12566	17859	11906	18731	11270	19634	10656	20569	10063	21539	9491	22544	31
30	12554	17873	11895	18746	11259	19649	10646	20585	10053	21555	9482	22561	30
31	12543	17888	11885	18760	11249	19664	10635	20601	10044	21572	9473	22578	29
32	12532	17902	11874	18775	11239	19680	10625	20617	10034	21588	9463	22595	28
33	12521	17916	11863	18790	11228	19695	10615	20633	10024	21605	9454	22612	27
34	12510	17931	11852	18805	11218	19710	10605	20649	10015	21621	9445	22630	26
35	12499	17945	11842	18820	11207	19726	10595	20665	10005	21638	9435	22647	25
36	12487	17959	11831	18834	11197	19741	10585	20680	9995	21654	9426	22664	24
37	12476	17974	11820	18849	11187	19756	10575	20696	9986	21671	9417	22681	23
38	12465	17988	11809	18864	11176	19772	10565	20712	9976	21687	9407	22698	22
39	12454	18002	11799	18879	11166	19787	10555	20728	9966	21704	9398	22715	21
40	12443	18017	11788	18894	11156	19803	10545	20744	9957	21720	9389	22732	20
41	12432	18031	11777	18909	11145	19818	10535	20760	9947	21737	9380	22750	19
42	12421	18045	11766	18924	11135	19834	10525	20776	9937	21754	9370	22767	18
43	12410	18060	11756	18939	11124	19849	10515	20792	9928	21770	9361	22784	17
44	12398	18074	11745	18953	11114	19864	10505	20808	9918	21787	9352	22801	16
45	12387	18089	11734	18968	11104	19880	10496	20824	9909	21803	9342	22818	15
46	12376	18103	11724	18983	11094	19895	10486	20840	9899	21820	9333	22836	14
47	12365	18117	11713	18998	11083	19911	10476	20856	9889	21837	9324	22853	13
48	12354	18132	11702	19013	11073	19926	10466	20872	9880	21853	9315	22870	12
49	12343	18146	11692	19028	11063	19942	10456	20888	9870	21870	9305	22887	11
50	12332	18161	11681	19043	11052	19957	10446	20905	9861	21887	9296	22905	10
51	12321	18175	11670	19058	11042	19973	10436	20921	9851	21903	9287	22922	9
52	12310	18190	11660	19073	11032	19988	10426	20937	9841	21920	9278	22939	8
53	12299	18204	11649	19088	11021	20004	10416	20953	9832	21937	9269	22957	7
54	12288	18219	11638	19103	11011	20019	10406	20969	9822	21953	9259	22974	6
55	12277	18233	11628	19118	11001	20035	10396	20985	9813	21970	9250	22991	5
56	12266	18248	11617	19133	10991	20050	10386	21001	9803	21987	9241	23009	4
57	12255	18262	11606	19148	10980	20066	10376	21017	9794	22003	9232	23026	3
58	12244	18277	11596	19163	10970	20082	10367	21033	9784	22020	9223	23043	2
59	12233	18291	11585	19178	10960	20097	10357	21050	9775	22037	9213	23061	1
60	12222	18306	11575	19193	10950	20113	10347	21066	9765	22054	9204	23078	0
	A	B	A	B	A	B	A	B	A	B	A	B	
	131°00'		130°00'		129°00'		128°00'		127°00'		126°00'		

Table 9.—Line of position table—Continued

ALL CASES TAKE "Z" FROM BOTTOM OF TABLE, EXCEPT WHEN "K" IS SAME NAME AND GREATER THAN LATITUDE, IN WHICH CASE TAKE "Z" FROM TOP OF TABLE

	54°00'		55°00'		56°00'		57°00'		58°00'		59°00'		
	A	B	A	B	A	B	A	B	A	B	A	B	
0	9204	23078	8663	24141	8143	25244	7641	26389	7158	27579	6693	28816	60
1	9195	23095	8655	24159	8134	25263	7633	26409	7150	27599	6686	28837	59
2	9186	23113	8646	24177	8125	25281	7624	26428	7142	27619	6678	28858	58
3	9177	23130	8637	24195	8117	25300	7616	26447	7134	27640	6671	28879	57
4	9168	23148	8628	24213	8108	25319	7608	26467	7126	27660	6663	28900	56
5	9158	23165	8619	24231	8100	25338	7600	26486	7118	27680	6655	28921	55
6	9149	23183	8611	24249	8092	25356	7592	26506	7111	27701	6648	28942	54
7	9140	23200	8602	24267	8083	25375	7584	26526	7103	27721	6640	28964	53
8	9131	23218	8593	24286	8075	25394	7575	26545	7095	27741	6633	28985	52
9	9122	23235	8584	24304	8066	25413	7567	26565	7087	27761	6625	29006	51
10	9113	23252	8575	24322	8058	25432	7559	26584	7079	27782	6618	29027	50
11	9104	23270	8567	24340	8049	25451	7551	26604	7071	27802	6610	29048	49
12	9094	23288	8558	24358	8041	25469	7543	26623	7064	27823	6603	29069	48
13	9085	23305	8549	24376	8032	25488	7535	26643	7056	27843	6595	29091	47
14	9076	23323	8540	24395	8024	25507	7526	26663	7048	27863	6588	29112	46
15	9067	23340	8531	24413	8015	25526	7518	26682	7040	27884	6580	29133	45
16	9058	23358	8523	24431	8007	25545	7510	26702	7032	27904	6573	29154	44
17	9049	23375	8514	24449	7998	25564	7502	26722	7024	27925	6565	29175	43
18	9040	23393	8505	24467	7990	25583	7494	26741	7017	27945	6558	29197	42
19	9031	23410	8496	24486	7982	25602	7486	26761	7009	27965	6550	29218	41
20	9022	23428	8488	24504	7973	25621	7478	26781	7001	27986	6543	29239	40
21	9013	23446	8479	24522	7965	25640	7470	26800	6993	28006	6535	29261	39
22	9004	23463	8470	24540	7956	25659	7462	26820	6985	28027	6528	29282	38
23	8995	23481	8461	24559	7948	25678	7453	26840	6978	28047	6520	29303	37
24	8985	23498	8453	24577	7940	25697	7445	26860	6970	28068	6513	29325	36
25	8976	23516	8444	24595	7931	25716	7437	26879	6962	28089	6505	29346	35
26	8967	23534	8435	24614	7923	25735	7429	26899	6954	28109	6498	29367	34
27	8958	23551	8427	24632	7914	25754	7421	26919	6947	28130	6490	29389	33
28	8949	23569	8418	24650	7906	25773	7413	26939	6939	28150	6483	29410	32
29	8940	23587	8409	24669	7898	25792	7405	26958	6931	28171	6475	29432	31
30	8931	23605	8401	24687	7889	25811	7397	26978	6923	28191	6468	29453	30
31	8922	23622	8392	24706	7881	25830	7389	26998	6916	28212	6460	29475	29
32	8913	23640	8383	24724	7873	25849	7381	27018	6908	28233	6453	29496	28
33	8904	23658	8375	24742	7864	25868	7373	27038	6900	28253	6446	29517	27
34	8895	23675	8366	24761	7856	25887	7365	27058	6892	28274	6438	29539	26
35	8886	23693	8357	24779	7848	25907	7357	27078	6885	28295	6431	29560	25
36	8877	23711	8349	24798	7839	25926	7349	27098	6877	28315	6423	29582	24
37	8868	23729	8340	24816	7831	25945	7341	27117	6869	28336	6416	29604	23
38	8859	23747	8331	24835	7823	25964	7333	27137	6862	28357	6409	29625	22
39	8850	23764	8323	24853	7814	25983	7325	27157	6854	28378	6401	29647	21
40	8842	23782	8314	24872	7806	26002	7317	27177	6846	28398	6394	29668	20
41	8833	23800	8305	24890	7798	26022	7309	27197	6839	28419	6386	29690	19
42	8824	23818	8297	24909	7789	26041	7301	27217	6831	28440	6379	29711	18
43	8815	23836	8288	24927	7781	26060	7293	27237	6823	28461	6372	29733	17
44	8806	23854	8280	24946	7773	26079	7285	27257	6815	28481	6364	29755	16
45	8797	23871	8271	24964	7764	26099	7277	27277	6808	28502	6357	29776	15
46	8788	23889	8262	24983	7756	26118	7269	27297	6800	28523	6349	29798	14
47	8779	23907	8254	25001	7748	26137	7261	27317	6792	28544	6342	29820	13
48	8770	23925	8245	25020	7740	26157	7253	27337	6785	28565	6335	29841	12
49	8761	23943	8237	25038	7731	26176	7245	27357	6777	28586	6327	29863	11
50	8752	23961	8228	25057	7723	26195	7237	27377	6770	28607	6320	29885	10
51	8743	23979	8219	25076	7715	26214	7229	27398	6762	28627	6313	29907	9
52	8734	23997	8211	25094	7707	26234	7221	27418	6754	28648	6305	29929	8
53	8726	24015	8202	25113	7698	26253	7213	27438	6747	28669	6298	29950	7
54	8717	24033	8194	25132	7690	26273	7205	27458	6739	28690	6291	29972	6
55	8708	24051	8185	25150	7682	26292	7197	27478	6731	28711	6283	29994	5
56	8699	24069	8177	25169	7674	26311	7190	27498	6724	28732	6276	30015	4
57	8690	24087	8168	25188	7666	26331	7182	27518	6716	28753	6269	30037	3
58	8681	24105	8160	25206	7657	26350	7174	27539	6709	28774	6261	30059	2
59	8672	24123	8151	25225	7649	26370	7166	27559	6701	28795	6254	30081	1
60	8663	24141	8143	25244	7641	26389	7158	27579	6693	28816	6247	30103	0
	A	B	A	B	A	B	A	B	A	B	A	B	
	125°00'		124°00'		123°00'		122°00'		121°00'		120°00'		

Table 9.—Line of position table—Continued

WHEN LHA (E OR W) IS GREATER THAN 90°, TAKE "K" FROM BOTTOM OF TABLE

	60°00'		61°00'		62°00'		63°00'		64°00'		65°00'		
	A	B	A	B	A	B	A	B	A	B	A	B	
0	6247	30103	5818	31443	5406	32839	5012	34295	4634	35816	4272	37405	60
1	6240	30125	5811	31466	5400	32863	5005	34320	4628	35842	4266	37432	59
2	6232	30147	5804	31488	5393	32887	4999	34345	4622	35868	4261	37459	58
3	6225	30169	5797	31511	5386	32910	4993	34370	4615	35894	4255	37487	57
4	6218	30191	5790	31534	5380	32934	4986	34395	4609	35920	4249	37514	56
5	6210	30213	5783	31557	5373	32958	4980	34420	4603	35946	4243	37541	55
6	6203	30235	5776	31580	5366	32982	4973	34444	4597	35972	4237	37568	54
7	6196	30256	5769	31603	5360	33006	4967	34469	4591	35998	4231	37595	53
8	6189	30278	5762	31626	5353	33030	4961	34494	4585	36024	4225	37623	52
9	6181	30300	5755	31649	5346	33054	4954	34519	4579	36050	4220	37650	51
10	6174	30322	5748	31672	5340	33077	4948	34544	4573	36076	4214	37677	50
11	6167	30345	5741	31694	5333	33101	4941	34569	4566	36102	4208	37704	49
12	6160	30367	5734	31717	5326	33125	4935	34594	4560	36128	4202	37732	48
13	6152	30389	5727	31740	5320	33149	4928	34619	4554	36154	4196	37759	47
14	6145	30411	5720	31763	5313	33173	4922	34644	4548	36180	4190	37786	46
15	6138	30433	5714	31786	5306	33197	4916	34669	4542	36206	4185	37814	45
16	6131	30455	5707	31809	5300	33221	4910	34694	4536	36233	4179	37841	44
17	6124	30477	5700	31833	5293	33245	4903	34719	4530	36259	4173	37869	43
18	6116	30499	5693	31856	5286	33269	4897	34744	4524	36285	4167	37896	42
19	6109	30521	5686	31879	5280	33293	4890	34770	4518	36311	4161	37924	41
20	6102	30544	5679	31902	5273	33318	4884	34795	4512	36338	4155	37951	40
21	6095	30566	5672	31925	5266	33342	4878	34820	4506	36364	4150	37979	39
22	6088	30588	5665	31948	5260	33366	4871	34845	4500	36390	4144	38006	38
23	6080	30610	5658	31971	5253	33390	4865	34870	4493	36417	4138	38034	37
24	6073	30632	5651	31994	5247	33414	4859	34895	4487	36443	4132	38061	36
25	6066	30655	5644	32018	5240	33438	4852	34921	4481	36469	4127	38089	35
26	6059	30677	5638	32041	5233	33462	4846	34946	4475	36496	4121	38117	34
27	6052	30699	5631	32064	5227	33487	4840	34971	4469	36522	4115	38144	33
28	6045	30721	5624	32087	5220	33511	4833	34997	4463	36549	4109	38172	32
29	6037	30744	5617	32110	5214	33535	4827	35022	4457	36575	4103	38200	31
30	6030	30766	5610	32134	5207	33559	4821	35047	4451	36602	4098	38227	30
31	6023	30788	5603	32157	5200	33584	4815	35073	4445	36628	4092	38255	29
32	6016	30811	5596	32180	5194	33608	4808	35098	4439	36655	4086	38283	28
33	6009	30833	5590	32204	5187	33632	4802	35123	4433	36681	4080	38311	27
34	6002	30856	5583	32227	5181	33657	4796	35149	4427	36708	4075	38338	26
35	5995	30878	5575	32250	5174	33681	4789	35174	4421	36734	4069	38366	25
36	5987	30900	5569	32274	5168	33705	4783	35200	4415	36761	4063	38394	24
37	5980	30923	5562	32297	5161	33730	4777	35225	4409	36787	4057	38422	23
38	5973	30945	5555	32320	5155	33754	4771	35251	4403	36814	4052	38450	22
39	5966	30968	5549	32344	5148	33779	4764	35276	4397	36841	4046	38478	21
40	5959	30990	5542	32367	5142	33803	4758	35302	4391	36867	4040	38506	20
41	5952	31013	5535	32391	5135	33827	4752	35327	4385	36894	4035	38533	19
42	5945	31035	5528	32414	5128	33852	4746	35353	4379	36921	4029	38561	18
43	5938	31058	5521	32438	5122	33876	4739	35378	4373	36948	4023	38589	17
44	5931	31080	5515	32461	5115	33901	4733	35404	4367	36974	4017	38617	16
45	5924	31103	5508	32484	5109	33925	4727	35429	4361	37001	4012	38645	15
46	5917	31125	5501	32508	5102	33950	4721	35455	4355	37028	4006	38674	14
47	5909	31148	5494	32532	5096	33974	4714	35481	4349	37055	4000	38702	13
48	5902	31170	5487	32555	5089	33999	4708	35506	4343	37081	3995	38730	12
49	5895	31193	5481	32579	5083	34024	4702	35532	4337	37108	3989	38758	11
50	5888	31216	5474	32602	5076	34048	4696	35558	4332	37135	3983	38786	10
51	5881	31238	5467	32625	5070	34073	4690	35583	4326	37162	3978	38814	9
52	5874	31261	5460	32649	5064	34097	4683	35609	4320	37189	3972	38842	8
53	5867	31284	5454	32673	5057	34122	4677	35635	4314	37216	3966	38871	7
54	5860	31306	5447	32697	5051	34147	4671	35661	4308	37243	3961	38899	6
55	5853	31329	5440	32720	5044	34172	4665	35686	4302	37270	3955	38927	5
56	5846	31352	5433	32744	5038	34196	4659	35712	4296	37297	3949	38955	4
57	5839	31375	5427	32768	5031	34221	4652	35738	4290	37324	3944	38984	3
58	5832	31397	5420	32792	5025	34246	4646	35764	4284	37351	3938	39012	2
59	5825	31420	5413	32815	5018	34270	4640	35790	4278	37378	3933	39040	1
60	5818	31443	5406	32839	5012	34295	4634	35816	4272	37405	3927	39069	0
	A	B	A	B	A	B	A	B	A	B	A	B	
	119°00'		118°00'		117°00'		116°00'		115°00'		114°00'		

Table 9.—Line of position table—Continued

ALWAYS TAKE "Z" FROM BOTTOM OF TABLE, EXCEPT WHEN "K" IS SAME NAME AND GREATER THAN LATITUDE, IN WHICH CASE TAKE "Z" FROM TOP OF TABLE

	66°00'		67°00'		68°00'		69°00'		70°00'		71°00'		
	A	B	A	B	A	B	A	B	A	B	A	B	
0	3927	39069	3597	40812	3283	42642	2985	44567	2701	46595	2433	48736	60
1	3921	39097	3592	40842	3278	42674	2980	44600	2697	46630	2429	48772	59
2	3916	39125	3587	40872	3273	42705	2975	44633	2692	46664	2424	48809	58
3	3910	39154	3581	40902	3268	42736	2970	44666	2688	46699	2420	48846	57
4	3904	39182	3576	40931	3263	42768	2965	44699	2683	46734	2416	48883	56
5	3899	39211	3571	40961	3258	42799	2961	44732	2678	46769	2411	48920	55
6	3893	39239	3565	40991	3253	42830	2956	44765	2674	46804	2407	48957	54
7	3888	39268	3560	41021	3248	42862	2951	44798	2669	46839	2403	48993	53
8	3882	39296	3555	41051	3243	42893	2946	44831	2665	46873	2398	49030	52
9	3876	39325	3549	41081	3237	42925	2941	44864	2660	46908	2394	49067	51
10	3871	39353	3544	41111	3233	42956	2936	44898	2656	46943	2390	49104	50
11	3865	39382	3539	41141	3227	42988	2932	44931	2651	46978	2385	49141	49
12	3860	39411	3533	41171	3222	43020	2927	44964	2646	47014	2381	49179	48
13	3854	39439	3528	41201	3217	43051	2922	44997	2642	47049	2377	49216	47
14	3849	39468	3523	41231	3212	43083	2917	45031	2637	47084	2372	49253	46
15	3843	39497	3517	41261	3207	43114	2913	45064	2633	47119	2368	49290	45
16	3838	39525	3512	41291	3202	43146	2908	45097	2628	47154	2364	49327	44
17	3832	39554	3507	41322	3197	43178	2903	45131	2624	47189	2360	49365	43
18	3826	39583	3502	41352	3192	43210	2898	45164	2619	47225	2355	49402	42
19	3821	39612	3496	41382	3187	43241	2893	45198	2615	47260	2351	49439	41
20	3815	39641	3491	41412	3182	43273	2889	45231	2610	47295	2347	49477	40
21	3810	39669	3486	41443	3177	43305	2884	45265	2606	47331	2343	49514	39
22	3804	39698	3480	41473	3172	43337	2879	45298	2601	47366	2338	49551	38
23	3799	39727	3475	41503	3167	43369	2874	45332	2597	47402	2334	49589	37
24	3793	39756	3470	41533	3162	43400	2870	45365	2592	47437	2330	49626	36
25	3788	39785	3465	41564	3157	43432	2865	45399	2588	47472	2325	49664	35
26	3782	39814	3459	41594	3152	43464	2860	45433	2583	47508	2321	49702	34
27	3777	39843	3454	41625	3147	43496	2855	45466	2579	47544	2317	49739	33
28	3771	39872	3449	41655	3142	43528	2851	45500	2574	47579	2313	49777	32
29	3766	39901	3444	41685	3137	43560	2846	45534	2570	47615	2309	49815	31
30	3760	39930	3438	41716	3132	43592	2841	45567	2565	47650	2304	49852	30
31	3755	39959	3433	41746	3127	43624	2836	45601	2561	47686	2300	49890	29
32	3749	39988	3428	41777	3122	43657	2832	45635	2556	47722	2296	49928	28
33	3744	40017	3423	41808	3117	43689	2827	45669	2552	47758	2292	49966	27
34	3738	40046	3418	41838	3112	43721	2822	45703	2547	47793	2287	50004	26
35	3733	40076	3412	41869	3107	43753	2818	45737	2543	47829	2283	50042	25
36	3727	40105	3407	41899	3102	43785	2813	45771	2539	47865	2279	50080	24
37	3722	40134	3402	41930	3097	43818	2808	45805	2534	47901	2275	50117	23
38	3716	40163	3397	41961	3092	43850	2804	45839	2530	47937	2271	50156	22
39	3711	40192	3391	41991	3088	43882	2799	45873	2525	47973	2266	50194	21
40	3705	40222	3386	42022	3083	43914	2794	45907	2521	48009	2262	50232	20
41	3700	40251	3381	42053	3078	43947	2789	45941	2516	48045	2258	50270	19
42	3695	40280	3376	42084	3073	43979	2785	45975	2512	48081	2254	50308	18
43	3689	40310	3371	42115	3068	44012	2780	46009	2507	48117	2250	50346	17
44	3684	40339	3366	42145	3063	44044	2775	46043	2503	48153	2246	50385	16
45	3678	40368	3360	42176	3058	44077	2771	46078	2499	48189	2241	50423	15
46	3673	40398	3355	42207	3053	44109	2766	46112	2494	48226	2237	50461	14
47	3667	40427	3350	42238	3048	44142	2761	46146	2490	48262	2233	50499	13
48	3662	40457	3345	42269	3043	44174	2757	46181	2485	48298	2229	50538	12
49	3657	40486	3340	42300	3038	44207	2752	46215	2481	48334	2225	50576	11
50	3651	40516	3335	42331	3033	44239	2748	46249	2477	48371	2221	50615	10
51	3646	40545	3329	42362	3029	44272	2743	46284	2472	48407	2216	50653	9
52	3640	40575	3324	42393	3024	44305	2738	46318	2468	48443	2212	50692	8
53	3635	40604	3319	42424	3019	44337	2734	46353	2463	48480	2208	50730	7
54	3630	40634	3314	42455	3014	44370	2729	46387	2459	48516	2204	50769	6
55	3624	40664	3309	42486	3009	44403	2724	46422	2455	48553	2200	50808	5
56	3619	40693	3304	42518	3004	44436	2720	46456	2450	48589	2196	50846	4
57	3613	40723	3299	42549	2999	44468	2715	46491	2446	48626	2192	50885	3
58	3608	40753	3294	42580	2994	44501	2711	46525	2442	48662	2188	50924	2
59	3603	40782	3289	42611	2990	44534	2706	46560	2437	48699	2183	50963	1
60	3597	40812	3283	42642	2985	44567	2701	46595	2433	48736	2179	51002	0
	A	B	A	B	A	B	A	B	A	B	A	B	
	113°00'		112°00'		111°00'		110°00'		109°00'		108°00'		

Table 9.—Line of position table—Continued

WHEN LHA (E OR W) IS GREATER THAN 90°, TAKE "K" FROM BOTTOM OF TABLE

	72°00'		73°00'		74°00'		75°00'		76°00'		77°00'		
	A	B	A	B	A	B	A	B	A	B	A	B	
0	2179	51002	1940	53406	1716	55966	1506	58700	1310	61632	1128	64791	60
1	2175	51041	1936	53448	1712	56010	1502	58748	1306	61683	1125	64846	59
2	2171	51080	1933	53489	1709	56054	1499	58795	1303	61734	1122	64901	58
3	2167	51119	1929	53531	1705	56099	1495	58842	1300	61785	1119	64956	57
4	2163	51158	1925	53572	1701	56143	1492	58889	1297	61836	1116	65011	56
5	2159	51197	1921	53614	1698	56187	1489	58937	1294	61887	1113	65066	55
6	2155	51236	1917	53655	1694	56231	1485	58984	1291	61938	1110	65121	54
7	2151	51275	1913	53697	1691	56276	1482	59032	1288	61989	1107	65176	53
8	2147	51314	1910	53738	1687	56320	1479	59079	1284	62040	1104	65231	52
9	2143	51353	1906	53780	1683	56365	1475	59127	1281	62091	1101	65287	51
10	2138	51392	1902	53822	1680	56409	1472	59175	1278	62142	1099	65342	50
11	2134	51432	1898	53864	1676	56454	1469	59222	1275	62194	1096	65398	49
12	2130	51471	1894	53905	1673	56498	1465	59270	1272	62245	1093	65453	48
13	2126	51510	1890	53947	1669	56543	1462	59318	1269	62296	1090	65509	47
14	2122	51550	1887	53989	1665	56588	1459	59366	1266	62348	1087	65564	46
15	2118	51589	1883	54031	1662	56632	1455	59414	1263	62400	1084	65620	45
16	2114	51629	1879	54073	1658	56677	1452	59462	1260	62451	1081	65676	44
17	2110	51668	1875	54115	1655	56722	1449	59510	1257	62503	1079	65732	43
18	2106	51708	1871	54157	1651	56767	1445	59558	1253	62555	1076	65788	42
19	2102	51747	1868	54199	1648	56812	1442	59606	1250	62607	1073	65844	41
20	2098	51787	1864	54242	1644	56857	1439	59654	1247	62659	1070	65900	40
21	2094	51827	1860	54284	1641	56902	1435	59703	1244	62711	1067	65957	39
22	2090	51867	1856	54326	1637	56947	1432	59751	1241	62763	1064	66013	38
23	2086	51906	1853	54368	1634	56992	1429	59800	1238	62815	1061	66069	37
24	2082	51946	1849	54411	1630	57038	1425	59848	1235	62867	1059	66126	36
25	2078	51986	1845	54453	1627	57083	1422	59896	1232	62919	1056	66182	35
26	2074	52026	1841	54496	1623	57128	1419	59945	1229	62971	1053	66239	34
27	2070	52066	1837	54538	1619	57174	1416	59994	1226	63024	1050	66296	33
28	2066	52106	1834	54581	1616	57219	1412	60042	1223	63076	1047	66353	32
29	2062	52146	1830	54623	1612	57265	1409	60091	1220	63129	1045	66410	31
30	2058	52186	1826	54666	1609	57310	1406	60140	1217	63181	1042	66466	30
31	2054	52226	1823	54708	1605	57356	1403	60189	1214	63234	1039	66523	29
32	2050	52266	1819	54751	1602	57401	1399	60238	1211	63287	1036	66580	28
33	2046	52306	1815	54794	1598	57447	1396	60287	1208	63340	1033	66637	27
34	2042	52346	1811	54837	1595	57493	1393	60336	1205	63392	1031	66695	26
35	2038	52387	1808	54880	1591	57538	1390	60385	1202	63445	1028	66752	25
36	2034	52427	1804	54922	1588	57584	1386	60434	1199	63498	1025	66810	24
37	2030	52467	1800	54965	1584	57630	1383	60483	1196	63551	1022	66867	23
38	2026	52508	1796	55008	1581	57676	1380	60533	1193	63605	1020	66925	22
39	2022	52548	1793	55051	1578	57722	1377	60582	1190	63658	1017	66982	21
40	2018	52588	1789	55095	1574	57768	1373	60631	1187	63711	1014	67040	20
41	2014	52629	1785	55138	1571	57814	1370	60681	1184	63764	1011	67098	19
42	2010	52670	1782	55181	1567	57860	1367	60730	1181	63818	1008	67156	18
43	2007	52710	1778	55224	1564	57907	1364	60780	1178	63871	1006	67214	17
44	2003	52751	1774	55267	1560	57953	1360	60830	1175	63925	1003	67272	16
45	1999	52791	1771	55311	1557	57999	1357	60879	1172	63978	1000	67330	15
46	1995	52832	1767	55354	1553	58046	1354	60929	1169	64032	997	67388	14
47	1991	52873	1763	55397	1550	58092	1351	60979	1166	64086	995	67447	13
48	1987	52914	1760	55441	1546	58138	1348	61029	1163	64140	992	67505	12
49	1983	52954	1756	55484	1543	58185	1344	61079	1160	64194	989	67563	11
50	1979	52995	1752	55528	1540	58232	1341	61129	1157	64248	987	67622	10
51	1975	53036	1749	55572	1536	58278	1338	61179	1154	64302	984	67681	9
52	1971	53077	1745	55615	1533	58325	1335	61229	1151	64356	981	67739	8
53	1967	53118	1741	55659	1529	58372	1332	61279	1148	64410	978	67798	7
54	1964	53159	1738	55703	1526	58418	1329	61330	1145	64464	976	67857	6
55	1960	53200	1734	55746	1523	58465	1325	61380	1142	64518	973	67916	5
56	1956	53241	1730	55790	1519	58512	1322	61430	1139	64573	970	67975	4
57	1952	53283	1727	55834	1516	58559	1319	61481	1136	64627	968	68034	3
58	1948	53324	1723	55878	1512	58606	1316	61531	1133	64682	965	68093	2
59	1944	53365	1719	55922	1509	58653	1313	61582	1130	64736	962	68153	1
60	1940	53406	1716	55966	1506	58700	1310	61632	1128	64791	960	68212	0
	A	B	A	B	A	B	A	B	A	B	A	B	
	107°00'		106°00'		105°00'		104°00'		103°00'		102°00'		