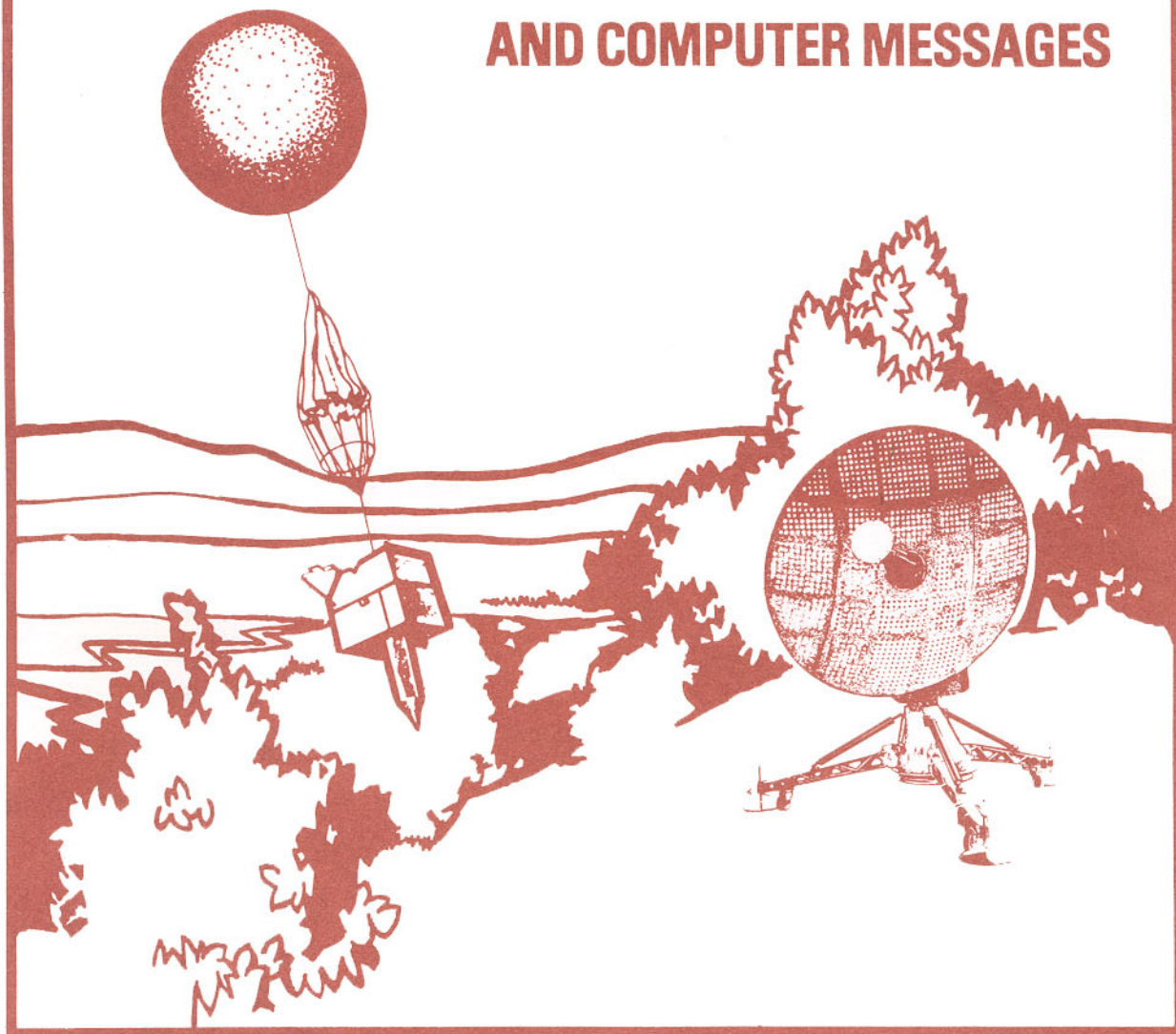


**MCRP 3-16.5A (formerly FMFRP 6-6-16)**

**FM 6-16**

**TABLES FOR ARTILLERY METEOROLOGY  
(ELECTRONIC) BALLISTIC TYPE 3  
AND COMPUTER MESSAGES**



**HEADQUARTERS DEPARTMENT OF THE ARMY**

E R R A T U M

to

MCRP 3-16.5A

TABLES FOR ARTILLERY METEOROLOGY  
(ELECTRONIC) BALLISTIC TYPE 3  
AND COMPUTER MESSAGES

1. For administrative purposes, FMFRP 6-6-16 is reidentified as MCRP 3-16.5A. The old title, *Tables for Artillery Meteorology*, has also been reidentified and the Publication Control Number, 140 066160 00 is reidentified as 144 000123 00.

CHANGE  
NO 1

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
Washington, DC, 1 March 1982

**TABLES FOR ARTILLERY METEOROLOGY  
(ELECTRONIC) BALLISTIC TYPE 3  
AND COMPUTER MESSAGES**

FM 6-16, 10 May 1979, is changed as follows:

1. New or changed material is indicated by a star(\*).
2. Remove old pages and insert new pages as indicated below:

<b>REMOVE</b>	<b>INSERT</b>
i and ii	i and ii
1-1 and 1-2	1-1 and 1-2
	2-133

3. File this change in the front of the publication for reference.

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## TABLES FOR ARTILLERY METEOROLOGY (ELECTRONIC) BALLISTIC TYPE 3 AND COMPUTER MESSAGES

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*\*This publication, together with FM 6-16-1 supersedes FM 6-16, 12 May 1961, including all changes.*

**C1, FM 6-16**

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# CHAPTER 1

## INTRODUCTION

### 1-1. PURPOSE AND SCOPE

a. This manual is a compilation of tables and charts designed for use in computing meteorological messages for the artillery, including ballistic and computer messages, radiological fallout prediction, and messages for transmitting data to Air Weather Service units. These tables and charts apply to all types of ballistic meteorological observations by electronic met sections using radiosondes. Use of this manual in the computation of messages is described in FM 6-15, *Artillery Meteorology*.

b. Users of this manual are encouraged to submit recommended changes or comments to improve the manual. Comments should be keyed to the specific page, paragraph, and line of the text in which the change is recommended. Reasons should be provided for each comment to insure understanding and complete evaluation. Comments should be prepared using DA Form 2028 (Recommended Changes to Publications) and forwarded direct to **Commandant, United States Army Field Artillery School, ATTN: ATSF-CF-R, Fort Sill, Oklahoma 73503**.

★ c. *FM 6-16, Tables for Artillery Meteorology*, has been revised into a set of four field manuals. The set includes:

□ **FM 6-16** *Tables for Artillery Meteorology (Electronic) Ballistic Type 3 and Computer Messages.*

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□ **FM 6-16-1** *Tables for Artillery Meteorology (Sound Ranging) Messages.*

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□ **FM 6-16-2** *Tables for Artillery Meteorology (Visual) Ballistic Type 3 and Computer Messages and Limited Surface Observations.*

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□ **FM 6-16-3** *Tables for Artillery Meteorology (Electronic and Visual) Type 2 Messages.*

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### 1-2. DESCRIPTION OF TABLES AND CHARTS

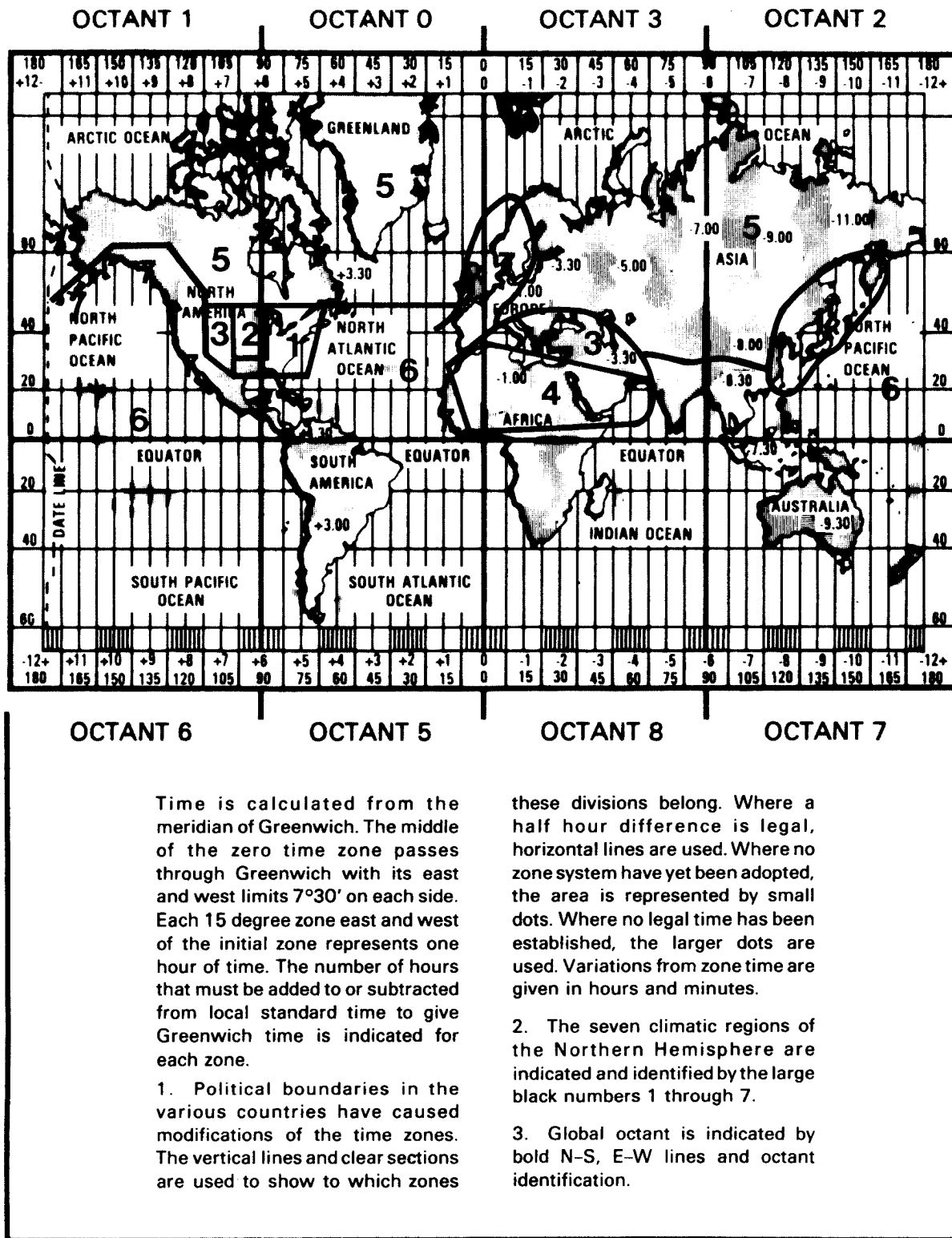
The tables and charts contained in this chapter are presented in sections I and II as follows:

a. *Section I, General Tables and Charts for Meteorological Messages*. These tables and charts are used in computing data for both electronic ballistic and computer meteorological messages.

b. *Section II, Tables for Type 3 Messages, Ballistic Messages for Surface-to-Surface Trajectories*. These tables include the weighting factors and the weighted quantities for density, winds, and temperatures pertaining to all artillery weapons firing at terrestrial targets and tables for standard conditions at ballistic and computer zone midpoints.

### 1-3. TIME ZONES, GLOBAL OCTANTS, AND CLIMATIC REGIONS

Figure 1-1 divides the world into time zones, global octants, and climatic regions, used in the heading of meteorological messages.



★ Figure 1-1. Time Zones, Global Octants, and Climatic Regions



# CHAPTER 2 METEOROLOGICAL TABLES AND CHARTS

## SECTION I.

### GENERAL TABLES AND CHARTS FOR METEOROLOGICAL MESSAGES

#### 2-1. GENERAL

The tables and charts included in this chapter are used for computing general meteorological data for all types of meteorological messages.

#### 2-2. ZONE STRUCTURE OF ATMOSPHERE

For convenience in computing, reporting, and applying corrections, the standard atmosphere is further identified by dividing it into zones for standard heights. The zones for the various meteorological messages are illustrated in figure 2-1.

#### 2-3. HORIZONTAL DISTANCE TABLES

a. Horizontal distance tables are computed for the standard heights of the zone structure as shown in figure 2-1 and for a curved Earth surface according to the following formula:

$$D = \frac{R \cos \theta}{H + R} \left[ \sqrt{(H + R)^2 - R^2 \cos^2 \theta} - R \sin \theta \right]$$

b. In this formula, D is the arc distance of the Earth's surface in meters and is the elevation angle to a balloon at standard height H. R is the average radius of the Earth, 6,367,650 meters.

Standard height (meters)	Zone structure		
	Ballistic	Computer	Fallout
Surface	0	0	0
200	1	1	
500	2	2	
1000	3	3	1
1500	4	4	
2000	5	5	
2500	6	6	
3000	7	7	2
3500	8	8	
4000	9	9	
4500	10	10	
5000	11	11	3
6000	12	12	
7000	13	13	
8000	14	14	4
9000	15	15	
10000	16	16	5
11000	17	17	
12000	18	18	6
13000	19	19	
14000	20	20	7
15000	21	21	
16000	22	22	8
17000	23	23	
18000	24	24	9
19000		25	
20000		26	10
***			***
32000			16

All fallout zones are 2,000 meters thick

Figure 2-1. Zone structure for standard heights.

Table 2-1. Horizontal Distance (Meters), 200 Meters (Ballistic Zone 1) (Computer Zone 1)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	3,795	3,673	3,559	3,452	3,351	3,256	3,166	3,081	3,000	2,924
4	2,851	2,782	2,716	2,652	2,592	2,535	2,480	2,427	2,376	2,328
5	2,281	2,236	2,193	2,152	2,112	2,074	2,036	2,001	1,966	1,932
6	1,900	1,869	1,839	1,809	1,781	1,753	1,726	1,701	1,675	1,651
7	1,627	1,604	1,582	1,560	1,538	1,518	1,498	1,478	1,459	1,440
8	1,422	1,404	1,387	1,370	1,353	1,337	1,321	1,306	1,291	1,276
9	1,262	1,248	1,234	1,221	1,207	1,194	1,182	1,169	1,157	1,145
10	1,134	1,122	1,111	1,100	1,089	1,079	1,068	1,058	1,048	1,038
11	1,028	1,019	1,010	1,000	991	983	974	965	957	948
12	941	933	925	917	909	902	894	887	880	873
13	866	859	852	846	839	833	826	820	814	808
14	802	796	790	784	779	773	768	762	757	751
15	746	741	736	731	726	721	716	711	707	702
16	697	693	688	684	679	675	671	666	662	658
17	654	650	646	642	638	634	630	627	623	619
18	615	612	608	605	601	598	594	591	587	584
19	581	577	574	571	568	565	562	558	555	552
20	549	546	544	541	538	535	532	529	526	524
21	521	518	516	513	510	508	505	503	500	497
22	495	492	490	488	485	483	480	478	476	473
23	471	469	467	464	462	460	458	456	453	451
24	449	447	445	443	441	439	437	435	433	431
25	429	427	425	423	421	419	417	416	414	412
26	410	408	406	405	403	401	399	398	396	394
27	392	391	389	387	386	384	383	381	379	378
28	376	375	373	371	370	368	367	365	364	362
29	361	359	358	356	355	353	352	351	349	348
30	346	345	344	342	341	340	338	337	335	334
31	333	332	330	329	328	326	325	324	323	321
32	320	319	318	316	315	314	313	312	310	309
33	308	307	306	304	303	302	301	300	299	298
34	296	295	294	293	292	291	290	289	288	287
35	286	285	284	282	281	280	279	278	277	276
36	275	274	273	272	271	270	269	268	267	266
37	265	264	263	263	262	261	260	259	258	257
38	256	255	254	253	252	251	251	250	249	248
39	247	246	245	244	243	243	242	241	240	239
40	238	237	237	236	235	234	233	233	232	231
41	230	229	228	228	227	226	225	224	224	223
42	222	221	221	220	219	218	217	217	216	215
43	214	214	213	212	211	211	210	209	209	208
44	207	206	206	205	204	204	203	202	201	201
45	200	199	199	198	197	197	196	195	194	194
46	193	192	192	191	190	190	189	188	188	187

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 200 Meters (Ballistic Zone 1) (Computer Zone 1)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	186	186	185	185	184	183	183	182	181	181
48	180	179	179	178	178	177	176	176	175	174
49	174	173	173	172	171	171	170	170	169	168
50	168	167	167	166	165	165	164	164	163	163
51	162	161	161	160	160	159	159	158	157	157
52	156	156	155	155	154	153	153	152	152	151
53	151	150	150	149	149	148	147	147	146	146
54	145	145	144	144	143	143	142	142	141	141
55	140	140	139	138	138	137	137	136	136	135
56	135	134	134	133	133	132	132	131	131	130
57	130	129	129	128	128	127	127	126	126	125
58	125	124	124	124	123	123	122	122	121	121
59	120	120	119	119	118	118	117	117	116	116
60	115	115	115	114	114	113	113	112	112	111
61	111	110	110	109	109	109	108	108	107	107
62	106	106	105	105	105	104	104	103	103	102
63	102	101	101	101	100	100	99	99	98	98
64	98	97	97	96	96	95	95	95	94	94
65	93	93	92	92	92	91	91	90	90	89
66	89	89	88	88	87	87	87	86	86	85
67	85	84	84	84	83	83	82	82	82	81
68	81	80	80	80	79	79	78	78	78	77
69	77	76	76	76	75	75	74	74	74	73
70	73	72	72	72	71	71	70	70	70	69
71	69	68	68	68	67	67	67	66	66	65
72	65	65	64	64	63	63	63	62	62	62
73	61	61	60	60	60	59	59	58	58	58
74	57	57	57	56	56	55	55	55	54	54
75	54	53	53	52	52	52	51	51	51	50
76	50	49	49	49	48	48	48	47	47	47
77	46	46	45	45	45	44	44	44	43	43
78	43	42	42	41	41	41	40	40	40	39
79	39	39	38	38	37	37	37	36	36	36
80	35	35	35	34	34	33	33	33	32	32
81	32	31	31	31	30	30	30	29	29	28
82	28	28	27	27	27	26	26	26	25	25
83	25	24	24	23	23	23	22	22	22	21
84	21	21	20	20	20	19	19	19	18	18
85	17	17	17	16	16	16	15	15	15	14
86	14	14	13	13	13	12	12	12	11	11
87	10	10	10	9	9	9	8	8	8	7
88	7	7	6	6	6	5	5	5	4	4
89	3	3	3	2	2	2	1	1	1	.....

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 500 Meters (Ballistic Zone 2) (Computer Zone 2)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	9,407	9,111	8,833	8,571	8,324	8,090	7,869	7,660	7,461	7,273
4	7,093	6,922	6,759	6,604	6,455	6,313	6,177	6,046	5,921	5,801
5	5,686	5,575	5,468	5,365	5,266	5,170	5,078	4,989	4,903	4,820
6	4,740	4,662	4,587	4,514	4,443	4,375	4,308	4,244	4,181	4,120
7	4,061	4,004	3,948	3,894	3,841	3,789	3,739	3,690	3,642	3,596
8	3,550	3,506	3,463	3,421	3,380	3,339	3,300	3,262	3,224	3,188
9	3,152	3,117	3,082	3,049	3,016	2,983	2,952	2,921	2,891	2,861
10	2,832	2,803	2,775	2,748	2,721	2,694	2,669	2,643	2,618	2,594
11	2,569	2,546	2,522	2,500	2,477	2,455	2,433	2,412	2,391	2,370
12	2,350	2,330	2,310	2,291	2,272	2,253	2,235	2,217	2,199	2,181
13	2,164	2,147	2,130	2,113	2,097	2,081	2,065	2,050	2,034	2,019
14	2,004	1,989	1,975	1,960	1,946	1,932	1,918	1,905	1,891	1,878
15	1,865	1,852	1,839	1,827	1,814	1,802	1,790	1,778	1,766	1,754
16	1,743	1,731	1,720	1,709	1,698	1,687	1,676	1,666	1,655	1,645
17	1,635	1,624	1,614	1,605	1,595	1,585	1,575	1,566	1,557	1,547
18	1,538	1,529	1,520	1,511	1,502	1,494	1,485	1,477	1,468	1,460
19	1,452	1,443	1,435	1,427	1,419	1,411	1,404	1,396	1,388	1,381
20	1,373	1,366	1,358	1,351	1,344	1,337	1,330	1,323	1,316	1,309
21	1,302	1,295	1,289	1,282	1,275	1,269	1,262	1,256	1,250	1,243
22	1,237	1,231	1,225	1,219	1,213	1,207	1,201	1,195	1,189	1,183
23	1,178	1,172	1,166	1,161	1,155	1,150	1,144	1,139	1,133	1,128
24	1,123	1,117	1,112	1,107	1,102	1,097	1,092	1,087	1,082	1,077
25	1,072	1,067	1,062	1,057	1,053	1,048	1,043	1,039	1,034	1,029
26	1,025	1,020	1,016	1,011	1,007	1,003	998	994	990	985
27	981	977	973	969	964	960	956	952	948	944
28	940	936	932	928	925	921	917	913	909	906
29	902	898	894	891	887	884	880	876	873	869
30	866	862	859	855	852	849	845	842	839	835
31	832	829	825	822	819	816	813	809	806	803
32	800	797	794	791	788	785	782	779	776	773
33	770	767	764	761	758	755	752	750	747	744
34	741	738	736	733	730	727	725	722	719	717
35	714	711	709	706	703	701	698	696	693	691
36	688	686	683	681	678	676	673	671	668	666
37	663	661	659	656	654	652	649	647	645	642
38	640	638	635	633	631	628	626	624	622	620
39	617	615	613	611	609	606	604	602	600	598
40	596	594	592	590	587	585	583	581	579	577
41	575	573	571	569	567	565	563	561	559	557
42	555	553	551	549	548	546	544	542	540	538
43	536	534	532	531	529	527	525	523	521	520
44	518	516	514	512	511	509	507	505	503	502
45	500	498	496	495	493	491	490	488	486	484
46	483	481	479	478	476	474	473	471	469	468

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 500 Meters (Ballistic Zone 2) (Computer Zone 2)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	466	465	463	461	460	458	457	455	453	452
48	450	449	447	445	444	442	441	439	438	436
49	435	433	432	430	429	427	425	424	422	421
50	420	418	417	415	414	412	411	409	408	406
51	405	403	402	401	399	398	396	395	393	392
52	391	389	388	386	385	384	382	381	379	378
53	377	375	374	373	371	370	369	367	366	365
54	363	362	361	359	358	357	355	354	353	351
55	350	349	347	346	345	344	342	341	340	338
56	337	336	335	333	332	331	330	328	327	326
57	325	323	322	321	320	319	317	316	315	314
58	312	311	310	309	308	306	305	304	303	302
59	300	299	298	297	296	294	293	292	291	290
60	289	287	286	285	284	283	282	281	279	278
61	277	276	275	274	273	271	270	269	268	267
62	266	265	264	262	261	260	259	258	257	256
63	255	254	253	251	250	249	248	247	246	245
64	244	243	242	241	240	238	237	236	235	234
65	233	232	231	230	229	228	227	226	225	224
66	223	222	221	219	218	217	216	215	214	213
67	212	211	210	209	208	207	206	205	204	203
68	202	201	200	199	198	197	196	195	194	193
69	192	191	190	189	188	187	186	185	184	183
70	182	181	180	179	178	177	176	175	174	173
71	172	171	170	169	168	167	166	165	164	163
72	162	161	161	160	159	158	157	156	155	154
73	153	152	151	150	149	148	147	146	145	144
74	143	142	141	141	140	139	138	137	136	135
75	134	133	132	131	130	129	128	127	127	126
76	125	124	123	122	121	120	119	118	117	116
77	115	115	114	113	112	111	110	109	108	107
78	106	105	104	104	103	102	101	100	99	98
79	97	96	95	94	94	93	92	91	90	89
80	88	87	86	85	85	84	83	82	81	80
81	79	78	77	77	76	75	74	73	72	71
82	70	69	68	68	67	66	65	64	63	62
83	61	61	60	59	58	57	56	55	54	53
84	53	52	51	50	49	48	47	46	45	45
85	44	43	42	41	40	39	38	38	37	36
86	35	34	33	32	31	31	30	29	28	27
87	26	25	24	24	23	22	21	20	19	18
88	17	17	16	15	14	13	12	11	10	10
89	9	8	7	6	5	4	3	3	2	1

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 1,000 Meters (Ballistic Zone 3) (Computer Zone 3)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	18,562	17,992	17,456	16,949	16,471	16,018	15,589	15,182	14,795	14,427
4	14,076	13,742	13,423	13,118	12,826	12,547	12,280	12,023	11,777	11,541
5	11,313	11,095	10,884	10,681	10,486	10,297	10,115	9,939	9,769	9,605
6	9,446	9,292	9,143	8,999	8,859	8,723	8,591	8,463	8,339	8,218
7	8,101	7,987	7,876	7,768	7,663	7,560	7,461	7,364	7,269	7,176
8	7,086	6,998	6,912	6,829	6,747	6,667	6,589	6,512	6,438	6,365
9	6,293	6,223	6,155	6,088	6,022	5,958	5,895	5,834	5,773	5,714
10	5,656	5,599	5,543	5,489	5,435	5,382	5,331	5,280	5,230	5,181
11	5,133	5,086	5,040	4,994	4,949	4,905	4,862	4,819	4,777	4,736
12	4,696	4,656	4,617	4,578	4,540	4,503	4,466	4,430	4,394	4,359
13	4,324	4,290	4,257	4,224	4,191	4,159	4,127	4,096	4,065	4,035
14	4,005	3,976	3,947	3,918	3,890	3,862	3,834	3,807	3,780	3,754
15	3,727	3,702	3,676	3,651	3,626	3,602	3,577	3,554	3,530	3,507
16	3,484	3,461	3,438	3,416	3,394	3,372	3,351	3,330	3,309	3,288
17	3,268	3,247	3,227	3,208	3,188	3,169	3,149	3,131	3,112	3,093
18	3,075	3,057	3,039	3,021	3,004	2,986	2,969	2,952	2,935	2,918
19	2,902	2,885	2,869	2,853	2,837	2,822	2,806	2,791	2,775	2,760
20	2,745	2,731	2,716	2,701	2,687	2,673	2,659	2,645	2,631	2,617
21	2,603	2,590	2,576	2,563	2,550	2,537	2,524	2,511	2,499	2,486
22	2,474	2,461	2,449	2,437	2,425	2,413	2,401	2,389	2,377	2,366
23	2,354	2,343	2,332	2,321	2,310	2,299	2,288	2,277	2,266	2,255
24	2,245	2,234	2,224	2,214	2,203	2,193	2,183	2,173	2,163	2,153
25	2,143	2,134	2,124	2,114	2,105	2,095	2,086	2,077	2,068	2,058
26	2,049	2,040	2,031	2,022	2,014	2,005	1,996	1,987	1,979	1,970
27	1,962	1,953	1,945	1,937	1,928	1,920	1,912	1,904	1,896	1,888
28	1,880	1,872	1,864	1,856	1,849	1,841	1,833	1,826	1,818	1,811
29	1,803	1,796	1,789	1,781	1,774	1,767	1,760	1,752	1,745	1,738
30	1,731	1,724	1,718	1,711	1,704	1,697	1,690	1,684	1,677	1,670
31	1,664	1,657	1,651	1,644	1,638	1,631	1,625	1,619	1,612	1,606
32	1,600	1,594	1,587	1,581	1,575	1,569	1,563	1,557	1,551	1,545
33	1,539	1,533	1,528	1,522	1,516	1,510	1,505	1,499	1,493	1,488
34	1,482	1,477	1,471	1,465	1,460	1,455	1,449	1,444	1,438	1,433
35	1,428	1,422	1,417	1,412	1,407	1,402	1,396	1,391	1,386	1,381
36	1,376	1,371	1,366	1,361	1,356	1,351	1,346	1,341	1,336	1,331
37	1,327	1,322	1,317	1,312	1,308	1,303	1,298	1,293	1,289	1,284
38	1,280	1,275	1,270	1,266	1,261	1,257	1,252	1,248	1,243	1,239
39	1,235	1,230	1,226	1,221	1,217	1,213	1,208	1,204	1,200	1,196
40	1,191	1,187	1,183	1,179	1,175	1,171	1,166	1,162	1,158	1,154
41	1,150	1,146	1,142	1,138	1,134	1,130	1,126	1,122	1,118	1,114
42	1,110	1,106	1,103	1,099	1,095	1,091	1,087	1,083	1,080	1,076
43	1,072	1,068	1,065	1,061	1,057	1,054	1,050	1,046	1,043	1,039
44	1,035	1,032	1,028	1,024	1,021	1,017	1,014	1,010	1,007	1,003
45	1,000	996	993	989	986	982	979	976	972	969
46	965	962	959	955	952	949	945	942	939	936

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 1,000 Meters (Ballistic Zone 3) (Computer Zone 3)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	932	929	926	923	919	916	913	910	907	903
48	900	897	894	891	888	885	881	878	875	872
49	869	866	863	860	857	854	851	848	845	842
50	839	836	833	830	827	824	821	818	815	813
51	810	807	804	801	798	795	792	790	787	784
52	781	778	776	773	770	767	764	762	759	756
53	753	751	748	745	743	740	737	734	732	729
54	726	724	721	718	716	713	711	708	705	703
55	700	697	695	692	690	687	685	682	679	677
56	674	672	669	667	664	662	659	657	654	652
57	649	647	644	642	639	637	634	632	630	627
58	625	622	620	617	615	613	610	608	606	603
59	601	598	596	594	591	589	587	584	582	580
60	577	575	573	570	568	566	563	561	559	556
61	554	552	550	547	545	543	541	538	536	534
62	532	529	527	525	523	520	518	516	514	512
63	509	507	505	503	501	498	496	494	492	490
64	488	485	483	481	479	477	475	473	470	468
65	466	464	462	460	458	456	454	451	449	447
66	445	443	441	439	437	435	433	431	429	426
67	424	422	420	418	416	414	412	410	408	406
68	404	402	400	398	396	394	392	390	388	386
69	384	382	380	378	376	374	372	370	368	366
70	364	362	360	358	356	354	352	350	348	346
71	344	342	340	338	336	335	333	331	329	327
72	325	323	321	319	317	315	313	311	310	308
73	306	304	302	300	298	296	294	292	290	289
74	287	285	283	281	279	277	275	274	272	270
75	268	266	264	262	260	259	257	255	253	251
76	249	247	246	244	242	240	238	236	235	233
77	231	229	227	225	223	222	220	218	216	214
78	213	211	209	207	205	203	202	200	198	196
79	194	193	191	189	187	185	184	182	180	178
80	176	175	173	171	169	167	166	164	162	160
81	158	157	155	153	151	149	148	146	144	142
82	141	139	137	135	133	132	130	128	126	125
83	123	121	119	117	116	114	112	110	109	107
84	105	103	102	100	98	96	95	93	91	89
85	87	86	84	82	80	79	77	75	73	72
86	70	68	66	65	63	61	59	58	56	54
87	52	51	49	47	45	44	42	40	38	37
88	35	33	31	30	28	26	24	23	21	19
89	17	16	14	12	10	9	7	5	3	2

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 1,500 Meters (Ballistic Zone 4) (Computer Zone 4)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	27,483	26,660	25,882	25,147	25,452	23,792	23,166	22,572	22,006	21,467
4	20,953	20,462	19,994	19,546	19,117	18,706	18,312	17,933	17,570	17,221
5	16,885	16,562	16,250	15,950	15,661	15,381	15,112	14,851	14,599	14,355
6	14,119	13,891	13,669	13,455	13,247	13,045	12,849	12,659	12,474	12,294
7	12,120	11,950	11,785	11,624	11,467	11,315	11,166	11,021	10,880	10,742
8	10,608	10,477	10,348	10,223	10,101	9,982	9,865	9,751	9,640	9,531
9	9,424	9,320	9,218	9,118	9,020	8,924	8,830	8,738	8,648	8,560
10	8,473	8,388	8,305	8,223	8,143	8,064	7,987	7,911	7,836	7,763
11	7,691	7,621	7,551	7,483	7,416	7,350	7,285	7,222	7,159	7,098
12	7,037	6,977	6,919	6,861	6,804	6,748	6,693	6,639	6,586	6,533
13	6,481	6,430	6,380	6,331	6,282	6,234	6,186	6,140	6,094	6,048
14	6,003	5,959	5,916	5,873	5,830	5,789	5,747	5,707	5,666	5,627
15	5,588	5,549	5,511	5,473	5,436	5,399	5,363	5,327	5,292	5,257
16	5,222	5,188	5,155	5,121	5,088	5,056	5,024	4,992	4,961	4,930
17	4,899	4,869	4,839	4,809	4,780	4,751	4,722	4,694	4,666	4,638
18	4,610	4,583	4,556	4,530	4,503	4,477	4,451	4,426	4,401	4,376
19	4,351	4,326	4,302	4,278	4,254	4,231	4,208	4,185	4,162	4,139
20	4,117	4,094	4,072	4,051	4,029	4,008	3,986	3,965	3,945	3,924
21	3,904	3,883	3,863	3,843	3,824	3,804	3,785	3,766	3,747	3,728
22	3,709	3,691	3,672	3,654	3,636	3,618	3,600	3,583	3,565	3,548
23	3,531	3,514	3,497	3,480	3,463	3,447	3,430	3,414	3,398	3,382
24	3,366	3,351	3,335	3,319	3,304	3,289	3,274	3,259	3,244	3,229
25	3,214	3,200	3,185	3,171	3,157	3,142	3,128	3,114	3,101	3,087
26	3,073	3,060	3,046	3,033	3,020	3,006	2,993	2,980	2,967	2,955
27	2,942	2,929	2,917	2,904	2,892	2,880	2,867	2,855	2,843	2,831
28	2,819	2,807	2,796	2,784	2,772	2,761	2,749	2,738	2,727	2,716
29	2,704	2,693	2,682	2,671	2,660	2,650	2,639	2,628	2,618	2,607
30	2,597	2,586	2,576	2,565	2,555	2,545	2,535	2,525	2,515	2,505
31	2,495	2,485	2,475	2,466	2,456	2,446	2,437	2,427	2,418	2,409
32	2,399	2,390	2,381	2,372	2,362	2,353	2,344	2,335	2,326	2,317
33	2,309	2,300	2,291	2,282	2,274	2,265	2,257	2,248	2,240	2,231
34	2,223	2,214	2,206	2,198	2,190	2,181	2,173	2,165	2,157	2,149
35	2,141	2,133	2,125	2,118	2,110	2,102	2,094	2,087	2,079	2,071
36	2,064	2,056	2,049	2,041	2,034	2,026	2,019	2,012	2,004	1,997
37	1,990	1,982	1,975	1,968	1,961	1,954	1,947	1,940	1,933	1,926
38	1,919	1,912	1,905	1,899	1,892	1,885	1,878	1,872	1,865	1,858
39	1,852	1,845	1,838	1,832	1,825	1,819	1,812	1,806	1,800	1,793
40	1,787	1,781	1,774	1,768	1,762	1,756	1,749	1,743	1,737	1,731
41	1,725	1,719	1,713	1,707	1,701	1,695	1,689	1,683	1,677	1,671
42	1,665	1,659	1,654	1,648	1,642	1,636	1,631	1,625	1,619	1,614
43	1,608	1,602	1,597	1,591	1,586	1,580	1,575	1,569	1,564	1,558
44	1,553	1,547	1,542	1,537	1,531	1,526	1,521	1,515	1,510	1,505
45	1,499	1,494	1,489	1,484	1,479	1,474	1,468	1,463	1,458	1,453
46	1,448	1,443	1,438	1,433	1,428	1,423	1,418	1,413	1,408	1,403

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.



Table 2-1. Horizontal Distance (Meters), 1,500 Meters (Ballistic Zone 4) (Computer Zone 4)—Continued

Degrees	Elevation angle, tenths of a degree									
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	1,398	1,393	1,389	1,384	1,379	1,374	1,369	1,364	1,360	1,355
48	1,350	1,345	1,341	1,336	1,331	1,327	1,322	1,317	1,313	1,308
49	1,304	1,299	1,294	1,290	1,285	1,281	1,276	1,272	1,267	1,263
50	1,258	1,254	1,249	1,245	1,241	1,236	1,232	1,227	1,223	1,219
51	1,214	1,210	1,206	1,201	1,197	1,193	1,189	1,184	1,180	1,176
52	1,172	1,167	1,163	1,159	1,155	1,151	1,146	1,142	1,138	1,134
53	1,130	1,126	1,122	1,118	1,114	1,110	1,106	1,102	1,098	1,093
54	1,089	1,085	1,082	1,078	1,074	1,070	1,066	1,062	1,058	1,054
55	1,050	1,046	1,042	1,038	1,034	1,031	1,027	1,023	1,019	1,015
56	1,011	1,008	1,004	1,000	996	993	989	985	981	978
57	974	970	966	963	959	955	952	948	944	941
58	937	933	930	926	923	919	915	912	908	905
59	901	897	894	890	887	883	880	876	873	869
60	866	862	859	855	852	848	845	842	838	835
61	831	828	824	821	818	814	811	807	804	801
62	797	794	791	787	784	781	777	774	771	767
63	764	761	758	754	751	748	744	741	738	735
64	731	728	725	722	718	715	712	709	706	702
65	699	696	693	690	687	683	680	677	674	671
66	668	665	661	658	655	652	649	646	643	640
67	637	633	630	627	624	621	618	615	612	609
68	606	603	600	597	594	591	588	585	582	579
69	576	573	570	567	564	561	558	555	552	549
70	546	543	540	537	534	531	528	525	522	519
71	516	513	511	508	505	502	499	496	493	490
72	487	484	481	479	476	473	470	467	464	461
73	458	456	453	450	447	444	441	439	436	433
74	430	427	424	422	419	416	413	410	407	405
75	402	399	396	393	391	388	385	382	379	377
76	374	371	368	366	363	360	357	354	352	349
77	346	343	341	338	335	332	330	327	324	321
78	319	316	313	311	308	305	302	300	297	294
79	292	289	286	283	281	278	275	273	270	267
80	264	262	259	256	254	251	248	246	243	240
81	238	235	232	229	227	224	221	219	216	213
82	211	208	205	203	200	197	195	192	189	187
83	184	181	179	176	174	171	168	166	163	160
84	158	155	152	150	147	144	142	139	136	134
85	131	129	126	123	121	118	115	113	110	107
86	105	102	100	97	94	92	89	86	84	81
87	79	76	73	71	68	65	63	60	58	55
88	52	50	47	45	42	39	37	34	31	29
89	26	24	21	18	16	13	10	8	5	3

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 2,000 Meters (Ballistic Zone 5) (Computer Zone 5) (Fallout Zone 1)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	36,188	35,128	34,126	33,176	32,276	31,422	30,610	29,837	29,101	28,399
4	27,729	27,089	26,477	25,891	25,329	24,791	24,275	23,779	23,302	22,844
5	22,402	21,978	21,568	21,173	20,792	20,424	20,069	19,725	19,393	19,071
6	18,760	18,458	18,166	17,883	17,608	17,341	17,082	16,831	16,586	16,348
7	16,117	15,893	15,674	15,461	15,254	15,052	14,855	14,663	14,476	14,293
8	14,115	13,941	13,771	13,606	13,444	13,285	13,131	12,980	12,832	12,687
9	12,546	12,407	12,271	12,139	12,009	11,882	11,757	11,635	11,515	11,397
10	11,282	11,169	11,059	10,950	10,843	10,739	10,636	10,535	10,436	10,339
11	10,243	10,150	10,057	9,967	9,878	9,790	9,704	9,620	9,535	9,454
12	9,374	9,295	9,217	9,140	9,064	8,990	8,917	8,845	8,774	8,704
13	8,635	8,567	8,500	8,434	8,369	8,305	8,242	8,180	8,119	8,058
14	7,999	7,940	7,882	7,825	7,769	7,713	7,658	7,604	7,550	7,498
15	7,446	7,394	7,343	7,293	7,244	7,195	7,147	7,099	7,052	7,005
16	6,959	6,914	6,869	6,825	6,781	6,738	6,695	6,653	6,611	6,570
17	6,529	6,488	6,448	6,409	6,370	6,331	6,293	6,255	6,218	6,181
18	6,144	6,108	6,072	6,037	6,002	5,967	5,933	5,899	5,865	5,832
19	5,799	5,766	5,734	5,702	5,670	5,639	5,608	5,577	5,547	5,517
20	5,487	5,457	5,428	5,399	5,370	5,342	5,313	5,285	5,258	5,230
21	5,203	5,176	5,149	5,123	5,097	5,071	5,045	5,019	4,994	4,969
22	4,944	4,919	4,895	4,870	4,846	4,823	4,799	4,775	4,752	4,729
23	4,706	4,683	4,661	4,639	4,616	4,594	4,573	4,551	4,530	4,508
24	4,487	4,466	4,445	4,425	4,404	4,384	4,364	4,344	4,324	4,304
25	4,285	4,265	4,246	4,227	4,208	4,189	4,170	4,152	4,133	4,115
26	4,097	4,079	4,061	4,043	4,025	4,008	3,990	3,973	3,956	3,939
27	3,922	3,905	3,888	3,871	3,855	3,839	3,822	3,806	3,790	3,774
28	3,758	3,742	3,727	3,711	3,696	3,680	3,665	3,650	3,635	3,620
29	3,605	3,590	3,576	3,561	3,547	3,532	3,518	3,504	3,489	3,475
30	3,461	3,447	3,434	3,420	3,406	3,393	3,379	3,366	3,352	3,339
31	3,326	3,313	3,300	3,287	3,274	3,261	3,249	3,236	3,223	3,211
32	3,198	3,186	3,174	3,161	3,149	3,137	3,125	3,113	3,101	3,089
33	3,078	3,066	3,054	3,043	3,031	3,020	3,008	2,997	2,986	2,974
34	2,963	2,952	2,941	2,930	2,919	2,908	2,897	2,887	2,876	2,865
35	2,854	2,844	2,833	2,823	2,813	2,802	2,792	2,782	2,771	2,761
36	2,751	2,741	2,731	2,721	2,711	2,701	2,691	2,682	2,672	2,662
37	2,653	2,643	2,633	2,624	2,614	2,605	2,596	2,586	2,577	2,568
38	2,558	2,549	2,540	2,531	2,522	2,513	2,504	2,495	2,486	2,477
39	2,468	2,460	2,451	2,442	2,434	2,425	2,416	2,408	2,399	2,391
40	2,382	2,374	2,365	2,357	2,349	2,340	2,332	2,324	2,316	2,308
41	2,300	2,291	2,283	2,275	2,267	2,259	2,251	2,244	2,236	2,228
42	2,220	2,212	2,205	2,197	2,189	2,182	2,174	2,166	2,159	2,151
43	2,144	2,136	2,129	2,121	2,114	2,107	2,099	2,092	2,085	2,077
44	2,070	2,063	2,056	2,048	2,041	2,034	2,027	2,020	2,013	2,006
45	1,999	1,992	1,985	1,978	1,971	1,964	1,958	1,951	1,944	1,937
46	1,930	1,924	1,917	1,910	1,904	1,897	1,890	1,884	1,877	1,871

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 2,000 Meters (Ballistic Zone 5) (Computer Zone 5) (Fallout Zone 1)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	1,864	1,858	1,851	1,845	1,838	1,832	1,825	1,819	1,813	1,806
48	1,800	1,794	1,787	1,781	1,775	1,769	1,762	1,756	1,750	1,744
49	1,738	1,732	1,726	1,720	1,713	1,707	1,701	1,695	1,689	1,683
50	1,677	1,672	1,666	1,660	1,654	1,648	1,642	1,636	1,630	1,625
51	1,619	1,613	1,607	1,602	1,596	1,590	1,585	1,579	1,573	1,568
52	1,562	1,556	1,551	1,545	1,540	1,534	1,528	1,523	1,517	1,512
53	1,507	1,501	1,496	1,490	1,485	1,479	1,474	1,469	1,463	1,458
54	1,453	1,447	1,442	1,437	1,431	1,426	1,421	1,416	1,410	1,405
55	1,400	1,395	1,389	1,384	1,379	1,374	1,369	1,364	1,359	1,354
56	1,348	1,343	1,338	1,333	1,328	1,323	1,318	1,313	1,308	1,303
57	1,298	1,293	1,288	1,283	1,279	1,274	1,269	1,264	1,259	1,254
58	1,249	1,244	1,240	1,235	1,230	1,225	1,220	1,216	1,211	1,206
59	1,201	1,197	1,192	1,187	1,182	1,178	1,173	1,168	1,164	1,159
60	1,154	1,150	1,145	1,140	1,136	1,131	1,127	1,122	1,117	1,113
61	1,108	1,104	1,099	1,095	1,090	1,086	1,081	1,077	1,072	1,068
62	1,063	1,059	1,054	1,050	1,045	1,041	1,036	1,032	1,027	1,023
63	1,019	1,014	1,010	1,006	1,001	997	992	988	984	979
64	975	971	966	962	958	954	949	945	941	937
65	932	928	924	920	915	911	907	903	899	894
66	890	886	882	878	873	869	865	861	857	853
67	849	845	840	836	832	828	824	820	816	812
68	808	804	800	796	792	788	784	780	775	771
69	767	763	759	755	751	748	744	740	736	732
70	728	724	720	716	712	708	704	700	696	692
71	688	685	681	677	673	669	665	661	657	653
72	650	646	642	638	634	630	627	623	619	615
73	611	607	604	600	596	592	588	585	581	577
74	573	570	566	562	558	554	551	547	543	539
75	536	532	528	525	521	517	513	510	506	502
76	498	495	491	487	484	480	476	473	469	465
77	462	458	454	451	447	443	440	436	432	429
78	425	421	418	414	410	407	403	400	396	392
79	389	385	381	378	374	371	367	363	360	356
80	353	349	345	342	338	335	331	327	324	320
81	317	313	310	306	302	299	295	292	288	285
82	281	277	274	270	267	263	260	256	253	249
83	245	242	238	235	231	228	224	221	217	214
84	210	207	203	200	196	193	189	185	182	178
85	175	171	168	164	161	157	154	150	147	143
86	140	136	133	129	126	122	119	115	112	108
87	105	101	98	94	91	87	84	80	77	73
88	70	66	63	59	56	52	49	45	42	38
89	35	31	28	24	21	17	14	10	7	3

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 2,500 Meters (Computer Zone 6)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	44,662	43,411	42,197	41,046	39,953	38,914	37,926	36,984	36,085	35,228
4	34,408	33,625	32,875	32,156	31,467	30,806	30,171	29,562	28,975	28,411
5	27,867	27,343	26,838	26,351	25,880	25,426	24,987	24,562	24,151	23,754
6	23,369	22,995	22,634	22,283	21,942	21,612	21,291	20,979	20,676	20,381
7	20,095	19,816	19,544	19,280	19,023	18,772	18,527	18,289	18,056	17,830
8	17,608	17,392	17,181	16,975	16,774	16,577	16,385	16,197	16,013	15,833
9	15,657	15,484	15,316	15,151	14,989	14,830	14,675	14,523	14,374	14,228
10	14,084	13,944	13,806	13,670	13,538	13,407	13,279	13,154	13,030	12,909
11	12,790	12,673	12,558	12,446	12,335	12,225	12,118	12,013	11,909	11,807
12	11,706	11,608	11,510	11,415	11,320	11,228	11,136	11,047	10,958	10,871
13	10,785	10,700	10,617	10,535	10,454	10,374	10,295	10,218	10,141	10,066
14	9,992	9,918	9,846	9,775	9,704	9,635	9,566	9,499	9,432	9,366
15	9,301	9,237	9,174	9,111	9,049	8,988	8,928	8,869	8,810	8,752
16	8,694	8,638	8,582	8,526	8,472	8,418	8,364	8,312	8,259	8,208
17	8,157	8,106	8,057	8,007	7,959	7,910	7,863	7,815	7,769	7,723
18	7,677	7,632	7,587	7,543	7,499	7,456	7,413	7,370	7,328	7,287
19	7,246	7,205	7,165	7,125	7,085	7,046	7,007	6,969	6,931	6,893
20	6,856	6,819	6,782	6,746	6,710	6,675	6,639	6,604	6,570	6,536
21	6,502	6,468	6,434	6,401	6,369	6,336	6,304	6,272	6,240	6,209
22	6,178	6,147	6,116	6,086	6,056	6,026	5,997	5,967	5,938	5,910
23	5,881	5,853	5,824	5,797	5,769	5,741	5,714	5,687	5,660	5,634
24	5,607	5,581	5,555	5,529	5,504	5,478	5,453	5,428	5,403	5,379
25	5,354	5,330	5,306	5,282	5,258	5,235	5,211	5,188	5,165	5,142
26	5,120	5,097	5,075	5,052	5,030	5,008	4,987	4,965	4,943	4,922
27	4,901	4,880	4,859	4,838	4,818	4,797	4,777	4,757	4,736	4,717
28	4,697	4,677	4,657	4,638	4,619	4,600	4,581	4,562	4,543	4,524
29	4,505	4,487	4,469	4,450	4,432	4,414	4,396	4,379	4,361	4,343
30	4,326	4,309	4,291	4,274	4,257	4,240	4,223	4,206	4,190	4,173
31	4,157	4,140	4,124	4,108	4,092	4,076	4,060	4,044	4,028	4,013
32	3,997	3,982	3,966	3,951	3,936	3,921	3,906	3,891	3,876	3,861
33	3,846	3,832	3,817	3,803	3,788	3,774	3,760	3,745	3,731	3,717
34	3,703	3,689	3,676	3,662	3,648	3,635	3,621	3,608	3,594	3,581
35	3,568	3,554	3,541	3,528	3,515	3,502	3,489	3,476	3,464	3,451
36	3,438	3,426	3,413	3,401	3,388	3,376	3,364	3,352	3,339	3,327
37	3,315	3,303	3,291	3,279	3,267	3,256	3,244	3,232	3,221	3,209
38	3,198	3,186	3,175	3,163	3,152	3,141	3,130	3,118	3,107	3,096
39	3,085	3,074	3,063	3,052	3,041	3,031	3,020	3,009	2,999	2,988
40	2,977	2,967	2,956	2,946	2,936	2,925	2,915	2,905	2,894	2,884
41	2,874	2,864	2,854	2,844	2,834	2,824	2,814	2,804	2,794	2,785
42	2,775	2,765	2,755	2,746	2,736	2,727	2,717	2,708	2,698	2,689
43	2,679	2,670	2,661	2,651	2,642	2,633	2,624	2,615	2,605	2,596
44	2,587	2,578	2,569	2,560	2,551	2,543	2,534	2,525	2,516	2,507
45	2,499	2,490	2,481	2,473	2,464	2,455	2,447	2,438	2,430	2,421
46	2,413	2,404	2,396	2,388	2,379	2,371	2,363	2,355	2,346	2,338

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 2,500 Meters (Computer zone 6)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	2,330	2,322	2,314	2,306	2,298	2,290	2,282	2,274	2,266	2,258
48	2,250	2,242	2,234	2,226	2,218	2,211	2,203	2,195	2,187	2,180
49	2,172	2,164	2,157	2,149	2,142	2,134	2,127	2,119	2,112	2,104
50	2,097	2,089	2,082	2,074	2,067	2,060	2,052	2,045	2,038	2,031
51	2,023	2,016	2,009	2,002	1,995	1,988	1,980	1,973	1,966	1,959
52	1,952	1,945	1,938	1,931	1,924	1,917	1,910	1,904	1,897	1,890
53	1,883	1,876	1,869	1,863	1,856	1,849	1,842	1,836	1,829	1,822
54	1,815	1,809	1,802	1,796	1,789	1,782	1,776	1,769	1,763	1,756
55	1,750	1,743	1,737	1,730	1,724	1,717	1,711	1,705	1,698	1,692
56	1,685	1,679	1,673	1,666	1,660	1,654	1,648	1,641	1,635	1,629
57	1,623	1,617	1,610	1,604	1,598	1,592	1,586	1,580	1,574	1,568
58	1,561	1,555	1,549	1,543	1,537	1,531	1,525	1,519	1,513	1,507
59	1,501	1,496	1,490	1,484	1,478	1,472	1,466	1,460	1,454	1,449
60	1,443	1,437	1,431	1,425	1,420	1,414	1,408	1,402	1,397	1,391
61	1,385	1,379	1,374	1,368	1,362	1,357	1,351	1,346	1,340	1,334
62	1,329	1,323	1,318	1,312	1,306	1,301	1,295	1,290	1,284	1,279
63	1,273	1,268	1,262	1,257	1,251	1,246	1,240	1,235	1,230	1,224
64	1,219	1,213	1,208	1,203	1,197	1,192	1,187	1,181	1,176	1,171
65	1,165	1,160	1,155	1,149	1,144	1,139	1,134	1,128	1,123	1,118
66	1,113	1,107	1,102	1,097	1,092	1,087	1,081	1,076	1,071	1,066
67	1,061	1,056	1,050	1,045	1,040	1,035	1,030	1,025	1,020	1,015
68	1,010	1,005	1,000	994	989	984	979	974	969	964
69	959	954	949	944	939	934	929	924	919	914
70	910	905	900	895	890	885	880	875	870	865
71	860	856	851	846	841	836	831	826	822	817
72	812	807	802	798	793	788	783	778	774	769
73	764	759	754	750	745	740	735	731	726	721
74	717	712	707	702	698	693	688	684	679	674
75	670	665	660	656	651	646	642	637	632	628
76	623	618	614	609	605	600	595	591	586	582
77	577	572	568	563	559	554	549	545	540	536
78	531	527	522	518	513	508	504	499	495	490
79	486	481	477	472	468	463	459	454	450	445
80	441	436	432	427	423	418	414	409	405	400
81	396	391	387	382	378	373	369	365	360	356
82	351	347	342	338	333	329	325	320	316	311
83	307	302	298	294	289	285	280	276	271	267
84	263	258	254	249	245	241	236	232	227	223
85	219	214	210	205	201	197	192	188	184	179
86	175	170	166	162	157	153	148	144	140	135
87	131	127	122	118	113	109	105	100	96	92
88	87	83	79	74	70	65	61	57	52	48
89	44	39	35	31	26	22	17	13	9	4

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 3,000 Meters (Ballistic Zone 6) (Computer Zone 7)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	53,007	51,519	50,107	48,766	47,491	46,277	45,120	44,017	42,964	41,957
4	40,995	40,073	39,191	38,344	37,533	36,753	36,004	35,284	34,590	33,923
5	33,280	32,660	32,062	31,485	30,927	30,388	29,868	29,364	28,876	28,404
6	27,946	27,503	27,073	26,656	26,251	25,857	25,476	25,104	24,744	24,393
7	24,052	23,719	23,396	23,081	22,774	22,475	22,184	21,900	21,622	21,352
8	21,088	20,830	20,578	20,332	20,092	19,857	19,627	19,403	19,183	18,968
9	18,758	18,552	18,351	18,153	17,960	17,771	17,585	17,403	17,225	17,050
10	16,879	16,711	16,546	16,384	16,225	16,070	15,917	15,766	15,619	15,474
11	15,331	15,192	15,054	14,919	14,786	14,656	14,527	14,401	14,277	14,155
12	14,034	13,916	13,800	13,685	13,573	13,462	13,352	13,245	13,139	13,034
13	12,931	12,830	12,730	12,632	12,535	12,439	12,345	12,252	12,161	12,071
14	11,981	11,894	11,807	11,722	11,637	11,554	11,472	11,391	11,311	11,232
15	11,154	11,078	11,002	10,927	10,853	10,780	10,707	10,636	10,566	10,496
16	10,428	10,360	10,293	10,226	10,161	10,096	10,032	9,969	9,906	9,844
17	9,783	9,723	9,663	9,604	9,546	9,488	9,431	9,374	9,318	9,263
18	9,208	9,154	9,100	9,047	8,995	8,943	8,892	8,841	8,790	8,741
19	8,691	8,642	8,594	8,546	8,499	8,452	8,405	8,359	8,314	8,269
20	8,224	8,180	8,136	8,092	8,045	8,007	7,964	7,922	7,881	7,840
21	7,799	7,759	7,719	7,679	7,640	7,601	7,562	7,524	7,486	7,448
22	7,411	7,374	7,337	7,301	7,265	7,229	7,194	7,159	7,124	7,089
23	7,055	7,021	6,987	6,954	6,921	6,888	6,855	6,823	6,790	6,759
24	6,727	6,696	6,664	6,633	6,603	6,572	6,542	6,512	6,482	6,453
25	6,424	6,394	6,366	6,337	6,308	6,280	6,252	6,224	6,197	6,169
26	6,142	6,115	6,088	6,061	6,035	6,009	5,982	5,956	5,931	5,905
27	5,880	5,854	5,829	5,805	5,780	5,755	5,731	5,707	5,683	5,659
28	5,635	5,611	5,588	5,564	5,541	5,518	5,495	5,473	5,450	5,428
29	5,405	5,383	5,361	5,339	5,318	5,296	5,275	5,253	5,232	5,211
30	5,190	5,169	5,149	5,128	5,107	5,087	5,067	5,047	5,027	5,007
31	4,987	4,968	4,948	4,929	4,909	4,890	4,871	4,852	4,833	4,815
32	4,796	4,777	4,759	4,741	4,722	4,704	4,686	4,668	4,650	4,633
33	4,615	4,597	4,580	4,562	4,545	4,528	4,511	4,494	4,477	4,460
34	4,443	4,427	4,410	4,394	4,377	4,361	4,345	4,328	4,312	4,296
35	4,280	4,265	4,249	4,233	4,217	4,202	4,186	4,171	4,156	4,141
36	4,125	4,110	4,095	4,080	4,065	4,051	4,036	4,021	4,007	3,992
37	3,978	3,963	3,949	3,935	3,920	3,906	3,892	3,878	3,864	3,850
38	3,837	3,823	3,809	3,795	3,782	3,768	3,755	3,741	3,728	3,715
39	3,702	3,688	3,675	3,662	3,649	3,636	3,623	3,611	3,598	3,585
40	3,572	3,560	3,547	3,535	3,522	3,510	3,497	3,485	3,473	3,461
41	3,448	3,436	3,424	3,412	3,400	3,388	3,376	3,365	3,353	3,341
42	3,329	3,318	3,306	3,294	3,283	3,271	3,260	3,249	3,237	3,226
43	3,215	3,203	3,192	3,181	3,170	3,159	3,148	3,137	3,126	3,115
44	3,104	3,094	3,083	3,072	3,061	3,051	3,040	3,029	3,019	3,008
45	2,998	2,987	2,977	2,967	2,956	2,946	2,936	2,926	2,915	2,905
46	2,895	2,885	2,875	2,865	2,855	2,845	2,835	2,825	2,815	2,805

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 3,000 Meters (Ballistic Zone 6) (Computer Zone 7)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	2,796	2,786	2,776	2,766	2,757	2,747	2,738	2,728	2,718	2,709
48	2,699	2,690	2,681	2,671	2,662	2,652	2,643	2,634	2,625	2,615
49	2,606	2,597	2,588	2,579	2,570	2,561	2,552	2,543	2,534	2,525
50	2,516	2,507	2,498	2,489	2,480	2,471	2,463	2,454	2,445	2,437
51	2,428	2,419	2,411	2,402	2,393	2,385	2,376	2,368	2,359	2,351
52	2,342	2,334	2,326	2,317	2,309	2,301	2,292	2,284	2,276	2,268
53	2,259	2,251	2,243	2,235	2,227	2,219	2,210	2,202	2,194	2,186
54	2,178	2,170	2,162	2,154	2,147	2,139	2,131	2,123	2,115	2,107
55	2,099	2,092	2,084	2,076	2,068	2,061	2,053	2,045	2,038	2,030
56	2,022	2,015	2,007	2,000	1,992	1,985	1,977	1,970	1,962	1,955
57	1,947	1,940	1,932	1,925	1,917	1,910	1,903	1,895	1,888	1,881
58	1,874	1,866	1,859	1,852	1,845	1,837	1,830	1,823	1,816	1,809
59	1,802	1,794	1,787	1,780	1,773	1,766	1,759	1,752	1,745	1,738
60	1,731	1,724	1,717	1,710	1,703	1,696	1,689	1,683	1,676	1,669
61	1,662	1,655	1,648	1,642	1,635	1,628	1,621	1,614	1,608	1,601
62	1,594	1,588	1,581	1,574	1,568	1,561	1,554	1,548	1,541	1,534
63	1,528	1,521	1,515	1,508	1,501	1,495	1,488	1,482	1,475	1,469
64	1,462	1,456	1,449	1,443	1,437	1,430	1,424	1,417	1,411	1,405
65	1,398	1,392	1,385	1,379	1,373	1,366	1,360	1,354	1,348	1,341
66	1,335	1,329	1,322	1,316	1,310	1,304	1,298	1,291	1,285	1,279
67	1,273	1,267	1,260	1,254	1,248	1,242	1,236	1,230	1,224	1,218
68	1,211	1,205	1,199	1,193	1,187	1,181	1,175	1,169	1,163	1,157
69	1,151	1,145	1,139	1,133	1,127	1,121	1,115	1,109	1,103	1,097
70	1,091	1,085	1,080	1,074	1,068	1,062	1,056	1,050	1,044	1,038
71	1,032	1,027	1,021	1,015	1,009	1,003	997	992	986	980
72	974	968	963	957	951	945	940	934	928	922
73	917	911	905	900	894	888	883	877	871	865
74	860	854	848	843	837	832	826	820	815	809
75	803	798	792	787	781	775	770	764	759	753
76	748	742	737	731	725	720	714	709	703	698
77	692	687	681	676	670	665	659	654	648	643
78	637	632	626	621	616	610	605	599	594	588
79	583	577	572	567	561	556	550	545	540	534
80	529	523	518	513	507	502	496	491	486	480
81	475	470	464	459	453	448	443	437	432	427
82	421	416	411	405	400	395	389	384	379	373
83	368	363	358	352	347	342	336	331	326	320
84	315	310	305	299	294	289	283	278	273	268
85	262	257	252	247	241	236	231	225	220	215
86	210	204	199	194	189	183	178	173	168	162
87	157	152	147	141	136	131	126	120	115	110
88	105	99	94	89	84	79	73	68	63	58
89	52	47	42	37	31	26	21	16	10	5

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 3,500 Meters (Computer Zone 8)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	61,145	59,463	57,865	56,344	54,896	53,516	52,200	50,942	49,741	48,592
4	47,492	46,438	45,428	44,459	43,528	42,634	41,774	40,947	40,150	39,383
5	38,643	37,929	37,241	36,576	35,933	35,312	34,711	34,130	33,567	33,022
6	32,493	31,981	31,484	31,002	30,533	30,079	29,637	29,207	28,790	28,384
7	27,989	27,604	27,229	26,864	26,509	26,162	25,824	25,495	25,173	24,860
8	24,553	24,254	23,962	23,677	23,398	23,125	22,859	22,598	22,343	22,093
9	21,849	21,610	21,376	21,147	20,923	20,703	20,487	20,276	20,069	19,866
10	19,666	19,471	19,279	19,091	18,907	18,725	18,547	18,373	18,201	18,033
11	17,867	17,704	17,545	17,387	17,233	17,081	16,932	16,785	16,640	16,498
12	16,358	16,221	16,085	15,952	15,821	15,692	15,564	15,439	15,316	15,194
13	15,075	14,957	14,840	14,726	14,613	14,502	14,392	14,284	14,177	14,072
14	13,969	13,866	13,765	13,666	13,568	13,471	13,375	13,281	13,188	13,096
15	13,005	12,916	12,828	12,740	12,654	12,569	12,485	12,402	12,320	12,239
16	12,159	12,080	12,002	11,924	11,848	11,773	11,698	11,624	11,551	11,479
17	11,408	11,338	11,268	11,199	11,131	11,064	10,997	10,932	10,866	10,802
18	10,738	10,675	10,613	10,551	10,490	10,429	10,369	10,310	10,251	10,193
19	10,136	10,079	10,022	9,967	9,911	9,857	9,803	9,749	9,696	9,643
20	9,591	9,539	9,488	9,438	9,387	9,338	9,288	9,240	9,191	9,143
21	9,096	9,049	9,002	8,956	8,910	8,865	8,820	8,775	8,731	8,687
22	8,644	8,600	8,558	8,515	8,473	8,432	8,390	8,349	8,309	8,268
23	8,228	8,189	8,149	8,110	8,072	8,033	7,995	7,958	7,920	7,883
24	7,846	7,809	7,773	7,737	7,701	7,666	7,630	7,596	7,561	7,526
25	7,492	7,458	7,425	7,391	7,358	7,325	7,292	7,260	7,228	7,196
26	7,164	7,132	7,101	7,070	7,039	7,008	6,978	6,948	6,918	6,888
27	6,858	6,829	6,799	6,770	6,742	6,713	6,684	6,656	6,628	6,600
28	6,573	6,545	6,518	6,490	6,463	6,437	6,410	6,384	6,357	6,331
29	6,305	6,279	6,254	6,228	6,203	6,178	6,152	6,128	6,103	6,078
30	6,054	6,030	6,005	5,981	5,958	5,934	5,910	5,887	5,864	5,840
31	5,817	5,794	5,772	5,749	5,727	5,704	5,682	5,660	5,638	5,616
32	5,594	5,573	5,551	5,530	5,508	5,487	5,466	5,445	5,424	5,404
33	5,383	5,363	5,342	5,322	5,302	5,282	5,262	5,242	5,222	5,203
34	5,183	5,164	5,144	5,125	5,106	5,087	5,068	5,049	5,030	5,012
35	4,993	4,974	4,956	4,938	4,920	4,901	4,883	4,866	4,848	4,830
36	4,812	4,795	4,777	4,760	4,742	4,725	4,708	4,691	4,674	4,657
37	4,640	4,623	4,606	4,590	4,573	4,557	4,540	4,524	4,508	4,491
38	4,475	4,459	4,443	4,427	4,412	4,396	4,380	4,364	4,349	4,333
39	4,318	4,303	4,287	4,272	4,257	4,242	4,227	4,212	4,197	4,182
40	4,167	4,152	4,138	4,123	4,109	4,094	4,080	4,065	4,051	4,037
41	4,023	4,008	3,994	3,980	3,966	3,952	3,939	3,925	3,911	3,897
42	3,884	3,870	3,857	3,843	3,830	3,816	3,803	3,790	3,776	3,763
43	3,750	3,737	3,724	3,711	3,698	3,685	3,672	3,659	3,647	3,634
44	3,621	3,609	3,596	3,584	3,571	3,559	3,546	3,534	3,522	3,509
45	3,497	3,485	3,473	3,461	3,449	3,437	3,425	3,413	3,401	3,389
46	3,377	3,365	3,354	3,342	3,330	3,319	3,307	3,296	3,284	3,273

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.



Table 2-1. Horizontal Distance (Meters), 3,500 Meters (Computer Zone 8)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	3,261	3,250	3,238	3,227	3,216	3,205	3,193	3,182	3,171	3,160
48	3,149	3,138	3,127	3,116	3,105	3,094	3,083	3,072	3,062	3,051
49	3,040	3,030	3,019	3,008	2,998	2,987	2,977	2,966	2,956	2,945
50	2,935	2,924	2,914	2,904	2,893	2,883	2,873	2,863	2,852	2,842
51	2,832	2,822	2,812	2,802	2,792	2,782	2,772	2,762	2,752	2,742
52	2,733	2,723	2,713	2,703	2,693	2,684	2,674	2,664	2,655	2,645
53	2,636	2,626	2,616	2,607	2,598	2,588	2,579	2,569	2,560	2,550
54	2,541	2,532	2,523	2,513	2,504	2,495	2,486	2,476	2,467	2,458
55	2,449	2,440	2,431	2,422	2,413	2,404	2,395	2,386	2,377	2,368
56	2,359	2,350	2,341	2,333	2,324	2,315	2,306	2,298	2,289	2,280
57	2,271	2,263	2,254	2,245	2,237	2,228	2,220	2,211	2,203	2,194
58	2,186	2,177	2,169	2,160	2,152	2,143	2,135	2,127	2,118	2,110
59	2,102	2,093	2,085	2,077	2,069	2,060	2,052	2,044	2,036	2,028
60	2,019	2,011	2,003	1,995	1,987	1,979	1,971	1,963	1,955	1,947
61	1,939	1,931	1,923	1,915	1,907	1,899	1,891	1,883	1,876	1,868
62	1,860	1,852	1,844	1,836	1,829	1,821	1,813	1,805	1,798	1,790
63	1,782	1,775	1,767	1,759	1,752	1,744	1,736	1,729	1,721	1,714
64	1,706	1,698	1,691	1,683	1,676	1,668	1,661	1,653	1,646	1,639
65	1,631	1,624	1,616	1,609	1,601	1,594	1,587	1,579	1,572	1,565
66	1,557	1,550	1,543	1,535	1,528	1,521	1,514	1,506	1,499	1,492
67	1,485	1,478	1,470	1,463	1,456	1,449	1,442	1,435	1,427	1,420
68	1,413	1,406	1,399	1,392	1,385	1,378	1,371	1,364	1,357	1,350
69	1,343	1,336	1,329	1,322	1,315	1,308	1,301	1,294	1,287	1,280
70	1,273	1,266	1,259	1,252	1,246	1,239	1,232	1,225	1,218	1,211
71	1,204	1,198	1,191	1,184	1,177	1,170	1,164	1,157	1,150	1,143
72	1,137	1,130	1,123	1,116	1,110	1,103	1,096	1,090	1,083	1,076
73	1,069	1,063	1,056	1,049	1,043	1,036	1,030	1,023	1,016	1,010
74	1,003	996	990	983	977	970	964	957	950	944
75	937	931	924	918	911	905	898	892	885	879
76	872	866	859	853	846	840	833	827	820	814
77	808	801	795	788	782	775	769	763	756	750
78	744	737	731	724	718	712	705	699	693	686
79	680	674	667	661	655	648	642	636	629	623
80	617	611	604	598	592	585	579	573	567	560
81	554	548	542	535	529	523	517	510	504	498
82	492	485	479	473	467	461	454	448	442	436
83	430	423	417	411	405	399	392	386	380	374
84	368	361	355	349	343	337	331	325	318	312
85	306	300	294	288	281	275	269	263	257	251
86	245	238	232	226	220	214	208	202	196	189
87	183	177	171	165	159	153	147	140	134	128
88	122	116	110	104	98	92	85	79	73	67
89	61	55	49	43	37	31	24	18	12	6

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 4,000 Meters (Ballistic Zone 7) (Computer Zone 9) (Fallout Zone 2)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	69, 119	67, 254	65, 479	63, 788	62, 176	60, 638	59, 169	57, 765	56, 422	55, 136
4	53, 904	52, 723	51, 590	50, 501	49, 456	48, 451	47, 484	46, 553	45, 656	44, 791
5	43, 957	43, 153	42, 376	41, 625	40, 899	40, 198	39, 519	38, 862	38, 225	37, 608
6	37, 010	36, 430	35, 868	35, 321	34, 791	34, 276	33, 775	33, 288	32, 815	32, 354
7	31, 906	31, 469	31, 044	30, 630	30, 227	29, 833	29, 449	29, 075	28, 710	28, 353
8	28, 005	27, 666	27, 334	27, 009	26, 692	26, 382	26, 079	25, 783	25, 493	25, 209
9	24, 931	24, 659	24, 393	24, 132	23, 876	23, 626	23, 381	23, 140	22, 905	22, 673
10	22, 447	22, 224	22, 006	21, 792	21, 581	21, 375	21, 172	20, 973	20, 778	20, 586
11	20, 397	20, 212	20, 030	19, 851	19, 675	19, 502	19, 331	19, 164	18, 999	18, 837
12	18, 678	18, 521	18, 367	18, 215	18, 065	17, 918	17, 773	17, 630	17, 489	17, 351
13	17, 214	17, 080	16, 947	16, 817	16, 688	16, 561	16, 436	16, 313	16, 191	16, 071
14	15, 953	15, 836	15, 721	15, 608	15, 496	15, 385	15, 276	15, 169	15, 062	14, 958
15	14, 854	14, 752	14, 651	14, 552	14, 453	14, 356	14, 260	14, 165	14, 072	13, 979
16	13, 888	13, 798	13, 709	13, 621	13, 533	13, 447	13, 362	13, 278	13, 195	13, 113
17	13, 032	12, 951	12, 872	12, 793	12, 715	12, 639	12, 563	12, 487	12, 413	12, 339
18	12, 267	12, 195	12, 123	12, 053	11, 983	11, 914	11, 846	11, 778	11, 711	11, 645
19	11, 579	11, 514	11, 450	11, 386	11, 323	11, 260	11, 199	11, 137	11, 077	11, 017
20	10, 957	10, 898	10, 840	10, 782	10, 725	10, 668	10, 612	10, 556	10, 501	10, 446
21	10, 392	10, 338	10, 285	10, 232	10, 180	10, 128	10, 076	10, 025	9, 975	9, 925
22	9, 875	9, 826	9, 777	9, 729	9, 681	9, 633	9, 586	9, 539	9, 493	9, 447
23	9, 401	9, 356	9, 311	9, 266	9, 222	9, 178	9, 135	9, 092	9, 049	9, 006
24	8, 964	8, 923	8, 881	8, 840	8, 799	8, 758	8, 718	8, 678	8, 639	8, 599
25	8, 560	8, 522	8, 483	8, 445	8, 407	8, 369	8, 332	8, 295	8, 258	8, 222
26	8, 185	8, 149	8, 113	8, 078	8, 043	8, 008	7, 973	7, 938	7, 904	7, 870
27	7, 836	7, 802	7, 769	7, 736	7, 703	7, 670	7, 638	7, 605	7, 573	7, 542
28	7, 510	7, 478	7, 447	7, 416	7, 385	7, 355	7, 324	7, 294	7, 264	7, 234
29	7, 204	7, 175	7, 145	7, 116	7, 087	7, 059	7, 030	7, 002	6, 973	6, 945
30	6, 917	6, 890	6, 862	6, 835	6, 807	6, 780	6, 753	6, 727	6, 700	6, 673
31	6, 647	6, 621	6, 595	6, 569	6, 543	6, 518	6, 492	6, 467	6, 442	6, 417
32	6, 392	6, 367	6, 343	6, 318	6, 294	6, 270	6, 246	6, 222	6, 198	6, 175
33	6, 151	6, 128	6, 104	6, 081	6, 058	6, 035	6, 012	5, 990	5, 967	5, 945
34	5, 922	5, 900	5, 878	5, 856	5, 834	5, 813	5, 791	5, 769	5, 748	5, 727
35	5, 705	5, 684	5, 663	5, 642	5, 622	5, 601	5, 580	5, 560	5, 539	5, 519
36	5, 499	5, 479	5, 459	5, 439	5, 419	5, 399	5, 380	5, 360	5, 341	5, 321
37	5, 302	5, 283	5, 264	5, 245	5, 226	5, 207	5, 188	5, 169	5, 151	5, 132
38	5, 114	5, 096	5, 077	5, 059	5, 041	5, 023	5, 005	4, 987	4, 969	4, 952
39	4, 934	4, 917	4, 899	4, 882	4, 864	4, 847	4, 830	4, 813	4, 796	4, 779
40	4, 762	4, 745	4, 728	4, 712	4, 695	4, 678	4, 662	4, 646	4, 629	4, 613
41	4, 597	4, 581	4, 564	4, 548	4, 532	4, 517	4, 501	4, 485	4, 469	4, 454
42	4, 438	4, 422	4, 407	4, 392	4, 376	4, 361	4, 346	4, 330	4, 315	4, 300
43	4, 285	4, 270	4, 255	4, 241	4, 226	4, 211	4, 196	4, 182	4, 167	4, 153
44	4, 138	4, 124	4, 109	4, 095	4, 081	4, 067	4, 052	4, 038	4, 024	4, 010
45	3, 996	3, 982	3, 968	3, 955	3, 941	3, 927	3, 913	3, 900	3, 886	3, 873
46	3, 859	3, 846	3, 832	3, 819	3, 806	3, 792	3, 779	3, 766	3, 753	3, 740

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 4,000 Meters (Ballistic Zone 7) (Computer Zone 9) (Fallout Zone 2)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	3,727	3,714	3,701	3,688	3,675	3,662	3,649	3,636	3,624	3,611
48	3,598	3,586	3,573	3,561	3,548	3,536	3,523	3,511	3,499	3,486
49	3,474	3,462	3,450	3,438	3,425	3,413	3,401	3,389	3,377	3,365
50	3,354	3,342	3,330	3,318	3,306	3,295	3,283	3,271	3,260	3,248
51	3,236	3,225	3,213	3,202	3,191	3,179	3,168	3,156	3,145	3,134
52	3,123	3,111	3,100	3,089	3,078	3,067	3,056	3,045	3,034	3,023
53	3,012	3,001	2,990	2,979	2,968	2,957	2,947	2,936	2,925	2,915
54	2,904	2,893	2,883	2,872	2,861	2,851	2,840	2,830	2,819	2,809
55	2,799	2,788	2,778	2,768	2,757	2,747	2,737	2,727	2,716	2,706
56	2,696	2,686	2,676	2,666	2,656	2,646	2,635	2,626	2,616	2,606
57	2,596	2,586	2,576	2,566	2,556	2,546	2,537	2,527	2,517	2,507
58	2,498	2,488	2,478	2,469	2,459	2,449	2,440	2,430	2,421	2,411
59	2,402	2,392	2,383	2,373	2,364	2,354	2,345	2,336	2,326	2,317
60	2,308	2,298	2,289	2,280	2,271	2,261	2,252	2,243	2,234	2,225
61	2,216	2,207	2,197	2,188	2,179	2,170	2,161	2,152	2,143	2,134
62	2,125	2,116	2,107	2,099	2,090	2,081	2,072	2,063	2,054	2,045
63	2,037	2,028	2,019	2,010	2,002	1,993	1,984	1,976	1,967	1,958
64	1,950	1,941	1,932	1,924	1,915	1,907	1,898	1,889	1,881	1,872
65	1,864	1,855	1,847	1,839	1,830	1,822	1,813	1,805	1,796	1,788
66	1,780	1,771	1,763	1,755	1,746	1,738	1,730	1,721	1,713	1,705
67	1,697	1,689	1,680	1,672	1,664	1,656	1,648	1,639	1,631	1,623
68	1,615	1,607	1,599	1,591	1,583	1,575	1,567	1,558	1,550	1,542
69	1,534	1,526	1,518	1,510	1,502	1,495	1,487	1,479	1,471	1,463
70	1,455	1,447	1,439	1,431	1,423	1,416	1,408	1,400	1,392	1,384
71	1,376	1,369	1,361	1,353	1,345	1,337	1,330	1,322	1,314	1,307
72	1,299	1,291	1,283	1,276	1,268	1,260	1,253	1,245	1,237	1,230
73	1,222	1,214	1,207	1,199	1,192	1,184	1,176	1,169	1,161	1,154
74	1,146	1,139	1,131	1,124	1,116	1,109	1,101	1,094	1,086	1,079
75	1,071	1,064	1,056	1,049	1,041	1,034	1,026	1,019	1,011	1,004
76	997	989	982	974	967	960	952	945	938	930
77	923	916	908	901	894	886	879	872	864	857
78	850	842	835	828	821	813	806	799	792	784
79	777	770	763	755	748	741	734	726	719	712
80	705	698	690	683	676	669	662	655	647	640
81	633	626	619	612	605	597	590	583	576	569
82	562	555	548	540	533	526	519	512	505	498
83	491	484	477	470	463	455	448	441	434	427
84	420	413	406	399	392	385	378	371	364	357
85	350	343	336	329	322	315	308	301	294	287
86	280	273	266	259	252	244	237	230	223	216
87	209	203	196	189	182	175	168	161	154	147
88	140	133	126	119	112	105	98	91	84	77
89	70	63	56	49	42	35	28	21	14	7

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 4,500 Meters (Computer Zone 10)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	76,936	74,898	72,956	71,104	69,336	67,647	66,033	64,488	63,009	61,592
4	60,233	58,930	57,678	56,475	55,319	54,206	53,135	52,103	51,109	50,150
5	49,224	48,331	47,468	46,634	45,827	45,046	44,291	43,560	42,851	42,164
6	41,498	40,852	40,224	39,615	39,024	38,449	37,891	37,347	36,819	36,305
7	35,804	35,316	34,841	34,379	33,928	33,488	33,059	32,640	32,232	31,833
8	31,444	31,064	30,692	30,329	29,975	29,628	29,288	28,957	28,632	28,314
9	28,003	27,698	27,400	27,108	26,822	26,541	26,267	25,997	25,733	25,474
10	25,220	24,970	24,725	24,485	24,250	24,018	23,791	23,568	23,349	23,133
11	22,922	22,714	22,510	22,309	22,111	21,917	21,726	21,538	21,354	21,172
12	20,993	20,817	20,644	20,473	20,305	20,140	19,977	19,817	19,659	19,504
13	19,351	19,200	19,051	18,904	18,760	18,617	18,477	18,338	18,202	18,067
14	17,934	17,804	17,674	17,547	17,421	17,297	17,175	17,054	16,935	16,817
15	16,701	16,586	16,473	16,361	16,250	16,141	16,034	15,927	15,822	15,718
16	15,616	15,514	15,414	15,315	15,217	15,120	15,025	14,930	14,837	14,745
17	14,653	14,563	14,474	14,385	14,298	14,212	14,126	14,042	13,958	13,876
18	13,794	13,713	13,633	13,554	13,475	13,397	13,321	13,245	13,169	13,095
19	13,021	12,948	12,876	12,804	12,733	12,663	12,594	12,525	12,457	12,389
20	12,322	12,256	12,190	12,125	12,061	11,997	11,934	11,871	11,809	11,748
21	11,687	11,626	11,566	11,507	11,448	11,390	11,332	11,275	11,218	11,162
22	11,106	11,051	10,996	10,941	10,888	10,834	10,781	10,728	10,676	10,624
23	10,573	10,522	10,472	10,422	10,372	10,323	10,274	10,225	10,177	10,129
24	10,082	10,035	9,988	9,942	9,896	9,851	9,805	9,761	9,716	9,672
25	9,628	9,584	9,541	9,498	9,456	9,413	9,371	9,330	9,288	9,247
26	9,206	9,166	9,125	9,086	9,046	9,006	8,967	8,928	8,890	8,852
27	8,814	8,776	8,738	8,701	8,664	8,627	8,591	8,554	8,518	8,482
28	8,447	8,411	8,376	8,341	8,307	8,272	8,238	8,204	8,170	8,137
29	8,103	8,070	8,037	8,004	7,972	7,939	7,907	7,875	7,843	7,812
30	7,780	7,749	7,718	7,687	7,657	7,626	7,596	7,566	7,536	7,506
31	7,477	7,447	7,418	7,389	7,360	7,331	7,303	7,274	7,246	7,218
32	7,190	7,162	7,134	7,107	7,080	7,052	7,025	6,999	6,972	6,945
33	6,919	6,892	6,866	6,840	6,814	6,788	6,763	6,737	6,712	6,687
34	6,662	6,637	6,612	6,587	6,563	6,538	6,514	6,489	6,465	6,441
35	6,418	6,394	6,370	6,347	6,323	6,300	6,277	6,254	6,231	6,208
36	6,185	6,163	6,140	6,118	6,095	6,073	6,051	6,029	6,007	5,985
37	5,964	5,942	5,921	5,899	5,878	5,857	5,836	5,815	5,794	5,773
38	5,752	5,732	5,711	5,691	5,670	5,650	5,630	5,610	5,590	5,570
39	5,550	5,530	5,511	5,491	5,472	5,452	5,433	5,414	5,395	5,375
40	5,356	5,337	5,319	5,300	5,281	5,263	5,244	5,226	5,207	5,189
41	5,171	5,152	5,134	5,116	5,098	5,080	5,063	5,045	5,027	5,010
42	4,992	4,975	4,957	4,940	4,923	4,905	4,888	4,871	4,854	4,837
43	4,820	4,803	4,787	4,770	4,753	4,737	4,720	4,704	4,687	4,671
44	4,655	4,639	4,622	4,606	4,590	4,574	4,558	4,543	4,527	4,511
45	4,495	4,480	4,464	4,448	4,433	4,418	4,402	4,387	4,372	4,356
46	4,341	4,326	4,311	4,296	4,281	4,266	4,251	4,236	4,221	4,207

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 4,500 Meters (Computer Zone 10)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	4,192	4,177	4,163	4,148	4,134	4,119	4,105	4,091	4,076	4,062
48	4,048	4,034	4,019	4,005	3,991	3,977	3,963	3,949	3,936	3,922
49	3,908	3,894	3,881	3,867	3,853	3,840	3,826	3,813	3,799	3,786
50	3,772	3,759	3,746	3,732	3,719	3,706	3,693	3,680	3,667	3,654
51	3,641	3,628	3,615	3,602	3,589	3,576	3,563	3,551	3,538	3,525
52	3,513	3,500	3,487	3,475	3,462	3,450	3,437	3,425	3,413	3,400
53	3,388	3,376	3,363	3,351	3,339	3,327	3,315	3,303	3,291	3,279
54	3,267	3,255	3,243	3,231	3,219	3,207	3,195	3,183	3,172	3,160
55	3,148	3,136	3,125	3,113	3,102	3,090	3,079	3,067	3,056	3,044
56	3,033	3,021	3,010	2,999	2,987	2,976	2,965	2,953	2,942	2,931
57	2,920	2,909	2,898	2,886	2,875	2,864	2,853	2,842	2,831	2,820
58	2,810	2,799	2,788	2,777	2,766	2,755	2,745	2,734	2,723	2,712
59	2,702	2,691	2,680	2,670	2,659	2,649	2,638	2,627	2,617	2,606
60	2,596	2,585	2,575	2,565	2,554	2,544	2,534	2,523	2,513	2,503
61	2,492	2,482	2,472	2,462	2,451	2,441	2,431	2,421	2,411	2,401
62	2,391	2,381	2,371	2,361	2,351	2,341	2,331	2,321	2,311	2,301
63	2,291	2,281	2,271	2,261	2,252	2,242	2,232	2,222	2,213	2,203
64	2,193	2,183	2,174	2,164	2,154	2,145	2,135	2,125	2,116	2,106
65	2,097	2,087	2,078	2,068	2,059	2,049	2,040	2,030	2,021	2,011
66	2,002	1,993	1,983	1,974	1,964	1,955	1,946	1,937	1,927	1,918
67	1,909	1,899	1,890	1,881	1,872	1,863	1,853	1,844	1,835	1,826
68	1,817	1,808	1,798	1,789	1,780	1,771	1,762	1,753	1,744	1,735
69	1,726	1,717	1,708	1,699	1,690	1,681	1,672	1,663	1,654	1,646
70	1,637	1,628	1,619	1,610	1,601	1,592	1,584	1,575	1,566	1,557
71	1,548	1,540	1,531	1,522	1,513	1,505	1,496	1,487	1,478	1,470
72	1,461	1,452	1,444	1,435	1,426	1,418	1,409	1,401	1,392	1,383
73	1,375	1,366	1,358	1,349	1,341	1,332	1,323	1,315	1,306	1,298
74	1,289	1,281	1,272	1,264	1,256	1,247	1,239	1,230	1,222	1,213
75	1,205	1,196	1,188	1,180	1,171	1,163	1,155	1,146	1,138	1,129
76	1,121	1,113	1,105	1,096	1,088	1,080	1,071	1,063	1,055	1,046
77	1,038	1,030	1,022	1,013	1,005	997	989	980	972	964
78	956	948	939	931	923	915	907	899	890	882
79	874	866	858	850	842	833	825	817	809	801
80	793	785	777	769	761	753	744	736	728	720
81	712	704	696	688	680	672	664	656	648	640
82	632	624	616	608	600	592	584	576	568	560
83	552	544	536	528	520	512	504	496	489	481
84	473	465	457	449	441	433	425	417	409	401
85	393	386	378	370	362	354	346	338	330	322
86	314	307	299	291	283	275	267	259	251	244
87	236	228	220	212	204	196	188	181	173	165
88	157	149	141	133	126	118	110	102	94	86
89	78	71	63	55	47	39	31	24	16	8

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 5,000 Meters (Ballistic Zone 8) (Computer Zone 11)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	84,605	82,404	80,304	78,299	76,382	74,550	72,796	71,117	69,508	67,965
4	66,484	65,062	63,695	62,382	61,118	59,901	58,729	57,600	56,510	55,460
5	54,445	53,465	52,518	51,602	50,716	49,859	49,029	48,225	47,445	46,690
6	45,957	45,245	44,555	43,884	43,233	42,599	41,984	41,385	40,802	40,235
7	39,683	39,145	38,621	38,110	37,612	37,127	36,653	36,191	35,740	35,300
8	34,870	34,449	34,039	33,638	33,246	32,862	32,487	32,120	31,761	31,410
9	31,066	30,729	30,399	30,075	29,759	29,448	29,144	28,846	28,554	28,267
10	27,985	27,709	27,438	27,173	26,912	26,655	26,404	26,157	25,914	25,675
11	25,441	25,211	24,984	24,762	24,543	24,328	24,117	23,908	23,704	23,502
12	23,304	23,109	22,917	22,728	22,542	22,359	22,178	22,001	21,826	21,653
13	21,483	21,316	21,151	20,989	20,828	20,670	20,515	20,361	20,210	20,061
14	19,913	19,768	19,625	19,483	19,344	19,206	19,071	18,937	18,804	18,674
15	18,545	18,418	18,292	18,168	18,045	17,924	17,805	17,687	17,570	17,455
16	17,341	17,229	17,117	17,008	16,899	16,792	16,686	16,581	16,477	16,375
17	16,273	16,173	16,074	15,976	15,879	15,783	15,689	15,595	15,502	15,410
18	15,320	15,230	15,141	15,053	14,966	14,880	14,794	14,710	14,627	14,544
19	14,462	14,381	14,301	14,221	14,143	14,065	13,987	13,911	13,835	13,760
20	13,686	13,613	13,540	13,468	13,396	13,325	13,255	13,186	13,117	13,048
21	12,981	12,914	12,847	12,781	12,716	12,651	12,587	12,524	12,461	12,398
22	12,336	12,275	12,214	12,153	12,094	12,034	11,975	11,917	11,859	11,801
23	11,745	11,688	11,632	11,576	11,521	11,466	11,412	11,358	11,305	11,252
24	11,199	11,147	11,095	11,044	10,993	10,942	10,892	10,842	10,793	10,744
25	10,695	10,646	10,598	10,551	10,503	10,456	10,410	10,364	10,318	10,272
26	10,227	10,182	10,137	10,093	10,049	10,005	9,961	9,918	9,875	9,833
27	9,791	9,749	9,707	9,666	9,624	9,584	9,543	9,503	9,463	9,423
28	9,383	9,344	9,305	9,266	9,228	9,189	9,151	9,114	9,076	9,039
29	9,002	8,965	8,928	8,892	8,856	8,820	8,784	8,749	8,713	8,678
30	8,643	8,609	8,574	8,540	8,506	8,472	8,438	8,405	8,372	8,339
31	8,306	8,273	8,241	8,208	8,176	8,144	8,113	8,081	8,050	8,018
32	7,987	7,957	7,926	7,895	7,865	7,835	7,805	7,775	7,745	7,716
33	7,686	7,657	7,628	7,599	7,570	7,542	7,513	7,485	7,457	7,428
34	7,401	7,373	7,345	7,318	7,290	7,263	7,236	7,209	7,183	7,156
35	7,129	7,103	7,077	7,051	7,025	6,999	6,973	6,948	6,922	6,897
36	6,871	6,846	6,821	6,796	6,772	6,747	6,722	6,698	6,674	6,650
37	6,625	6,601	6,578	6,554	6,530	6,507	6,483	6,460	6,437	6,414
38	6,391	6,368	6,345	6,322	6,300	6,277	6,255	6,232	6,210	6,188
39	6,166	6,144	6,122	6,100	6,079	6,057	6,036	6,014	5,993	5,972
40	5,951	5,930	5,909	5,888	5,867	5,847	5,826	5,805	5,785	5,765
41	5,744	5,724	5,704	5,684	5,664	5,644	5,624	5,605	5,585	5,566
42	5,546	5,527	5,507	5,488	5,469	5,450	5,431	5,412	5,393	5,374
43	5,355	5,337	5,318	5,299	5,281	5,262	5,244	5,226	5,208	5,189
44	5,171	5,153	5,135	5,118	5,100	5,082	5,064	5,047	5,029	5,012
45	4,994	4,977	4,959	4,942	4,925	4,908	4,891	4,874	4,857	4,840
46	4,823	4,806	4,789	4,773	4,756	4,739	4,723	4,706	4,690	4,674

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 5,000 Meters (Ballistic Zone 8) (Computer Zone 11)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	4,657	4,641	4,625	4,609	4,593	4,577	4,561	4,545	4,529	4,513
48	4,497	4,481	4,466	4,450	4,434	4,419	4,403	4,388	4,372	4,357
49	4,342	4,326	4,311	4,296	4,281	4,266	4,251	4,236	4,221	4,206
50	4,191	4,176	4,161	4,147	4,132	4,117	4,103	4,088	4,074	4,059
51	4,045	4,030	4,016	4,002	3,987	3,973	3,959	3,945	3,931	3,916
52	3,902	3,888	3,874	3,861	3,847	3,833	3,819	3,805	3,791	3,778
53	3,764	3,750	3,737	3,723	3,710	3,696	3,683	3,669	3,656	3,642
54	3,629	3,616	3,603	3,589	3,576	3,563	3,550	3,537	3,524	3,511
55	3,498	3,485	3,472	3,459	3,446	3,433	3,420	3,407	3,395	3,382
56	3,369	3,357	3,344	3,331	3,319	3,306	3,294	3,281	3,269	3,256
57	3,244	3,232	3,219	3,207	3,195	3,182	3,170	3,158	3,146	3,134
58	3,121	3,109	3,097	3,085	3,073	3,061	3,049	3,037	3,025	3,013
59	3,002	2,990	2,978	2,966	2,954	2,943	2,931	2,919	2,907	2,896
60	2,884	2,872	2,861	2,849	2,838	2,826	2,815	2,803	2,792	2,780
61	2,769	2,758	2,746	2,735	2,724	2,712	2,701	2,690	2,679	2,667
62	2,656	2,645	2,634	2,623	2,612	2,601	2,589	2,578	2,567	2,556
63	2,545	2,534	2,523	2,513	2,502	2,491	2,480	2,469	2,458	2,447
64	2,437	2,426	2,415	2,404	2,394	2,383	2,372	2,361	2,351	2,340
65	2,330	2,319	2,308	2,298	2,287	2,277	2,266	2,256	2,245	2,235
66	2,224	2,214	2,203	2,193	2,183	2,172	2,162	2,151	2,141	2,131
67	2,121	2,110	2,100	2,090	2,080	2,069	2,059	2,049	2,039	2,029
68	2,018	2,008	1,998	1,988	1,978	1,968	1,958	1,948	1,938	1,928
69	1,918	1,908	1,898	1,888	1,878	1,868	1,858	1,848	1,838	1,828
70	1,818	1,808	1,799	1,789	1,779	1,769	1,759	1,750	1,740	1,730
71	1,720	1,710	1,701	1,691	1,681	1,672	1,662	1,652	1,643	1,633
72	1,623	1,614	1,604	1,594	1,585	1,575	1,566	1,556	1,546	1,537
73	1,527	1,518	1,508	1,499	1,489	1,480	1,470	1,461	1,451	1,442
74	1,433	1,423	1,414	1,404	1,395	1,385	1,376	1,367	1,357	1,348
75	1,339	1,329	1,320	1,311	1,301	1,292	1,283	1,273	1,264	1,255
76	1,246	1,236	1,227	1,218	1,209	1,199	1,190	1,181	1,172	1,163
77	1,153	1,144	1,135	1,126	1,117	1,108	1,098	1,089	1,080	1,071
78	1,062	1,053	1,044	1,035	1,026	1,016	1,007	998	989	980
79	971	962	953	944	935	926	917	908	899	890
80	881	872	863	854	845	836	827	818	809	800
81	791	782	773	765	756	747	738	729	720	711
82	702	693	684	675	667	658	649	640	631	622
83	613	605	596	587	578	569	560	552	543	534
84	525	516	507	499	490	481	472	463	455	446
85	437	428	420	411	402	393	384	376	367	358
86	349	341	332	323	314	306	297	288	279	271
87	262	253	244	236	227	218	209	201	192	183
88	174	166	157	148	140	131	122	113	105	96
89	87	78	70	61	52	44	35	26	17	9

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 6,000 Meters (Ballistic Zone 9) (Computer Zone 12) (Fallout Zone 3)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	99,534	97,031	94,637	92,347	90,154	88,053	86,038	84,106	82,251	80,470
4	78,758	77,112	75,528	74,003	72,534	71,119	69,754	68,437	67,166	65,939
5	64,753	63,606	62,497	61,424	60,385	59,378	58,403	57,458	56,542	55,653
6	54,790	53,952	53,138	52,347	51,578	50,831	50,104	49,396	48,708	48,037
7	47,384	46,748	46,128	45,523	44,933	44,358	43,797	43,249	42,714	42,192
8	41,681	41,183	40,695	40,219	39,753	39,298	38,852	38,416	37,989	37,571
9	37,162	36,761	36,369	35,984	35,608	35,238	34,876	34,521	34,173	33,831
10	33,496	33,167	32,844	32,528	32,217	31,911	31,611	31,317	31,027	30,743
11	30,463	30,189	29,919	29,653	29,392	29,136	28,883	28,635	28,390	28,150
12	27,913	27,681	27,451	27,226	27,003	26,785	26,569	26,357	26,148	25,942
13	25,739	25,539	25,342	25,148	24,956	24,768	24,582	24,398	24,217	24,039
14	23,863	23,689	23,518	23,349	23,182	23,018	22,855	22,695	22,537	22,381
15	22,226	22,074	21,924	21,776	21,629	21,484	21,341	21,200	21,061	20,923
16	20,786	20,652	20,519	20,387	20,258	20,129	20,002	19,877	19,753	19,630
17	19,509	19,389	19,270	19,153	19,037	18,922	18,809	18,697	18,586	18,476
18	18,367	18,260	18,153	18,048	17,944	17,841	17,738	17,637	17,537	17,438
19	17,340	17,243	17,147	17,052	16,958	16,864	16,772	16,681	16,590	16,500
20	16,411	16,323	16,236	16,149	16,064	15,979	15,895	15,812	15,729	15,647
21	15,566	15,486	15,406	15,327	15,249	15,172	15,095	15,019	14,943	14,868
22	14,794	14,720	14,647	14,575	14,503	14,432	14,362	14,292	14,222	14,153
23	14,085	14,017	13,950	13,884	13,817	13,752	13,687	13,622	13,558	13,495
24	13,432	13,369	13,307	13,246	13,184	13,124	13,064	13,004	12,944	12,886
25	12,827	12,769	12,712	12,655	12,598	12,542	12,486	12,430	12,375	12,320
26	12,266	12,212	12,159	12,105	12,053	12,000	11,948	11,896	11,845	11,794
27	11,743	11,693	11,643	11,593	11,544	11,495	11,446	11,398	11,350	11,302
28	11,255	11,208	11,161	11,115	11,069	11,023	10,977	10,932	10,887	10,842
29	10,798	10,753	10,710	10,666	10,623	10,579	10,537	10,494	10,452	10,410
30	10,368	10,326	10,285	10,244	10,203	10,163	10,122	10,082	10,042	10,003
31	9,963	9,924	9,885	9,846	9,808	9,770	9,732	9,694	9,656	9,619
32	9,581	9,544	9,508	9,471	9,435	9,398	9,362	9,327	9,291	9,255
33	9,220	9,185	9,150	9,116	9,081	9,047	9,013	8,979	8,945	8,911
34	8,878	8,845	8,811	8,779	8,746	8,713	8,681	8,648	8,616	8,584
35	8,553	8,521	8,490	8,458	8,427	8,396	8,365	8,334	8,304	8,273
36	8,243	8,213	8,183	8,153	8,124	8,094	8,065	8,035	8,006	7,977
37	7,948	7,919	7,891	7,862	7,834	7,806	7,778	7,750	7,722	7,694
38	7,667	7,639	7,612	7,584	7,557	7,530	7,503	7,477	7,450	7,424
39	7,397	7,371	7,345	7,319	7,293	7,267	7,241	7,215	7,190	7,164
40	7,139	7,114	7,089	7,064	7,039	7,014	6,989	6,965	6,940	6,916
41	6,891	6,867	6,843	6,819	6,795	6,771	6,748	6,724	6,700	6,677
42	6,654	6,630	6,607	6,584	6,561	6,538	6,515	6,492	6,470	6,447
43	6,425	6,402	6,380	6,358	6,336	6,313	6,291	6,270	6,248	6,226
44	6,204	6,183	6,161	6,140	6,118	6,097	6,076	6,055	6,033	6,012
45	5,992	5,971	5,950	5,929	5,909	5,888	5,867	5,847	5,827	5,806
46	5,786	5,766	5,746	5,726	5,706	5,686	5,666	5,646	5,627	5,607

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.



Table 2-1. Horizontal Distance (Meters), 6,000 Meters (Ballistic Zone 9)(Computer Zone 12)(Fallout zone 3)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	5,588	5,568	5,549	5,529	5,510	5,491	5,471	5,452	5,433	5,414
48	5,395	5,376	5,358	5,339	5,320	5,301	5,283	5,264	5,246	5,227
49	5,209	5,191	5,172	5,154	5,136	5,118	5,100	5,082	5,064	5,046
50	5,028	5,010	4,993	4,975	4,957	4,940	4,922	4,905	4,887	4,870
51	4,853	4,835	4,818	4,801	4,784	4,767	4,750	4,733	4,716	4,699
52	4,682	4,665	4,648	4,632	4,615	4,598	4,582	4,565	4,549	4,532
53	4,516	4,499	4,483	4,467	4,451	4,434	4,418	4,402	4,386	4,370
54	4,354	4,338	4,322	4,306	4,290	4,275	4,259	4,243	4,228	4,212
55	4,196	4,181	4,165	4,150	4,134	4,119	4,104	4,088	4,073	4,058
56	4,042	4,027	4,012	3,997	3,982	3,967	3,952	3,937	3,922	3,907
57	3,892	3,877	3,862	3,848	3,833	3,818	3,803	3,789	3,774	3,760
58	3,745	3,730	3,716	3,702	3,687	3,673	3,658	3,644	3,630	3,615
59	3,601	3,587	3,573	3,559	3,544	3,530	3,516	3,502	3,488	3,474
60	3,460	3,446	3,432	3,419	3,405	3,391	3,377	3,363	3,350	3,336
61	3,322	3,309	3,295	3,281	3,268	3,254	3,241	3,227	3,214	3,200
62	3,187	3,173	3,160	3,147	3,133	3,120	3,107	3,094	3,080	3,067
63	3,054	3,041	3,028	3,014	3,001	2,988	2,975	2,962	2,949	2,936
64	2,923	2,910	2,897	2,885	2,872	2,859	2,846	2,833	2,820	2,808
65	2,795	2,782	2,770	2,757	2,744	2,732	2,719	2,706	2,694	2,681
66	2,669	2,656	2,644	2,631	2,619	2,606	2,594	2,581	2,569	2,557
67	2,544	2,532	2,520	2,507	2,495	2,483	2,470	2,458	2,446	2,434
68	2,422	2,410	2,397	2,385	2,373	2,361	2,349	2,337	2,325	2,313
69	2,301	2,289	2,277	2,265	2,253	2,241	2,229	2,217	2,205	2,193
70	2,182	2,170	2,158	2,146	2,134	2,123	2,111	2,099	2,087	2,076
71	2,064	2,052	2,041	2,029	2,017	2,006	1,994	1,982	1,971	1,959
72	1,948	1,936	1,924	1,913	1,901	1,890	1,878	1,867	1,855	1,844
73	1,833	1,821	1,810	1,798	1,787	1,776	1,764	1,753	1,741	1,730
74	1,719	1,707	1,696	1,685	1,674	1,662	1,651	1,640	1,629	1,617
75	1,606	1,595	1,584	1,573	1,561	1,550	1,539	1,528	1,517	1,506
76	1,495	1,483	1,472	1,461	1,450	1,439	1,428	1,417	1,406	1,395
77	1,384	1,373	1,362	1,351	1,340	1,329	1,318	1,307	1,296	1,285
78	1,274	1,263	1,252	1,241	1,230	1,220	1,209	1,198	1,187	1,176
79	1,165	1,154	1,143	1,133	1,122	1,111	1,100	1,089	1,079	1,068
80	1,057	1,046	1,035	1,025	1,014	1,003	992	982	971	960
81	949	939	928	917	907	896	885	874	864	853
82	842	832	821	810	800	789	779	768	757	747
83	736	725	715	704	694	683	672	662	651	641
84	630	619	609	598	588	577	567	556	546	535
85	524	514	503	493	482	472	461	451	440	430
86	419	409	398	388	377	367	356	346	335	325
87	314	304	293	283	272	262	251	241	230	220
88	209	199	188	178	167	157	146	136	126	115
89	105	94	84	73	63	52	42	31	21	10

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 7,000 Meters (Computer Zone 13)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	113,961	111,185	108,524	105,974	103,527	101,180	98,925	96,759	94,677	92,674
4	90,747	88,892	87,104	85,381	83,720	82,118	80,571	79,077	77,633	76,238
5	74,889	73,583	72,320	71,096	69,911	68,762	67,648	66,568	65,519	64,502
6	63,514	62,554	61,621	60,714	59,832	58,974	58,139	57,326	56,535	55,764
7	55,012	54,280	53,566	52,870	52,191	51,528	50,881	50,250	49,633	49,031
8	48,442	47,866	47,304	46,754	46,216	45,690	45,175	44,671	44,178	43,695
9	43,222	42,758	42,304	41,859	41,423	40,996	40,577	40,166	39,762	39,367
10	38,979	38,598	38,224	37,857	37,497	37,143	36,795	36,454	36,118	35,788
11	35,464	35,146	34,833	34,525	34,222	33,924	33,631	33,343	33,060	32,781
12	32,506	32,236	31,970	31,708	31,450	31,196	30,945	30,699	30,456	30,217
13	29,981	29,749	29,520	29,295	29,072	28,853	28,637	28,423	28,213	28,006
14	27,801	27,599	27,400	27,204	27,010	26,819	26,630	26,444	26,260	26,078
15	25,899	25,722	25,547	25,375	25,204	25,036	24,870	24,705	24,543	24,383
16	24,224	24,068	23,913	23,760	23,609	23,460	23,312	23,166	23,022	22,879
17	22,738	22,599	22,461	22,324	22,189	22,056	21,924	21,793	21,664	21,536
18	21,409	21,284	21,160	21,038	20,916	20,796	20,677	20,560	20,443	20,328
19	20,214	20,101	19,989	19,878	19,769	19,660	19,552	19,446	19,340	19,236
20	19,132	19,030	18,928	18,827	18,728	18,629	18,531	18,434	18,338	18,243
21	18,148	18,055	17,962	17,870	17,779	17,689	17,599	17,510	17,422	17,335
22	17,249	17,163	17,078	16,994	16,910	16,827	16,745	16,664	16,583	16,503
23	16,423	16,344	16,266	16,188	16,111	16,035	15,959	15,884	15,809	15,735
24	15,662	15,589	15,517	15,445	15,374	15,303	15,233	15,163	15,094	15,025
25	14,957	14,890	14,823	14,756	14,690	14,624	14,559	14,495	14,430	14,367
26	14,303	14,241	14,178	14,116	14,055	13,994	13,933	13,873	13,813	13,753
27	13,694	13,636	13,577	13,520	13,462	13,405	13,348	13,292	13,236	13,180
28	13,125	13,070	13,016	12,962	12,908	12,854	12,801	12,748	12,696	12,644
29	12,592	12,541	12,489	12,439	12,388	12,338	12,288	12,238	12,189	12,140
30	12,091	12,043	11,995	11,947	11,899	11,852	11,805	11,758	11,712	11,665
31	11,620	11,574	11,528	11,483	11,438	11,394	11,349	11,305	11,261	11,218
32	11,174	11,131	11,088	11,046	11,003	10,961	10,919	10,877	10,836	10,794
33	10,753	10,712	10,672	10,631	10,591	10,551	10,511	10,472	10,432	10,393
34	10,354	10,315	10,277	10,238	10,200	10,162	10,124	10,087	10,049	10,012
35	9,975	9,938	9,901	9,865	9,828	9,792	9,756	9,721	9,685	9,649
36	9,614	9,579	9,544	9,509	9,475	9,440	9,406	9,372	9,338	9,304
37	9,270	9,237	9,203	9,170	9,137	9,104	9,071	9,039	9,006	8,974
38	8,942	8,910	8,878	8,846	8,814	8,783	8,752	8,720	8,689	8,658
39	8,628	8,597	8,566	8,536	8,506	8,476	8,445	8,416	8,386	8,356
40	8,327	8,297	8,268	8,239	8,210	8,181	8,152	8,123	8,095	8,066
41	8,038	8,010	7,982	7,954	7,926	7,898	7,870	7,843	7,815	7,788
42	7,760	7,733	7,706	7,679	7,653	7,626	7,599	7,573	7,546	7,520
43	7,494	7,467	7,441	7,415	7,390	7,364	7,338	7,313	7,287	7,262
44	7,236	7,211	7,186	7,161	7,136	7,111	7,087	7,062	7,037	7,013
45	6,988	6,964	6,940	6,916	6,892	6,868	6,844	6,820	6,796	6,773
46	6,749	6,725	6,702	6,679	6,655	6,632	6,609	6,586	6,563	6,540

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 7,000 Meters (Computer Zone 13)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	6,517	6,495	6,472	6,449	6,427	6,404	6,382	6,360	6,337	6,315
48	6,293	6,271	6,249	6,227	6,205	6,184	6,162	6,140	6,119	6,097
49	6,076	6,054	6,033	6,012	5,991	5,970	5,949	5,928	5,907	5,886
50	5,865	5,844	5,824	5,803	5,782	5,762	5,741	5,721	5,701	5,680
51	5,660	5,640	5,620	5,600	5,580	5,560	5,540	5,520	5,501	5,481
52	5,461	5,442	5,422	5,403	5,383	5,364	5,344	5,325	5,306	5,287
53	5,267	5,248	5,229	5,210	5,191	5,172	5,154	5,135	5,116	5,097
54	5,079	5,060	5,042	5,023	5,005	4,986	4,968	4,949	4,931	4,913
55	4,895	4,877	4,858	4,840	4,822	4,804	4,787	4,769	4,751	4,733
56	4,715	4,697	4,680	4,662	4,645	4,627	4,609	4,592	4,575	4,557
57	4,540	4,522	4,505	4,488	4,471	4,454	4,436	4,419	4,402	4,385
58	4,368	4,351	4,335	4,318	4,301	4,284	4,267	4,251	4,234	4,217
59	4,201	4,184	4,167	4,151	4,134	4,118	4,102	4,085	4,069	4,053
60	4,036	4,020	4,004	3,988	3,971	3,955	3,939	3,923	3,907	3,891
61	3,875	3,859	3,843	3,828	3,812	3,796	3,780	3,764	3,749	3,733
62	3,717	3,702	3,686	3,670	3,655	3,639	3,624	3,608	3,593	3,578
63	3,562	3,547	3,532	3,516	3,501	3,486	3,471	3,455	3,440	3,425
64	3,410	3,395	3,380	3,365	3,350	3,335	3,320	3,305	3,290	3,275
65	3,260	3,245	3,231	3,216	3,201	3,186	3,171	3,157	3,142	3,127
66	3,113	3,098	3,084	3,069	3,055	3,040	3,026	3,011	2,997	2,982
67	2,968	2,953	2,939	2,925	2,910	2,896	2,882	2,867	2,853	2,839
68	2,825	2,811	2,796	2,782	2,768	2,754	2,740	2,726	2,712	2,698
69	2,684	2,670	2,656	2,642	2,628	2,614	2,600	2,586	2,572	2,559
70	2,545	2,531	2,517	2,503	2,490	2,476	2,462	2,449	2,435	2,421
71	2,407	2,394	2,380	2,367	2,353	2,339	2,326	2,312	2,299	2,285
72	2,272	2,258	2,245	2,231	2,218	2,205	2,191	2,178	2,164	2,151
73	2,138	2,124	2,111	2,098	2,084	2,071	2,058	2,045	2,031	2,018
74	2,005	1,992	1,979	1,965	1,952	1,939	1,926	1,913	1,900	1,887
75	1,874	1,860	1,847	1,834	1,821	1,808	1,795	1,782	1,769	1,756
76	1,743	1,730	1,717	1,704	1,692	1,679	1,666	1,653	1,640	1,627
77	1,614	1,601	1,589	1,576	1,563	1,550	1,537	1,525	1,512	1,499
78	1,486	1,473	1,461	1,448	1,435	1,423	1,410	1,397	1,384	1,372
79	1,359	1,346	1,334	1,321	1,309	1,296	1,283	1,271	1,258	1,245
80	1,233	1,220	1,208	1,195	1,183	1,170	1,158	1,145	1,132	1,120
81	1,107	1,095	1,082	1,070	1,057	1,045	1,033	1,020	1,008	995
82	983	970	958	945	933	921	908	896	883	871
83	859	846	834	821	809	797	784	772	760	747
84	735	723	710	698	686	673	661	649	636	624
85	612	599	587	575	563	550	538	526	513	501
86	489	477	464	452	440	428	415	403	391	379
87	366	354	342	330	318	305	293	281	269	256
88	244	232	220	208	195	183	171	159	146	134
89	122	110	98	85	73	61	49	37	24	12

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 8,000 Meters (Ballistic Zone 10) (Computer Zone 14) (Fallout Zone 4)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	127,933	124,908	122,004	119,215	116,536	113,960	111,484	109,101	106,807	104,598
4	102,470	100,419	98,440	96,531	94,689	92,909	91,190	89,528	87,921	86,367
5	84,862	83,405	81,994	80,627	79,301	78,015	76,768	75,558	74,383	73,241
6	72,132	71,054	70,006	68,987	67,995	67,030	66,091	65,176	64,284	63,416
7	62,569	61,744	60,939	60,153	59,387	58,639	57,908	57,195	56,498	55,817
8	55,152	54,502	53,865	53,243	52,635	52,039	51,456	50,886	50,327	49,780
9	49,244	48,719	48,205	47,701	47,206	46,722	46,247	45,780	45,323	44,874
10	44,434	44,002	43,578	43,161	42,752	42,350	41,955	41,568	41,187	40,812
11	40,444	40,082	39,726	39,377	39,032	38,694	38,361	38,034	37,711	37,394
12	37,082	36,775	36,472	36,174	35,881	35,592	35,307	35,027	34,751	34,478
13	34,210	33,946	33,685	33,429	33,176	32,926	32,680	32,437	32,198	31,962
14	31,729	31,499	31,273	31,049	30,828	30,610	30,395	30,183	29,974	29,767
15	29,563	29,361	29,162	28,966	28,771	28,580	28,390	28,203	28,018	27,835
16	27,655	27,476	27,300	27,126	26,954	26,783	26,615	26,449	26,284	26,122
17	25,961	25,802	25,645	25,489	25,335	25,183	25,032	24,884	24,736	24,590
18	24,446	24,303	24,162	24,022	23,884	23,747	23,612	23,477	23,345	23,213
19	23,083	22,954	22,827	22,700	22,575	22,451	22,328	22,207	22,087	21,967
20	21,849	21,732	21,616	21,502	21,388	21,275	21,163	21,053	20,943	20,834
21	20,727	20,620	20,514	20,409	20,305	20,202	20,100	19,999	19,899	19,799
22	19,700	19,603	19,506	19,409	19,314	19,219	19,126	19,033	18,940	18,849
23	18,758	18,668	18,579	18,490	18,402	18,315	18,229	18,143	18,058	17,973
24	17,889	17,806	17,724	17,642	17,560	17,480	17,400	17,320	17,241	17,163
25	17,085	17,008	16,932	16,856	16,780	16,705	16,631	16,557	16,484	16,411
26	16,339	16,267	16,196	16,125	16,055	15,985	15,916	15,847	15,779	15,711
27	15,643	15,577	15,510	15,444	15,378	15,313	15,248	15,184	15,120	15,057
28	14,994	14,931	14,869	14,807	14,746	14,684	14,624	14,564	14,504	14,444
29	14,385	14,326	14,268	14,210	14,152	14,095	14,038	13,981	13,925	13,869
30	13,813	13,758	13,703	13,648	13,594	13,540	13,486	13,433	13,380	13,327
31	13,275	13,222	13,171	13,119	13,068	13,017	12,966	12,916	12,866	12,816
32	12,766	12,717	12,668	12,619	12,571	12,522	12,474	12,427	12,379	12,332
33	12,285	12,239	12,192	12,146	12,100	12,054	12,009	11,964	11,919	11,874
34	11,829	11,785	11,741	11,697	11,653	11,610	11,567	11,524	11,481	11,439
35	11,396	11,354	11,312	11,271	11,229	11,188	11,147	11,106	11,065	11,025
36	10,984	10,944	10,904	10,864	10,825	10,785	10,746	10,707	10,668	10,630
37	10,591	10,553	10,515	10,477	10,439	10,402	10,364	10,327	10,290	10,253
38	10,216	10,180	10,143	10,107	10,071	10,035	9,999	9,963	9,928	9,893
39	9,857	9,822	9,787	9,753	9,718	9,684	9,649	9,615	9,581	9,547
40	9,514	9,480	9,447	9,413	9,380	9,347	9,314	9,281	9,249	9,216
41	9,184	9,152	9,119	9,087	9,056	9,024	8,992	8,961	8,929	8,898
42	8,867	8,836	8,805	8,774	8,744	8,713	8,683	8,652	8,622	8,592
43	8,562	8,532	8,502	8,473	8,443	8,414	8,384	8,355	8,326	8,297
44	8,268	8,240	8,211	8,182	8,154	8,125	8,097	8,069	8,041	8,013
45	7,985	7,957	7,929	7,902	7,874	7,847	7,820	7,792	7,765	7,738
46	7,711	7,684	7,658	7,631	7,604	7,578	7,551	7,525	7,499	7,473

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 8,000 Meters (Ballistic Zone 10)  
(Computer Zone 14) (Fallout Zone 4)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	7, 447	7, 421	7, 395	7, 369	7, 343	7, 318	7, 292	7, 267	7, 241	7, 216
48	7, 191	7, 165	7, 140	7, 115	7, 090	7, 065	7, 041	7, 016	6, 991	6, 967
49	6, 942	6, 918	6, 894	6, 869	6, 845	6, 821	6, 797	6, 773	6, 749	6, 725
50	6, 701	6, 678	6, 654	6, 631	6, 607	6, 584	6, 560	6, 537	6, 514	6, 491
51	6, 467	6, 444	6, 421	6, 399	6, 376	6, 353	6, 330	6, 308	6, 285	6, 263
52	6, 240	6, 218	6, 195	6, 173	6, 151	6, 129	6, 107	6, 085	6, 063	6, 041
53	6, 019	5, 997	5, 975	5, 953	5, 932	5, 910	5, 889	5, 867	5, 846	5, 824
54	5, 803	5, 782	5, 761	5, 740	5, 718	5, 697	5, 676	5, 655	5, 635	5, 614
55	5, 593	5, 572	5, 551	5, 531	5, 510	5, 490	5, 469	5, 449	5, 428	5, 408
56	5, 388	5, 368	5, 347	5, 327	5, 307	5, 287	5, 267	5, 247	5, 227	5, 207
57	5, 187	5, 168	5, 148	5, 128	5, 108	5, 089	5, 069	5, 050	5, 030	5, 011
58	4, 991	4, 972	4, 953	4, 934	4, 914	4, 895	4, 876	4, 857	4, 838	4, 819
59	4, 800	4, 781	4, 762	4, 743	4, 724	4, 705	4, 687	4, 668	4, 649	4, 631
60	4, 612	4, 593	4, 575	4, 556	4, 538	4, 520	4, 501	4, 483	4, 465	4, 446
61	4, 428	4, 410	4, 392	4, 374	4, 355	4, 337	4, 319	4, 301	4, 283	4, 265
62	4, 248	4, 230	4, 212	4, 194	4, 176	4, 159	4, 141	4, 123	4, 106	4, 088
63	4, 070	4, 053	4, 035	4, 018	4, 000	3, 983	3, 966	3, 948	3, 931	3, 914
64	3, 896	3, 879	3, 862	3, 845	3, 828	3, 810	3, 793	3, 776	3, 759	3, 742
65	3, 725	3, 708	3, 691	3, 674	3, 658	3, 641	3, 624	3, 607	3, 590	3, 574
66	3, 557	3, 540	3, 524	3, 507	3, 490	3, 474	3, 457	3, 441	3, 424	3, 408
67	3, 391	3, 375	3, 358	3, 342	3, 326	3, 309	3, 293	3, 277	3, 260	3, 244
68	3, 228	3, 212	3, 195	3, 179	3, 163	3, 147	3, 131	3, 115	3, 099	3, 083
69	3, 067	3, 051	3, 035	3, 019	3, 003	2, 987	2, 971	2, 955	2, 939	2, 924
70	2, 908	2, 892	2, 876	2, 861	2, 845	2, 829	2, 813	2, 798	2, 782	2, 767
71	2, 751	2, 735	2, 720	2, 704	2, 689	2, 673	2, 658	2, 642	2, 627	2, 611
72	2, 596	2, 581	2, 565	2, 550	2, 534	2, 519	2, 504	2, 488	2, 473	2, 458
73	2, 443	2, 427	2, 412	2, 397	2, 382	2, 367	2, 351	2, 336	2, 321	2, 306
74	2, 291	2, 276	2, 261	2, 246	2, 231	2, 216	2, 201	2, 186	2, 171	2, 156
75	2, 141	2, 126	2, 111	2, 096	2, 081	2, 066	2, 051	2, 037	2, 022	2, 007
76	1, 992	1, 977	1, 962	1, 948	1, 933	1, 918	1, 903	1, 889	1, 874	1, 859
77	1, 845	1, 830	1, 815	1, 801	1, 786	1, 771	1, 757	1, 742	1, 727	1, 713
78	1, 698	1, 684	1, 669	1, 655	1, 640	1, 626	1, 611	1, 597	1, 582	1, 568
79	1, 553	1, 539	1, 524	1, 510	1, 495	1, 481	1, 466	1, 452	1, 438	1, 423
80	1, 409	1, 394	1, 380	1, 366	1, 351	1, 337	1, 323	1, 308	1, 294	1, 280
81	1, 265	1, 251	1, 237	1, 223	1, 208	1, 194	1, 180	1, 166	1, 151	1, 137
82	1, 123	1, 109	1, 094	1, 080	1, 066	1, 052	1, 038	1, 024	1, 009	995
83	981	967	953	939	924	910	896	882	868	854
84	840	826	812	797	783	769	755	741	727	713
85	699	685	671	657	643	629	615	601	587	573
86	559	545	531	517	503	489	475	461	447	433
87	419	405	391	377	363	349	335	321	307	293
88	279	265	251	237	223	209	195	181	167	153
89	139	126	112	98	84	70	56	42	28	14

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 9,000 Meters, (Computer Zone 15)

Degrees	Elevation angle, tenths of a degree									
	0	1	2	3	4	5	6	7	8	9
3	141, 490	138, 236	135, 109	132, 101	129, 207	126, 421	123, 738	121, 153	118, 662	116, 261
4	113, 944	111, 708	109, 550	107, 466	105, 452	103, 505	101, 622	99, 801	98, 039	96, 332
5	94, 679	93, 078	91, 526	90, 020	88, 560	87, 144	85, 768	84, 433	83, 135	81, 875
6	80, 649	79, 457	78, 298	77, 170	76, 072	75, 003	73, 962	72, 948	71, 960	70, 996
7	70, 057	69, 141	68, 247	67, 374	66, 523	65, 691	64, 879	64, 086	63, 311	62, 554
8	61, 813	61, 089	60, 381	59, 688	59, 010	58, 347	57, 697	57, 061	56, 439	55, 829
9	55, 231	54, 646	54, 072	53, 509	52, 958	52, 417	51, 886	51, 366	50, 855	50, 354
10	49, 862	49, 380	48, 906	48, 440	47, 983	47, 534	47, 093	46, 659	46, 233	45, 814
11	45, 403	44, 998	44, 600	44, 209	43, 824	43, 445	43, 073	42, 706	42, 346	41, 991
12	41, 641	41, 297	40, 959	40, 625	40, 297	39, 973	39, 654	39, 341	39, 031	38, 726
13	38, 426	38, 130	37, 838	37, 551	37, 267	36, 987	36, 712	36, 440	36, 171	35, 907
14	35, 646	35, 388	35, 134	34, 884	34, 636	34, 392	34, 151	33, 913	33, 678	33, 447
15	33, 218	32, 992	32, 768	32, 548	32, 330	32, 115	31, 903	31, 693	31, 485	31, 280
16	31, 078	30, 878	30, 680	30, 485	30, 291	30, 100	29, 912	29, 725	29, 540	29, 358
17	29, 177	28, 999	28, 823	28, 648	28, 475	28, 305	28, 136	27, 968	27, 803	27, 639
18	27, 478	27, 317	27, 159	27, 002	26, 847	26, 693	26, 541	26, 390	26, 241	26, 094
19	25, 947	25, 803	25, 660	25, 518	25, 377	25, 238	25, 100	24, 964	24, 829	24, 695
20	24, 562	24, 431	24, 301	24, 172	24, 044	23, 917	23, 792	23, 668	23, 545	23, 423
21	23, 302	23, 182	23, 063	22, 945	22, 828	22, 713	22, 598	22, 484	22, 372	22, 260
22	22, 149	22, 039	21, 930	21, 822	21, 715	21, 609	21, 503	21, 399	21, 295	21, 192
23	21, 090	20, 989	20, 889	20, 789	20, 691	20, 593	20, 496	20, 399	20, 304	20, 209
24	20, 114	20, 021	19, 928	19, 836	19, 745	19, 654	19, 564	19, 475	19, 386	19, 298
25	19, 211	19, 125	19, 038	18, 953	18, 868	18, 784	18, 701	18, 618	18, 535	18, 454
26	18, 372	18, 292	18, 212	18, 132	18, 053	17, 975	17, 897	17, 820	17, 743	17, 667
27	17, 591	17, 516	17, 441	17, 367	17, 293	17, 220	17, 147	17, 075	17, 003	16, 932
28	16, 861	16, 790	16, 720	16, 651	16, 582	16, 513	16, 445	16, 377	16, 310	16, 243
29	16, 176	16, 110	16, 045	15, 979	15, 915	15, 850	15, 786	15, 722	15, 659	15, 596
30	15, 534	15, 471	15, 410	15, 348	15, 287	15, 226	15, 166	15, 106	15, 047	14, 987
31	14, 928	14, 870	14, 811	14, 753	14, 696	14, 638	14, 582	14, 525	14, 469	14, 412
32	14, 357	14, 301	14, 246	14, 191	14, 137	14, 083	14, 029	13, 975	13, 922	13, 869
33	13, 816	13, 764	13, 711	13, 660	13, 608	13, 557	13, 505	13, 455	13, 404	13, 354
34	13, 304	13, 254	13, 204	13, 155	13, 106	13, 057	13, 009	12, 960	12, 912	12, 864
35	12, 817	12, 769	12, 722	12, 675	12, 629	12, 582	12, 536	12, 490	12, 444	12, 399
36	12, 353	12, 308	12, 263	12, 219	12, 174	12, 130	12, 086	12, 042	11, 998	11, 955
37	11, 912	11, 869	11, 826	11, 783	11, 741	11, 698	11, 656	11, 614	11, 573	11, 531
38	11, 490	11, 449	11, 408	11, 367	11, 326	11, 286	11, 246	11, 206	11, 166	11, 126
39	11, 086	11, 047	11, 008	10, 969	10, 930	10, 891	10, 853	10, 814	10, 776	10, 738
40	10, 700	10, 662	10, 625	10, 587	10, 550	10, 513	10, 476	10, 439	10, 402	10, 365
41	10, 329	10, 293	10, 257	10, 221	10, 185	10, 149	10, 114	10, 078	10, 043	10, 008
42	9, 973	9, 938	9, 903	9, 869	9, 834	9, 800	9, 765	9, 731	9, 697	9, 664
43	9, 630	9, 596	9, 563	9, 530	9, 496	9, 463	9, 430	9, 397	9, 365	9, 332
44	9, 300	9, 267	9, 235	9, 203	9, 171	9, 139	9, 107	9, 075	9, 044	9, 012
45	8, 981	8, 950	8, 919	8, 888	8, 857	8, 826	8, 795	8, 764	8, 734	8, 704
46	8, 673	8, 643	8, 613	8, 583	8, 553	8, 523	8, 494	8, 464	8, 434	8, 405

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 9,000 Meters, (Computer Zone 15)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	8,376	8,346	8,317	8,288	8,259	8,230	8,202	8,173	8,144	8,116
48	8,088	8,059	8,031	8,003	7,975	7,947	7,919	7,891	7,864	7,836
49	7,808	7,781	7,754	7,726	7,699	7,672	7,645	7,618	7,591	7,564
50	7,537	7,511	7,484	7,458	7,431	7,405	7,379	7,353	7,326	7,300
51	7,274	7,249	7,223	7,197	7,171	7,146	7,120	7,095	7,069	7,044
52	7,019	6,993	6,968	6,943	6,918	6,893	6,868	6,844	6,819	6,794
53	6,770	6,745	6,721	6,696	6,672	6,648	6,623	6,599	6,575	6,551
54	6,527	6,503	6,479	6,456	6,432	6,408	6,385	6,361	6,338	6,314
55	6,291	6,267	6,244	6,221	6,198	6,175	6,152	6,129	6,106	6,083
56	6,060	6,037	6,015	5,992	5,969	5,947	5,924	5,902	5,879	5,857
57	5,835	5,812	5,790	5,768	5,746	5,724	5,702	5,680	5,658	5,636
58	5,614	5,593	5,571	5,549	5,528	5,506	5,484	5,463	5,441	5,420
59	5,399	5,377	5,356	5,335	5,314	5,293	5,272	5,250	5,229	5,209
60	5,188	5,167	5,146	5,125	5,104	5,084	5,063	5,042	5,022	5,001
61	4,981	4,960	4,940	4,919	4,899	4,879	4,858	4,838	4,818	4,798
62	4,778	4,758	4,738	4,718	4,698	4,678	4,658	4,638	4,618	4,598
63	4,578	4,559	4,539	4,519	4,500	4,480	4,461	4,441	4,422	4,402
64	4,383	4,363	4,344	4,325	4,305	4,286	4,267	4,248	4,228	4,209
65	4,190	4,171	4,152	4,133	4,114	4,095	4,076	4,057	4,038	4,020
66	4,001	3,982	3,963	3,945	3,926	3,907	3,889	3,870	3,851	3,833
67	3,814	3,796	3,777	3,759	3,741	3,722	3,704	3,686	3,667	3,649
68	3,631	3,612	3,594	3,576	3,558	3,540	3,522	3,504	3,486	3,468
69	3,450	3,432	3,414	3,396	3,378	3,360	3,342	3,324	3,306	3,289
70	3,271	3,253	3,235	3,218	3,200	3,182	3,165	3,147	3,129	3,112
71	3,094	3,077	3,059	3,042	3,024	3,007	2,989	2,972	2,955	2,937
72	2,920	2,903	2,885	2,868	2,851	2,833	2,816	2,799	2,782	2,765
73	2,748	2,730	2,713	2,696	2,679	2,662	2,645	2,628	2,611	2,594
74	2,577	2,560	2,543	2,526	2,509	2,492	2,475	2,459	2,442	2,425
75	2,408	2,391	2,374	2,358	2,341	2,324	2,307	2,291	2,274	2,257
76	2,241	2,224	2,207	2,191	2,174	2,158	2,141	2,124	2,108	2,091
77	2,075	2,058	2,042	2,025	2,009	1,992	1,976	1,959	1,943	1,927
78	1,910	1,894	1,877	1,861	1,845	1,828	1,812	1,796	1,779	1,763
79	1,747	1,731	1,714	1,698	1,682	1,666	1,649	1,633	1,617	1,601
80	1,585	1,569	1,552	1,536	1,520	1,504	1,488	1,472	1,456	1,440
81	1,423	1,407	1,391	1,375	1,359	1,343	1,327	1,311	1,295	1,279
82	1,263	1,247	1,231	1,215	1,199	1,183	1,167	1,151	1,135	1,119
83	1,103	1,088	1,072	1,056	1,040	1,024	1,008	992	976	960
84	945	929	913	897	881	865	850	834	818	802
85	786	770	755	739	723	707	692	676	660	644
86	628	613	597	581	565	550	534	518	502	487
87	471	455	440	424	408	392	377	361	345	330
88	314	298	282	267	251	235	220	204	188	173
89	157	141	125	110	94	78	63	47	31	16

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 10,000 Meters (Ballistic Zone 11) (Computer Zone 16) (Fallout Zone 5)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	154,666	151,203	147,869	144,658	141,565	138,583	135,708	132,935	130,260	127,677
4	125,184	122,775	120,447	118,197	116,020	113,915	111,877	109,904	107,994	106,142
5	104,348	102,608	100,921	99,284	97,694	96,151	94,653	93,197	91,782	90,406
6	89,068	87,766	86,499	85,266	84,065	82,895	81,756	80,645	79,562	78,507
7	77,477	76,472	75,492	74,534	73,600	72,687	71,795	70,924	70,073	69,240
8	68,426	67,630	66,851	66,089	65,343	64,613	63,898	63,198	62,513	61,841
9	61,183	60,538	59,905	59,285	58,677	58,081	57,496	56,922	56,359	55,806
10	55,264	54,731	54,208	53,694	53,190	52,694	52,207	51,729	51,258	50,796
11	50,341	49,894	49,455	49,022	48,597	48,179	47,767	47,362	46,963	46,571
12	46,185	45,804	45,430	45,061	44,698	44,340	43,988	43,640	43,298	42,961
13	42,629	42,301	41,978	41,660	41,346	41,037	40,732	40,431	40,134	39,841
14	39,552	39,267	38,986	38,708	38,435	38,164	37,897	37,634	37,374	37,117
15	36,864	36,613	36,366	36,122	35,881	35,643	35,407	35,175	34,945	34,718
16	34,494	34,272	34,053	33,836	33,622	33,411	33,201	32,995	32,790	32,588
17	32,388	32,190	31,994	31,801	31,610	31,420	31,233	31,048	30,865	30,683
18	30,504	30,326	30,150	29,976	29,804	29,634	29,465	29,298	29,133	28,969
19	28,807	28,647	28,488	28,331	28,175	28,021	27,868	27,717	27,567	27,418
20	27,271	27,126	26,981	26,838	26,697	26,556	26,417	26,279	26,143	26,007
21	25,873	25,740	25,608	25,478	25,348	25,220	25,093	24,966	24,841	24,717
22	24,594	24,473	24,352	24,232	24,113	23,995	23,878	23,762	23,647	23,533
23	23,420	23,308	23,197	23,086	22,977	22,868	22,760	22,653	22,547	22,442
24	22,337	22,233	22,131	22,028	21,927	21,827	21,727	21,628	21,529	21,432
25	21,335	21,239	21,143	21,048	20,954	20,861	20,768	20,676	20,585	20,494
26	20,404	20,314	20,226	20,137	20,050	19,963	19,876	19,790	19,705	19,621
27	19,537	19,453	19,370	19,288	19,206	19,125	19,044	18,964	18,884	18,805
28	18,726	18,648	18,570	18,493	18,416	18,340	18,264	18,189	18,115	18,040
29	17,966	17,893	17,820	17,748	17,676	17,604	17,533	17,462	17,392	17,322
30	17,253	17,184	17,115	17,047	16,979	16,912	16,845	16,778	16,712	16,646
31	16,581	16,516	16,451	16,387	16,323	16,259	16,196	16,133	16,070	16,008
32	15,946	15,885	15,824	15,763	15,702	15,642	15,582	15,523	15,463	15,405
33	15,346	15,288	15,230	15,172	15,115	15,058	15,001	14,945	14,888	14,833
34	14,777	14,722	14,667	14,612	14,557	14,503	14,449	14,396	14,342	14,289
35	14,236	14,184	14,131	14,079	14,028	13,976	13,925	13,874	13,823	13,772
36	13,722	13,672	13,622	13,572	13,523	13,474	13,425	13,376	13,328	13,279
37	13,231	13,184	13,136	13,089	13,041	12,995	12,948	12,901	12,855	12,809
38	12,763	12,717	12,672	12,626	12,581	12,536	12,492	12,447	12,403	12,359
39	12,315	12,271	12,228	12,184	12,141	12,098	12,055	12,013	11,970	11,928
40	11,886	11,844	11,802	11,760	11,719	11,678	11,637	11,596	11,555	11,514
41	11,474	11,433	11,393	11,353	11,314	11,274	11,234	11,195	11,156	11,117
42	11,078	11,039	11,001	10,962	10,924	10,886	10,848	10,810	10,772	10,735
43	10,697	10,660	10,623	10,586	10,549	10,512	10,476	10,439	10,403	10,366
44	10,330	10,294	10,259	10,223	10,187	10,152	10,117	10,081	10,046	10,011
45	9,977	9,942	9,907	9,873	9,838	9,804	9,770	9,736	9,702	9,668
46	9,635	9,601	9,568	9,534	9,501	9,468	9,435	9,402	9,369	9,337

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.



Table 2-1. Horizontal Distance (Meters), 10,000 Meters (Ballistic Zone 11)  
(Computer Zone 16) (Fallout Zone 5)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	9,304	9,272	9,239	9,207	9,175	9,143	9,111	9,079	9,047	9,016
48	8,984	8,953	8,921	8,890	8,859	8,828	8,797	8,766	8,735	8,705
49	8,674	8,644	8,613	8,583	8,553	8,523	8,493	8,463	8,433	8,403
50	8,373	8,344	8,314	8,285	8,255	8,226	8,197	8,168	8,139	8,110
51	8,081	8,052	8,024	7,995	7,966	7,938	7,910	7,881	7,853	7,825
52	7,797	7,769	7,741	7,713	7,685	7,658	7,630	7,603	7,575	7,548
53	7,520	7,493	7,466	7,439	7,412	7,385	7,358	7,331	7,304	7,278
54	7,251	7,224	7,198	7,172	7,145	7,119	7,093	7,067	7,040	7,014
55	6,988	6,963	6,937	6,911	6,885	6,859	6,834	6,808	6,783	6,757
56	6,732	6,707	6,682	6,656	6,631	6,606	6,581	6,556	6,531	6,507
57	6,482	6,457	6,432	6,408	6,383	6,359	6,334	6,310	6,286	6,261
58	6,237	6,213	6,189	6,165	6,141	6,117	6,093	6,069	6,045	6,021
59	5,997	5,974	5,950	5,927	5,903	5,880	5,856	5,833	5,809	5,786
60	5,763	5,740	5,717	5,694	5,670	5,647	5,624	5,602	5,579	5,556
61	5,533	5,510	5,488	5,465	5,442	5,420	5,397	5,375	5,352	5,330
62	5,308	5,285	5,263	5,241	5,219	5,196	5,174	5,152	5,130	5,108
63	5,086	5,064	5,042	5,021	4,999	4,977	4,955	4,934	4,912	4,890
64	4,869	4,847	4,826	4,804	4,783	4,761	4,740	4,719	4,697	4,676
65	4,655	4,634	4,613	4,592	4,570	4,549	4,528	4,507	4,486	4,466
66	4,445	4,424	4,403	4,382	4,361	4,341	4,320	4,299	4,279	4,258
67	4,237	4,217	4,196	4,176	4,156	4,135	4,115	4,094	4,074	4,054
68	4,033	4,013	3,993	3,973	3,953	3,932	3,912	3,892	3,872	3,852
69	3,832	3,812	3,792	3,772	3,752	3,733	3,713	3,693	3,673	3,653
70	3,634	3,614	3,594	3,575	3,555	3,535	3,516	3,496	3,477	3,457
71	3,438	3,418	3,399	3,379	3,360	3,340	3,321	3,302	3,282	3,263
72	3,244	3,225	3,205	3,186	3,167	3,148	3,129	3,110	3,090	3,071
73	3,052	3,033	3,014	2,995	2,976	2,957	2,938	2,919	2,901	2,882
74	2,863	2,844	2,825	2,806	2,788	2,769	2,750	2,731	2,713	2,694
75	2,675	2,656	2,638	2,619	2,601	2,582	2,563	2,545	2,526	2,508
76	2,489	2,471	2,452	2,434	2,415	2,397	2,378	2,360	2,342	2,323
77	2,305	2,287	2,268	2,250	2,232	2,213	2,195	2,177	2,159	2,140
78	2,122	2,104	2,086	2,068	2,049	2,031	2,013	1,995	1,977	1,959
79	1,941	1,923	1,905	1,887	1,868	1,850	1,832	1,814	1,796	1,778
80	1,760	1,743	1,725	1,707	1,689	1,671	1,653	1,635	1,617	1,599
81	1,581	1,563	1,546	1,528	1,510	1,492	1,474	1,457	1,439	1,421
82	1,403	1,385	1,368	1,350	1,332	1,314	1,297	1,279	1,261	1,244
83	1,226	1,208	1,191	1,173	1,155	1,138	1,120	1,102	1,085	1,067
84	1,049	1,032	1,014	997	979	961	944	926	909	891
85	874	856	838	821	803	786	768	751	733	716
86	698	681	663	646	628	611	593	576	558	541
87	523	506	488	471	453	436	418	401	384	366
88	349	331	314	296	279	261	244	227	209	192
89	174	157	139	122	105	87	70	52	35	17

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 11,000 Meters (Computer Zone 17)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	167, 491	163, 835	160, 310	156, 911	153, 632	150, 468	147, 413	144, 464	141, 615	138, 863
4	136, 202	133, 630	131, 142	128, 734	126, 404	124, 148	121, 963	119, 846	117, 794	115, 804
5	113, 874	112, 002	110, 185	108, 421	106, 708	105, 044	103, 426	101, 854	100, 325	98, 838
6	97, 391	95, 983	94, 612	93, 276	91, 976	90, 708	89, 473	88, 269	87, 094	85, 949
7	84, 831	83, 740	82, 675	81, 635	80, 620	79, 627	78, 658	77, 710	76, 784	75, 878
8	74, 992	74, 125	73, 277	72, 447	71, 635	70, 839	70, 060	69, 297	68, 550	67, 817
9	67, 099	66, 396	65, 706	65, 029	64, 366	63, 715	63, 077	62, 450	61, 835	61, 232
10	60, 639	60, 057	59, 486	58, 924	58, 373	57, 831	57, 299	56, 776	56, 262	55, 756
11	55, 259	54, 770	54, 289	53, 817	53, 351	52, 894	52, 443	52, 000	51, 564	51, 134
12	50, 712	50, 295	49, 885	49, 482	49, 084	48, 692	48, 307	47, 926	47, 552	47, 182
13	46, 819	46, 460	46, 106	45, 758	45, 414	45, 075	44, 740	44, 411	44, 085	43, 765
14	43, 448	43, 136	42, 827	42, 523	42, 223	41, 927	41, 634	41, 346	41, 060	40, 779
15	40, 501	40, 227	39, 956	39, 688	39, 423	39, 162	38, 904	38, 649	38, 397	38, 143
16	37, 902	37, 659	37, 419	37, 181	36, 946	36, 714	36, 485	36, 258	36, 033	35, 811
17	35, 592	35, 374	35, 160	34, 948	34, 738	34, 530	34, 325	34, 122	33, 921	33, 721
18	33, 525	33, 330	33, 137	32, 946	32, 757	32, 570	32, 385	32, 202	32, 020	31, 840
19	31, 663	31, 487	31, 312	31, 139	30, 968	30, 799	30, 631	30, 465	30, 301	30, 138
20	29, 976	29, 816	29, 658	29, 501	29, 345	29, 191	29, 038	28, 887	28, 737	28, 588
21	28, 441	28, 295	28, 150	28, 007	27, 865	27, 724	27, 584	27, 445	27, 308	27, 172
22	27, 037	26, 903	26, 770	26, 639	26, 508	26, 379	26, 250	26, 123	25, 997	25, 871
23	25, 747	25, 624	25, 502	25, 380	25, 260	25, 141	25, 022	24, 905	24, 788	24, 672
24	24, 557	24, 444	24, 330	24, 218	24, 107	23, 996	23, 887	23, 778	23, 670	23, 563
25	23, 456	23, 351	23, 246	23, 142	23, 038	22, 936	22, 834	22, 733	22, 632	22, 532
26	22, 433	22, 335	22, 237	22, 141	22, 044	21, 949	21, 854	21, 759	21, 666	21, 573
27	21, 480	21, 389	21, 297	21, 207	21, 117	21, 028	20, 939	20, 851	20, 763	20, 676
28	20, 590	20, 504	20, 418	20, 334	20, 249	20, 166	20, 083	20, 000	19, 918	19, 836
29	19, 755	19, 674	19, 594	19, 515	19, 436	19, 357	19, 279	19, 201	19, 124	19, 047
30	18, 971	18, 895	18, 820	18, 745	18, 670	18, 596	18, 522	18, 449	18, 376	18, 304
31	18, 232	18, 161	18, 089	18, 019	17, 948	17, 878	17, 809	17, 740	17, 671	17, 603
32	17, 535	17, 467	17, 400	17, 333	17, 266	17, 200	17, 135	17, 069	17, 004	16, 939
33	16, 875	16, 811	16, 747	16, 684	16, 621	16, 558	16, 496	16, 434	16, 372	16, 310
34	16, 249	16, 189	16, 128	16, 068	16, 008	15, 948	15, 889	15, 830	15, 772	15, 713
35	15, 655	15, 597	15, 540	15, 482	15, 426	15, 369	15, 312	15, 256	15, 200	15, 145
36	15, 089	15, 034	14, 980	14, 925	14, 871	14, 817	14, 763	14, 709	14, 656	14, 603
37	14, 550	14, 498	14, 445	14, 393	14, 341	14, 290	14, 238	14, 187	14, 136	14, 086
38	14, 035	13, 985	13, 935	13, 885	13, 836	13, 786	13, 737	13, 688	13, 639	13, 591
39	13, 543	13, 495	13, 447	13, 399	13, 351	13, 304	13, 257	13, 210	13, 164	13, 117
40	13, 071	13, 025	12, 979	12, 933	12, 887	12, 842	12, 797	12, 752	12, 707	12, 662
41	12, 618	12, 574	12, 529	12, 486	12, 442	12, 398	12, 355	12, 311	12, 268	12, 225
42	12, 183	12, 140	12, 098	12, 055	12, 013	11, 971	11, 930	11, 888	11, 847	11, 805
43	11, 764	11, 723	11, 682	11, 641	11, 601	11, 561	11, 520	11, 480	11, 440	11, 400
44	11, 361	11, 321	11, 282	11, 243	11, 203	11, 164	11, 126	11, 087	11, 048	11, 010
45	10, 972	10, 933	10, 895	10, 857	10, 820	10, 782	10, 745	10, 707	10, 670	10, 633
46	10, 596	10, 559	10, 522	10, 485	10, 449	10, 413	10, 376	10, 340	10, 304	10, 268

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 11,000 Meters (Computer Zone 17)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	10,232	10,197	10,161	10,126	10,090	10,055	10,020	9,985	9,950	9,915
48	9,880	9,846	9,811	9,777	9,743	9,709	9,675	9,641	9,607	9,573
49	9,539	9,506	9,472	9,439	9,406	9,373	9,340	9,307	9,274	9,241
50	9,209	9,176	9,144	9,111	9,079	9,047	9,015	8,983	8,951	8,919
51	8,887	8,856	8,824	8,793	8,761	8,730	8,699	8,668	8,637	8,606
52	8,575	8,544	8,513	8,483	8,452	8,422	8,391	8,361	8,331	8,301
53	8,271	8,241	8,211	8,181	8,151	8,122	8,092	8,063	8,033	8,004
54	7,975	7,945	7,916	7,887	7,858	7,829	7,800	7,772	7,743	7,714
55	7,686	7,657	7,629	7,600	7,572	7,544	7,516	7,488	7,460	7,432
56	7,404	7,376	7,348	7,321	7,293	7,265	7,238	7,211	7,183	7,156
57	7,129	7,101	7,074	7,047	7,020	6,993	6,966	6,940	6,913	6,886
58	6,859	6,833	6,806	6,780	6,753	6,727	6,701	6,674	6,648	6,622
59	6,596	6,570	6,544	6,518	6,492	6,466	6,441	6,415	6,389	6,364
60	6,338	6,313	6,287	6,262	6,236	6,211	6,186	6,161	6,135	6,110
61	6,085	6,060	6,035	6,010	5,986	5,961	5,936	5,911	5,887	5,862
62	5,837	5,813	5,788	5,764	5,739	5,715	5,691	5,666	5,642	5,618
63	5,594	5,570	5,546	5,522	5,498	5,474	5,450	5,426	5,402	5,378
64	5,355	5,331	5,307	5,284	5,260	5,237	5,213	5,190	5,166	5,143
65	5,120	5,096	5,073	5,050	5,027	5,003	4,980	4,957	4,934	4,911
66	4,888	4,865	4,842	4,820	4,797	4,774	4,751	4,728	4,706	4,683
67	4,660	4,638	4,615	4,593	4,570	4,548	4,525	4,503	4,481	4,458
68	4,436	4,414	4,391	4,369	4,347	4,325	4,303	4,281	4,259	4,237
69	4,215	4,193	4,171	4,149	4,127	4,105	4,083	4,062	4,040	4,018
70	3,996	3,975	3,953	3,931	3,910	3,888	3,867	3,845	3,824	3,802
71	3,781	3,759	3,738	3,717	3,695	3,674	3,653	3,631	3,610	3,589
72	3,568	3,546	3,525	3,504	3,483	3,462	3,441	3,420	3,399	3,378
73	3,357	3,336	3,315	3,294	3,273	3,252	3,232	3,211	3,190	3,169
74	3,149	3,128	3,107	3,086	3,066	3,045	3,024	3,004	2,983	2,963
75	2,942	2,922	2,901	2,881	2,860	2,840	2,819	2,799	2,778	2,758
76	2,738	2,717	2,697	2,677	2,656	2,636	2,616	2,596	2,575	2,555
77	2,535	2,515	2,495	2,475	2,454	2,434	2,414	2,394	2,374	2,354
78	2,334	2,314	2,294	2,274	2,254	2,234	2,214	2,194	2,174	2,154
79	2,134	2,115	2,095	2,075	2,055	2,035	2,015	1,996	1,976	1,956
80	1,936	1,916	1,897	1,877	1,857	1,838	1,818	1,798	1,778	1,759
81	1,739	1,720	1,700	1,680	1,661	1,641	1,622	1,602	1,582	1,563
82	1,543	1,524	1,504	1,485	1,465	1,446	1,426	1,407	1,387	1,368
83	1,348	1,329	1,309	1,290	1,271	1,251	1,232	1,212	1,193	1,174
84	1,154	1,135	1,115	1,096	1,077	1,057	1,038	1,019	999	980
85	961	941	922	903	884	864	845	826	806	787
86	768	749	729	710	691	672	652	633	614	595
87	575	556	537	518	499	479	460	441	422	403
88	383	364	345	326	307	288	268	249	230	211
89	192	173	153	134	115	96	77	57	38	19

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 12,000 Meters (Ballistic Zone 12) (Computer Zone 18) (Fallout Zone 6)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	179, 993	176, 157	172, 455	168, 880	165, 428	162, 093	158, 870	155, 755	152, 743	149, 831
4	147, 013	144, 286	141, 646	139, 089	136, 613	134, 214	131, 888	129, 633	127, 446	125, 324
5	123, 264	121, 265	119, 324	117, 438	115, 605	113, 824	112, 092	110, 408	108, 769	107, 175
6	105, 622	104, 111	102, 639	101, 205	99, 807	98, 445	97, 117	95, 821	94, 558	93, 325
7	92, 121	90, 946	89, 799	88, 678	87, 583	86, 513	85, 468	84, 445	83, 446	82, 468
8	81, 512	80, 576	79, 660	78, 763	77, 885	77, 026	76, 184	75, 359	74, 550	73, 758
9	72, 982	72, 221	71, 474	70, 742	70, 024	69, 319	68, 628	67, 950	67, 284	66, 630
10	65, 988	65, 358	64, 739	64, 130	63, 533	62, 946	62, 369	61, 801	61, 244	60, 696
11	60, 157	59, 626	59, 105	58, 592	58, 087	57, 591	57, 102	56, 621	56, 148	55, 682
12	55, 223	54, 771	54, 326	53, 888	53, 456	53, 031	52, 612	52, 199	51, 792	51, 391
13	50, 995	50, 606	50, 222	49, 843	49, 469	49, 101	48, 738	48, 379	48, 026	47, 677
14	47, 333	46, 994	46, 659	46, 328	46, 002	45, 680	45, 362	45, 048	44, 738	44, 432
15	44, 130	43, 831	43, 536	43, 245	42, 958	42, 674	42, 393	42, 116	41, 842	41, 571
16	41, 303	41, 039	40, 777	40, 519	40, 263	40, 011	39, 761	39, 514	39, 270	39, 029
17	38, 790	38, 554	38, 320	38, 089	37, 861	37, 635	37, 411	37, 190	36, 971	36, 754
18	36, 540	36, 328	36, 118	35, 910	35, 705	35, 501	35, 299	35, 100	34, 902	34, 707
19	34, 513	34, 322	34, 132	33, 944	33, 758	33, 573	33, 391	33, 210	33, 031	32, 853
20	32, 677	32, 503	32, 331	32, 160	31, 990	31, 822	31, 656	31, 491	31, 328	31, 166
21	31, 006	30, 847	30, 689	30, 533	30, 378	30, 224	30, 072	29, 921	29, 772	29, 623
22	29, 476	29, 330	29, 186	29, 042	28, 900	28, 759	28, 619	28, 481	28, 343	28, 207
23	28, 071	27, 937	27, 804	27, 672	27, 541	27, 411	27, 281	27, 153	27, 026	26, 900
24	26, 775	26, 651	26, 528	26, 406	26, 285	26, 164	26, 045	25, 926	25, 808	25, 692
25	25, 576	25, 460	25, 346	25, 233	25, 120	25, 008	24, 897	24, 787	24, 678	24, 569
26	24, 461	24, 354	24, 248	24, 142	24, 037	23, 933	23, 829	23, 727	23, 625	23, 523
27	23, 422	23, 322	23, 223	23, 124	23, 026	22, 929	22, 832	22, 736	22, 641	22, 546
28	22, 452	22, 358	22, 265	22, 173	22, 081	21, 990	21, 899	21, 809	21, 719	21, 631
29	21, 542	21, 454	21, 367	21, 280	21, 194	21, 108	21, 023	20, 938	20, 854	20, 770
30	20, 687	20, 605	20, 522	20, 441	20, 360	20, 279	20, 199	20, 119	20, 039	19, 961
31	19, 882	19, 804	19, 727	19, 650	19, 573	19, 497	19, 421	19, 346	19, 271	19, 196
32	19, 122	19, 048	18, 975	18, 902	18, 830	18, 757	18, 686	18, 614	18, 543	18, 473
33	18, 403	18, 333	18, 263	18, 194	18, 126	18, 057	17, 989	17, 922	17, 854	17, 787
34	17, 721	17, 654	17, 589	17, 523	17, 458	17, 393	17, 328	17, 264	17, 200	17, 136
35	17, 073	17, 010	16, 947	16, 885	16, 823	16, 761	16, 699	16, 638	16, 577	16, 517
36	16, 456	16, 396	16, 336	16, 277	16, 218	16, 159	16, 100	16, 042	15, 984	15, 926
37	15, 868	15, 811	15, 754	15, 697	15, 641	15, 584	15, 528	15, 473	15, 417	15, 362
38	15, 307	15, 252	15, 198	15, 143	15, 089	15, 035	14, 982	14, 928	14, 875	14, 822
39	14, 770	14, 717	14, 665	14, 613	14, 561	14, 510	14, 458	14, 407	14, 356	14, 306
40	14, 255	14, 205	14, 155	14, 105	14, 055	14, 006	13, 956	13, 907	13, 859	13, 810
41	13, 761	13, 713	13, 665	13, 617	13, 569	13, 522	13, 474	13, 427	13, 380	13, 334
42	13, 287	13, 240	13, 194	13, 148	13, 102	13, 056	13, 011	12, 966	12, 920	12, 875
43	12, 830	12, 786	12, 741	12, 697	12, 652	12, 608	12, 565	12, 521	12, 477	12, 434
44	12, 391	12, 347	12, 304	12, 262	12, 219	12, 176	12, 134	12, 092	12, 050	12, 008
45	11, 966	11, 925	11, 883	11, 842	11, 801	11, 760	11, 719	11, 678	11, 637	11, 597
46	11, 556	11, 516	11, 476	11, 436	11, 397	11, 357	11, 317	11, 278	11, 238	11, 199

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 12,000 Meters (Ballistic Zone 12)  
(Computer Zone 18) (Fallout Zone 6)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	11, 160	11, 121	11, 082	11, 044	11, 005	10, 967	10, 982	10, 890	10, 852	10, 814
48	10, 776	10, 739	10, 601	10, 664	10, 626	10, 589	10, 552	10, 515	10, 478	10, 441
49	10, 404	10, 368	10, 331	10, 295	10, 259	10, 223	10, 187	10, 151	10, 115	10, 079
50	10, 044	10, 008	9, 973	9, 937	9, 902	9, 867	9, 832	9, 797	9, 762	9, 728
51	9, 693	9, 659	9, 624	9, 590	9, 556	9, 522	9, 488	9, 454	9, 420	9, 386
52	9, 352	9, 319	9, 285	9, 252	9, 219	9, 186	9, 152	9, 119	9, 086	9, 054
53	9, 021	8, 988	8, 956	8, 923	8, 891	8, 858	8, 826	8, 794	8, 762	8, 730
54	8, 698	8, 666	8, 634	8, 602	8, 571	8, 539	8, 508	8, 476	8, 445	8, 414
55	8, 383	8, 352	8, 321	8, 290	8, 259	8, 228	8, 198	8, 167	8, 136	8, 106
56	8, 075	8, 045	8, 015	7, 985	7, 954	7, 924	7, 894	7, 865	7, 835	7, 805
57	7, 775	7, 745	7, 716	7, 686	7, 657	7, 628	7, 598	7, 569	7, 540	7, 511
58	7, 482	7, 453	7, 424	7, 395	7, 366	7, 337	7, 308	7, 280	7, 251	7, 223
59	7, 194	7, 166	7, 138	7, 109	7, 081	7, 053	7, 025	6, 997	6, 969	6, 941
60	6, 913	6, 885	6, 857	6, 830	6, 802	6, 774	6, 747	6, 719	6, 692	6, 665
61	6, 637	6, 610	6, 583	6, 556	6, 528	6, 501	6, 474	6, 447	6, 421	6, 394
62	6, 367	6, 340	6, 313	6, 287	6, 260	6, 233	6, 207	6, 180	6, 154	6, 128
63	6, 101	6, 075	6, 049	6, 023	5, 996	5, 970	5, 944	5, 918	5, 892	5, 866
64	5, 840	5, 815	5, 789	5, 763	5, 737	5, 712	5, 686	5, 661	5, 635	5, 609
65	5, 584	5, 559	5, 533	5, 508	5, 483	5, 457	5, 432	5, 407	5, 382	5, 357
66	5, 332	5, 307	5, 282	5, 257	5, 232	5, 207	5, 182	5, 157	5, 133	5, 108
67	5, 083	5, 059	5, 034	5, 009	4, 985	4, 960	4, 936	4, 912	4, 887	4, 863
68	4, 838	4, 814	4, 790	4, 766	4, 742	4, 717	4, 693	4, 669	4, 645	4, 621
69	4, 597	4, 573	4, 549	4, 525	4, 501	4, 478	4, 454	4, 430	4, 406	4, 383
70	4, 359	4, 335	4, 312	4, 288	4, 264	4, 241	4, 217	4, 194	4, 171	4, 147
71	4, 124	4, 100	4, 077	4, 054	4, 030	4, 007	3, 984	3, 961	3, 938	3, 914
72	3, 891	3, 868	3, 845	3, 822	3, 799	3, 776	3, 753	3, 730	3, 707	3, 684
73	3, 662	3, 639	3, 616	3, 593	3, 570	3, 548	3, 525	3, 502	3, 479	3, 457
74	3, 434	3, 412	3, 389	3, 366	3, 344	3, 321	3, 299	3, 276	3, 254	3, 232
75	3, 209	3, 187	3, 164	3, 142	3, 120	3, 097	3, 075	3, 053	3, 031	3, 008
76	2, 986	2, 964	2, 942	2, 920	2, 897	2, 875	2, 853	2, 831	2, 809	2, 787
77	2, 765	2, 743	2, 721	2, 699	2, 677	2, 655	2, 633	2, 611	2, 589	2, 568
78	2, 546	2, 524	2, 502	2, 480	2, 459	2, 437	2, 415	2, 393	2, 372	2, 350
79	2, 328	2, 306	2, 285	2, 263	2, 241	2, 220	2, 198	2, 177	2, 155	2, 133
80	2, 112	2, 090	2, 069	2, 047	2, 026	2, 004	1, 983	1, 961	1, 940	1, 918
81	1, 897	1, 876	1, 854	1, 833	1, 811	1, 790	1, 769	1, 747	1, 726	1, 705
82	1, 683	1, 662	1, 641	1, 619	1, 598	1, 577	1, 556	1, 534	1, 513	1, 492
83	1, 471	1, 449	1, 428	1, 407	1, 386	1, 365	1, 343	1, 322	1, 301	1, 280
84	1, 259	1, 238	1, 217	1, 195	1, 174	1, 153	1, 132	1, 111	1, 090	1, 069
85	1, 048	1, 027	1, 006	985	964	943	922	901	880	859
86	838	817	796	775	754	733	712	691	670	649
87	628	607	586	565	544	523	502	481	460	439
88	418	397	376	355	335	314	293	272	251	230
89	209	188	167	146	125	105	84	63	42	21

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 13,000 Meters (Computer Zone 19)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	192, 193	188, 190	184, 322	180, 583	176, 969	173, 474	170, 093	166, 822	163, 657	160, 593
4	157, 626	154, 752	151, 968	149, 270	146, 655	144, 119	141, 659	139, 272	136, 956	134, 707
5	132, 524	130, 403	128, 342	126, 339	124, 391	122, 497	120, 655	118, 862	117, 118	115, 419
6	113, 765	112, 154	110, 584	109, 053	107, 562	106, 107	104, 689	103, 304	101, 954	100, 635
7	99, 348	98, 091	96, 864	95, 664	94, 492	93, 346	92, 226	91, 131	90, 059	89, 011
8	87, 986	86, 982	86, 000	85, 038	84, 096	83, 173	82, 269	81, 383	80, 515	79, 665
9	78, 831	78, 013	77, 211	76, 424	75, 652	74, 895	74, 151	73, 422	72, 706	72, 002
10	71, 312	70, 634	69, 967	69, 313	68, 670	68, 038	67, 416	66, 806	66, 205	65, 615
11	65, 034	64, 463	63, 902	63, 349	62, 805	62, 270	61, 744	61, 225	60, 715	60, 213
12	59, 718	59, 231	58, 751	58, 279	57, 813	57, 355	56, 903	56, 457	56, 019	55, 586
13	55, 160	54, 739	54, 325	53, 916	53, 513	53, 116	52, 724	52, 337	51, 956	51, 579
14	51, 208	50, 842	50, 480	50, 123	49, 771	49, 423	49, 080	48, 741	48, 406	48, 076
15	47, 750	47, 427	47, 109	46, 795	46, 484	46, 177	45, 874	45, 575	45, 279	44, 986
16	44, 697	44, 411	44, 129	43, 850	43, 574	43, 301	43, 031	42, 764	42, 501	42, 240
17	41, 982	41, 727	41, 474	41, 225	40, 978	40, 734	40, 492	40, 253	40, 016	39, 782
18	39, 550	39, 321	39, 094	38, 870	38, 647	38, 427	38, 209	37, 994	37, 780	37, 569
19	37, 360	37, 152	36, 947	36, 744	36, 543	36, 343	36, 146	35, 950	35, 756	35, 565
20	35, 374	35, 186	35, 000	34, 815	34, 631	34, 450	34, 270	34, 092	33, 915	33, 740
21	33, 567	33, 395	33, 224	33, 055	32, 888	32, 722	32, 557	32, 394	32, 232	32, 072
22	31, 913	31, 755	31, 599	31, 443	31, 290	31, 137	30, 986	30, 836	30, 687	30, 539
23	30, 393	30, 248	30, 103	29, 960	29, 819	29, 678	29, 538	29, 400	29, 262	29, 126
24	28, 991	28, 856	28, 723	28, 591	28, 460	28, 329	28, 200	28, 072	27, 945	27, 818
25	27, 693	27, 568	27, 444	27, 322	27, 200	27, 079	26, 959	26, 839	26, 721	26, 603
26	26, 487	26, 371	26, 256	26, 141	26, 028	25, 915	25, 803	25, 692	25, 581	25, 472
27	25, 363	25, 255	25, 147	25, 040	24, 934	24, 829	24, 724	24, 620	24, 517	24, 414
28	24, 312	24, 211	24, 110	24, 010	23, 911	23, 812	23, 714	23, 617	23, 520	23, 423
29	23, 328	23, 233	23, 138	23, 044	22, 951	22, 858	22, 766	22, 674	22, 583	22, 493
30	22, 403	22, 313	22, 224	22, 136	22, 048	21, 960	21, 873	21, 787	21, 701	21, 616
31	21, 531	21, 447	21, 363	21, 279	21, 196	21, 114	21, 032	20, 950	20, 869	20, 788
32	20, 708	20, 628	20, 549	20, 470	20, 392	20, 313	20, 236	20, 159	20, 082	20, 005
33	19, 929	19, 854	19, 779	19, 704	19, 629	19, 555	19, 482	19, 409	19, 336	19, 263
34	19, 191	19, 119	19, 048	18, 977	18, 906	18, 836	18, 766	18, 696	18, 627	18, 558
35	18, 490	18, 422	18, 354	18, 286	18, 219	18, 152	18, 085	18, 019	17, 953	17, 887
36	17, 822	17, 757	17, 692	17, 628	17, 564	17, 500	17, 437	17, 374	17, 311	17, 248
37	17, 186	17, 124	17, 062	17, 000	16, 939	16, 878	16, 818	16, 757	16, 697	16, 637
38	16, 578	16, 518	16, 459	16, 401	16, 342	16, 284	16, 226	16, 168	16, 110	16, 053
39	15, 996	15, 939	15, 883	15, 827	15, 770	15, 715	15, 659	15, 604	15, 549	15, 494
40	15, 439	15, 384	15, 330	15, 276	15, 222	15, 169	15, 116	15, 062	15, 009	14, 957
41	14, 904	14, 852	14, 800	14, 748	14, 696	14, 645	14, 594	14, 543	14, 492	14, 441
42	14, 390	14, 340	14, 290	14, 240	14, 190	14, 141	14, 092	14, 042	13, 994	13, 945
43	13, 896	13, 848	13, 799	13, 751	13, 704	13, 656	13, 608	13, 561	13, 514	13, 467
44	13, 420	13, 373	13, 327	13, 280	13, 234	13, 188	13, 142	13, 096	13, 051	13, 006
45	12, 960	12, 915	12, 870	12, 826	12, 781	12, 737	12, 692	12, 648	12, 604	12, 560
46	12, 516	12, 473	12, 430	12, 386	12, 343	12, 300	12, 257	12, 215	12, 172	12, 130

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 13,000 Meters (Computer Zone 19)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	12,087	12,045	12,003	11,961	11,919	11,878	11,836	11,795	11,754	11,713
48	11,672	11,631	11,590	11,550	11,509	11,469	11,429	11,389	11,349	11,309
49	11,269	11,229	11,190	11,151	11,111	11,072	11,033	10,994	10,956	10,917
50	10,878	10,840	10,801	10,763	10,725	10,687	10,649	10,611	10,574	10,536
51	10,499	10,461	10,424	10,387	10,350	10,313	10,276	10,239	10,203	10,166
52	10,130	10,093	10,057	10,021	9,985	9,949	9,913	9,877	9,842	9,806
53	9,771	9,735	9,700	9,665	9,630	9,595	9,560	9,525	9,490	9,455
54	9,421	9,386	9,352	9,318	9,283	9,249	9,215	9,181	9,147	9,113
55	9,080	9,046	9,012	8,979	8,945	8,912	8,879	8,846	8,813	8,780
56	8,747	8,714	8,681	8,648	8,616	8,583	8,551	8,518	8,486	8,454
57	8,421	8,389	8,357	8,325	8,293	8,262	8,230	8,198	8,167	8,135
58	8,104	8,072	8,041	8,009	7,978	7,947	7,916	7,885	7,854	7,823
59	7,792	7,762	7,731	7,700	7,670	7,639	7,609	7,578	7,548	7,518
60	7,488	7,458	7,428	7,398	7,368	7,338	7,308	7,278	7,248	7,219
61	7,189	7,160	7,130	7,101	7,071	7,042	7,013	6,983	6,954	6,925
62	6,896	6,867	6,838	6,809	6,781	6,752	6,723	6,694	6,666	6,637
63	6,609	6,580	6,552	6,523	6,495	6,467	6,438	6,410	6,382	6,354
64	6,326	6,298	6,270	6,242	6,214	6,187	6,159	6,131	6,103	6,076
65	6,048	6,021	5,993	5,966	5,938	5,911	5,884	5,857	5,829	5,802
66	5,775	5,748	5,721	5,694	5,667	5,640	5,613	5,586	5,559	5,533
67	5,506	5,479	5,453	5,426	5,399	5,373	5,346	5,320	5,293	5,267
68	5,241	5,214	5,188	5,162	5,136	5,110	5,083	5,057	5,031	5,005
69	4,979	4,953	4,927	4,902	4,876	4,850	4,824	4,798	4,773	4,747
70	4,721	4,696	4,670	4,645	4,619	4,594	4,568	4,543	4,517	4,492
71	4,467	4,441	4,416	4,391	4,366	4,340	4,315	4,290	4,265	4,240
72	4,215	4,190	4,165	4,140	4,115	4,090	4,065	4,040	4,016	3,991
73	3,966	3,941	3,917	3,892	3,867	3,843	3,818	3,793	3,769	3,744
74	3,720	3,695	3,671	3,646	3,622	3,598	3,573	3,549	3,525	3,500
75	3,476	3,452	3,428	3,403	3,379	3,355	3,331	3,307	3,283	3,259
76	3,234	3,210	3,186	3,162	3,138	3,114	3,091	3,067	3,043	3,019
77	2,995	2,971	2,947	2,924	2,900	2,876	2,852	2,829	2,805	2,781
78	2,757	2,734	2,710	2,687	2,663	2,639	2,616	2,592	2,569	2,545
79	2,522	2,498	2,475	2,451	2,428	2,404	2,381	2,358	2,334	2,311
80	2,288	2,264	2,241	2,218	2,194	2,171	2,148	2,124	2,101	2,078
81	2,055	2,032	2,008	1,985	1,962	1,939	1,916	1,893	1,869	1,846
82	1,823	1,800	1,777	1,754	1,731	1,708	1,685	1,662	1,639	1,616
83	1,593	1,570	1,547	1,524	1,501	1,478	1,455	1,432	1,409	1,386
84	1,364	1,341	1,318	1,295	1,272	1,249	1,226	1,204	1,181	1,158
85	1,135	1,112	1,089	1,067	1,044	1,021	998	975	953	930
86	907	884	862	839	816	793	771	748	725	703
87	680	657	635	612	589	566	544	521	498	476
88	453	430	408	385	362	340	317	294	272	249
89	226	204	181	159	136	113	91	68	45	23

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 14,000 Meters (Ballistic Zone 13) (Computer Zone 20) (Fallout Zone 7)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	204, 112	199, 954	195, 930	192, 038	188, 271	184, 626	181, 096	177, 678	174, 367	171, 160
4	168, 052	165, 039	162, 118	159, 285	156, 537	153, 871	151, 283	148, 770	146, 330	143, 960
5	141, 657	139, 419	137, 243	135, 127	133, 069	131, 066	129, 118	127, 220	125, 373	123, 574
6	121, 821	120, 113	118, 448	116, 824	115, 241	113, 697	112, 190	110, 720	109, 285	107, 883
7	106, 515	105, 178	103, 872	102, 595	101, 347	100, 127	98, 934	97, 768	96, 626	95, 509
8	94, 416	93, 346	92, 298	91, 272	90, 267	89, 282	88, 318	87, 372	86, 446	85, 537
9	84, 646	83, 773	82, 916	82, 075	81, 250	80, 441	79, 646	78, 866	78, 101	77, 349
10	76, 610	75, 885	75, 172	74, 472	73, 783	73, 107	72, 442	71, 789	71, 146	70, 514
11	69, 892	69, 281	68, 679	68, 088	67, 505	66, 932	66, 368	65, 813	65, 266	64, 728
12	64, 198	63, 676	63, 162	62, 655	62, 156	61, 665	61, 180	60, 703	60, 232	59, 768
13	59, 311	58, 860	58, 416	57, 978	57, 545	57, 119	56, 699	56, 284	55, 875	55, 471
14	55, 073	54, 679	54, 291	53, 908	53, 530	53, 157	52, 789	52, 425	52, 066	51, 711
15	51, 361	51, 015	50, 673	50, 336	50, 002	49, 673	49, 347	49, 026	48, 708	48, 394
16	48, 084	47, 777	47, 473	47, 174	46, 877	46, 584	46, 295	46, 008	45, 725	45, 445
17	45, 168	44, 893	44, 622	44, 354	44, 089	43, 827	43, 567	43, 310	43, 056	42, 804
18	42, 555	42, 309	42, 065	41, 824	41, 585	41, 349	41, 114	40, 883	40, 653	40, 426
19	40, 201	39, 978	39, 758	39, 539	39, 323	39, 109	38, 897	38, 686	38, 478	38, 272
20	38, 068	37, 865	37, 665	37, 466	37, 269	37, 074	36, 881	36, 689	36, 499	36, 311
21	36, 124	35, 939	35, 756	35, 574	35, 394	35, 216	35, 039	34, 863	34, 689	34, 517
22	34, 346	34, 176	34, 008	33, 841	33, 676	33, 512	33, 349	33, 188	33, 028	32, 869
23	32, 712	32, 555	32, 400	32, 247	32, 094	31, 943	31, 793	31, 644	31, 496	31, 349
24	31, 204	31, 059	30, 916	30, 774	30, 633	30, 493	30, 354	30, 216	30, 079	29, 943
25	29, 808	29, 674	29, 541	29, 409	29, 278	29, 147	29, 018	28, 890	28, 762	28, 636
26	28, 510	28, 386	28, 262	28, 139	28, 017	27, 896	27, 775	27, 655	27, 537	27, 419
27	27, 301	27, 185	27, 069	26, 954	26, 840	26, 727	26, 614	26, 503	26, 391	26, 281
28	26, 171	26, 062	25, 954	25, 846	25, 739	25, 633	25, 528	25, 423	25, 318	25, 215
29	25, 112	25, 010	24, 908	24, 807	24, 706	24, 607	24, 507	24, 409	24, 311	24, 213
30	24, 116	24, 020	23, 924	23, 829	23, 735	23, 641	23, 547	23, 454	23, 362	23, 270
31	23, 179	23, 088	22, 997	22, 908	22, 818	22, 730	22, 641	22, 554	22, 466	22, 379
32	22, 293	22, 207	22, 122	22, 037	21, 952	21, 868	21, 785	21, 702	21, 619	21, 537
33	21, 455	21, 374	21, 293	21, 212	21, 132	21, 053	20, 973	20, 895	20, 816	20, 738
34	20, 661	20, 583	20, 507	20, 430	20, 354	20, 278	20, 203	20, 128	20, 054	19, 980
35	19, 906	19, 832	19, 759	19, 687	19, 614	19, 542	19, 471	19, 399	19, 328	19, 258
36	19, 187	19, 117	19, 048	18, 978	18, 909	18, 841	18, 772	18, 704	18, 637	18, 569
37	18, 502	18, 435	18, 369	18, 303	18, 237	18, 171	18, 106	18, 041	17, 976	17, 912
38	17, 848	17, 784	17, 720	17, 657	17, 594	17, 531	17, 469	17, 407	17, 345	17, 283
39	17, 222	17, 161	17, 100	17, 039	16, 979	16, 919	16, 859	16, 799	16, 740	16, 681
40	16, 622	16, 563	16, 505	16, 447	16, 389	16, 331	16, 274	16, 217	16, 160	16, 103
41	16, 047	15, 990	15, 934	15, 878	15, 823	15, 767	15, 712	15, 657	15, 602	15, 548
42	15, 494	15, 439	15, 385	15, 332	15, 278	15, 225	15, 172	15, 119	15, 066	15, 014
43	14, 961	14, 909	14, 857	14, 806	14, 754	14, 703	14, 651	14, 601	14, 550	14, 499
44	14, 449	14, 398	14, 348	14, 298	14, 249	14, 199	14, 150	14, 101	14, 052	14, 003
45	13, 954	13, 905	13, 857	13, 809	13, 761	13, 713	13, 665	13, 618	13, 570	13, 523
46	13, 476	13, 429	13, 383	13, 336	13, 290	13, 243	13, 197	13, 151	13, 105	13, 060

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.



Table 2-1. Horizontal Distance (Meters), 14,000 Meters (Ballistic Zone 13)  
(Computer Zone 20) (Fallout Zone 7)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	13,014	12,969	12,924	12,878	12,834	12,789	12,744	12,700	12,655	12,611
48	12,567	12,523	12,479	12,435	12,392	12,348	12,305	12,262	12,219	12,176
49	12,133	12,091	12,048	12,006	11,963	11,921	11,879	11,837	11,796	11,754
50	11,713	11,671	11,630	11,589	11,548	11,507	11,466	11,425	11,385	11,344
51	11,304	11,264	11,224	11,184	11,144	11,104	11,064	11,025	10,985	10,946
52	10,907	10,868	10,829	10,790	10,751	10,712	10,673	10,635	10,597	10,558
53	10,520	10,482	10,444	10,406	10,368	10,331	10,293	10,255	10,218	10,181
54	10,143	10,106	10,069	10,032	9,995	9,959	9,922	9,885	9,849	9,812
55	9,776	9,740	9,704	9,668	9,632	9,596	9,560	9,524	9,489	9,453
56	9,418	9,382	9,347	9,312	9,277	9,242	9,207	9,172	9,137	9,102
57	9,068	9,033	8,998	8,964	8,930	8,895	8,861	8,827	8,793	8,759
58	8,725	8,691	8,658	8,624	8,590	8,557	8,523	8,490	8,457	8,423
59	8,390	8,357	8,324	8,291	8,258	8,225	8,193	8,160	8,127	8,095
60	8,062	8,030	7,997	7,965	7,933	7,901	7,869	7,836	7,804	7,773
61	7,741	7,709	7,677	7,645	7,614	7,582	7,551	7,519	7,488	7,457
62	7,425	7,394	7,363	7,332	7,301	7,270	7,239	7,208	7,177	7,146
63	7,116	7,085	7,054	7,024	6,993	6,963	6,933	6,902	6,872	6,842
64	6,811	6,781	6,751	6,721	6,691	6,661	6,631	6,602	6,572	6,542
65	6,512	6,483	6,453	6,424	6,394	6,365	6,335	6,306	6,277	6,247
66	6,218	6,189	6,160	6,131	6,102	6,073	6,044	6,015	5,986	5,957
67	5,928	5,900	5,871	5,842	5,814	5,785	5,757	5,728	5,700	5,671
68	5,643	5,615	5,586	5,558	5,530	5,502	5,474	5,445	5,417	5,389
69	5,361	5,333	5,306	5,278	5,250	5,222	5,194	5,167	5,139	5,111
70	5,084	5,056	5,029	5,001	4,974	4,946	4,919	4,891	4,864	4,837
71	4,809	4,782	4,755	4,728	4,701	4,673	4,646	4,619	4,592	4,565
72	4,538	4,511	4,485	4,458	4,431	4,404	4,377	4,350	4,324	4,297
73	4,270	4,244	4,217	4,191	4,164	4,137	4,111	4,085	4,058	4,032
74	4,005	3,979	3,953	3,926	3,900	3,874	3,847	3,821	3,795	3,769
75	3,743	3,717	3,691	3,664	3,638	3,612	3,586	3,560	3,535	3,509
76	3,483	3,457	3,431	3,405	3,379	3,354	3,328	3,302	3,276	3,251
77	3,225	3,199	3,174	3,148	3,122	3,097	3,071	3,046	3,020	2,995
78	2,969	2,944	2,918	2,893	2,867	2,842	2,817	2,791	2,766	2,741
79	2,715	2,690	2,665	2,639	2,614	2,589	2,564	2,539	2,513	2,488
80	2,463	2,438	2,413	2,388	2,363	2,338	2,313	2,287	2,262	2,237
81	2,212	2,187	2,163	2,138	1,113	2,088	2,063	2,038	2,013	1,988
82	1,963	1,938	1,914	1,889	1,864	1,839	1,814	1,789	1,765	1,740
83	1,715	1,690	1,666	1,641	1,616	1,592	1,567	1,542	1,518	1,493
84	1,468	1,444	1,419	1,394	1,370	1,345	1,320	1,296	1,271	1,247
85	1,222	1,198	1,173	1,148	1,124	1,099	1,075	1,050	1,026	1,001
86	977	952	928	903	879	854	830	805	781	757
87	732	708	683	659	634	610	585	561	537	512
88	488	463	439	415	390	366	341	317	293	268
89	244	219	195	171	146	122	98	73	49	24

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 15,000 Meters (Computer Zone 21)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	215,769	211,464	207,296	203,259	199,349	195,561	191,891	188,334	184,886	181,542
4	178,300	175,155	172,104	169,143	166,268	163,477	160,766	158,133	155,575	153,088
5	150,670	148,319	146,033	143,808	141,643	139,535	137,481	135,485	133,539	131,642
6	129,793	127,991	126,234	124,520	122,848	121,217	119,624	118,070	116,552	115,070
7	113,621	112,206	110,824	109,472	108,150	106,858	105,593	104,357	103,146	101,962
8	100,802	99,667	98,555	97,466	96,399	95,354	94,330	93,326	92,341	91,376
9	90,429	89,501	88,590	87,696	86,819	85,959	85,114	84,284	83,469	82,669
10	81,883	81,111	80,353	79,607	78,875	78,155	77,447	76,751	76,066	75,393
11	74,731	74,080	73,439	72,808	72,188	71,577	70,976	70,384	69,801	69,227
12	68,662	68,105	67,557	67,017	66,485	65,961	65,444	64,935	64,433	63,938
13	63,450	62,969	62,495	62,027	61,566	61,111	60,662	60,220	59,783	59,352
14	58,927	58,507	58,093	57,684	57,280	56,882	56,489	56,100	55,717	55,338
15	54,964	54,594	54,229	53,869	53,513	53,161	52,813	52,470	52,130	51,795
16	51,463	51,135	50,811	50,491	50,174	49,861	49,552	49,245	48,943	48,643
17	48,347	48,054	47,765	47,478	47,194	46,914	46,636	46,362	46,090	45,821
18	45,555	45,292	45,031	44,773	44,518	44,265	44,015	43,767	43,522	43,279
19	43,038	42,800	42,564	42,331	42,100	41,870	41,643	41,419	41,196	40,975
20	40,757	40,540	40,326	40,113	39,903	39,694	39,487	39,282	39,079	38,878
21	38,678	38,481	38,285	38,090	37,898	37,707	37,517	37,330	37,144	36,959
22	36,776	36,595	36,415	36,236	36,059	35,884	35,710	35,537	35,366	35,196
23	35,028	34,861	34,695	34,530	34,367	34,205	34,045	33,885	33,727	33,570
24	33,414	33,260	33,107	32,954	32,803	32,653	32,505	32,357	32,210	32,065
25	31,920	31,777	31,635	31,493	31,353	31,214	31,076	30,938	30,802	30,667
26	30,532	30,399	30,266	30,135	30,004	29,874	29,745	29,617	29,490	29,364
27	29,238	29,114	28,990	28,867	28,745	28,623	28,503	28,383	28,264	28,146
28	28,029	27,912	27,796	27,681	27,566	27,453	27,340	27,227	27,116	27,005
29	26,895	26,785	26,676	26,568	26,461	26,354	26,247	26,142	26,037	25,933
30	25,829	25,726	25,623	25,522	25,420	25,320	25,220	25,120	25,021	24,923
31	24,825	24,728	24,631	24,535	24,439	24,344	24,250	24,156	24,062	23,969
32	23,877	23,785	23,694	23,603	23,512	23,422	23,333	23,244	23,155	23,067
33	22,980	22,893	22,806	22,720	22,634	22,549	22,464	22,380	22,296	22,212
34	22,129	22,046	21,964	21,882	21,801	21,720	21,639	21,559	21,479	21,400
35	21,321	21,242	21,164	21,086	21,009	20,932	20,855	20,778	20,702	20,627
36	20,552	20,477	20,402	20,328	20,254	20,180	20,107	20,034	19,962	19,890
37	19,818	19,746	19,675	19,604	19,534	19,464	19,394	19,324	19,255	19,186
38	19,117	19,049	18,981	18,913	18,846	18,778	18,712	18,645	18,579	18,513
39	18,447	18,381	18,316	18,251	18,187	18,122	18,058	17,995	17,931	17,868
40	17,805	17,742	17,679	17,617	17,555	17,493	17,432	17,371	17,310	17,249
41	17,188	17,128	17,068	17,008	16,949	16,889	16,830	16,771	16,713	16,654
42	16,596	16,538	16,480	16,423	16,365	16,308	16,251	16,195	16,138	16,082
43	16,026	15,970	15,915	15,859	15,804	15,749	15,694	15,640	15,585	15,531
44	15,477	15,423	15,370	15,316	15,263	15,210	15,157	15,104	15,052	14,999
45	14,947	14,895	14,843	14,792	14,740	14,689	14,638	14,587	14,536	14,486
46	14,435	14,385	14,335	14,285	14,236	14,186	14,137	14,087	14,038	13,989

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 15,000 Meters (Computer Zone 21)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	13, 941	13, 892	13, 844	13, 795	13, 747	13, 699	13, 651	13, 604	13, 556	13, 509
48	13, 462	13, 414	13, 367	13, 321	13, 274	13, 228	13, 181	13, 135	13, 089	13, 043
49	12, 997	12, 951	12, 906	12, 861	12, 815	12, 770	12, 725	12, 680	12, 636	12, 591
50	12, 547	12, 502	12, 458	12, 414	12, 370	12, 326	12, 282	12, 239	21, 195	12, 152
51	12, 109	12, 066	12, 023	11, 980	11, 937	11, 895	11, 852	11, 810	11, 768	11, 725
52	11, 683	11, 641	11, 600	11, 558	11, 516	11, 475	11, 434	11, 392	11, 351	11, 310
53	11, 269	11, 228	11, 188	11, 147	11, 107	11, 066	11, 026	10, 986	10, 946	10, 906
54	10, 866	10, 826	10, 786	10, 747	10, 707	10, 668	10, 629	10, 589	10, 550	10, 511
55	10, 472	10, 434	10, 395	10, 356	10, 318	10, 279	10, 241	10, 203	10, 165	10, 126
56	10, 088	10, 051	10, 013	9, 975	9, 937	9, 900	9, 862	9, 825	9, 788	9, 751
57	9, 713	9, 676	9, 639	9, 603	9, 566	9, 529	9, 492	9, 456	9, 419	9, 383
58	9, 347	9, 310	9, 274	9, 238	9, 202	9, 166	9, 131	9, 095	9, 059	9, 023
59	8, 988	8, 952	8, 917	8, 882	8, 846	8, 811	8, 776	8, 741	8, 706	8, 671
60	8, 637	8, 602	8, 567	8, 532	8, 498	8, 463	8, 429	8, 395	8, 360	8, 326
61	8, 292	8, 258	8, 224	8, 190	8, 156	8, 122	8, 089	8, 055	8, 021	7, 988
62	7, 954	7, 921	7, 887	7, 854	7, 821	7, 788	7, 755	7, 721	7, 688	7, 655
63	7, 623	7, 590	7, 557	7, 524	7, 492	7, 459	7, 426	7, 394	7, 361	7, 329
64	7, 297	7, 264	7, 232	7, 200	7, 168	7, 136	7, 104	7, 072	7, 040	7, 008
65	6, 976	6, 945	6, 913	6, 881	6, 850	6, 818	6, 787	6, 755	6, 724	6, 692
66	6, 661	6, 630	6, 599	6, 568	6, 536	6, 505	6, 474	6, 443	6, 413	6, 382
67	6, 351	6, 320	6, 289	6, 259	6, 228	6, 197	6, 167	6, 136	6, 106	6, 075
68	6, 045	6, 015	5, 984	5, 954	5, 924	5, 894	5, 864	5, 833	5, 803	5, 773
69	5, 743	5, 714	5, 684	5, 654	5, 624	5, 594	5, 564	5, 535	5, 505	5, 475
70	5, 446	5, 416	5, 387	5, 357	5, 328	5, 299	5, 269	5, 240	5, 211	5, 181
71	5, 152	5, 123	5, 094	5, 065	5, 036	5, 006	4, 977	4, 948	3, 920	4, 891
72	4, 862	4, 833	4, 804	4, 775	4, 747	4, 718	4, 689	4, 660	4, 632	4, 603
73	4, 575	4, 546	4, 518	4, 489	4, 461	4, 432	4, 404	4, 376	4, 347	4, 319
74	4, 291	4, 262	4, 234	4, 206	4, 178	4, 150	4, 122	4, 094	4, 065	4, 037
75	4, 009	3, 981	3, 954	3, 926	3, 898	3, 870	3, 842	3, 814	3, 786	3, 759
76	3, 731	3, 703	3, 675	3, 648	3, 620	3, 592	3, 565	3, 537	3, 510	3, 482
77	3, 455	3, 427	3, 400	3, 372	3, 345	3, 317	3, 290	3, 263	3, 235	3, 208
78	3, 181	3, 153	3, 126	3, 099	3, 072	3, 044	3, 017	2, 990	2, 963	2, 936
79	2, 909	2, 882	2, 855	2, 827	2, 800	2, 773	2, 746	2, 719	2, 692	2, 666
80	2, 639	2, 612	2, 585	2, 558	2, 531	2, 504	2, 477	2, 450	2, 424	2, 397
81	2, 370	2, 343	2, 317	2, 290	2, 263	2, 236	2, 210	2, 183	2, 156	2, 130
82	2, 103	2, 076	2, 050	2, 023	1, 997	1, 970	1, 944	1, 917	1, 890	1, 864
83	1, 837	1, 811	1, 784	1, 758	1, 731	1, 705	1, 679	1, 652	1, 626	1, 599
84	1, 573	1, 546	1, 520	1, 494	1, 467	1, 441	1, 415	1, 388	1, 362	1, 336
85	1, 309	1, 283	1, 257	1, 230	1, 204	1, 178	1, 151	1, 125	1, 099	1, 073
86	1, 046	1, 020	994	968	941	915	889	863	837	810
87	784	758	732	706	680	653	627	601	575	549
88	523	496	470	444	418	392	366	340	313	287
89	261	235	209	183	157	131	104	78	52	26

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 16,000 Meters (Ballistic Zone 14) (Computer Zone 22) (Fallout Zone 8)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	227, 180	222, 738	218, 433	214, 260	210, 215	206, 293	202, 489	198, 800	195, 222	191, 749
4	188, 380	185, 109	181, 933	178, 849	175, 853	172, 943	170, 115	167, 366	164, 694	162, 095
5	159, 567	157, 107	154, 714	152, 384	150, 116	147, 907	145, 756	143, 660	141, 617	139, 626
6	137, 684	135, 791	133, 944	132, 142	130, 384	128, 667	126, 992	125, 355	123, 757	122, 196
7	120, 679	119, 179	117, 721	116, 296	114, 902	113, 538	112, 204	110, 899	109, 621	108, 371
8	107, 146	105, 947	104, 772	103, 621	102, 494	101, 389	100, 306	99, 244	98, 203	97, 182
9	96, 180	95, 198	94, 234	93, 288	92, 360	91, 448	90, 554	89, 675	88, 812	87, 965
10	87, 132	86, 314	85, 510	84, 720	83, 944	83, 180	82, 430	81, 692	80, 966	80, 252
11	79, 550	78, 859	78, 179	77, 511	76, 852	76, 204	75, 566	74, 938	74, 320	73, 711
12	73, 111	72, 520	71, 938	71, 365	70, 800	70, 243	69, 694	69, 153	68, 620	68, 095
13	67, 577	67, 066	66, 562	66, 065	65, 575	65, 092	64, 615	64, 145	63, 681	63, 223
14	62, 771	62, 325	61, 884	61, 450	61, 021	60, 597	60, 179	59, 766	59, 359	58, 956
15	58, 558	58, 165	57, 777	57, 394	57, 015	56, 641	56, 271	55, 906	55, 545	55, 188
16	54, 835	54, 487	54, 142	53, 801	53, 464	53, 131	52, 802	52, 476	52, 154	51, 836
17	51, 521	51, 209	50, 901	50, 596	50, 294	49, 996	49, 701	49, 408	49, 119	48, 833
18	48, 550	48, 270	47, 992	47, 718	47, 446	47, 177	46, 910	46, 647	46, 386	46, 127
19	45, 871	45, 618	45, 367	45, 118	44, 872	44, 628	44, 386	44, 147	43, 910	43, 675
20	43, 442	43, 212	42, 983	42, 757	42, 533	42, 311	42, 091	41, 872	41, 656	41, 442
21	41, 229	41, 019	40, 810	40, 603	40, 398	40, 195	39, 993	39, 793	39, 595	39, 398
22	39, 203	39, 010	38, 819	38, 629	38, 440	38, 253	38, 068	37, 884	37, 702	37, 521
23	37, 341	37, 163	36, 987	36, 811	36, 638	36, 465	36, 294	36, 124	35, 956	35, 789
24	35, 623	35, 458	35, 295	35, 133	34, 972	34, 812	34, 653	34, 496	34, 340	34, 185
25	34, 031	33, 878	33, 727	33, 576	33, 427	33, 278	33, 131	32, 985	32, 839	32, 695
26	32, 552	32, 410	32, 269	32, 128	31, 989	31, 851	31, 713	31, 577	31, 442	31, 307
27	31, 173	31, 041	30, 909	30, 778	30, 647	30, 518	30, 390	30, 262	30, 135	30, 009
28	29, 884	29, 760	29, 636	29, 514	29, 392	29, 271	29, 150	29, 030	28, 912	28, 793
29	28, 676	28, 559	28, 443	28, 328	28, 213	28, 099	27, 986	27, 874	27, 762	27, 651
30	27, 540	27, 430	27, 321	27, 213	27, 105	26, 997	26, 891	26, 785	26, 679	26, 574
31	26, 470	26, 367	26, 263	26, 161	26, 059	25, 958	25, 857	25, 757	25, 657	25, 558
32	25, 460	25, 362	25, 264	25, 167	25, 071	24, 975	24, 880	24, 785	24, 691	24, 597
33	24, 503	24, 411	24, 318	24, 226	24, 135	24, 044	23, 954	23, 864	23, 774	23, 685
34	23, 597	23, 509	23, 421	23, 334	23, 247	23, 161	23, 075	22, 989	22, 904	22, 819
35	22, 735	22, 651	22, 568	22, 485	22, 402	22, 320	22, 238	22, 157	22, 076	21, 995
36	21, 915	21, 835	21, 756	21, 677	21, 598	21, 519	21, 441	21, 364	21, 286	21, 210
37	21, 133	21, 057	20, 981	20, 905	20, 830	20, 755	20, 681	20, 607	20, 533	20, 459
38	20, 386	20, 313	20, 241	20, 168	20, 096	20, 025	19, 953	19, 882	19, 812	19, 741
39	19, 671	19, 602	19, 532	19, 463	19, 394	19, 325	19, 257	19, 189	19, 121	19, 054
40	18, 987	18, 920	18, 853	18, 787	18, 720	18, 655	18, 589	18, 524	18, 459	18, 394
41	18, 329	18, 265	18, 201	18, 137	18, 074	18, 011	17, 948	17, 885	17, 822	17, 760
42	17, 698	17, 636	17, 575	17, 513	17, 452	17, 391	17, 331	17, 270	17, 210	17, 150
43	17, 090	17, 031	16, 971	16, 912	16, 854	16, 795	16, 736	16, 678	16, 620	16, 562
44	16, 505	16, 447	16, 390	16, 333	16, 276	16, 220	16, 164	16, 107	16, 051	15, 996
45	15, 940	15, 885	15, 829	15, 774	15, 719	15, 665	15, 610	15, 556	15, 502	15, 448
46	15, 394	15, 341	15, 287	15, 234	15, 181	15, 128	15, 076	15, 023	14, 971	14, 919

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 16,000 Meters (Ballistic Zone 14)

(Computer Zone 22) (Fallout Zone 8)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	14,867	14,815	14,763	14,712	14,660	14,609	14,558	14,507	14,457	14,406
48	14,356	14,306	14,256	14,206	14,156	14,106	14,057	14,008	13,958	13,909
49	13,861	13,812	13,763	13,715	13,667	13,619	13,571	13,523	13,475	13,428
50	13,380	13,333	13,286	13,239	13,192	13,145	13,099	13,052	13,006	12,960
51	12,913	12,868	12,822	12,776	12,730	12,685	12,640	12,595	12,549	12,505
52	12,460	12,415	12,370	12,326	12,282	12,237	12,193	12,149	12,105	12,062
53	12,018	11,975	11,931	11,888	11,845	11,802	11,759	11,716	11,673	11,630
54	11,588	11,545	11,503	11,461	11,419	11,377	11,335	11,293	11,251	11,210
55	11,168	11,127	11,086	11,045	11,003	10,962	10,922	10,881	10,840	10,799
56	10,759	10,719	10,678	10,638	10,598	10,558	10,518	10,478	10,438	10,399
57	10,359	10,320	10,280	10,241	10,202	10,162	10,123	10,084	10,045	10,007
58	9,968	9,929	9,891	9,852	9,814	9,776	9,737	9,699	9,661	9,623
59	9,585	9,548	9,510	9,472	9,435	9,397	9,360	9,322	9,285	9,248
60	9,211	9,174	9,137	9,100	9,063	9,026	8,989	8,953	8,916	8,880
61	8,843	8,807	8,771	8,735	8,698	8,662	8,626	8,590	8,555	8,519
62	8,483	8,447	8,412	8,376	8,341	8,305	8,270	8,235	8,200	8,164
63	8,129	8,094	8,059	8,024	7,990	7,955	7,920	7,885	7,851	7,816
64	7,782	7,747	7,713	7,679	7,645	7,610	7,576	7,542	7,508	7,474
65	7,440	7,406	7,373	7,339	7,305	7,271	7,238	7,204	7,171	7,137
66	7,104	7,071	7,037	7,004	6,971	6,938	6,905	6,872	6,839	6,806
67	6,773	6,740	6,707	6,675	6,642	6,609	6,577	6,544	6,512	6,479
68	6,447	6,415	6,382	6,350	6,318	6,286	6,253	6,221	6,189	6,157
69	6,125	6,093	6,062	6,030	5,998	5,966	5,934	5,903	5,871	5,840
70	5,808	5,776	5,745	5,714	5,682	5,651	5,619	5,588	5,557	5,526
71	5,495	5,463	5,432	5,401	5,370	5,339	5,308	5,278	5,247	5,216
72	5,185	5,154	5,124	5,093	5,062	5,032	5,001	4,970	4,940	4,909
73	4,879	4,848	4,818	4,788	4,757	4,727	4,697	4,667	4,636	4,606
74	4,576	4,546	4,516	4,486	4,456	4,426	4,396	4,366	4,336	4,306
75	4,276	4,246	4,216	4,187	4,157	4,127	4,097	4,068	4,038	4,009
76	3,979	3,949	3,920	3,890	3,861	3,831	3,802	3,772	3,743	3,714
77	3,684	3,655	3,626	3,596	3,567	3,538	3,509	3,480	3,450	3,421
78	3,392	3,363	3,334	3,305	3,276	3,247	3,218	3,189	3,160	3,131
79	3,102	3,073	3,044	3,016	2,987	2,958	2,929	2,900	2,872	2,843
80	2,814	2,785	2,757	2,728	2,699	2,671	2,642	2,613	2,585	2,556
81	2,528	2,499	2,471	2,442	2,414	2,385	2,357	2,328	2,300	2,271
82	2,243	2,215	2,186	2,158	2,129	2,101	2,073	2,044	2,016	1,988
83	1,960	1,931	1,903	1,875	2,847	1,818	1,790	1,762	1,734	1,706
84	1,677	1,649	1,621	1,593	1,565	1,537	1,509	1,481	1,452	1,424
85	1,396	1,368	1,340	1,312	1,284	1,256	1,228	1,200	1,172	1,144
86	1,116	1,088	1,060	1,032	1,004	976	948	920	892	864
87	836	808	781	753	725	697	669	641	613	585
88	557	529	502	474	446	418	390	362	334	306
89	279	251	223	195	167	139	111	84	56	28

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 17,000 Meters (Computer Zone 23)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	238,360	233,788	229,354	225,053	220,880	216,830	212,901	209,087	205,384	201,789
4	198,298	194,907	191,612	188,411	185,300	182,275	179,334	176,474	173,692	170,986
5	168,352	165,788	163,291	160,860	158,493	156,186	153,938	151,747	149,611	147,528
6	145,496	143,514	141,581	139,693	137,851	136,052	134,295	132,579	130,902	129,263
7	127,662	126,096	124,565	123,068	121,603	120,170	118,768	117,395	116,052	114,736
8	113,448	112,186	110,950	109,738	108,551	107,387	106,247	105,128	104,031	102,955
9	101,900	100,864	99,848	98,851	97,872	96,910	95,967	95,040	94,129	93,235
10	92,356	91,493	90,645	89,811	88,991	88,185	87,392	86,613	85,846	85,092
11	84,350	83,620	82,902	82,195	81,499	80,814	80,140	79,476	78,822	78,179
12	77,544	76,920	76,304	75,698	75,100	74,511	73,931	73,359	72,795	72,239
13	71,691	71,150	70,617	70,092	69,573	69,062	68,557	68,059	67,568	67,083
14	66,605	66,132	65,666	65,206	64,752	64,304	63,861	63,424	62,992	62,565
15	62,144	61,728	61,317	60,911	60,510	60,114	59,722	59,335	58,952	58,574
16	58,201	57,831	57,466	57,105	56,748	56,395	56,046	55,701	55,360	55,022
17	54,688	54,358	54,031	53,708	53,388	53,072	52,759	52,449	52,143	51,840
18	51,539	51,242	50,948	50,657	50,369	50,084	49,801	49,522	49,245	48,971
19	48,699	48,430	48,164	47,901	47,640	47,381	47,125	46,871	46,620	46,371
20	46,124	45,879	45,637	45,397	45,159	44,924	44,690	44,459	44,229	44,002
21	43,777	43,553	43,332	43,112	42,895	42,679	42,465	42,253	42,043	41,834
22	41,628	41,423	41,219	41,018	40,818	40,620	40,423	40,228	40,034	39,842
23	39,652	39,463	39,276	39,090	38,905	38,722	38,541	38,361	38,182	38,005
24	37,829	37,654	37,481	37,309	37,138	36,968	36,800	36,633	36,467	36,303
25	36,140	35,978	35,817	35,657	35,498	35,341	35,184	35,029	34,875	34,722
26	34,570	34,419	34,269	34,120	33,973	33,826	33,680	33,535	33,391	33,249
27	33,107	32,966	32,826	32,687	32,549	32,411	32,275	32,140	32,005	31,871
28	31,738	31,606	31,475	31,345	31,216	31,087	30,959	30,832	30,706	30,580
29	30,456	30,332	30,209	30,086	29,965	29,844	29,724	29,604	29,485	29,367
30	29,250	29,133	29,018	28,902	28,788	28,674	28,561	28,448	28,336	28,225
31	28,114	28,004	27,895	27,786	27,678	27,570	27,463	27,357	27,251	27,146
32	27,041	26,937	26,834	26,731	26,629	26,527	26,426	26,325	26,225	26,125
33	26,026	25,928	25,829	25,732	25,635	25,538	25,442	25,347	25,252	25,157
34	25,063	24,970	24,877	24,784	24,692	24,600	24,509	24,418	24,328	24,238
35	24,148	24,059	23,971	23,883	23,795	23,708	23,621	23,534	23,448	23,363
36	23,278	23,193	23,108	23,024	22,941	22,858	22,775	22,692	22,610	22,529
37	22,447	22,366	22,286	22,205	22,126	22,046	21,967	21,888	21,810	21,732
38	21,654	21,577	21,500	21,423	21,346	21,270	21,195	21,119	21,044	20,969
39	20,895	20,821	20,747	20,674	20,600	20,528	20,455	20,383	20,311	20,239
40	20,168	20,097	20,026	19,955	19,885	19,815	19,746	19,676	19,607	19,538
41	19,470	19,402	19,334	19,266	19,199	19,131	19,064	18,998	18,931	18,865
42	18,799	18,734	18,668	18,603	18,538	18,474	18,409	18,345	18,281	18,217
43	18,154	18,091	18,028	17,965	17,903	17,840	17,778	17,716	17,655	17,593
44	17,532	17,471	17,410	17,350	17,290	17,230	17,170	17,110	17,051	16,991
45	16,932	16,873	16,815	16,756	16,698	16,640	16,582	16,525	16,467	16,410
46	16,353	16,296	16,239	16,183	16,126	16,070	16,014	15,958	15,903	15,848

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 17,000 Meters (Computer Zone 23)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	15,792	15,737	15,682	15,628	15,573	15,519	15,465	15,411	15,357	15,303
48	15,250	15,196	15,143	15,090	15,037	14,985	14,932	14,880	14,828	14,776
49	14,724	14,672	14,620	14,569	14,518	14,467	14,416	14,365	14,314	14,264
50	14,213	14,163	14,113	14,063	14,013	13,964	13,914	13,865	13,816	13,767
51	13,718	13,669	13,620	13,572	13,523	13,475	13,427	13,379	13,331	13,283
52	13,236	13,188	13,141	13,094	13,047	13,000	12,953	12,906	12,859	12,813
53	12,767	12,720	12,674	12,628	12,582	12,537	12,491	12,446	12,400	12,355
54	12,310	12,265	12,220	12,175	12,130	12,086	12,041	11,997	11,952	11,908
55	11,864	11,820	11,776	11,733	11,689	11,645	11,602	11,559	11,515	11,472
56	11,429	11,386	11,343	11,301	11,258	11,216	11,173	11,131	11,089	11,046
57	11,004	10,962	10,921	10,879	10,837	10,796	10,754	10,713	10,671	10,630
58	10,589	10,548	10,507	10,466	10,425	10,385	10,344	10,304	10,263	10,223
59	10,183	10,142	10,102	10,062	10,022	9,982	9,943	9,903	9,863	9,824
60	9,784	9,745	9,706	9,667	9,627	9,588	9,549	9,511	9,472	9,433
61	9,394	9,356	9,317	9,279	9,240	9,202	9,164	9,126	9,088	9,050
62	9,012	8,974	8,936	8,898	8,860	8,823	8,785	8,748	8,710	8,673
63	8,636	8,599	8,562	8,524	8,487	8,451	8,414	8,377	8,340	8,303
64	8,267	8,230	8,194	8,157	8,121	8,085	8,048	8,012	7,976	7,940
65	7,904	7,868	7,832	7,796	7,760	7,725	7,689	7,653	7,618	7,582
66	7,547	7,511	7,476	7,441	7,405	7,370	7,335	7,300	7,265	7,230
67	7,195	7,160	7,125	7,091	7,056	7,021	6,987	6,952	6,918	6,883
68	6,849	6,814	6,780	6,746	6,711	6,677	6,643	6,609	6,575	6,541
69	6,507	6,473	6,439	6,405	6,372	6,338	6,304	6,271	6,237	6,203
70	6,170	6,136	6,103	6,070	6,036	6,003	5,970	5,936	5,903	5,870
71	5,837	5,804	5,771	5,738	5,705	5,672	5,639	5,606	5,574	5,541
72	5,508	5,475	5,443	5,410	5,378	5,345	5,313	5,280	5,248	5,215
73	5,183	5,151	5,118	5,086	5,054	5,022	4,989	4,957	4,925	4,893
74	4,861	4,829	4,797	4,765	4,733	4,701	4,670	4,638	4,606	4,574
75	4,543	4,511	4,479	4,448	4,416	4,384	4,353	4,321	4,290	4,258
76	4,227	4,196	4,164	4,133	4,101	4,070	4,039	4,008	3,976	3,945
77	3,914	3,883	3,852	3,821	3,790	3,759	3,728	3,696	3,666	3,635
78	3,604	3,573	3,542	3,511	3,480	3,449	3,418	3,388	3,357	3,326
79	3,296	3,265	3,234	3,203	3,173	3,142	3,112	3,081	3,051	3,020
80	2,989	2,959	2,928	2,898	2,868	2,837	2,807	2,776	2,746	2,716
81	2,685	2,655	2,625	2,594	2,564	2,534	2,504	2,473	2,443	2,413
82	2,383	2,353	2,322	2,292	2,262	2,232	2,202	2,172	2,142	2,112
83	2,082	2,052	2,022	1,992	1,962	1,932	1,902	1,872	1,842	1,812
84	1,782	1,752	1,722	1,692	1,662	1,633	1,603	1,573	1,543	1,513
85	1,483	1,454	1,424	1,394	1,364	1,334	1,305	1,275	1,245	1,215
86	1,186	1,156	1,126	1,096	1,067	1,037	1,007	978	948	918
87	889	859	829	800	770	740	711	681	651	622
88	592	562	533	503	474	444	414	385	355	326
89	296	266	237	207	178	148	118	89	59	30

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 18,000 Meters (Ballistic Zone 15) (Computer Zone 24) (Fallout Zone 9)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	249, 321	244, 628	240, 072	235, 649	231, 355	227, 185	223, 136	219, 202	215, 382	211, 670
4	208, 062	204, 557	201, 148	197, 835	194, 613	191, 478	188, 429	185, 463	182, 575	179, 765
5	177, 028	174, 364	171, 768	169, 239	166, 775	164, 373	162, 032	159, 749	157, 523	155, 351
6	153, 232	151, 164	149, 145	147, 175	145, 250	143, 371	141, 535	139, 741	137, 987	136, 274
7	134, 598	132, 960	131, 357	129, 789	128, 256	126, 755	125, 285	123, 847	122, 439	121, 059
8	119, 709	118, 385	117, 088	115, 817	114, 572	113, 350	112, 153	110, 978	109, 827	108, 697
9	107, 588	106, 500	105, 433	104, 385	103, 356	102, 345	101, 353	100, 379	99, 421	98, 481
10	97, 557	96, 649	95, 756	94, 879	94, 016	93, 168	92, 334	91, 513	90, 706	89, 913
11	89, 132	88, 363	87, 607	86, 862	86, 129	85, 408	84, 698	83, 998	83, 309	82, 631
12	81, 963	81, 305	80, 656	80, 017	79, 387	78, 766	78, 155	77, 552	76, 957	76, 371
13	75, 793	75, 223	74, 661	74, 106	73, 560	73, 029	72, 488	71, 963	71, 444	70, 933
14	70, 428	69, 930	69, 438	68, 953	68, 474	68, 001	67, 533	67, 072	66, 616	66, 166
15	65, 722	65, 283	64, 849	64, 420	63, 997	63, 578	63, 165	62, 756	62, 352	61, 953
16	61, 559	61, 169	60, 783	60, 402	60, 025	59, 652	59, 284	58, 919	58, 559	58, 202
17	57, 850	57, 501	57, 156	56, 815	56, 477	56, 143	55, 812	55, 485	55, 161	54, 841
18	54, 524	54, 210	53, 899	53, 592	53, 287	52, 986	52, 687	52, 392	52, 100	51, 810
19	51, 523	51, 239	50, 958	50, 679	50, 403	50, 130	49, 859	49, 591	49, 325	49, 062
20	48, 801	48, 543	48, 287	48, 033	47, 782	47, 533	47, 286	47, 041	46, 799	46, 559
21	46, 321	46, 084	45, 850	45, 618	45, 388	45, 160	44, 934	44, 710	44, 488	44, 267
22	44, 049	43, 832	43, 617	43, 404	43, 193	42, 983	42, 775	42, 569	42, 364	42, 161
23	41, 960	41, 760	41, 562	41, 366	41, 171	40, 977	40, 785	40, 595	40, 406	40, 218
24	40, 032	39, 847	39, 664	39, 482	39, 302	39, 122	38, 944	38, 768	38, 593	38, 419
25	38, 246	38, 075	37, 904	37, 735	37, 568	37, 401	37, 236	37, 072	36, 909	36, 747
26	36, 586	36, 426	36, 268	36, 110	35, 954	35, 799	35, 645	35, 491	35, 339	35, 188
27	35, 038	34, 889	34, 741	34, 594	34, 448	34, 303	34, 159	34, 015	33, 873	33, 732
28	33, 591	33, 451	33, 313	33, 175	33, 038	32, 902	32, 767	32, 632	32, 499	32, 366
29	32, 234	32, 103	31, 973	31, 843	31, 715	31, 587	31, 460	31, 333	31, 208	31, 083
30	30, 959	30, 835	30, 713	30, 591	30, 470	30, 349	30, 229	30, 110	29, 992	29, 874
31	29, 757	29, 640	29, 525	29, 410	29, 295	29, 181	29, 068	28, 956	28, 844	28, 733
32	28, 622	28, 512	28, 402	28, 293	28, 185	28, 078	27, 970	27, 861	27, 758	27, 653
33	27, 548	27, 443	27, 340	27, 236	27, 134	27, 032	26, 930	26, 829	26, 728	26, 628
34	26, 529	26, 430	26, 331	26, 233	26, 136	26, 039	25, 942	25, 846	25, 751	25, 656
35	25, 561	25, 467	25, 373	25, 280	25, 187	25, 095	25, 003	24, 911	24, 820	24, 730
36	24, 639	24, 550	24, 460	24, 371	24, 283	24, 195	24, 107	24, 020	23, 933	23, 847
37	23, 761	23, 675	23, 590	23, 505	23, 420	23, 336	23, 252	23, 169	23, 086	23, 003
38	22, 921	22, 839	22, 758	22, 677	22, 596	22, 515	22, 435	22, 355	22, 276	22, 197
39	22, 118	22, 040	21, 962	21, 884	21, 806	21, 729	21, 652	21, 576	21, 500	21, 424
40	21, 348	21, 273	21, 198	21, 124	21, 049	20, 975	20, 902	20, 828	20, 755	20, 682
41	20, 610	20, 538	20, 466	20, 394	20, 323	20, 252	20, 181	20, 110	20, 040	19, 970
42	19, 900	19, 831	19, 761	19, 693	19, 624	19, 555	19, 487	19, 419	19, 352	19, 284
43	19, 217	19, 150	19, 084	19, 017	18, 951	18, 885	18, 819	18, 754	18, 689	18, 624
44	18, 559	18, 494	18, 430	18, 366	18, 302	18, 239	18, 175	18, 112	18, 049	17, 987
45	17, 924	17, 862	17, 800	17, 738	17, 676	17, 615	17, 554	17, 493	17, 432	17, 371
46	17, 311	17, 250	17, 190	17, 131	17, 071	17, 012	16, 952	16, 893	16, 835	16, 776

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.



Table 2-1. Horizontal Distance (Meters), 18,000 Meters (Ballistic Zone 15)  
(Computer Zone 24) (Fallout Zone 9)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	16, 717	16, 659	16, 601	16, 543	16, 485	16, 428	16, 371	16, 314	16, 257	16, 200
48	16, 143	16, 087	16, 030	15, 974	15, 918	15, 863	15, 807	15, 752	15, 696	15, 641
49	15, 586	15, 532	15, 477	15, 423	15, 368	15, 314	15, 260	15, 207	15, 153	15, 100
50	15, 046	14, 993	14, 940	14, 887	14, 835	14, 782	14, 730	14, 677	14, 625	14, 573
51	14, 522	14, 470	14, 418	14, 367	14, 316	14, 265	14, 214	14, 163	14, 112	14, 062
52	14, 011	13, 961	13, 911	13, 861	13, 811	13, 762	13, 712	13, 663	13, 613	13, 564
53	13, 515	13, 466	13, 417	13, 369	13, 320	13, 272	13, 223	13, 175	13, 127	13, 079
54	13, 031	12, 984	12, 936	12, 888	12, 841	12, 794	12, 747	12, 700	12, 653	12, 606
55	12, 560	12, 513	12, 467	12, 420	12, 374	12, 328	12, 282	12, 236	12, 190	12, 145
56	12, 099	12, 054	12, 008	11, 963	11, 918	11, 873	11, 828	11, 783	11, 739	11, 694
57	11, 649	11, 605	11, 561	11, 517	11, 472	11, 428	11, 384	11, 341	11, 297	11, 253
58	11, 210	11, 166	11, 123	11, 080	11, 037	10, 994	10, 951	10, 908	10, 865	10, 822
59	10, 780	10, 737	10, 695	10, 652	10, 610	10, 568	10, 526	10, 484	10, 442	10, 400
60	10, 358	10, 316	10, 275	10, 233	10, 192	10, 151	10, 109	10, 068	10, 027	9, 986
61	9, 945	9, 904	9, 863	9, 823	9, 782	9, 742	9, 701	9, 661	9, 620	9, 580
62	9, 540	9, 500	9, 460	9, 420	9, 380	9, 340	9, 300	9, 261	9, 221	9, 182
63	9, 142	9, 103	9, 064	9, 024	8, 985	8, 946	8, 907	8, 868	8, 829	8, 790
64	8, 752	8, 713	8, 674	8, 636	8, 597	8, 559	8, 520	8, 482	8, 444	8, 405
65	8, 367	8, 329	8, 291	8, 253	8, 215	8, 178	8, 140	8, 102	8, 064	8, 027
66	7, 989	7, 952	7, 914	7, 877	7, 840	7, 802	7, 765	7, 728	7, 691	7, 654
67	7, 617	7, 580	7, 543	7, 506	7, 470	7, 433	7, 396	7, 360	7, 323	7, 287
68	7, 250	7, 214	7, 178	7, 141	7, 105	7, 069	7, 033	6, 997	6, 961	6, 925
69	6, 889	6, 853	6, 817	6, 781	6, 745	6, 710	6, 674	6, 638	6, 603	6, 567
70	6, 532	6, 496	6, 461	6, 426	6, 390	6, 355	6, 320	6, 285	6, 250	6, 214
71	6, 179	6, 144	6, 109	6, 075	6, 040	6, 005	5, 970	5, 935	5, 901	5, 866
72	5, 831	5, 797	5, 762	5, 728	5, 693	5, 659	5, 624	5, 590	5, 555	5, 521
73	5, 487	5, 453	5, 419	5, 384	5, 350	5, 316	5, 282	5, 248	5, 214	5, 180
74	5, 146	5, 112	5, 079	5, 045	5, 011	4, 977	4, 944	4, 910	4, 876	4, 843
75	4, 809	4, 775	4, 742	4, 708	4, 675	4, 642	4, 608	4, 575	4, 541	4, 508
76	4, 475	4, 442	4, 408	4, 375	4, 342	4, 309	4, 276	4, 243	4, 210	4, 177
77	4, 144	4, 111	4, 078	4, 045	4, 012	3, 979	3, 946	3, 913	3, 881	3, 848
78	3, 815	3, 782	3, 750	3, 717	3, 684	3, 652	3, 619	3, 586	3, 554	3, 521
79	3, 489	3, 456	3, 424	3, 391	3, 359	3, 327	3, 294	3, 262	3, 229	3, 197
80	3, 165	3, 133	3, 100	3, 068	3, 036	3, 004	2, 971	2, 939	2, 907	2, 875
81	2, 843	2, 811	2, 779	2, 747	2, 714	2, 682	2, 650	2, 618	2, 586	2, 554
82	2, 523	2, 491	2, 459	2, 427	2, 395	2, 363	2, 331	2, 299	2, 267	2, 236
83	2, 204	2, 172	2, 140	2, 109	2, 077	2, 045	2, 013	1, 982	1, 950	1, 918
84	1, 887	1, 855	1, 823	1, 792	1, 760	1, 728	1, 697	1, 665	1, 633	1, 602
85	1, 570	1, 539	1, 507	1, 476	1, 444	1, 413	1, 381	1, 350	1, 318	1, 287
86	1, 255	1, 224	1, 192	1, 161	1, 129	1, 098	1, 066	1, 035	1, 004	972
87	941	909	878	846	815	784	752	721	690	658
88	627	595	564	533	501	470	439	407	376	345
89	313	282	251	219	188	157	125	94	63	31

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 19,000 Meters (Computer Zone 25)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	260, 077	255, 268	250, 596	246, 058	241, 649	237, 365	233, 201	229, 155	225, 222	221, 398
4	217, 680	214, 064	210, 547	207, 126	203, 797	200, 558	197, 405	194, 336	191, 347	188, 436
5	185, 601	182, 839	180, 147	177, 524	174, 967	172, 473	170, 041	167, 669	165, 355	163, 097
6	160, 893	158, 741	156, 640	154, 588	152, 584	150, 626	148, 713	146, 843	145, 015	143, 228
7	141, 480	139, 770	138, 098	136, 461	134, 860	133, 292	131, 757	130, 255	128, 783	127, 341
8	125, 929	124, 545	123, 189	121, 859	120, 556	119, 278	118, 025	116, 796	115, 590	114, 407
9	113, 246	112, 106	110, 988	109, 890	108, 812	107, 753	106, 713	105, 692	104, 688	103, 702
10	102, 734	101, 781	100, 845	99, 925	99, 020	98, 130	97, 255	96, 394	95, 547	94, 714
11	93, 894	93, 087	92, 293	91, 512	90, 742	89, 985	89, 239	88, 504	87, 781	87, 068
12	86, 366	85, 675	84, 993	84, 322	83, 660	83, 008	82, 365	81, 731	81, 106	80, 490
13	79, 883	79, 284	78, 693	78, 110	77, 535	76, 968	76, 408	75, 856	75, 311	74, 773
14	74, 242	73, 718	73, 201	72, 690	72, 186	71, 689	71, 197	70, 712	70, 232	69, 759
15	69, 291	68, 829	68, 372	67, 921	67, 476	67, 036	66, 600	66, 170	65, 745	65, 325
16	64, 910	64, 499	64, 094	63, 692	63, 296	62, 903	62, 515	62, 132	61, 752	61, 377
17	61, 005	60, 638	60, 275	59, 915	59, 560	59, 208	58, 860	58, 515	58, 174	57, 837
18	57, 503	57, 172	56, 845	56, 521	56, 201	55, 883	55, 569	55, 258	54, 950	54, 645
19	54, 342	54, 043	53, 747	53, 453	53, 163	52, 875	52, 590	52, 307	52, 027	51, 750
20	51, 475	51, 203	50, 933	50, 666	50, 401	50, 139	49, 879	49, 621	49, 365	49, 112
21	48, 861	48, 612	48, 366	48, 121	47, 879	47, 638	47, 400	47, 164	46, 930	46, 697
22	46, 467	46, 239	46, 012	45, 788	45, 565	45, 344	45, 125	44, 907	44, 692	44, 478
23	44, 266	44, 055	43, 846	43, 639	43, 433	43, 230	43, 027	42, 826	42, 627	42, 429
24	42, 233	42, 038	41, 845	41, 653	41, 463	41, 274	41, 087	40, 900	40, 716	40, 532
25	40, 350	40, 170	39, 990	39, 812	39, 635	39, 459	39, 285	39, 112	38, 940	38, 769
26	38, 600	38, 432	38, 265	38, 099	37, 934	37, 770	37, 607	37, 446	37, 286	37, 126
27	36, 968	36, 811	36, 655	36, 500	36, 346	36, 192	36, 040	35, 889	35, 739	35, 590
28	35, 442	35, 295	35, 149	35, 003	34, 859	34, 715	34, 573	34, 431	34, 290	34, 150
29	34, 011	33, 873	33, 735	33, 599	33, 463	33, 328	33, 194	33, 061	32, 929	32, 797
30	32, 666	32, 536	32, 406	32, 278	32, 150	32, 023	31, 897	31, 771	31, 646	31, 522
31	31, 398	31, 276	31, 154	31, 032	30, 911	30, 791	30, 672	30, 553	30, 435	30, 318
32	30, 201	30, 085	29, 970	29, 855	29, 741	29, 627	29, 514	29, 402	29, 290	29, 179
33	29, 068	28, 958	28, 849	28, 740	28, 632	28, 524	28, 417	28, 310	28, 204	28, 099
34	27, 994	27, 889	27, 785	27, 682	27, 579	27, 477	27, 375	27, 274	27, 173	27, 072
35	26, 973	26, 873	26, 774	26, 676	26, 578	26, 481	26, 384	26, 287	26, 191	26, 096
36	26, 000	25, 906	25, 811	25, 718	25, 624	25, 531	25, 439	25, 347	25, 255	25, 164
37	25, 073	24, 983	24, 893	24, 803	24, 714	24, 626	24, 537	24, 449	24, 362	24, 275
38	24, 188	24, 101	24, 015	23, 930	23, 844	23, 759	23, 675	23, 591	23, 507	23, 424
39	23, 340	23, 258	23, 175	23, 093	23, 012	22, 930	22, 849	22, 768	22, 688	22, 608
40	22, 528	22, 449	22, 370	22, 291	22, 213	22, 135	22, 057	21, 980	21, 903	21, 826
41	27, 749	21, 673	21, 597	21, 522	21, 446	21, 371	21, 296	21, 222	21, 148	21, 074
42	21, 000	20, 927	20, 854	20, 781	20, 709	20, 637	20, 565	20, 493	20, 422	20, 351
43	20, 280	20, 209	20, 139	20, 069	19, 999	19, 929	19, 860	19, 791	19, 722	19, 654
44	19, 585	19, 517	19, 449	19, 382	19, 315	19, 247	19, 181	19, 114	19, 048	18, 981
45	18, 915	18, 850	18, 784	18, 719	18, 654	18, 589	18, 524	18, 460	18, 396	18, 332
46	18, 268	18, 205	18, 141	18, 078	18, 015	17, 953	17, 890	17, 828	17, 766	17, 704

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 19,000 Meters (Computer Zone 25)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	17,642	17,581	17,520	17,458	17,398	17,337	17,276	17,216	17,156	17,096
48	17,036	16,977	16,917	16,858	16,799	16,740	16,682	16,623	16,565	16,507
49	16,449	16,391	16,333	16,276	16,219	16,162	16,105	16,048	15,992	15,935
50	15,879	15,823	15,767	15,711	15,655	15,600	15,545	15,490	15,435	15,380
51	15,325	15,271	15,216	15,162	15,108	15,054	15,000	14,947	14,893	14,840
52	14,787	14,734	14,681	14,628	14,576	14,523	14,471	14,419	14,367	14,315
53	14,263	14,211	14,160	14,108	14,057	14,006	13,955	13,904	13,853	13,803
54	13,752	13,702	13,652	13,602	13,552	13,502	13,452	13,403	13,353	13,304
55	13,255	13,206	13,157	13,108	13,059	13,010	12,962	12,913	12,865	12,817
56	12,769	12,721	12,673	12,625	12,578	12,530	12,483	12,436	12,388	12,341
57	12,294	12,247	12,201	12,154	12,107	12,061	12,015	11,968	11,922	11,876
58	11,830	11,784	11,739	11,693	11,648	11,602	11,557	11,511	11,466	11,421
59	11,376	11,331	11,287	11,242	11,197	11,153	11,108	11,064	11,020	10,976
60	10,932	10,888	10,844	10,800	10,756	10,713	10,669	10,626	10,582	10,539
61	10,496	10,453	10,410	10,367	10,324	10,281	10,238	10,196	10,153	10,111
62	10,068	10,026	9,984	9,941	9,899	9,857	9,815	9,774	9,732	9,690
63	9,648	9,607	9,565	9,524	9,483	9,441	9,400	9,359	9,318	9,277
64	9,236	9,195	9,154	9,114	9,073	9,033	8,992	8,952	8,911	8,871
65	8,831	8,790	8,750	8,710	8,670	8,630	8,591	8,551	8,511	8,471
66	8,432	8,392	8,353	8,313	8,274	8,235	8,195	8,156	8,117	8,078
67	8,039	8,000	7,961	7,922	7,883	7,845	7,806	7,767	7,729	7,690
68	7,652	7,613	7,575	7,537	7,499	7,460	7,422	7,384	7,346	7,308
69	7,270	7,232	7,194	7,157	7,119	7,081	7,044	7,006	6,968	6,931
70	6,894	6,856	6,819	6,781	6,744	6,707	6,670	6,633	6,596	6,559
71	6,522	6,485	6,448	6,411	6,374	6,337	6,301	6,264	6,227	6,191
72	6,154	6,118	6,081	6,045	6,008	5,972	5,936	5,899	5,863	5,827
73	5,791	5,755	5,719	5,683	5,647	5,611	5,575	5,539	5,503	5,467
74	5,431	5,396	5,360	5,324	5,289	5,253	5,217	5,182	5,146	5,111
75	5,075	5,040	5,005	4,969	4,934	4,899	4,863	4,828	4,793	4,758
76	4,723	4,688	4,653	4,618	4,583	4,548	4,513	4,478	4,443	4,408
77	4,373	4,338	4,304	4,269	4,234	4,199	4,165	4,130	4,095	4,061
78	4,026	3,992	3,957	3,923	3,888	3,854	3,819	3,785	3,751	3,716
79	3,682	3,648	3,613	3,579	3,545	3,511	3,477	3,442	3,408	3,374
80	3,340	3,306	3,272	3,238	3,204	3,170	3,136	3,102	3,068	3,034
81	3,000	2,966	2,933	2,899	2,865	2,831	2,797	2,763	2,730	2,696
82	2,662	2,629	2,595	2,561	2,528	2,494	2,460	2,427	2,393	2,359
83	2,326	2,292	2,259	2,225	2,192	2,158	2,125	2,091	2,058	2,024
84	1,991	1,958	1,924	1,891	1,857	1,824	1,791	1,757	1,724	1,691
85	1,657	1,624	1,591	1,557	1,524	1,491	1,458	1,424	1,391	1,358
86	1,325	1,291	1,258	1,225	1,192	1,159	1,125	1,092	1,059	1,026
87	993	960	926	893	860	827	794	761	728	695
88	662	628	595	562	529	496	463	430	397	364
89	331	298	265	231	198	165	132	99	66	33

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 20,000 Meters (Computer Zone 26) (Fallout Zone 10)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	270, 637	265, 719	260, 938	256, 290	251, 772	247, 379	243, 107	238, 952	234, 911	230, 981
4	227, 157	223, 436	219, 815	216, 290	212, 859	209, 519	206, 266	203, 097	200, 011	197, 004
5	194, 073	191, 217	188, 433	185, 718	183, 070	180, 487	177, 968	175, 509	173, 110	170, 768
6	168, 481	166, 248	164, 067	161, 936	159, 855	157, 820	155, 831	153, 887	151, 986	150, 127
7	148, 309	146, 530	144, 789	143, 085	141, 417	139, 784	138, 185	136, 619	135, 085	133, 582
8	132, 110	130, 666	129, 252	127, 865	126, 505	125, 171	123, 863	122, 580	121, 321	120, 086
9	118, 873	117, 683	116, 515	115, 368	114, 241	113, 135	112, 048	110, 980	109, 931	108, 900
10	107, 887	106, 891	105, 912	104, 949	104, 002	103, 071	102, 156	101, 255	100, 368	99, 496
11	98, 638	97, 794	96, 963	96, 144	95, 339	94, 545	93, 764	92, 995	92, 237	91, 491
12	90, 755	90, 031	89, 317	88, 613	87, 920	87, 236	86, 562	85, 898	85, 243	84, 597
13	83, 961	83, 332	82, 713	82, 102	81, 499	80, 904	80, 317	79, 738	79, 167	78, 603
14	78, 046	77, 497	76, 954	76, 418	75, 890	75, 367	74, 852	74, 342	73, 840	73, 343
15	72, 852	72, 367	71, 888	71, 415	70, 947	70, 485	70, 028	69, 577	69, 131	68, 690
16	68, 254	67, 823	67, 397	66, 976	66, 559	66, 148	65, 740	65, 337	64, 939	64, 545
17	64, 155	63, 769	63, 388	63, 011	62, 637	62, 268	61, 902	61, 540	61, 182	60, 828
18	60, 477	60, 130	59, 786	59, 446	59, 109	58, 776	58, 446	58, 119	57, 795	57, 475
19	57, 157	56, 843	56, 532	56, 223	55, 918	55, 616	55, 316	55, 019	54, 725	54, 434
20	54, 145	53, 859	53, 576	53, 295	53, 017	52, 741	52, 467	52, 197	51, 928	51, 662
21	51, 398	51, 137	50, 878	50, 621	50, 366	50, 113	49, 863	49, 615	49, 369	49, 124
22	48, 882	48, 642	48, 404	48, 168	47, 934	47, 702	47, 471	47, 243	47, 016	46, 791
23	46, 508	46, 347	46, 128	45, 910	45, 694	45, 479	45, 267	45, 055	44, 846	44, 638
24	44, 432	44, 227	44, 024	43, 822	43, 622	43, 424	43, 227	43, 031	42, 837	42, 644
25	42, 452	42, 262	42, 074	41, 886	41, 700	41, 516	41, 333	41, 151	40, 970	40, 790
26	40, 612	40, 435	40, 259	40, 085	39, 912	39, 739	39, 569	39, 399	39, 230	39, 063
27	38, 896	38, 731	38, 567	38, 404	38, 242	38, 081	37, 921	37, 762	37, 604	37, 447
28	37, 291	37, 137	36, 983	36, 830	36, 678	36, 527	36, 377	36, 228	36, 080	35, 933
29	35, 787	35, 641	35, 497	35, 353	35, 210	35, 069	34, 928	34, 787	34, 648	34, 510
30	34, 372	34, 235	34, 099	33, 964	33, 829	33, 696	33, 563	33, 431	33, 299	33, 169
31	33, 039	32, 910	32, 781	32, 654	32, 527	32, 400	32, 275	32, 150	32, 026	31, 902
32	31, 780	31, 657	31, 536	31, 415	31, 295	31, 176	31, 057	30, 939	30, 821	30, 704
33	30, 588	30, 472	30, 357	30, 242	30, 129	30, 015	29, 902	29, 790	29, 679	29, 568
34	29, 457	29, 347	29, 238	29, 129	29, 021	28, 914	28, 806	28, 700	28, 594	28, 488
35	28, 383	28, 279	28, 175	28, 071	27, 968	27, 866	27, 764	27, 662	27, 561	27, 461
36	27, 361	27, 261	27, 162	27, 063	26, 965	26, 867	26, 770	26, 673	26, 577	26, 481
37	26, 385	26, 290	26, 196	26, 101	26, 008	25, 914	25, 821	25, 729	25, 637	25, 545
38	25, 454	25, 363	25, 272	25, 182	25, 092	25, 003	24, 914	24, 826	24, 737	24, 650
39	24, 562	24, 475	24, 388	24, 302	24, 216	24, 131	24, 045	23, 960	23, 876	23, 792
40	23, 708	23, 624	23, 541	23, 458	23, 376	23, 294	23, 212	23, 130	23, 049	22, 969
41	22, 888	22, 808	22, 728	22, 648	22, 569	22, 490	22, 412	22, 333	22, 255	22, 178
42	22, 100	22, 023	21, 946	21, 870	21, 793	21, 717	21, 642	21, 566	21, 491	21, 416
43	21, 342	21, 268	21, 194	21, 120	21, 046	20, 973	20, 900	20, 828	20, 755	20, 683
44	20, 611	20, 540	20, 468	20, 397	20, 326	20, 256	20, 185	20, 115	20, 045	19, 976
45	19, 906	19, 837	19, 768	19, 700	19, 631	19, 563	19, 495	19, 427	19, 360	19, 292
46	19, 225	19, 158	19, 092	19, 025	18, 959	18, 893	18, 828	18, 762	18, 697	18, 632

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 20,000 Meters (Computer Zone 26) (Fallout Zone 10)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	18,567	18,502	18,437	18,373	18,309	18,245	18,182	18,118	18,055	17,992
48	17,929	17,866	17,804	17,742	17,679	17,618	17,556	17,494	17,433	17,372
49	17,311	17,250	17,189	17,129	17,069	17,009	16,949	16,889	16,830	16,770
50	16,711	16,652	16,593	16,535	16,476	16,418	16,359	16,301	16,244	16,186
51	16,128	16,071	16,014	15,957	15,900	15,843	15,787	15,730	15,674	15,618
52	15,562	15,506	15,450	15,395	15,340	15,284	15,229	15,174	15,120	15,065
53	15,011	14,956	14,902	14,848	14,794	14,740	14,687	14,633	14,580	14,527
54	14,473	14,420	14,368	14,315	14,262	14,210	14,158	14,105	14,053	14,001
55	13,950	13,898	13,846	13,795	13,744	13,692	13,641	13,590	13,540	13,489
56	13,438	13,388	13,338	13,287	13,237	13,187	13,137	13,088	13,038	12,988
57	12,939	12,890	12,840	12,791	12,742	12,693	12,645	12,596	12,547	12,499
58	12,451	12,402	12,354	12,306	12,258	12,210	12,163	12,115	12,068	12,020
59	11,973	11,926	11,878	11,831	11,784	11,738	11,691	11,644	11,598	11,551
60	11,505	11,459	11,412	11,366	11,320	11,274	11,229	11,183	11,137	11,092
61	11,046	11,001	10,955	10,910	10,865	10,820	10,775	10,730	10,686	10,641
62	10,596	10,552	10,507	10,463	10,419	10,374	10,330	10,286	10,242	10,198
63	10,154	10,111	10,067	10,023	9,980	9,937	9,893	9,850	9,807	9,764
64	9,720	9,678	9,635	9,592	9,549	9,506	9,464	9,421	9,379	9,336
65	9,294	9,252	9,209	9,167	9,125	9,083	9,041	8,999	8,957	8,916
66	8,874	8,832	8,791	8,749	8,708	8,666	8,625	8,584	8,543	8,502
67	8,461	8,420	8,379	8,338	8,297	8,256	8,215	8,175	8,134	8,094
68	8,053	8,013	7,972	7,932	7,892	7,852	7,811	7,771	7,731	7,691
69	7,651	7,612	7,572	7,532	7,492	7,453	7,413	7,373	7,334	7,295
70	7,255	7,216	7,176	7,137	7,098	7,059	7,020	6,981	6,942	6,903
71	6,864	6,825	6,786	6,747	6,708	6,670	6,631	6,593	6,554	6,515
72	6,477	6,439	6,400	6,362	6,324	6,285	6,247	6,209	6,171	6,133
73	6,095	6,057	6,019	5,981	5,943	5,905	5,867	5,829	5,792	5,754
74	5,716	5,679	5,641	5,603	5,566	5,528	5,491	5,454	5,416	5,379
75	5,342	5,304	5,267	5,230	5,193	5,156	5,119	5,081	5,044	5,007
76	4,970	4,934	4,897	4,860	4,823	4,786	4,749	4,713	4,676	4,639
77	4,603	4,566	4,529	4,493	4,456	4,420	4,383	4,347	4,310	4,274
78	4,238	4,201	4,165	4,129	4,092	4,056	4,020	3,984	3,947	3,911
79	3,875	3,839	3,803	3,767	3,731	3,695	3,659	3,623	3,587	3,551
80	3,515	3,479	3,444	3,408	3,372	3,336	3,300	3,265	3,229	3,193
81	3,158	3,122	3,086	3,051	3,015	2,980	2,944	2,908	2,873	2,837
82	2,802	2,766	2,731	2,696	2,660	2,625	2,589	2,554	2,519	2,483
83	2,448	2,413	2,377	2,342	2,307	2,272	2,236	2,201	2,166	2,131
84	2,095	2,060	2,025	1,990	1,955	1,920	1,885	1,850	1,814	1,779
85	1,744	1,709	1,674	1,639	1,604	1,569	1,534	1,499	1,464	1,429
86	1,394	1,359	1,324	1,289	1,254	1,219	1,184	1,150	1,115	1,080
87	1,045	1,010	975	940	905	870	836	801	766	731
88	696	661	627	592	557	522	487	452	418	383
89	348	313	278	244	209	174	139	104	70	35

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 22,000 Meters (Fallout Zone 11)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	291,212	286,091	281,107	276,256	271,534	266,938	262,464	258,107	253,865	249,734
4	245,711	241,793	237,975	234,256	230,632	227,101	223,658	220,303	217,031	213,841
5	210,729	207,694	204,733	201,843	199,023	196,271	193,583	190,959	188,397	185,894
6	183,448	181,059	178,724	176,441	174,210	172,028	169,894	167,807	165,765	163,767
7	161,812	159,898	158,024	156,190	154,394	152,634	150,910	149,222	147,567	145,945
8	144,355	142,796	141,268	139,769	138,299	136,857	135,442	134,053	132,691	131,353
9	130,040	128,750	127,484	126,241	125,020	123,820	122,641	121,482	120,344	119,225
10	118,124	117,043	115,979	114,933	113,905	112,893	111,897	110,918	109,954	109,006
11	108,072	107,153	106,249	105,358	104,481	103,617	102,766	101,929	101,103	100,290
12	99,489	98,699	97,921	97,154	96,398	95,653	94,918	94,194	93,480	92,775
13	92,080	91,395	90,719	90,052	89,394	88,745	88,104	87,472	86,848	86,232
14	85,624	85,024	84,432	83,846	83,269	82,698	82,135	81,578	81,029	80,486
15	79,949	79,419	78,896	78,378	77,867	77,362	76,862	76,369	75,881	75,399
16	74,922	74,450	73,984	73,523	73,068	72,617	72,171	71,731	71,295	70,863
17	70,437	70,015	69,597	69,184	68,775	68,371	67,970	67,574	67,182	66,794
18	66,410	66,030	65,654	65,281	64,912	64,547	64,185	63,827	63,473	63,122
19	62,774	62,430	62,089	61,751	61,416	61,085	60,756	60,431	60,109	59,790
20	59,473	59,160	58,849	58,541	58,236	57,934	57,635	57,338	57,043	56,752
21	56,462	56,176	55,892	55,610	55,331	55,054	54,779	54,507	54,237	53,969
22	53,704	53,441	53,180	52,921	52,664	52,409	52,156	51,906	51,657	51,411
23	51,166	50,923	50,683	50,444	50,207	49,971	49,738	49,506	49,277	49,049
24	48,822	48,598	48,375	48,154	47,934	47,716	47,500	47,285	47,072	46,860
25	46,650	46,442	46,235	46,029	45,825	45,622	45,421	45,222	45,023	44,826
26	44,631	44,436	44,244	44,052	43,862	43,673	43,485	43,299	43,114	42,930
27	42,747	42,566	42,385	42,206	42,029	41,852	41,676	41,502	41,329	41,157
28	40,985	40,815	40,647	40,479	40,312	40,146	39,982	39,818	39,655	39,494
29	39,333	39,174	39,015	38,857	38,701	38,545	38,390	38,236	38,083	37,931
30	37,780	37,630	37,480	37,332	37,184	37,037	36,891	36,746	36,602	36,458
31	36,316	36,174	36,033	35,893	35,753	35,615	35,477	35,340	35,203	35,068
32	34,933	34,799	34,665	34,533	34,401	34,269	34,139	34,009	33,880	33,751
33	33,624	33,497	33,370	33,244	33,119	32,995	32,871	32,748	32,625	32,503
34	32,382	32,261	32,141	32,022	31,903	31,785	31,667	31,550	31,433	31,317
35	31,202	31,087	30,973	30,859	30,746	30,663	30,521	30,410	30,299	30,188
36	30,078	29,969	29,860	29,752	29,644	29,536	29,429	29,323	29,217	29,112
37	29,007	28,902	28,798	28,695	28,592	28,489	28,387	28,285	28,184	28,083
38	27,983	27,883	27,784	27,685	27,586	27,488	27,390	27,293	27,196	27,100
39	27,003	26,908	26,813	26,718	26,623	26,529	26,436	26,342	26,249	26,157
40	26,065	25,973	25,882	25,791	25,700	25,610	25,520	25,430	25,341	25,252
41	25,164	25,076	24,988	24,900	24,813	24,727	24,640	24,554	24,468	24,383
42	24,298	24,213	24,129	24,045	23,961	23,877	23,794	23,711	23,629	23,546
43	23,465	23,383	23,302	23,221	23,140	23,059	22,979	22,899	22,820	22,740
44	22,661	22,583	22,504	22,426	22,348	22,271	22,193	22,116	22,039	21,963
45	21,887	21,811	21,735	21,659	21,584	21,509	21,434	21,360	21,286	21,212
46	21,138	21,065	20,991	20,918	20,846	20,773	20,701	20,629	20,557	20,486

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 22,000 Meters (Fallout Zone 11)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	20,414	20,343	20,272	20,202	20,131	20,061	19,991	19,921	19,852	19,782
48	19,713	19,644	19,576	19,507	19,439	19,371	19,303	19,235	19,168	19,101
49	19,034	18,967	18,900	18,834	18,768	18,702	18,636	18,570	18,505	18,439
50	18,374	18,310	18,245	18,180	18,116	18,052	17,988	17,924	17,861	17,797
51	17,734	17,671	17,608	17,545	17,483	17,420	17,358	17,296	17,234	17,173
52	17,111	17,050	16,989	16,928	16,867	16,806	16,746	16,685	16,625	16,565
53	16,505	16,445	16,386	16,326	16,267	16,208	16,149	16,090	16,031	15,973
54	15,914	15,856	15,798	15,740	15,682	15,625	15,567	15,510	15,453	15,396
55	15,339	15,282	15,225	15,169	15,112	15,056	15,000	14,944	14,888	14,832
56	14,777	14,721	14,666	14,610	14,555	14,500	14,446	14,391	14,336	14,282
57	14,227	14,173	14,119	14,065	14,011	13,958	13,904	13,850	13,797	13,744
58	13,691	13,638	13,585	13,532	13,479	13,427	13,374	13,322	13,269	13,217
59	13,165	13,113	13,061	13,010	12,958	12,907	12,855	12,804	12,753	12,702
60	12,651	12,600	12,549	12,498	12,448	12,397	12,347	12,297	12,246	12,196
61	12,146	12,096	12,047	11,997	11,947	11,898	11,848	11,799	11,750	11,701
62	11,652	11,603	11,554	11,505	11,456	11,408	11,359	11,311	11,262	11,214
63	11,166	11,118	11,070	11,022	10,974	10,926	10,879	10,831	10,784	10,736
64	10,689	10,642	10,594	10,547	10,500	10,453	10,406	10,360	10,313	10,266
65	10,220	10,173	10,127	10,080	10,034	9,988	9,942	9,896	9,850	9,804
66	9,758	9,712	9,667	9,621	9,575	9,530	9,484	9,439	9,394	9,349
67	9,303	9,258	9,213	9,168	9,123	9,079	9,034	8,989	8,945	8,900
68	8,855	8,811	8,767	8,722	8,678	8,634	8,590	8,546	8,502	8,458
69	8,414	8,370	8,326	8,282	8,239	8,195	8,152	8,108	8,065	8,021
70	7,978	7,935	7,891	7,848	7,805	7,762	7,719	7,676	7,633	7,590
71	7,548	7,505	7,462	7,419	7,377	7,334	7,292	7,249	7,207	7,165
72	7,122	7,080	7,038	6,996	6,954	6,912	6,869	6,828	6,786	6,744
73	6,702	6,660	6,618	6,577	6,535	6,493	6,452	6,410	6,369	6,327
74	6,286	6,244	6,203	6,162	6,121	6,079	6,038	5,997	5,956	5,915
75	5,874	5,833	5,792	5,751	5,710	5,669	5,629	5,588	5,547	5,506
76	5,466	5,425	5,385	5,344	5,304	5,263	5,223	5,182	5,142	5,101
77	5,061	5,021	4,981	4,940	4,900	4,860	4,820	4,780	4,740	4,700
78	4,660	4,620	4,580	4,540	4,500	4,460	4,420	4,381	4,341	4,301
79	4,261	4,222	4,182	4,142	4,103	4,063	4,024	3,984	3,945	3,905
80	3,866	3,826	3,787	3,747	3,708	3,669	3,629	3,590	3,551	3,512
81	3,472	3,433	3,394	3,355	3,316	3,276	3,237	3,198	3,159	3,120
82	3,081	3,042	3,003	2,964	2,925	2,886	2,847	2,808	2,770	2,731
83	2,692	2,653	2,614	2,575	2,537	2,498	2,459	2,420	2,382	2,343
84	2,304	2,266	2,227	2,188	2,150	2,111	2,072	2,034	1,995	1,957
85	1,918	1,880	1,841	1,802	1,764	1,725	1,687	1,648	1,610	1,572
86	1,533	1,495	1,456	1,418	1,379	1,341	1,303	1,264	1,226	1,187
87	1,149	1,111	1,072	1,034	996	957	919	881	842	804
88	766	727	689	651	612	574	536	498	459	421
89	383	344	306	268	230	191	153	115	77	38

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 24,000 Meters (Fallout Zone 12)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	311, 117	305, 812	300, 644	295, 608	290, 700	285, 919	281, 258	276, 717	272, 290	267, 975
4	263, 768	259, 667	255, 668	251, 769	247, 966	244, 257	240, 638	237, 108	233, 663	230, 302
5	227, 020	223, 817	220, 690	217, 637	214, 655	211, 742	208, 896	206, 116	203, 399	200, 744
6	198, 148	195, 610	193, 128	190, 701	188, 328	186, 005	183, 733	181, 509	179, 332	177, 202
7	175, 116	173, 073	171, 072	169, 113	167, 193	165, 312	163, 468	161, 661	159, 890	158, 153
8	156, 450	154, 780	153, 142	151, 535	149, 958	148, 411	146, 892	145, 402	143, 938	142, 502
9	141, 091	139, 705	138, 344	137, 007	135, 694	134, 403	133, 134	131, 887	130, 662	129, 457
10	128, 272	127, 107	125, 961	124, 834	123, 725	122, 634	121, 561	120, 504	119, 465	118, 442
11	117, 434	116, 443	115, 466	114, 505	113, 558	112, 625	111, 706	110, 801	109, 909	109, 031
12	108, 165	107, 311	106, 470	105, 641	104, 824	104, 018	103, 223	102, 440	101, 667	100, 905
13	100, 153	99, 412	98, 680	97, 958	97, 246	96, 543	95, 850	95, 165	94, 489	93, 822
14	93, 164	92, 514	91, 872	91, 238	90, 612	89, 994	89, 383	88, 780	88, 184	87, 595
15	87, 014	86, 439	85, 872	85, 311	84, 756	84, 208	83, 667	83, 131	82, 602	82, 079
16	81, 562	81, 051	80, 545	80, 045	79, 550	79, 061	78, 578	78, 099	77, 626	77, 158
17	76, 695	76, 237	75, 783	75, 335	74, 891	74, 452	74, 017	73, 587	73, 161	72, 740
18	72, 323	71, 910	71, 501	71, 097	70, 696	70, 299	69, 907	69, 518	69, 132	68, 751
19	68, 373	67, 999	67, 629	67, 261	66, 898	66, 538	66, 181	65, 827	65, 477	65, 130
20	64, 786	64, 446	64, 108	63, 773	63, 442	63, 113	62, 788	62, 465	62, 145	61, 828
21	61, 513	61, 202	60, 893	60, 586	60, 283	59, 982	59, 683	59, 387	59, 093	58, 802
22	58, 514	58, 227	57, 943	57, 662	57, 382	57, 105	56, 831	56, 558	56, 288	56, 019
23	55, 753	55, 489	55, 227	54, 967	54, 709	54, 453	54, 200	53, 948	53, 698	53, 449
24	53, 203	52, 959	52, 716	52, 476	52, 237	52, 000	51, 764	51, 530	51, 299	51, 068
25	50, 840	50, 613	50, 387	50, 164	49, 942	49, 721	49, 502	49, 285	49, 069	48, 854
26	48, 642	48, 430	48, 220	48, 012	47, 805	47, 599	47, 395	47, 192	46, 990	46, 790
27	46, 591	46, 394	46, 198	46, 003	45, 809	45, 617	45, 425	45, 236	45, 047	44, 859
28	44, 673	44, 488	44, 304	44, 122	43, 940	43, 760	43, 580	43, 402	43, 225	43, 049
29	42, 874	42, 700	42, 528	42, 356	42, 185	42, 016	41, 847	41, 679	41, 513	41, 347
30	41, 182	41, 019	40, 856	40, 694	40, 534	40, 374	40, 215	40, 057	39, 900	39, 743
31	39, 588	39, 433	39, 280	39, 127	38, 975	38, 824	38, 674	38, 525	38, 376	38, 228
32	38, 082	37, 935	37, 790	37, 646	37, 502	37, 359	37, 217	37, 075	36, 935	36, 795
33	36, 656	36, 517	36, 379	36, 242	36, 106	35, 970	35, 835	35, 701	35, 568	35, 435
34	35, 303	35, 171	35, 040	34, 910	34, 781	34, 652	34, 524	34, 396	34, 269	34, 143
35	34, 017	33, 892	33, 767	33, 644	33, 520	33, 398	33, 276	33, 154	33, 033	32, 913
36	32, 793	32, 674	32, 555	32, 437	32, 319	32, 202	32, 086	31, 970	31, 854	31, 740
37	31, 625	31, 511	31, 398	31, 285	31, 173	31, 061	30, 950	30, 839	30, 729	30, 619
38	30, 510	30, 401	30, 292	30, 185	30, 077	29, 970	29, 864	29, 758	29, 652	29, 547
39	29, 442	29, 338	29, 234	29, 131	29, 028	28, 925	28, 823	28, 722	28, 620	28, 520
40	28, 419	28, 319	28, 220	28, 120	28, 022	27, 923	27, 825	27, 728	27, 630	27, 534
41	27, 437	27, 341	27, 245	27, 150	27, 055	26, 961	26, 867	26, 773	26, 679	26, 586
42	26, 493	26, 401	26, 309	26, 217	26, 126	26, 035	25, 944	25, 854	25, 764	25, 674
43	25, 585	25, 496	25, 407	25, 319	25, 231	25, 143	25, 056	24, 969	24, 882	24, 796
44	24, 710	24, 624	24, 538	24, 453	24, 368	24, 284	24, 199	24, 115	24, 032	23, 948
45	23, 865	23, 782	23, 700	23, 617	23, 535	23, 454	23, 372	23, 291	23, 210	23, 130
46	23, 049	22, 969	22, 889	22, 810	22, 730	22, 651	22, 573	22, 494	22, 416	22, 338

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.



Table 2-1. Horizontal Distance (Meters), 24,000 Meters (Fallout Zone 12)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	22, 260	22, 183	22, 105	22, 028	21, 951	21, 875	21, 799	21, 723	21, 647	21, 571
48	21, 496	21, 421	21, 346	21, 271	21, 197	21, 123	21, 049	20, 975	20, 901	20, 828
49	20, 755	20, 682	20, 610	20, 537	20, 465	20, 393	20, 321	20, 250	20, 178	20, 107
50	20, 036	19, 966	19, 895	19, 825	19, 755	19, 685	19, 615	19, 545	19, 476	19, 407
51	19, 338	19, 269	19, 201	19, 132	19, 064	18, 996	18, 928	18, 861	18, 793	18, 726
52	18, 659	18, 592	18, 526	18, 459	18, 393	18, 326	18, 260	18, 195	18, 129	18, 064
53	17, 998	17, 933	17, 868	17, 803	17, 739	17, 674	17, 610	17, 546	17, 482	17, 418
54	17, 354	17, 291	17, 228	17, 164	17, 101	17, 038	16, 976	16, 913	16, 851	16, 789
55	16, 726	16, 665	16, 603	16, 541	16, 480	16, 418	16, 357	16, 296	16, 235	16, 174
56	16, 114	16, 053	15, 993	15, 933	15, 873	15, 813	15, 753	15, 693	15, 634	15, 574
57	15, 515	15, 456	15, 397	15, 338	15, 279	15, 221	15, 162	15, 104	15, 046	14, 988
58	14, 930	14, 872	14, 814	14, 756	14, 699	14, 642	14, 584	14, 527	14, 470	14, 414
59	14, 357	14, 300	14, 244	14, 187	14, 131	14, 075	14, 019	13, 963	13, 907	13, 851
60	13, 796	13, 740	13, 685	13, 630	13, 574	13, 519	13, 465	13, 410	13, 355	13, 300
61	13, 246	13, 191	13, 137	13, 083	13, 029	12, 975	12, 921	12, 867	12, 813	12, 760
62	12, 706	12, 653	12, 600	12, 546	12, 493	12, 440	12, 387	12, 335	12, 282	12, 229
63	12, 177	12, 124	12, 072	12, 020	11, 968	11, 915	11, 863	11, 812	11, 760	11, 708
64	11, 656	11, 605	11, 553	11, 502	11, 451	11, 400	11, 348	11, 297	11, 246	11, 196
65	11, 145	11, 094	11, 043	10, 993	10, 942	10, 892	10, 842	10, 792	10, 741	10, 691
66	10, 641	10, 591	10, 542	10, 492	10, 442	10, 393	10, 343	10, 294	10, 244	10, 195
67	10, 146	10, 097	10, 047	9, 998	9, 949	9, 901	9, 852	9, 803	9, 754	9, 706
68	9, 657	9, 609	9, 560	9, 512	9, 464	9, 416	9, 367	9, 319	9, 271	9, 223
69	9, 176	9, 128	9, 080	9, 032	8, 985	8, 937	8, 890	8, 842	8, 795	8, 748
70	8, 700	8, 653	8, 606	8, 559	8, 512	8, 465	8, 418	8, 371	8, 324	8, 278
71	8, 231	8, 184	8, 138	8, 091	8, 045	7, 998	7, 952	7, 906	7, 860	7, 813
72	7, 767	7, 721	7, 675	7, 629	7, 583	7, 537	7, 492	7, 446	7, 400	7, 354
73	7, 309	7, 263	7, 218	7, 172	7, 127	7, 081	7, 036	6, 991	6, 945	6, 900
74	6, 855	6, 810	6, 765	6, 720	6, 675	6, 630	6, 585	6, 540	6, 495	6, 450
75	6, 406	6, 361	6, 316	6, 272	6, 227	6, 183	6, 138	6, 094	6, 049	6, 005
76	5, 961	5, 916	5, 872	5, 828	5, 784	5, 740	5, 696	5, 651	5, 607	5, 563
77	5, 519	5, 476	5, 432	5, 388	5, 344	5, 300	5, 256	5, 213	5, 169	5, 125
78	5, 082	5, 038	4, 995	4, 951	4, 908	4, 864	4, 821	4, 777	4, 734	4, 691
79	4, 647	4, 604	4, 561	4, 518	4, 474	4, 431	4, 388	4, 345	4, 302	4, 259
80	4, 216	4, 173	4, 130	4, 087	4, 044	4, 001	3, 958	3, 915	3, 872	3, 830
81	3, 787	3, 744	3, 701	3, 659	3, 616	3, 573	3, 531	3, 488	3, 445	3, 403
82	3, 360	3, 318	3, 275	3, 233	3, 190	3, 148	3, 105	3, 063	3, 020	2, 978
83	2, 936	2, 893	2, 851	2, 809	2, 766	2, 724	2, 682	2, 640	2, 597	2, 555
84	2, 513	2, 471	2, 429	2, 386	2, 344	2, 302	2, 260	2, 218	2, 176	2, 134
85	2, 092	2, 050	2, 008	1, 966	1, 924	1, 882	1, 840	1, 798	1, 756	1, 714
86	1, 672	1, 630	1, 588	1, 546	1, 504	1, 462	1, 420	1, 379	1, 337	1, 295
87	1, 253	1, 211	1, 169	1, 128	1, 086	1, 044	1, 002	960	919	877
88	835	793	751	710	668	626	584	543	501	459
89	417	376	334	292	250	209	167	125	83	42

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 26,000 Meters (Fallout Zone 13)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	330, 411	324, 939	319, 602	314, 397	309, 320	304, 367	299, 536	294, 824	290, 226	285, 741
4	281, 365	277, 095	272, 927	268, 860	264, 891	261, 016	257, 233	253, 539	249, 932	246, 410
5	242, 970	239, 609	236, 326	233, 118	229, 982	226, 918	223, 923	220, 995	218, 132	215, 332
6	212, 593	209, 914	207, 293	204, 729	202, 219	199, 763	197, 358	195, 004	192, 698	190, 441
7	188, 229	186, 063	183, 940	181, 860	179, 821	177, 823	175, 864	173, 943	172, 060	170, 212
8	168, 400	166, 622	164, 878	163, 166	161, 487	159, 837	158, 219	156, 629	155, 068	153, 535
9	152, 030	150, 551	149, 097	147, 669	146, 266	144, 887	143, 531	142, 198	140, 887	139, 599
10	138, 331	137, 085	135, 858	134, 652	133, 465	132, 297	131, 147	130, 016	128, 902	127, 806
11	126, 726	125, 663	124, 617	123, 586	122, 570	121, 570	120, 584	119, 613	118, 657	117, 714
12	116, 784	115, 868	114, 965	114, 075	113, 197	112, 332	111, 478	110, 637	109, 806	108, 988
13	108, 180	107, 383	106, 596	105, 821	105, 055	104, 299	103, 553	102, 817	102, 090	101, 373
14	100, 665	99, 965	99, 275	98, 593	97, 919	97, 254	96, 597	95, 948	95, 306	94, 673
15	94, 047	93, 428	92, 817	92, 213	91, 616	91, 026	90, 442	89, 866	89, 296	88, 732
16	88, 175	87, 624	87, 079	86, 540	86, 008	85, 481	84, 959	84, 444	83, 934	83, 429
17	82, 930	82, 436	81, 947	81, 464	80, 985	80, 512	80, 043	79, 579	79, 120	78, 666
18	78, 216	77, 771	77, 330	76, 893	76, 461	76, 033	75, 609	75, 190	74, 774	74, 363
19	73, 955	73, 551	73, 152	72, 755	72, 363	71, 974	71, 589	71, 208	70, 830	70, 455
20	70, 084	69, 716	69, 352	68, 991	68, 633	68, 278	67, 927	67, 578	67, 233	66, 890
21	66, 551	66, 214	65, 881	65, 550	65, 222	64, 897	64, 574	64, 255	63, 938	63, 623
22	63, 312	63, 002	62, 696	62, 391	62, 090	61, 790	61, 494	61, 199	60, 907	60, 617
23	60, 330	60, 045	59, 762	59, 481	59, 202	58, 926	58, 651	58, 379	58, 109	57, 841
24	57, 575	57, 311	57, 049	56, 789	56, 530	56, 274	56, 020	55, 767	55, 517	55, 268
25	55, 021	54, 775	54, 532	54, 290	54, 050	53, 812	53, 575	53, 340	53, 107	52, 875
26	52, 645	52, 416	52, 189	51, 964	51, 740	51, 518	51, 297	51, 078	50, 860	50, 643
27	50, 428	50, 215	50, 003	49, 792	49, 583	49, 375	49, 168	48, 963	48, 759	48, 556
28	48, 355	48, 155	47, 956	47, 758	47, 562	47, 367	47, 173	46, 980	46, 789	46, 599
29	46, 409	46, 221	46, 035	45, 849	45, 664	45, 481	45, 299	45, 117	44, 937	44, 758
30	44, 580	44, 403	44, 227	44, 052	43, 878	43, 705	43, 533	43, 362	43, 192	43, 023
31	42, 855	42, 688	42, 522	42, 357	42, 193	42, 029	41, 867	41, 705	41, 545	41, 385
32	41, 226	41, 068	40, 911	40, 754	40, 599	40, 444	40, 290	40, 137	39, 985	39, 834
33	39, 683	39, 533	39, 384	39, 236	39, 089	38, 942	38, 796	38, 651	38, 506	38, 363
34	38, 220	38, 078	37, 936	37, 795	37, 655	37, 516	37, 377	37, 239	37, 101	36, 965
35	36, 829	36, 693	36, 559	36, 425	36, 291	36, 158	36, 026	35, 895	35, 764	35, 634
36	35, 504	35, 375	35, 247	35, 119	34, 992	34, 865	34, 739	34, 614	34, 489	34, 364
37	34, 241	34, 118	33, 995	33, 873	33, 751	33, 630	33, 510	33, 390	33, 271	33, 152
38	33, 033	32, 916	32, 798	32, 682	32, 565	32, 450	32, 334	32, 220	32, 105	31, 992
39	31, 878	31, 765	31, 653	31, 541	31, 430	31, 319	31, 208	31, 098	30, 989	30, 880
40	30, 771	30, 663	30, 555	30, 448	30, 341	30, 234	30, 128	30, 023	29, 917	29, 813
41	29, 708	29, 604	29, 501	29, 398	29, 295	29, 193	29, 091	28, 989	28, 888	28, 787
42	28, 687	28, 587	28, 487	28, 388	28, 289	28, 191	28, 092	27, 995	27, 897	27, 800
43	27, 704	27, 607	27, 511	27, 416	27, 320	27, 226	27, 131	27, 037	26, 943	26, 849
44	26, 756	26, 663	26, 571	26, 478	26, 387	26, 295	26, 204	26, 113	26, 022	25, 932
45	25, 842	25, 752	25, 663	25, 574	25, 485	25, 396	25, 308	25, 220	25, 133	25, 046
46	24, 959	24, 872	24, 785	24, 699	24, 613	24, 528	24, 443	24, 358	24, 273	24, 188

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 26,000 Meters (Fallout Zone 13)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	24, 104	24, 020	23, 937	23, 853	23, 770	23, 687	23, 605	23, 522	23, 440	23, 359
48	23, 277	23, 196	23, 115	23, 034	22, 953	22, 873	22, 793	22, 713	22, 634	22, 554
49	22, 475	22, 396	22, 318	22, 239	22, 161	22, 083	22, 005	21, 928	21, 851	21, 774
50	21, 697	21, 620	21, 544	21, 468	21, 392	21, 316	21, 241	21, 165	21, 090	21, 016
51	20, 941	20, 866	20, 792	20, 718	20, 644	20, 571	20, 497	20, 424	20, 351	20, 278
52	20, 206	20, 133	20, 061	19, 989	19, 917	19, 846	19, 774	19, 703	19, 632	19, 561
53	19, 490	19, 420	19, 349	19, 279	19, 209	19, 139	19, 070	19, 000	18, 931	18, 862
54	18, 793	18, 724	18, 656	18, 587	18, 519	18, 451	18, 383	18, 316	18, 248	18, 181
55	18, 113	18, 046	17, 979	17, 913	17, 846	17, 780	17, 713	17, 647	17, 581	17, 515
56	17, 450	17, 384	17, 319	17, 254	17, 189	17, 124	17, 059	16, 994	16, 930	16, 866
57	16, 802	16, 738	16, 674	16, 610	16, 546	16, 483	16, 420	16, 356	16, 293	16, 230
58	16, 168	16, 105	16, 043	15, 980	15, 918	15, 856	15, 794	15, 732	15, 670	15, 609
59	15, 547	15, 486	15, 425	15, 364	15, 303	15, 242	15, 181	15, 121	15, 060	15, 000
60	14, 940	14, 880	14, 820	14, 760	14, 700	14, 641	14, 581	14, 522	14, 463	14, 403
61	14, 344	14, 286	14, 227	14, 168	14, 109	14, 051	13, 993	13, 934	13, 876	13, 818
62	13, 760	13, 703	13, 645	13, 587	13, 530	13, 472	13, 415	13, 358	13, 301	13, 244
63	13, 187	13, 130	13, 073	13, 017	12, 960	12, 904	12, 848	12, 791	12, 735	12, 679
64	12, 623	12, 568	12, 512	12, 456	12, 401	12, 345	12, 290	12, 235	12, 179	12, 124
65	12, 069	12, 014	11, 960	11, 905	11, 850	11, 796	11, 741	11, 687	11, 633	11, 578
66	11, 524	11, 470	11, 416	11, 362	11, 309	11, 255	11, 201	11, 148	11, 094	11, 041
67	10, 987	10, 934	10, 881	10, 828	10, 775	10, 722	10, 669	10, 616	10, 564	10, 511
68	10, 458	10, 406	10, 354	10, 301	10, 249	10, 197	10, 145	10, 093	10, 041	9, 989
69	9, 937	9, 885	9, 833	9, 782	9, 730	9, 679	9, 627	9, 576	9, 525	9, 473
70	9, 422	9, 371	9, 320	9, 269	9, 218	9, 167	9, 117	9, 066	9, 015	8, 965
71	8, 914	8, 863	8, 813	8, 763	8, 712	8, 662	8, 612	8, 562	8, 512	8, 462
72	8, 412	8, 362	8, 312	8, 262	8, 212	8, 163	8, 113	8, 064	8, 014	7, 965
73	7, 915	7, 866	7, 816	7, 767	7, 718	7, 669	7, 620	7, 571	7, 522	7, 473
74	7, 424	7, 375	7, 326	7, 277	7, 229	7, 180	7, 131	7, 083	7, 034	6, 986
75	6, 937	6, 889	6, 841	6, 792	6, 744	6, 696	6, 648	6, 599	6, 551	6, 503
76	6, 455	6, 407	6, 359	6, 312	6, 264	6, 216	6, 168	6, 120	6, 073	6, 025
77	5, 978	5, 930	5, 882	5, 835	5, 787	5, 740	5, 693	5, 645	5, 598	5, 551
78	5, 503	5, 456	5, 409	5, 362	5, 315	5, 268	5, 221	5, 174	5, 127	5, 080
79	5, 033	4, 986	4, 939	4, 892	4, 846	4, 799	4, 752	4, 705	4, 659	4, 612
80	4, 566	4, 519	4, 472	4, 426	4, 379	4, 333	4, 287	4, 240	4, 194	4, 147
81	4, 101	4, 055	4, 008	3, 962	3, 916	3, 870	3, 824	3, 777	3, 731	3, 685
82	3, 639	3, 593	3, 547	3, 501	3, 455	3, 409	3, 363	3, 317	3, 271	3, 225
83	3, 179	3, 133	3, 088	3, 042	2, 996	2, 950	2, 904	2, 859	2, 813	2, 767
84	2, 722	2, 676	2, 630	2, 585	2, 539	2, 493	2, 448	2, 402	2, 357	2, 311
85	2, 265	2, 220	2, 174	2, 129	2, 083	2, 038	1, 992	1, 947	1, 902	1, 856
86	1, 811	1, 765	1, 720	1, 674	1, 629	1, 584	1, 538	1, 493	1, 448	1, 402
87	1, 357	1, 312	1, 266	1, 221	1, 176	1, 131	1, 085	1, 040	995	949
88	904	859	814	769	723	678	633	588	542	497
89	452	407	362	316	271	226	181	136	90	45

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 28,000 Meters (Fallout Zone 14)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	349, 148	343, 522	338, 030	332, 669	327, 435	322, 325	317, 337	312, 466	307, 711	303, 068
4	298, 534	294, 106	289, 782	285, 558	281, 433	277, 403	273, 466	269, 619	265, 860	262, 187
5	258, 597	255, 088	251, 657	248, 303	245, 023	241, 816	238, 679	235, 610	232, 608	229, 671
6	226, 796	223, 983	221, 229	218, 534	215, 894	213, 310	210, 779	208, 299	205, 871	203, 491
7	201, 159	198, 874	196, 634	194, 438	192, 285	190, 174	188, 104	186, 074	184, 082	182, 127
8	180, 210	178, 328	176, 481	174, 668	172, 888	171, 141	169, 425	167, 739	166, 084	164, 457
9	162, 860	161, 290	159, 747	158, 230	156, 739	155, 274	153, 833	152, 417	151, 023	149, 653
10	148, 305	146, 979	145, 674	144, 390	143, 127	141, 883	140, 659	139, 454	138, 268	137, 100
11	135, 950	134, 817	133, 701	132, 602	131, 520	130, 453	129, 402	128, 366	127, 346	126, 340
12	125, 348	124, 370	123, 407	122, 456	121, 519	120, 595	119, 684	118, 785	117, 898	117, 024
13	116, 161	115, 309	114, 469	113, 640	112, 821	112, 014	111, 216	110, 429	109, 652	108, 885
14	108, 128	107, 380	106, 641	105, 912	105, 191	104, 479	103, 776	103, 082	102, 396	101, 718
15	101, 048	100, 385	99, 731	99, 085	98, 445	97, 814	97, 189	96, 572	95, 961	95, 358
16	94, 761	94, 171	93, 587	93, 010	92, 439	91, 875	91, 316	90, 764	90, 218	89, 677
17	89, 142	88, 613	88, 089	87, 571	87, 058	86, 550	86, 048	85, 551	85, 058	84, 571
18	84, 089	83, 612	83, 139	82, 671	82, 207	81, 748	81, 294	80, 844	80, 398	79, 957
19	79, 520	79, 087	78, 658	78, 233	77, 812	77, 395	76, 982	76, 573	76, 167	75, 765
20	75, 367	74, 973	74, 581	74, 194	73, 810	73, 429	73, 052	72, 678	72, 307	71, 940
21	71, 575	71, 214	70, 856	70, 501	70, 149	69, 800	69, 454	69, 110	68, 770	68, 432
22	68, 098	67, 766	67, 436	67, 110	66, 786	66, 465	66, 146	65, 830	65, 516	65, 205
23	64, 896	64, 590	64, 286	63, 984	63, 685	63, 388	63, 093	62, 801	62, 511	62, 223
24	61, 937	61, 653	61, 372	61, 093	60, 815	60, 540	60, 267	59, 995	59, 726	59, 459
25	59, 193	58, 930	58, 668	58, 408	58, 151	57, 894	57, 640	57, 388	57, 137	56, 888
26	56, 641	56, 395	56, 151	55, 909	55, 668	55, 430	55, 192	54, 957	54, 722	54, 490
27	54, 259	54, 029	53, 801	53, 575	53, 350	53, 126	52, 904	52, 684	52, 464	52, 246
28	52, 030	51, 815	51, 601	51, 389	51, 178	50, 968	50, 760	50, 553	50, 347	50, 142
29	49, 939	49, 737	49, 536	49, 336	49, 138	48, 941	48, 745	48, 550	48, 356	48, 164
30	47, 972	47, 782	47, 593	47, 405	47, 218	47, 032	46, 847	46, 663	46, 480	46, 299
31	46, 118	45, 938	45, 760	45, 582	45, 405	45, 230	45, 055	44, 881	44, 709	44, 537
32	44, 366	44, 196	44, 027	43, 859	43, 692	43, 525	43, 360	43, 195	43, 032	42, 869
33	42, 707	42, 546	42, 386	42, 226	42, 068	41, 910	41, 753	41, 597	41, 441	41, 287
34	41, 133	40, 980	40, 828	40, 676	40, 526	40, 376	40, 226	40, 078	39, 930	39, 783
35	39, 637	39, 491	39, 346	39, 202	39, 059	38, 916	38, 774	38, 632	38, 492	38, 352
36	38, 212	38, 073	37, 935	37, 798	37, 661	37, 525	37, 389	37, 254	37, 120	36, 986
37	36, 853	36, 721	36, 589	36, 457	36, 327	36, 196	36, 067	35, 938	35, 810	35, 682
38	35, 554	35, 428	35, 302	35, 176	35, 051	34, 926	34, 802	34, 679	34, 556	34, 433
39	34, 312	34, 190	34, 069	33, 949	33, 829	33, 710	33, 591	33, 473	33, 355	33, 237
40	33, 120	33, 004	32, 888	32, 772	32, 657	32, 543	32, 429	32, 315	32, 202	32, 089
41	31, 977	31, 865	31, 754	31, 643	31, 532	31, 422	31, 312	31, 203	31, 094	30, 986
42	30, 878	30, 770	30, 663	30, 556	30, 450	30, 344	30, 238	30, 133	30, 028	29, 924
43	29, 820	29, 716	29, 613	29, 510	29, 408	29, 306	29, 204	29, 102	29, 001	28, 901
44	28, 800	28, 701	28, 601	28, 502	28, 403	28, 304	28, 206	28, 108	28, 011	27, 914
45	27, 817	27, 720	27, 624	27, 528	27, 433	27, 337	27, 243	27, 148	27, 054	26, 960
46	26, 866	26, 773	26, 680	26, 587	26, 495	26, 403	26, 311	26, 219	26, 128	26, 037

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 28,000 Meters (Fallout Zone 14)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	25,947	25,857	25,766	25,677	25,587	25,498	25,409	25,321	25,232	25,144
48	25,057	24,969	24,882	24,795	24,708	24,622	24,536	24,450	24,364	24,279
49	24,194	24,109	24,024	23,940	23,856	23,772	23,688	23,605	23,522	23,439
50	23,356	23,274	23,191	23,109	23,028	22,946	22,865	22,784	22,703	22,623
51	22,542	22,462	22,382	22,303	22,223	22,144	22,065	21,986	21,908	21,829
52	21,751	21,673	21,596	21,518	21,441	21,364	21,287	21,210	21,133	21,057
53	20,981	20,905	20,829	20,754	20,679	20,604	20,529	20,454	20,379	20,305
54	20,231	20,157	20,083	20,009	19,936	19,863	19,790	19,717	19,644	19,571
55	19,499	19,427	19,355	19,283	19,211	19,140	19,069	18,997	18,926	18,856
56	18,785	18,714	18,644	18,574	18,504	18,434	18,364	18,295	18,225	18,156
57	18,087	18,018	17,949	17,881	17,812	17,744	17,676	17,608	17,540	17,472
58	17,405	17,337	17,270	17,203	17,136	17,069	17,003	16,936	16,870	16,803
59	16,737	16,671	16,605	16,540	16,474	16,409	16,343	16,278	16,213	16,148
60	16,083	16,019	15,954	15,890	15,825	15,761	15,697	15,633	15,570	15,506
61	15,442	15,379	15,316	15,252	15,189	15,126	15,064	15,001	14,938	14,876
62	14,814	14,751	14,689	14,627	14,565	14,503	14,442	14,380	14,319	14,257
63	14,196	14,135	14,074	14,013	13,952	13,892	13,831	13,771	13,710	13,650
64	13,590	13,530	13,470	13,410	13,350	13,290	13,231	13,171	13,112	13,052
65	12,993	12,934	12,875	12,816	12,757	12,699	12,640	12,582	12,523	12,465
66	12,406	12,348	12,290	12,232	12,174	12,116	12,059	12,001	11,943	11,886
67	11,829	11,771	11,714	11,657	11,600	11,543	11,486	11,429	11,372	11,316
68	11,259	11,203	11,146	11,090	11,034	10,977	10,921	10,865	10,809	10,753
69	10,698	10,642	10,586	10,531	10,475	10,420	10,364	10,309	10,254	10,199
70	10,144	10,089	10,034	9,979	9,924	9,869	9,815	9,760	9,705	9,651
71	9,596	9,542	9,488	9,434	9,379	9,325	9,271	9,217	9,163	9,110
72	9,056	9,002	8,948	8,895	8,841	8,788	8,734	8,681	8,628	8,574
73	8,521	8,468	8,415	8,362	8,309	8,256	8,203	8,150	8,098	8,045
74	7,992	7,940	7,887	7,835	7,782	7,730	7,677	7,625	7,573	7,521
75	7,469	7,416	7,364	7,312	7,260	7,209	7,157	7,105	7,053	7,001
76	6,950	6,898	6,846	6,795	6,743	6,692	6,641	6,589	6,538	6,487
77	6,435	6,384	6,333	6,282	6,231	6,180	6,129	6,078	6,027	5,976
78	5,925	5,874	5,823	5,773	5,722	5,671	5,621	5,570	5,519	5,469
79	5,418	5,368	5,317	5,267	5,217	5,166	5,116	5,066	5,016	4,965
80	4,915	4,865	4,815	4,765	4,715	4,665	4,615	4,565	4,515	4,465
81	4,415	4,365	4,315	4,266	4,216	4,166	4,116	4,067	4,017	3,967
82	3,918	3,868	3,819	3,769	3,719	3,670	3,621	3,571	3,522	3,472
83	3,423	3,373	3,324	3,275	3,225	3,176	3,127	3,078	3,028	2,979
84	2,930	2,881	2,832	2,782	2,733	2,684	2,635	2,586	2,537	2,488
85	2,439	2,390	2,341	2,292	2,243	2,194	2,145	2,096	2,047	1,998
86	1,949	1,900	1,852	1,803	1,754	1,705	1,656	1,607	1,559	1,510
87	1,461	1,412	1,363	1,315	1,266	1,217	1,168	1,120	1,071	1,022
88	973	925	876	827	779	730	681	633	584	535
89	487	438	389	341	292	243	195	146	97	49

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 30,000 Meters (Fallout Zone 15)

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
3	367, 371	361, 603	355, 969	350, 463	345, 085	339, 829	334, 694	329, 677	324, 775	319, 985
4	315, 304	310, 729	306, 258	301, 888	297, 617	293, 442	289, 360	285, 369	281, 467	277, 652
5	273, 920	270, 271	266, 701	263, 208	259, 792	256, 448	253, 177	249, 975	246, 841	243, 773
6	240, 769	237, 827	234, 947	232, 126	229, 363	226, 656	224, 003	221, 404	218, 857	216, 361
7	213, 913	211, 514	209, 161	206, 854	204, 591	202, 371	200, 194	198, 057	195, 961	193, 903
8	191, 884	189, 902	187, 955	186, 044	184, 167	182, 324	180, 514	178, 735	176, 988	175, 271
9	173, 583	171, 925	170, 295	168, 692	167, 117	165, 567	164, 044	162, 545	161, 071	159, 621
10	158, 195	156, 791	155, 409	154, 050	152, 712	151, 395	150, 098	148, 821	147, 564	146, 326
11	145, 106	143, 905	142, 722	141, 556	140, 408	139, 276	138, 161	137, 061	135, 978	134, 910
12	133, 857	132, 819	131, 796	130, 786	129, 791	128, 809	127, 841	126, 886	125, 944	125, 014
13	124, 097	123, 191	122, 298	121, 417	120, 546	119, 687	118, 839	118, 002	117, 176	116, 360
14	115, 554	114, 758	113, 972	113, 195	112, 428	111, 671	110, 922	110, 183	109, 452	108, 730
15	108, 017	107, 312	106, 615	105, 927	105, 246	104, 573	103, 907	103, 250	102, 599	101, 956
16	101, 320	100, 692	100, 070	99, 455	98, 846	98, 245	97, 649	97, 061	96, 478	95, 902
17	95, 331	94, 767	94, 208	93, 656	93, 109	92, 568	92, 032	91, 502	90, 977	90, 457
18	89, 942	89, 433	88, 929	88, 430	87, 935	87, 446	86, 961	86, 481	86, 005	85, 534
19	85, 067	84, 605	84, 148	83, 694	83, 245	82, 800	82, 359	81, 922	81, 489	81, 060
20	80, 635	80, 214	79, 796	79, 383	78, 972	78, 566	78, 163	77, 764	77, 368	76, 975
21	76, 586	76, 201	75, 818	75, 439	75, 063	74, 690	74, 321	73, 954	73, 590	73, 230
22	72, 872	72, 518	72, 166	71, 817	71, 471	71, 128	70, 787	70, 449	70, 114	69, 782
23	69, 452	69, 125	68, 800	68, 478	68, 158	67, 841	67, 526	67, 213	66, 903	66, 596
24	66, 290	65, 987	65, 686	65, 388	65, 091	64, 797	64, 505	64, 215	63, 927	63, 641
25	63, 358	63, 076	62, 796	62, 519	62, 243	61, 969	61, 697	61, 427	61, 159	60, 893
26	60, 629	60, 366	60, 106	59, 847	59, 590	59, 334	59, 080	58, 828	58, 578	58, 329
27	58, 082	57, 837	57, 593	57, 351	57, 110	56, 871	56, 634	56, 398	56, 163	55, 931
28	55, 699	55, 469	55, 241	55, 013	54, 788	54, 563	54, 341	54, 119	53, 899	53, 680
29	53, 463	53, 247	53, 032	52, 818	52, 606	52, 395	52, 185	51, 977	51, 770	51, 564
30	51, 359	51, 156	50, 953	50, 752	50, 552	50, 353	50, 155	49, 959	49, 763	49, 569
31	49, 376	49, 183	48, 992	48, 802	48, 613	48, 425	48, 239	48, 053	47, 868	47, 684
32	47, 501	47, 320	47, 139	46, 959	46, 780	46, 602	46, 425	46, 249	46, 074	45, 900
33	45, 727	45, 554	45, 383	45, 212	45, 042	44, 874	44, 706	44, 539	44, 372	44, 207
34	44, 042	43, 879	43, 716	43, 554	43, 393	43, 232	43, 072	42, 914	42, 755	42, 598
35	42, 442	42, 286	42, 131	41, 976	41, 823	41, 670	41, 518	41, 367	41, 216	41, 066
36	40, 917	40, 768	40, 621	40, 473	40, 327	40, 181	40, 036	39, 892	39, 748	39, 605
37	39, 462	39, 321	39, 179	39, 039	38, 899	38, 760	38, 621	38, 483	38, 346	38, 209
38	38, 073	37, 937	37, 802	37, 667	37, 534	37, 400	37, 268	37, 135	37, 004	36, 873
39	36, 742	36, 612	36, 483	36, 354	36, 226	36, 098	35, 971	35, 844	35, 718	35, 592
40	35, 467	35, 343	35, 218	35, 095	34, 972	34, 849	34, 727	34, 605	34, 484	34, 364
41	34, 243	34, 124	34, 004	33, 886	33, 767	33, 649	33, 532	33, 415	33, 298	33, 182
42	33, 067	32, 952	32, 837	32, 723	32, 609	32, 495	32, 382	32, 270	32, 157	32, 046
43	31, 934	31, 823	31, 713	31, 603	31, 493	31, 384	31, 275	31, 166	31, 058	30, 950
44	30, 843	30, 736	30, 629	30, 523	30, 417	30, 312	30, 207	30, 102	29, 997	29, 893
45	29, 790	29, 686	29, 583	29, 481	29, 378	29, 277	29, 175	29, 074	28, 973	28, 872
46	28, 772	28, 672	28, 573	28, 473	28, 374	28, 276	28, 178	28, 080	27, 982	27, 885

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

Table 2-1. Horizontal Distance (Meters), 30,000 Meters (Fallout Zone 15)—Continued

Degrees	Elevation angle, tenths of a degree									
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
47	27,788	27,691	27,595	27,499	27,403	27,307	27,212	27,117	27,023	26,929
48	26,835	26,741	26,647	26,554	26,462	26,369	26,277	26,185	26,093	26,002
49	25,910	25,820	25,729	25,639	25,549	25,459	25,369	25,280	25,191	25,102
50	25,014	24,925	24,837	24,750	24,662	24,575	24,488	24,401	24,315	24,229
51	24,143	24,057	23,971	23,886	23,801	23,716	23,631	23,547	23,463	23,379
52	23,295	23,212	23,129	23,046	22,963	22,880	22,798	22,716	22,634	22,552
53	22,471	22,389	22,308	22,228	22,147	22,066	21,986	21,906	21,826	21,747
54	21,667	21,588	21,509	21,430	21,352	21,273	21,195	21,117	21,039	20,961
55	20,884	20,806	20,729	20,652	20,576	20,499	20,423	20,346	20,270	20,195
56	20,119	20,043	19,968	19,893	19,818	19,743	19,669	19,594	19,520	19,446
57	19,372	19,298	19,224	19,151	19,078	19,004	18,931	18,859	18,786	18,713
58	18,641	18,569	18,497	18,425	18,353	18,282	18,210	18,139	18,068	17,997
59	17,926	17,855	17,785	17,715	17,644	17,574	17,504	17,434	17,365	17,295
60	17,226	17,157	17,087	17,018	16,950	16,881	16,812	16,744	16,676	16,607
61	16,539	16,471	16,404	16,336	16,269	16,201	16,134	16,067	16,000	15,933
62	15,866	15,799	15,733	15,666	15,600	15,534	15,468	15,402	15,336	15,270
63	15,205	15,139	15,074	15,009	14,944	14,879	14,814	14,749	14,684	14,620
64	14,555	14,491	14,427	14,363	14,298	14,235	14,171	14,107	14,043	13,980
65	13,917	13,853	13,790	13,727	13,664	13,601	13,538	13,476	13,413	13,350
66	13,288	13,226	13,164	13,101	13,039	12,977	12,916	12,854	12,792	12,731
67	12,669	12,608	12,547	12,485	12,424	12,363	12,302	12,241	12,181	12,120
68	12,059	11,999	11,938	11,878	11,818	11,758	11,698	11,638	11,578	11,518
69	11,458	11,398	11,339	11,279	11,220	11,160	11,101	11,042	10,983	10,924
70	10,865	10,806	10,747	10,688	10,629	10,571	10,512	10,454	10,395	10,337
71	10,279	10,220	10,162	10,104	10,046	9,988	9,930	9,872	9,815	9,757
72	9,699	9,642	9,584	9,527	9,470	9,412	9,355	9,298	9,241	9,184
73	9,127	9,070	9,013	8,956	8,900	8,843	8,786	8,730	8,673	8,617
74	8,560	8,504	8,448	8,392	8,335	8,279	8,223	8,167	8,111	8,055
75	7,999	7,944	7,888	7,832	7,777	7,721	7,665	7,610	7,554	7,499
76	7,444	7,388	7,333	7,278	7,223	7,168	7,113	7,058	7,003	6,948
77	6,893	6,838	6,783	6,728	6,674	6,619	6,564	6,510	6,455	6,401
78	6,346	6,292	6,237	6,183	6,129	6,074	6,020	5,966	5,912	5,858
79	5,804	5,749	5,695	5,642	5,588	5,534	5,480	5,426	5,372	5,318
80	5,265	5,211	5,157	5,104	5,050	4,996	4,943	4,889	4,836	4,782
81	4,729	4,676	4,622	4,569	4,516	4,462	4,409	4,356	4,303	4,249
82	4,196	4,143	4,090	4,037	3,984	3,931	3,878	3,825	3,772	3,719
83	3,666	3,613	3,560	3,508	3,455	3,402	3,349	3,296	3,244	3,191
84	3,138	3,086	3,033	2,980	2,928	2,875	2,822	2,770	2,717	2,665
85	2,612	2,560	2,507	2,455	2,402	2,350	2,298	2,245	2,193	2,140
86	2,088	2,036	1,983	1,931	1,879	1,826	1,774	1,722	1,669	1,617
87	1,565	1,513	1,460	1,408	1,356	1,304	1,251	1,199	1,147	1,095
88	1,043	991	938	886	834	782	730	678	625	573
89	521	469	417	365	313	261	208	156	104	52

Enter table with elevation angle to nearest tenth of a degree. Obtain horizontal distance to the nearest 10 meters. Do not interpolate.

### 2-4. CONVERSION OF WIND SPEED

Figure 2-2 is used to convert wind speed in knots and miles per hour.

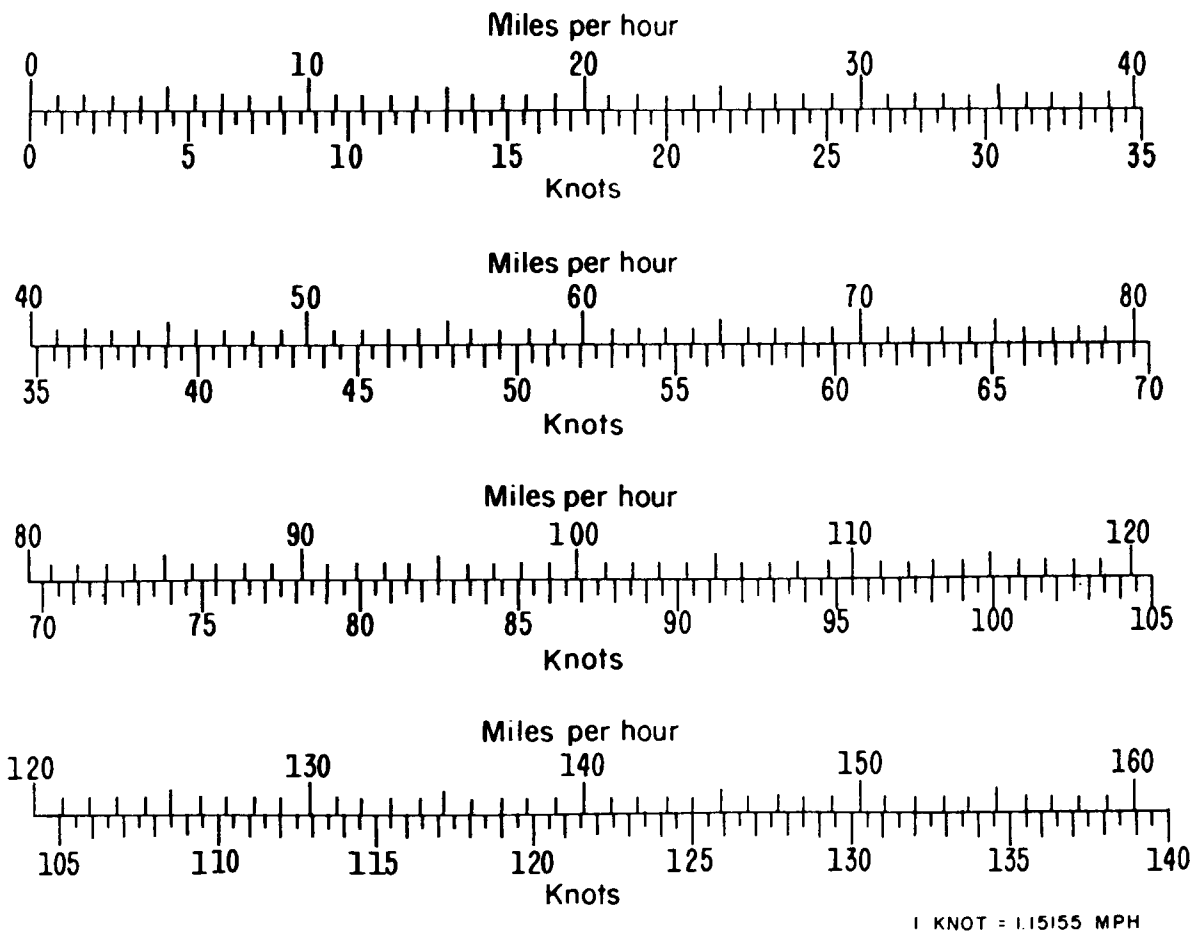


Figure 2-2. Miles per hour to knots.



Table 2-2. Feet to Meters Conversion

1 foot = 0.3048 meters

Feet	0	10	20	30	40	50	60	70	80	90
0	0.00	3.05	6.10	9.14	12.19	15.24	18.29	21.34	24.38	27.43
100	30.48	33.53	36.58	39.62	42.67	45.72	48.77	51.82	54.86	57.91
200	60.96	64.01	67.06	70.10	73.15	76.20	79.25	82.30	85.34	88.39
300	91.44	94.49	97.54	100.58	103.63	106.68	109.73	112.78	115.82	118.87
400	121.92	124.97	128.02	131.06	134.11	137.16	140.21	143.26	146.30	149.35
500	152.40	155.45	158.50	161.54	164.59	167.64	170.69	173.74	176.78	179.83
600	182.88	185.93	188.98	192.02	195.07	198.12	201.17	204.22	207.26	210.31
700	213.36	216.41	219.46	222.50	225.55	228.60	231.65	234.70	237.74	240.79
800	243.84	246.89	249.94	252.98	256.03	259.08	262.13	265.18	268.22	271.27
900	274.32	277.37	280.42	283.46	286.51	289.56	292.61	295.66	298.70	301.75
1,000	304.80	307.85	310.90	313.94	316.99	320.04	323.09	326.14	329.18	332.23
1,100	335.28	338.33	341.38	344.42	347.47	350.52	353.57	356.62	359.66	362.71
1,200	365.76	368.81	371.86	374.90	377.95	381.00	384.05	387.10	390.14	393.19
1,300	396.24	399.29	402.34	405.38	408.43	411.48	414.53	417.58	420.62	423.67
1,400	426.72	429.77	432.82	435.86	438.91	441.96	445.01	448.06	451.10	454.15
1,500	457.20	460.25	463.30	466.34	469.39	472.44	475.49	478.54	481.58	484.63
1,600	487.68	490.73	493.78	496.82	499.87	502.92	505.97	509.02	512.06	515.11
1,700	518.16	521.21	524.26	527.30	530.35	533.40	536.45	539.50	542.54	545.59
1,800	548.64	551.69	554.74	557.78	560.83	563.88	566.93	569.98	573.02	576.07
1,900	579.12	582.17	585.22	588.26	591.31	594.36	597.41	600.46	603.50	606.55
2,000	609.60	612.65	615.70	618.74	621.79	624.84	627.89	630.94	633.98	637.03
2,100	640.08	643.13	646.18	649.22	652.27	655.32	658.37	661.42	664.46	667.51
2,200	670.56	673.61	676.66	679.70	682.75	685.80	688.85	691.90	694.94	697.99
2,300	701.04	704.09	707.14	710.18	713.23	716.28	719.33	722.38	725.42	728.47
2,400	731.52	734.57	737.62	740.66	743.71	746.76	749.81	752.86	755.90	758.95
2,500	762.00	765.05	768.10	771.14	774.19	777.24	780.29	783.34	786.38	789.43
2,600	792.48	795.53	798.58	801.62	804.67	807.72	810.77	813.82	816.86	819.91
2,700	822.96	826.01	829.06	832.10	835.15	838.20	841.25	844.30	847.34	850.39
2,800	853.44	856.49	859.54	862.58	865.63	868.68	871.73	874.78	877.82	880.87
2,900	883.92	886.97	890.02	893.06	896.11	899.16	902.21	905.26	908.30	911.35
3,000	914.40	917.45	920.50	923.54	926.59	929.64	932.69	935.74	938.78	941.83
3,100	944.88	947.93	950.98	954.02	957.08	960.12	963.17	966.22	969.26	972.31
3,200	975.36	978.41	981.46	984.50	987.55	990.60	993.65	996.70	999.74	1,002.79
3,300	1,005.84	1,008.89	1,011.94	1,014.98	1,018.03	1,021.08	1,024.13	1,027.18	1,030.22	1,033.27
3,400	1,036.32	1,039.37	1,042.42	1,045.46	1,048.51	1,051.56	1,054.61	1,057.66	1,060.70	1,063.75
3,500	1,066.80	1,069.85	1,072.90	1,075.94	1,078.99	1,082.04	1,085.09	1,088.14	1,091.18	1,094.23
3,600	1,097.28	1,100.33	1,103.38	1,106.42	1,109.47	1,112.52	1,115.57	1,118.62	1,121.66	1,124.71
3,700	1,127.76	1,130.81	1,133.86	1,136.90	1,139.95	1,143.00	1,146.05	1,149.10	1,152.14	1,155.19
3,800	1,158.24	1,161.29	1,164.34	1,167.38	1,170.43	1,173.48	1,176.53	1,179.58	1,182.62	1,185.67
3,900	1,188.72	1,191.77	1,194.82	1,197.86	1,200.91	1,203.96	1,207.01	1,210.06	1,213.10	1,216.15
4,000	1,219.20	1,222.25	1,225.30	1,228.34	1,231.39	1,234.44	1,237.49	1,240.54	1,243.58	1,246.63
4,100	1,249.68	1,252.73	1,255.78	1,258.82	1,261.87	1,264.92	1,267.97	1,271.02	1,274.06	1,277.11
4,200	1,280.16	1,283.21	1,286.26	1,289.30	1,292.35	1,295.40	1,298.45	1,301.50	1,304.54	1,307.59
4,300	1,310.64	1,313.69	1,316.74	1,319.78	1,322.83	1,325.88	1,328.93	1,331.98	1,335.02	1,338.07
4,400	1,341.12	1,344.17	1,347.22	1,350.26	1,353.31	1,356.36	1,359.41	1,362.46	1,365.50	1,368.55
4,500	1,371.60	1,374.65	1,377.70	1,380.74	1,383.79	1,386.84	1,389.89	1,392.94	1,395.98	1,399.03
4,600	1,402.08	1,405.13	1,408.18	1,411.22	1,414.27	1,417.32	1,420.37	1,423.42	1,426.46	1,429.51
4,700	1,432.56	1,435.61	1,438.66	1,441.70	1,444.75	1,447.80	1,450.85	1,453.90	1,456.94	1,459.99
4,800	1,463.04	1,466.09	1,469.14	1,472.18	1,475.23	1,478.28	1,481.33	1,484.38	1,487.42	1,490.47
4,900	1,493.52	1,496.57	1,499.62	1,502.66	1,505.71	1,508.76	1,511.81	1,514.86	1,517.90	1,520.95
5,000	1,524.00	1,527.05	1,530.10	1,533.14	1,536.19	1,539.24	1,542.29	1,545.34	1,548.38	1,551.43

Proportional parts: feet 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0  
meters .30 .61 .91 1.22 1.52 1.83 2.13 2.44 2.74

Table 2-2. Feet to Meters Conversion—Continued

1 foot = 0.3048 meters

Feet	0	10	20	30	40	50	60	70	80	90
5,000	1,524.00	1,527.05	1,530.10	1,533.14	1,536.19	1,539.24	1,542.29	1,545.34	1,548.38	1,551.43
5,100	1,554.48	1,557.53	1,560.58	1,563.62	1,566.67	1,569.72	1,572.77	1,575.82	1,578.86	1,581.91
5,200	1,584.96	1,588.01	1,591.06	1,594.10	1,597.15	1,600.20	1,603.25	1,606.30	1,609.34	1,612.39
5,300	1,615.44	1,618.49	1,621.54	1,624.58	1,627.63	1,630.68	1,633.73	1,636.78	1,639.82	1,642.87
5,400	1,645.92	1,648.97	1,652.02	1,655.06	1,658.11	1,661.16	1,664.21	1,667.26	1,670.30	1,673.35
5,500	1,676.40	1,679.45	1,682.50	1,685.54	1,688.59	1,691.64	1,694.69	1,697.74	1,700.78	1,703.83
5,600	1,706.88	1,709.93	1,712.98	1,716.02	1,719.07	1,722.12	1,725.17	1,728.22	1,731.26	1,734.31
5,700	1,737.36	1,740.41	1,743.46	1,746.50	1,749.55	1,752.60	1,755.65	1,758.70	1,761.74	1,764.79
5,800	1,767.84	1,770.89	1,773.94	1,776.98	1,780.03	1,783.08	1,786.13	1,789.18	1,792.22	1,795.27
5,900	1,798.32	1,801.37	1,804.42	1,807.46	1,810.51	1,813.56	1,816.61	1,819.66	1,822.70	1,825.75
6,000	1,828.80	1,831.85	1,834.90	1,837.94	1,840.99	1,844.04	1,847.09	1,850.14	1,853.18	1,856.23
6,100	1,859.28	1,862.33	1,865.38	1,868.42	1,871.47	1,874.52	1,877.57	1,880.62	1,883.66	1,886.71
6,200	1,889.76	1,892.81	1,895.86	1,898.90	1,901.95	1,905.00	1,908.05	1,911.10	1,914.14	1,917.19
6,300	1,920.24	1,923.29	1,926.34	1,929.38	1,932.43	1,935.48	1,938.53	1,941.58	1,944.62	1,947.67
6,400	1,950.72	1,953.77	1,956.82	1,959.86	1,962.91	1,965.96	1,969.01	1,972.06	1,975.10	1,978.15
6,500	1,981.20	1,984.25	1,987.30	1,990.34	1,993.39	1,996.44	1,999.49	2,002.54	2,005.58	2,008.63
6,600	2,011.68	2,014.73	2,017.78	2,020.82	2,023.87	2,026.92	2,029.97	2,033.02	2,036.06	2,039.11
6,700	2,042.16	2,045.21	2,048.26	2,051.30	2,054.35	2,057.40	2,060.45	2,063.50	2,066.54	2,069.59
6,800	2,072.64	2,075.69	2,078.74	2,081.78	2,084.83	2,087.88	2,090.93	2,093.98	2,097.02	2,100.07
6,900	2,103.12	2,106.17	2,109.22	2,112.26	2,115.31	2,118.36	2,121.41	2,124.46	2,127.50	2,130.55
7,000	2,133.60	2,136.65	2,139.70	2,142.74	2,145.79	2,148.84	2,151.89	2,154.94	2,157.98	2,161.03
7,100	2,164.08	2,167.13	2,170.18	2,173.22	2,176.27	2,179.32	2,182.37	2,185.42	2,188.46	2,191.51
7,200	2,194.56	2,197.61	2,200.66	2,203.70	2,206.75	2,209.80	2,212.85	2,215.90	2,218.94	2,221.99
7,300	2,225.04	2,228.09	2,231.14	2,234.18	2,237.23	2,240.28	2,243.33	2,246.38	2,249.42	2,252.47
7,400	2,255.52	2,258.57	2,261.62	2,264.66	2,267.71	2,270.76	2,273.81	2,276.86	2,279.90	2,282.95
7,500	2,286.00	2,289.05	2,292.10	2,295.14	2,298.19	2,301.24	2,304.29	2,307.34	2,310.38	2,313.43
7,600	2,316.48	2,319.53	2,322.58	2,325.62	2,328.67	2,331.72	2,334.77	2,337.82	2,340.86	2,343.91
7,700	2,346.96	2,350.01	2,353.06	2,356.10	2,359.15	2,362.20	2,365.25	2,368.30	2,371.34	2,374.39
7,800	2,377.44	2,380.49	2,383.54	2,386.58	2,389.63	2,392.68	2,395.73	2,398.78	2,401.82	2,404.87
7,900	2,407.92	2,410.97	2,414.02	2,417.06	2,420.11	2,423.16	2,426.21	2,429.26	2,432.30	2,435.35
8,000	2,438.40	2,441.45	2,444.50	2,447.54	2,450.59	2,453.64	2,456.69	2,459.74	2,462.78	2,465.83
8,100	2,468.88	2,471.93	2,474.98	2,478.02	2,481.07	2,484.12	2,487.17	2,490.22	2,493.26	2,496.31
8,200	2,499.36	2,502.41	2,505.46	2,508.50	2,511.55	2,514.60	2,517.65	2,520.70	2,523.74	2,526.79
8,300	2,529.84	2,532.89	2,535.94	2,538.98	2,542.03	2,545.08	2,548.13	2,551.18	2,554.22	2,557.27
8,400	2,560.32	2,563.37	2,566.42	2,569.46	2,572.51	2,575.56	2,578.61	2,581.66	2,584.70	2,587.75
8,500	2,590.80	2,593.85	2,596.90	2,599.94	2,602.99	2,606.04	2,609.09	2,612.14	2,615.18	2,618.23
8,600	2,621.28	2,624.33	2,627.38	2,630.42	2,633.47	2,636.52	2,639.57	2,642.62	2,645.66	2,648.71
8,700	2,651.76	2,654.81	2,657.86	2,660.90	2,663.95	2,667.00	2,670.05	2,673.10	2,676.14	2,679.19
8,800	2,682.24	2,685.29	2,688.34	2,691.38	2,694.43	2,697.48	2,700.53	2,703.58	2,706.62	2,709.67
8,900	2,712.72	2,715.77	2,718.82	2,721.86	2,724.91	2,727.96	2,731.01	2,734.06	2,737.10	2,740.15
9,000	2,743.20	2,746.25	2,749.30	2,752.34	2,755.39	2,758.44	2,761.49	2,764.54	2,767.58	2,770.63
9,100	2,773.68	2,776.73	2,779.78	2,782.82	2,785.87	2,788.92	2,791.97	2,795.02	2,798.06	2,801.11
9,200	2,804.16	2,807.21	2,810.26	2,813.30	2,816.35	2,819.40	2,822.45	2,825.50	2,828.54	2,831.59
9,300	2,834.64	2,837.69	2,840.74	2,843.78	2,846.83	2,849.88	2,852.93	2,855.98	2,859.02	2,862.07
9,400	2,865.12	2,868.17	2,871.22	2,874.26	2,877.31	2,880.36	2,883.41	2,886.46	2,889.50	2,892.55
9,500	2,895.60	2,898.65	2,901.70	2,904.74	2,907.79	2,910.84	2,913.89	2,916.94	2,919.98	2,923.03
9,600	2,926.08	2,929.13	2,932.18	2,935.22	2,938.27	2,941.32	2,944.37	2,947.42	2,950.46	2,953.51
9,700	2,956.56	2,959.61	2,962.66	2,965.70	2,968.75	2,971.80	2,974.85	2,977.90	2,980.94	2,983.99
9,800	2,987.04	2,990.09	2,993.14	2,996.18	2,999.23	3,002.28	3,005.33	3,008.38	3,011.42	3,014.47
9,900	3,017.52	3,020.57	3,023.62	3,026.66	3,029.71	3,032.76	3,035.81	3,038.86	3,041.90	3,044.95
10,000	3,048.00	3,051.05	3,054.10	3,057.14	3,060.19	3,063.24	3,066.29	3,069.34	3,072.38	3,075.43

Proportional parts: feet 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0  
meters .30 .61 .91 1.22 1.52 1.83 2.13 2.44 2.74

Table 2-3. Mils to Degrees Conversion

Mils	Degrees	Mils	Degrees	Mils	Degrees	Mils	Degrees
5	0.3	205	11.5	405	22.8	605	34.0
10	.6	210	11.8	410	23.1	610	34.3
15	.8	215	12.1	415	23.3	615	34.6
20	1.1	220	12.4	420	23.6	620	34.9
25	1.4	225	12.7	425	23.9	625	35.2
30	1.7	230	12.9	430	24.2	630	35.4
35	2.0	235	13.2	435	24.5	635	35.7
40	2.2	240	13.5	440	24.8	640	36.0
45	2.5	245	13.8	445	25.0	645	36.3
50	2.8	250	14.1	450	25.3	650	36.6
55	3.1	255	14.3	455	25.6	655	36.8
60	3.4	260	14.6	460	25.9	660	37.1
65	3.7	265	14.9	465	26.2	665	37.4
70	3.9	270	15.2	470	26.4	670	37.7
75	4.2	275	15.5	475	26.7	675	38.0
80	4.5	280	15.8	480	27.0	680	38.2
85	4.8	285	16.0	485	27.3	685	38.5
90	5.1	290	16.3	490	27.6	690	38.8
95	5.3	295	16.6	495	27.8	695	39.1
100	5.6	300	16.9	500	28.1	700	39.4
105	5.9	305	17.2	505	28.4	705	39.7
110	6.2	310	17.4	510	28.7	710	39.9
115	6.5	315	17.7	515	29.0	715	40.2
120	6.8	320	18.0	520	29.2	720	40.5
125	7.0	325	18.3	525	29.5	725	40.8
130	7.3	330	18.6	530	29.8	730	41.1
135	7.6	335	18.8	535	30.1	735	41.3
140	7.9	340	19.1	540	30.4	740	41.6
145	8.2	345	19.4	545	30.7	745	41.9
150	8.4	350	19.7	550	30.9	750	42.2
155	8.7	355	20.0	555	31.2	755	42.5
160	9.0	360	20.2	560	31.5	760	42.8
165	9.3	365	20.5	565	31.8	765	43.0
170	9.6	370	20.8	570	32.1	770	43.3
175	9.8	375	21.1	575	32.3	775	43.6
180	10.1	380	21.4	580	32.6	780	43.9
185	10.4	385	21.7	585	32.9	785	44.2
190	10.7	380	21.9	590	33.2	790	44.4
195	11.0	395	22.2	595	33.5	795	44.7
200	11.2	400	22.5	600	33.8	800	45.0

Conversion Formulas: 1 mil = .05625°; 1° = 17.778 mils.

Table 2-3. Mils to Degrees Conversion—Continued

Mils	Degrees	Mils	Degrees	Mils	Degrees	Mils	Degrees
805	45.3	1,005	56.5	1,205	67.8	1,405	79.0
810	45.6	1,010	56.8	1,210	68.1	1,410	79.3
815	45.8	1,015	57.1	1,215	68.3	1,415	79.6
820	46.1	1,020	57.4	1,220	68.6	1,420	79.9
825	46.4	1,025	57.7	1,225	68.9	1,425	80.2
830	46.7	1,030	57.9	1,230	69.2	1,430	80.4
835	47.0	1,035	58.2	1,235	69.5	1,435	80.7
840	47.2	1,040	58.5	1,240	69.8	1,440	81.0
845	47.5	1,045	58.8	1,245	70.0	1,445	81.3
850	47.8	1,050	59.1	1,250	70.3	1,450	81.6
855	48.1	1,055	59.3	1,255	70.6	1,455	81.8
860	48.4	1,060	59.6	1,260	70.9	1,460	82.1
865	48.7	1,065	59.9	1,265	71.2	1,465	82.4
870	48.9	1,070	60.2	1,270	71.4	1,470	82.7
875	49.2	1,075	60.5	1,275	71.7	1,475	83.0
880	49.5	1,080	60.8	1,280	72.0	1,480	83.2
885	49.8	1,085	61.0	1,285	72.3	1,485	83.5
890	50.1	1,090	61.3	1,290	72.6	1,490	83.8
895	50.3	1,095	61.6	1,295	72.8	1,495	84.1
900	50.6	1,100	61.9	1,300	73.1	1,500	84.4
905	50.9	1,105	62.2	1,305	73.4	1,505	84.7
910	51.2	1,110	62.4	1,310	73.7	1,510	84.9
915	51.5	1,115	62.7	1,315	74.0	1,515	85.2
920	51.8	1,120	63.0	1,320	74.2	1,520	85.5
925	52.0	1,125	63.3	1,325	74.5	1,525	85.8
930	52.3	1,130	63.6	1,330	74.8	1,530	86.1
935	52.6	1,135	63.8	1,335	75.1	1,535	86.3
940	52.9	1,140	64.1	1,340	75.4	1,540	86.6
945	53.2	1,145	64.4	1,345	75.7	1,545	86.9
950	53.4	1,150	64.7	1,350	75.9	1,550	87.2
955	53.7	1,155	65.0	1,355	76.2	1,555	87.5
960	54.0	1,160	65.2	1,360	76.5	1,560	87.8
965	54.3	1,165	65.5	1,365	76.8	1,565	88.0
970	54.6	1,170	65.8	1,370	77.1	1,570	88.3
975	54.8	1,175	66.1	1,375	77.3	1,575	88.6
980	55.1	1,180	66.4	1,380	77.6	1,580	88.9
985	55.4	1,185	66.7	1,385	77.9	1,585	89.2
990	55.7	1,190	66.9	1,390	78.2	1,590	89.4
995	56.0	1,195	67.2	1,395	78.5	1,595	89.7
1,000	56.2	1,200	67.5	1,400	78.8	1,600	90.0

Conversion Formulas: 1 mil = .05625°; 1° = 17.778 mils.

Table 2-3. Mils to Degrees Conversion—Continued

Mils	Degrees	Mils	Degrees	Mils	Degrees	Mils	Degrees
1,605	90.3	1,805	101.5	2,005	112.8	2,205	124.0
1,610	90.6	1,810	101.8	2,010	113.1	2,210	124.3
1,615	90.8	1,815	102.1	2,015	113.3	2,215	124.6
1,620	91.1	1,820	102.4	2,020	113.6	2,220	124.9
1,625	91.4	1,825	102.7	2,025	113.9	2,225	125.2
1,630	91.7	1,830	102.9	2,030	114.2	2,230	125.4
1,635	92.0	1,835	103.2	2,035	114.5	2,235	125.7
1,640	92.2	1,840	103.5	2,040	114.8	2,240	126.0
1,645	92.5	1,845	103.8	2,045	115.0	2,245	126.3
1,650	92.8	1,850	104.1	2,050	115.3	2,250	126.6
1,655	93.1	1,855	104.3	2,055	115.6	2,255	126.8
1,660	93.4	1,860	104.6	2,060	115.9	2,260	127.1
1,665	93.7	1,865	104.9	2,065	116.2	2,265	127.4
1,670	93.9	1,870	105.2	2,070	116.4	2,270	127.7
1,675	94.2	1,875	105.5	2,075	116.7	2,275	128.0
1,680	94.5	1,880	105.8	2,080	117.0	2,280	128.2
1,685	94.8	1,885	106.0	2,085	117.3	2,285	128.5
1,690	95.1	1,890	106.3	2,090	117.6	2,290	128.8
1,695	95.3	1,895	106.6	2,095	117.8	2,295	129.1
1,700	95.6	1,900	106.9	2,100	118.1	2,300	129.4
1,705	95.9	1,905	107.2	2,105	118.4	2,305	129.7
1,710	96.2	1,910	107.4	2,110	118.7	2,310	129.9
1,715	96.5	1,915	107.7	2,115	119.0	2,315	130.2
1,720	96.8	1,920	108.0	2,120	119.2	2,320	130.5
1,725	97.0	1,925	108.3	2,125	119.5	2,325	130.8
1,730	97.3	1,930	108.6	2,130	119.8	2,330	131.1
1,735	97.6	1,935	108.8	2,135	120.1	2,335	131.3
1,740	97.9	1,940	109.1	2,140	120.4	2,340	131.6
1,745	98.2	1,945	109.4	2,145	120.7	2,345	131.9
1,750	98.4	1,950	109.7	2,150	120.9	2,350	132.2
1,755	98.7	1,955	110.0	2,155	121.2	2,355	132.5
1,760	99.0	1,960	110.2	2,160	121.5	2,360	132.8
1,765	99.3	1,965	110.5	2,165	121.8	2,365	133.0
1,770	99.6	1,970	110.8	2,170	122.1	2,370	133.3
1,775	99.8	1,975	111.1	2,175	122.3	2,375	133.6
1,780	100.1	1,980	111.4	2,180	122.6	2,380	133.9
1,785	100.4	1,985	111.7	2,185	122.9	2,385	134.2
1,790	100.7	1,990	111.9	2,190	123.2	2,390	134.4
1,795	101.0	1,995	112.2	2,195	123.5	2,395	134.7
1,800	101.2	2,000	112.5	2,200	123.8	2,400	135.0

Conversion Formulas: 1 mil = .05625°; 1° = 17.778 mils.

Table 2-3. Mils to Degrees Conversion—Continued

Mils	Degrees	Mils	Degrees	Mils	Degrees	Mils	Degrees
2,405	135.3	2,605	146.5	2,805	157.8	3,005	169.0
2,410	135.6	2,610	146.8	2,810	158.1	3,010	169.3
2,415	135.8	2,615	147.1	2,815	158.3	3,015	169.6
2,420	136.1	2,620	147.4	2,820	158.6	3,020	169.9
2,425	136.4	2,625	147.7	2,825	158.9	3,025	170.2
2,430	136.7	2,630	147.9	2,830	159.2	3,030	170.4
2,435	137.0	2,635	148.2	2,835	159.5	3,035	170.7
2,440	137.2	2,640	148.5	2,840	159.8	3,040	171.0
2,445	137.5	2,645	148.8	2,845	160.0	3,045	171.3
2,450	137.8	2,650	149.1	2,850	160.3	3,050	171.6
2,455	138.1	2,655	149.3	2,855	160.6	3,055	171.8
2,460	138.4	2,660	149.6	2,860	160.9	3,060	172.1
2,465	138.7	2,665	149.9	2,865	161.2	3,065	172.4
2,470	138.9	2,670	150.2	2,870	161.4	3,070	172.7
2,475	139.2	2,675	150.5	2,875	161.7	3,075	173.0
2,480	139.5	2,680	150.8	2,880	162.0	3,080	173.2
2,485	139.8	2,685	151.0	2,885	162.3	3,085	173.5
2,490	140.1	2,690	151.3	2,890	162.6	3,090	173.8
2,495	140.3	2,695	151.6	2,895	162.8	3,095	174.1
2,500	140.6	2,700	151.9	2,900	163.1	3,100	174.4
2,505	140.9	2,705	152.2	2,905	163.4	3,105	174.7
2,510	141.2	2,710	152.4	2,910	163.7	3,110	174.9
2,515	141.5	2,715	152.7	2,915	164.0	3,115	175.2
2,520	141.8	2,720	153.0	2,920	164.2	3,120	175.5
2,525	142.0	2,725	153.3	2,925	164.5	3,125	175.8
2,530	142.3	2,730	153.6	2,930	164.8	3,130	176.1
2,535	142.6	2,735	153.8	2,935	165.1	3,135	176.3
2,540	142.9	2,740	154.1	2,940	165.4	3,140	176.6
2,545	143.2	2,745	154.4	2,945	165.7	3,145	176.9
2,550	143.4	2,750	154.7	2,950	165.9	3,150	177.2
2,555	143.7	2,755	155.0	2,955	166.2	3,155	177.5
2,560	144.0	2,760	155.2	2,960	166.5	3,160	177.8
2,565	144.3	2,765	155.5	2,965	166.8	3,165	178.0
2,570	144.6	2,770	155.8	2,970	167.1	3,170	178.3
2,575	144.8	2,775	156.1	2,975	167.3	3,175	178.6
2,580	145.1	2,780	156.4	2,980	167.6	3,180	178.9
2,585	145.4	2,785	156.7	2,985	167.9	3,185	179.2
2,590	145.7	2,790	156.9	2,990	168.2	3,190	179.4
2,595	146.0	2,795	157.2	2,995	168.5	3,195	179.7
2,600	146.2	2,800	157.5	3,000	168.8	3,200	180.0

Conversion Formulas: 1 mil = .05625°; 1° = 17.778 mils.

Table 2-3. Mils to Degrees Conversion—Continued

Mils	Degrees	Mils	Degrees	Mils	Degrees	Mils	Degrees
3,205	180.3	3,405	191.5	3,605	202.8	3,805	214.0
3,210	180.6	3,410	191.8	3,610	203.1	3,810	214.3
3,215	180.8	3,415	192.1	3,615	203.3	3,815	214.6
3,220	181.1	3,420	192.4	3,620	203.6	3,820	214.9
3,225	181.4	3,425	192.7	3,625	203.9	3,825	215.2
3,230	181.7	3,430	192.9	3,630	204.2	3,830	215.4
3,235	182.0	3,435	193.2	3,635	204.5	3,835	215.7
3,240	182.2	3,440	193.5	3,640	204.8	3,840	216.0
3,245	182.5	3,445	193.8	3,645	205.0	3,845	216.3
3,250	182.8	3,450	194.1	3,650	205.3	3,850	216.6
3,255	183.1	3,455	194.3	3,655	205.6	3,855	216.8
3,260	183.4	3,460	194.6	3,660	205.9	3,860	217.1
3,265	183.7	3,465	194.9	3,665	206.2	3,865	217.4
3,270	183.9	3,470	195.2	3,670	206.4	3,870	217.7
3,275	184.2	3,475	195.5	3,675	206.7	3,875	218.0
3,280	184.5	3,480	195.8	3,680	207.0	3,880	218.2
3,285	184.8	3,485	196.0	3,685	207.3	3,885	218.5
3,290	185.1	3,490	196.3	3,690	207.6	3,890	218.8
3,295	185.3	3,495	196.6	3,695	207.8	3,895	219.1
3,300	185.6	3,500	196.9	3,700	208.1	3,900	219.4
3,305	185.9	3,505	197.2	3,705	208.4	3,905	219.7
3,310	186.2	3,510	197.4	3,710	208.7	3,910	219.9
3,315	186.5	3,515	197.7	3,715	209.0	3,915	220.2
3,320	186.8	3,520	198.0	3,720	209.2	3,920	220.5
3,325	187.0	3,525	198.3	3,725	209.5	3,925	220.8
3,330	187.3	3,530	198.6	3,730	209.8	3,930	221.1
3,335	187.6	3,535	198.8	3,735	210.1	3,935	221.3
3,340	187.9	3,540	199.1	3,740	210.4	3,940	221.6
3,345	188.2	3,545	199.4	3,745	210.7	3,945	221.9
3,350	188.4	3,550	199.7	3,750	210.9	3,950	222.2
3,355	188.7	3,555	200.0	3,755	211.2	3,955	222.5
3,360	189.0	3,560	200.2	3,760	211.5	3,960	222.8
3,365	189.3	3,565	200.5	3,765	211.8	3,965	223.0
3,370	189.6	3,570	200.8	3,770	212.1	3,970	223.3
3,375	189.8	3,575	201.1	3,775	212.3	3,975	223.6
3,380	190.1	3,580	201.4	3,780	212.6	3,980	223.9
3,385	190.4	3,585	201.7	3,785	212.9	3,985	224.2
3,390	190.7	3,590	201.9	3,790	213.2	3,990	224.4
3,395	191.0	3,595	202.2	3,795	213.5	3,995	224.7
3,400	191.2	3,600	202.5	3,800	213.8	4,000	225.0

Conversion Formulas: 1 mil = .05625°; 1° = 17.778 mils.

Table 2-3. Mils to Degrees Conversion—Continued

Mils	Degrees	Mils	Degrees	Mils	Degrees	Mils	Degrees
4, 005	225. 3	4, 205	236. 5	4, 405	247. 8	4, 605	259. 0
4, 010	225. 6	4, 210	236. 8	4, 410	248. 1	4, 610	259. 3
4, 015	225. 8	4, 215	237. 1	4, 415	248. 3	4, 615	259. 6
4, 020	226. 1	4, 220	237. 4	4, 420	248. 6	4, 620	259. 9
4, 025	226. 4	4, 225	237. 7	4, 425	248. 9	4, 625	260. 2
4, 030	226. 7	4, 230	237. 9	4, 430	249. 2	4, 630	260. 4
4, 035	227. 0	4, 235	238. 2	4, 435	249. 5	4, 635	260. 7
4, 040	227. 2	4, 240	238. 5	4, 440	249. 8	4, 640	261. 0
4, 045	227. 5	4, 245	238. 8	4, 445	250. 0	4, 645	261. 3
4, 050	227. 8	4, 250	239. 1	4, 450	250. 3	4, 650	261. 6
4, 055	228. 1	4, 255	239. 3	4, 455	250. 6	4, 655	261. 8
4, 060	228. 4	4, 260	239. 6	4, 460	250. 9	4, 660	262. 1
4, 065	228. 7	4, 265	239. 9	4, 465	251. 2	4, 665	262. 4
4, 070	228. 9	4, 270	240. 2	4, 470	251. 4	4, 670	262. 7
4, 075	229. 2	4, 275	240. 5	4, 475	251. 7	4, 675	263. 0
4, 080	229. 5	4, 280	240. 8	4, 480	252. 0	4, 680	263. 2
4, 085	229. 8	4, 285	241. 0	4, 485	252. 3	4, 685	263. 5
4, 090	230. 1	4, 290	241. 3	4, 490	252. 6	4, 690	263. 8
4, 095	230. 3	4, 295	241. 6	4, 495	252. 8	4, 695	264. 1
4, 100	230. 6	4, 300	241. 9	4, 500	253. 1	4, 700	264. 4
4, 105	230. 9	4, 305	242. 2	4, 505	253. 4	4, 705	264. 7
4, 110	231. 2	4, 310	242. 4	4, 510	253. 7	4, 710	264. 9
4, 115	231. 5	4, 315	242. 7	4, 515	254. 0	4, 715	265. 2
4, 120	231. 8	4, 320	243. 0	4, 520	254. 2	4, 720	265. 5
4, 125	232. 0	4, 325	243. 3	4, 525	254. 5	4, 725	265. 8
4, 130	232. 3	4, 330	243. 6	4, 530	254. 8	4, 730	266. 1
4, 135	232. 6	4, 335	243. 8	4, 535	255. 1	4, 735	266. 3
4, 140	232. 9	4, 340	244. 1	4, 540	255. 4	4, 740	266. 6
4, 145	233. 2	4, 345	244. 4	4, 545	255. 7	4, 745	266. 9
4, 150	233. 4	4, 350	244. 7	4, 550	255. 9	4, 750	267. 2
4, 155	233. 7	4, 355	245. 0	4, 555	256. 2	4, 755	267. 5
4, 160	234. 0	4, 360	245. 2	4, 560	256. 5	4, 760	267. 8
4, 165	234. 3	4, 365	245. 5	4, 565	256. 8	4, 765	268. 0
4, 170	234. 6	4, 370	245. 8	4, 570	257. 1	4, 770	268. 3
4, 175	234. 8	4, 375	246. 1	4, 575	257. 3	4, 775	268. 6
4, 180	235. 1	4, 380	246. 4	4, 580	257. 6	4, 780	268. 9
4, 185	235. 4	4, 385	246. 7	4, 585	257. 9	4, 785	269. 2
4, 190	235. 7	4, 390	246. 9	4, 590	258. 2	4, 790	269. 4
4, 195	236. 0	4, 395	247. 2	4, 595	258. 5	4, 795	269. 7
4, 200	236. 2	4, 400	247. 5	4, 600	258. 8	4, 800	270. 0

Conversion Formulas: 1 mil = .05625°; 1° = 17.778 mils.



Table 2-3. Mils to Degrees Conversion—Continued

Mils	Degrees	Mils	Degrees	Mils	Degrees	Mils	Degrees
4,805	270.3	5,005	281.5	5,205	292.8	5,405	304.0
4,810	270.6	5,010	281.8	5,210	293.1	5,410	304.3
4,815	270.8	5,015	282.1	5,215	293.3	5,415	304.6
4,820	271.1	5,020	282.4	5,220	293.6	5,420	304.9
4,825	271.4	5,025	282.7	5,225	293.9	5,425	305.2
4,830	271.7	5,030	282.9	5,230	294.2	5,430	305.4
4,835	272.0	5,035	283.2	5,235	295.5	5,435	305.7
4,840	272.2	5,040	283.5	5,240	294.8	5,440	306.0
4,845	272.5	5,045	283.8	5,245	295.0	5,445	306.3
4,850	272.8	5,050	284.1	5,250	295.3	5,450	306.6
4,855	273.1	5,055	284.3	5,255	295.6	5,455	306.8
4,860	273.4	5,060	284.6	5,260	295.9	5,460	307.1
4,865	273.7	5,065	284.9	5,265	296.2	5,465	307.4
4,870	273.9	5,070	285.2	5,270	296.4	5,470	307.7
4,875	274.2	5,075	285.5	5,275	296.7	5,475	308.0
4,880	274.5	5,080	285.8	5,280	297.0	5,480	308.2
4,885	274.8	5,085	286.0	5,285	297.3	5,485	308.5
4,890	275.1	5,090	286.3	5,290	297.6	5,490	308.8
4,895	275.3	5,095	286.6	5,295	297.8	5,495	309.1
4,900	275.6	5,100	286.9	5,300	298.1	5,500	309.4
4,905	275.9	5,105	287.2	5,305	298.4	5,505	309.7
4,910	276.2	5,110	287.4	5,310	298.7	5,510	309.9
4,915	276.5	5,115	287.7	5,315	299.0	5,515	310.2
4,920	276.8	5,120	288.0	5,320	299.2	5,520	310.5
4,925	277.0	5,125	288.3	5,325	299.5	5,525	310.8
4,930	277.3	5,130	288.6	5,330	299.8	5,530	311.1
4,935	277.6	5,135	288.8	5,335	300.1	5,535	311.3
4,940	277.9	5,140	289.1	5,340	300.4	5,540	311.6
4,945	278.2	5,145	289.4	5,345	300.7	5,545	311.9
4,950	278.4	5,150	289.7	5,350	300.9	5,550	312.2
4,955	278.7	5,155	290.0	5,355	301.2	5,555	312.5
4,960	279.0	5,160	290.2	5,360	301.5	5,560	312.8
4,965	279.3	5,165	290.5	5,365	301.8	5,565	313.0
4,970	279.6	5,170	290.8	5,370	302.1	5,570	313.3
4,975	279.8	5,175	291.1	5,375	302.3	5,575	313.6
4,980	280.1	5,180	291.4	5,380	302.6	5,580	313.9
4,985	280.4	5,185	291.7	5,385	302.9	5,585	314.2
4,990	280.7	5,190	291.9	5,390	303.2	5,590	314.4
4,995	281.0	5,195	292.2	5,395	303.5	5,595	314.7
5,000	281.2	5,200	292.5	5,400	303.8	5,600	315.0

Conversion Formulas: 1 mil = .05625°; 1° = 17.778 mils.

Table 2-3. Mils to Degrees Conversion—Continued

Mils	Degrees	Mils	Degrees	Mils	Degrees	Mils	Degrees
5,605	315.3	5,805	326.5	6,005	337.8	6,205	349.0
5,610	315.6	5,810	326.8	6,010	338.1	6,210	349.3
5,615	315.8	5,815	327.1	6,015	338.3	6,215	349.6
5,620	316.1	5,820	327.4	6,020	338.6	6,220	349.9
5,625	316.4	5,825	327.7	6,025	338.9	6,225	350.2
5,630	316.7	5,830	327.9	6,030	339.2	6,230	350.4
5,635	317.0	5,835	328.2	6,035	339.5	6,235	350.7
5,640	317.2	5,840	328.5	6,040	339.8	6,240	351.0
5,645	317.5	5,845	328.8	6,045	340.0	6,245	351.3
5,650	317.8	5,850	329.1	6,050	340.3	6,250	351.6
5,655	318.1	5,855	329.3	6,055	340.6	6,255	351.8
5,660	318.4	5,860	329.6	6,060	340.9	6,260	352.1
5,665	318.7	5,865	329.9	6,065	341.2	6,265	352.4
5,670	318.9	5,870	330.2	6,070	341.4	6,270	352.7
5,675	319.2	5,875	330.5	6,075	341.7	6,275	353.0
5,680	319.5	5,880	330.8	6,080	342.0	6,280	353.2
5,685	319.8	5,885	331.0	6,085	342.3	6,285	353.5
5,690	320.1	5,890	331.3	6,090	342.6	6,290	353.8
5,695	320.3	5,895	331.6	6,095	342.8	6,295	354.1
5,700	320.6	5,900	331.9	6,100	343.1	6,300	354.4
5,705	320.9	5,905	332.2	6,105	343.4	6,305	354.7
5,710	321.2	5,910	332.4	6,110	343.7	6,310	354.9
5,715	321.5	5,915	332.7	6,115	344.0	6,315	355.2
5,720	321.8	5,920	333.0	6,120	344.2	6,320	355.5
5,725	322.0	5,925	333.3	6,125	344.5	6,325	355.8
5,730	322.3	5,930	333.6	6,130	344.8	6,330	356.1
5,735	322.6	5,935	333.8	6,135	345.1	6,335	356.3
5,740	322.9	5,940	334.1	6,140	345.4	6,340	356.6
5,745	323.2	5,945	334.4	6,145	345.7	6,345	356.9
5,750	323.4	5,950	334.7	6,150	345.9	6,350	357.2
5,755	323.7	5,955	335.0	6,155	346.2	6,355	357.5
5,760	324.0	5,960	335.2	6,160	346.5	6,360	357.8
5,765	324.3	5,965	335.5	6,165	346.8	6,365	358.0
5,770	324.6	5,970	335.8	6,170	347.1	6,370	358.3
5,775	324.8	5,975	336.1	6,175	347.3	6,375	358.6
5,780	325.1	5,980	336.4	6,180	347.6	6,380	358.9
5,785	325.4	5,985	336.7	6,185	347.9	6,385	359.2
5,790	325.7	5,990	336.9	6,190	348.2	6,390	359.4
5,795	326.0	5,995	337.2	6,195	348.5	6,395	359.7
5,800	326.2	6,000	337.5	6,200	348.8	6,400	360.0

Conversion Formulas: 1 mil = .05625°; 1° = 17.778 mils.

### 2-5. PRESSURE CONVERSION

The millibars of pressure for a certain number of inches of mercury maybe determined from figure 2-3.

Formula: 1,000 Millibars = 29.53 inches of Mercury.

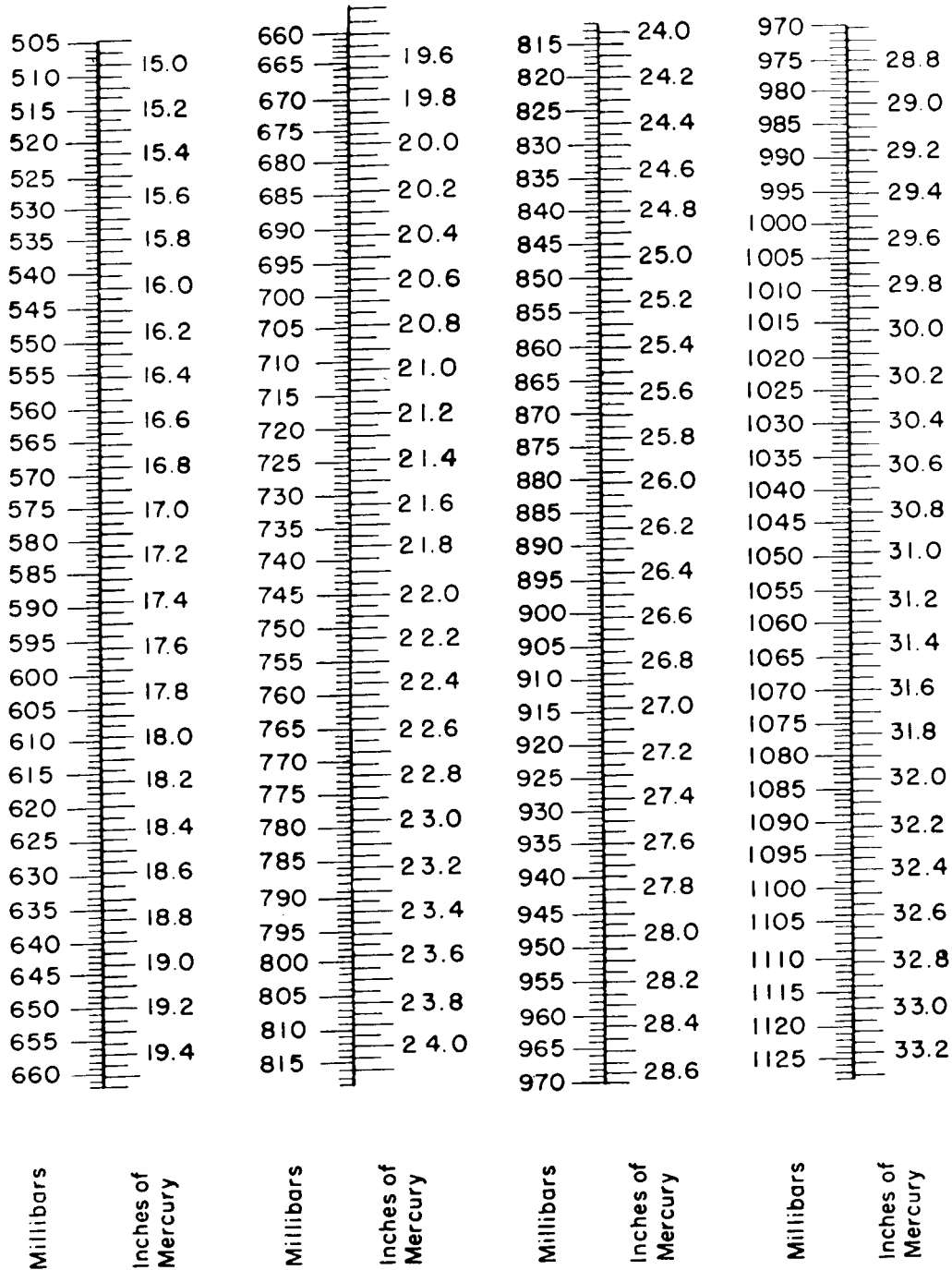


Figure 2-3. Pressure conversion.

**2-6. CONVERSION OF PRESSURE TO PERCENT OF STANDARD**

The conversion of surface pressure in millibars to percent of the standard mean sea level (MSL) pressure is accomplished by use of the chart in figure 2-4.

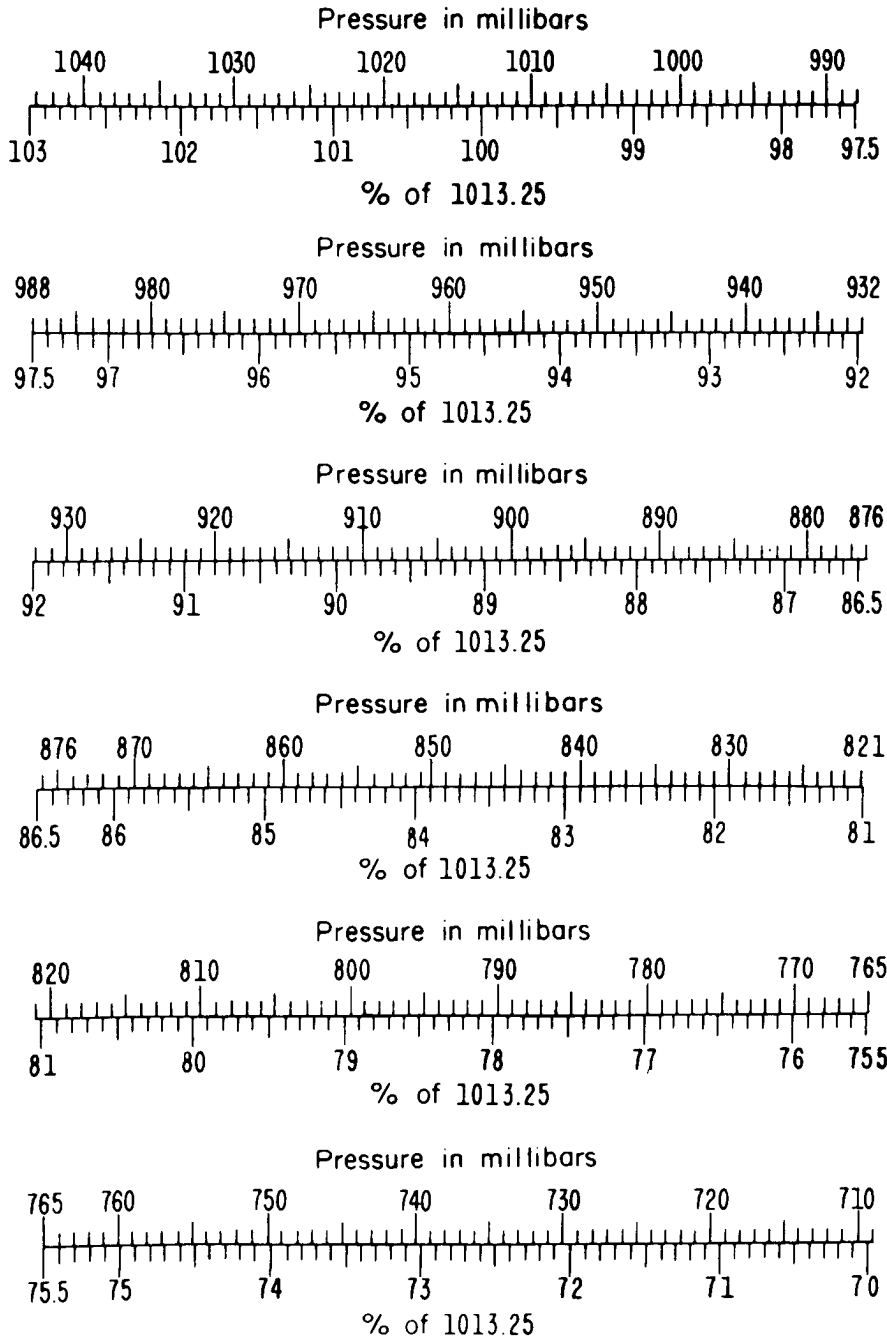


Figure 2-4. Pressure to percent of standard.

### 2-7. PRESSURE TO CONTACT CONVERSION

The conversion of pressure in millibars to contact value in tenths, or vice versa, is accomplished by use of the chart in figure 2-5.

PRESSURE MILLIBARS

Contact Tenths	17.0	16.5	16.0	15.5	15.0	14.5	14.0	13.5	13.0	12.5	12.0
0.1	1.7	1.6	1.6	1.6	1.5	1.5	1.4	1.4	1.3	1.3	1.2
0.2	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.6	2.5	2.4
0.3	5.1	5.0	4.8	4.6	4.5	4.4	4.2	4.1	3.9	3.8	3.6
0.4	6.8	6.6	6.4	6.2	6.0	5.8	5.6	5.4	5.2	5.0	4.8
0.5	8.5	8.2	8.0	7.8	7.5	7.3	7.0	6.8	6.5	6.3	6.0
0.6	10.2	9.9	9.6	9.3	9.0	8.7	8.4	8.1	7.8	7.5	7.2
0.7	11.9	11.6	11.2	10.8	10.5	10.2	9.8	9.5	9.1	8.8	8.4
0.8	13.6	13.2	12.8	12.4	12.0	11.6	11.2	10.8	10.4	10.0	9.6
0.9	15.3	14.8	14.4	14.0	13.5	13.1	12.6	12.2	11.7	11.3	10.8
1.0	17.0	16.5	16.0	15.5	15.0	14.5	14.0	13.5	13.0	12.5	12.0

PRESSURE MILLIBARS

Contact Tenths	11.5	11.0	10.5	10.0	9.5	9.0	8.5	8.0	7.5	7.0	6.5
0.1	1.2	1.1	1.1	1.0	1.0	.9	.9	.8	.8	.7	.7
0.2	2.3	2.2	2.1	2.0	1.9	1.8	1.7	1.6	1.5	1.4	1.3
0.3	3.4	3.3	3.2	3.0	2.9	2.7	2.6	2.4	2.3	2.1	2.0
0.4	4.6	4.4	4.2	4.0	3.8	3.6	3.4	3.2	3.0	2.8	2.6
0.5	5.8	5.5	5.3	5.0	4.8	4.5	4.3	4.0	3.8	3.5	3.3
0.6	6.9	6.6	6.3	6.0	5.8	5.4	5.1	4.8	4.5	4.2	3.9
0.7	8.1	7.7	7.4	7.0	6.7	6.3	6.0	5.6	5.3	4.9	4.6
0.8	9.2	8.8	8.4	8.0	7.6	7.2	6.8	6.4	6.0	5.6	5.2
0.9	10.4	9.9	9.5	9.0	8.6	8.1	7.7	7.2	6.8	6.3	5.9
1.0	11.5	11.0	10.5	10.0	9.5	9.0	8.5	8.0	7.5	7.0	6.5

PRESSURE MILLIBARS

Contact Tenths	6.0	5.5	5.0	4.5	4.0	3.5	3.0	2.5	2.0	1.8
0.1	.6	.6	.5	.5	.4	.4	.3	.3	.2	.2
0.2	1.2	1.2	1.0	.9	.8	.7	.6	.5	.4	.4
0.3	1.8	1.7	1.5	1.4	1.2	1.1	.9	.8	.6	.5
0.4	2.4	2.2	2.0	1.8	1.6	1.4	1.2	1.0	.8	.7
0.5	3.0	2.8	2.5	2.3	2.0	1.8	1.5	1.3	1.0	.9
0.6	3.6	3.3	3.0	2.7	2.4	2.1	1.8	1.5	1.2	1.1
0.7	4.2	3.9	3.5	3.2	2.8	2.5	2.1	1.8	1.4	1.3
0.8	4.8	4.4	4.0	3.6	3.2	2.8	2.4	2.0	1.6	1.4
0.9	5.4	5.0	4.5	4.1	3.6	3.2	2.7	2.3	1.8	1.6
1.0	6.0	5.5	5.0	4.5	4.0	3.5	3.0	2.5	2.0	1.8

Figure 2-5. Pressure to contact conversion.

**2-8. RELATIVE HUMIDITY**

Relative humidity may be determined by use of a psychrometer and psychrometer tables or by use of the chart in figure 2-6.

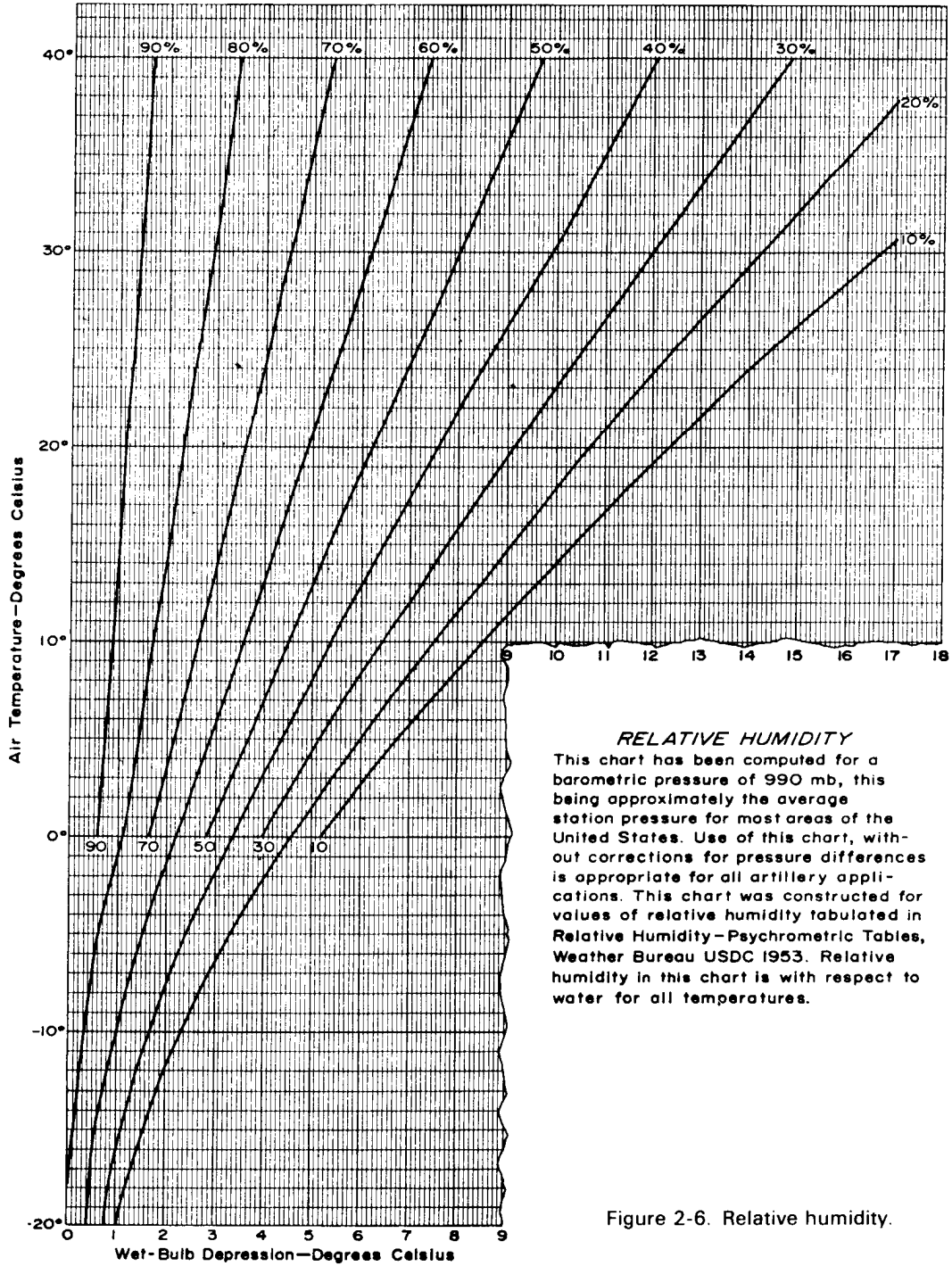


Figure 2-6. Relative humidity.

**2-9. TABLE OF CORRECTIONS USED TO DETERMINE VIRTUAL TEMPERATURE FOR PLOTTING CHART ML-574( )**

a. Table 2-4 provides temperature multipliers which, when multiplied by relative humidity values (i.e., 45% = 0.45, etc.) and added to the observed temperature values, yield virtual temperatures.

b. Enter the table with the observed air temperature rounded off to the nearest whole degree Celsius and the observed pressure rounded off to the nearest 50 millibars. If the observed pressure value ends with 25 or 75 (e.g., 925 or 775), round off to the lower 50-millibar value. Do not interpolate.

Table 2-4. Corrections Used to Determine Virtual Temperature (100% RH)

Temperature °C	Pressure—Millibars															Temperature °C					
	1100 °C	1050 °C	1000 °C	950 °C	900 °C	850 °C	800 °C	750 °C	700 °C	650 °C	600 °C	550 °C	500 °C	450 °C	400 °C		350 °C	300 °C	250 °C	200 °C	
-40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	-40
-39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	-39
-38	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	-38
-37	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	-37
-36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	-36
-35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-35
-34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	-34
-33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	-33
-32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	-32
-31	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	-31
-30	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	-30
-29	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	-29
-28	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	-28
-27	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	-27
-26	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-26
-25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-25
-24	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-24
-23	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-23
-22	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-22
-21	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-21
-20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-20
-19	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-19
-18	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-18
-17	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-17
-16	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-16
-15	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-15
-14	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-14
-13	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-13
-12	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-12
-11	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	-11
-10	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-10
-9	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-9
-8	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-8
-7	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-7
-6	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-6





Table 2-4. Corrections Used to Determine Virtual Temperature (100% RH)—Continued

Temperature °C	Pressure—Millibars															Temperature °C				
	1100 °C	1050 °C	1000 °C	950 °C	900 °C	850 °C	800 °C	750 °C	700 °C	650 °C	600 °C	550 °C	500 °C	450 °C	400 °C		350 °C	300 °C	250 °C	200 °C
31	4.8	5.0	5.3	5.6	5.9	6.2	6.6	7.1	7.6	8.2	8.9	9.7	10.7	12.0						31
32	5.1	5.3	5.6	5.9	6.2	6.6	7.0	7.5	8.1	8.7	9.5	10.3	11.4	12.7						32
33	5.4	5.7	6.0	6.3	6.6	7.0	7.5	8.0	8.6	9.3	10.0	11.0	12.1	13.6						33
34	5.7	6.0	6.3	6.7	7.0	7.5	8.0	8.5	9.1	9.8	10.7	11.7	12.9	14.4						34
35	6.1	6.4	6.7	7.1	7.5	7.9	8.4	9.0	9.7	10.4	11.4	12.4	13.7	15.3						35
36	6.5	6.8	7.1	7.5	8.0	8.4	9.0	9.6	10.3	11.1	12.1	13.2	14.6	16.3						36
37	6.9	7.2	7.6	8.0	8.4	8.9	9.5	10.2	10.9	11.8	12.8	14.0	15.5	17.3						37
38	7.3	7.6	8.0	8.5	9.0	9.5	10.1	10.8	11.6	12.5	13.6	14.9	16.5	18.4						38
39	7.7	8.1	8.5	9.0	9.5	10.1	10.7	11.4	12.3	13.3	14.4	15.8	17.5	19.6						39
40	8.2	8.6	9.0	9.5	10.1	10.7	11.4	12.2	13.0	14.1	15.3	16.8	18.6	20.8						40
41	8.7	9.1	9.6	10.1	10.7	11.3	12.0	12.9	13.8	15.0										41
42	9.2	9.6	10.1	10.7	11.3	12.0	12.8	13.7	14.7	15.9										42
43	9.7	10.2	10.7	11.3	12.0	12.7	13.5	14.5	15.5	16.8										43
44	10.3	10.8	11.4	12.0	12.7	13.4	14.3	15.3	16.5	17.8										44
45	10.9	11.4	12.0	12.7	13.4	14.2	15.2	16.2	17.4	18.9										45
46	11.5	12.1	12.7	13.4	14.2	15.1	16.0	17.2	18.5	20.0										46
47	12.2	12.8	13.5	14.2	15.0	15.9	17.0	18.2	19.6	21.2										47
48	12.9	13.5	14.2	15.0	15.9	16.9	18.0	19.3	20.7	22.4										48
49	13.6	14.3	15.0	15.9	16.8	17.8	19.0	20.4	21.9	23.7										49
50	14.4	15.1	15.9	16.8	17.8	18.9	20.1	21.5	23.2	25.1										50
51	15.2	16.0	16.8	17.7	18.8	20.0														51
52	16.1	16.9	17.8	18.7	19.8	21.1														52
53	17.0	17.8	18.8	19.8	21.0	22.3														53
54	17.9	18.8	19.8	20.9	22.1	23.5														54
55	18.9	19.9	20.9	22.1	23.4	24.9														55
56	20.0	21.0	22.1	23.3	24.7	26.3														56
57	21.0	22.1	23.3	24.6	26.0	27.7														57
58	22.2	23.3	24.6	26.0	27.5	29.3														58
59	23.4	24.6	25.9	27.4	29.0	30.9														59
60	24.7	25.9	27.3	28.9	30.6	32.6														60

Enter table with temperature to the nearest whole degree Celsius and pressure to the nearest 50 millibars. Obtain virtual temperature increment. Do not interpolate.

## SECTION II.

## TABLES FOR TYPE 3 MESSAGE, BALLISTIC MESSAGE FOR SURFACE-TO-SURFACE TRAJECTORIES

### 2-10. GENERAL

Tables 2-5 through 2-10 contain the weighting factors used in obtaining a type 3 meteorological message. Some of the tables present the weighting factors directly; in others, the weighting factors are used to determine the effect of the various zone values on the line values of the meteorological message. The weighting factors used are those approved, on an interim basis, by the fifth meeting of the NATO Group on External Ballistics, November 1960.

### 2-11. WEIGHTED DENSITY TABLES (TYPE 3 MESSAGE)

a. The weighted density tables give the weighted densities for the type 3 message (surface-to-surface firing). They may be used to convert zone densities in

grams per cubic meter to zone densities in percent of standard for that zone and to convert zone densities to the weighted effect of these zone densities on the various line values of the meteorological message.

b. The values in the Density % column were computed by dividing the  $GM/M^3$  value by the zone midpoint standard density.

c. The Line-zone No. values were computed by multiplying the Density % values by the weighting factors shown in table 2-5. Line-zone No. 21 is the product of the weighting factor (.43), line 2 of zone number 1, table 2-5, and the Density % value. Line-zone No. 32 is the product of the weighting factor (.31), line 3 of zone number 2, table 2-5, and the Density % value.

*Table 2-5. Density Weighting Factors (Type 3 Messages)*

Line No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1.00														
2	.43	.57													
3	.22	.31	.47												
4	.15	.21	.32	.32											
5	.11	.17	.25	.22	.25										
6	.08	.11	.17	.17	.15	.32									
7	.06	.08	.14	.13	.12	.22	.25								
8	.05	.06	.11	.11	.10	.19	.17	.21							
9	.04	.06	.09	.09	.08	.17	.15	.14	.18						
10	.03	.04	.07	.07	.07	.13	.12	.11	.11	.25					
11	.01	.03	.05	.05	.06	.12	.11	.09	.09	.16	.23				
12	.02	.03	.05	.05	.05	.11	.10	.09	.08	.14	.12	.16			
13	.02	.02	.04	.05	.05	.11	.09	.09	.08	.14	.10	.09	.12		
14	.02	.03	.05	.05	.05	.10	.09	.08	.07	.13	.11	.08	.06	.08	
15	.02	.04	.05	.05	.05	.10	.09	.08	.07	.12	.09	.08	.05	.05	.06

## 2-12. SURFACE DENSITY, PERCENT OF STANDARD

The surface density, in grams per cubic meter and expressed as a standard surface density, may be determined from the chart in figure 2-7.

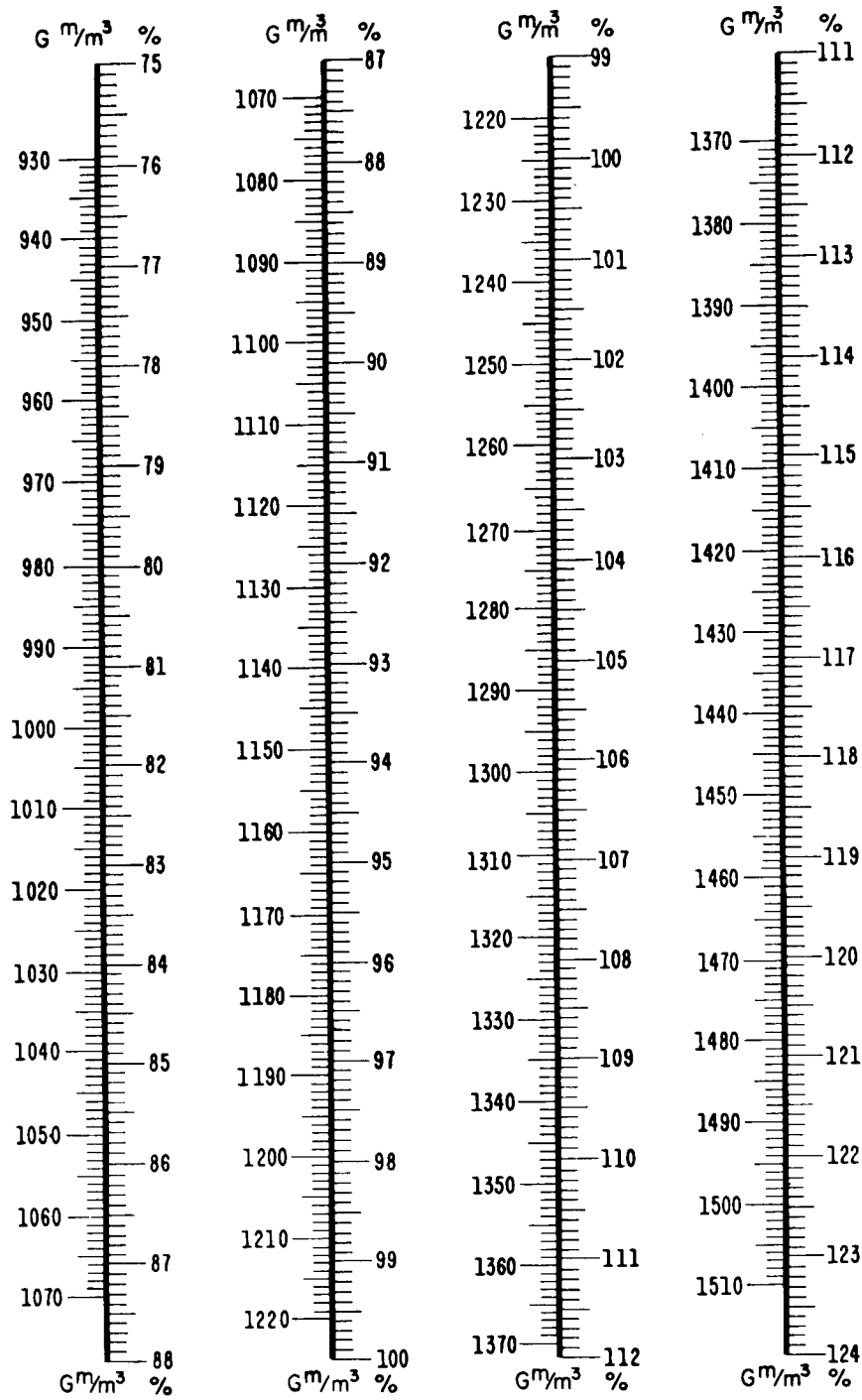


Figure 2-7. Surface density conversion.

Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 1

Density		Line-zone No.														
Gm/M <sup>3</sup>	%	11	21	31	41	51	61	71	81	91	01	11	21	31	41	51
780	64.3	64.3	27.6	14.1	9.6	7.1	5.1	3.9	3.2	2.6	1.9	.6	1.3	1.3	1.3	1.3
790	65.1	65.1	28.0	14.3	9.8	7.2	5.2	3.9	3.3	2.6	2.0	.7	1.3	1.3	1.3	1.3
800	65.9	65.9	28.4	14.5	9.9	7.3	5.3	4.0	3.3	2.6	2.0	.7	1.3	1.3	1.3	1.3
810	66.8	66.8	28.7	14.7	10.0	7.3	5.3	4.0	3.3	2.7	2.0	.7	1.3	1.3	1.3	1.3
820	67.6	67.6	29.1	14.9	10.1	7.4	5.4	4.1	3.4	2.7	2.0	.7	1.4	1.4	1.4	1.4
830	68.4	68.4	29.4	15.1	10.3	7.5	5.5	4.1	3.4	2.7	2.1	.7	1.4	1.4	1.4	1.4
840	69.2	69.2	29.8	15.2	10.4	7.6	5.5	4.2	3.5	2.8	2.1	.7	1.4	1.4	1.4	1.4
850	70.1	70.1	30.1	15.4	10.5	7.7	5.6	4.2	3.5	2.8	2.1	.7	1.4	1.4	1.4	1.4
860	70.9	70.9	30.5	15.6	10.6	7.8	5.7	4.3	3.5	2.8	2.1	.7	1.4	1.4	1.4	1.4
870	71.7	71.7	30.8	15.8	10.8	7.9	5.7	4.3	3.6	2.9	2.2	.7	1.4	1.4	1.4	1.4
880	72.5	72.5	31.2	16.0	10.9	8.0	5.8	4.4	3.6	2.9	2.2	.7	1.5	1.5	1.5	1.5
890	73.4	73.4	31.5	16.1	11.0	8.1	5.9	4.4	3.7	2.9	2.2	.7	1.5	1.5	1.5	1.5
900	74.2	74.2	31.9	16.3	11.1	8.2	5.9	4.5	3.7	3.0	2.2	.7	1.5	1.5	1.5	1.5
910	75.0	75.0	32.3	16.5	11.3	8.3	6.0	4.5	3.8	3.0	2.3	.8	1.5	1.5	1.5	1.5
920	75.8	75.8	32.6	16.7	11.4	8.3	6.1	4.5	3.8	3.0	2.3	.8	1.5	1.5	1.5	1.5
930	76.7	76.7	33.0	16.9	11.5	8.4	6.1	4.6	3.8	3.1	2.3	.8	1.5	1.5	1.5	1.5
940	77.5	77.5	33.3	17.0	11.6	8.5	6.2	4.6	3.9	3.1	2.3	.8	1.5	1.5	1.5	1.5
950	78.3	78.3	33.7	17.2	11.7	8.6	6.3	4.7	3.9	3.1	2.3	.8	1.6	1.6	1.6	1.6
960	79.1	79.1	34.0	17.4	11.9	8.7	6.3	4.7	4.0	3.2	2.4	.8	1.6	1.6	1.6	1.6
970	79.9	79.9	34.4	17.6	12.0	8.8	6.4	4.8	4.0	3.2	2.4	.8	1.6	1.6	1.6	1.6
980	80.8	80.8	34.7	17.8	12.1	8.9	6.5	4.8	4.0	3.2	2.4	.8	1.6	1.6	1.6	1.6
990	81.6	81.6	35.1	18.0	12.2	9.0	6.5	4.9	4.1	3.3	2.4	.8	1.6	1.6	1.6	1.6
1,000	82.4	82.4	35.4	18.1	12.4	9.1	6.6	4.9	4.1	3.3	2.5	.8	1.6	1.6	1.6	1.6
1,010	83.2	83.2	35.8	18.3	12.5	9.2	6.7	5.0	4.2	3.3	2.5	.8	1.7	1.7	1.7	1.7
1,020	84.1	84.1	36.1	18.5	12.6	9.2	6.7	5.0	4.2	3.4	2.5	.8	1.7	1.7	1.7	1.7
1,030	84.9	84.9	36.5	18.7	12.7	9.3	6.8	5.1	4.2	3.4	2.5	.8	1.7	1.7	1.7	1.7
1,040	85.7	85.7	36.9	18.9	12.9	9.4	6.9	5.1	4.3	3.4	2.6	.9	1.7	1.7	1.7	1.7
1,050	86.5	86.5	37.2	19.0	13.0	9.5	6.9	5.2	4.3	3.6	2.6	.9	1.7	1.7	1.7	1.7
1,060	87.4	87.4	37.6	19.2	13.1	9.6	7.0	5.2	4.4	3.5	2.6	.9	1.7	1.7	1.7	1.7
1,070	88.2	88.2	37.9	19.4	13.2	9.7	7.1	5.3	4.4	3.5	2.6	.9	1.8	1.8	1.8	1.8
1,080	89.0	89.0	38.3	19.6	13.4	9.8	7.1	5.3	4.5	3.6	2.7	.9	1.8	1.8	1.8	1.8
1,090	89.8	89.8	38.6	19.8	13.5	9.9	7.2	5.4	4.5	3.6	2.7	.9	1.8	1.8	1.8	1.8
1,100	90.7	90.7	39.0	19.9	13.6	10.0	7.3	5.4	4.5	3.6	2.7	.9	1.8	1.8	1.8	1.8
1,110	91.5	91.5	39.3	20.1	13.7	10.1	7.3	5.5	4.6	3.7	2.7	.9	1.8	1.8	1.8	1.8
1,120	92.3	92.3	39.7	20.3	13.8	10.2	7.4	5.5	4.6	3.7	2.8	.9	1.8	1.8	1.8	1.8
1,130	93.1	93.1	40.0	20.5	14.0	10.2	7.5	5.6	4.7	3.7	2.8	.9	1.9	1.9	1.9	1.9
1,140	94.0	94.0	40.4	20.7	14.1	10.3	7.5	5.6	4.7	3.8	2.8	.9	1.9	1.9	1.9	1.9
1,150	94.8	94.8	40.8	20.9	14.2	10.4	7.6	5.7	4.7	3.8	2.8	.9	1.9	1.9	1.9	1.9
1,160	95.6	95.6	41.1	21.0	14.3	10.5	7.6	5.7	4.8	3.8	2.9	1.0	1.9	1.9	1.9	1.9
1,170	96.4	96.4	41.5	21.2	14.5	10.6	7.7	5.8	4.8	3.9	2.9	1.0	1.9	1.9	1.9	1.9
1,180	97.3	97.3	41.8	21.4	14.6	10.7	7.8	5.8	4.9	3.9	2.9	1.0	1.9	1.9	1.9	1.9
1,190	98.1	98.1	42.2	21.6	14.7	10.8	7.8	5.9	4.9	3.9	2.9	1.0	2.0	2.0	2.0	2.0
1,200	98.9	98.9	42.5	21.8	14.8	10.9	7.9	5.9	4.9	4.0	3.0	1.0	2.0	2.0	2.0	2.0

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 1—Continued

Density		Line-zone No.														
Gm/M <sup>3</sup>	%	11	21	31	41	51	61	71	81	91	01	11	21	31	41	51
1,210	99.7	99.7	42.9	21.9	15.0	11.0	8.0	6.0	5.0	4.0	3.0	1.0	2.0	2.0	2.0	2.0
1,220	100.6	100.6	43.2	22.1	15.1	11.1	8.0	6.0	5.0	4.0	3.0	1.0	2.0	2.0	2.0	2.0
1,230	101.4	101.4	43.6	22.3	15.2	11.2	8.1	6.1	5.1	4.1	3.0	1.0	2.0	2.0	2.0	2.0
1,240	102.2	102.2	43.9	22.5	15.3	11.2	8.2	6.1	5.1	4.1	3.1	1.0	2.0	2.0	2.0	2.0
1,250	103.0	103.0	44.3	22.7	15.5	11.3	8.2	6.2	5.2	4.1	3.1	1.0	2.1	2.1	2.1	2.1
1,260	103.9	103.9	44.7	22.8	15.6	11.4	8.3	6.2	5.2	4.2	3.1	1.0	2.1	2.1	2.1	2.1
1,270	104.7	104.7	45.0	23.0	15.7	11.5	8.4	6.3	5.2	4.2	3.1	1.0	2.1	2.1	2.1	2.1
1,280	105.5	105.5	45.4	23.2	15.8	11.6	8.4	6.3	5.3	4.2	3.2	1.1	2.1	2.1	2.1	2.1
1,290	106.3	106.3	45.7	23.4	15.9	11.7	8.5	6.4	5.3	4.3	3.2	1.1	2.1	2.1	2.1	2.1
1,300	107.2	107.2	46.1	23.6	16.1	11.8	8.6	6.4	5.4	4.3	3.2	1.1	2.1	2.1	2.1	2.1
1,310	108.0	108.0	46.4	23.8	16.2	11.9	8.6	6.5	5.4	4.3	3.2	1.1	2.2	2.2	2.2	2.2
1,320	108.8	108.8	46.8	23.9	16.3	12.0	8.7	6.5	5.4	4.4	3.3	1.1	2.2	2.2	2.2	2.2
1,330	109.6	109.6	47.1	24.1	16.4	12.1	8.8	6.6	5.5	4.4	3.3	1.1	2.2	2.2	2.2	2.2
1,340	110.4	110.4	47.5	24.3	16.6	12.1	8.8	6.6	5.5	4.4	3.3	1.1	2.2	2.2	2.2	2.2
1,350	111.3	111.3	47.8	24.5	16.7	12.2	8.9	6.7	5.6	4.5	3.3	1.1	2.2	2.2	2.2	2.2
1,360	112.1	112.1	48.2	24.7	16.8	12.3	9.0	6.7	5.6	4.5	3.4	1.1	2.2	2.2	2.2	2.2
1,370	112.9	112.9	48.6	24.8	16.9	12.4	9.0	6.8	5.6	4.5	3.4	1.1	2.3	2.3	2.3	2.3
1,380	113.7	113.7	48.9	25.0	17.1	12.5	9.1	6.8	5.7	4.5	3.4	1.1	2.3	2.3	2.3	2.3
1,390	114.6	114.6	49.3	25.2	17.2	12.6	9.2	6.9	5.7	4.6	3.4	1.1	2.3	2.3	2.3	2.3
1,400	115.4	115.4	49.6	25.4	17.3	12.7	9.2	6.9	5.8	4.6	3.5	1.2	2.3	2.3	2.3	2.3
1,410	116.2	116.2	50.0	25.6	17.4	12.8	9.3	7.0	5.8	4.6	3.5	1.2	2.3	2.3	2.3	2.3
1,420	117.0	117.0	50.3	25.7	17.6	12.9	9.4	7.0	5.9	4.7	3.5	1.2	2.3	2.3	2.3	2.3
1,430	117.9	117.9	50.7	25.9	17.7	13.0	9.4	7.1	5.9	4.7	3.5	1.2	2.4	2.4	2.4	2.4
1,440	118.7	118.7	51.0	26.1	17.8	13.1	9.5	7.1	5.9	4.7	3.6	1.2	2.4	2.4	2.4	2.4
1,450	119.5	119.5	51.4	26.3	17.9	13.1	9.6	7.2	6.0	4.8	3.6	1.2	2.4	2.4	2.4	2.4
1,460	120.3	120.3	51.7	26.5	18.1	13.2	9.6	7.2	6.0	4.8	3.6	1.2	2.4	2.4	2.4	2.4
1,470	121.2	121.2	52.1	26.7	18.2	13.3	9.7	7.3	6.1	4.8	3.6	1.2	2.4	2.4	2.4	2.4
1,480	122.0	122.0	52.5	26.8	18.3	13.4	9.8	7.3	6.1	4.9	3.7	1.2	2.4	2.4	2.4	2.4
1,490	122.8	122.8	52.8	27.0	18.4	13.5	9.8	7.4	6.1	4.9	3.7	1.2	2.5	2.5	2.5	2.5
1,500	123.6	123.6	53.2	27.2	18.5	13.6	9.9	7.4	6.2	4.9	3.7	1.2	2.5	2.5	2.5	2.5
1,510	124.5	124.5	53.5	27.4	18.7	13.7	10.0	7.5	6.2	5.0	3.7	1.2	2.5	2.5	2.5	2.5
1,520	125.3	125.3	53.9	27.6	18.8	13.8	10.0	7.5	6.3	5.0	3.8	1.3	2.5	2.5	2.5	2.5
1,530	126.1	126.1	54.2	27.7	18.9	13.9	10.1	7.6	6.3	5.0	3.8	1.3	2.5	2.5	2.5	2.5
1,540	126.9	126.9	54.6	27.9	19.0	14.0	10.2	7.6	6.3	5.1	3.8	1.3	2.5	2.5	2.5	2.5
1,550	127.8	127.8	54.9	28.1	19.2	14.1	10.2	7.7	6.4	5.1	3.8	1.3	2.6	2.6	2.6	2.6
1,560	128.6	128.6	55.3	28.3	19.3	14.1	10.3	7.7	6.4	5.1	3.9	1.3	2.6	2.6	2.6	2.6
1,570	129.4	129.4	55.6	28.5	19.4	14.2	10.4	7.8	6.5	5.2	3.9	1.3	2.6	2.6	2.6	2.6
1,580	130.2	130.2	56.0	28.6	19.5	14.3	10.4	7.8	6.5	5.2	3.9	1.3	2.6	2.6	2.6	2.6
1,590	131.0	131.0	56.4	28.8	19.7	14.4	10.5	7.9	6.6	5.2	3.9	1.3	2.6	2.6	2.6	2.6
1,600	131.9	131.9	56.7	29.0	19.8	14.5	10.6	7.9	6.6	5.3	4.0	1.3	2.6	2.6	2.6	2.6
1,610	132.7	132.7	57.1	29.2	19.9	14.6	10.6	8.0	6.6	5.3	4.0	1.3	2.7	2.7	2.7	2.7
1,620	133.5	133.5	57.4	29.4	20.0	14.7	10.7	8.0	6.7	5.3	4.0	1.3	2.7	2.7	2.7	2.7

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 2

Density		Line-zone No.													
Gm/M <sup>3</sup>	%	22	32	42	52	62	72	82	92	02	12	22	32	42	52
760	64.2	36.6	19.9	13.5	10.9	7.1	5.1	3.9	3.9	2.6	1.9	1.9	1.3	1.9	2.6
770	65.0	37.1	20.2	13.7	11.1	7.2	5.2	3.9	3.9	2.6	2.0	2.0	1.3	2.0	2.6
780	65.9	37.5	20.4	13.8	11.2	7.2	5.3	4.0	4.0	2.6	2.0	2.0	1.3	2.0	2.6
790	66.7	38.0	20.7	14.0	11.3	7.3	5.3	4.0	4.0	2.7	2.0	2.0	1.3	2.0	2.7
800	67.5	38.5	20.9	14.2	11.5	7.4	5.4	4.1	4.1	2.7	2.0	2.0	1.4	2.0	2.7
810	68.4	39.0	21.2	14.4	11.6	7.5	5.5	4.1	4.1	2.7	2.1	2.1	1.4	2.1	2.7
820	69.2	39.5	21.5	14.5	11.8	7.6	5.5	4.2	4.2	2.8	2.1	2.1	1.4	2.1	2.8
830	70.1	39.9	21.7	14.7	11.9	7.7	5.6	4.2	4.2	2.8	2.1	2.1	1.4	2.1	2.8
840	70.9	40.4	22.0	14.9	12.1	7.8	5.7	4.3	4.3	2.8	2.1	2.1	1.4	2.1	2.8
850	71.8	40.9	22.2	15.1	12.2	7.9	5.7	4.3	4.3	2.9	2.2	2.2	1.4	2.2	2.9
860	72.6	41.4	22.5	15.2	12.3	8.0	5.8	4.4	4.4	2.9	2.2	2.2	1.5	2.2	2.9
870	73.5	41.9	22.8	15.4	12.5	8.1	5.9	4.4	4.4	2.9	2.2	2.2	1.5	2.2	2.9
880	74.3	42.4	23.0	15.6	12.6	8.2	5.9	4.5	4.5	3.0	2.2	2.2	1.5	2.2	3.0
890	75.1	42.8	23.3	15.8	12.8	8.3	6.0	4.5	4.5	3.0	2.3	2.3	1.5	2.3	3.0
900	76.0	43.3	23.6	16.0	12.9	8.4	6.1	4.6	4.6	3.0	2.3	2.3	1.5	2.3	3.0
910	76.8	43.8	23.8	16.1	13.1	8.5	6.1	4.6	4.6	3.1	2.3	2.3	1.5	2.3	3.1
920	77.7	44.3	24.1	16.3	13.2	8.5	6.2	4.7	4.7	3.1	2.3	2.3	1.6	2.3	3.1
930	78.5	44.8	24.3	16.5	13.3	8.6	6.3	4.7	4.7	3.1	2.4	2.4	1.6	2.4	3.1
940	79.4	45.2	24.6	16.7	13.5	8.7	6.3	4.8	4.8	3.2	2.4	2.4	1.6	2.4	3.2
950	80.2	45.7	24.9	16.8	13.6	8.8	6.4	4.8	4.8	3.2	2.4	2.4	1.6	2.4	3.2
960	81.1	46.2	25.1	17.0	13.8	8.9	6.5	4.9	4.9	3.2	2.4	2.4	1.6	2.4	3.2
970	81.9	46.7	25.4	17.2	13.9	9.0	6.6	4.9	4.9	3.3	2.5	2.5	1.6	2.5	3.3
980	82.7	47.2	25.7	17.4	14.1	9.1	6.6	5.0	5.0	3.3	2.5	2.5	1.7	2.5	3.3
990	83.6	47.6	25.9	17.6	14.2	9.2	6.7	5.0	5.0	3.3	2.5	2.5	1.7	2.5	3.3
1,000	84.4	48.1	26.2	17.7	14.4	9.3	6.8	5.1	5.1	3.4	2.5	2.5	1.7	2.5	3.4
1,010	85.3	48.6	26.4	17.9	14.5	9.4	6.8	5.1	5.1	3.4	2.6	2.6	1.7	2.6	3.4
1,020	86.1	49.1	26.7	18.1	14.6	9.5	6.9	5.2	5.2	3.4	2.6	2.6	1.7	2.6	3.4
1,030	87.0	49.6	27.0	18.3	14.8	9.6	7.0	5.2	5.2	3.5	2.6	2.6	1.7	2.6	3.5
1,040	87.8	50.1	27.2	18.4	14.9	9.7	7.0	5.3	5.3	3.5	2.6	2.6	1.8	2.6	3.5
1,050	88.7	50.5	27.5	18.6	15.1	9.8	7.1	5.3	5.3	3.5	2.7	2.7	1.8	2.7	3.5
1,060	89.5	51.0	27.7	18.8	15.2	9.8	7.2	5.4	5.4	3.6	2.7	2.7	1.8	2.7	3.6
1,070	90.3	51.5	28.0	19.0	15.4	9.9	7.2	5.4	5.4	3.6	2.7	2.7	1.8	2.7	3.6
1,080	91.2	52.0	28.3	19.1	15.5	10.0	7.3	5.5	5.5	3.6	2.7	2.7	1.8	2.7	3.6
1,090	92.0	52.5	28.5	19.3	15.6	10.1	7.4	5.5	5.5	3.7	2.8	2.8	1.8	2.8	3.7
1,100	92.9	52.9	28.8	19.5	15.8	10.2	7.4	5.6	5.6	3.7	2.8	2.8	1.9	2.8	3.7
1,110	93.7	53.4	29.1	19.7	15.9	10.3	7.5	5.6	5.6	3.7	2.8	2.8	1.9	2.8	3.7
1,120	94.6	53.9	29.3	19.9	16.1	10.4	7.6	5.7	5.7	3.8	2.8	2.8	1.9	2.8	3.8
1,130	95.4	54.4	29.6	20.0	16.2	10.5	7.6	5.7	5.7	3.8	2.9	2.9	1.9	2.9	3.8
1,140	96.3	54.9	29.8	20.2	16.4	10.6	7.7	5.8	5.8	3.9	2.9	2.9	1.9	2.9	3.9
1,150	97.1	55.3	30.1	20.4	16.5	10.7	7.8	5.8	5.8	3.9	2.9	2.9	1.9	2.9	3.9
1,160	97.9	55.8	30.4	20.6	16.7	10.8	7.8	5.9	5.9	3.9	2.9	2.9	2.0	2.9	3.9

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 2—Continued

Density		Line-zone No.													
Gm/M <sup>3</sup>	%	22	32	42	52	62	72	82	92	02	12	22	32	42	52
1,170	98.8	56.3	30.6	20.7	16.8	10.9	7.9	5.9	5.9	4.0	3.0	3.0	2.0	3.0	4.0
1,180	99.6	56.8	30.9	20.9	16.9	11.0	8.0	6.0	6.0	4.0	3.0	3.0	2.0	3.0	4.0
1,190	100.5	57.3	31.1	21.1	17.1	11.1	8.0	6.0	6.0	4.0	3.0	3.0	2.0	3.0	4.0
1,200	101.3	57.8	31.4	21.3	17.2	11.1	8.1	6.1	6.1	4.1	3.0	3.0	2.0	3.0	4.1
1,210	102.2	58.2	31.7	21.5	17.4	11.2	8.2	6.1	6.1	4.1	3.1	3.1	2.0	3.1	4.1
1,220	103.0	58.7	31.9	21.6	17.5	11.3	8.2	6.2	6.2	4.1	3.1	3.1	2.1	3.1	4.1
1,230	103.9	59.2	32.2	21.8	17.7	11.4	8.3	6.2	6.2	4.2	3.1	3.1	2.1	3.1	4.2
1,240	104.7	59.7	32.5	22.0	17.8	11.5	8.4	6.3	6.3	4.2	3.1	3.1	2.1	3.1	4.2
1,250	105.5	60.2	32.7	22.2	17.9	11.6	8.4	6.3	6.3	4.2	3.2	3.2	2.1	3.2	4.2
1,260	106.4	60.6	33.0	22.3	18.1	11.7	8.5	6.4	6.4	4.3	3.2	3.2	2.1	3.2	4.3
1,270	107.2	61.1	33.2	22.5	18.2	11.8	8.6	6.4	6.4	4.3	3.2	3.2	2.1	3.2	4.3
1,280	108.1	61.6	33.5	22.7	18.4	11.9	8.6	6.5	6.5	4.3	3.2	3.2	2.2	3.2	4.3
1,290	108.9	62.1	33.8	22.9	18.5	12.0	8.7	6.5	6.5	4.4	3.3	3.3	2.2	3.3	4.4
1,300	109.8	62.6	34.0	23.1	18.7	12.1	8.8	6.6	6.6	4.4	3.3	3.3	2.2	3.3	4.4
1,310	110.6	63.0	34.3	23.2	18.8	12.2	8.8	6.6	6.6	4.4	3.3	3.3	2.2	3.3	4.4
1,320	111.5	63.5	34.5	23.4	18.9	12.3	8.9	6.7	6.7	4.5	3.3	3.3	2.2	3.3	4.5
1,330	112.3	64.0	34.8	23.6	19.1	12.4	9.0	6.7	6.7	4.5	3.4	3.4	2.2	3.4	4.5
1,340	113.1	64.5	35.1	23.8	19.2	12.4	9.1	6.8	6.8	4.5	3.4	3.4	2.3	3.4	4.5
1,350	114.0	65.0	35.3	23.9	19.4	12.5	9.1	6.8	6.8	4.6	3.4	3.4	2.3	3.4	4.6
1,360	114.8	65.5	35.6	24.1	19.5	12.6	9.2	6.9	6.9	4.6	3.4	3.4	2.3	3.4	4.6
1,370	115.7	65.9	35.9	24.3	19.7	12.7	9.3	6.9	6.9	4.6	3.5	3.5	2.3	3.5	4.6
1,380	116.5	66.4	36.1	24.5	19.8	12.8	9.3	7.0	7.0	4.7	3.5	3.5	2.3	3.5	4.7
1,390	117.4	66.9	36.4	24.6	20.0	12.9	9.4	7.0	7.0	4.7	3.5	3.5	2.3	3.5	4.7
1,400	118.2	67.4	36.6	24.8	20.1	13.0	9.5	7.1	7.1	4.7	3.5	3.5	2.4	3.5	4.7
1,410	119.1	67.9	36.9	25.0	20.2	13.1	9.5	7.1	7.1	4.8	3.6	3.6	2.4	3.6	4.8
1,420	119.9	68.3	37.2	25.2	20.4	13.2	9.6	7.2	7.2	4.8	3.6	3.6	2.4	3.6	4.8
1,430	120.7	68.8	37.4	25.4	20.5	13.3	9.7	7.2	7.2	4.8	3.6	3.6	2.4	3.6	4.8
1,440	121.6	69.3	37.7	25.5	20.7	13.4	9.7	7.3	7.3	4.9	3.6	3.6	2.4	3.6	4.9
1,450	122.4	69.8	38.0	25.7	20.8	13.5	9.8	7.3	7.3	4.9	3.7	3.7	2.4	3.7	4.9
1,460	123.3	70.3	38.2	25.9	21.0	13.6	9.9	7.4	7.4	4.9	3.7	3.7	2.5	3.7	4.9
1,470	124.1	70.7	38.5	26.1	21.1	13.7	9.9	7.4	7.4	5.0	3.7	3.7	2.5	3.7	5.0
1,480	125.0	71.2	38.7	26.2	21.2	13.7	10.0	7.5	7.5	5.0	3.7	3.7	2.5	3.7	5.0
1,490	125.8	71.7	39.0	26.4	21.4	13.8	10.1	7.5	7.5	5.0	3.8	3.8	2.5	3.8	5.0
1,500	126.6	72.2	39.3	26.6	21.5	13.9	10.1	7.6	7.6	5.1	3.8	3.8	2.5	3.8	5.1
1,510	127.5	72.7	39.5	26.8	21.7	14.0	10.2	7.6	7.6	5.1	3.8	3.8	2.5	3.8	5.1
1,520	128.3	73.2	39.8	27.0	21.8	14.1	10.3	7.7	7.7	5.1	3.9	3.9	2.6	3.9	5.1
1,530	129.2	73.6	40.0	27.1	22.0	14.2	10.3	7.8	7.8	5.2	3.9	3.9	2.6	3.9	5.2
1,540	130.0	74.1	40.3	27.3	22.1	14.3	10.4	7.8	7.8	5.2	3.9	3.9	2.6	3.9	5.2
1,550	130.9	74.6	40.6	27.5	22.2	14.4	10.5	7.9	7.9	5.2	3.9	3.9	2.6	3.9	5.2
1,560	131.7	75.1	40.8	27.7	22.4	14.5	10.5	7.9	7.9	5.3	4.0	4.0	2.6	4.0	5.3

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.



Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 3

Density		Line-zone No.												
Gm/M <sup>3</sup>	%	33	43	53	63	73	83	93	03	13	23	33	43	53
740	65.0	30.5	20.8	16.2	11.0	9.1	7.1	5.8	4.5	3.2	3.2	2.6	3.2	3.2
750	65.8	30.9	21.1	16.5	11.2	9.2	7.2	5.9	4.6	3.3	3.3	2.6	3.3	3.3
760	66.7	31.4	21.3	16.7	11.3	9.3	7.3	6.0	4.7	3.3	3.3	2.7	3.3	3.3
770	67.6	31.8	21.6	16.9	11.5	9.5	7.4	6.1	4.7	3.4	3.4	2.7	3.4	3.4
780	68.5	32.2	21.9	17.1	11.6	9.6	7.5	6.2	4.8	3.4	3.4	2.7	3.4	3.4
790	69.3	32.6	22.2	17.3	11.8	9.7	7.6	6.2	4.9	3.5	3.5	2.8	3.5	3.5
800	70.2	33.0	22.5	17.6	11.9	9.8	7.7	6.3	4.9	3.5	3.5	2.8	3.5	3.5
810	71.1	33.4	22.8	17.8	12.1	10.0	7.8	6.4	5.0	3.6	3.6	2.8	3.6	3.6
820	72.0	33.8	23.0	18.0	12.2	10.1	7.9	6.5	5.0	3.6	3.6	2.9	3.6	3.6
830	72.9	34.2	23.3	18.2	12.4	10.2	8.0	6.6	5.1	3.6	3.6	2.9	3.6	3.6
840	73.7	34.7	23.6	18.4	12.5	10.3	8.1	6.6	5.2	3.7	3.7	2.9	3.7	3.7
850	74.6	35.1	23.9	18.7	12.7	10.4	8.2	6.7	5.2	3.7	3.7	3.0	3.7	3.7
860	75.5	35.5	24.2	18.9	12.8	10.6	8.3	6.8	5.3	3.8	3.8	3.0	3.8	3.8
870	76.4	35.9	24.4	19.1	13.0	10.7	8.4	6.9	5.3	3.8	3.8	3.1	3.8	3.8
880	77.2	36.3	24.7	19.3	13.1	10.8	8.5	7.0	5.4	3.9	3.9	3.1	3.9	3.9
890	78.1	36.7	25.0	19.5	13.3	10.9	8.6	7.0	5.5	3.9	3.9	3.1	3.9	3.9
900	79.0	37.1	25.3	19.8	13.4	11.1	8.7	7.1	5.5	4.0	4.0	3.2	4.0	4.0
910	79.9	37.5	25.6	20.0	13.6	11.2	8.8	7.2	5.6	4.0	4.0	3.2	4.0	4.0
920	80.8	38.0	25.8	20.2	13.7	11.3	8.9	7.3	5.7	4.0	4.0	3.2	4.0	4.0
930	81.6	38.4	26.1	20.4	13.9	11.4	9.0	7.3	5.7	4.1	4.1	3.3	4.1	4.1
940	82.5	38.8	26.4	20.6	14.0	11.6	9.1	7.4	5.8	4.1	4.1	3.3	4.1	4.1
950	83.4	39.2	26.7	20.8	14.2	11.7	9.2	7.5	5.8	4.2	4.2	3.3	4.2	4.2
960	84.3	39.6	27.0	21.1	14.3	11.8	9.3	7.6	5.9	4.2	4.2	3.4	4.2	4.2
970	85.1	40.0	27.2	21.3	14.5	11.9	9.4	7.7	6.0	4.3	4.3	3.4	4.3	4.3
980	86.0	40.4	27.5	21.5	14.6	12.0	9.5	7.7	6.0	4.3	4.3	3.4	4.3	4.3
990	86.9	40.8	27.8	21.7	14.8	12.2	9.6	7.8	6.1	4.3	4.3	3.5	4.3	4.3
1,000	87.8	41.3	28.1	21.9	14.9	12.3	9.7	7.9	6.1	4.4	4.4	3.5	4.4	4.4
1,010	88.7	41.7	28.4	22.2	15.1	12.4	9.8	8.0	6.2	4.4	4.4	3.5	4.4	4.4
1,020	89.5	42.1	28.7	22.4	15.2	12.5	9.8	8.1	6.3	4.5	4.5	3.6	4.5	4.5
1,030	90.4	42.5	28.9	22.6	15.4	12.7	9.9	8.1	6.3	4.5	4.5	3.6	4.5	4.5
1,040	91.3	42.9	29.2	22.8	15.5	12.8	10.0	8.2	6.4	4.6	4.6	3.7	4.6	4.6
1,050	92.2	43.3	29.5	23.0	15.7	12.9	10.1	8.3	6.5	4.6	4.6	3.7	4.6	4.6
1,060	93.0	43.7	29.8	23.3	15.8	13.0	10.2	8.4	6.5	4.7	4.7	3.7	4.7	4.7
1,070	93.9	44.1	30.1	23.5	16.0	13.2	10.3	8.5	6.6	4.7	4.7	3.8	4.7	4.7
1,080	94.8	44.6	30.3	23.7	16.1	13.3	10.4	8.5	6.6	4.7	4.7	3.8	4.7	4.7
1,090	95.7	45.0	30.6	23.9	16.3	13.4	10.5	8.6	6.7	4.8	4.8	3.8	4.8	4.8
1,100	96.6	45.4	30.9	24.1	16.4	13.5	10.6	8.7	6.8	4.8	4.8	3.9	4.8	4.8
1,110	97.4	45.8	31.2	24.4	16.6	13.6	10.7	8.8	6.8	4.9	4.9	3.9	4.9	4.9

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 3—Continued

Density		Line-zone No.												
Gm/M <sup>3</sup>	%	33	43	53	63	73	83	93	03	13	23	33	43	53
1,120	98.3	46.2	31.5	24.6	16.7	13.8	10.8	8.8	6.9	4.9	4.9	3.9	4.9	4.9
1,130	99.2	46.6	31.7	24.8	16.9	13.9	10.9	8.9	6.9	5.0	5.0	4.0	5.0	5.0
1,140	100.1	47.0	32.0	25.0	17.0	14.0	11.0	9.0	7.0	5.0	5.0	4.0	5.0	5.0
1,150	101.0	47.4	32.3	25.2	17.2	14.1	11.1	9.1	7.1	5.0	5.0	4.0	5.0	5.0
1,160	101.8	47.9	32.6	25.5	17.3	14.3	11.2	9.2	7.1	5.1	5.1	4.1	5.1	5.1
1,170	102.7	48.3	32.9	25.7	17.5	14.4	11.3	9.2	7.2	5.1	5.1	4.1	5.1	5.1
1,180	103.6	48.7	33.1	25.9	17.6	14.5	11.4	9.3	7.3	5.2	5.2	4.1	5.2	5.2
1,190	104.5	49.1	33.4	26.1	17.8	14.6	11.5	9.4	7.3	5.2	5.2	4.2	5.2	5.2
1,200	105.3	49.5	33.7	26.3	17.9	14.7	11.6	9.5	7.4	5.3	5.3	4.2	5.3	5.3
1,210	106.2	49.9	34.0	26.6	18.1	14.9	11.7	9.6	7.4	5.3	5.3	4.2	5.3	5.3
1,220	107.1	50.3	34.3	26.8	18.2	15.0	11.8	9.6	7.5	5.4	5.4	4.3	5.4	5.4
1,230	108.0	50.7	34.6	27.0	18.4	15.1	11.9	9.7	7.6	5.4	5.4	4.3	5.4	5.4
1,240	108.9	51.2	34.8	27.2	18.5	15.2	12.0	9.8	7.6	5.4	5.4	4.4	5.4	5.4
1,250	109.7	51.6	35.1	27.4	18.7	15.4	12.1	9.9	7.7	5.5	5.5	4.4	5.5	5.5
1,260	110.6	52.0	35.4	27.7	18.8	15.5	12.2	10.0	7.7	5.5	5.5	4.4	5.5	5.5
1,270	111.5	52.4	35.7	27.9	19.0	15.6	12.3	10.0	7.8	5.6	5.6	4.5	5.6	5.6
1,280	112.4	52.8	36.0	28.1	19.1	15.7	12.4	10.1	7.9	5.6	5.6	4.5	5.6	5.6
1,290	113.2	53.2	36.2	28.3	19.3	15.9	12.5	10.2	7.9	5.7	5.7	4.5	5.7	5.7
1,300	114.1	53.6	36.5	28.5	19.4	16.0	12.6	10.3	8.0	5.7	5.7	4.6	5.7	5.7
1,310	115.0	54.0	36.8	28.7	19.5	16.1	12.6	10.3	8.0	5.7	5.7	4.6	5.7	5.7
1,320	115.9	54.5	37.1	29.0	19.7	16.2	12.7	10.4	8.1	5.8	5.8	4.6	5.8	5.8
1,330	116.8	54.9	37.4	29.2	19.8	16.3	12.8	10.5	8.2	5.8	5.8	4.7	5.8	5.8
1,340	117.6	55.3	37.6	29.4	20.0	16.5	12.9	10.6	8.2	5.9	5.9	4.7	5.9	5.9
1,350	118.5	55.7	37.9	29.6	20.1	16.6	13.0	10.7	8.3	5.9	5.9	4.7	5.9	5.9
1,360	119.4	56.1	38.2	29.8	20.3	16.7	13.1	10.7	8.4	6.0	6.0	4.8	6.0	6.0
1,370	120.3	56.5	38.5	30.1	20.4	16.8	13.2	10.8	8.4	6.0	6.0	4.8	6.0	6.0
1,380	121.1	56.9	38.8	30.3	20.6	17.0	13.3	10.9	8.5	6.1	6.1	4.8	6.1	6.1
1,390	122.0	57.3	39.0	30.5	20.7	17.1	13.4	11.0	8.5	6.1	6.1	4.9	6.1	6.1
1,400	122.9	57.8	39.3	30.7	20.9	17.2	13.5	11.1	8.6	6.1	6.1	4.9	6.1	6.1
1,410	123.8	58.2	39.6	30.9	21.0	17.3	13.6	11.1	8.7	6.2	6.2	5.0	6.2	6.2
1,420	124.7	58.6	39.9	31.2	21.2	17.5	13.7	11.2	8.7	6.2	6.2	5.0	6.2	6.2
1,430	125.5	59.0	40.2	31.4	21.3	17.7	13.8	11.3	8.8	6.3	6.3	5.0	6.3	6.3
1,440	126.4	59.4	40.4	31.6	21.5	17.7	13.9	11.4	8.8	6.3	6.3	5.1	6.3	6.3
1,450	127.3	59.8	40.7	31.8	21.6	17.8	14.0	11.5	8.9	6.4	6.4	5.1	6.4	6.4
1,460	128.2	60.2	41.0	32.0	21.8	17.9	14.1	11.5	9.0	6.4	6.4	5.1	6.4	6.4
1,470	129.0	60.6	41.3	32.3	21.9	18.1	14.2	11.6	9.0	6.5	6.5	5.2	6.5	6.5

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 4

Density		Line-zone No.											
Gm/M <sup>3</sup>	%	44	54	64	74	84	94	04	14	24	34	44	54
700	64.5	20.7	14.2	11.0	8.4	7.1	5.8	4.5	3.2	3.2	3.2	3.2	3.2
710	65.5	20.9	14.4	11.1	8.5	7.2	5.9	4.6	3.3	3.3	3.3	3.3	3.3
720	66.4	21.2	14.6	11.3	8.6	7.3	6.0	4.6	3.3	3.3	3.3	3.3	3.3
730	67.3	21.5	14.8	11.4	8.7	7.4	6.1	4.7	3.4	3.4	3.4	3.4	3.4
740	68.2	21.8	15.0	11.6	8.9	7.5	6.1	4.8	3.4	3.4	3.4	3.4	3.4
750	69.2	22.1	15.2	11.8	9.0	7.6	6.2	4.8	3.5	3.5	3.5	3.5	3.5
760	70.1	22.4	15.4	11.9	9.1	7.7	6.3	4.9	3.5	3.5	3.5	3.5	3.5
770	71.0	22.7	15.6	12.1	9.2	7.8	6.4	5.0	3.5	3.5	3.5	3.5	3.5
780	71.9	23.0	15.8	12.2	9.3	7.9	6.5	5.0	3.6	3.6	3.6	3.6	3.6
790	72.8	23.3	16.0	12.4	9.5	8.0	6.6	5.1	3.6	3.6	3.6	3.6	3.6
800	73.8	23.6	16.2	12.5	9.6	8.1	6.6	5.2	3.7	3.7	3.7	3.7	3.7
810	74.7	23.9	16.4	12.7	9.7	8.2	6.7	5.2	3.7	3.7	3.7	3.7	3.7
820	75.6	24.2	16.6	12.9	9.8	8.3	6.8	5.3	3.8	3.8	3.8	3.8	3.8
830	76.5	24.5	16.8	13.0	9.9	8.4	6.9	5.4	3.8	3.8	3.8	3.8	3.8
840	77.4	24.8	17.0	13.2	10.1	8.5	7.0	5.4	3.9	3.9	3.9	3.9	3.9
850	78.4	25.1	17.2	13.3	10.2	8.6	7.1	5.5	3.9	3.9	3.9	3.9	3.9
860	79.3	25.4	17.4	13.5	10.3	8.7	7.1	5.6	4.0	4.0	4.0	4.0	4.0
870	80.2	25.7	17.6	13.6	10.4	8.8	7.2	5.6	4.0	4.0	4.0	4.0	4.0
880	81.1	26.0	17.9	13.8	10.5	8.9	7.3	5.7	4.1	4.1	4.1	4.1	4.1
890	82.1	26.3	18.1	14.0	10.7	9.0	7.4	5.7	4.1	4.1	4.1	4.1	4.1
900	83.0	26.6	18.3	14.1	10.8	9.1	7.5	5.8	4.1	4.1	4.1	4.1	4.1
910	83.9	26.8	18.5	14.3	10.9	9.2	7.6	5.9	4.2	4.2	4.2	4.2	4.2
920	84.8	27.1	18.7	14.4	11.0	9.3	7.6	5.9	4.2	4.2	4.2	4.2	4.2
930	85.7	27.4	18.9	14.6	11.1	9.4	7.7	6.0	4.3	4.3	4.3	4.3	4.3
940	86.7	27.7	19.1	14.7	11.3	9.5	7.8	6.1	4.3	4.3	4.3	4.3	4.3
950	87.6	28.0	19.3	14.9	11.4	9.6	7.9	6.1	4.4	4.4	4.4	4.4	4.4
960	88.5	28.3	19.5	15.0	11.5	9.7	8.0	6.2	4.4	4.4	4.4	4.4	4.4
970	89.4	28.6	19.7	15.2	11.6	9.8	8.0	6.3	4.5	4.5	4.5	4.5	4.5
980	90.4	28.9	19.9	15.4	11.7	9.9	8.1	6.3	4.5	4.5	4.5	4.5	4.5
990	91.3	29.2	20.1	15.5	11.9	10.0	8.2	6.4	4.6	4.6	4.6	4.6	4.6
1,000	92.2	29.5	20.3	15.7	12.0	10.1	8.3	6.5	4.6	4.6	4.6	4.6	4.6
1,010	93.1	29.8	20.5	15.8	12.1	10.2	8.4	6.5	4.7	4.7	4.7	4.7	4.7
1,020	94.0	30.1	20.7	16.0	12.2	10.3	8.5	6.6	4.7	4.7	4.7	4.7	4.7
1,030	95.0	30.4	20.9	16.1	12.3	10.4	8.5	6.6	4.7	4.7	4.7	4.7	4.7
1,040	95.9	30.7	21.1	16.3	12.5	10.5	8.6	6.7	4.8	4.8	4.8	4.8	4.8
1,050	96.8	31.0	21.3	16.5	12.6	10.6	8.7	6.8	4.8	4.8	4.8	4.8	4.8
1,060	97.7	31.3	21.5	16.6	12.7	10.8	8.8	6.8	4.9	4.9	4.9	4.9	4.9
1,070	98.7	31.6	21.7	16.8	12.8	10.9	8.9	6.9	4.9	4.9	4.9	4.9	4.9

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 4—Continued

Density		Line-zone No.											
Gm/M <sup>3</sup>	%	44	54	64	74	84	94	04	14	24	34	44	54
1,080	99.6	31.9	21.9	16.9	12.9	11.0	9.0	7.0	5.0	5.0	5.0	5.0	5.0
1,090	100.5	32.2	22.1	17.1	13.1	11.1	9.0	7.0	5.0	5.0	5.0	5.0	5.0
1,100	101.4	32.5	22.3	17.2	13.2	11.2	9.1	7.1	5.1	5.1	5.1	5.1	5.1
1,110	102.3	32.7	22.5	17.4	13.3	11.3	9.2	7.2	5.1	5.1	5.1	5.1	5.1
1,120	103.3	33.0	22.7	17.6	13.4	11.4	9.3	7.2	5.2	5.2	5.2	5.2	5.2
1,130	104.2	33.3	22.9	17.7	13.5	11.5	9.4	7.3	5.2	5.2	5.2	5.2	5.2
1,140	105.1	33.6	23.1	17.9	13.7	11.6	9.5	7.4	5.3	5.3	5.3	5.3	5.3
1,150	106.0	33.9	23.3	18.0	13.8	11.7	9.5	7.4	5.3	5.3	5.3	5.3	5.3
1,160	107.0	34.2	23.5	18.2	13.9	11.8	9.6	7.5	5.3	5.3	5.3	5.3	5.3
1,170	107.9	34.5	23.7	18.3	14.0	11.9	9.7	7.6	5.4	5.4	5.4	5.4	5.4
1,180	108.8	34.8	23.9	18.5	14.1	12.0	9.8	7.6	5.4	5.4	5.4	5.4	5.4
1,190	109.7	35.1	24.1	18.7	14.3	12.1	9.9	7.7	5.5	5.5	5.5	5.5	5.5
1,200	110.6	35.4	24.3	18.8	14.4	12.2	10.0	7.7	5.5	5.5	5.5	5.5	5.5
1,210	111.6	35.7	24.5	19.0	14.5	12.3	10.0	7.8	5.6	5.6	5.6	5.6	5.6
1,220	112.5	36.0	24.7	19.1	14.6	12.4	10.1	7.9	5.6	5.6	5.6	5.6	5.6
1,230	113.4	36.3	24.9	19.3	14.7	12.5	10.2	7.9	5.7	5.7	5.7	5.7	5.7
1,240	114.3	36.6	25.2	19.4	14.9	12.6	10.3	8.0	5.7	5.7	5.7	5.7	5.7
1,250	115.3	36.9	25.4	19.6	15.0	12.7	10.4	8.1	5.8	5.8	5.8	5.8	5.8
1,260	116.2	37.2	25.6	19.7	15.1	12.8	10.5	8.1	5.8	5.8	5.8	5.8	5.8
1,270	117.1	37.5	25.8	19.9	15.2	12.9	10.5	8.2	5.9	5.9	5.9	5.9	5.9
1,280	118.0	37.8	26.0	20.1	15.3	13.0	10.6	8.3	5.9	5.9	5.9	5.9	5.9
1,290	118.9	38.1	26.2	20.2	15.5	13.1	10.7	8.3	5.9	5.9	5.9	5.9	5.9
1,300	119.9	38.4	26.4	20.4	15.6	13.2	10.8	8.4	6.0	6.0	6.0	6.0	6.0
1,310	120.8	38.7	26.6	20.5	15.7	13.3	10.9	8.5	6.0	6.0	6.0	6.0	6.0
1,320	121.7	38.9	26.8	20.7	15.8	13.4	11.0	8.5	6.1	6.1	6.1	6.1	6.1
1,330	122.6	39.2	27.0	20.8	15.9	13.5	11.0	8.6	6.1	6.1	6.1	6.1	6.1
1,340	123.6	39.5	27.2	21.0	16.1	13.6	11.1	8.6	6.2	6.2	6.2	6.2	6.2
1,350	124.5	39.8	27.4	21.2	16.2	13.7	11.2	8.7	6.2	6.2	6.2	6.2	6.2
1,360	125.4	40.1	27.6	21.3	16.3	13.8	11.3	8.8	6.3	6.3	6.3	6.3	6.3
1,370	126.3	40.4	27.8	21.5	16.4	13.9	11.4	8.8	6.3	6.3	6.3	6.3	6.3
1,380	127.2	40.7	28.0	21.6	16.5	14.0	11.4	8.9	6.4	6.4	6.4	6.4	6.4
1,390	128.2	41.0	28.2	21.8	16.7	14.1	11.5	9.0	6.4	6.4	6.4	6.4	6.4
1,400	129.1	41.3	28.4	21.9	16.8	14.2	11.6	9.0	6.5	6.5	6.5	6.5	6.5
1,410	130.0	41.6	28.6	22.1	16.9	14.3	11.7	9.1	6.5	6.5	6.5	6.5	6.5
1,420	130.9	41.9	28.8	22.3	17.0	14.4	11.8	9.2	6.5	6.5	6.5	6.5	6.5

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

Table z-b. *Weighted Zone Densities (Type 3 Messages), Zone 5*

Density		Line-zone No.										
Gm/M <sup>3</sup>	%	55	65	75	85	95	05	15	25	35	45	55
670	64.9	16.2	9.7	7.8	6.5	5.2	4.5	3.9	3.2	3.2	3.2	3.2
680	65.9	16.5	9.9	7.9	6.6	5.3	4.6	4.0	3.3	3.3	3.3	3.3
690	66.9	16.7	10.0	8.0	6.7	5.3	4.7	4.0	3.3	3.3	3.3	3.3
700	67.8	17.0	10.2	8.1	6.8	5.4	4.7	4.1	3.4	3.4	3.4	3.4
710	68.8	17.2	10.3	8.3	6.9	5.5	4.8	4.1	3.4	3.4	3.4	3.4
720	69.8	17.4	10.5	8.4	7.0	5.6	4.9	4.2	3.5	3.5	3.5	3.5
730	70.7	17.7	10.6	8.5	7.1	5.7	5.0	4.2	3.5	3.5	3.5	3.5
740	71.7	17.9	10.8	8.6	7.2	5.7	5.0	4.3	3.6	3.6	3.6	3.6
750	72.7	18.2	10.9	8.7	7.3	5.8	5.1	4.4	3.6	3.6	3.6	3.6
760	73.6	18.4	11.0	8.8	7.4	5.9	5.2	4.4	3.7	3.7	3.7	3.7
770	74.6	18.7	11.2	9.0	7.5	6.0	5.2	4.5	3.7	3.7	3.7	3.7
780	75.6	18.9	11.3	9.1	7.6	6.0	5.3	4.5	3.8	3.8	3.8	3.8
790	76.6	19.1	11.5	9.2	7.7	6.1	5.4	4.6	3.8	3.8	3.8	3.8
800	77.5	19.4	11.6	9.3	7.8	6.2	5.4	4.7	3.9	3.9	3.9	3.9
810	78.5	19.6	11.8	9.4	7.8	6.3	5.5	4.7	3.9	3.9	3.9	3.9
820	79.5	19.9	11.9	9.5	7.9	6.4	5.6	4.8	4.0	4.0	4.0	4.0
830	80.4	20.1	12.1	9.7	8.0	6.4	5.6	4.8	4.0	4.0	4.0	4.0
840	81.4	20.3	12.2	9.8	8.1	6.5	5.7	4.9	4.1	4.1	4.1	4.1
850	82.4	20.6	12.4	9.9	8.2	6.6	5.8	4.9	4.1	4.1	4.1	4.1
860	83.3	20.8	12.5	10.0	8.3	6.7	5.8	5.0	4.2	4.2	4.2	4.2
870	84.3	21.1	12.6	10.1	8.4	6.7	5.9	5.1	4.2	4.2	4.2	4.2
880	85.3	21.3	12.8	10.2	8.5	6.8	6.0	5.1	4.3	4.3	4.3	4.3
890	86.2	21.6	12.9	10.3	8.6	6.9	6.0	5.2	4.3	4.3	4.3	4.3
900	87.2	21.8	13.1	10.5	8.7	7.0	6.1	5.2	4.4	4.4	4.4	4.4
910	88.2	22.0	13.2	10.6	8.8	7.1	6.2	5.3	4.4	4.4	4.4	4.4
920	89.1	22.3	13.4	10.7	8.9	7.1	6.2	5.3	4.5	4.5	4.5	4.5
930	90.1	22.5	13.5	10.8	9.0	7.2	6.3	5.4	4.5	4.5	4.5	4.5
940	91.1	22.8	13.7	10.9	9.1	7.3	6.4	5.5	4.6	4.6	4.6	4.6
950	92.1	23.0	13.8	11.0	9.2	7.4	6.4	5.5	4.6	4.6	4.6	4.6
960	93.0	23.3	14.0	11.2	9.3	7.4	6.5	5.6	4.7	4.7	4.7	4.7
970	94.0	23.5	14.1	11.3	9.4	7.5	6.6	5.6	4.7	4.7	4.7	4.7
980	95.0	23.7	14.2	11.4	9.5	7.6	6.6	5.7	4.7	4.7	4.7	4.7
990	95.9	24.0	14.4	11.5	9.6	7.7	6.7	5.8	4.8	4.8	4.8	4.8

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 5—Continued

Density		Line-zone No.										
Gm/M <sup>3</sup>	%	55	65	75	85	95	05	15	25	35	45	55
1,000	96.9	24.2	14.5	11.6	9.7	7.8	6.8	5.8	4.8	4.8	4.8	4.8
1,010	97.9	24.5	14.7	11.7	9.8	7.8	6.9	5.9	4.9	4.9	4.9	4.9
1,020	98.8	24.7	14.8	11.9	9.9	7.9	6.9	5.9	4.9	4.9	4.9	4.9
1,030	99.8	25.0	15.0	12.0	10.0	8.0	7.0	6.0	5.0	5.0	5.0	5.0
1,040	100.8	25.2	15.1	12.1	10.1	8.1	7.1	6.0	5.0	5.0	5.0	5.0
1,050	101.7	25.4	15.3	12.2	10.2	8.1	7.1	6.1	5.1	5.1	5.1	5.1
1,060	102.7	25.7	15.4	12.3	10.3	8.2	7.2	6.2	5.1	5.1	5.1	5.1
1,070	103.7	25.9	15.6	12.4	10.4	8.3	7.3	6.2	5.2	5.2	5.2	5.2
1,080	104.7	26.2	15.7	12.6	10.5	8.4	7.3	6.3	5.2	5.2	5.2	5.2
1,090	105.6	26.4	15.8	12.7	10.6	8.4	7.4	6.3	5.3	5.3	5.3	5.3
1,100	106.6	26.6	16.0	12.8	10.7	8.5	7.5	6.4	5.3	5.3	5.3	5.3
1,110	107.6	26.9	16.1	12.9	10.8	8.6	7.5	6.5	5.4	5.4	5.4	5.4
1,120	108.5	27.1	16.3	13.0	10.9	8.7	7.6	6.5	5.4	5.4	5.4	5.4
1,130	109.5	27.4	16.4	13.1	11.0	8.8	7.7	6.6	5.5	5.5	5.5	5.5
1,140	110.5	27.6	16.6	13.3	11.0	8.8	7.7	6.6	5.5	5.5	5.5	5.5
1,150	111.4	27.9	16.7	13.4	11.1	8.9	7.8	6.7	5.6	5.6	5.6	5.6
1,160	112.4	28.1	16.9	13.5	11.2	9.0	7.9	6.7	5.6	5.6	5.6	5.6
1,170	113.4	28.3	17.0	13.6	11.3	9.1	7.9	6.8	5.7	5.7	5.7	5.7
1,180	114.3	28.6	17.2	13.7	11.4	9.1	8.0	6.9	5.7	5.7	5.7	5.7
1,190	115.3	28.8	17.3	13.8	11.5	9.2	8.1	6.9	5.8	5.8	5.8	5.8
1,200	116.3	29.1	17.4	14.0	11.6	9.3	8.1	7.0	5.8	5.8	5.8	5.8
1,210	117.3	29.3	17.6	14.1	11.7	9.4	8.2	7.0	5.9	5.9	5.9	5.9
1,220	118.2	29.6	17.7	14.2	11.8	9.5	8.3	7.1	5.9	5.9	5.9	5.9
1,230	119.2	29.8	17.9	14.3	11.9	9.5	8.3	7.2	6.0	6.0	6.0	6.0
1,240	120.2	30.0	18.0	14.4	12.0	9.6	8.4	7.2	6.0	6.0	6.0	6.0
1,250	121.1	30.3	18.2	14.5	12.1	9.7	8.5	7.3	6.1	6.1	6.1	6.1
1,260	122.1	30.5	18.3	14.7	12.2	9.8	8.5	7.3	6.1	6.1	6.1	6.1
1,270	123.1	30.8	18.5	14.8	12.3	9.8	8.6	7.4	6.2	6.2	6.2	6.2
1,280	124.0	31.0	18.6	14.9	12.4	9.9	8.7	7.4	6.2	6.2	6.2	6.2
1,290	125.0	31.3	18.8	15.0	12.5	10.0	8.8	7.5	6.3	6.3	6.3	6.3
1,300	126.0	31.5	18.9	15.1	12.6	10.1	8.8	7.6	6.3	6.3	6.3	6.3
1,310	126.9	31.7	19.0	15.2	12.7	10.2	8.9	7.6	6.3	6.3	6.3	6.3

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 6

Density		Line-zone No.									
Gm/M <sup>3</sup>	%	66	76	86	96	06	16	26	36	46	56
620	64.8	20.7	14.3	12.3	11.0	8.4	7.8	7.1	7.1	6.5	6.5
630	65.8	21.1	14.5	12.5	11.2	8.6	7.9	7.2	7.2	6.6	6.6
640	66.9	21.4	14.7	12.7	11.4	8.7	8.0	7.4	7.4	6.7	6.7
650	67.9	21.7	14.9	12.9	11.5	8.8	8.2	7.5	7.5	6.8	6.8
660	69.0	22.1	15.2	13.1	11.7	9.0	8.3	7.6	7.6	6.9	6.9
670	70.0	22.4	15.4	13.3	11.9	9.1	8.4	7.7	7.7	7.0	7.0
680	71.1	22.7	15.6	13.5	12.1	9.2	8.5	7.8	7.8	7.1	7.1
690	72.1	23.1	15.9	13.7	12.3	9.4	8.7	7.9	7.9	7.2	7.2
700	73.1	23.4	16.1	13.9	12.4	9.5	8.8	8.0	8.0	7.3	7.3
710	74.2	23.7	16.3	14.1	12.6	9.6	8.9	8.2	8.2	7.4	7.4
720	75.2	24.1	16.6	14.3	12.8	9.8	9.0	8.3	8.3	7.5	7.5
730	76.3	24.4	16.8	14.5	13.0	9.9	9.2	8.4	8.4	7.6	7.6
740	77.3	24.7	17.0	14.7	13.1	10.1	9.3	8.5	8.5	7.7	7.7
750	78.4	25.1	17.2	14.9	13.3	10.2	9.4	8.6	8.6	7.8	7.8
760	79.4	25.4	17.5	15.1	13.5	10.3	9.5	8.7	8.7	7.9	7.9
770	80.5	25.7	17.7	15.3	13.7	10.5	9.7	8.9	8.9	8.0	8.0
780	81.5	26.1	17.9	15.5	13.9	10.6	9.8	9.0	9.0	8.2	8.2
790	82.6	26.4	18.2	15.7	14.0	10.7	9.9	9.1	9.1	8.3	8.3
800	83.6	26.8	18.4	15.9	14.2	10.9	10.0	9.2	9.2	8.4	8.4
810	84.6	27.1	18.6	16.1	14.4	11.0	10.2	9.3	9.3	8.5	8.5
820	85.7	27.4	18.9	16.3	14.6	11.1	10.3	9.4	9.4	8.6	8.6
830	86.7	27.8	19.1	16.5	14.7	11.3	10.4	9.5	9.5	8.7	8.7
840	87.8	28.1	19.3	16.7	14.9	11.4	10.5	9.7	9.7	8.8	8.8
850	88.8	28.4	19.5	16.9	15.1	11.5	10.7	9.8	9.8	8.9	8.9
860	89.9	28.8	19.8	17.1	15.3	11.7	10.8	9.9	9.9	9.0	9.0
870	90.9	29.1	20.0	17.3	15.5	11.8	10.9	10.0	10.0	9.1	9.1
880	92.0	29.4	20.2	17.5	15.6	12.0	11.0	10.1	10.1	9.2	9.2
890	93.0	29.8	20.5	17.7	15.8	12.1	11.2	10.2	10.2	9.3	9.3
900	94.0	30.1	20.7	17.9	16.0	12.2	11.3	10.3	10.3	9.4	9.4
910	95.1	30.4	20.9	18.1	16.2	12.4	11.4	10.5	10.5	9.5	9.5

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 6—Continued

Density		Line-zone No.									
Gm/M <sup>3</sup>	%	66	76	86	96	06	16	26	36	46	56
920	96.1	30.8	21.1	18.3	16.3	12.5	11.5	10.6	10.6	9.6	9.6
930	97.2	31.1	21.4	18.5	16.5	12.6	11.7	10.7	10.7	9.7	9.7
940	98.2	31.4	21.6	18.7	16.7	12.8	11.8	10.8	10.8	9.8	9.8
950	99.3	31.8	21.8	18.9	16.9	12.9	11.9	10.9	10.9	9.9	9.9
960	100.3	32.1	22.1	19.1	17.1	13.0	12.0	11.0	11.0	10.0	10.0
970	101.4	32.4	22.3	19.3	17.2	13.2	12.2	11.1	11.1	10.1	10.1
980	102.4	32.8	22.5	19.5	17.4	13.3	12.3	11.3	11.3	10.2	10.2
990	103.5	33.1	22.8	19.7	17.6	13.4	12.4	11.4	11.4	10.3	10.3
1,000	104.5	33.4	23.0	19.9	17.8	13.6	12.5	11.5	11.5	10.4	10.4
1,010	105.5	33.8	23.2	20.1	17.9	13.7	12.7	11.6	11.6	10.6	10.6
1,020	106.6	34.1	23.4	20.3	18.1	13.9	12.8	11.7	11.7	10.7	10.7
1,030	107.6	34.4	23.7	20.4	18.3	14.0	12.9	11.8	11.8	10.8	10.8
1,040	108.7	34.8	23.9	20.6	18.5	14.1	13.0	12.0	12.0	10.9	10.9
1,050	109.7	35.1	24.1	20.8	18.7	14.3	13.2	12.1	12.1	11.0	11.0
1,060	110.8	35.4	24.4	21.0	18.8	14.4	13.3	12.2	12.2	11.1	11.1
1,070	111.8	35.8	24.6	21.2	19.0	14.5	13.4	12.3	12.3	11.2	11.2
1,080	112.9	36.1	24.8	21.4	19.2	14.7	13.5	12.4	12.4	11.3	11.3
1,090	113.9	36.4	25.1	21.6	19.4	14.8	13.7	12.5	12.5	11.4	11.4
1,100	114.9	36.8	25.3	21.8	19.5	14.9	13.8	12.6	12.6	11.5	11.5
1,110	116.0	37.1	25.5	22.0	19.7	15.1	13.9	12.8	12.8	11.6	11.6
1,120	117.0	37.5	25.7	22.2	19.9	15.2	14.0	12.9	12.9	11.7	11.7
1,130	118.1	37.8	26.0	22.4	20.1	15.4	14.2	13.0	13.0	11.8	11.8
1,140	119.1	38.1	26.2	22.6	20.3	15.5	14.3	13.1	13.1	11.9	11.9
1,150	120.2	38.5	26.4	22.8	20.4	15.6	14.4	13.2	13.2	12.0	12.0
1,160	121.2	38.8	26.7	23.0	20.6	15.8	14.5	13.3	13.3	12.1	12.1
1,170	122.3	39.1	26.9	23.2	20.8	15.9	14.7	13.4	13.4	12.2	12.2
1,180	123.3	39.5	27.1	23.4	21.0	16.0	14.8	13.6	13.6	12.3	12.3
1,190	124.4	39.8	27.4	23.6	21.1	16.2	14.9	13.7	13.7	12.4	12.4

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.



Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 7

Density		Line-zone No.								
Gm/M <sup>3</sup>	%	77	87	97	07	17	27	37	47	57
560	64.9	16.2	11.0	9.7	7.8	7.1	6.5	5.8	5.8	5.8
570	66.0	16.5	11.2	9.9	7.9	7.3	6.6	5.9	5.9	5.9
580	67.2	16.8	11.4	10.1	8.1	7.4	6.7	6.0	6.0	6.0
590	68.3	17.1	11.6	10.3	8.2	7.5	6.8	6.2	6.2	6.2
600	69.5	17.4	11.8	10.4	8.3	7.6	6.9	6.3	6.3	6.3
610	70.7	17.7	12.0	10.6	8.5	7.8	7.1	6.4	6.4	6.4
620	71.8	18.0	12.2	10.8	8.6	7.9	7.2	6.5	6.5	6.5
630	73.0	18.2	12.4	10.9	8.8	8.0	7.3	6.6	6.6	6.6
640	74.1	18.5	12.6	11.1	8.9	8.2	7.4	6.7	6.7	6.7
650	75.3	18.8	12.8	11.3	9.0	8.3	7.5	6.8	6.8	6.8
660	76.4	19.1	13.0	11.5	9.2	8.4	7.6	6.9	6.9	6.9
670	77.6	19.4	13.2	11.6	9.3	8.5	7.8	7.0	7.0	7.0
680	78.8	19.7	13.4	11.8	9.5	8.7	7.9	7.1	7.1	7.1
690	79.9	20.0	13.6	12.0	9.6	8.8	8.0	7.2	7.2	7.2
700	81.1	20.3	13.8	12.2	9.7	8.9	8.1	7.3	7.3	7.3
710	82.2	20.6	14.0	12.3	9.9	9.0	8.2	7.4	7.4	7.4
720	83.4	20.8	14.2	12.5	10.0	9.2	8.3	7.5	7.5	7.5
730	84.5	21.1	14.4	12.7	10.1	9.3	8.5	7.6	7.6	7.6
740	85.7	21.4	14.6	12.9	10.3	9.4	8.6	7.7	7.7	7.7
750	86.9	21.7	14.8	13.0	10.4	9.6	8.7	7.8	7.8	7.8
760	88.0	22.0	15.0	13.2	10.6	9.7	8.8	7.9	7.9	7.9
770	89.2	22.3	15.2	13.4	10.7	9.8	8.9	8.0	8.0	8.0
780	90.3	22.6	15.4	13.6	10.8	9.9	9.0	8.1	8.1	8.1
790	91.5	22.9	15.6	13.7	11.0	10.1	9.1	8.2	8.2	8.2
800	92.7	23.2	15.8	13.9	11.1	10.2	9.3	8.3	8.3	8.3
810	93.8	23.5	15.9	14.1	11.3	10.3	9.4	8.4	8.4	8.4
820	95.0	23.7	16.1	14.2	11.4	10.4	9.5	8.5	8.5	8.5
830	96.1	24.0	16.3	14.4	11.5	10.6	9.6	8.7	8.7	8.7
840	97.3	24.3	16.5	14.6	11.7	10.7	9.7	8.8	8.8	8.8
850	98.4	24.6	16.7	14.8	11.8	10.8	9.8	8.9	8.9	8.9
860	99.6	24.9	16.9	14.9	12.0	11.0	10.0	9.0	9.0	9.0
870	100.8	25.2	17.1	15.1	12.1	11.1	10.1	9.1	9.1	9.1
880	101.9	25.5	17.3	15.3	12.2	11.2	10.2	9.2	9.2	9.2
890	103.1	25.8	17.5	15.5	12.4	11.3	10.3	9.3	9.3	9.3
900	104.2	26.1	17.7	15.6	12.5	11.5	10.4	9.4	9.4	9.4
910	105.4	26.3	17.9	15.8	12.6	11.6	10.5	9.5	9.5	9.5
920	106.6	26.6	18.1	16.0	12.8	11.7	10.7	9.6	9.6	9.6
930	107.7	26.9	18.3	16.2	12.9	11.8	10.8	9.7	9.7	9.7
940	108.9	27.2	18.5	16.3	13.1	12.0	10.9	9.8	9.8	9.8
950	110.0	27.5	18.7	16.5	13.2	12.1	11.0	9.9	9.9	9.9
960	111.2	27.8	18.9	16.7	13.3	12.2	11.1	10.0	10.0	10.0
970	112.4	28.1	19.1	16.9	13.5	12.4	11.2	10.1	10.1	10.1
980	113.5	28.4	19.3	17.0	13.6	12.5	11.4	10.2	10.2	10.2
990	114.7	28.7	19.5	17.2	13.8	12.6	11.5	10.3	10.3	10.3
1,000	115.8	29.0	19.7	17.4	13.9	12.7	11.6	10.4	10.4	10.4
1,010	117.0	29.2	19.9	17.5	14.0	12.9	11.7	10.5	10.5	10.5
1,020	118.1	29.5	20.1	17.7	14.2	13.0	11.8	10.6	10.6	10.6
1,030	119.3	29.8	20.3	17.9	14.3	13.1	11.9	10.7	10.7	10.7
1,040	120.5	30.1	20.5	18.1	14.5	13.3	12.0	10.8	10.8	10.8
1,050	121.6	30.4	20.7	18.2	14.6	13.4	12.2	10.9	10.9	10.9
1,060	122.8	30.7	20.9	18.4	14.7	13.5	12.3	11.0	11.0	11.0
1,070	123.9	31.0	21.1	18.6	14.9	13.6	12.4	11.2	11.2	11.2

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 8

Density		Line-zone No.							
Gm/M <sup>3</sup>	%	88	98	08	18	28	38	48	58
500	64.4	13.5	9.0	7.1	5.8	5.8	5.8	5.1	5.1
510	65.6	13.8	9.2	7.2	5.9	5.9	5.9	5.3	5.3
520	66.9	14.1	9.4	7.4	6.0	6.0	6.0	5.4	5.4
530	68.2	14.3	9.5	7.5	6.1	6.1	6.1	5.5	5.5
540	69.5	14.6	9.7	7.6	6.3	6.3	6.3	5.6	5.6
550	70.8	14.9	9.9	7.8	6.4	6.4	6.4	5.7	5.7
560	72.1	15.1	10.1	7.9	6.5	6.5	6.5	5.8	5.8
570	73.4	15.4	10.3	8.1	6.6	6.6	6.6	5.9	5.9
580	74.6	15.7	10.5	8.2	6.7	6.7	6.7	6.0	6.0
590	75.9	15.9	10.6	8.4	6.8	6.8	6.8	6.1	6.1
600	77.2	16.2	10.8	8.5	6.9	6.9	6.9	6.2	6.2
610	78.5	16.5	11.0	8.6	7.1	7.1	7.1	6.3	6.3
620	79.8	16.8	11.2	8.8	7.2	7.2	7.2	6.4	6.4
630	81.1	17.0	11.4	8.9	7.3	7.3	7.3	6.5	6.5
640	82.4	17.3	11.5	9.1	7.4	7.4	7.4	6.6	6.6
650	83.7	17.6	11.7	9.2	7.5	7.5	7.5	6.7	6.7
660	84.9	17.8	11.9	9.3	7.6	7.6	7.6	6.8	6.8
670	86.2	18.1	12.1	9.5	7.8	7.8	7.8	6.9	6.9
680	87.5	18.4	12.3	9.6	7.9	7.9	7.9	7.0	7.0
690	88.8	18.6	12.4	9.8	8.0	8.0	8.0	7.1	7.1
700	90.1	18.9	12.6	9.9	8.1	8.1	8.1	7.2	7.2
710	91.4	19.2	12.8	10.1	8.2	8.2	8.2	7.3	7.3
720	92.7	19.5	13.0	10.2	8.3	8.3	8.3	7.4	7.4
730	94.0	19.7	13.2	10.3	8.5	8.5	8.5	7.5	7.5
740	95.2	20.0	13.3	10.5	8.6	8.6	8.6	7.6	7.6
750	96.5	20.3	13.5	10.6	8.7	8.7	8.7	7.7	7.7
760	97.8	20.5	13.7	10.8	8.8	8.8	8.8	7.8	7.8
770	99.1	20.8	13.9	10.9	8.9	8.9	8.9	7.9	7.9
780	100.4	21.1	14.1	11.0	9.0	9.0	9.0	8.0	8.0
790	101.7	21.4	14.2	11.2	9.2	9.2	9.2	8.1	8.1
800	103.0	21.6	14.4	11.3	9.3	9.3	9.3	8.2	8.2
810	104.3	21.9	14.6	11.5	9.4	9.4	9.4	8.3	8.3
820	105.5	22.2	14.8	11.6	9.5	9.5	9.5	8.4	8.4
830	106.8	22.4	15.0	11.8	9.6	9.6	9.6	8.5	8.5
840	108.1	22.7	15.1	11.9	9.7	9.7	9.7	8.6	8.6
850	109.4	23.0	15.3	12.0	9.8	9.8	9.8	8.8	8.8
860	110.7	23.2	15.5	12.2	10.0	10.0	10.0	8.9	8.9
870	112.0	23.5	15.7	12.3	10.1	10.1	10.1	9.0	9.0
880	113.3	23.8	15.9	12.5	10.2	10.2	10.2	9.1	9.1
890	114.5	24.1	16.0	12.6	10.3	10.3	10.3	9.2	9.2
900	115.8	24.3	16.2	12.7	10.4	10.4	10.4	9.3	9.3
910	117.1	24.6	16.4	12.9	10.5	10.5	10.5	9.4	9.4
920	118.4	24.9	16.6	13.0	10.7	10.7	10.7	9.5	9.5
930	119.7	25.1	16.8	13.2	10.8	10.8	10.8	9.6	9.6
940	121.0	25.4	16.9	13.3	10.9	10.9	10.9	9.7	9.7
950	122.3	25.7	17.1	13.4	11.0	11.0	11.0	9.8	9.8
960	123.6	25.9	17.3	13.6	11.1	11.1	11.1	9.9	9.9
970	124.8	26.2	17.5	13.7	11.2	11.2	11.2	10.0	10.0

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 9

Density		Line-zone No.						
Gm/M <sup>3</sup>	%	09	09	19	29	39	49	59
450	64.5	11.6	7.1	5.8	5.2	5.2	4.5	4.5
460	66.0	11.9	7.3	5.9	5.3	5.3	4.6	4.6
470	67.4	12.1	7.4	6.1	5.4	5.4	4.7	4.7
480	68.8	12.4	7.6	6.2	5.5	5.5	4.8	4.8
490	70.3	12.6	7.7	6.3	5.6	5.6	4.9	4.9
500	71.7	12.9	7.9	6.5	5.7	5.7	5.0	5.0
510	73.1	13.2	8.0	6.6	5.9	5.9	5.1	5.1
520	74.6	13.4	8.2	6.7	6.0	6.0	5.2	5.2
530	76.0	13.7	8.4	6.8	6.1	6.1	5.3	5.3
540	77.4	13.9	8.5	7.0	6.2	6.2	5.4	5.4
550	78.9	14.2	8.7	7.1	6.3	6.3	5.5	5.5
560	80.3	14.5	8.8	7.2	6.4	6.4	5.6	5.6
570	81.7	14.7	9.0	7.4	6.5	6.5	5.7	5.7
580	83.2	15.0	9.1	7.5	6.7	6.7	5.8	5.8
590	84.6	15.2	9.3	7.6	6.8	6.8	5.9	5.9
600	86.0	15.5	9.5	7.7	6.9	6.9	6.0	6.0
610	87.5	15.7	9.6	7.9	7.0	7.0	6.1	6.1
620	88.9	16.0	9.8	8.0	7.1	7.1	6.2	6.2
630	90.3	16.3	9.9	8.1	7.2	7.2	6.3	6.3
640	91.8	16.5	10.1	8.3	7.3	7.3	6.4	6.4
650	93.2	16.8	10.3	8.4	7.5	7.5	6.5	6.5
660	94.6	17.0	10.4	8.5	7.6	7.6	6.6	6.6
670	96.1	17.3	10.6	8.6	7.7	7.7	6.7	6.7
680	97.5	17.6	10.7	8.8	7.8	7.8	6.8	6.8
690	98.9	17.8	10.9	8.9	7.9	7.9	6.9	6.9
700	100.4	18.1	11.0	9.0	8.0	8.0	7.0	7.0
710	101.8	18.3	11.2	9.2	8.1	8.1	7.1	7.1
720	103.2	18.6	11.4	9.3	8.3	8.3	7.2	7.2
730	104.7	18.8	11.5	9.4	8.4	8.4	7.3	7.3
740	106.1	19.1	11.7	9.5	8.5	8.5	7.4	7.4
750	107.5	19.4	11.8	9.7	8.6	8.6	7.5	7.5
760	109.0	19.6	12.0	9.8	8.7	8.7	7.6	7.6
770	110.4	19.9	12.1	9.9	8.8	8.8	7.7	7.7
780	111.8	20.1	12.3	10.1	8.9	8.9	7.8	7.8
790	113.3	20.4	12.5	10.2	9.1	9.1	7.9	7.9
800	114.7	20.6	12.6	10.3	9.2	9.2	8.0	8.0
810	116.2	20.9	12.8	10.5	9.3	9.3	8.1	8.1
820	117.6	21.2	12.9	10.6	9.4	9.4	8.2	8.2
830	119.0	21.4	13.1	10.7	9.5	9.5	8.3	8.3
840	120.5	21.7	13.2	10.8	9.6	9.6	8.4	8.4
850	121.9	21.9	13.4	11.0	9.8	9.8	8.5	8.5
860	123.3	22.2	13.6	11.1	9.9	9.9	8.6	8.6
870	124.8	22.5	13.7	11.2	10.0	10.0	8.7	8.7

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 10

Density		Line-zone No.					
Gm/M <sup>3</sup>	%	00	10	20	30	40	50
380	64.4	16.1	10.3	9.0	9.0	8.4	7.7
390	66.1	16.5	10.6	9.3	9.3	8.6	7.9
400	67.8	16.9	10.8	9.5	9.5	8.8	8.1
410	69.5	17.4	11.1	9.7	9.7	9.0	8.3
420	71.2	17.8	11.4	10.0	10.0	9.3	8.5
430	72.9	18.2	11.7	10.2	10.2	9.5	8.7
440	74.6	18.6	11.9	10.4	10.4	9.7	8.9
450	76.3	19.1	12.2	10.7	10.7	9.9	9.2
460	78.0	19.5	12.5	10.9	10.9	10.1	9.4
470	79.7	19.9	12.7	11.2	11.2	10.4	9.6
480	81.4	20.3	13.0	11.4	11.4	10.6	9.8
490	83.1	20.8	13.3	11.6	11.6	10.8	10.0
500	84.7	21.2	13.6	11.9	11.9	11.0	10.2
510	86.4	21.6	13.8	12.1	12.1	11.2	10.4
520	88.1	22.0	14.1	12.3	12.3	11.5	10.6
530	89.8	22.5	14.4	12.6	12.6	11.7	10.8
540	91.5	22.9	14.6	12.8	12.8	11.9	11.0
550	93.2	23.3	14.9	13.1	13.1	12.1	11.2
560	94.9	23.7	15.2	13.3	13.3	12.3	11.4
570	96.6	24.2	15.5	13.5	13.5	12.6	11.6
580	98.3	24.6	15.7	13.8	13.8	12.8	11.8
590	100.0	25.0	16.0	14.0	14.0	13.0	12.0
600	101.7	25.4	16.3	14.2	14.2	13.2	12.2
610	103.4	25.8	16.5	14.5	14.5	13.4	12.4
620	105.1	26.3	16.8	14.7	14.7	13.7	12.6
630	106.8	26.7	17.1	14.9	14.9	13.9	12.8
640	108.5	27.1	17.4	15.2	15.2	14.1	13.0
650	110.2	27.5	17.6	15.4	15.4	14.3	13.2
660	111.9	28.0	17.9	15.7	15.7	14.5	13.4
670	113.6	28.4	18.2	15.9	15.9	14.8	13.6
680	115.3	28.8	18.4	16.1	16.1	15.0	13.8
690	117.0	29.2	18.7	16.4	16.4	15.2	14.0
700	118.6	29.7	19.0	16.6	16.6	15.4	14.2
710	120.3	30.1	19.3	16.8	16.8	15.6	14.4
720	122.0	30.5	19.5	17.1	17.1	15.9	14.6
730	123.7	30.9	19.8	17.3	17.3	16.1	14.8

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 11

Density		Line-zone No.				
Gm/M <sup>3</sup>	%	11	21	31	41	51
290	62.1	14.3	7.5	6.2	6.8	5.6
300	64.2	14.8	7.7	6.4	7.1	5.8
310	66.4	15.3	8.0	6.6	7.3	6.0
320	68.5	15.8	8.2	6.9	7.5	6.2
330	70.7	16.3	8.5	7.1	7.8	6.4
340	72.8	16.7	8.7	7.3	8.0	6.6
350	74.9	17.2	9.0	7.5	8.2	6.7
360	77.1	17.7	9.3	7.7	8.5	6.9
370	79.2	18.2	9.5	7.9	8.7	7.1
380	81.4	18.7	9.8	8.1	9.0	7.3
390	83.5	19.2	10.0	8.4	9.2	7.5
400	85.7	19.7	10.3	8.6	9.4	7.7
410	87.8	20.2	10.5	8.8	9.7	7.9
420	89.9	20.7	10.8	9.0	9.9	8.1
430	92.1	21.2	11.0	9.2	10.1	8.3
440	94.2	21.7	11.3	9.4	10.4	8.5
450	96.4	22.2	11.6	9.6	10.6	8.7
460	98.5	22.7	11.8	9.9	10.8	8.9
470	100.6	23.1	12.1	10.1	11.1	9.1
480	102.8	23.6	12.3	10.3	11.3	9.3
490	104.9	24.1	12.6	10.5	11.5	9.4
500	107.1	24.6	12.8	10.7	11.8	9.6
510	109.2	25.1	13.1	10.9	12.0	9.8
520	111.4	25.6	13.4	11.1	12.2	10.0
530	113.5	26.1	13.6	11.3	12.5	10.2
540	115.6	26.6	13.9	11.6	12.7	10.4
550	117.8	27.1	14.1	11.8	13.0	10.6
560	119.9	27.6	14.4	12.0	13.2	10.8
570	122.1	28.1	14.6	12.2	13.4	11.0
580	124.2	28.6	14.9	12.4	13.7	11.2
590	126.3	29.1	15.2	12.6	13.9	11.4
600	128.5	29.6	15.4	12.8	14.1	11.6
610	130.6	30.0	15.7	13.1	14.4	11.8
620	132.8	30.5	15.9	13.3	14.6	11.9

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

Table 2-6. Weighted Zone Densities (Type 3 Messages), Zone 12 through 15

Zone 12						Zone 13				
Density		Line-zone No.				Density		Line-zone No.		
Gm/M <sup>3</sup>	%	22	32	42	52	Gm/M <sup>3</sup>	%	33	43	53
220	60.3	9.6	5.4	4.8	4.8	160	60.0	7.2	3.6	3.0
230	63.0	10.1	5.7	5.0	5.0	170	63.8	7.7	3.8	3.2
240	65.8	10.5	5.9	5.3	5.3	180	67.5	8.1	4.1	3.4
250	68.5	11.0	6.2	5.5	5.5	190	71.3	8.6	4.3	3.6
260	71.3	11.4	6.4	5.7	5.7	200	75.0	9.0	4.5	3.8
270	74.0	11.8	6.7	5.9	5.9	210	78.8	9.5	4.7	3.9
280	76.8	12.3	6.9	6.1	6.1	220	82.5	9.9	5.0	4.1
290	79.5	12.7	7.2	6.4	6.4	230	86.3	10.4	5.2	4.3
300	82.2	13.2	7.4	6.6	6.6	240	90.0	10.8	5.4	4.5
310	85.0	13.6	7.6	6.8	6.8	250	93.8	11.3	5.6	4.7
320	87.7	14.0	7.9	7.0	7.0	260	97.5	11.7	5.9	4.9
330	90.5	14.5	8.1	7.2	7.2	270	101.3	12.2	6.1	5.1
340	93.2	14.9	8.4	7.5	7.5	280	105.0	12.6	6.3	5.3
350	95.9	15.4	8.6	7.7	7.7	290	108.8	13.1	6.5	5.4
360	98.7	15.8	8.9	7.9	7.9	300	112.5	13.5	6.8	5.6
370	101.4	16.2	9.1	8.1	8.1	310	116.3	14.0	7.0	5.8
380	104.2	16.7	9.4	8.3	8.3	320	120.0	14.4	7.2	6.0
390	106.9	17.1	9.6	8.6	8.6	330	123.8	14.9	7.4	6.2
400	109.7	17.5	9.9	8.8	8.8	340	127.5	15.3	7.7	6.4
410	112.4	18.0	10.1	9.0	9.0	350	131.3	15.8	7.9	6.6
420	115.1	18.4	10.4	9.2	9.2					
430	117.9	18.9	10.6	9.4	9.4					
440	120.6	19.3	10.9	9.6	9.6					
450	123.4	19.7	11.1	9.9	9.9					
460	126.1	20.2	11.3	10.1	10.1					
470	128.8	20.6	11.6	10.3	10.3					
480	131.6	21.1	11.8	10.5	10.5					

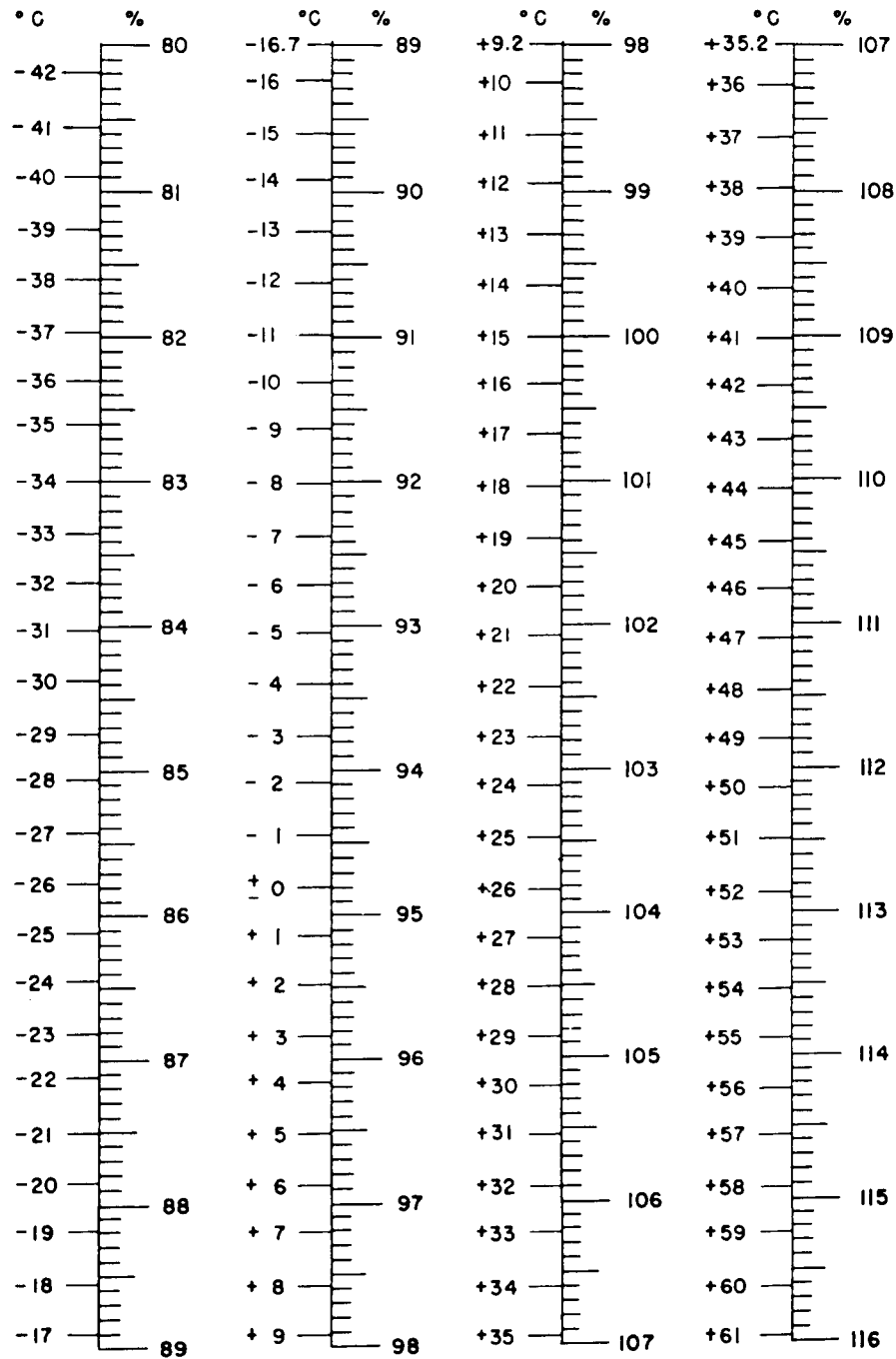
  

Zone 14				Zone 15		
Density		Line-zone No.		Density		Line-zone No.
Gm/M <sup>3</sup>	%	44	54	Gm/M <sup>3</sup>	%	55
120	61.6	4.9	3.1	80	56.2	3.4
130	66.7	5.3	3.3	90	63.2	3.8
140	71.9	5.7	3.6	100	70.3	4.2
150	77.0	6.2	3.9	110	77.3	4.6
160	82.1	6.6	4.1	120	84.3	5.1
170	87.3	7.0	4.4	130	91.4	5.5
180	92.4	7.4	4.6	140	98.4	5.9
190	97.5	7.8	4.9	150	105.4	6.3
200	102.7	8.2	5.1	160	112.4	6.7
210	107.8	8.6	5.4	170	119.5	7.2
220	112.9	9.0	5.6	180	126.5	7.6
230	118.1	9.4	5.9	190	133.5	8.0
240	123.2	9.9	6.2			
250	128.3	10.3	6.4			
260	133.5	10.7	6.7			

Enter table with zone density to the nearest gram per cubic meter. Obtain zone density and weighted densities to the nearest tenth of a percent. Interpolate if necessary.

### 2-13. SURFACE TEMPERATURE, PERCENT OF STANDARD

The conversion of surface temperature to percent of standard surface temperature is accomplished by use of the chart in figure 2-8.



$$\% = \frac{273.16 + T}{288.16} \times 100$$

Figure 2-8. Surface temperature to percent of standard (288.16 K.)

**2-14. WEIGHTED TEMPERATURE TABLES (TYPE 3 MESSAGE)**

a. The weighted temperature tables (table 2-8) may be used to convert zone temperatures in degrees Celsius to zone temperatures in percent of standard for each zone. They may also be used to convert zone temperatures to the weighted effect of temperature on the various line values of the meteorological message.

b. The Zone temperature % column is the quotient of the zone temperature divided by the standard zone temperature.

c. The Line-zone No. values are the product of the weighting factors in table 2-7 and the Zone temperature % values. The Line-zone No. values of column 21 are the product of the weighting factor (.27), line 2 of zone number 1, table 2-7, and the Zone temperature % values.

*Table 2-7. Temperature Weighting Factors (Type 3 Message) (Surface-to-Surface Trajectories)*

Line No.	Zone No.									
	1	2	3	4	5	6	7	8	9	10-15
1	1.00									
2	0.27	.73								
3	0.13	.20	.67							
4	0.08	.12	.25	.55						
5	0.05	.10	.20	.21	.44					
6	0.04	.04	.09	.11	.13	.59				
7	0.02	.04	.07	.09	.11	.26	.41			
8	0.01	.03	.05	.04	.10	.19	.23	.35		
9 to 15	0.01	.01	.02	.03	.03	.09	.13	.24	.44	0.00



Table 2-8. Weighted Temperature (Percent), Zone 1

Zone temperature		Line-zone No.								
°C	%	11	21	31	41	51	61	71	81	91-51
-50	77.6	77.6	21.0	10.1	6.2	3.9	3.1	1.6	.8	.8
-49	78.0	78.0	21.1	10.1	6.2	3.9	3.1	1.6	.8	.8
-48	78.3	78.3	21.1	10.2	6.3	3.9	3.1	1.6	.8	.8
-47	78.7	78.7	21.2	10.2	6.3	3.9	3.1	1.6	.8	.8
-46	79.0	79.0	21.3	10.3	6.3	4.0	3.2	1.6	.8	.8
-45	79.4	79.4	21.4	10.3	6.4	4.0	3.2	1.6	.8	.8
-44	79.7	79.7	21.5	10.4	6.4	4.0	3.2	1.6	.8	.8
-43	80.1	80.1	21.6	10.4	6.4	4.0	3.2	1.6	.8	.8
-42	80.4	80.4	21.7	10.5	6.4	4.0	3.2	1.6	.8	.8
-41	80.8	80.8	21.8	10.5	6.5	4.0	3.2	1.6	.8	.8
-40	81.1	81.1	21.9	10.6	6.5	4.1	3.2	1.6	.8	.8
-39	81.5	81.5	22.0	10.6	6.5	4.1	3.3	1.6	.8	.8
-38	81.8	81.8	22.1	10.7	6.6	4.1	3.3	1.6	.8	.8
-37	82.2	82.2	22.2	10.7	6.6	4.1	3.3	1.6	.8	.8
-36	82.5	82.5	22.3	10.7	6.6	4.1	3.3	1.7	.8	.8
-35	82.9	82.9	22.4	10.8	6.6	4.1	3.3	1.7	.8	.8
-34	83.2	83.2	22.5	10.8	6.7	4.2	3.3	1.7	.8	.8
-33	83.5	83.5	22.6	10.9	6.7	4.2	3.3	1.7	.8	.8
-32	83.9	83.9	22.7	10.9	6.7	4.2	3.4	1.7	.8	.8
-31	84.2	84.2	22.8	11.0	6.7	4.2	3.4	1.7	.8	.8
-30	84.6	84.6	22.9	11.0	6.8	4.2	3.4	1.7	.8	.8
-29	84.9	84.9	23.0	11.1	6.8	4.3	3.4	1.7	.9	.9
-28	85.3	85.3	23.1	11.1	6.8	4.3	3.4	1.7	.9	.9
-27	85.6	85.6	23.2	11.1	6.9	4.3	3.4	1.7	.9	.9
-26	86.0	86.0	23.2	11.2	6.9	4.3	3.4	1.7	.9	.9
-25	86.3	86.3	23.3	11.2	6.9	4.3	3.5	1.7	.9	.9
-24	86.7	86.7	23.4	11.3	6.9	4.3	3.5	1.7	.9	.9
-23	87.0	87.0	23.5	11.3	7.0	4.4	3.5	1.7	.9	.9
-22	87.4	87.4	23.6	11.4	7.0	4.4	3.5	1.7	.9	.9
-21	87.7	87.7	23.7	11.4	7.0	4.4	3.5	1.8	.9	.9
-20	88.1	88.1	23.8	11.5	7.1	4.4	3.5	1.8	.9	.9
-19	88.4	88.4	23.9	11.5	7.1	4.4	3.5	1.8	.9	.9
-18	88.8	88.8	24.0	11.6	7.1	4.4	3.6	1.8	.9	.9
-17	89.1	89.1	24.1	11.6	7.1	4.5	3.6	1.8	.9	.9
-16	89.5	89.5	24.2	11.6	7.2	4.5	3.6	1.8	.9	.9
-15	89.8	89.8	24.3	11.7	7.2	4.5	3.6	1.8	.9	.9
-14	90.2	90.2	24.4	11.7	7.2	4.5	3.6	1.8	.9	.9
-13	90.5	90.5	24.5	11.8	7.2	4.5	3.6	1.8	.9	.9
-12	90.9	90.9	24.6	11.8	7.3	4.5	3.6	1.8	.9	.9
-11	91.2	91.2	24.7	11.9	7.3	4.6	3.7	1.8	.9	.9
-10	91.5	91.5	24.8	11.9	7.3	4.6	3.7	1.8	.9	.9
-9	91.9	91.9	24.8	12.0	7.4	4.6	3.7	1.8	.9	.9
-8	92.2	92.2	24.9	12.0	7.4	4.6	3.7	1.8	.9	.9
-7	92.6	92.6	25.0	12.1	7.4	4.6	3.7	1.9	.9	.9
-6	92.9	92.9	25.1	12.1	7.4	4.7	3.7	1.9	.9	.9
-5	93.3	93.3	25.2	12.1	7.5	4.7	3.7	1.9	.9	.9
-4	93.6	93.6	25.3	12.2	7.5	4.7	3.8	1.9	.9	.9
-3	94.0	94.0	25.4	12.2	7.5	4.7	3.8	1.9	.9	.9
-2	94.3	94.3	25.5	12.3	7.6	4.7	3.8	1.9	.9	.9
-1	94.7	94.7	25.6	12.3	7.6	4.7	3.8	1.9	.9	.9
0	95.0	95.0	25.7	12.4	7.6	4.8	3.8	1.9	1.0	1.0

Enter table with zone temperature to the nearest one-tenth of a degree. Obtain zone temperature and weighted temperature to the nearest tenth of a percent. Interpolate if necessary.

Table 2-8. Weighted Temperature (Percent), Zone 1—Continued

Zone temperature		Line-zone No.								
°C	%	11	21	31	41	51	61	71	81	★91-51
1	95.4	95.4	25.8	12.4	7.6	4.8	3.8	1.9	1.0	1.0
2	95.7	95.7	25.9	12.5	7.7	4.8	3.8	1.9	1.0	1.0
3	96.1	96.1	26.0	12.5	7.7	4.8	3.8	1.9	1.0	1.0
4	96.4	96.4	26.1	12.6	7.7	4.8	3.9	1.9	1.0	1.0
5	96.8	96.8	26.2	12.6	7.8	4.8	3.9	1.9	1.0	1.0
6	97.1	97.1	26.3	12.6	7.8	4.9	3.9	1.9	1.0	1.0
7	97.5	97.5	26.3	12.7	7.8	4.9	3.9	2.0	1.0	1.0
8	97.8	97.8	26.4	12.7	7.8	4.9	3.9	2.0	1.0	1.0
9	98.2	98.2	26.5	12.8	7.9	4.9	3.9	2.0	1.0	1.0
10	98.5	98.5	26.6	12.8	7.9	4.9	3.9	2.0	1.0	1.0
11	98.9	98.9	26.7	12.9	7.9	4.9	4.0	2.0	1.0	1.0
12	99.2	99.2	26.8	12.9	7.9	5.0	4.0	2.0	1.0	1.0
13	99.6	99.6	26.9	13.0	8.0	5.0	4.0	2.0	1.0	1.0
14	99.9	99.9	27.0	13.0	8.0	5.0	4.0	2.0	1.0	1.0
15	100.2	100.2	27.1	13.0	8.0	5.0	4.0	2.0	1.0	1.0
16	100.6	100.6	27.2	13.1	8.1	5.0	4.0	2.0	1.0	1.0
17	100.9	100.9	27.3	13.1	8.1	5.1	4.0	2.0	1.0	1.0
18	101.3	101.3	27.4	13.2	8.1	5.1	4.1	2.0	1.0	1.0
19	101.6	101.6	27.5	13.2	8.1	5.1	4.1	2.0	1.0	1.0
20	102.0	102.0	27.6	13.3	8.2	5.1	4.1	2.0	1.0	1.0
21	102.3	102.3	27.7	13.3	8.2	5.1	4.1	2.0	1.0	1.0
22	102.7	102.7	27.8	13.4	8.2	5.1	4.1	2.1	1.0	1.0
23	103.0	103.0	27.9	13.4	8.3	5.2	4.1	2.1	1.0	1.0
24	103.4	103.4	27.9	13.5	8.3	5.2	4.1	2.1	1.0	1.0
25	103.7	103.7	28.0	13.5	8.3	5.2	4.2	2.1	1.0	1.0
26	104.1	104.1	28.1	13.5	8.3	5.2	4.2	2.1	1.0	1.0
27	104.4	104.4	28.2	13.6	8.4	5.2	4.2	2.1	1.0	1.0
28	104.8	104.8	28.3	13.6	8.4	5.2	4.2	2.1	1.0	1.0
29	105.1	105.1	28.4	13.7	8.4	5.3	4.2	2.1	1.1	1.1
30	105.5	105.5	28.5	13.7	8.4	5.3	4.2	2.1	1.1	1.1
31	105.8	105.8	28.6	13.8	8.5	5.3	4.2	2.1	1.1	1.1
32	106.2	106.2	28.7	13.8	8.5	5.3	4.3	2.1	1.1	1.1
33	106.5	106.5	28.8	13.9	8.5	5.3	4.3	2.1	1.1	1.1
34	106.9	106.9	28.9	13.9	8.6	5.3	4.3	2.1	1.1	1.1
35	107.2	107.2	29.0	14.0	8.6	5.4	4.3	2.1	1.1	1.1
36	107.5	107.5	29.1	14.0	8.6	5.4	4.3	2.2	1.1	1.1
37	107.9	107.9	29.2	14.0	8.6	5.4	4.3	2.2	1.1	1.1
38	108.2	108.2	29.3	14.1	8.7	5.4	4.3	2.2	1.1	1.1
39	108.6	108.6	29.4	14.1	8.7	5.4	4.3	2.2	1.1	1.1
40	108.9	108.9	29.4	14.2	8.7	5.5	4.4	2.2	1.1	1.1
41	109.3	109.3	29.5	14.2	8.8	5.5	4.4	2.2	1.1	1.1
42	109.6	109.6	29.6	14.3	8.8	5.5	4.4	2.2	1.1	1.1
43	110.0	110.0	29.7	14.3	8.8	5.5	4.4	2.2	1.1	1.1
44	110.3	110.3	29.8	14.4	8.8	5.5	4.4	2.2	1.1	1.1
45	110.7	110.7	29.9	14.4	8.9	5.5	4.4	2.2	1.1	1.1
46	111.0	111.0	30.0	14.5	8.9	5.6	4.4	2.2	1.1	1.1
47	111.4	111.4	30.1	14.5	8.9	5.6	4.5	2.2	1.1	1.1
48	111.7	111.7	30.2	14.5	8.9	5.6	4.5	2.2	1.1	1.1
49	112.1	112.1	30.3	14.6	9.0	5.6	4.5	2.2	1.1	1.1
50	112.4	112.4	30.4	14.6	9.0	5.6	4.5	2.3	1.1	1.1

Enter table with zone temperature to the nearest one-tenth of a degree. Obtain zone temperature and weighted temperature to the nearest tenth of a percent. Interpolate if necessary.

Table 2-8. Weighted Temperature (Percent), Zone 2

Zone temperature		Line-zone No.							
°C	%	22	32	42	52	62	72	82	92-52
-50	78.1	57.0	15.6	9.4	7.8	3.1	3.1	2.3	.8
-49	78.4	57.2	15.7	9.4	7.8	3.1	3.1	2.4	.8
-48	78.8	57.5	15.8	9.5	7.9	3.2	3.2	2.4	.8
-47	79.1	57.7	15.8	9.5	7.9	3.2	3.2	2.4	.8
-46	79.5	58.0	15.9	9.5	8.0	3.2	3.2	2.4	.8
-45	79.8	58.3	16.0	9.6	8.0	3.2	3.2	2.4	.8
-44	80.2	58.5	16.0	9.6	8.0	3.2	3.2	2.4	.8
-43	80.5	58.8	16.1	9.7	8.0	3.2	3.2	2.4	.8
-42	80.9	59.1	16.2	9.7	8.1	3.2	3.2	2.4	.8
-41	81.2	59.3	16.2	9.7	8.1	3.2	3.2	2.4	.8
-40	81.6	59.6	16.3	9.8	8.2	3.3	3.3	2.5	.8
-39	81.9	59.8	16.4	9.8	8.2	3.3	3.3	2.5	.8
-38	82.3	60.1	16.5	9.9	8.2	3.3	3.3	2.5	.8
-37	82.6	60.3	16.6	9.9	8.3	3.3	3.3	2.5	.8
-36	83.0	60.6	16.6	10.0	8.3	3.3	3.3	2.5	.8
-35	83.3	60.8	16.7	10.0	8.3	3.3	3.3	2.5	.8
-34	83.7	61.1	16.8	10.1	8.4	3.4	3.4	2.5	.8
-33	84.0	61.3	16.8	10.1	8.4	3.4	3.4	2.5	.8
-32	84.4	61.6	16.9	10.1	8.5	3.4	3.4	2.5	.8
-31	84.7	61.8	17.0	10.2	8.5	3.4	3.4	2.5	.8
-30	85.1	62.1	17.0	10.2	8.5	3.4	3.4	2.6	.9
-29	85.4	62.3	17.1	10.3	8.6	3.4	3.4	2.6	.9
-28	85.8	62.6	17.2	10.3	8.6	3.4	3.4	2.6	.9
-27	86.1	62.9	17.3	10.4	8.6	3.5	3.5	2.6	.9
-26	86.5	63.1	17.3	10.4	8.7	3.5	3.5	2.6	.9
-25	86.8	63.4	17.4	10.4	8.7	3.5	3.5	2.6	.9
-24	87.2	63.7	17.5	10.5	8.7	3.5	3.5	2.6	.9
-23	87.5	63.9	17.5	10.5	8.8	3.5	3.5	2.6	.9
-22	87.9	64.2	17.6	10.6	8.8	3.5	3.5	2.6	.9
-21	88.2	64.4	17.7	10.6	8.8	3.5	3.5	2.7	.9
-20	88.6	64.7	17.7	10.6	8.9	3.5	3.5	2.7	.9
-19	88.9	64.9	17.8	10.7	8.9	3.6	3.6	2.7	.9
-18	89.3	65.2	17.9	10.7	8.9	3.6	3.6	2.7	.9
-17	89.6	65.4	18.0	10.8	9.0	3.6	3.6	2.7	.9
-16	90.0	65.7	18.0	10.8	9.0	3.6	3.6	2.7	.9
-15	90.3	65.9	18.1	10.9	9.0	3.6	3.6	2.7	.9
-14	90.7	66.2	18.2	10.9	9.1	3.6	3.6	2.7	.9
-13	91.0	66.4	18.2	10.9	9.1	3.6	3.6	2.7	.9
-12	91.4	66.7	18.3	11.0	9.2	3.7	3.7	2.7	.9
-11	91.7	66.9	18.4	11.0	9.2	3.7	3.7	2.8	.9
-10	92.1	67.2	18.4	11.1	9.2	3.7	3.7	2.8	.9
-9	92.4	67.5	18.5	11.1	9.3	3.7	3.7	2.8	.9
-8	92.8	67.7	18.6	11.1	9.3	3.7	3.7	2.8	.9
-7	93.1	68.0	18.7	11.2	9.3	3.7	3.7	2.8	.9
-6	93.5	68.3	18.7	11.2	9.4	3.7	3.7	2.8	.9
-5	93.8	68.5	18.8	11.3	9.4	3.8	3.8	2.8	.9
-4	94.2	68.8	18.9	11.3	9.4	3.8	3.8	2.8	.9
-3	94.5	69.0	18.9	11.4	9.5	3.8	3.8	2.8	.9
-2	94.9	69.3	19.0	11.4	9.5	3.8	3.8	2.9	1.0
-1	95.2	69.5	19.1	11.4	9.5	3.8	3.8	2.9	1.0
0	95.6	69.8	19.1	11.5	9.6	3.8	3.8	2.9	1.0

Enter table with zone temperature to the nearest one-tenth of a degree. Obtain zone temperature and weighted temperature to the nearest tenth of a percent. Interpolate if necessary.

Table 2-8. Weighted Temperature (Percent), Zone 2—Continued

Zone temperature		Line-zone No.							
°C	%	22	32	42	52	62	72	82	92-52
1	95.9	70.0	19.2	11.5	9.6	3.8	3.8	2.9	1.0
2	96.3	70.3	19.3	11.6	9.6	3.9	3.9	2.9	1.0
3	96.6	70.5	19.4	11.6	9.7	3.9	3.9	2.9	1.0
4	97.0	70.8	19.4	11.7	9.7	3.9	3.9	2.9	1.0
5	97.3	71.0	19.5	11.7	9.7	3.9	3.9	2.9	1.0
6	97.7	71.3	19.6	11.7	9.8	3.9	3.9	2.9	1.0
7	98.0	71.5	19.6	11.8	9.8	3.9	3.9	2.9	1.0
8	98.4	71.8	19.7	11.8	9.9	3.9	3.9	3.0	1.0
9	98.7	72.1	19.8	11.9	9.9	4.0	4.0	3.0	1.0
10	99.1	72.3	19.8	11.9	9.9	4.0	4.0	3.0	1.0
11	99.4	72.6	19.9	11.9	10.0	4.0	4.0	3.0	1.0
12	99.8	72.9	20.0	12.0	10.0	4.0	4.0	3.0	1.0
13	100.1	73.1	20.1	12.0	10.0	4.0	4.0	3.0	1.0
14	100.5	73.4	20.1	12.1	10.1	4.0	4.0	3.0	1.0
15	100.8	73.6	20.2	12.1	10.1	4.0	4.0	3.0	1.0
16	101.2	73.9	20.3	12.2	10.1	4.1	4.1	3.0	1.0
17	101.5	74.1	20.3	12.2	10.2	4.1	4.1	3.0	1.0
18	101.9	74.4	20.4	12.2	10.2	4.1	4.1	3.1	1.0
19	102.2	74.6	20.5	12.3	10.2	4.1	4.1	3.1	1.0
20	102.6	74.9	20.5	12.3	10.3	4.1	4.1	3.1	1.0
21	102.9	75.1	20.6	12.4	10.3	4.1	4.1	3.1	1.0
22	103.3	75.4	20.7	12.4	10.3	4.1	4.1	3.1	1.0
23	103.6	75.6	20.8	12.5	10.4	4.2	4.2	3.1	1.0
24	104.0	75.9	20.8	12.5	10.4	4.2	4.2	3.1	1.0
25	104.3	76.1	20.9	12.5	10.4	4.2	4.2	3.1	1.0
26	104.7	76.4	21.0	12.6	10.5	4.2	4.2	3.1	1.0
27	105.0	76.6	21.0	12.6	10.5	4.2	4.2	3.2	1.1
28	105.4	76.9	21.1	12.7	10.6	4.2	4.2	3.2	1.1
29	105.7	77.2	21.2	12.7	10.6	4.2	4.2	3.2	1.1
30	106.1	77.5	21.2	12.7	10.6	4.2	4.2	3.2	1.1
31	106.4	77.7	21.3	12.8	10.7	4.3	4.3	3.2	1.1
32	106.8	78.0	21.4	12.8	10.7	4.3	4.3	3.2	1.1
33	107.1	78.2	21.5	12.9	10.7	4.3	4.3	3.2	1.1
34	107.5	78.5	21.5	12.9	10.8	4.3	4.3	3.2	1.1
35	107.8	78.7	21.6	13.0	10.8	4.3	4.3	3.2	1.1
36	108.1	78.9	21.7	13.0	10.8	4.3	4.3	3.2	1.1
37	108.5	79.2	21.7	13.0	10.9	4.3	4.3	3.3	1.1
38	108.8	79.4	21.8	13.1	10.9	4.4	4.4	3.3	1.1
39	109.2	79.7	21.9	13.1	10.9	4.4	4.4	3.3	1.1
40	109.5	79.9	21.9	13.2	11.0	4.4	4.4	3.3	1.1
41	109.9	80.2	22.0	13.2	11.0	4.4	4.4	3.3	1.1
42	110.2	80.4	22.1	13.2	11.0	4.4	4.4	3.3	1.1
43	110.6	80.7	22.2	13.3	11.1	4.4	4.4	3.3	1.1
44	110.9	81.0	22.2	13.3	11.1	4.4	4.4	3.3	1.1
45	111.3	81.2	22.3	13.4	11.1	4.5	4.5	3.3	1.1
46	111.6	81.5	22.4	13.4	11.2	4.5	4.5	3.4	1.1
47	112.0	81.8	22.4	13.5	11.2	4.5	4.5	3.4	1.1
48	112.3	82.0	22.5	13.5	11.3	4.5	4.5	3.4	1.1
49	112.7	82.3	22.6	13.5	11.3	4.5	4.5	3.4	1.1
50	113.0	82.5	22.6	13.6	11.3	4.5	4.5	3.4	1.1

Enter table with zone temperature to the nearest one-tenth of a degree. Obtain zone temperature and weighted temperature to the nearest tenth of a percent. Interpolate if necessary.

Table 2-8. Weighted Temperature (Percent), Zone 3

Zone temperature		Line-zone No.						
°C	%	33	43	53	63	73	83	93-53
-50	78.8	52.8	19.7	15.8	7.1	5.5	3.9	1.6
-49	79.1	53.0	19.8	15.8	7.1	5.5	4.0	1.6
-48	79.5	53.3	19.9	15.9	7.2	5.6	4.0	1.6
-47	79.8	53.5	20.0	16.0	7.2	5.6	4.0	1.6
-46	80.2	53.7	20.0	16.0	7.2	5.6	4.0	1.6
-45	80.6	54.0	20.2	16.1	7.3	5.6	4.0	1.6
-44	80.9	54.2	20.2	16.2	7.3	5.7	4.0	1.6
-43	81.3	54.5	20.3	16.3	7.3	5.7	4.1	1.6
-42	81.6	54.7	20.4	16.3	7.3	5.7	4.1	1.6
-41	82.0	55.0	20.5	16.4	7.4	5.7	4.1	1.6
-40	82.3	55.1	20.6	16.5	7.4	5.8	4.1	1.6
-39	82.7	55.4	20.7	16.6	7.5	5.8	4.1	1.7
-38	83.0	55.6	20.8	16.6	7.5	5.8	4.2	1.7
-37	83.4	55.9	20.9	16.7	7.5	5.8	4.2	1.7
-36	83.7	56.1	21.0	16.8	7.5	5.9	4.2	1.7
-35	84.1	56.3	21.1	16.8	7.6	5.9	4.2	1.7
-34	84.4	56.5	21.1	16.9	7.6	5.9	4.2	1.7
-33	84.8	56.8	21.2	17.0	7.6	5.9	4.2	1.7
-32	85.1	57.0	21.3	17.1	7.7	6.0	4.3	1.7
-31	85.5	57.3	21.4	17.1	7.7	6.0	4.3	1.7
-30	85.8	57.5	21.5	17.2	7.7	6.0	4.3	1.7
-29	86.2	57.8	21.6	17.3	7.8	6.0	4.3	1.7
-28	86.6	58.0	21.7	17.3	7.8	6.1	4.3	1.7
-27	86.9	58.2	21.8	17.4	7.8	6.1	4.4	1.7
-26	87.3	58.5	21.9	17.5	7.9	6.1	4.4	1.7
-25	87.6	58.7	21.9	17.6	7.9	6.1	4.4	1.8
-24	88.0	59.0	22.0	17.6	7.9	6.2	4.4	1.8
-23	88.3	59.2	22.1	17.7	8.0	6.2	4.4	1.8
-22	88.7	59.4	22.2	17.8	8.0	6.2	4.4	1.8
-21	89.0	59.6	22.3	17.8	8.0	6.2	4.5	1.8
-20	89.4	59.9	22.4	17.9	8.1	6.3	4.5	1.8
-19	89.7	60.1	22.5	18.0	8.1	6.3	4.5	1.8
-18	90.1	60.4	22.6	18.0	8.1	6.3	4.5	1.8
-17	90.4	60.6	22.6	18.1	8.2	6.3	4.5	1.8
-16	90.8	60.8	22.7	18.2	8.2	6.4	4.5	1.8
-15	91.1	61.0	22.8	18.3	8.2	6.4	4.6	1.8
-14	91.5	61.3	22.9	18.3	8.2	6.4	4.6	1.8
-13	91.8	61.5	23.0	18.4	8.3	6.4	4.6	1.8
-12	92.2	61.8	23.1	18.5	8.3	6.5	4.6	1.8
-11	92.6	62.0	23.2	18.5	8.3	6.5	4.6	1.9
-10	92.9	62.2	23.3	18.6	8.4	6.5	4.7	1.9
-9	93.3	62.5	23.4	18.7	8.4	6.5	4.7	1.9
-8	93.6	62.7	23.4	18.8	8.4	6.6	4.7	1.9
-7	94.0	63.0	23.5	18.8	8.5	6.6	4.7	1.9
-6	94.3	63.2	23.6	18.9	8.5	6.6	4.7	1.9
-5	94.7	63.4	23.7	19.0	8.5	6.6	4.7	1.9
-4	95.0	63.6	23.8	19.0	8.6	6.7	4.8	1.9
-3	95.4	63.9	23.9	19.1	8.6	6.7	4.8	1.9
-2	95.7	64.1	24.0	19.2	8.6	6.7	4.8	1.9
-1	96.1	64.4	24.1	19.2	8.7	6.7	4.8	1.9

Enter table with zone temperature to the nearest one-tenth of a degree. Obtain zone temperature and weighted temperature to the nearest tenth of a percent. Interpolate if necessary.

Table 2-8. Weighted Temperature (Percent), Zone 3—Continued

Zone temperature		Line-zone No.						
°C	%	33	43	53	63	73	83	93-53
0	96.4	64.6	24.1	19.3	8.7	6.8	4.8	1.9
1	96.8	64.9	24.2	19.4	8.7	6.8	4.8	1.9
2	97.1	65.1	24.3	19.5	8.8	6.8	4.9	1.9
3	97.5	65.3	24.4	19.5	8.8	6.8	4.9	2.0
4	97.8	65.5	24.5	19.6	8.8	6.9	4.9	2.0
5	98.2	65.8	24.6	19.7	8.9	6.9	4.9	2.0
6	98.6	66.1	24.7	19.7	8.9	6.9	4.9	2.0
7	98.9	66.3	24.8	19.8	8.9	6.9	5.0	2.0
8	99.3	66.5	24.9	19.9	8.9	7.0	5.0	2.0
9	99.6	66.7	24.9	20.0	9.0	7.0	5.0	2.0
10	100.0	67.0	25.0	20.0	9.0	7.0	5.0	2.0
11	100.3	67.2	25.1	20.1	9.0	7.0	5.0	2.0
12	100.7	67.5	25.2	20.2	9.1	7.1	5.0	2.0
13	101.0	67.7	25.3	20.2	9.1	7.1	5.1	2.0
14	101.4	67.9	25.4	20.3	9.1	7.1	5.1	2.0
15	101.7	68.1	25.5	20.4	9.2	7.1	5.1	2.0
16	102.1	68.4	25.6	20.4	9.2	7.2	5.1	2.0
17	102.4	68.6	25.6	20.5	9.2	7.2	5.1	2.1
18	102.8	68.9	25.7	20.6	9.3	7.2	5.1	2.1
19	103.1	69.1	25.8	20.7	9.3	7.2	5.2	2.1
20	103.5	69.3	25.9	20.7	9.3	7.3	5.2	2.1
21	103.8	69.5	26.0	20.8	9.4	7.3	5.2	2.1
22	104.2	69.8	26.1	20.9	9.4	7.3	5.2	2.1
23	104.6	70.1	26.2	20.9	9.4	7.3	5.2	2.1
24	104.9	70.3	26.3	21.0	9.5	7.4	5.3	2.1
25	105.3	70.6	26.4	21.1	9.5	7.4	5.3	2.1
26	105.6	70.8	26.4	21.2	9.5	7.4	5.3	2.1
27	106.0	71.0	26.5	21.2	9.6	7.4	5.3	2.1
28	106.3	71.2	26.6	21.3	9.6	7.5	5.3	2.1
29	106.7	71.5	26.7	21.4	9.6	7.5	5.3	2.1
30	107.0	71.7	26.8	21.4	9.6	7.5	5.4	2.1
31	107.4	72.0	26.9	21.5	9.7	7.5	5.4	2.2
32	107.7	72.2	27.0	21.6	9.7	7.6	5.4	2.2
33	108.1	72.4	27.1	21.6	9.7	7.6	5.4	2.2
34	108.4	72.6	27.2	21.7	9.8	7.6	5.4	2.2
35	108.8	72.9	27.2	21.8	9.8	7.6	5.4	2.2
36	109.1	73.1	27.3	21.9	9.8	7.7	5.5	2.2
37	109.5	73.4	27.4	21.9	9.9	7.7	5.5	2.2
38	109.8	73.6	27.5	22.0	9.9	7.7	5.5	2.2
39	110.2	73.8	27.6	22.1	9.9	7.7	5.5	2.2
40	110.6	74.1	27.7	22.1	10.0	7.8	5.5	2.2
41	110.9	74.3	27.8	22.2	10.0	7.8	5.6	2.2
42	111.3	74.6	27.9	22.3	10.0	7.8	5.6	2.2
43	111.6	74.8	27.9	22.4	10.1	7.8	5.6	2.2
44	112.0	75.0	28.0	22.4	10.1	7.8	5.6	2.2
45	112.3	75.2	28.1	22.5	10.1	7.9	5.6	2.2
46	112.7	75.5	28.2	22.6	10.2	7.9	5.6	2.3
47	113.0	75.7	28.3	22.6	10.2	7.9	5.7	2.3
48	113.4	76.0	28.4	22.7	10.2	7.9	5.7	2.3
49	113.7	76.2	28.5	22.8	10.3	8.0	5.7	2.3
50	114.1	76.4	28.6	22.9	10.3	8.0	5.7	2.3

Enter table with zone temperature to the nearest one-tenth of a degree. Obtain zone temperature and weighted temperature to the nearest tenth of a percent. Interpolate if necessary.

Table 2-8. Weighted Temperature (Percent), Zone 4

Zone temperature		Line-zone No.					
°C	%	44	54	64	74	84	94-54
-60	76.1	41.9	16.0	8.4	6.9	3.1	2.3
-59	76.5	42.1	16.1	8.4	6.9	3.1	2.3
-58	76.9	42.3	16.2	8.5	6.9	3.1	2.3
-57	77.2	42.5	16.2	8.5	7.0	3.1	2.3
-56	77.6	42.7	16.3	8.5	7.0	3.1	2.3
-55	77.9	42.9	16.4	8.6	7.0	3.1	2.3
-54	78.3	43.1	16.5	8.6	7.1	3.1	2.4
-53	78.6	43.3	16.5	8.7	7.1	3.2	2.4
-52	79.0	43.5	16.6	8.7	7.1	3.2	2.4
-51	79.4	43.7	16.7	8.7	7.2	3.2	2.4
-50	79.7	43.9	16.8	8.8	7.2	3.2	2.4
-49	80.1	44.1	16.8	8.8	7.2	3.2	2.4
-48	80.4	44.3	16.9	8.9	7.2	3.2	2.4
-47	80.8	44.5	17.0	8.9	7.3	3.2	2.4
-46	81.1	44.7	17.1	8.9	7.3	3.3	2.4
-45	81.5	44.9	17.1	9.0	7.3	3.3	2.4
-44	81.9	45.1	17.2	9.0	7.4	3.3	2.5
-43	82.2	45.3	17.3	9.1	7.4	3.3	2.5
-42	82.6	45.5	17.4	9.1	7.4	3.3	2.5
-41	82.9	45.7	17.4	9.1	7.5	3.3	2.5
-40	83.3	45.9	17.5	9.2	7.5	3.3	2.5
-39	83.6	46.1	17.6	9.2	7.5	3.4	2.5
-38	84.0	46.3	17.7	9.3	7.6	3.4	2.5
-37	84.4	46.5	17.7	9.3	7.6	3.4	2.5
-36	84.7	46.7	17.8	9.3	7.6	3.4	2.5
-35	85.1	46.9	17.9	9.4	7.7	3.4	2.6
-34	85.4	47.1	18.0	9.4	7.7	3.4	2.6
-33	85.8	47.2	18.0	9.4	7.7	3.4	2.6
-32	86.1	47.4	18.1	9.5	7.8	3.5	2.6
-31	86.5	47.6	18.2	9.5	7.8	3.5	2.6
-30	86.9	47.8	18.3	9.6	7.8	3.5	2.6
-29	87.2	48.0	18.3	9.6	7.9	3.5	2.6
-28	87.6	48.2	18.4	9.6	7.9	3.5	2.6
-27	87.9	48.4	18.5	9.7	7.9	3.5	2.6
-26	88.3	48.6	18.6	9.7	8.0	3.5	2.7
-25	88.6	48.8	18.6	9.8	8.0	3.6	2.7
-24	89.0	49.0	18.7	9.8	8.0	3.6	2.7
-23	89.4	49.2	18.8	9.8	8.1	3.6	2.7
-22	89.7	49.4	18.9	9.9	8.1	3.6	2.7
-21	90.1	49.6	18.9	9.9	8.1	3.6	2.7
-20	90.4	49.8	19.0	10.0	8.1	3.6	2.7
-19	90.8	50.0	19.1	10.0	8.2	3.6	2.7
-18	91.1	50.2	19.2	10.0	8.2	3.7	2.7
-17	91.5	50.4	19.2	10.1	8.2	3.7	2.7
-16	91.9	50.6	19.3	10.1	8.3	3.7	2.8
-15	92.2	50.8	19.4	10.2	8.3	3.7	2.8
-14	92.6	51.0	19.5	10.2	8.3	3.7	2.8
-13	92.9	51.2	19.5	10.2	8.4	3.7	2.8
-12	93.3	51.4	19.6	10.3	8.4	3.7	2.8
-11	93.6	51.6	19.7	10.3	8.4	3.8	2.8
-10	94.0	51.8	19.8	10.4	8.5	3.8	2.8

Enter table with zone temperature to the nearest one-tenth of a degree. Obtain zone temperature and weighted temperature to the nearest tenth of a percent. Interpolate if necessary.

Table 2-8. Weighted Temperature (Percent), Zone 4—Continued

Zone temperature		Line-zone No.					
°C	%	44	54	64	74	84	94-54
-9	94.4	52.0	19.8	10.4	8.5	3.8	2.8
-8	94.7	52.2	19.9	10.4	8.5	3.8	2.8
-7	95.1	52.4	20.0	10.5	8.6	3.8	2.9
-6	95.4	52.6	20.1	10.5	8.6	3.8	2.9
-5	95.8	52.7	20.1	10.6	8.6	3.8	2.9
-4	96.1	52.9	20.2	10.6	8.7	3.9	2.9
-3	96.5	53.1	20.3	10.6	8.7	3.9	2.9
-2	96.9	53.3	20.4	10.7	8.7	3.9	2.9
-1	97.2	53.5	20.4	10.7	8.8	3.9	2.9
0	97.6	53.7	20.5	10.7	8.8	3.9	2.9
1	97.9	53.9	20.6	10.8	8.8	3.9	2.9
2	98.3	54.1	20.7	10.8	8.9	3.9	3.0
3	98.6	54.3	20.7	10.9	8.9	4.0	3.0
4	99.0	54.5	20.8	10.9	8.9	4.0	3.0
5	99.4	54.7	20.9	10.9	9.0	4.0	3.0
6	99.7	54.9	21.0	11.0	9.0	4.0	3.0
7	100.1	55.1	21.0	11.0	9.0	4.0	3.0
8	100.4	55.3	21.1	11.1	9.0	4.0	3.0
9	100.8	55.5	21.2	11.1	9.1	4.0	3.0
10	101.1	55.7	21.3	11.1	9.1	4.1	3.0
11	101.5	55.9	21.3	11.2	9.1	4.1	3.0
12	101.9	56.1	21.4	11.2	9.2	4.1	3.1
13	102.2	56.3	21.5	11.3	9.2	4.1	3.1
14	102.6	56.5	21.6	11.3	9.2	4.1	3.1
15	102.9	56.7	21.6	11.3	9.3	4.1	3.1
16	103.3	56.9	21.7	11.4	9.3	4.1	3.1
17	103.6	57.1	21.8	11.4	9.3	4.2	3.1
18	104.0	57.3	21.9	11.5	9.4	4.2	3.1
19	104.4	57.5	21.9	11.5	9.4	4.2	3.1
20	104.7	57.7	22.0	11.5	9.4	4.2	3.1
21	105.1	57.9	22.1	11.6	9.5	4.2	3.2
22	105.4	58.1	22.2	11.6	9.5	4.2	3.2
23	105.8	58.3	22.2	11.7	9.5	4.2	3.2
24	106.1	58.4	22.3	11.7	9.6	4.3	3.2
25	106.5	58.6	22.4	11.7	9.6	4.3	3.2
26	106.9	58.8	22.5	11.8	9.6	4.3	3.2
27	107.2	59.0	22.5	11.8	9.7	4.3	3.2
28	107.6	59.2	22.6	11.8	9.7	4.3	3.2
29	107.9	59.4	22.7	11.9	9.7	4.3	3.2
30	108.3	59.6	22.8	11.9	9.8	4.3	3.3
31	108.6	59.8	22.8	12.0	9.8	4.4	3.3
32	109.0	60.0	22.9	12.0	9.8	4.4	3.3
33	109.4	60.2	23.0	12.0	9.9	4.4	3.3
34	109.7	60.4	23.1	12.1	9.9	4.4	3.3
35	110.1	60.6	23.1	12.1	9.9	4.4	3.3
36	110.4	60.8	23.2	12.2	9.9	4.4	3.3
37	110.8	61.0	23.3	12.2	10.0	4.4	3.3
38	111.1	61.2	23.4	12.2	10.0	4.5	3.3
39	111.5	61.4	23.4	12.3	10.0	4.5	3.3
40	111.9	61.6	23.5	12.3	10.1	4.5	3.4

Enter table with zone temperature to the nearest one-tenth of a degree. Obtain zone temperature and weighted temperature to the nearest tenth of a percent. Interpolate if necessary.



Table 2-8. Weighted Temperature (Percent), Zone 5

Zone temperature		Line-zone No.				
°C	%	55	65	75	85	95-55
-60	77.0	34.0	10.0	8.5	7.7	2.3
-59	77.4	34.1	10.1	8.5	7.8	2.3
-58	77.7	34.3	10.1	8.6	7.8	2.3
-57	78.1	34.4	10.2	8.6	7.8	2.3
-56	78.5	34.6	10.2	8.6	7.9	2.4
-55	78.8	34.7	10.3	8.7	7.9	2.4
-54	79.2	34.9	10.3	8.7	7.9	2.4
-53	79.6	35.1	10.4	8.8	8.0	2.4
-52	79.9	35.2	10.4	8.8	8.0	2.4
-51	80.3	35.4	10.5	8.8	8.0	2.4
-50	80.6	35.5	10.5	8.9	8.1	2.4
-49	81.0	35.7	10.5	8.9	8.1	2.4
-48	81.4	35.9	10.6	9.0	8.2	2.4
-47	81.7	36.0	10.6	9.0	8.2	2.5
-46	82.1	36.2	10.7	9.0	8.2	2.5
-45	82.5	36.3	10.7	9.1	8.3	2.5
-44	82.8	36.5	10.8	9.1	8.3	2.5
-43	83.2	36.7	10.8	9.2	8.3	2.5
-42	83.5	36.8	10.9	9.2	8.4	2.5
-41	83.9	37.0	10.9	9.2	8.4	2.5
-40	84.2	37.1	11.0	9.3	8.4	2.5
-39	84.6	37.3	11.0	9.3	8.5	2.5
-38	85.0	37.5	11.1	9.4	8.5	2.6
-37	85.3	37.6	11.1	9.4	8.5	2.6
-36	85.7	37.8	11.2	9.4	8.6	2.6
-35	86.1	37.9	11.2	9.5	8.6	2.6
-34	86.4	38.1	11.3	9.5	8.7	2.6
-33	86.8	38.2	11.3	9.6	8.7	2.6
-32	87.1	38.4	11.3	9.6	8.7	2.6
-31	87.5	38.6	11.4	9.6	8.8	2.6
-30	87.9	38.7	11.4	9.7	8.8	2.6
-29	88.2	38.9	11.5	9.7	8.8	2.7
-28	88.6	39.0	11.5	9.8	8.9	2.7
-27	88.9	39.2	11.6	9.8	8.9	2.7
-26	89.3	39.4	11.6	9.8	8.9	2.7
-25	89.7	39.5	11.7	9.9	9.0	2.7
-24	90.0	39.7	11.7	9.9	9.0	2.7
-23	90.4	39.8	11.8	10.0	9.1	2.7
-22	90.8	40.0	11.8	10.0	9.1	2.7
-21	91.1	40.2	11.9	10.0	9.1	2.7
-20	91.5	40.3	11.9	10.1	9.2	2.7
-19	91.8	40.5	12.0	10.1	9.2	2.8
-18	92.2	40.6	12.0	10.2	9.2	2.8
-17	92.6	40.8	12.1	10.2	9.3	2.8
-16	92.9	41.0	12.1	10.2	9.3	2.8
-15	93.3	41.1	12.1	10.3	9.3	2.8
-14	93.6	41.3	12.2	10.3	9.4	2.8
-13	94.0	41.4	12.2	10.4	9.4	2.8
-12	94.4	41.6	12.3	10.4	9.5	2.8
-11	94.7	41.7	12.3	10.4	9.5	2.8
-10	95.1	41.9	12.4	10.5	9.5	2.9

Enter table with zone temperature to the nearest one-tenth of a degree. Obtain zone temperature and weighted temperature to the nearest tenth of a percent. Interpolate if necessary.

Table 2-8. Weighted Temperature (Percent), Zone 5—Continued

Zone temperature		Line-zone No.				
°C	%	55	65	75	85	95-55
-9	95.4	42.1	12.4	10.5	9.6	2.9
-8	95.8	42.2	12.5	10.6	9.6	2.9
-7	96.2	42.4	12.5	10.6	9.6	2.9
-6	96.5	42.5	12.6	10.6	9.7	2.9
-5	96.9	42.7	12.6	10.7	9.7	2.9
-4	97.3	42.9	12.7	10.7	9.7	2.9
-3	97.6	43.0	12.7	10.8	9.8	2.9
-2	98.0	43.2	12.8	10.8	9.8	2.9
-1	98.3	43.3	12.8	10.8	9.8	3.0
0	98.7	43.5	12.9	10.9	9.9	3.0
1	99.1	43.7	12.9	10.9	9.9	3.0
2	99.4	43.8	12.9	11.0	10.0	3.0
3	99.8	44.0	13.0	11.0	10.0	3.0
4	100.1	44.1	13.0	11.0	10.0	3.0
5	100.5	44.3	13.1	11.1	10.1	3.0
6	100.9	44.5	13.1	11.1	10.1	3.0
7	101.2	44.6	13.2	11.2	10.1	3.0
8	101.6	44.8	13.2	11.2	10.2	3.1
9	102.0	44.9	13.3	11.2	10.2	3.1
10	102.3	45.1	13.3	11.3	10.2	3.1
11	102.7	45.2	13.4	11.3	10.3	3.1
12	103.0	45.4	13.4	11.4	10.3	3.1
13	103.4	45.6	13.5	11.4	10.4	3.1
14	103.8	45.7	13.5	11.4	10.4	3.1
15	104.1	45.9	13.6	11.5	10.4	3.1
16	104.5	46.0	13.6	11.5	10.5	3.1
17	104.8	46.2	13.7	11.6	10.5	3.2
18	105.2	46.4	13.7	11.6	10.5	3.2
19	105.6	46.5	13.7	11.6	10.6	3.2
20	105.9	46.7	13.8	11.7	10.6	3.2
21	106.3	46.8	13.8	11.7	10.6	3.2
22	106.6	47.0	13.9	11.7	10.7	3.2
23	107.0	47.2	13.9	11.8	10.7	3.2
24	107.4	47.3	14.0	11.8	10.8	3.2
25	107.7	47.5	14.0	11.9	10.8	3.2
26	108.1	47.6	14.1	11.9	10.8	3.2
27	108.5	47.8	14.1	11.9	10.9	3.3
28	108.8	48.0	14.2	12.0	10.9	3.3
29	109.2	48.1	14.2	12.0	10.9	3.3
30	109.5	48.3	14.3	12.1	11.0	3.3
31	109.9	48.4	14.3	12.1	11.0	3.3
32	110.3	48.6	14.4	12.1	11.0	3.3
33	110.6	48.7	14.4	12.2	11.1	3.3
34	111.0	48.9	14.4	12.2	11.1	3.3
35	111.3	49.1	14.5	12.3	11.2	3.3
36	111.7	49.2	14.5	12.3	11.2	3.4
37	112.1	49.4	14.6	12.3	11.2	3.4
38	112.4	49.5	14.6	12.4	11.3	3.4
39	112.8	49.7	14.7	12.4	11.3	3.4
40	113.2	49.9	14.7	12.5	11.3	3.4

Enter table with zone temperature to the nearest one-tenth of a degree. Obtain zone temperature and weighted temperature to the nearest tenth of a percent. Interpolate if necessary.

Table 2-8. Weighted Temperature (Percent), Zone 6

Zone temperature		Line-zone No.				Zone temperature		Line-zone No.			
°C	%	66	76	86	96-56	°C	%	66	76	86	96-56
-60	78.5	46.3	20.4	14.9	7.1	-9	97.2	57.4	25.3	18.5	8.8
-59	78.8	46.5	20.5	15.0	7.1	-8	97.5	57.6	25.4	18.6	8.8
-58	79.1	46.8	20.6	15.1	7.1	-7	97.9	57.8	25.5	18.6	8.8
-57	79.5	47.0	20.7	15.1	7.2	-6	98.3	58.1	25.6	18.7	8.9
-56	79.9	47.2	20.8	15.2	7.2	-5	98.6	58.3	25.7	18.8	8.9
-55	80.3	47.4	20.9	15.3	7.2	-4	99.0	58.5	25.8	18.8	8.9
-54	80.6	47.6	21.0	15.3	7.3	-3	99.4	58.7	25.9	18.9	9.0
-53	81.0	47.9	21.1	15.4	7.3	-2	99.7	58.9	26.0	19.0	9.0
-52	81.4	48.1	21.2	15.5	7.3	-1	100.1	59.1	26.1	19.0	9.0
-51	81.7	48.3	21.3	15.5	7.4	0	100.5	59.4	26.2	19.1	9.1
-50	82.1	48.5	21.4	15.6	7.4	1	100.8	59.6	26.3	19.2	9.1
-49	82.5	48.7	21.5	15.7	7.4	2	101.2	59.8	26.3	19.3	9.1
-48	82.8	48.9	21.6	15.8	7.5	3	101.6	60.0	26.4	19.3	9.2
-47	83.2	49.2	21.7	15.8	7.5	4	101.9	60.2	26.5	19.4	9.2
-46	83.6	49.4	21.8	15.9	7.5	5	102.3	60.4	26.6	19.5	9.2
-45	83.9	49.6	21.9	16.0	7.6	6	102.7	60.7	26.7	19.5	9.3
-44	84.3	49.7	21.9	16.0	7.6	7	103.1	60.9	26.8	19.6	9.3
-43	84.7	50.0	22.0	16.1	7.6	8	103.4	61.1	26.9	19.7	9.3
-42	85.0	50.2	22.1	16.2	7.7	9	103.8	61.3	27.0	19.7	9.4
-41	85.4	50.5	22.2	16.2	7.7	10	104.2	61.5	27.1	19.8	9.4
-40	85.8	50.7	22.3	16.3	7.7	11	104.5	61.7	27.2	19.9	9.4
-39	86.1	50.9	22.4	16.4	7.8	12	104.9	62.0	27.3	20.0	9.5
-38	86.5	51.1	22.5	16.5	7.8	13	105.3	62.2	27.4	20.0	9.5
-37	86.9	51.3	22.6	16.5	7.8	14	105.6	62.4	27.5	20.1	9.5
-36	87.2	51.5	22.7	16.6	7.9	15	106.0	62.6	27.6	20.2	9.6
-35	87.7	51.8	22.8	16.7	7.9	16	106.4	62.8	27.7	20.2	9.6
-34	88.0	52.0	22.9	16.7	7.9	17	106.7	63.0	27.8	20.3	9.6
-33	88.3	52.2	23.0	16.8	8.0	18	107.1	63.3	27.9	20.4	9.7
-32	88.7	52.4	23.1	16.9	8.0	19	107.5	63.5	28.0	20.4	9.7
-31	89.1	52.6	23.2	16.9	8.0	20	107.8	63.7	28.1	20.5	9.7
-30	89.4	52.8	23.3	17.0	8.1	21	108.2	63.9	28.2	20.6	9.7
-29	89.8	53.1	23.4	17.1	8.1	22	108.6	64.1	28.3	20.7	9.8
-28	90.2	53.3	23.5	17.2	8.1	23	108.9	64.3	28.4	20.7	9.8
-27	90.5	53.5	23.6	17.2	8.2	24	109.3	64.6	28.5	20.8	9.8
-26	90.9	53.7	23.7	17.3	8.2	25	109.7	64.8	28.5	20.9	9.9
-25	91.3	53.9	23.8	17.4	8.2	26	110.0	65.0	28.6	20.9	9.9
-24	91.7	54.1	23.9	17.4	8.3	27	110.4	65.2	28.7	21.0	9.9
-23	92.0	54.4	24.0	17.5	8.3	28	110.8	65.4	28.8	21.1	10.0
-22	92.4	54.6	24.1	17.6	8.3	29	111.1	65.6	28.9	21.1	10.0
-21	92.8	54.8	24.1	17.6	8.4	30	111.5	65.9	29.0	21.2	10.0
-20	93.1	55.0	24.2	17.7	8.4	31	111.9	66.1	29.1	21.3	10.1
-19	93.5	55.2	24.3	17.8	8.4	32	112.2	66.3	29.2	21.4	10.1
-18	93.9	55.4	24.4	17.9	8.5	33	112.6	66.5	29.3	21.4	10.1
-17	94.2	55.7	24.5	17.9	8.5	34	113.0	66.7	29.4	21.5	10.2
-16	94.6	55.9	24.6	18.0	8.5	35	113.4	67.0	29.5	21.6	10.2
-15	95.0	56.1	24.7	18.1	8.6	36	113.7	67.2	29.6	21.6	10.2
-14	95.3	56.3	24.8	18.1	8.6	37	114.1	67.4	29.7	21.7	10.3
-13	95.7	56.5	24.9	18.2	8.6	38	114.5	67.6	29.8	21.8	10.3
-12	96.1	56.8	25.0	18.3	8.7	39	114.8	67.8	29.9	21.8	10.3
-11	96.4	57.0	25.1	18.3	8.7	40	115.2	68.0	30.0	21.9	10.4
-10	96.8	57.2	25.2	18.4	8.7						

Enter table with zone temperature to the nearest one-tenth of a degree. Obtain zone temperature and weighted temperature to the nearest tenth of a percent. Interpolate if necessary.

Table 2-8. Weighted Temperature (Percent), Zone 7

Zone temperature		Line-zone No.			Zone temperature		Line-zone No.		
°C	%	77	87	97-57	°C	%	77	87	97-57
-60	80.3	33.0	18.5	10.5	-9	99.5	40.9	22.9	13.0
-59	80.7	33.1	18.6	10.5	-8	99.9	41.0	23.0	13.0
-58	81.1	33.3	18.7	10.6	-7	100.3	41.2	23.1	13.1
-57	81.4	33.4	18.8	10.6	-6	100.6	41.3	23.2	13.1
-56	81.8	33.6	18.9	10.7	-5	101.0	41.5	23.3	13.2
-55	82.2	33.8	18.9	10.7	-4	101.4	41.6	23.4	13.2
-54	82.6	33.9	19.0	10.8	-3	101.8	41.8	23.4	13.3
-53	82.9	34.1	19.1	10.8	-2	102.1	41.9	23.5	13.3
-52	83.3	34.2	19.2	10.9	-1	102.5	42.1	23.6	13.3
-51	83.7	34.4	19.3	10.9	0	102.9	42.3	23.7	13.4
-50	84.1	34.5	19.4	10.9	1	103.3	42.4	23.8	13.4
-49	84.4	34.7	19.5	11.0	2	103.7	42.6	23.9	13.5
-48	84.8	34.8	19.5	11.0	3	104.0	42.7	24.0	13.5
-47	85.2	35.0	19.6	11.1	4	104.4	42.9	24.1	13.6
-46	85.6	35.1	19.7	11.1	5	104.8	43.0	24.1	13.6
-45	86.0	35.3	19.8	11.2	6	105.2	43.2	24.2	13.7
-44	86.3	35.5	19.9	11.2	7	105.5	43.3	24.3	13.7
-43	86.7	35.6	20.0	11.3	8	105.9	43.5	24.4	13.8
-42	87.1	35.8	20.1	11.3	9	106.3	43.6	24.5	13.8
-41	87.5	35.9	20.2	11.4	10	106.7	43.8	24.6	13.9
-40	87.8	36.1	20.2	11.4	11	107.0	44.0	24.7	13.9
-39	88.2	36.2	20.3	11.5	12	107.4	44.1	24.7	14.0
-38	88.6	36.4	20.4	11.5	13	107.8	44.3	24.8	14.0
-37	89.0	36.5	20.5	11.6	14	108.2	44.4	24.9	14.1
-36	89.3	36.7	20.6	11.6	15	108.5	44.6	25.0	14.1
-35	89.7	36.8	20.7	11.7	16	108.9	44.7	25.1	14.2
-34	90.1	37.0	20.8	11.7	17	109.3	44.9	25.2	14.2
-33	90.5	37.2	20.8	11.8	18	109.7	45.0	25.3	14.3
-32	90.8	37.3	20.9	11.8	19	110.1	45.2	25.4	14.3
-31	91.2	37.5	21.0	11.9	20	110.4	45.3	25.4	14.4
-30	91.6	37.6	21.1	11.9	21	110.8	45.5	25.5	14.4
-29	92.0	37.8	21.2	12.0	22	111.2	45.7	25.6	14.5
-28	92.4	37.9	21.3	12.0	23	111.6	45.8	25.7	14.5
-27	92.8	38.1	21.4	12.1	24	111.9	46.0	25.8	14.6
-26	93.1	38.2	21.5	12.1	25	112.3	46.1	25.9	14.6
-25	93.5	38.4	21.5	12.2	26	112.7	46.3	26.0	14.7
-24	93.9	38.5	21.6	12.2	27	113.1	46.4	26.0	14.7
-23	94.2	38.7	21.7	12.3	28	113.4	46.6	26.1	14.8
-22	94.6	38.9	21.8	12.3	29	113.8	46.7	26.2	14.8
-21	95.0	39.0	21.9	12.4	30	114.2	46.9	26.3	14.9
-20	95.4	39.2	22.0	12.4	31	114.6	47.0	26.4	14.9
-19	95.7	39.3	22.1	12.5	32	115.0	47.2	26.5	15.0
-18	96.1	39.5	22.1	12.5	33	115.3	47.4	26.6	15.0
-17	96.5	39.6	22.2	12.6	34	115.7	47.5	26.7	15.1
-16	96.9	39.8	22.3	12.6	35	116.1	47.7	26.7	15.1
-15	97.3	39.9	22.4	12.7	36	116.5	47.8	26.8	15.2
-14	97.6	40.1	22.5	12.7	37	116.8	48.0	26.9	15.2
-13	98.0	40.2	22.6	12.8	38	117.2	48.1	27.0	15.3
-12	98.4	40.4	22.7	12.8	39	117.6	48.3	27.1	15.3
-11	98.8	40.6	22.8	12.9	40	118.0	48.4	27.2	15.4
-10	99.1	40.7	22.8	12.9					

Enter table with zone temperature to the nearest one-tenth of a degree. Obtain zone temperature and weighted temperature to the nearest tenth of a percent. Interpolate if necessary.

Table 2-8. Weighted Temperature (Percent), Zone 8

Zone temperature		Line-zone No.		Zone temperature		Line-zone No.	
°C	%	88	98-58	°C	%	88	98-58
-60	82.3	28.9	19.8	-14	100.1	35.1	24.1
-59	82.7	29.0	19.9	-13	100.5	35.2	24.2
-58	83.1	29.1	20.0	-12	100.8	35.4	24.2
-57	83.5	29.3	20.1	-11	101.2	35.5	24.3
-56	83.9	29.4	20.2	-10	101.6	35.6	24.4
-55	84.2	29.5	20.3	-9	102.0	35.8	24.5
-54	84.6	29.7	20.3	-8	102.4	35.9	24.6
-53	85.0	29.8	20.4	-7	102.8	36.0	24.7
-52	85.4	29.9	20.5	-6	103.2	36.2	24.8
-51	85.8	30.1	20.6	-5	103.6	36.3	24.9
-50	86.2	30.2	20.7	-4	103.9	36.4	25.0
-49	86.6	30.4	20.8	-3	104.3	36.6	25.1
-48	86.9	30.5	20.9	-2	104.7	36.7	25.2
-47	87.3	30.6	21.0	-1	105.1	36.8	25.3
-46	87.7	30.8	21.1	0	105.5	37.0	25.4
-45	88.1	30.9	21.2	1	105.9	37.1	25.4
-44	88.5	31.0	21.3	2	106.3	37.2	25.5
-43	88.9	31.2	21.4	3	106.7	37.4	25.6
-42	89.3	31.3	21.5	4	107.0	37.5	25.7
-41	89.7	31.4	21.6	5	107.4	37.7	25.8
-40	90.0	31.6	21.6	6	107.8	37.8	25.9
-39	90.4	31.7	21.7	7	108.2	37.9	26.0
-38	90.8	31.8	21.8	8	108.6	38.1	26.1
-37	91.2	32.0	21.9	9	109.0	38.2	26.2
-36	91.6	32.1	22.0	10	109.4	38.3	26.3
-35	92.0	32.2	22.1	11	109.7	38.5	26.4
-34	92.4	32.4	22.2	12	110.1	38.6	26.5
-33	92.7	32.5	22.3	13	110.5	38.7	26.6
-32	93.1	32.6	22.4	14	110.9	38.9	26.7
-31	93.5	32.8	22.5	15	111.3	39.0	26.7
-30	93.9	32.9	22.6	16	111.7	39.1	26.8
-29	94.3	33.1	22.7	17	112.0	39.3	26.9
-28	94.7	33.2	22.8	18	112.4	39.4	27.0
-27	95.1	33.3	22.9	19	112.8	39.5	27.1
-26	95.4	33.5	22.9	20	113.2	39.7	27.2
-25	95.8	33.6	23.0	21	113.6	39.8	27.3
-24	96.2	33.7	23.1	22	114.0	40.0	27.4
-23	96.6	33.9	23.2	23	114.4	40.1	27.5
-22	97.0	34.0	23.3	24	114.7	40.2	27.6
-21	97.4	34.1	23.4	25	115.1	40.4	27.7
-20	97.8	34.3	23.5	26	115.5	40.5	27.8
-19	98.1	34.4	23.6	27	115.9	40.6	27.9
-18	98.5	34.5	23.7	28	116.3	40.8	28.0
-17	99.0	34.7	23.8	29	116.7	40.9	28.0
-16	99.4	34.8	23.9	30	117.1	41.0	28.1
-15	99.7	34.9	24.0				

Enter table with zone temperature to the nearest one-tenth of a degree. Obtain zone temperature and weighted temperature to the nearest tenth of a percent. Interpolate if necessary.

Table 2-8. Weighted Temperature (Percent), Zones 9 through 15

Zone temperature		Line-zone No.	Zone temperature		Line-zone No.
°C	%	99-59	°C	%	99-59
-65	82.5	36.3	-22	99.5	43.8
-64	82.8	36.4	-21	99.9	44.0
-63	83.2	36.6	-20	100.3	44.2
-62	83.6	36.8	-19	100.7	44.4
-61	84.0	37.0	-18	101.1	44.5
-60	84.4	37.2	-17	101.5	44.7
-59	84.8	37.4	-16	101.9	44.9
-58	85.2	37.6	-15	102.3	45.1
-57	85.6	37.7	-14	102.7	45.2
-56	86.0	37.9	-13	103.0	45.4
-55	86.4	38.1	-12	103.5	45.6
-54	86.8	38.3	-11	103.9	45.8
-53	87.2	38.4	-10	104.2	45.9
-52	87.6	38.6	-9	104.6	46.1
-51	88.0	38.8	-8	105.0	46.3
-50	88.4	39.0	-7	105.4	46.5
-49	88.8	39.1	-6	105.8	46.6
-48	89.2	39.3	-5	106.2	46.8
-47	89.6	39.5	-4	106.6	47.0
-46	90.0	39.7	-3	107.0	47.2
-45	90.4	39.8	-2	107.4	47.3
-44	90.8	40.0	-1	107.8	47.5
-43	91.2	40.2	0	108.2	47.7
-42	91.6	40.4	1	108.6	47.9
-41	92.0	40.5	2	109.0	48.0
-40	92.4	40.7	3	109.4	48.2
-39	92.8	40.9	4	109.8	48.4
-38	93.1	41.1	5	110.2	48.6
-37	93.5	41.2	6	110.6	48.7
-36	93.9	41.4	7	111.0	48.9
-35	94.3	41.6	8	111.4	49.1
-34	94.7	41.8	9	111.8	49.3
-33	95.1	41.9	10	112.2	49.4
-32	95.5	42.1	11	112.6	49.6
-31	95.9	42.3	12	113.0	49.8
-30	96.3	42.5	13	113.4	49.9
-29	96.7	42.6	14	113.7	50.1
-28	97.1	42.8	15	114.2	50.3
-27	97.5	43.0	16	114.5	50.5
-26	97.9	43.1	17	114.9	50.6
-25	98.3	43.3	18	115.3	50.8
-24	98.7	43.5	19	115.7	51.0
-23	99.1	43.7	20	116.1	51.2

Enter table with zone temperature to the nearest one-tenth of a degree. Obtain zone temperature and weighted temperature to the nearest tenth of a percent. Interpolate if necessary.

### 2-15. Weighted Wind Speed Tables (Type 3 Message)

a. The weighted wind speed tables (table 2-10) may be used to convert zone winds to the weighted effect of these winds on the various line values of the meteorological message.

b. The Line-zone No. values are the product of zone wind values and the weighting factor values shown in table 2-9. The values of Line-zone No. 21 are the product of zone wind speeds and the weighting factor (.20), line 2 of Zone No. 1, table 2-9.

Table 2-9. Wind Weighting Factors (Type 3 Message)

Line No.	Zone No.														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.....	1.00														
2.....	.20	.80													
3.....	.09	.19	.72												
4.....	.06	.12	.26	.56											
5.....	.04	.08	.15	.20	.53										
6.....	.03	.05	.08	.09	.12	.63									
7.....	.02	.03	.07	.07	.08	.20	.53								
8.....	.02	.02	.06	.06	.06	.14	.19	.45							
9.....	.02	.02	.05	.05	.05	.12	.13	.20	.36						
10.....	.01	.02	.02	.04	.03	.07	.08	.09	.09	.55					
11.....	.00	.00	.01	.04	.03	.08	.08	.09	.09	.20	.38				
12.....	.00	.01	.01	.02	.04	.07	.07	.07	.08	.17	.16	.30			
13.....	.00	.01	.01	.01	.03	.07	.07	.07	.07	.15	.14	.13	.24		
14.....	.00	.01	.01	.01	.02	.07	.07	.07	.07	.13	.13	.13	.10	.18	
15.....	.00	.01	.01	.01	.02	.07	.07	.07	.07	.12	.12	.11	.10	.08	.14

Table 2-10. Weighted Wind Speeds (Type 3 Message), Zone 1

Wind speed, knots	Line-zone No.													
	21	31	41	51	61	71	81	91	01	11	21	31	41	51
2	.4	.2	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
4	.8	.4	.2	.2	.1	.1	.1	.1	.0	.0	.0	.0	.0	.0
6	1.2	.5	.4	.2	.2	.1	.1	.1	.1	.0	.0	.0	.0	.0
8	1.6	.7	.5	.3	.2	.2	.2	.2	.1	.0	.0	.0	.0	.0
10	2.0	.9	.6	.4	.3	.2	.2	.2	.1	.0	.0	.0	.0	.0
12	2.4	1.1	.7	.5	.4	.2	.2	.2	.1	.0	.0	.0	.0	.0
14	2.8	1.3	.8	.6	.4	.3	.3	.3	.1	.0	.0	.0	.0	.0
16	3.2	1.4	1.0	.6	.5	.3	.3	.3	.2	.0	.0	.0	.0	.0
18	3.6	1.6	1.1	.7	.5	.4	.4	.4	.2	.0	.0	.0	.0	.0
20	4.0	1.8	1.2	.8	.6	.4	.4	.4	.2	.0	.0	.0	.0	.0
22	4.4	2.0	1.3	.9	.7	.4	.4	.4	.2	.0	.0	.0	.0	.0
24	4.8	2.2	1.4	1.0	.7	.5	.5	.5	.2	.0	.0	.0	.0	.0
26	5.2	2.3	1.6	1.0	.8	.5	.5	.5	.3	.0	.0	.0	.0	.0
28	5.6	2.5	1.7	1.1	.8	.6	.6	.6	.3	.0	.0	.0	.0	.0
30	6.0	2.7	1.8	1.2	.9	.6	.6	.6	.3	.0	.0	.0	.0	.0
32	6.4	2.9	1.9	1.3	1.0	.6	.6	.6	.3	.0	.0	.0	.0	.0
34	6.8	3.1	2.0	1.4	1.0	.7	.7	.7	.3	.0	.0	.0	.0	.0
36	7.2	3.2	2.2	1.4	1.1	.7	.7	.7	.4	.0	.0	.0	.0	.0
38	7.6	3.4	2.3	1.5	1.1	.8	.8	.8	.4	.0	.0	.0	.0	.0
40	8.0	3.6	2.4	1.6	1.2	.8	.8	.8	.4	.0	.0	.0	.0	.0
42	8.4	3.8	2.5	1.7	1.3	.8	.8	.8	.4	.0	.0	.0	.0	.0
44	8.8	4.0	2.6	1.8	1.3	.9	.9	.9	.4	.0	.0	.0	.0	.0
46	9.2	4.1	2.8	1.8	1.4	.9	.9	.9	.5	.0	.0	.0	.0	.0
48	9.6	4.3	2.9	1.9	1.4	1.0	1.0	1.0	.5	.0	.0	.0	.0	.0
50	10.0	4.5	3.0	2.0	1.5	1.0	1.0	1.0	.5	.0	.0	.0	.0	.0
52	10.4	4.7	3.1	2.1	1.6	1.0	1.0	1.0	.5	.0	.0	.0	.0	.0
54	10.8	4.9	3.2	2.2	1.6	1.1	1.1	1.1	.5	.0	.0	.0	.0	.0
56	11.2	5.0	3.4	2.2	1.7	1.1	1.1	1.1	.6	.0	.0	.0	.0	.0
58	11.6	5.2	3.5	2.3	1.7	1.2	1.2	1.2	.6	.0	.0	.0	.0	.0
60	12.0	5.4	3.6	2.4	1.8	1.2	1.2	1.2	.6	.0	.0	.0	.0	.0
62	12.4	5.6	3.7	2.5	1.9	1.2	1.2	1.2	.6	.0	.0	.0	.0	.0
64	12.8	5.8	3.8	2.6	1.9	1.3	1.3	1.3	.6	.0	.0	.0	.0	.0
66	13.2	5.9	4.0	2.6	2.0	1.3	1.3	1.3	.7	.0	.0	.0	.0	.0
68	13.6	6.1	4.1	2.7	2.0	1.4	1.4	1.4	.7	.0	.0	.0	.0	.0
70	14.0	6.3	4.2	2.8	2.1	1.4	1.4	1.4	.7	.0	.0	.0	.0	.0
72	14.4	6.5	4.3	2.9	2.2	1.4	1.4	1.4	.7	.0	.0	.0	.0	.0
74	14.8	6.7	4.4	3.0	2.2	1.5	1.5	1.5	.7	.0	.0	.0	.0	.0
76	15.2	6.8	4.6	3.0	2.3	1.5	1.5	1.5	.8	.0	.0	.0	.0	.0
78	15.6	7.0	4.7	3.1	2.3	1.6	1.6	1.6	.8	.0	.0	.0	.0	.0
80	16.0	7.2	4.8	3.2	2.4	1.6	1.6	1.6	.8	.0	.0	.0	.0	.0

Enter table with Line-zone number and zone wind speed to the nearest knot. Obtain weighted wind to the nearest tenth of a knot. Interpolate if necessary.



Table 2-10. Weighted Wind Speeds (Type 3 Message), Zone 2

Wind speed, knots	Line-zone No.													
	22	32	42	52	62	72	82	92	02	12	22	32	42	52
2	1.6	.4	.2	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0
4	3.2	.8	.5	.3	.2	.1	.1	.1	.1	.0	.0	.0	.0	.0
6	4.8	1.1	.7	.5	.3	.2	.1	.1	.1	.0	.1	.1	.1	.1
8	6.4	1.5	1.0	.6	.4	.2	.2	.2	.2	.0	.1	.1	.1	.1
10	8.0	1.9	1.2	.8	.5	.3	.2	.2	.2	.0	.1	.1	.1	.1
12	9.6	2.3	1.4	1.0	.6	.4	.2	.2	.2	.0	.1	.1	.1	.1
14	11.2	2.7	1.7	1.1	.7	.4	.3	.3	.3	.0	.1	.1	.1	.1
16	12.8	3.0	1.9	1.3	.8	.5	.3	.3	.3	.0	.2	.2	.2	.2
18	14.4	3.4	2.2	1.4	.9	.5	.4	.4	.4	.0	.2	.2	.2	.2
20	16.0	3.8	2.4	1.6	1.0	.6	.4	.4	.4	.0	.2	.2	.2	.2
22	17.6	4.2	2.6	1.8	1.1	.7	.4	.4	.4	.0	.2	.2	.2	.2
24	19.2	4.6	2.9	1.9	1.2	.7	.5	.5	.5	.0	.2	.2	.2	.2
26	20.8	4.9	3.1	2.1	1.3	.8	.5	.5	.5	.0	.3	.3	.3	.3
28	22.4	5.3	3.4	2.2	1.4	.8	.6	.6	.6	.0	.3	.3	.3	.3
30	24.0	5.7	3.6	2.4	1.5	.9	.6	.6	.6	.0	.3	.3	.3	.3
32	25.6	6.1	3.8	2.6	1.6	1.0	.6	.6	.6	.0	.3	.3	.3	.3
34	27.2	6.5	4.1	2.7	1.7	1.0	.7	.7	.7	.0	.3	.3	.3	.3
36	28.8	6.8	4.3	2.9	1.8	1.1	.7	.7	.7	.0	.4	.4	.4	.4
38	30.4	7.2	4.6	3.0	1.9	1.1	.8	.8	.8	.0	.4	.4	.4	.4
40	32.0	7.6	4.8	3.2	2.0	1.2	.8	.8	.8	.0	.4	.4	.4	.4
42	33.6	8.0	5.0	3.4	2.1	1.3	.8	.8	.8	.0	.4	.4	.4	.4
44	35.2	8.4	5.3	3.5	2.2	1.3	.9	.9	.9	.0	.4	.4	.4	.4
46	36.8	8.7	5.5	3.7	2.3	1.4	.9	.9	.9	.0	.5	.5	.5	.5
48	38.4	9.1	5.8	3.8	2.4	1.4	1.0	1.0	1.0	.0	.5	.5	.5	.5
50	40.0	9.5	6.0	4.0	2.5	1.5	1.0	1.0	1.0	.0	.5	.5	.5	.5
52	41.6	9.9	6.2	4.2	2.6	1.6	1.0	1.0	1.0	.0	.5	.5	.5	.5
54	43.2	10.3	6.5	4.3	2.7	1.6	1.1	1.1	1.1	.0	.5	.5	.5	.5
56	44.8	10.6	6.7	4.5	2.8	1.7	1.1	1.1	1.1	.0	.6	.6	.6	.6
58	46.4	11.0	7.0	4.6	2.9	1.7	1.2	1.2	1.2	.0	.6	.6	.6	.6
60	48.0	11.4	7.2	4.8	3.0	1.8	1.2	1.2	1.2	.0	.6	.6	.6	.6
62	49.6	11.8	7.4	5.0	3.1	1.9	1.2	1.2	1.2	.0	.6	.6	.6	.6
64	51.2	12.2	7.7	5.1	3.2	1.9	1.3	1.3	1.3	.0	.6	.6	.6	.6
66	52.8	12.5	7.9	5.3	3.3	2.0	1.3	1.3	1.3	.0	.7	.7	.7	.7
68	54.4	12.9	8.2	5.4	3.4	2.0	1.4	1.4	1.4	.0	.7	.7	.7	.7
70	56.0	13.3	8.4	5.6	3.5	2.1	1.4	1.4	1.4	.0	.7	.7	.7	.7
72	57.6	13.7	8.6	5.8	3.6	2.2	1.4	1.4	1.4	.0	.7	.7	.7	.7
74	59.2	14.1	8.9	5.9	3.7	2.2	1.5	1.5	1.5	.0	.7	.7	.7	.7
76	60.8	14.4	9.1	6.1	3.8	2.3	1.5	1.5	1.5	.0	.8	.8	.8	.8
78	62.4	14.8	9.4	6.2	3.9	2.3	1.6	1.6	1.6	.0	.8	.8	.8	.8
80	64.0	15.2	9.6	6.4	4.0	2.4	1.6	1.6	1.6	.0	.8	.8	.8	.8

Enter table with Line-zone number and zone wind speed to the nearest knot. Obtain weighted wind to the nearest tenth of a knot. Interpolate if necessary.

Table 2-10. Weighted Wind Speeds (Type 3 Message), Zone 3

Wind speed, knots	Line-zone No.												
	23	43	53	63	73	83	93	03	13	23	33	43	53
2	1.4	.5	.3	.2	.1	.1	.1	.0	.0	.0	.0	.0	.0
4	2.9	1.0	.6	.3	.3	.2	.2	.1	.0	.0	.0	.0	.0
6	4.3	1.6	.9	.5	.4	.4	.3	.1	.1	.1	.1	.1	.1
8	5.8	2.1	1.2	.6	.6	.5	.4	.2	.1	.1	.1	.1	.1
10	7.2	2.6	1.5	.8	.7	.6	.5	.2	.1	.1	.1	.1	.1
12	8.6	3.1	1.8	1.0	.8	.7	.6	.2	.1	.1	.1	.1	.1
14	10.1	3.6	2.1	1.1	1.0	.8	.7	.3	.1	.1	.1	.1	.1
16	11.5	4.2	2.4	1.3	1.1	1.0	.8	.3	.2	.2	.2	.2	.2
18	13.0	4.7	2.7	1.4	1.3	1.1	.9	.4	.2	.2	.2	.2	.2
20	14.4	5.2	3.0	1.6	1.4	1.2	1.0	.4	.2	.2	.2	.2	.2
22	15.8	5.7	3.3	1.8	1.5	1.3	1.1	.4	.2	.2	.2	.2	.2
24	17.3	6.2	3.6	1.9	1.7	1.4	1.2	.5	.2	.2	.2	.2	.2
26	18.7	6.8	3.9	2.1	1.8	1.6	1.3	.5	.3	.3	.3	.3	.3
28	20.2	7.3	4.2	2.2	2.0	1.7	1.4	.6	.3	.3	.3	.3	.3
30	21.6	7.8	4.5	2.4	2.1	1.8	1.5	.6	.3	.3	.3	.3	.3
32	23.0	8.3	4.8	2.6	2.2	1.9	1.6	.6	.3	.3	.3	.3	.3
34	24.5	8.8	5.1	2.7	2.4	2.0	1.7	.7	.3	.3	.3	.3	.3
36	25.9	9.4	5.4	2.9	2.5	2.2	1.8	.7	.4	.4	.4	.4	.4
38	27.4	9.9	5.7	3.0	2.7	2.3	1.9	.8	.4	.4	.4	.4	.4
40	28.8	10.4	6.0	3.2	2.8	2.4	2.0	.8	.4	.4	.4	.4	.4
42	30.2	10.9	6.3	3.4	2.9	2.5	2.1	.8	.4	.4	.4	.4	.4
44	31.7	11.4	6.6	3.5	3.1	2.6	2.2	.9	.4	.4	.4	.4	.4
46	33.1	12.0	6.9	3.7	3.2	2.8	2.3	.9	.5	.5	.5	.5	.5
48	34.6	12.5	7.2	3.8	3.4	2.9	2.4	1.0	.5	.5	.5	.5	.5
50	36.0	13.0	7.5	4.0	3.5	3.0	2.5	1.0	.5	.5	.5	.5	.5
52	37.4	13.5	7.8	4.2	3.6	3.1	2.6	1.0	.5	.5	.5	.5	.5
54	38.9	14.0	8.1	4.3	3.8	3.2	2.7	1.1	.5	.5	.5	.5	.5
56	40.3	14.6	8.4	4.5	3.9	3.4	2.8	1.1	.6	.6	.6	.6	.6
58	41.8	15.1	8.7	4.6	4.1	3.5	2.9	1.2	.6	.6	.6	.6	.6
60	43.2	15.6	9.0	4.8	4.2	3.6	3.0	1.2	.6	.6	.6	.6	.6
62	44.6	16.1	9.3	5.0	4.3	3.7	3.1	1.2	.6	.6	.6	.6	.6
64	46.1	16.6	9.6	5.1	4.5	3.8	3.2	1.3	.6	.6	.6	.6	.6
66	47.5	17.2	9.9	5.3	4.6	4.0	3.3	1.3	.7	.7	.7	.7	.7
68	49.0	17.7	10.2	5.4	4.8	4.1	2.4	1.4	.7	.7	.7	.7	.7
70	50.4	18.2	10.5	5.6	4.9	4.2	3.5	1.4	.7	.7	.7	.7	.7
72	51.8	18.7	10.8	5.8	5.0	4.3	3.6	1.4	.7	.7	.7	.7	.7
74	53.3	19.2	11.1	5.9	5.2	4.4	3.7	1.5	.7	.7	.7	.7	.7
76	54.7	19.8	11.4	6.1	5.3	4.6	3.8	1.5	.8	.8	.8	.8	.8
78	56.2	20.3	11.7	6.2	5.5	4.7	3.9	1.6	.8	.8	.8	.8	.8
80	57.6	20.8	12.0	6.4	5.6	4.8	4.0	1.6	.8	.8	.8	.8	.8

Enter table with Line-zone number and zone wind speed to the nearest knot. Obtain weighted wind to the nearest tenth of a knot. Interpolate if necessary.

Table 2-10. Weighted Wind Speeds (Type 3 Message), Zone 4

Wind speed, knots	Line-zone No.											
	44	54	64	74	84	94	04	14	24	34	44	54
2	1.1	.4	.2	.1	.1	.1	.1	.1	.0	.0	.0	.0
4	2.2	.8	.4	.3	.2	.2	.2	.2	.1	.0	.0	.0
6	3.4	1.2	.5	.4	.4	.3	.2	.2	.1	.1	.1	.1
8	4.5	1.6	.7	.6	.5	.4	.3	.3	.2	.1	.1	.1
10	5.6	2.0	.9	.7	.6	.5	.4	.4	.2	.1	.1	.1
12	6.7	2.4	1.1	.8	.7	.6	.5	.5	.2	.1	.1	.1
14	7.8	2.8	1.3	1.0	.8	.7	.6	.6	.3	.1	.1	.1
16	9.0	3.2	1.4	1.1	1.0	.8	.6	.6	.3	.2	.2	.2
18	10.1	3.6	1.6	1.3	1.1	.9	.7	.7	.4	.2	.2	.2
20	11.2	4.0	1.8	1.4	1.2	1.0	.8	.8	.4	.2	.2	.2
22	12.3	4.4	2.0	1.5	1.3	1.1	.9	.9	.4	.2	.2	.2
24	13.4	4.8	2.2	1.7	1.4	1.2	1.0	1.0	.5	.2	.2	.2
26	14.6	5.2	2.3	1.8	1.6	1.3	1.0	1.0	.5	.3	.3	.3
28	15.7	5.6	2.5	2.0	1.7	1.4	1.1	1.1	.6	.3	.3	.3
30	16.8	6.0	2.7	2.1	1.8	1.5	1.2	1.2	.6	.3	.3	.3
32	17.9	6.4	2.9	2.2	1.9	1.6	1.3	1.3	.6	.3	.3	.3
34	19.0	6.8	3.1	2.4	2.0	1.7	1.4	1.4	.7	.3	.3	.3
36	20.2	7.2	3.2	2.5	2.2	1.8	1.4	1.4	.7	.4	.4	.4
38	21.3	7.6	3.4	2.7	2.3	1.9	1.5	1.5	.8	.4	.4	.4
40	22.4	8.0	3.6	2.8	2.4	2.0	1.6	1.6	.8	.4	.4	.4
42	23.5	8.4	3.8	2.9	2.5	2.1	1.7	1.7	.8	.4	.4	.4
44	24.6	8.8	4.0	3.1	2.6	2.2	1.8	1.8	.9	.4	.4	.4
46	25.8	9.2	4.1	3.2	2.8	2.3	1.8	1.8	.9	.5	.5	.5
48	26.9	9.6	4.3	3.4	2.9	2.4	1.9	1.9	1.0	.5	.5	.5
50	28.0	10.0	4.5	3.5	3.0	2.5	2.0	2.0	1.0	.5	.5	.5
52	29.1	10.4	4.7	3.6	3.1	2.6	2.1	2.1	1.0	.5	.5	.5
54	30.2	10.8	4.9	3.8	3.2	2.7	2.2	2.2	1.1	.5	.5	.5
56	31.4	11.2	5.0	3.9	3.4	2.8	2.2	2.2	1.1	.6	.6	.6
58	32.5	11.6	5.2	4.1	3.5	2.9	2.3	2.3	1.2	.6	.6	.6
60	33.6	12.0	5.4	4.2	3.6	3.0	2.4	2.4	1.2	.6	.6	.6
62	34.7	12.4	5.6	4.3	3.7	3.1	2.5	2.5	1.2	.6	.6	.6
64	35.8	12.8	5.8	4.5	3.8	3.2	2.6	2.6	1.3	.6	.6	.6
66	37.0	13.2	5.9	4.6	4.0	3.3	2.6	2.6	1.3	.7	.7	.7
68	38.1	13.6	6.1	4.8	4.1	3.4	2.7	2.7	1.4	.7	.7	.7
70	39.2	14.0	6.3	4.9	4.2	3.5	2.8	2.8	1.4	.7	.7	.7
72	40.3	14.4	6.5	5.0	4.3	3.6	2.9	2.9	1.4	.7	.7	.7
74	41.4	14.8	6.7	5.2	4.4	3.7	3.0	3.0	1.5	.7	.7	.7
76	42.6	15.2	6.8	5.3	4.6	3.8	3.0	3.0	1.5	.8	.8	.8
78	43.7	15.6	7.0	5.5	4.7	3.9	3.1	3.1	1.6	.8	.8	.8
80	44.8	16.0	7.2	5.6	4.8	4.0	3.2	3.2	1.6	.8	.8	.8

Enter table with Line-zone number and zone wind speed to the nearest knot. Obtain weighted wind to the nearest tenth of a knot. Interpolate if necessary.

Table 2-10. Weighted Wind Speeds (Type 3 Message), Zone 5

Wind speed, knots	Line-zone No.										
	55	65	75	85	95	05	15	25	35	45	55
2	1.1	.2	.2	.1	.1	.1	.1	.1	.1	.0	.0
4	2.1	.5	.3	.2	.2	.1	.1	.2	.1	.1	.1
6	3.2	.7	.5	.4	.3	.2	.2	.2	.2	.1	.1
8	4.2	1.0	.6	.5	.4	.2	.2	.3	.2	.2	.2
10	5.3	1.2	.8	.6	.5	.3	.3	.4	.3	.2	.2
12	6.4	1.4	1.0	.7	.6	.4	.4	.5	.4	.2	.2
14	7.4	1.7	1.1	.8	.7	.4	.4	.6	.4	.3	.3
16	8.5	1.9	1.3	1.0	.8	.5	.5	.6	.5	.3	.3
18	9.5	2.2	1.4	1.1	.9	.5	.5	.7	.5	.4	.4
20	10.6	2.4	1.6	1.2	1.0	.6	.6	.8	.6	.4	.4
22	11.7	2.6	1.8	1.3	1.1	.7	.7	.9	.7	.4	.4
24	12.7	2.9	1.9	1.4	1.2	.7	.7	1.0	.7	.5	.5
26	13.8	3.1	2.1	1.6	1.3	.8	.8	1.0	.8	.5	.5
28	14.8	3.4	2.2	1.7	1.4	.8	.8	1.1	.8	.6	.6
30	15.9	3.6	2.4	1.8	1.5	.9	.9	1.2	.9	.6	.6
32	17.0	3.8	2.6	1.9	1.6	1.0	1.0	1.3	1.0	.6	.6
34	18.0	4.1	2.7	2.0	1.7	1.0	1.0	1.4	1.0	.7	.7
36	19.1	4.3	2.9	2.2	1.8	1.1	1.1	1.4	1.1	.7	.7
38	20.1	4.6	3.0	2.3	1.9	1.1	1.1	1.5	1.1	.8	.8
40	21.2	4.8	3.2	2.4	2.0	1.2	1.2	1.6	1.2	.8	.8
42	22.3	5.0	3.4	2.5	2.1	1.3	1.3	1.7	1.3	.8	.8
44	23.3	5.3	3.5	2.6	2.2	1.3	1.3	1.8	1.3	.9	.9
46	24.4	5.5	3.7	2.8	2.3	1.4	1.4	1.8	1.4	.9	.9
48	25.4	5.8	3.8	2.9	2.4	1.4	1.4	1.9	1.4	1.0	1.0
50	26.5	6.0	4.0	3.0	2.5	1.5	1.5	2.0	1.5	1.0	1.0
52	27.6	6.2	4.2	3.1	2.6	1.6	1.6	2.1	1.6	1.0	1.0
54	28.6	6.5	4.3	3.2	2.7	1.6	1.6	2.2	1.6	1.1	1.1
56	29.7	6.7	4.5	3.4	2.8	1.7	1.7	2.2	1.7	1.1	1.1
58	30.7	7.0	4.6	3.5	2.9	1.7	1.7	2.3	1.7	1.2	1.2
60	31.8	7.2	4.8	3.6	3.0	1.8	1.8	2.4	1.8	1.2	1.2
62	32.9	7.4	5.0	3.7	3.1	1.9	1.9	2.5	1.9	1.2	1.2
64	33.9	7.7	5.1	3.8	3.2	1.9	1.9	2.6	1.9	1.3	1.3
66	35.0	7.9	5.3	4.0	3.3	2.0	2.0	2.6	2.0	1.3	1.3
68	36.0	8.2	5.4	4.1	3.4	2.0	2.0	2.7	2.0	1.4	1.4
70	37.1	8.4	5.6	4.2	3.5	2.1	2.1	2.8	2.1	1.4	1.4
72	38.2	8.6	5.8	4.3	3.6	2.2	2.2	2.9	2.2	1.4	1.4
74	39.2	8.9	5.9	4.4	3.7	2.2	2.2	3.0	2.2	1.5	1.5
76	40.3	9.1	6.1	4.6	3.8	2.3	2.3	3.0	2.3	1.5	1.5
78	41.3	9.4	6.2	4.7	3.9	2.3	2.3	3.1	2.3	1.6	1.6
80	42.4	9.6	6.4	4.8	4.0	2.4	2.4	3.2	2.4	1.6	1.6

Enter table with Line-zone number and zone wind speed to the nearest knot. Obtain weighted wind to the nearest tenth of a knot. Interpolate if necessary.

Table 2-10. Weighted Wind Speeds (Type 3 Message), Zone 6

Wind speed, knots	Line-zone No.									
	66	76	86	96	06	16	26	36	46	56
2	1.3	.4	.3	.2	.1	.2	.1	.1	.1	.1
4	2.5	.8	.6	.5	.3	.3	.3	.3	.3	.3
6	3.8	1.2	.8	.7	.4	.5	.4	.4	.4	.4
8	5.0	1.6	1.1	1.0	.6	.6	.6	.6	.6	.6
10	6.3	2.0	1.4	1.2	.7	.8	.7	.7	.7	.7
12	7.6	2.4	1.7	1.4	.8	1.0	.8	.8	.8	.8
14	8.8	2.8	2.0	1.7	1.0	1.1	1.0	1.0	1.0	1.0
16	10.1	3.2	2.2	1.9	1.1	1.3	1.1	1.1	1.1	1.1
18	11.3	3.6	2.5	2.2	1.3	1.4	1.3	1.3	1.3	1.3
20	12.6	4.0	2.8	2.4	1.4	1.6	1.4	1.4	1.4	1.4
22	13.9	4.4	3.1	2.6	1.5	1.8	1.5	1.5	1.5	1.5
24	15.1	4.8	3.4	2.9	1.7	1.9	1.7	1.7	1.7	1.7
26	16.4	5.2	3.6	3.1	1.8	2.1	1.8	1.8	1.8	1.8
28	17.6	5.6	3.9	3.4	2.0	2.2	2.0	2.0	2.0	2.0
30	18.9	6.0	4.2	3.6	2.1	2.4	2.1	2.1	2.1	2.1
32	20.2	6.4	4.5	3.8	2.2	2.6	2.2	2.2	2.2	2.2
34	21.4	6.8	4.8	4.1	2.4	2.7	2.4	2.4	2.4	2.4
36	22.7	7.2	5.0	4.3	2.5	2.9	2.5	2.5	2.5	2.5
38	23.9	7.6	5.3	4.6	2.7	3.0	2.7	2.7	2.7	2.7
40	25.2	8.0	5.6	4.8	2.8	3.2	2.8	2.8	2.8	2.8
42	26.5	8.4	5.9	5.0	2.9	3.4	2.9	2.9	2.9	2.9
44	27.7	8.8	6.2	5.3	3.1	3.5	3.1	3.1	3.1	3.1
46	29.0	9.2	6.4	5.5	3.2	3.7	3.2	3.2	3.2	3.2
48	30.2	9.6	6.7	5.8	3.4	3.8	3.4	3.4	3.4	3.4
50	31.5	10.0	7.0	6.0	3.5	4.0	3.5	3.5	3.5	3.5
52	32.8	10.4	7.3	6.2	3.6	4.2	3.6	3.6	3.6	3.6
54	34.0	10.8	7.6	6.5	3.8	4.3	3.8	3.8	3.8	3.8
56	35.3	11.2	7.8	6.7	3.9	4.5	3.9	3.9	3.9	3.9
58	36.5	11.6	8.1	7.0	4.1	4.6	4.1	4.1	4.1	4.1
60	37.8	12.0	8.4	7.2	4.2	4.8	4.2	4.2	4.2	4.2
62	39.1	12.4	8.7	7.4	4.3	5.0	4.3	4.3	4.3	4.3
64	40.3	12.8	9.0	7.7	4.5	5.1	4.5	4.5	4.5	4.5
66	41.6	13.2	9.2	7.9	4.6	5.3	4.6	4.6	4.6	4.6
68	42.8	13.6	9.5	8.2	4.8	5.4	4.8	4.8	4.8	4.8
70	44.1	14.0	9.8	8.4	4.9	5.6	4.9	4.9	4.9	4.9
72	45.4	14.4	10.1	8.6	5.0	5.8	5.0	5.0	5.0	5.0
74	46.6	14.8	10.4	8.9	5.2	5.9	5.2	5.2	5.2	5.2
76	47.9	15.2	10.6	9.1	5.3	6.1	5.3	5.3	5.3	5.3
78	49.1	15.6	10.9	9.4	5.5	6.2	5.5	5.5	5.5	5.5
80	50.4	16.0	11.2	9.6	5.6	6.4	5.6	5.6	5.6	5.6

Enter table with Line-zone number and zone wind speed to the nearest knot. Obtain weighted wind to the nearest tenth of a knot. Interpolate if necessary.

Table 2-10. Weighted Wind Speeds (Type 3 Message), Zone 7

Wind speed, knots	Line-zone No.								
	77	87	97	07	17	27	37	47	57
2	1.1	.4	.3	.2	.2	.1	.1	.1	.1
4	2.1	.8	.5	.3	.3	.3	.3	.3	.3
6	3.2	1.1	.8	.5	.5	.4	.4	.4	.4
8	4.2	1.5	1.0	.6	.6	.6	.6	.6	.6
10	5.3	1.9	1.3	.8	.8	.7	.7	.7	.7
12	6.4	2.3	1.6	1.0	1.0	.8	.8	.8	.8
14	7.4	2.7	1.8	1.1	1.1	1.0	1.0	1.0	1.0
16	8.5	3.0	2.1	1.3	1.3	1.1	1.1	1.1	1.1
18	9.5	3.4	2.3	1.4	1.4	1.3	1.3	1.3	1.3
20	10.6	3.8	2.6	1.6	1.6	1.4	1.4	1.4	1.4
22	11.7	4.2	2.9	1.8	1.8	1.5	1.5	1.5	1.5
24	12.7	4.6	3.1	1.9	1.9	1.7	1.7	1.7	1.7
26	13.8	4.9	3.4	2.1	2.1	1.8	1.8	1.8	1.8
28	14.8	5.3	3.6	2.2	2.2	2.0	2.0	2.0	2.0
30	15.9	5.7	3.9	2.4	2.4	2.1	2.1	2.1	2.1
32	17.0	6.1	4.2	2.6	2.6	2.2	2.2	2.2	2.2
34	18.0	6.5	4.4	2.7	2.7	2.4	2.4	2.4	2.4
36	19.1	6.8	4.7	2.9	2.9	2.5	2.5	2.5	2.5
38	20.1	7.2	4.9	3.0	3.0	2.7	2.7	2.7	2.7
40	21.2	7.6	5.2	3.2	3.2	2.8	2.8	2.8	2.8
42	22.3	8.0	5.5	3.4	3.4	2.9	2.9	2.9	2.9
44	23.3	8.4	5.7	3.5	3.5	3.1	3.1	3.1	3.1
46	24.4	8.7	6.0	3.7	3.7	3.2	3.2	3.2	3.2
48	25.4	9.1	6.2	3.8	3.8	3.4	3.4	3.4	3.4
50	26.5	9.5	6.5	4.0	4.0	3.5	3.5	3.5	3.5
52	27.6	9.9	6.8	4.2	4.2	3.6	3.6	3.6	3.6
54	28.6	10.3	7.0	4.3	4.3	3.8	3.8	3.8	3.8
56	29.7	10.6	7.3	4.5	4.5	3.9	3.9	3.9	3.9
58	30.7	11.0	7.5	4.6	4.6	4.1	4.1	4.1	4.1
60	31.8	11.4	7.8	4.8	4.8	4.2	4.2	4.2	4.2
62	32.9	11.8	8.1	5.0	5.0	4.3	4.3	4.3	4.3
64	33.9	12.2	8.3	5.1	5.1	4.5	4.5	4.5	4.5
66	35.0	12.5	8.6	5.3	5.3	4.6	4.6	4.6	4.6
68	36.0	12.9	8.8	5.4	5.4	4.8	4.8	4.8	4.8
70	37.1	13.3	9.1	5.6	5.6	4.9	4.9	4.9	4.9
72	38.2	13.7	9.4	5.8	5.8	5.0	5.0	5.0	5.0
74	39.2	14.1	9.6	5.9	5.9	5.2	5.2	5.2	5.2
76	40.3	14.4	9.9	6.1	6.1	5.3	5.3	5.3	5.3
78	41.3	14.8	10.1	6.2	6.2	5.5	5.5	5.5	5.5
80	42.4	15.2	10.4	6.4	6.4	5.6	5.6	5.6	5.6

Enter table with Line-zone number and zone wind speed to the nearest knot. Obtain weighted wind to the nearest tenth of a knot. Interpolate if necessary.

Table 2-10. Weighted Wind Speeds (Type 3 Message), Zone 8

Wind speed, knots	Line-zone No.							
	88	96	06	18	28	38	48	58
2	.9	.4	.2	.2	.1	.1	.1	.1
4	1.8	.8	.4	.4	.3	.3	.3	.3
6	2.7	1.2	.5	.5	.4	.4	.4	.4
8	3.6	1.6	.7	.7	.6	.6	.6	.6
10	4.5	2.0	.9	.9	.7	.7	.7	.7
12	5.4	2.4	1.1	1.1	.8	.8	.8	.8
14	6.3	2.8	1.3	1.3	1.0	1.0	1.0	1.0
16	7.2	3.2	1.4	1.4	1.1	1.1	1.1	1.1
18	8.1	3.6	1.6	1.6	1.3	1.3	1.3	1.3
20	9.0	4.0	1.8	1.8	1.4	1.4	1.4	1.4
22	9.9	4.4	2.0	2.0	1.5	1.5	1.5	1.5
24	10.8	4.8	2.2	2.2	1.7	1.7	1.7	1.7
26	11.7	5.2	2.3	2.3	1.8	1.8	1.8	1.8
28	12.6	5.6	2.5	2.5	2.0	2.0	2.0	2.0
30	13.5	6.0	2.7	2.7	2.1	2.1	2.1	2.1
32	14.4	6.4	2.9	2.9	2.2	2.2	2.2	2.2
34	15.3	6.8	3.1	3.1	2.4	2.4	2.4	2.4
36	16.2	7.2	3.2	3.2	2.5	2.5	2.5	2.5
38	17.1	7.6	3.4	3.4	2.7	2.7	2.7	2.7
40	18.0	8.0	3.6	3.6	2.8	2.8	2.8	2.8
42	18.9	8.4	3.8	3.8	2.9	2.9	2.9	2.9
44	19.8	8.8	4.0	4.0	3.1	3.1	3.1	3.1
46	20.7	9.2	4.1	4.1	3.2	3.2	3.2	3.2
48	21.6	9.6	4.3	4.3	3.4	3.4	3.4	3.4
50	22.5	10.0	4.5	4.5	3.5	3.5	3.5	3.5
52	23.4	10.4	4.7	4.7	3.6	3.6	3.6	3.6
54	24.3	10.8	4.9	4.9	3.8	3.8	3.8	3.8
56	25.2	11.2	5.0	5.0	3.9	3.9	3.9	3.9
58	26.1	11.6	5.2	5.2	4.1	4.1	4.1	4.1
60	27.0	12.0	5.4	5.4	4.2	4.2	4.2	4.2
62	27.9	12.4	5.6	5.6	4.3	4.3	4.3	4.3
64	28.8	12.8	5.8	5.8	4.5	4.5	4.5	4.5
66	29.7	13.2	5.9	5.9	4.6	4.6	4.6	4.6
68	30.6	13.6	6.1	6.1	4.8	4.8	4.8	4.8
70	31.5	14.0	6.3	6.3	4.9	4.9	4.9	4.9
72	32.4	14.4	6.5	6.5	5.0	5.0	5.0	5.0
74	33.3	14.8	6.7	6.7	5.2	5.2	5.2	5.2
76	34.2	15.2	6.8	6.8	5.3	5.3	5.3	5.3
78	35.1	15.6	7.0	7.0	5.5	5.5	5.5	5.5
80	36.0	16.0	7.2	7.2	5.6	5.6	5.6	5.6

Enter table with Line-zone number and zone wind speed to the nearest knot. Obtain weighted wind to the nearest tenth of a knot. Interpolate if necessary.

Table 2-10. Weighted Wind Speeds (Type 3 Message), Zone 9

Wind speed, knots	Line-zone No.						
	00	09	19	29	39	49	59
2	.7	.2	.2	.2	.1	.1	.1
4	1.4	.4	.4	.3	.3	.3	.3
6	2.2	.5	.5	.5	.4	.4	.4
8	2.9	.7	.7	.6	.6	.6	.6
10	3.6	.9	.9	.8	.7	.7	.7
12	4.3	1.1	1.1	1.0	.8	.8	.8
14	5.0	1.3	1.3	1.1	1.0	1.0	1.0
16	5.8	1.4	1.4	1.3	1.1	1.1	1.1
18	6.5	1.6	1.6	1.4	1.3	1.3	1.3
20	7.2	1.8	1.8	1.6	1.4	1.4	1.4
22	7.9	2.0	2.0	1.8	1.5	1.5	1.5
24	8.6	2.2	2.2	1.9	1.7	1.7	1.7
26	9.4	2.3	2.3	2.1	1.8	1.8	1.8
28	10.1	2.5	2.5	2.2	2.0	2.0	2.0
30	10.8	2.7	2.7	2.4	2.1	2.1	2.1
32	11.5	2.9	2.9	2.6	2.2	2.2	2.2
34	12.2	3.1	3.1	2.7	2.4	2.4	2.4
36	13.0	3.2	3.2	2.9	2.5	2.5	2.5
38	13.7	3.4	3.4	3.0	2.7	2.7	2.7
40	14.4	3.6	3.6	3.2	2.8	2.8	2.8
42	15.1	3.8	3.8	3.4	2.9	2.9	2.9
44	15.8	4.0	4.0	3.5	3.1	3.1	3.1
46	16.6	4.1	4.1	3.7	3.2	3.2	3.2
48	17.3	4.3	4.3	3.8	3.4	3.4	3.4
50	18.0	4.5	4.5	4.0	3.5	3.5	3.5
52	18.7	4.7	4.7	4.2	3.6	3.6	3.6
54	19.4	4.9	4.9	4.3	3.8	3.8	3.8
56	20.2	5.0	5.0	4.5	3.9	3.9	3.9
58	20.9	5.2	5.2	4.6	4.1	4.1	4.1
60	21.6	5.4	5.4	4.8	4.2	4.2	4.2
62	22.3	5.6	5.6	5.0	4.3	4.3	4.3
64	23.0	5.8	5.8	5.1	4.5	4.5	4.5
66	23.8	5.9	5.9	5.3	4.6	4.6	4.6
68	24.5	6.1	6.1	5.4	4.8	4.8	4.8
70	25.2	6.3	6.3	5.6	4.9	4.9	4.9
72	25.9	6.5	6.5	5.8	5.0	5.0	5.0
74	26.6	6.7	6.7	5.9	5.2	5.2	5.2
76	27.4	6.8	6.8	6.1	5.3	5.3	5.3
78	28.1	7.0	7.0	6.2	5.5	5.5	5.5
80	28.8	7.2	7.2	6.4	5.6	5.6	5.6

Enter table with Line-zone number and zone wind speed to the nearest knot. Obtain weighted wind to the nearest tenth of a knot. Interpolate if necessary.



Table 2-10. Weighted Wind Speeds (Type 3 Message), Zones 10 and 11

Wind speed, knots	Zone 10						Wind speed, knots	Zone 11				
	Line-zone No.							Line-zone No.				
	00	10	20	30	40	50		11	21	31	41	51
2	1.1	.4	.3	.3	.3	.2	2	.8	.3	.3	.3	.2
4	2.2	.8	.7	.6	.5	.5	4	1.5	.6	.6	.5	.5
6	3.3	1.2	1.0	.9	.8	.7	6	2.3	1.0	.8	.8	.7
8	4.4	1.6	1.4	1.2	1.0	1.0	8	3.0	1.3	1.1	1.0	1.0
10	5.5	2.0	1.7	1.5	1.3	1.2	10	3.8	1.6	1.4	1.3	1.2
12	6.6	2.4	2.0	1.8	1.6	1.4	12	4.6	1.9	1.7	1.6	1.4
14	7.7	2.8	2.4	2.1	1.8	1.7	14	5.3	2.2	2.0	1.8	1.7
16	8.8	3.2	2.7	2.4	2.1	1.9	16	6.1	2.6	2.2	2.1	1.9
18	9.9	3.6	3.1	2.7	2.3	2.2	18	6.8	2.9	2.5	2.3	2.2
20	11.0	4.0	3.4	3.0	2.6	2.4	20	7.6	3.2	2.8	2.6	2.4
22	12.1	4.4	3.7	3.3	2.9	2.6	22	8.4	3.5	3.1	2.9	2.6
24	13.2	4.8	4.1	3.6	3.1	2.9	24	9.1	3.8	3.4	3.1	2.9
26	14.3	5.2	4.4	3.9	3.4	3.1	26	9.9	4.2	3.6	3.4	3.1
28	15.4	5.6	4.8	4.2	3.6	3.4	28	10.6	4.5	3.9	3.6	3.4
30	16.5	6.0	5.1	4.5	3.9	3.6	30	11.4	4.8	4.2	3.9	3.6
32	17.6	6.4	5.4	4.8	4.2	3.8	32	12.2	5.1	4.5	4.2	3.8
34	18.7	6.8	5.8	5.1	4.4	4.1	34	12.9	5.4	4.8	4.4	4.1
36	19.8	7.2	6.1	5.4	4.7	4.3	36	13.7	5.8	5.0	4.7	4.3
38	20.9	7.6	6.5	5.7	4.9	4.6	38	14.4	6.1	5.3	4.9	4.6
40	22.0	8.0	6.8	6.0	5.2	4.8	40	15.2	6.4	5.6	5.2	4.8
42	23.1	8.4	7.1	6.3	5.5	5.0	42	16.0	6.7	5.9	5.5	5.0
44	24.2	8.8	7.5	6.6	5.7	5.3	44	16.7	7.0	6.2	5.7	5.3
46	25.3	9.2	7.8	6.9	6.0	5.5	46	17.5	7.4	6.4	6.0	5.5
48	26.4	9.6	8.2	7.2	6.2	5.8	48	18.2	7.7	6.7	6.2	5.8
50	27.5	10.0	8.5	7.5	6.5	6.0	50	19.0	8.0	7.0	6.5	6.0
52	28.6	10.4	8.8	7.8	6.8	6.2	52	19.8	8.3	7.3	6.8	6.2
54	29.7	10.8	9.2	8.1	7.0	6.5	54	20.5	8.6	7.6	7.0	6.5
56	30.8	11.2	9.5	8.4	7.3	6.7	56	21.3	9.0	7.8	7.3	6.7
58	31.9	11.6	9.9	8.7	7.5	7.0	58	22.0	9.3	8.1	7.5	7.0
60	33.0	12.0	10.2	9.0	7.8	7.2	60	22.8	9.6	8.4	7.8	7.2
62	34.1	12.4	10.5	9.3	8.1	7.4	62	23.6	9.9	8.7	8.1	7.4
64	35.2	12.8	10.9	9.6	8.3	7.7	64	24.3	10.2	9.0	8.3	7.7
66	36.3	13.2	11.2	9.9	8.6	7.9	66	25.1	10.6	9.2	8.6	7.9
68	37.4	13.6	11.6	10.2	8.8	8.2	68	25.8	10.9	9.5	8.8	8.2
70	38.5	14.0	11.9	10.5	9.1	8.4	70	26.6	11.2	9.8	9.1	8.4
72	39.6	14.4	12.2	10.8	9.4	8.6	72	27.4	11.5	10.1	9.4	8.6
74	40.7	14.8	12.6	11.1	9.6	8.9	74	28.1	11.8	10.4	9.6	8.9
76	41.8	15.2	12.9	11.4	9.9	9.1	76	28.9	12.2	10.6	9.9	9.1
78	42.9	15.6	13.3	11.7	10.1	9.4	78	29.6	12.5	10.9	10.1	9.4
80	44.0	16.0	13.6	12.0	10.4	9.6	80	30.4	12.8	11.2	10.4	9.6

Enter table with Line-zone number and zone wind speed to the nearest knot. Obtain weighted wind to the nearest tenth of a knot. Interpolate if necessary.

Table 2-10. Weighted Wind Speeds (Type 3 Message), Zones 12 and 13

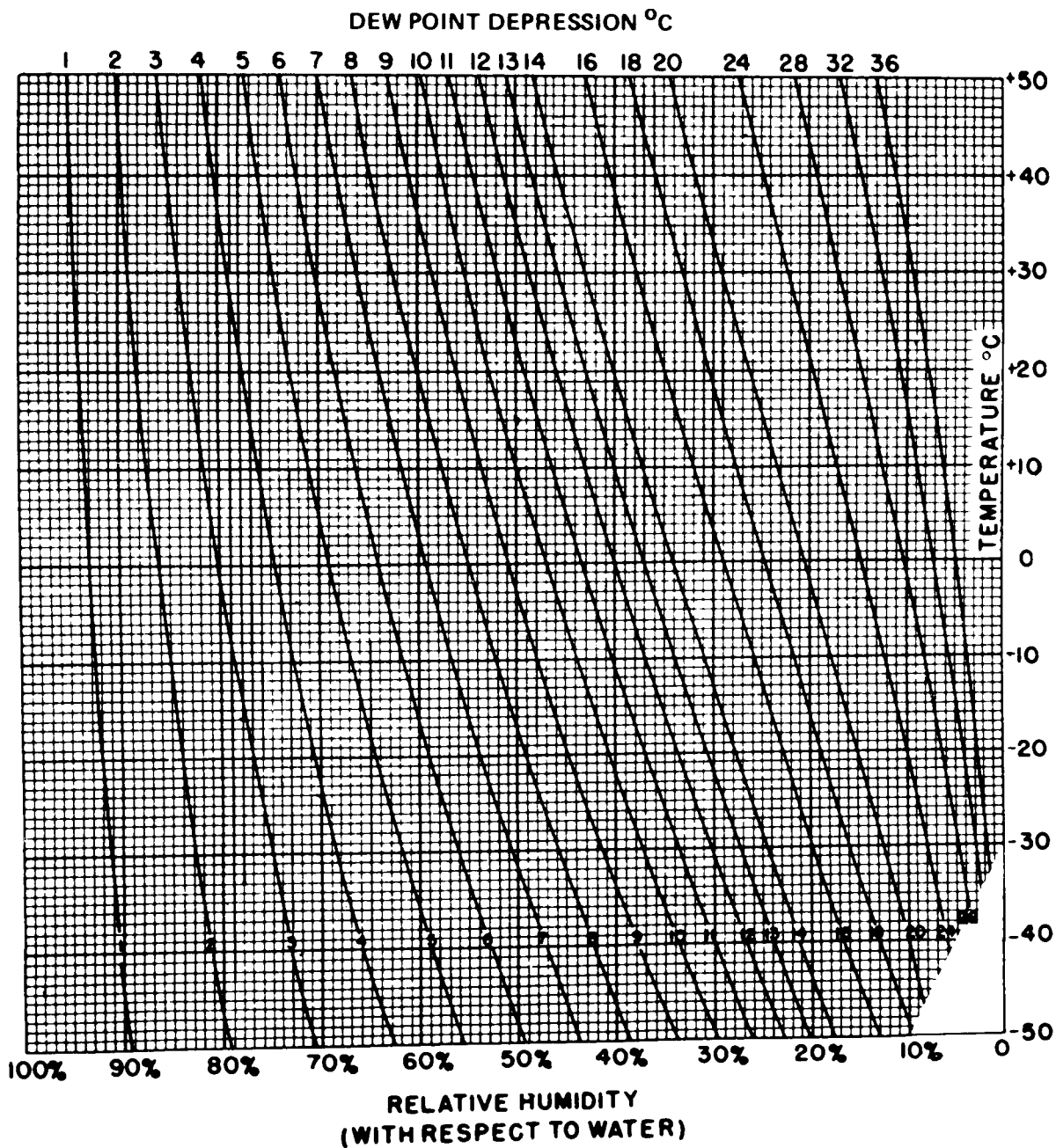
Zone 12					Zone 13			
Wind speed, knots	Line-zone No.				Wind speed, knots	Line-zone No.		
	22	32	42	52		33	43	53
2	.6	.3	.3	.2	2	.5	.2	.2
4	1.2	.5	.5	.4	4	1.0	.4	.4
6	1.8	.8	.8	.7	6	1.4	.6	.6
8	2.4	1.0	1.0	.9	8	1.9	.8	.8
10	3.0	1.3	1.3	1.1	10	2.4	1.0	1.0
12	3.6	1.6	1.6	1.3	12	2.9	1.2	1.2
14	4.2	1.8	1.8	1.5	14	3.4	1.4	1.4
16	4.8	2.1	2.1	1.8	16	3.8	1.6	1.6
18	5.4	2.3	2.3	2.0	18	4.3	1.8	1.8
20	6.0	2.6	2.6	2.2	20	4.8	2.0	2.0
22	6.6	2.9	2.9	2.4	22	5.3	2.2	2.2
24	7.2	3.1	3.1	2.6	24	5.8	2.4	2.4
26	7.8	3.4	3.4	2.9	26	6.2	2.6	2.6
28	8.4	3.6	3.6	3.1	28	6.7	2.8	2.8
30	9.0	3.9	3.9	3.3	30	7.2	3.0	3.0
32	9.6	4.2	4.2	3.5	32	7.7	3.2	3.2
34	10.2	4.4	4.4	3.7	34	8.2	3.4	3.4
36	10.8	4.7	4.7	4.0	36	8.6	3.6	3.6
38	11.4	4.9	4.9	4.2	38	9.1	3.8	3.8
40	12.0	5.2	5.2	4.4	40	9.6	4.0	4.0
42	12.6	5.5	5.5	4.6	42	10.1	4.2	4.2
44	13.2	5.7	5.7	4.8	44	10.6	4.4	4.4
46	13.8	6.0	6.0	5.1	46	11.0	4.6	4.6
48	14.4	6.2	6.2	5.3	48	11.5	4.8	4.8
50	15.0	6.5	6.5	5.5	50	12.0	5.0	5.0
52	15.6	6.8	6.8	5.7	52	12.5	5.2	5.2
54	16.2	7.0	7.0	5.9	54	13.0	5.4	5.4
56	16.8	7.3	7.3	6.2	56	13.4	5.6	5.6
58	17.4	7.5	7.5	6.4	58	13.9	5.8	5.8
60	18.0	7.8	7.8	6.6	60	14.4	6.0	6.0
62	18.6	8.1	8.1	6.8	62	14.9	6.2	6.2
64	19.2	8.3	8.3	7.0	64	15.4	6.4	6.4
66	19.8	8.6	8.6	7.3	66	15.8	6.6	6.6
68	20.4	8.8	8.8	7.5	68	16.3	6.8	6.8
70	21.0	9.1	9.1	7.7	70	16.8	7.0	7.0
72	21.6	9.4	9.4	7.9	72	17.3	7.2	7.2
74	22.2	9.6	9.6	8.1	74	17.8	7.4	7.4
76	22.8	9.9	9.9	8.4	76	18.2	7.6	7.6
78	23.4	10.1	10.1	8.6	78	18.7	7.8	7.8
80	24.0	10.4	10.4	8.8	80	19.2	8.0	8.0

Enter table with Line-zone number and zone wind speed to the nearest knot. Obtain weighted wind to the nearest tenth of a knot. Interpolate if necessary.

Table 2-10. Weighted Wind Speeds (Type 3 Message), Zones 14 and 15

Zone 14			Zone 15	
Wind speed, knots	Line-zone No.		Wind speed, knots	Line-zone No.
	44	54		55
2	.4	.2	2	.3
4	.7	.3	4	.6
6	1.1	.5	6	.8
8	1.4	.6	8	1.1
10	1.8	.8	10	1.4
12	2.2	1.0	12	1.7
14	2.5	1.1	14	2.0
16	2.9	1.3	16	2.2
18	3.2	1.4	18	2.5
20	3.6	1.6	20	2.8
22	4.0	1.8	22	3.1
24	4.3	1.9	24	3.4
26	4.7	2.1	26	3.6
28	5.0	2.2	28	3.9
30	5.4	2.4	30	4.2
32	5.8	2.6	32	4.5
34	6.1	2.7	34	4.8
36	6.5	2.9	36	5.0
38	6.8	3.0	38	5.3
40	7.2	3.2	40	5.6
42	7.6	3.4	42	5.9
44	7.9	3.5	44	6.2
46	8.3	3.7	46	6.4
48	8.6	3.8	48	6.7
50	9.0	4.0	50	7.0
52	9.4	4.2	52	7.3
54	9.7	4.3	54	7.6
56	10.1	4.5	56	7.8
58	10.4	4.6	58	8.1
60	10.8	4.8	60	8.4
62	11.2	5.0	62	8.7
64	11.5	5.1	64	9.0
66	11.9	5.3	66	9.2
68	12.2	5.4	68	9.5
70	12.6	5.6	70	9.8
72	13.0	5.8	72	10.1
74	13.3	5.9	74	10.4
76	13.7	6.1	76	10.6
78	14.0	6.2	78	10.9
80	14.4	6.4	80	11.2

Enter table with Line-zone number and zone wind speed to the nearest knot. Obtain weighted wind to the nearest tenth of a knot. Interpolate if necessary.



Enter chart with air temperature to the nearest whole degree Celsius and Relative Humidity to the nearest percent. Dew point depression is read along the skewed lines. Interpolate between skewed lines to determine the tenths value of depression. Subtract dew point depression from air temperature to obtain dew point temperature.

Figure 2-9. Dew point depression chart.

★ Table 2-11. Standard Conditions at Ballistic Zone Midpoints

Zone limits (meters)	Zone no.	Midpoint height (meters)	Density (gms/m <sup>3</sup> )	Temperature	
				°C	°K
Surface .....	00	0	1,225.0	15.0	288.2
0-200 .....	01	100	1,213.3	14.4	287.5
200-500 .....	02	350	1,184.4	12.7	285.9
500-1,000 .....	03	750	1,139.2	10.1	283.3
1,000-1,500 .....	04	1,250	1,084.6	6.9	280.0
1,500-2,000 .....	05	1,750	1,032.0	3.6	276.8
2,000-3,000 .....	06	2,500	956.9	-1.3	271.9
3,000-4,000 .....	07	3,500	863.2	-7.7	265.4
4,000-5,000 .....	08	4,500	776.8	-14.3	258.9
5,000-6,000 .....	09	5,500	697.1	-20.8	252.4
6,000-8,000 .....	10	7,000	589.5	-30.5	242.7
8,000-10,000 .....	11	9,000	466.4	-43.5	229.7
10,000-12,000 .....	12	11,000	363.9	-54.9	218.3
12,000-14,000 .....	13	13,000	265.5	-56.5	216.7
14,000-16,000 .....	14	15,000	193.7	-56.5	216.7
16,000-18,000 .....	15	17,000	141.3	-56.5	216.7

Midpoint values extracted from US Standard Atmosphere, 1976, National Oceanic and Atmospheric Administration.

★ Table 2-12. Standard Conditions at Computer Zone Midpoints  
(first 5 zones are the same as ballistic midpoints)

Zone limits (meters)	Zone no.	Midpoint height (meters)	Pressure (mb)	Temperature	
				°C	°K
Surface .....	00	0	1013	15.0	288.2
0-200 .....	01	100	1001	14.4	287.5
200-500 .....	02	350	0972	12.7	285.9
500-1,000 .....	03	750	0926	10.1	283.3
1,000-1,500 .....	04	1,250	0872	6.9	280.0
1,500-2,000 .....	05	1,750	0820	3.6	276.8
2,000-2,500 .....	06	2,250	0771	0.4	273.5
2,500-3,000 .....	07	2,750	0724	-2.9	270.3
3,000-3,500 .....	08	3,250	0679	-6.1	267.0
3,500-4,000 .....	09	3,750	0637	-9.4	263.8
4,000-4,500 .....	10	4,250	0597	-12.6	260.5
4,500-5,000 .....	11	4,750	0558	-15.9	257.3
5,000-6,000 .....	12	5,500	0505	-20.8	252.4
6,000-7,000 .....	13	6,500	0440	-27.3	245.9
7,000-8,000 .....	14	7,500	0383	-33.8	239.4
8,000-9,000 .....	15	8,500	0331	-40.3	232.9
9,000-10,000 .....	16	9,500	0285	-46.8	226.4
10,000-11,000 .....	17	10,500	0245	-53.3	219.9
11,000-12,000 .....	18	11,500	0209	-56.5	216.7
12,000-13,000 .....	19	12,500	0179	-56.5	216.7
13,000-14,000 .....	20	13,500	0153	-56.5	216.7
14,000-15,000 .....	21	14,500	0130	-56.5	216.7
15,000-16,000 .....	22	15,500	0111	-56.5	216.7
16,000-17,000 .....	23	16,500	0095	-56.5	216.7
17,000-18,000 .....	24	17,500	0081	-56.5	216.7
18,000-19,000 .....	25	18,500	0069	-56.5	216.7
19,000-20,000 .....	26	19,500	0059	-56.5	216.7

Midpoint values are in agreement with STANAG 4061 Edition 3, QSTAG 332, STANAG 4082 Edition 1, and QSTAG 252.

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**10 MAY 1979**

By Order of the Secretary of the Army:

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