

PART 2b

SHELL, A.P., 260 LB., MK.XX

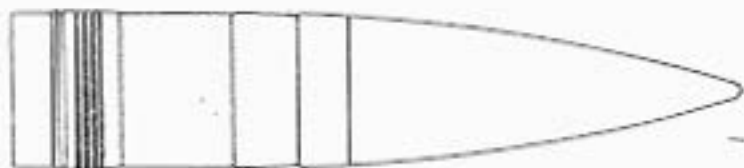
FUZE, B.D., MK.X

SHELL, T.P., 260 LB., MK.XVIII

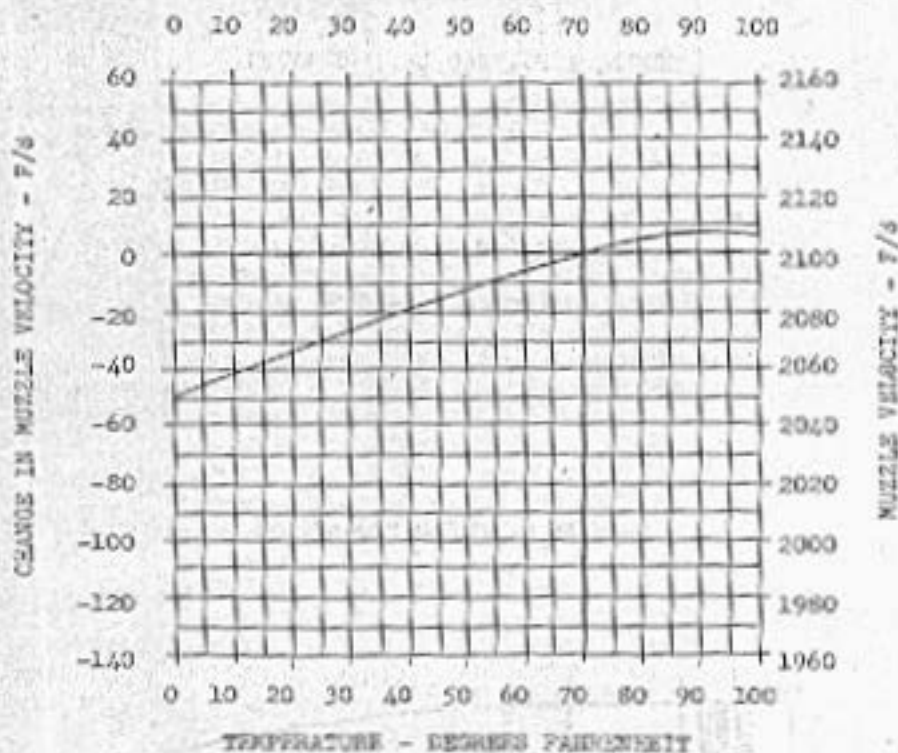
Normal Charge - 2100 f/s

Supercharge - 2750 f/s

DRAWING OF FUZED PROJECTILE



CHANGE IN MUZZLE VELOCITY FOR TEMPERATURE OF POWDER DIFFERENT FROM NORMAL



DIRECTIONS: - Enter chart with temperature of powder. Follow vertical line to the slanting line; from there follow the horizontal line either to the left edge of the chart, where the change in muzzle velocity may be read or to the right edge where the corrected muzzle velocity may be read.

EXAMPLE: - Suppose temperature of powder is 59° F. Standard muzzle velocity is 2100 f/s. From the chart, the change in muzzle velocity is -8 f/s and the muzzle velocity to be expected is 2092 f/s.

PART 2b-1

SHELL, A.P., 260 LB., MK.XX

FUZE, B.D., MK.X

SHELL, T.P., 260 LB., MK.XVII

NORMAL CHARGE - BASE SECTION

MUZZLE VELOCITY 2100 F/S

TABLES A - E INCLUSIVE

JUMP = +1.0 MINUTE

The ballistic coefficients listed in this table are based on the drag function $G_0 = 0.0053$.

DRAWING OF CHARGE

(SEE PAGE 13)

SHELL, A.P., 260 LB., MK XX
 SHELL, T.P., 260 LB., MK XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FOZE, D.D., MK X

PART 2B-1 TABLE A

Range	Elevation		Change in elev for 100 yd change in range		Change in range for 1 mil change in elev		Maxi- mum ordinate	Termi- nal veloc- ity
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
yd	- mil	deg min	mil	min	yd	yd	ft	f/s
0	-0.2	-0 01	1.1	3.8	90	27	0	2100
100	-0.8	+0 03	2.1	3.8	89	26	0	
200	2.0	0 07	1.1	3.8	88	26	0	
300	3.2	0 11	1.1	3.8	88	26	1	
400	4.2	0 14	1.1	3.9	87	26	1	
500	5.4	0 18	1.2	3.9	87	26	2	2047
600	6.6	0 22	1.2	3.9	86	26	3	
700	7.8	0 26	1.2	4.0	85	25	4	
800	9.0	0 30	1.2	4.0	85	25	5	
900	10.2	0 34	1.2	4.0	84	25	6	
1000	11.2	0 38	1.2	4.0	84	25	8	1995
1100	12.2	0 42	1.2	4.1	83	25	10	
1200	13.6	0 46	1.2	4.1	83	25	12	
1300	14.8	0 51	1.2	4.1	82	24	14	
1400	16.0	0 55	1.2	4.1	82	24	16	
1500	17.4	0 59	1.2	4.2	81	24	19	1944
1600	18.6	1 03	1.2	4.2	80	24	22	
1700	19.8	1 07	1.3	4.2	80	24	25	
1800	21.0	1 11	1.3	4.2	79	24	28	
1900	22.2	1 16	1.3	4.3	79	23	31	
2000	23.6	1 20	1.3	4.3	78	23	35	1895
2100	24.8	1 24	1.3	4.3	78	23	39	
2200	26.2	1 29	1.3	4.4	77	23	43	
2300	27.2	1 35	1.3	4.4	77	23	47	
2400	28.8	1 38	1.3	4.4	76	23	52	
2500	30.0	1 42	1.5	4.5	76	22	57	1847
2600	31.2	1 47	1.3	4.5	75	22	62	
2700	32.8	1 51	1.3	4.5	75	22	67	
2800	34.0	1 56	1.4	4.6	74	22	73	
2900	35.4	2 00	1.4	4.6	74	22	79	
3000	36.8	2 05	1.4	4.6	73	22	85	1799
3100	38.2	2 10	1.4	4.7	73	22	91	
3200	39.6	2 15	1.4	4.7	72	21	98	
3300	41.0	2 19	1.4	4.7	72	21	105	
3400	42.4	2 24	1.4	4.8	71	21	112	
3500	43.8	2 29	1.4	4.8	71	21	119	1752

FUZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XX
SHELL, T.P., 260 LB., MK.XVIII
NORMAL CHARGE - M.V. 2100 f/s

PART 20-1 TABLE A

Angle of fall			Slope of fall		Deflection due to drift		Ballistic coefficient		Probable error in R D ₁		Time of flight	Range
(00)	(01)		(02)	(03)	(04)	(05)	(06)	(07)	(08)	(09)		
mil	deg	min	ft per 1000	mil	deg		yd	yd	sec	yd		
0	0	00		0	0.00	6.20	31	0	0.0	0		
1	0	04	910						0.1	100		
2	0	08	451						0.3	200		
3	0	12	298						0.4	300		
5	0	16	221						0.6	400		
6	0	20	176	-1	-0.05	6.21	31	0	0.7	500		
7	0	24	145						0.9	600		
8	0	28	123						1.0	700		
10	0	32	107						1.2	800		
11	0	37	94						1.3	900		
12	0	41	84	-1	-0.05	6.23	32	0	1.5	1000		
13	0	45	76						1.6	1100		
15	0	50	69						1.8	1200		
16	0	54	63						1.9	1300		
17	0	59	58						2.1	1400		
19	1	03	54	-1	-0.05	6.24	32	0	2.2	1500		
20	1	08	50						2.4	1600		
22	1	12	47						2.5	1700		
23	1	17	44						2.7	1800		
24	1	22	41						2.8	1900		
26	1	27	39	-1	-0.05	6.25	32	0	3.0	2000		
27	1	32	37						3.2	2100		
29	1	37	35						3.3	2200		
30	1	42	33						3.5	2300		
32	1	47	32						3.6	2400		
33	1	52	30	-1	-0.05	6.27	32	0	3.8	2500		
35	1	57	29						4.0	2600		
37	2	03	27						4.1	2700		
38	2	08	26						4.3	2800		
40	2	13	25						4.4	2900		
41	2	19	24	-1	-0.05	6.28	32	0	4.6	3000		
43	2	25	23						4.8	3100		
45	2	30	22						4.9	3200		
46	2	36	21						5.1	3300		
48	2	42	21						5.3	3400		
50	2	48	20	-1	-0.10	6.29	32	0	5.5	3500		

* This is the Proving Ground Probable Error.

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FUZE, B.D., MK.X

PART 2b-1 TABLE A

Range	Elevation		Change in elev for 100 yd change in range		Change in range for 1 mil 1 min change in elev		Maximum ordinate	Terminal velocity
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
yd	mil	deg min	mil	min	yd	yd	ft	ft/s
3500	43.8	2 29	1.4	4.8	71	21	119	1752
3600	45.2	2 34	1.4	4.8	70	21	127	
3700	46.6	2 38	1.4	4.9	69	21	135	
3800	48.0	2 43	1.5	4.9	69	20	143	
3900	49.6	2 48	1.5	4.9	68	20	152	
4000	51.0	2 53	1.5	5.0	68	20	161	1706
4100	52.4	2 58	1.5	5.0	67	20	170	
4200	54.0	3 03	1.5	5.0	67	20	180	
4300	55.4	3 08	1.5	5.1	66	20	190	
4400	57.0	3 13	1.5	5.1	66	20	200	
4500	58.6	3 18	1.5	5.2	65	19	210	1661
4600	60.2	3 23	1.5	5.2	65	19	221	
4700	61.8	3 28	1.6	5.2	64	19	232	
4800	63.2	3 33	1.6	5.3	64	19	243	
4900	64.8	3 39	1.6	5.3	63	19	255	
5000	66.4	3 44	1.6	5.4	63	19	267	1617
5100	68.0	3 49	1.6	5.4	63	19	279	
5200	69.6	3 55	1.6	5.5	62	18	292	
5300	71.2	4 00	1.6	5.5	62	18	305	
5400	72.8	4 06	1.6	5.6	61	18	319	
5500	74.4	4 11	1.7	5.6	61	18	333	1573
5600	76.2	4 16	1.7	5.6	60	18	347	
5700	77.8	4 22	1.7	5.7	60	18	362	
5800	79.4	4 28	1.7	5.7	59	18	377	
5900	81.0	4 33	1.7	5.7	59	17	392	
6000	82.8	4 39	1.7	5.8	58	17	408	1531
6100	84.6	4 45	1.7	5.8	58	17	424	
6200	86.2	4 51	1.7	5.9	57	17	441	
6300	88.0	4 57	1.8	5.9	57	17	458	
6400	89.8	5 03	1.8	6.0	57	17	475	
6500	91.6	5 09	1.8	6.0	56	17	493	1490
6600	93.2	5 15	1.8	6.1	56	16	511	
6700	95.0	5 21	1.8	6.1	55	16	530	
6800	97.0	5 27	1.8	6.2	55	16	550	
6900	98.8	5 34	1.8	6.2	54	16	570	
7000	100.6	5 40	1.9	6.3	54	16	590	1449

FUZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XX

SHELL, T.P., 260 LB., MK.XVIII

NORMAL CHARGE - M.V. 2100 f/s

PART 2b-1 TABLE A

Angle of fall		Slope of fall	Deflection due to drift		Ballistic coefficient	Probable error in R EE		Time of flight	Range
(00)	(01)	(02)	(03)	(04)	(05)	(06)	(07)	(08)	(09)
mil	deg min	1 on—	mil	deg		yd	yd	sec	yd
50	2 48	20	-1	-0.10	6.29	32	0	5.5	3500
52	2 54	19.7						5.6	3600
53	3 00	19.0						5.8	3700
55	3 06	18.4						6.0	3800
57	3 13	17.8						6.2	3900
59	3 19	17.2	-2	-0.10	6.31	33	0	6.3	4000
61	3 25	16.7						6.5	4100
63	3 32	16.2						6.7	4200
65	3 39	15.7						6.9	4300
67	3 45	15.2						7.0	4400
69	3 52	14.8	-2	-0.10	6.32	33	0	7.2	4500
71	3 59	14.4						7.4	4600
73	4 06	14.0						7.6	4700
75	4 13	13.6						7.8	4800
77	4 20	13.2						8.0	4900
79	4 27	12.8	-2	-0.10	6.33	33	1	8.2	5000
81	4 34	12.5						8.3	5100
84	4 42	12.2						8.5	5200
86	4 49	11.8						8.7	5300
88	4 57	11.5						8.9	5400
90	5 05	11.2	-2	-0.10	6.35	33	1	9.1	5500
93	5 13	11.0						9.3	5600
95	5 21	10.7						9.5	5700
98	5 29	10.4						9.7	5800
100	5 37	10.2						9.9	5900
102	5 45	9.9	-2	-0.15	6.36	33	1	10.1	6000
105	5 53	9.7						10.3	6100
107	6 02	9.4						10.5	6200
110	6 10	9.2						10.7	6300
113	6 19	9.0						10.9	6400
115	6 28	8.8	-3	-0.15	6.37	34	1	11.1	6500
118	6 37	8.6						11.3	6600
121	6 46	8.4						11.5	6700
123	6 56	8.2						11.7	6800
126	7 05	8.0						11.9	6900
129	7 15	7.8	-3	-0.15	6.39	34	1	12.1	7000

* This is the Proving Ground Probable Error.

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FOZE, B.D., MK.X

PART 2b-1 TABLE A

Range	Elevation		Change in elev for 100 yd change in range		Change in range for 1 mil 1 min change in elev		Maximum ordinate	Terminal velocity
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
yd	mil	deg min	mil	min	yd	yd	ft	ft/s
7000	100.6	5 40	1.9	6.3	54	16	590	1449
7100	102.4	5 46	1.9	6.3	53	16	611	
7200	104.2	5 53	1.9	6.3	53	16	632	
7300	106.2	5 59	1.9	6.4	53	16	653	
7400	108.2	6 05	1.9	6.4	52	15	675	
7500	110.0	6 12	1.9	6.5	52	15	698	1409
7600	112.0	6 19	1.9	6.6	51	15	721	
7700	114.0	6 25	2.0	6.6	51	15	745	
7800	116.0	6 32	2.0	6.7	51	15	769	
7900	118.0	6 38	2.0	6.7	50	15	794	
8000	120.0	6 45	2.0	6.8	50	15	819	1371
8100	122.0	6 52	2.0	6.8	49	15	845	
8200	124.0	6 58	2.0	6.9	49	14	871	
8300	126.0	7 05	2.1	7.0	49	14	898	
8400	128.2	7 12	2.1	7.0	48	14	926	
8500	130.4	7 19	2.1	7.1	48	14	954	1334
8600	132.4	7 26	2.1	7.1	47	14	983	
8700	134.4	7 33	2.1	7.2	47	14	1012	
8800	136.6	7 40	2.1	7.3	47	14	1042	
8900	138.8	7 48	2.2	7.3	46	14	1072	
9000	141.0	7 55	2.2	7.4	46	14	1103	1299
9100	143.2	8 03	2.2	7.4	45	13	1135	
9200	145.4	8 10	2.2	7.5	45	13	1167	
9300	147.6	8 18	2.2	7.6	45	13	1200	
9400	149.8	8 25	2.3	7.6	44	13	1234	
9500	152.0	8 33	2.3	7.7	44	13	1269	1265
9600	154.4	8 41	2.3	7.7	44	13	1304	
9700	156.6	8 48	2.3	7.8	43	13	1340	
9800	159.0	8 56	2.3	7.9	43	13	1377	
9900	161.4	9 04	2.4	7.9	42	13	1414	
10000	163.8	9 12	2.4	8.0	42	12	1452	1233
10100	166.2	9 20	2.4	8.1	42	12	1491	
10200	168.6	9 28	2.4	8.2	41	12	1531	
10300	171.0	9 36	2.4	8.2	41	12	1571	
10400	173.4	9 45	2.5	8.3	41	12	1612	
10500	175.8	9 53	2.5	8.4	40	12	1654	1203

FUZE, 3.D., MK.X

SHELL, A.P., 260 LB., MK.XX
SHELL, T.P., 260 LB., MK.XVIII
NORMAL CHARGE - M.V. 2100 f/s

PART 2a-1 TABLE A

Angle of fall		Slope of fall	Deflection due to drift		Ballistic coefficient	Probable * error in R		Time of flight	Range
(00)	(01)	(02)	(03)	(04)	(05)	(06)	(07)	(08)	(09)
mil	deg min	1 on—	mil	deg		yd	yd	sec	yd
129	7 15	7.8	-3	-0.15	6.39	34	1	12.1	7000
132	7 25	7.7						12.3	7100
135	7 35	7.5						12.5	7200
138	7 45	7.3						12.7	7300
141	7 55	7.2						12.9	7400
144	8 05	7.0	-3	-0.15	6.40	34	1	13.2	7500
147	8 15	6.9						13.4	7600
150	8 26	6.7						13.6	7700
153	8 37	6.6						13.8	7800
156	8 48	6.5						14.0	7900
160	8 59	6.3	-3	-0.20	6.42	34	1	14.3	8000
163	9 10	6.2						14.5	8100
166	9 21	6.1						14.7	8200
170	9 33	6.0						14.9	8300
173	9 44	5.8						15.2	8400
177	9 56	5.7	-4	-0.20	6.43	35	1	15.4	8500
180	10 08	5.6						15.6	8600
183	10 20	5.5						15.9	8700
187	10 32	5.4						16.1	8800
191	10 44	5.3						16.3	8900
195	10 56	5.2	-4	-0.20	6.45	35	1	16.6	9000
198	11 08	5.1						16.8	9100
202	11 21	5.0						17.0	9200
206	11 34	4.9						17.3	9300
210	11 47	4.8						17.5	9400
214	12 00	4.7	-4	-0.25	6.46	35	2	17.8	9500
217	12 13	4.6						18.0	9600
221	12 27	4.5						18.2	9700
225	12 40	4.4						18.5	9800
229	12 54	4.4						18.7	9900
234	13 08	4.3	-4	-0.25	6.48	36	2	19.0	10000
238	13 22	4.2						19.2	10100
242	13 36	4.1						19.5	10200
246	13 51	4.1						19.7	10300
251	14 05	4.0						20.0	10400
255	14 20	3.9	-5	-0.25	6.50	36	2	20.3	10500

* This is the Proving Ground Probable Error.

SHELL, A.P., 260 LB., MX.XX
 SHELL, T.P., 260 LB., MX.XVII
 NORMAL CHARGE - R.V. 2100 f/s

FUZE, B.D., MX.X

PART 25-1 TABLE A

Range	Elevation			Change in elev for 100 yd change in range		Change in range for 1 mil 1 min change in elev		Maxi- mum ordinate	Termi- nal veloc- ity
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
yd	mil	deg	min	mil	min	yd	yd	ft	ft/s
10500	175.8	9	53	2.5	8.4	40	12	1654	1203
10600	178.2	10	01	2.5	8.5	40	12	1697	
10700	180.8	10	10	2.5	8.6	40	12	1740	
10800	183.4	10	19	2.5	8.7	39	12	1784	
10900	186.0	10	27	2.6	8.7	39	12	1829	
11000	188.6	10	36	2.6	8.7	39	11	1875	1176
11100	191.2	10	45	2.6	8.8	38	11	1922	
11200	193.8	10	52	2.6	8.9	38	11	1970	
11300	196.4	11	03	2.7	9.0	38	11	2019	
11400	199.0	11	12	2.7	9.0	37	11	2068	
11500	201.8	11	21	2.7	9.1	37	11	2118	2152
11600	204.4	11	30	2.7	9.2	37	11	2169	
11700	207.2	11	39	2.7	9.3	36	11	2222	
11800	210.0	11	48	2.8	9.4	36	11	2275	
11900	212.8	11	58	2.8	9.4	36	11	2329	
12000	215.6	12	07	2.8	9.5	36	10	2384	1130
12100	218.4	12	17	2.8	9.6	35	10	2440	
12200	221.2	12	26	2.9	9.7	35	10	2497	
12300	224.2	12	36	2.9	9.8	35	10	2556	
12400	227.0	12	46	2.9	9.8	34	10	2615	
12500	230.0	12	56	2.9	9.9	34	10	2675	1111
12600	233.0	13	06	3.0	10.0	34	10	2736	
12700	236.0	13	16	3.0	10.1	33	10	2799	
12800	239.0	13	26	3.0	10.2	33	10	2862	
12900	242.0	13	37	3.0	10.3	33	10	2926	
13000	245.0	13	47	3.1	10.3	33	10	2992	1095
13100	248.0	13	57	3.1	10.4	32	10	3059	
13200	251.2	14	08	3.1	10.5	32	10	3127	
13300	254.2	14	19	3.1	10.6	32	9	3196	
13400	257.4	14	29	3.2	10.7	31	9	3266	
13500	260.6	14	40	3.2	10.8	31	9	3337	1082
13600	263.8	14	51	3.2	10.9	31	9	3410	
13700	267.0	15	02	3.3	11.0	31	9	3484	
13800	270.4	15	13	3.3	11.1	30	9	3559	
13900	273.6	15	24	3.3	11.2	30	9	3635	
14000	277.0	15	35	3.3	11.2	30	9	3712	1071

FUZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XX
SHELL, T.P., 260 LB., MK.XVIII
NOMINAL CHARGE - M.V. 2100 f/s

PART 2b-1 TABLE 1

Angle of fall		Slope of fall		Deflection due to drift		Ballistic coefficient	Probable * error in R		Time of flight	Range
(01)	(11)	(02)	(12)	(03)	(13)	(05)	(06)	(07)	(08)	(09)
mil	deg min	1 on—	mil	deg			yd	yd	sec	yd
255	14 20	3.9	-5	-0.25	6.50	36	2	20.3	10500	
259	14 35	3.8							20.5	10600
264	14 50	3.8							20.8	10700
268	15 06	3.7							21.0	10800
273	15 21	3.6							21.3	10900
278	15 36	3.6	-5	-0.30	6.51	36	2	21.6	11000	
282	15 52	3.5							21.8	11100
287	16 08	3.5							22.1	11200
291	16 24	3.4							22.4	11300
296	16 40	3.3							22.6	11400
301	16 56	3.3	-5	-0.30	6.53	37	2	22.9	11500	
306	17 12	3.2							23.2	11600
311	17 29	3.2							23.5	11700
316	17 45	3.1							23.7	11800
321	18 02	3.1							24.0	11900
326	18 19	3.0	-6	-0.30	6.55	37	2	24.3	12000	
331	18 36	3.0							24.6	12100
336	18 53	2.9							24.9	12200
341	19 11	2.9							25.1	12300
346	19 28	2.8							25.4	12400
352	19 46	2.8	-6	-0.35	6.57	37	2	25.7	12500	
357	20 04	2.7							26.0	12600
362	20 22	2.7							26.3	12700
367	20 40	2.7							26.6	12800
373	20 58	2.6							26.9	12900
378	21 16	2.6	-6	-0.35	6.59	38	3	27.2	13000	
384	21 34	2.5							27.5	13100
389	21 53	2.5							27.8	13200
394	22 11	2.5							28.1	13300
400	22 29	2.4							28.4	13400
406	22 48	2.4	-7	-0.40	6.61	38	3	28.7	13500	
411	23 07	2.3							29.0	13600
417	23 26	2.3							29.3	13700
422	23 45	2.3							29.6	13800
428	24 04	2.2							29.9	13900
434	24 23	2.2	-7	-0.40	6.63	38	3	30.2	14000	

* This is the Proving Ground Probable Error.

SHELL, A.P., 260 LB., PK.XX
 SHELL, T.P., 260 LB., PK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FUZE, B.D., PK.X

PART 2b-1 TABLE A

Range	Elevation		Change in elev for 100 yd change in range		Change in range for 1 mil 1 min change in elev		Maxi- mum ordinate	Termi- nal veloc- ity
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
yd	mil	deg min	mil	min	yd	yd	ft	ft/s
14000	277.0	15 35	3.3	11.2	30	9	3712	1071
14100	280.4	15 46	3.4	11.3	30	9	3791	
14200	283.8	15 58	3.4	11.4	30	9	3871	
14300	287.2	16 09	3.4	11.5	29	9	3952	
14400	290.6	16 20	3.4	11.6	29	9	4034	
14500	294.0	16 32	3.5	11.7	29	9	4118	1063
14600	297.4	16 44	3.5	11.8	29	9	4203	
14700	301.0	16 56	3.5	11.9	28	8	4290	
14800	304.4	17 08	3.5	12.0	28	8	4378	
14900	308.0	17 20	3.6	12.1	28	8	4467	
15000	311.6	17 32	3.6	12.2	28	8	4557	1057
15100	315.2	17 44	3.6	12.3	28	8	4649	
15200	318.8	17 57	3.7	12.4	27	8	4742	
15300	322.5	18 09	3.7	12.5	27	8	4837	
15400	326.2	18 21	3.7	12.6	27	8	4933	
15500	330.0	18 34	3.8	12.7	27	8	5030	1053
15600	333.8	18 47	3.8	12.8	26	8	5130	
15700	337.6	18 59	3.8	12.9	26	8	5230	
15800	341.4	19 12	3.9	13.0	26	8	5335	
15900	345.2	19 25	3.9	13.1	26	8	5440	
16000	349.2	19 38	3.9	13.2	26	8	5545	1051
16100	353.0	19 51	4.0	13.3	25	8	5650	
16200	357.0	20 04	4.0	13.4	25	7	5760	
16300	361.0	20 18	4.0	13.6	25	7	5870	
16400	365.0	20 31	4.1	13.7	25	7	5985	
16500	369.2	20 45	4.1	13.8	24	7	6100	1050
16600	373.2	20 59	4.1	13.9	24	7	6215	
16700	377.4	21 13	4.2	14.0	24	7	6330	
16800	381.6	21 27	4.2	14.2	24	7	6450	
16900	385.8	21 41	4.2	14.3	24	7	6570	
17000	390.0	21 56	4.3	14.4	23	7	6695	1050
17100	394.4	22 11	4.3	14.5	23	7	6820	
17200	398.6	22 25	4.4	14.7	23	7	6950	
17300	403.0	22 40	4.4	14.8	23	7	7080	
17400	407.4	22 55	4.5	15.0	23	7	7210	
17500	411.8	23 10	4.5	15.1	22	7	7345	1051

FUZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XI

SHELL, T.P., 260 LB., MK.XVIII

NORMAL CHARGE - M.V. 2100 f/s

PART 2B-1 TABLE A

Angle of fall		Slope of fall	Deflection due to drift		Ballistic coefficient	Probable * error in R DR		Time of flight	Range
(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
mil	deg min	1 cm—	mil	deg		yd	yd	sec	yd
434	24 23	2.2	-7	-0.40	6.63	38	3	30.2	14000
439	24 42	2.2						30.5	14100
445	25 02	2.1						30.9	14200
451	25 21	2.1						31.2	14300
456	25 40	2.1						31.5	14400
462	26 00	2.1	-8	-0.45	6.65	39	3	31.8	14500
468	26 19	2.0						32.1	14600
474	26 39	1.99						32.5	14700
479	26 58	1.97						32.8	14800
485	27 18	1.94						33.1	14900
491	27 37	1.91	-8	-0.45	6.67	39	3	33.4	15000
497	27 57	1.89						33.8	15100
503	28 16	1.86						34.1	15200
508	28 36	1.83						34.4	15300
514	28 55	1.81						34.8	15400
520	29 15	1.79	-9	-0.50	6.69	40	3	35.1	15500
526	29 35	1.76						35.4	15600
532	29 54	1.74						35.8	15700
538	30 14	1.72						36.1	15800
543	30 34	1.69						36.5	15900
549	30 54	1.67	-9	-0.55	6.71	40	4	36.8	16000
555	31 14	1.65						37.2	16100
561	31 34	1.63						37.5	16200
567	31 54	1.61						37.9	16300
573	32 14	1.59						38.2	16400
579	32 34	1.57	-10	-0.55	6.73	41	4	38.6	16500
585	32 54	1.55						38.9	16600
591	33 14	1.53						39.3	16700
597	33 34	1.51						39.7	16800
603	33 54	1.49						40.0	16900
609	34 14	1.47	-11	-0.60	6.75	41	4	40.4	17000
614	34 34	1.45						40.7	17100
620	34 54	1.43						41.1	17200
627	35 14	1.42						41.5	17300
633	35 35	1.40						41.9	17400
639	35 55	1.38	-11	-0.60	6.77	42	4	42.3	17500

* This is the Proving Ground Probable Error.

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FUZE, B.D., MK.X

PART 2b-1 TABLE A

Range	Elevation		Change in elev for 100 yd change in range		Change in range for 1 mil 1 min change in elev		Max- imum ordinate	Termi- nal veloc- ity
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
yd	mil	deg min	mil	min	yd	yd	ft	f/s
17500	411.8	23 10	4.5	15.1	22	7	7345	1051
17600	416.4	23 25	4.6	15.4	22	7	7480	
17700	421.0	23 41	4.6	15.5	22	6	7620	
17800	425.8	23 56	4.7	15.7	22	6	7760	
17900	430.4	24 12	4.7	15.8	21	6	7905	
18000	435.0	24 28	4.8	16.0	21	6	8050	1054
18100	439.8	24 44	4.8	16.2	21	6	8200	
18200	444.8	25 01	4.9	16.4	21	6	8350	
18300	449.6	25 17	5.0	16.6	20	6	8500	
18400	454.6	25 34	5.0	16.8	20	6	8655	
18500	459.6	25 51	5.1	17.0	20	6	8815	1058
18600	464.6	26 08	5.2	17.2	20	6	8980	
18700	469.8	26 26	5.2	17.5	19	6	9145	
18800	475.0	26 43	5.3	17.7	19	6	9315	
18900	480.2	27 01	5.3	17.9	19	6	9485	
19000	485.6	27 19	5.4	18.2	19	5	9660	1063
19100	491.0	27 37	5.5	18.5	18	5	9840	
19200	496.6	27 56	5.6	18.7	18	5	10020	
19300	502.2	28 15	5.6	19.0	18	5	10210	
19400	507.8	28 34	5.7	19.3	17	5	10400	
19500	513.6	28 53	5.8	19.6	17	5	10590	1070
19600	519.4	29 13	5.9	19.9	17	5	10790	
19700	525.4	29 33	6.0	20.3	17	5	10990	
19800	531.4	29 52	6.1	20.6	16	5	11200	
19900	537.6	30 15	6.2	21.0	16	5	11410	
20000	544.0	30 36	6.3	21.4	16	5	11630	1078
20100	550.4	30 58	6.4	21.8	15	5	11850	
20200	556.8	31 20	6.6	22.3	15	4	12080	
20300	563.4	31 43	6.7	22.8	15	4	12320	
20400	570.4	32 06	6.9	23.3	14	4	12560	
20500	577.4	32 29	7.0	23.8	14	4	12810	1088
20600	584.6	32 53	7.2	24.4	14	4	13070	
20700	592.0	33 18	7.4	25.1	13	4	13330	
20800	599.6	33 44	7.6	25.9	13	4	13600	
20900	607.4	34 10	7.9	26.7	13	4	13880	
21000	615.4	34 37	8.2	27.7	12	4	14180	1099

FUZE, B.O., MK.X

SHELL, A.P., 260 LB., MK.XX
SHELL, T.P., 260 LB., MK.XVIII
NORMAL CHARGE - N.V. 2100 f/s

PART 2b-1 TABLE A

Angle of fall		Slope of fall	Deflection due to drift		Ballistic coefficient	Probable error in R DR		Time of Flight	Range
(10)	(11)		(13)	(14)		(16)	(17)		
mil	deg min	1 cos—	mil	deg		yd	yd	sec	yd
639	35 55	1.38	-11	-0.60	6.77	42	4	42.3	17500
645	36 15	1.36						42.6	17600
651	36 36	1.35						43.0	17700
657	36 57	1.33						43.4	17800
663	37 17	1.31						43.8	17900
669	37 38	1.30	-12	-0.65	6.79	43	5	44.2	18000
675	37 59	1.28						44.6	18100
681	38 20	1.26						45.0	18200
688	38 41	1.25						45.4	18300
694	39 02	1.23						45.8	18400
700	39 23	1.22	-13	-0.70	6.81	43	5	46.2	18500
706	39 44	1.20						46.6	18600
713	40 05	1.19						47.1	18700
719	40 27	1.17						47.5	18800
725	40 48	1.16						47.9	18900
732	41 10	1.14	-13	-0.75	6.83	44	5	48.4	19000
738	41 32	1.13						48.8	19100
745	41 54	1.11						49.3	19200
751	42 16	1.10						49.7	19300
758	42 38	1.09						50.2	19400
764	43 00	1.07	-14	-0.80	6.85	45	6	50.7	19500
771	43 23	1.06						51.1	19600
778	43 45	1.04						51.6	19700
785	44 08	1.03						52.1	19800
792	44 32	1.02						52.6	19900
798	44 55	1.00	-15	-0.85	6.87	46	6	53.1	20000
805	45 19	0.99						53.6	20100
813	45 42	0.97						54.1	20200
820	46 06	0.96						54.6	20300
827	46 31	0.94						55.1	20400
834	46 55	0.93	-16	-0.90	6.89	47	6	55.7	20500
842	47 20	0.92						56.3	20600
849	47 46	0.90						56.8	20700
857	48 12	0.89						57.4	20800
865	48 38	0.87						58.0	20900
873	49 05	0.86	-18	-1.00	6.91	48	7	58.6	21000

* This is the Proving Ground Probable Error.

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FOUR, B.D., MK.X

PART 2b-1 TABLE 2

Range	Elevation		Change in elev for 100 yd change in range		Change in range for 1 mil 1 min change in elev		Maximum ordinate	Terminal velocity
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
yd	mil	deg min	mil	min	yd	yd	ft	f/s
21000	615.4	34 37	8.2	27.7	12	4	14180	1099
21100	623.8	35 06	8.6	28.9	12	3	14490	
21200	632.6	35 36	9.0	30.2	11	3	14810	
21300	641.8	36 07	9.4	31.7	11	3	15150	
21400	651.4	36 40	9.9	33.5	10	3	15510	
21500	661.8	37 14	10.5	35.6	9	3	15890	1112
21600	672.8	37 50	11.3	38.2	9	3	16300	
21700	684.6	38 30	12.3	42	8	2	16750	
21800	697.6	39 14	13.7	46	7	2	17250	
21900	712.4	40 04	15.8	53	6	2	17820	
22000	730.0	41 04	19.4	65	5	2	18490	1128
22100	753.2	42 22					19380	
22180	801.6	45 05					21260	1145

FUZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XX

SHELL, T.P., 260 LB., MK.XVIII

PART 26-1 TABLE A

NORMAL CHARGE - M.V. 2100 f/s

Angle of fall		Slope of fall	Deflection due to drift		Ballistic coefficient	Probable error in Del		Time of flight	Range
(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
mil	deg min	1 on—	mil	deg		yd	yd	sec	yd
873	49 05	0.86	-18	-1.00	6.91	43	7	58.6	21000
881	49 33	0.85						59.3	21100
889	50 02	0.84						60.0	21200
898	50 32	0.82						60.7	21300
907	51 03	0.81						61.4	21400
917	51 35	0.79	-19	-1.10	6.93	49	7	62.1	21500
927	52 09	0.78						62.9	21600
938	52 45	0.76						63.8	21700
950	53 25	0.74						64.8	21800
963	54 10	0.72						65.9	21900
978	55 02	0.70	-22	-1.25	6.95	51	8	67.1	22000
998	56 09	0.67						68.8	22100
1039	58 25	0.61	-25	-1.40	6.96	53	9	72.2	22180

* This is the Proving Ground Probable Error.

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V., 2100 f/s

FUZE, B.D., MK.X
 PART 2b-1 TABLE D

TARGET BELOW GUN - RANGE EFFECTS IN YARDS

Height of Target	Map Range - Yards								
Feet	1000	1500	2000	2500	3000	3500	4000	4500	5000
-10	293	186	134	103	83	69	58	50	43
-20	591	375	270	207	166	137	116	100	87
-30	894	566	407	312	250	206	174	150	130
-40		760	546	418	334	276	233	200	173
-50		956	686	525	419	346	293	251	217
-60		1155	827	633	505	416	352	302	261
-70		1357	970	741	591	487	411	352	305
-80			1214	850	678	559	471	403	349
-90			1259	960	765	630	531	454	392
-100			1406	1071	853	702	591	505	436
-110			1555	1183	941	774	652	557	481
-120			1706	1296	1030	847	712	608	525
-130			1859	1410	1120	920	773	660	570
-140				1525	1210	993	834	712	615
-150				1640	1300	1067	896	764	659
-160				1756	1391	1141	958	827	704
-170				1873	1482	1216	1021	870	750
-180				1991	1574	1291	1084	924	796
-190				2110	1666	1366	1147	977	842
-200				2231	1759	1442	1210	1030	887
-220				2474	1952	1595	1337	1138	980
-240					2146	1749	1465	1246	1073
-260					2340	1905	1594	1355	1166
-280					2534	2063	1724	1464	1259
-300					2728	2222	1854	1574	1353
-320						2383	1985	1685	1448
-340						2545	2117	1796	1543
-360						2709	2251	1908	1639
-380						2875	2386	2021	1735
-400						3042	2522	2134	1832
-420						3211	2659	2248	1929
-440						3382	2797	2363	2027
-460							2936	2478	2126
-480							3076	2594	2225
-500							3216	2711	2324

FOZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XX
SHELL, T.P., 260 LB., MK.XVIII
NORMAL CHARGE - M.V. 2100 f/s

PART 2b-1 TABLE B

TARGET BELOW GUN - RANGE EFFECTS IN YARDS

Map Range - Yards									Height of Target
5500	6000	6500	7000	7500	8000	8500	9000	9500	Feet
38	34	30	26	23	21	19	17	15	-10
76	67	59	52	47	42	38	34	31	-20
113	100	89	79	70	63	57	52	47	-30
151	133	118	105	94	85	77	70	63	-40
189	166	147	131	118	106	96	87	79	-50
227	199	176	157	141	127	115	104	95	-60
266	233	206	184	165	148	134	122	111	-70
304	267	236	211	189	170	154	140	127	-80
342	301	266	237	213	192	173	157	142	-90
380	334	296	264	237	213	192	174	158	-100
419	368	326	291	261	235	212	192	174	-110
458	403	356	317	284	256	231	209	190	-120
497	437	386	344	308	277	250	227	206	-130
536	471	417	371	332	299	270	245	222	-140
574	505	447	398	356	320	289	262	238	-150
613	539	477	425	380	342	309	280	254	-160
653	573	507	452	405	364	329	298	270	-170
693	608	537	479	430	386	348	315	286	-180
733	643	568	506	454	408	368	333	303	-190
772	678	600	534	478	430	388	351	319	-200
812	718	661	588	527	474	428	387	351	-220
852	758	723	643	576	518	467	423	384	-240
1013	888	784	698	625	562	507	459	417	-260
1094	958	846	753	674	606	547	495	449	-280
1175	1029	909	809	724	651	587	531	482	-300
1257	1101	972	865	774	696	627	567	516	-320
1339	1172	1035	921	824	741	668	604	548	-340
1422	1244	1098	977	874	785	708	620	580	-360
1505	1317	1162	1033	924	830	748	656	613	-380
1589	1390	1226	1089	974	875	789	713	646	-400
1673	1463	1290	1146	1024	920	829	750	680	-420
1757	1536	1354	1203	1075	965	870	787	713	-440
1842	1610	1419	1260	1126	1011	911	824	747	-460
1927	1684	1484	1317	1177	1057	952	861	781	-480
2012	1758	1549	1375	1228	1102	993	898	814	-500

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FUZE, B.D., MK.X
 PART 2D-1 TABLE B

TARGET BELOW GUN - RANGE EFFECTS IN YARDS

Height of Target	Map Range - Yards								
Feet	10000	10500	11000	11500	12000	12500	13000	13500	14000
-10	14	13	12	11	10	9	9	8	8
-20	28	26	24	22	20	19	17	16	15
-30	43	39	36	33	30	28	26	24	23
-40	57	52	48	44	40	37	34	32	30
-50	72	66	60	55	51	47	43	40	38
-60	87	79	72	66	61	56	52	48	45
-70	101	92	84	77	71	65	60	56	52
-80	115	105	96	88	81	75	69	64	60
-90	129	118	108	99	91	84	78	72	67
-100	144	131	120	110	101	93	86	80	75
-110	158	144	132	121	111	102	95	88	82
-120	173	158	144	132	121	111	103	96	90
-130	188	171	156	143	131	121	112	104	97
-140	202	184	168	154	142	131	121	112	104
-150	217	198	181	166	152	140	130	121	112
-160	231	211	193	177	163	150	139	129	119
-170	246	224	205	188	173	159	147	136	126
-180	260	237	217	199	183	168	155	144	134
-190	275	250	229	210	193	177	164	153	142
-200	290	264	241	221	203	187	173	161	149
-220	319	291	266	243	223	206	191	177	164
-240	349	318	290	266	244	225	208	193	179
-260	379	345	315	288	265	244	226	210	194
-280	408	372	340	311	285	263	244	226	209
-300	438	399	364	333	306	282	261	242	224
-320	468	426	389	356	327	301	278	258	239
-340	498	453	413	378	347	320	296	274	254
-360	527	480	438	400	368	340	314	291	269
-380	557	507	462	423	389	359	332	307	284
-400	587	534	487	446	410	378	349	323	299
-420	617	561	512	469	431	397	366	339	312
-440	648	589	537	492	452	416	384	355	329
-460	678	617	563	515	473	436	402	372	344
-480	709	645	588	538	494	455	420	388	359
-500	739	672	613	561	515	474	437	404	374

FUZE, H.D., MK.X

SHELL, A.P., 260 LB., MK.XX
SHELL, T.P., 260 LB., MK.XVIII
NORMAL CHARGE - M.V. 2100 f/s

PART 2b-1 TABLE B

TARGET BELOW GUN - RANGE EFFECTS IN YARDS

Map Range - Yards									Height of Target
14500	15000	15500	16000	16500	17000	17500	18000	18500	Feet
7	6	6	6	5	5	5	4	4	-10
14	13	12	11	10	10	9	9	8	-20
21	19	18	17	16	15	14	13	12	-30
28	26	24	22	21	20	19	18	17	-40
35	32	30	28	26	25	24	22	21	-50
41	38	36	34	31	29	28	26	25	-60
48	45	42	39	36	34	33	31	29	-70
55	51	48	45	42	39	37	35	33	-80
62	58	54	50	47	44	42	40	37	-90
69	64	60	56	52	49	47	44	41	-100
76	71	66	61	57	54	51	48	45	-110
83	77	72	67	63	59	56	53	49	-120
90	84	78	73	68	64	61	57	54	-130
97	90	84	78	73	69	66	62	58	-140
104	97	90	84	79	74	70	66	62	-150
110	103	96	90	84	79	75	70	66	-160
117	109	102	95	89	84	80	75	70	-170
124	115	107	100	94	89	85	80	75	-180
131	121	113	106	100	94	89	84	79	-190
138	128	119	112	105	99	94	88	83	-200
145	140	131	123	116	109	103	97	91	-220
151	153	143	135	127	120	113	106	100	-240
179	166	155	146	138	130	122	115	108	-260
193	179	167	157	148	140	132	124	117	-280
207	192	179	168	159	150	142	133	125	-300
221	205	191	179	169	160	151	142	134	-320
235	218	203	191	180	170	161	151	142	-340
249	231	215	202	191	181	171	161	151	-360
263	244	228	214	202	191	180	170	159	-380
277	257	240	225	212	201	190	179	168	-400
291	270	252	236	223	211	200	188	177	-420
305	283	264	247	233	221	209	197	185	-440
319	296	276	259	244	231	219	207	194	-460
333	309	288	270	254	241	229	216	202	-480
347	322	300	281	265	251	238	225	211	-500

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FUZE, B.D., MK.X
 PART 2b-1 TABLE D

TARGET BELOW GUN - RANGE EFFECTS IN YARDS

Height of Target	Map Range - Yards							
Feet	19000	19500	20000	20500	21000	21500	22000	22200
-10	4	4	3	3	3	3	3	
-20	8	7	7	6	6	5	5	
-30	12	11	10	9	9	8	8	
-40	16	14	13	12	12	11	10	
-50	20	18	17	16	15	14	13	
-60	23	22	20	19	17	16	15	
-70	27	25	23	22	20	19	18	
-80	31	29	27	25	23	22	20	
-90	35	32	30	28	26	24	23	
-100	39	36	33	31	29	27	25	20
-110	43	40	37	34	32	30	28	22
-120	46	43	40	37	35	32	30	25
-130	50	47	43	40	38	35	33	27
-140	54	50	47	44	41	38	35	29
-150	58	54	50	47	44	41	38	31
-160	62	57	53	50	46	43	40	34
-170	66	61	57	53	49	46	43	36
-180	70	65	60	56	52	49	45	38
-190	74	69	64	59	55	51	47	41
-200	78	72	67	62	58	54	50	43
-220	85	79	73	68	64	59	55	48
-240	93	86	80	75	70	65	60	52
-260	101	94	87	81	75	70	65	57
-280	109	102	94	87	81	75	70	62
-300	117	109	101	94	87	81	75	66
-320	125	116	108	100	93	86	80	71
-340	133	123	114	106	99	92	85	75
-360	141	131	121	112	104	97	90	80
-380	149	138	128	119	110	102	95	84
-400	157	146	135	125	116	108	100	89
-420	165	153	142	132	122	113	105	94
-440	173	161	149	138	128	118	110	98
-460	181	168	156	145	134	124	115	105
-480	189	176	163	151	140	129	120	107
-500	197	183	170	157	145	134	125	112

FUZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XX

PART 29-1 TABLE C

SHELL, T.P., 260 LB., MK.XVIII
NORMAL CHARGE - M.V. 2100 F/s

TARGET ABOVE GUN - RANGE EFFECTS IN YARDS

Height of Target	Map Range - Yards								
Feet	1000	1500	2000	2500	3000	3500	4000	4500	5000
10	-288	-184	-132	-102	-82	-68	-58	-50	-43
20	-571	-365	-264	-203	-163	-136	-115	-99	-86
30	-849	-544	-395	-303	-244	-203	-172	-148	-129
40		-720	-525	-403	-324	-270	-230	-198	-172
50		-894	-653	-502	-404	-336	-287	-247	-214
60		-1066	-780	-600	-483	-403	-343	-295	-256
70		-1236	-906	-698	-562	-468	-399	-343	-298
80		-1403	-1031	-794	-640	-534	-455	-392	-340
90			-1154	-889	-717	-599	-511	-440	-382
100			-1276	-984	-795	-664	-566	-488	-424
110			-1397	-1078	-872	-728	-621	-536	-466
120			-1517	-1170	-948	-793	-676	-583	-507
130			-1636	-1262	-1023	-857	-731	-630	-548
140			-1754	-1353	-1097	-920	-786	-678	-589
150			-1871	-1443	-1172	-983	-849	-725	-630
160			-1987	-1532	-1246	-1047	-895	-772	-671
170				-1621	-1320	-1110	-949	-819	-712
180				-1709	-1393	-1172	-1002	-865	-753
190				-1796	-1465	-1234	-1056	-912	-794
200				-1882	-1537	-1295	-1109	-958	-834
220				-2053	-1679	-1417	-1214	-1050	-914
240				-2222	-1820	-1538	-1319	-1141	-994
260				-2389	-1959	-1659	-1423	-1231	-1073
280					-2096	-1778	-1525	-1320	-1152
300					-2231	-1895	-1627	-1409	-1230
320					-2364	-2010	-1728	-1497	-1308
340					-2495	-2124	-1827	-1585	-1385
360					-2624	-2236	-1925	-1672	-1462
380					-2750	-2347	-2023	-1758	-1538
400					-2874	-2456	-2120	-1844	-1614
420					-2997	-2564	-2216	-1929	-1689
440						-2671	-2311	-2012	-1763
460						-2777	-2404	-2095	-1837
480						-2882	-2496	-2177	-1910
500						-2985	-2588	-2259	-1983

SHELL, A.P., 250 LB., MK.XX
 SHELL, T.P., 250 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FUZE, B.D., MK.X

PART 2b-1 TABLE C

TARGET ABOVE GUN - RANGE EFFECTS IN YARDS

Height of Target	Map Range - Yards								
	Feet	5500	6000	6500	7000	7500	8000	8500	9000
10		-38	-33	-29	-26	-23	-21	-19	-17
20		-75	-66	-58	-52	-47	-42	-38	-34
30		-113	-99	-87	-78	-70	-63	-57	-52
40		-150	-132	-117	-104	-93	-84	-76	-69
50		-187	-165	-145	-130	-117	-105	-95	-86
60		-224	-197	-175	-156	-140	-126	-114	-102
70		-261	-230	-204	-182	-163	-147	-133	-121
80		-298	-262	-232	-207	-186	-167	-151	-137
90		-335	-295	-261	-233	-209	-188	-170	-154
100		-371	-327	-290	-259	-232	-209	-189	-171
110		-407	-359	-319	-284	-255	-230	-208	-188
120		-444	-391	-347	-310	-278	-251	-227	-206
130		-480	-423	-376	-336	-301	-271	-245	-223
140		-516	-455	-404	-361	-324	-292	-264	-240
150		-552	-487	-433	-387	-347	-312	-282	-256
160		-588	-519	-461	-412	-369	-332	-300	-273
170		-624	-551	-490	-437	-392	-353	-319	-290
180		-660	-583	-518	-463	-415	-374	-338	-307
190		-696	-614	-546	-488	-438	-395	-357	-324
200		-731	-645	-574	-513	-460	-415	-376	-341
220		-801	-708	-630	-563	-505	-456	-413	-375
240		-872	-771	-686	-613	-550	-496	-450	-409
260		-942	-833	-741	-662	-595	-537	-486	-442
280		-1012	-895	-796	-712	-640	-577	-523	-475
300		-1081	-956	-851	-761	-684	-617	-559	-508
320		-1150	-1017	-905	-810	-728	-657	-595	-541
340		-1218	-1078	-960	-859	-772	-697	-631	-574
360		-1286	-1138	-1014	-908	-816	-737	-668	-607
380		-1354	-1198	-1067	-956	-860	-777	-704	-640
400		-1421	-1258	-1121	-1004	-903	-816	-740	-672
420		-1488	-1318	-1174	-1051	-946	-855	-776	-705
440		-1554	-1377	-1227	-1099	-989	-894	-811	-737
460		-1620	-1436	-1280	-1147	-1032	-933	-846	-769
480		-1685	-1495	-1333	-1194	-1075	-972	-882	-802
500		-1750	-1553	-1385	-1241	-1118	-1011	-917	-834

FOUR, B.D., NK.X

SHELL, A.P., 260 LB., NK.XX
SHELL, T.P., 260 LB., NK.XVIII
NORMAL CHARGE - M.V. 2100 f/s

PART 25-1 TABLE C

TARGET ABOVE GUN - RANGE EFFECTS IN YARDS

Map Range - Yards									Height of Target
10000	10500	11000	11500	12000	12500	13000	13500	14000	Pent
-14	-13	-12	-11	-10	-9	-9	-8	-7	10
-28	-26	-24	-22	-20	-18	-17	-16	-15	20
-43	-39	-36	-33	-30	-28	-26	-24	-22	30
-57	-52	-48	-44	-40	-37	-34	-32	-30	40
-71	-65	-60	-55	-50	-46	-43	-40	-37	50
-85	-78	-72	-66	-60	-55	-51	-48	-45	60
-100	-91	-83	-76	-70	-65	-60	-56	-52	70
-114	-104	-95	-87	-80	-74	-68	-63	-59	80
-128	-117	-107	-98	-90	-83	-77	-71	-66	90
-142	-130	-119	-109	-100	-92	-85	-79	-74	100
-156	-143	-131	-120	-110	-101	-94	-87	-81	110
-170	-156	-143	-131	-120	-110	-102	-95	-88	120
-185	-169	-155	-142	-130	-119	-110	-102	-95	130
-199	-182	-166	-152	-140	-129	-119	-110	-102	140
-213	-195	-178	-163	-150	-138	-127	-118	-110	150
-227	-207	-189	-173	-159	-147	-136	-126	-117	160
-241	-220	-201	-184	-169	-156	-144	-134	-125	170
-255	-233	-213	-195	-179	-165	-153	-142	-132	180
-269	-246	-225	-206	-189	-174	-161	-149	-139	190
-283	-259	-237	-217	-199	-183	-169	-157	-146	200
-311	-284	-260	-238	-219	-202	-186	-172	-160	220
-339	-309	-283	-260	-239	-220	-203	-188	-175	240
-366	-334	-306	-281	-258	-237	-219	-203	-189	260
-394	-360	-329	-302	-277	-255	-236	-219	-204	280
-422	-385	-352	-323	-297	-273	-252	-234	-218	300
-450	-411	-376	-344	-316	-291	-269	-249	-232	320
-477	-436	-399	-366	-336	-309	-285	-264	-246	340
-504	-461	-422	-387	-355	-327	-302	-280	-260	360
-531	-486	-445	-408	-375	-345	-318	-295	-274	380
-559	-511	-468	-429	-394	-363	-335	-310	-288	400
-586	-536	-491	-450	-413	-380	-351	-325	-302	420
-613	-561	-514	-471	-432	-398	-367	-340	-316	440
-640	-585	-536	-492	-452	-416	-384	-356	-331	460
-667	-610	-559	-513	-471	-434	-401	-371	-345	480
-694	-635	-582	-534	-491	-452	-417	-386	-359	500

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

Fuze, E.D., MK.X
 PART 2b-1 TABLE C

TARGET ABOVE GUN - RANGE EFFECTS IN YARDS

Height of Target	Map Range - Yards								
Feet	14500	15000	15500	16000	16500	17000	17500	18000	18500
10	-7	-6	-6	-6	-5	-5	-5	-4	-4
20	-14	-13	-12	-11	-10	-10	-9	-9	-8
30	-20	-19	-18	-17	-16	-15	-14	-13	-12
40	-27	-25	-23	-22	-21	-20	-18	-17	-16
50	-34	-31	-29	-28	-26	-25	-23	-22	-21
60	-41	-38	-35	-33	-31	-29	-27	-26	-25
70	-48	-44	-41	-39	-36	-34	-32	-31	-29
80	-54	-50	-47	-44	-42	-39	-37	-35	-33
90	-61	-57	-53	-50	-47	-44	-41	-39	-37
100	-68	-63	-59	-55	-52	-49	-46	-43	-41
110	-75	-70	-65	-61	-57	-54	-51	-48	-45
120	-82	-76	-71	-66	-62	-59	-55	-52	-49
130	-88	-82	-77	-72	-68	-64	-60	-56	-53
140	-95	-89	-83	-78	-73	-69	-65	-61	-57
150	-102	-95	-89	-83	-78	-74	-69	-65	-61
160	-109	-102	-95	-89	-83	-78	-74	-70	-65
170	-116	-108	-101	-94	-88	-83	-78	-74	-69
180	-123	-114	-106	-99	-93	-88	-83	-78	-73
190	-129	-120	-112	-105	-99	-93	-87	-82	-77
200	-136	-126	-118	-111	-104	-98	-92	-86	-81
220	-149	-139	-130	-122	-115	-108	-101	-95	-89
240	-163	-152	-142	-133	-125	-118	-110	-103	-97
260	-176	-164	-154	-144	-135	-127	-119	-112	-105
280	-190	-177	-165	-155	-146	-137	-128	-120	-113
300	-203	-189	-177	-166	-156	-146	-137	-129	-121
320	-216	-201	-188	-177	-166	-156	-146	-137	-129
340	-229	-214	-200	-188	-176	-165	-155	-146	-137
360	-242	-226	-212	-199	-186	-174	-164	-154	-145
380	-255	-238	-223	-209	-196	-184	-173	-163	-153
400	-268	-250	-234	-220	-207	-194	-182	-171	-161
420	-282	-263	-246	-231	-217	-203	-191	-180	-169
440	-295	-276	-258	-242	-227	-213	-200	-188	-177
460	-309	-289	-270	-253	-237	-223	-209	-196	-184
480	-322	-301	-282	-264	-247	-232	-218	-205	-192
500	-335	-313	-293	-275	-258	-242	-227	-213	-200

FOZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XX
SHELL, T.P., 260 LB., MK.XVII
NORMAL CHARGE - M.V. 2100 f/s

PART 2b-1 TABLE C

TARGET ABOVE GUN - RANGE EFFECTS IN YARDS

Map Range - Yards								Height of Target
19000	19500	20000	20500	21000	21500	22000	22100	Feet
-4	-4	-3	-3	-3	-3	-3	-2	10
-8	-7	-7	-6	-6	-5	-5	-4	20
-11	-11	-10	-9	-9	-8	-8	-6	30
-15	-14	-13	-12	-12	-11	-10	-8	40
-19	-18	-17	-16	-15	-14	-13	-10	50
-23	-21	-20	-19	-17	-16	-15	-12	60
-27	-25	-23	-22	-20	-19	-18	-14	70
-31	-29	-27	-25	-23	-22	-20	-16	80
-34	-32	-30	-28	-26	-24	-23	-18	90
-38	-35	-33	-31	-29	-27	-25	-20	100
-42	-39	-36	-34	-32	-30	-28	-22	110
-46	-43	-40	-37	-35	-32	-30	-24	120
-49	-46	-43	-40	-38	-35	-33	-26	130
-53	-50	-47	-44	-41	-38	-35	-28	140
-57	-53	-50	-47	-44	-41	-38	-31	150
-61	-57	-53	-50	-46	-43	-40	-33	160
-65	-61	-57	-53	-49	-46	-43	-35	170
-68	-64	-60	-56	-52	-48	-45	-37	180
-72	-67	-63	-59	-55	-51	-48	-39	190
-76	-71	-66	-62	-58	-54	-50	-41	200
-83	-78	-73	-68	-63	-59	-55	-45	220
-91	-85	-79	-74	-69	-64	-60	-49	240
-98	-92	-86	-80	-75	-70	-65	-54	260
-106	-99	-92	-86	-80	-75	-70	-58	280
-113	-106	-99	-92	-86	-81	-75	-62	300
-121	-113	-106	-99	-92	-86	-80	-66	320
-128	-120	-112	-105	-98	-92	-85	-70	340
-136	-127	-119	-111	-104	-97	-90	-74	360
-143	-134	-125	-117	-109	-102	-95	-78	380
-151	-141	-132	-123	-115	-108	-100	-82	400
-158	-148	-138	-129	-121	-113	-105		420
-166	-155	-145	-136	-127	-119	-110		440
-173	-162	-152	-143	-133	-124	-115		460
-180	-169	-158	-148	-138	-129	-120		480
-188	-176	-164	-153	-143	-134	-125		500

FUZE, D.D., MK.X

SHELL, A.P., 260 LB., MK.IX
SHELL, T.P., 260 LB., MK.XVIII
NORMAL CHARGE - M.V. 2100 f/s

PART 25-1 TABLE D

WEIGHT OF PROJECTILE
EFFECTS IN YARDS OF RANGE DUE TO VARIATIONS IN

Range Yards	Variation in Weight of Projectile - Per Cent										
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
1000	+23	+19	+14	+9	+5	0	-5	-9	-14	-18	-23
2000	+43	+34	+25	+17	+9	0	-9	-17	-26	-34	-43
3000	+57	+46	+34	+23	+12	0	-12	-23	-35	-47	-59
4000	+68	+55	+41	+28	+14	0	-14	-28	-42	-57	-71
5000	+76	+61	+46	+31	+16	0	-16	-32	-48	-64	-80
6000	+80	+64	+49	+33	+17	0	-17	-34	-51	-68	-85
7000	+80	+64	+49	+33	+17	0	-17	-34	-51	-69	-86
8000	+76	+61	+46	+31	+16	0	-16	-32	-49	-66	-83
9000	+68	+55	+42	+28	+14	0	-14	-29	-45	-60	-76
10000	+56	+46	+35	+24	+12	0	-12	-25	-38	-52	-66
11000	+41	+34	+26	+18	+9	0	-10	-20	-30	-41	-53
12000	+24	+20	+16	+11	+6	0	-7	-14	-21	-28	-37
13000	+5	+5	+5	+4	+2	0	-3	-6	-10	-14	-19
14000	-15	-11	-7	-4	-2	0	+1	+2	+2	+1	0
15000	-37	-28	-20	-13	-6	0	+5	+10	+14	+17	+20
16000	-59	-46	-33	-21	-10	0	+10	+18	+26	+33	+40
17000	-82	-64	-47	-30	-15	0	+14	+27	+39	+50	+60
18000	-106	-83	-61	-39	-19	0	+18	+36	+52	+67	+81
19000	-131	-103	-75	-49	-24	0	+23	+45	+66	+85	+104
20000	-158	-124	-91	-60	-29	0	+28	+55	+81	+105	+129
21000	-190	-149	-110	-72	-35	0	+34	+67	+98	+128	+156
22000	-255	-199	-146	-95	-46	0	+44	+85	+124	+160	+194
22400			-175	-112	-54	0	+50	+97	+141	+183	+223

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FUZE, B.D., MK.X

PART 2b-1 TABLE E

NOTATION OF THE EARTH, EFFECTS IN YARDS OF RANGE DUE TO

Latitude C°

Range Yards	Azimuth of Target - Degrees						
	0 180	15 165	30 150	45 135	60 120	75 105	90 90
1000	0	+2-	+4-	+6-	+8-	+9-	+10-
2000	0	+4-	+8-	+12-	+15-	+17-	+18-
3000	0	+6-	+12-	+17-	+21-	+24-	+25-
4000	0	+8-	+16-	+22-	+27-	+30-	+31-
5000	0	+10-	+19-	+26-	+32-	+36-	+37-
6000	0	+11-	+21-	+30-	+37-	+41-	+42-
7000	0	+12-	+23-	+33-	+41-	+45-	+46-
8000	0	+13-	+25-	+36-	+44-	+48-	+50-
9000	0	+14-	+27-	+38-	+46-	+51-	+53-
10000	0	+15-	+28-	+39-	+48-	+54-	+56-
11000	0	+15-	+29-	+41-	+50-	+56-	+58-
12000	0	+16-	+30-	+42-	+52-	+58-	+60-
13000	0	+16-	+30-	+43-	+53-	+59-	+61-
14000	0	+16-	+31-	+44-	+54-	+60-	+62-
15000	0	+17-	+32-	+45-	+55-	+61-	+64-
16000	0	+17-	+33-	+46-	+56-	+62-	+65-
17000	0	+17-	+33-	+47-	+57-	+63-	+66-
18000	0	+17-	+33-	+47-	+58-	+64-	+66-
19000	0	+17-	+33-	+47-	+58-	+65-	+66-
20000	0	+17-	+33-	+47-	+57-	+64-	+66-
21000	0	+16-	+32-	+44-	+54-	+60-	+63-
22000	0	+14-	+27-	+38-	+46-	+51-	+53-
22180	0	+11-	+21-	+30-	+37-	+41-	+43-
	180 360	195 345	210 330	225 315	240 300	255 285	270 270
	Azimuth of Target - Degrees						

NOTE: For the argument at the top of the tables use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.

FUZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XX

PART 2b-1 TABLE 2

SHELL, T.P., 260 LB., MK.XVIII

SHELL CHARGE - M.V. 2100 f/s

ROTATION OF THE EARTH, EFFECTS IN YARDS OF RANGE DUE TO

Latitude 13° (North or South)

Range Yards	Azimuth of Target - Degrees						
	0 180	15 165	30 150	45 135	60 120	75 105	90 90
1000	0	+2-	+4-	+6-	+7-	+8-	+9-
2000	0	+4-	+8-	+11-	+14-	+16-	+17-
3000	0	+6-	+12-	+17-	+21-	+23-	+24-
4000	0	+8-	+15-	+22-	+27-	+30-	+31-
5000	0	+9-	+18-	+26-	+32-	+35-	+36-
6000	0	+11-	+21-	+30-	+36-	+40-	+41-
7000	0	+12-	+23-	+33-	+40-	+44-	+45-
8000	0	+13-	+25-	+35-	+43-	+48-	+49-
9000	0	+14-	+26-	+36-	+45-	+51-	+52-
10000	0	+14-	+27-	+38-	+47-	+53-	+55-
11000	0	+15-	+28-	+40-	+49-	+55-	+57-
12000	0	+15-	+29-	+41-	+51-	+57-	+59-
13000	0	+16-	+30-	+42-	+52-	+58-	+60-
14000	0	+16-	+30-	+43-	+53-	+59-	+61-
15000	0	+16-	+31-	+44-	+54-	+60-	+63-
16000	0	+17-	+32-	+45-	+55-	+61-	+64-
17000	0	+17-	+33-	+46-	+56-	+62-	+65-
18000	0	+17-	+33-	+47-	+57-	+63-	+66-
19000	0	+17-	+33-	+47-	+57-	+63-	+66-
20000	0	+17-	+33-	+48-	+58-	+64-	+67-
21000	0	+16-	+31-	+46-	+56-	+62-	+65-
22000	0	+14-	+26-	+37-	+49-	+52-	+53-
22180	0	+11-	+21-	+30-	+37-	+41-	+42-
	183 360	195 345	210 330	225 315	240 300	255 285	270 270
	Azimuth of Target - Degrees						

NOTE: For the argument at the top of the tables use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - N.V. 2100 f/s

FUZE, B.D., MK.X

PART 2b-1 TABLE E

ROTATION OF THE EARTH, EFFECTS IN YARDS OF RANGE DUE TO

Latitude 20° (North or South)

Range Yards	Azimuth of Target - Degrees						
	0 180	15 165	30 150	45 135	60 120	75 105	90 90
1000	0	+2-	+1-	+6-	+7-	+8-	+2-
2000	0	+4-	+8-	+11-	+13-	+15-	+16-
3000	0	+6-	+12-	+16-	+19-	+22-	+23-
4000	0	+8-	+15-	+20-	+25-	+28-	+29-
5000	0	+9-	+17-	+24-	+30-	+34-	+35-
6000	0	+10-	+20-	+28-	+34-	+38-	+40-
7000	0	+11-	+22-	+31-	+38-	+42-	+44-
8000	0	+12-	+23-	+33-	+41-	+45-	+47-
9000	0	+13-	+25-	+35-	+43-	+48-	+50-
10000	0	+14-	+26-	+37-	+45-	+50-	+52-
11000	0	+14-	+27-	+38-	+47-	+52-	+54-
12000	0	+14-	+28-	+40-	+49-	+54-	+56-
13000	0	+15-	+29-	+41-	+50-	+55-	+57-
14000	0	+15-	+29-	+41-	+51-	+57-	+59-
15000	0	+16-	+30-	+42-	+52-	+58-	+60-
16000	0	+16-	+31-	+43-	+53-	+59-	+61-
17000	0	+16-	+31-	+44-	+54-	+60-	+62-
18000	0	+16-	+31-	+44-	+54-	+60-	+63-
19000	0	+16-	+31-	+44-	+54-	+60-	+63-
20000	0	+16-	+31-	+44-	+54-	+60-	+62-
21000	0	+16-	+30-	+42-	+52-	+58-	+59-
22000	0	+14-	+26-	+36-	+44-	+49-	+50-
22180	0	+10-	+20-	+29-	+36-	+40-	+40-
	180 360	195 345	210 330	225 315	240 300	255 285	270 270
	Azimuth of Target - Degrees						

NOTE: For the argument at the top of the tables use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.

FDLE, B.D., MK.X
PART 2b-1 TABLE E

SHELL, A.P., 260 LB., MK.XX
SHELL, T.P., 260 LB., MK.XVIII
NORMAL CHARGE - K.V. 2100 f/s

ROTATION OF THE EARTH, EFFECTS IN YARDS OF RANGE DUE TO

Latitude 30° (North or South)

Range Yards	Azimuth of Target - Degrees						
	0 180	15 165	30 150	45 135	60 120	75 105	90 90
1000	0	+2-	+4-	+5-	+6-	+7-	+8-
2000	0	+4-	+7-	+10-	+12-	+14-	+15-
3000	0	+5-	+10-	+15-	+18-	+20-	+21-
4000	0	+7-	+13-	+19-	+23-	+26-	+27-
5000	0	+8-	+16-	+23-	+28-	+31-	+32-
6000	0	+9-	+18-	+26-	+32-	+35-	+36-
7000	0	+10-	+20-	+28-	+35-	+39-	+40-
8000	0	+11-	+22-	+31-	+38-	+42-	+43-
9000	0	+12-	+23-	+33-	+40-	+45-	+46-
10000	0	+13-	+24-	+34-	+42-	+47-	+48-
11000	0	+13-	+25-	+35-	+43-	+48-	+50-
12000	0	+13-	+25-	+36-	+43-	+50-	+52-
13000	0	+14-	+26-	+37-	+46-	+51-	+53-
14000	0	+14-	+27-	+38-	+47-	+52-	+54-
15000	0	+15-	+28-	+39-	+48-	+53-	+55-
16000	0	+15-	+28-	+40-	+49-	+54-	+56-
17000	0	+15-	+29-	+41-	+50-	+55-	+57-
18000	0	+15-	+29-	+41-	+50-	+56-	+58-
19000	0	+15-	+29-	+41-	+50-	+56-	+58-
20000	0	+15-	+29-	+41-	+50-	+55-	+57-
21000	0	+15-	+28-	+39-	+48-	+53-	+55-
22000	0	+12-	+23-	+32-	+40-	+45-	+46-
22180	0	+10-	+19-	+26-	+32-	+36-	+37-
	180 360	195 345	210 330	225 315	240 300	255 285	270 270
	Azimuth of Target - Degrees						

NOTE: For the argument at the top of the tables use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FOZE, B.D., MK.X

PART 2B-1 TABLE E

ROTATION OF THE EARTH, EFFECTS IN YARDS OF RANGE DUE TO

Latitude 40° (North or South)

Range Yards	Azimuth of Target - Degrees						
	0 180	15 165	30 150	45 135	60 120	75 105	90 90
1000	0	+2-	+3-	+5-	+6-	+6-	+7-
2000	0	+3-	+6-	+9-	+11-	+12-	+13-
3000	0	+5-	+9-	+13-	+16-	+18-	+19-
4000	0	+6-	+12-	+17-	+21-	+23-	+24-
5000	0	+7-	+14-	+20-	+25-	+27-	+28-
6000	0	+8-	+16-	+23-	+28-	+31-	+32-
7000	0	+9-	+18-	+25-	+31-	+34-	+36-
8000	0	+10-	+19-	+27-	+33-	+37-	+39-
9000	0	+10-	+20-	+29-	+35-	+39-	+41-
10000	0	+11-	+21-	+30-	+37-	+41-	+43-
11000	0	+11-	+22-	+31-	+38-	+43-	+45-
12000	0	+12-	+23-	+32-	+39-	+44-	+46-
13000	0	+12-	+23-	+33-	+40-	+45-	+47-
14000	0	+12-	+24-	+34-	+41-	+46-	+48-
15000	0	+13-	+25-	+35-	+42-	+47-	+49-
16000	0	+13-	+25-	+35-	+43-	+48-	+50-
17000	0	+13-	+25-	+36-	+44-	+49-	+51-
18000	0	+13-	+25-	+36-	+44-	+49-	+51-
19000	0	+13-	+25-	+36-	+44-	+49-	+51-
20000	0	+13-	+25-	+36-	+44-	+49-	+51-
21000	0	+13-	+24-	+34-	+42-	+47-	+49-
22000	0	+11-	+21-	+29-	+35-	+39-	+41-
22180	0	+8-	+16-	+23-	+29-	+32-	+33-
	180 360	195 345	210 330	225 315	240 300	255 285	270 270
	Azimuth of Target - Degrees						

NOTE: For the argument at the top of the tables use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.

FUZE, B.D., MK.X
PART 2b-1 TABLE E

SHELL, A.P., 260 LB., MK.XX
SHELL, T.P., 260 LB., MK.XVIII
NORMAL CHARGE - M.V. 2100 f/s

ROTATION OF THE EARTH, EFFECTS IN YARDS OF RANGE DUE TO

Latitude 50° (North or South)

Range Yards	Azimuth of Target - Degrees						
	0 180	15 165	30 150	45 135	60 120	75 105	90 90
1000	0	+1-	+3-	+4-	+5-	+5-	+6-
2000	0	+3-	+6-	+8-	+9-	+10-	+11-
3000	0	+4-	+8-	+11-	+13-	+15-	+16-
4000	0	+5-	+10-	+14-	+17-	+19-	+20-
5000	0	+6-	+12-	+17-	+20-	+23-	+24-
6000	0	+7-	+14-	+19-	+23-	+26-	+27-
7000	0	+8-	+15-	+21-	+26-	+29-	+30-
8000	0	+8-	+16-	+23-	+28-	+31-	+32-
9000	0	+9-	+17-	+24-	+30-	+33-	+34-
10000	0	+9-	+18-	+25-	+31-	+35-	+36-
11000	0	+10-	+19-	+26-	+32-	+36-	+37-
12000	0	+10-	+19-	+27-	+33-	+37-	+38-
13000	0	+10-	+20-	+28-	+34-	+38-	+39-
14000	0	+10-	+20-	+28-	+35-	+39-	+40-
15000	0	+11-	+21-	+29-	+35-	+39-	+41-
16000	0	+11-	+21-	+30-	+36-	+40-	+42-
17000	0	+11-	+21-	+30-	+37-	+41-	+42-
18000	0	+11-	+21-	+30-	+37-	+41-	+43-
19000	0	+11-	+21-	+30-	+37-	+41-	+43-
20000	0	+11-	+21-	+30-	+37-	+41-	+43-
21000	0	+10-	+20-	+29-	+35-	+39-	+41-
22000	0	+9-	+17-	+24-	+30-	+33-	+34-
22180	0	+7-	+14-	+20-	+24-	+27-	+28-
	180 360	195 345	210 330	225 315	240 300	255 285	270 270
	Azimuth of Target - Degrees						

NOTE: For the argument at the top of the tables use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FUZE, B.D., MK.X

PART 2b-1 TABLE E

ROTATION OF THE EARTH, EFFECTS IN YARDS OF RANGE DUE TO

Latitude 60° (North or South)

Range Yards	Azimuth of Target - Degrees						
	0 180	15 165	30 150	45 135	60 120	75 105	90 90
1000	0	+1-	+2-	+3-	+4-	+4-	+4-
2000	0	+2-	+4-	+6-	+7-	+8-	+8-
3000	0	+3-	+6-	+8-	+10-	+11-	+12-
4000	0	+4-	+8-	+11-	+13-	+15-	+16-
5000	0	+5-	+9-	+13-	+16-	+18-	+19-
6000	0	+6-	+11-	+16-	+18-	+20-	+21-
7000	0	+6-	+12-	+17-	+20-	+22-	+23-
8000	0	+7-	+13-	+18-	+22-	+24-	+25-
9000	0	+7-	+13-	+19-	+23-	+26-	+27-
10000	0	+7-	+14-	+20-	+24-	+27-	+28-
11000	0	+7-	+14-	+20-	+25-	+28-	+29-
12000	0	+8-	+15-	+21-	+26-	+29-	+30-
13000	0	+8-	+15-	+21-	+26-	+29-	+31-
14000	0	+8-	+16-	+22-	+27-	+30-	+31-
15000	0	+8-	+16-	+23-	+28-	+31-	+32-
16000	0	+8-	+16-	+23-	+28-	+31-	+32-
17000	0	+9-	+17-	+24-	+29-	+32-	+33-
18000	0	+8-	+17-	+24-	+29-	+32-	+33-
19000	0	+9-	+17-	+24-	+29-	+32-	+33-
20000	0	+9-	+17-	+23-	+28-	+32-	+33-
21000	0	+8-	+16-	+22-	+27-	+31-	+32-
22000	0	+7-	+13-	+19-	+23-	+26-	+27-
22180	0	+6-	+11-	+15-	+19-	+21-	+21-
	180	195	210	225	240	255	270
	360	345	330	315	300	285	270
	Azimuth of Target - Degrees						

NOTE: For the argument at the top of the tables use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.

FUZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XI
SHELL, T.P., 260 LB., MK.XVIII
NORMAL CHARGE - M.V. 2100 f/s

PART 2b-1 TABLE E

ROTATION OF THE EARTH, EFFECTS IN YARDS OF RANGE DUE TO

Latitude 70° (North or South)

Range Yards	Azimuth of Target - Degrees						
	0 180	15 165	30 150	45 135	60 120	75 105	90 90
1000	0	+1-	+2-	+2-	+3-	+3-	+3-
2000	0	+2-	+3-	+4-	+5-	+6-	+6-
3000	0	+2-	+4-	+6-	+7-	+8-	+8-
4000	0	+3-	+5-	+7-	+9-	+10-	+11-
5000	0	+3-	+6-	+9-	+11-	+12-	+13-
6000	0	+4-	+7-	+10-	+12-	+14-	+15-
7000	0	+4-	+8-	+11-	+13-	+15-	+16-
8000	0	+4-	+8-	+12-	+15-	+17-	+17-
9000	0	+5-	+9-	+13-	+16-	+18-	+18-
10000	0	+5-	+10-	+14-	+17-	+19-	+19-
11000	0	+5-	+10-	+14-	+17-	+19-	+20-
12000	0	+5-	+10-	+14-	+18-	+20-	+20-
13000	0	+6-	+11-	+15-	+18-	+20-	+21-
14000	0	+6-	+11-	+15-	+18-	+20-	+21-
15000	0	+6-	+11-	+15-	+19-	+21-	+22-
16000	0	+6-	+11-	+16-	+19-	+21-	+22-
17000	0	+6-	+11-	+16-	+20-	+22-	+23-
18000	0	+6-	+11-	+16-	+20-	+22-	+23-
19000	0	+6-	+11-	+16-	+20-	+22-	+23-
20000	0	+6-	+11-	+16-	+20-	+22-	+23-
21000	0	+6-	+11-	+15-	+19-	+21-	+22-
22000	0	+5-	+9-	+13-	+16-	+18-	+18-
22180	0	+4-	+7-	+10-	+12-	+14-	+15-
	180 360	195 345	210 330	225 315	240 300	255 285	270 270
	Azimuth of Target - Degrees						

NOTE: For the argument at the top of the tables use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FUZE, B.D., MK.X

PART 2b-1 TABLE Pa

MUZZLE VELOCITY, EFFECTS IN YARDS OF RANGE, DUE TO INCREASE IN

Range Yards	Increase in Muzzle Velocity - Feet Per Second							
	10	20	30	40	50	60	70	80
1000	9	19	28	37	46	55	64	73
2000	18	37	55	73	91	108	126	143
3000	27	54	81	108	134	160	186	211
4000	36	72	107	142	176	210	244	277
5000	45	89	132	175	217	259	301	341
6000	53	105	156	207	257	307	356	403
7000	60	120	179	237	295	352	408	463
8000	68	135	201	266	331	395	458	520
9000	75	149	222	294	365	436	506	574
10000	82	162	242	320	397	474	550	625
11000	88	174	260	344	427	510	592	673
12000	93	185	276	366	455	543	631	718
13000	98	195	291	386	480	574	666	759
14000	102	203	304	404	502	602	698	796
15000	106	211	315	419	522	625	727	829
16000	109	218	325	433	540	647	753	859
17000	112	224	335	446	557	667	777	886
18000	115	230	345	459	573	686	799	912
19000	118	236	354	472	589	706	822	938
20000	122	243	364	485	605	725	845	964
21000	125	250	375	499	623	746	869	992
22000	129	258	387	515	642	769	896	1023
23000	134	267	400	533	665	796	927	1058
24000							962	1097
25000								

FUZE, S.D., MK.X

SHELL, A.P., 260 LB., MK.XX

PART 2b-1 TABLE Fa

SHELL, T.P., 260 LB., MK.XVIII

NORMAL CHARGE - M.V. 2100 f/s

MUZZLE VELOCITY, EFFECTS IN YARDS OF RANGE, DUE TO INCREASE IN

Increase in Muzzle Velocity - Feet Per Second							Range
90	100	110	120	130	140	150	Yards
81	90	99	107	115	124	132	1000
160	177	194	210	226	243	259	2000
236	261	286	310	334	358	381	3000
310	343	375	406	438	469	499	4000
382	422	461	500	538	576	613	5000
451	498	544	590	635	679	723	6000
517	571	624	676	728	778	828	7000
580	641	701	759	817	874	930	8000
641	708	774	839	903	966	1028	9000
699	772	844	915	985	1054	1122	10000
755	832	910	987	1063	1138	1212	11000
805	888	972	1055	1137	1218	1298	12000
850	940	1029	1118	1206	1293	1379	13000
892	987	1081	1176	1269	1362	1454	14000
930	1030	1129	1229	1327	1425	1522	15000
964	1068	1172	1276	1379	1482	1583	16000
995	1103	1211	1319	1426	1533	1639	17000
1025	1136	1248	1359	1470	1581	1691	18000
1054	1169	1284	1398	1512	1627	1740	19000
1083	1202	1320	1438	1555	1673	1789	20000
1114	1236	1358	1479	1600	1720	1840	21000
1149	1274	1399	1524	1648	1772	1895	22000
1188	1317	1445	1574	1702	1829	1956	23000
1231	1365	1498	1631	1763	1894	2025	24000
					1969	2104	25000

SHILL, A.P., 260 LB., MX.XX
 SHILL, T.P., 260 LB., MX.XVIIII
 NORMAL CHARGE - M.V. 2100 f/s

FUZES, B.D., MX.X
 PART 2b-1 TABLE FD

MUNALE VELOCITY, EFFECTS IN YARDS OF RANGE, DUE TO DECREASE IN

Range Yards	Decrease in Munale Velocity - Feet Per Second							
	10	20	30	40	50	60	70	80
1000	-9	-19	-28	-38	-48	-57	-67	-77
2000	-19	-37	-56	-75	-95	-114	-134	-153
3000	-28	-56	-84	-112	-141	-170	-199	-229
4000	-37	-74	-111	-149	-187	-225	-264	-303
5000	-45	-91	-137	-184	-231	-278	-327	-375
6000	-53	-107	-162	-217	-273	-330	-387	-445
7000	-61	-123	-186	-250	-314	-379	-445	-512
8000	-69	-139	-210	-281	-353	-426	-500	-575
9000	-76	-153	-231	-310	-389	-470	-551	-633
10000	-82	-166	-250	-336	-422	-510	-597	-686
11000	-88	-178	-268	-359	-452	-545	-639	-734
12000	-94	-188	-282	-380	-478	-576	-676	-776
13000	-99	-198	-298	-399	-501	-604	-707	-812
14000	-103	-206	-310	-415	-521	-628	-734	-843
15000	-106	-213	-321	-429	-538	-648	-757	-868
16000	-110	-220	-331	-442	-553	-666	-778	-891
17000	-113	-226	-339	-453	-567	-683	-798	-914
18000	-116	-232	-348	-465	-582	-700	-818	-937
19000	-119	-238	-357	-477	-597	-719	-839	-961
20000	-122	-244	-367	-490	-613	-738	-862	-986
21000	-125	-250	-377	-503	-629	-757	-885	-1013
22000	-127	-256	-386	-516	-646	-778	-910	-1042
23000	-129							

FUZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XX

PART 2b-1 TABLE Fb

SHELL, T.P., 260 LB., MK.XVIII

NORMAL CHARGE - M.V. 2100 f/s

MUZZLE VELOCITY, EFFECTS IN YARDS OF RANGE, DUE TO DECREASE IN

Decrease in Muzzle Velocity - Feet Per Second							Range
90	100	110	120	130	140	150	Yards
-87	-97	-107	-117	-127	-138	-148	1000
-173	-193	-213	-234	-254	-275	-296	2000
-259	-289	-319	-350	-381	-412	-444	3000
-343	-383	-423	-465	-506	-548	-590	4000
-425	-475	-525	-576	-628	-680	-732	5000
-504	-563	-623	-683	-745	-807	-869	6000
-580	-647	-716	-786	-857	-928	-1000	7000
-651	-727	-804	-883	-962	-1042	-1123	8000
-717	-801	-886	-972	-1059	-1147	-1236	9000
-777	-868	-960	-1053	-1147	-1242	-1337	10000
-830	-927	-1025	-1124	-1224	-1325	-1426	11000
-876	-978	-1081	-1185	-1290	-1396	-1502	12000
-916	-1022	-1129	-1237	-1346	-1455	-1565	13000
-951	-1061	-1170	-1281	-1393	-1505	-1617	14000
-980	-1093	-1204	-1317	-1431	-1545	-1660	15000
-1006	-1121	-1234	-1349	-1465	-1581	-1698	16000
-1030	-1147	-1263	-1380	-1498	-1616	-1735	17000
-1055	-1174	-1293	-1413	-1533	-1653	-1774	18000
-1082	-1204	-1325	-1449	-1571	-1694	-1818	19000
-1110	-1236	-1362	-1489	-1614	-1741	-1868	20000
-1141	-1271	-1403	-1533	-1662	-1793	-1925	21000
-1173							22000
							23000

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

PUZE, H.D., MK.X
 PART 2b-1 TABLE Ga

AIR DENSITY, EFFECTS IN YARDS OF RANGE, DUE TO DECREASE IN
 (59° F. and 29.5 + in.)

Range Yards	Decrease in Air Density - Per Cent							
	1	2	3	4	5	6	7	8
1000	0	1	1	1	2	2	3	3
2000	1	2	4	5	7	8	9	10
3000	3	5	8	11	14	17	20	22
4000	5	10	15	20	24	29	34	39
5000	8	15	23	31	38	46	53	61
6000	11	22	33	44	55	66	76	87
7000	15	30	45	60	75	89	104	118
8000	20	39	59	78	97	116	135	153
9000	25	49	74	98	122	146	170	193
10000	30	60	90	120	150	179	208	237
11000	36	72	108	144	179	214	249	284
12000	42	84	126	168	210	251	292	333
13000	49	97	145	193	241	289	336	383
14000	55	110	164	218	273	327	380	434
15000	61	122	183	243	304	364	424	484
16000	67	134	201	268	335	401	467	533
17000	73	147	220	293	365	438	510	582
18000	80	159	238	317	396	474	552	630
19000	86	172	257	342	427	511	595	678
20000	93	186	278	369	460	551	641	730
21000	101	201	300	398	496	593	690	786
22000	110	219	327	434	540	645	749	852
23000	123	245	365	483	600	715	828	940
24000						812	938	1063
25000								

FUZE, B.D., ME.X

SHELL, A.P., 260 LB., ME.XX

PART 2b-1 TABLE Gb

SHELL, T.P., 260 LB., ME.XVIII

NORMAL CHARGE - M.V. 2100 f/s

AIR DENSITY, EFFECTS IN YARDS OF RANGE, DUE TO DECREASE IN
(59° F. and 29.5 * in.)

Decrease in Air Density - Per Cent								Range
9	10	11	12	13	14	15	16	Yards
4	4	5	5	6	7	7	8	1000
12	13	15	16	18	20	21	23	2000
25	28	31	34	37	40	43	46	3000
44	49	54	59	63	68	73	78	4000
68	75	83	90	97	104	112	119	5000
97	107	118	128	139	149	160	170	6000
132	146	160	174	188	202	216	230	7000
172	192	209	227	245	263	282	298	8000
217	240	263	286	308	331	353	375	9000
266	294	322	350	378	406	433	460	10000
318	352	386	420	454	487	520	553	11000
373	414	454	494	534	574	613	652	12000
430	477	524	571	617	663	708	754	13000
487	541	594	647	700	752	804	856	14000
544	604	663	723	782	841	899	958	15000
600	666	732	797	862	928	993	1058	16000
654	726	798	869	940	1011	1082	1153	17000
707	785	862	939	1016	1092	1168	1244	18000
761	844	927	1009	1091	1172	1253	1334	19000
819	907	995	1083	1170	1256	1342	1427	20000
881	976	1070	1163	1255	1346	1437	1527	21000
954	1055	1156	1255	1353	1449	1545	1640	22000
1030	1139	1246	1351	1455	1557	1657	1756	23000
1105	1223	1341	1458	1573	1686	1796	1908	24000
						2068	2174	25000

STELL, A.P., 260 LB., MK.XX
 STELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FUZE, B.D., MK.X

PART 2b-1 TABLE 5b

AIR DENSITY, EFFECTS IN YARDS OF RANGE, DUE TO INCREASE IN
 (59° F. and 29.5 + in.)

Range Yards	Increase in Air Density - Per Cent							
	1	2	3	4	5	6	7	8
1000	0	0	-1	-1	-1	-1	-2	-2
2000	-1	-2	-4	-5	-6	-7	-8	-9
3000	-3	-5	-8	-11	-14	-17	-19	-21
4000	-5	-10	-15	-20	-25	-30	-35	-39
5000	-8	-16	-24	-31	-39	-47	-55	-63
6000	-11	-23	-34	-45	-57	-68	-80	-92
7000	-15	-31	-46	-62	-78	-93	-109	-126
8000	-20	-40	-60	-81	-101	-122	-143	-164
9000	-25	-50	-76	-101	-127	-153	-179	-206
10000	-31	-62	-93	-124	-155	-187	-219	-251
11000	-37	-74	-111	-148	-185	-223	-261	-299
12000	-43	-86	-129	-172	-216	-260	-304	-348
13000	-49	-98	-147	-197	-247	-297	-347	-397
14000	-55	-110	-166	-222	-278	-334	-390	-446
15000	-61	-122	-184	-246	-309	-371	-433	-495
16000	-68	-135	-203	-271	-340	-408	-476	-545
17000	-74	-148	-222	-296	-371	-445	-520	-595
18000	-80	-160	-240	-321	-402	-483	-564	-646
19000	-86	-172	-259	-347	-434	-522	-610	-699
20000	-95	-186	-280	-375	-471	-567	-664	-761
21000	-102	-204	-307	-412	-518	-624	-731	-838
22000	-112	-226	-342	-459	-580	-701	-824	-938
23000	-123							

FUZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XX

PART 2b-1 TABLE 6b

SHELL, T.P., 260 LB., MK.XVIII

NORMAL CHARGE - M.V. 2100 f/s

AIR DENSITY, EFFECTS IN YARDS OF RANGE, DUE TO INCREASE IN
(59° F. and 29.5 + in.)

Increase in Air Density - Per Cent								Range
9	10	11	12	13	14	15	16	Yards
-2	-2	-2	-2	-2	-2	-2	-2	1000
-10	-11	-12	-12	-13	-14	-15	-16	2000
-24	-26	-29	-31	-33	-36	-39	-42	3000
-44	-49	-54	-59	-63	-68	-74	-79	4000
-71	-79	-87	-95	-103	-111	-120	-128	5000
-103	-115	-127	-139	-151	-163	-176	-188	6000
-142	-158	-174	-191	-207	-224	-241	-258	7000
-185	-206	-227	-249	-271	-293	-315	-337	8000
-232	-259	-286	-313	-341	-368	-396	-424	9000
-283	-316	-349	-382	-416	-449	-483	-517	10000
-337	-376	-415	-454	-494	-533	-573	-613	11000
-392	-437	-482	-527	-573	-618	-664	-710	12000
-447	-498	-549	-600	-652	-703	-755	-807	13000
-502	-559	-616	-673	-731	-788	-846	-904	14000
-558	-621	-684	-747	-810	-874	-937	-1001	15000
-614	-683	-752	-821	-890	-960	-1030	-1100	16000
-670	-745	-821	-896	-972	-1048	-1125	-1201	17000
-727	-809	-891	-974	-1057	-1140	-1223	-1307	18000
-788	-877	-967	-1058	-1149	-1240	-1331	-1423	19000
-858	-956	-1055	-1154	-1254	-1355	-1457	-1559	20000
-946	-1055	-1164	-1274	-1385	-1497	-1611	-1734	21000
-1063	-1188	-1313						22000
								23000

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

PUZE, B.D., MK.X
 PART 2b-1 TABLE B

TEMPERATURE (ELASTICITY), EFFECTS IN YARDS OF RANGE
 (59° F.)

Range Yards	Temperature of Air - Degrees Fahrenheit											
	0	10	20	30	40	50	59	60	70	80	90	100
1000	12	9	7	5	3	1	0	0	-1	-2	-3	-4
2000	24	19	14	10	6	3	0	0	-3	-5	-7	-8
3000	37	29	22	15	9	4	0	0	-4	-8	-11	-13
4000	50	40	30	21	13	6	0	0	-6	-11	-16	-19
5000	63	50	38	27	17	8	0	-1	-8	-15	-21	-26
6000	76	61	47	34	22	10	0	-1	-10	-19	-27	-34
7000	90	73	57	41	26	12	0	-1	-13	-24	-34	-43
8000	105	85	66	48	31	14	0	-2	-16	-29	-42	-53
9000	119	97	76	55	35	16	0	-2	-19	-35	-50	-64
10000	134	109	85	62	40	19	0	-2	-22	-41	-59	-76
11000	148	121	95	70	45	21	0	-2	-25	-47	-68	-88
12000	161	132	104	76	49	23	0	-3	-28	-52	-76	-99
13000	171	141	111	81	52	24	0	-3	-30	-56	-82	-108
14000	178	147	116	85	55	26	0	-3	-31	-59	-87	-114
15000	181	150	119	88	57	27	0	-3	-32	-61	-89	-117
16000	180	149	118	87	57	27	0	-3	-32	-61	-89	-117
17000	174	144	114	84	55	26	0	-3	-31	-59	-86	-113
18000	164	136	108	80	52	25	0	-2	-29	-55	-81	-106
19000	154	127	101	74	48	23	0	-2	-27	-51	-75	-99
20000	148	122	97	71	46	22	0	-2	-26	-50	-73	-96
21000	152	126	100	74	48	23	0	-3	-28	-53	-78	-103
21500	162	135	107	80	52	25	0	-3	-30	-58	-85	-112
22000	161	151	121	91	60	29	0	-3	-34	-66	-98	-130
22500	214	179	145	109	72	34	0	-3	-41	-79	-118	-156

FUZE, B.D., ME.X

SHELL, I.P., 260 LB., ME.XX

PART 2b-1 TABLE Ia

SHELL, T.P., 260 LB., ME.XVIII

NORMAL CHARGE - M.V. 2100 f/s

REAR WIND, EFFECTS IN YARDS OF RANGE, DUE TO

Range Yards	Rear Wind - Miles Per Hour									
	5	10	15	20	25	30	35	40	45	50
1000	0	0	1	1	1	2	2	2	3	3
2000	0	1	2	2	3	4	5	5	6	7
3000	1	2	3	4	5	6	8	9	10	12
4000	1	3	5	6	8	10	12	14	16	18
5000	2	5	7	9	12	15	17	20	23	26
6000	3	7	10	13	17	21	24	28	32	36
7000	5	9	14	18	23	28	33	38	43	48
8000	6	12	19	25	31	37	44	51	57	64
9000	8	17	26	34	42	50	59	68	76	84
10000	11	23	34	45	56	67	78	89	99	110
11000	15	30	44	58	72	87	101	114	127	141
12000	19	38	56	74	92	110	128	145	162	179
13000	24	48	71	94	116	138	160	182	204	225
14000	30	59	88	117	145	172	199	226	253	279
15000	36	72	108	143	177	211	244	277	309	340
16000	44	87	130	172	213	254	294	333	372	409
17000	52	103	154	204	253	301	348	394	440	484
18000	61	121	180	238	295	351	406	460	513	565
19000	70	139	207	274	339	403	467	529	590	650
20000	80	159	236	312	386	459	531	602	671	739
21000	91	180	267	352	436	518	599	678	756	832
22000	102	202	300	395	489	581	671	759	845	930
23000	114	226	335	442	546	648	748	845	940	1035
24000								938	1043	1150

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FUZE, B.D., MK.X

PART 2d-1 TABLE 1b

HEAD WIND, EFFECTS IN YARDS OF RANGE, DUE TO

Range Yards	Head Wind - Miles Per Hour									
	5	10	15	20	25	30	35	40	45	50
1000	0	0	0	0	0	0	0	0	0	0
2000	0	0	-1	-1	-1	-1	-1	-1	-1	-1
3000	-1	-1	-2	-2	-3	-3	-3	-3	-3	-3
4000	-1	-2	-3	-4	-5	-6	-6	-7	-8	-8
5000	-2	-4	-6	-7	-9	-11	-12	-14	-15	-16
6000	-3	-6	-9	-12	-15	-18	-20	-23	-25	-28
7000	-4	-9	-13	-18	-22	-26	-30	-35	-39	-43
8000	-5	-12	-19	-25	-31	-37	-43	-50	-56	-62
9000	-8	-17	-26	-34	-43	-51	-60	-69	-78	-87
10000	-11	-25	-34	-46	-57	-69	-81	-93	-105	-117
11000	-15	-30	-45	-60	-75	-91	-106	-122	-138	-154
12000	-19	-38	-58	-77	-97	-117	-137	-158	-179	-200
13000	-24	-48	-73	-98	-124	-149	-175	-202	-228	-255
14000	-30	-61	-92	-123	-155	-187	-220	-253	-286	-320
15000	-37	-75	-113	-152	-191	-231	-271	-312	-354	-396
16000	-45	-90	-136	-183	-231	-279	-328	-378	-430	-482
17000	-53	-107	-162	-218	-274	-332	-391	-451	-512	-575
18000	-62	-125	-190	-255	-321	-389	-458	-529	-601	-675
19000	-72	-145	-219	-295	-372	-451	-531	-613	-697	-782
20000	-82	-165	-250	-337	-426	-517	-610	-705	-802	-901
21000	-92	-186	-283	-382	-484	-590	-699	-811	-927	-1048
22000	-103	-209	-318	-431	-549	-673	-805	-945	-1095	-1257
23000	-115									

FUZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XX

PART 2b-1 TABLE J

SHELL, T.P., 260 LB., MK.XVIII

NORMAL CHARGE - R.V. 2100 f/s

CROSS WIND EFFECTS

	In Mils					In Degrees				
Range	Cross Wind - Miles Per Hour									
Yards	10	20	30	40	50	10	20	30	40	50
1000	0.2	0.3	0.5	0.7	0.8	0.01	0.02	0.03	0.04	0.05
2000	0.3	0.7	1.0	1.4	1.7	0.02	0.04	0.06	0.08	0.10
3000	0.5	1.1	1.6	2.2	2.7	0.03	0.06	0.09	0.12	0.15
4000	0.8	1.5	2.3	3.1	3.8	0.04	0.08	0.13	0.17	0.21
5000	1.0	2.0	3.0	4.0	4.9	0.06	0.11	0.17	0.22	0.28
6000	1.2	2.4	3.7	4.9	6.1	0.07	0.14	0.21	0.27	0.34
7000	1.5	2.9	4.4	5.8	7.3	0.08	0.16	0.25	0.33	0.41
8000	1.7	3.4	5.1	6.8	8.6	0.10	0.19	0.29	0.38	0.48
9000	2.0	3.9	5.9	7.9	9.9	0.11	0.22	0.33	0.44	0.55
10000	2.2	4.5	6.7	9.0	11.2	0.13	0.25	0.38	0.50	0.63
11000	2.5	5.0	7.6	10.1	12.6	0.14	0.28	0.43	0.57	0.71
12000	2.8	5.6	8.4	11.2	14.0	0.15	0.32	0.47	0.63	0.79
13000	3.1	6.2	9.3	12.3	15.4	0.17	0.35	0.52	0.70	0.87
14000	3.4	6.7	10.1	13.5	16.8	0.19	0.38	0.57	0.76	0.95
15000	3.6	7.3	10.9	14.6	18.2	0.20	0.41	0.61	0.82	1.02
16000	3.9	7.8	11.7	15.6	19.5	0.22	0.44	0.66	0.88	1.10
17000	4.2	8.3	12.5	16.6	20.8	0.23	0.47	0.70	0.94	1.17
18000	4.4	8.8	13.2	17.6	22.0	0.25	0.50	0.74	0.99	1.24
19000	4.7	9.3	14.0	18.7	23.3	0.26	0.53	0.79	1.05	1.31
20000	5.0	9.9	14.9	19.8	24.7	0.28	0.56	0.84	1.11	1.39
21000	5.3	10.5	15.8	21.0	26.3	0.30	0.59	0.89	1.18	1.48
21500	5.5	10.9	16.4	21.8	27.3	0.31	0.62	0.92	1.23	1.54
22000	5.8	11.5	17.3	23.0	28.8	0.32	0.65	0.97	1.30	1.62
22180	6.1	12.2	18.4	24.5	30.6	0.34	0.69	1.03	1.38	1.72

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - N.V. 2100 f/s

FUZE, B.D., MK.X

PART 2b-1 TABLE K

ROTATION OF THE EARTH, DEFLECTION EFFECTS IN MILS DUE TO

Latitude 0°

Range Yards	Azimuth of Target - Degrees						
	0 360	30 330	60 300	90 270	120 240	150 210	180 180
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9000	+0.1-	0.0	0.0	0.0	0.0	0.0	-0.1+
10000	+0.1-	+0.1-	0.0	0.0	0.0	-0.1+	-0.1+
11000	+0.1-	+0.1-	0.0	0.0	0.0	-0.1+	-0.1+
12000	+0.1-	+0.1-	+0.1-	0.0	-0.1+	-0.1+	-0.1+
13000	+0.1-	+0.1-	+0.1-	0.0	-0.1+	-0.1+	-0.1+
14000	+0.2-	+0.2-	+0.1-	0.0	-0.1+	-0.2+	-0.2+
15000	+0.2-	+0.2-	+0.1-	0.0	-0.1+	-0.2+	-0.2+
16000	+0.3-	+0.2-	+0.1-	0.0	-0.1+	-0.2+	-0.3+
17000	+0.3-	+0.3-	+0.2-	0.0	-0.2+	-0.3+	-0.3+
18000	+0.4-	+0.3-	+0.2-	0.0	-0.2+	-0.3+	-0.4+
19000	+0.5-	+0.4-	+0.2-	0.0	-0.2+	-0.4+	-0.5+
20000	+0.7-	+0.5-	+0.3-	0.0	-0.3+	-0.5+	-0.7+
21000	+0.9-	+0.7-	+0.4-	0.0	-0.4+	-0.7+	-0.9+
22000	+1.3-	+1.1-	+0.6-	0.0	-0.6+	-1.1+	-1.3+
22180	+1.6-	+1.4-	+0.8-	0.0	-0.8+	-1.4+	-1.6+
	180 180	150 210	120 240	90 270	60 300	30 330	0 360
	Azimuth of Target - Degrees						

Latitude 0°

NOTE: A negative sign means that the effect is to the right; a positive sign, to the left. For the argument at the top of the tables, use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.

FUZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XX

PART 2b-1 TABLE K

SHELL, T.P., 260 LB., MK.XVIII

NORMAL CHARGE - M.V. 2100 f/s

ROTATION OF THE EARTH, DEFLECTION EFFECTS IN MILS DUE TO

Latitude 10° (North)

Range Yards	Azimuth of Target - Degrees						
	0 360	30 330	60 300	90 270	120 240	150 210	180 180
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3000	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+
4000	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+
5000	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+
6000	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+
7000	-0.1+	-0.1+	-0.1+	-0.1+	-0.2+	-0.2+	-0.2+
8000	-0.1+	-0.1+	-0.1+	-0.2+	-0.2+	-0.2+	-0.2+
9000	-0.1+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+
10000	-0.2+	-0.2+	-0.2+	-0.2+	-0.3+	-0.3+	-0.3+
11000	-0.2+	-0.2+	-0.2+	-0.3+	-0.3+	-0.3+	-0.3+
12000	-0.2+	-0.2+	-0.2+	-0.3+	-0.3+	-0.4+	-0.4+
13000	-0.2+	-0.2+	-0.2+	-0.3+	-0.4+	-0.4+	-0.5+
14000	-0.2+	-0.2+	-0.3+	-0.3+	-0.4+	-0.5+	-0.5+
15000	-0.2+	-0.2+	-0.3+	-0.4+	-0.5+	-0.6+	-0.6+
16000	-0.1+	-0.2+	-0.3+	-0.4+	-0.6+	-0.7+	-0.7+
17000	-0.1+	-0.2+	-0.3+	-0.5+	-0.6+	-0.7+	-0.8+
18000	-0.1+	-0.2+	-0.3+	-0.5+	-0.7+	-0.8+	-0.9+
19000	0.0	-0.1+	-0.3+	-0.5+	-0.8+	-1.0+	-1.1+
20000	+0.1-	0.0	-0.3+	-0.6+	-0.9+	-1.2+	-1.3+
21000	+0.2-	+0.2-	-0.2+	-0.7+	-1.1+	-1.4+	-1.6+
22000	+0.5-	+0.4-	-0.1+	-0.8+	-1.4+	-1.8+	-2.0+
22180	+0.7-	+0.6-	0.0	-0.8+	-1.6+	-2.2+	-2.4+
	180 180	150 210	120 240	90 270	60 300	30 330	0 360
	Azimuth of Target - Degrees						

Latitude 10° (South)

NOTE: A negative sign means that the effect is to the right; a positive sign, to the left. For the argument at the top of the tables use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.

SHELL, A.P., 250 LB., MK.XX
 SHELL, T.P., 250 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

Fuze, B.D., MK.X
 PART 2b-1 TABLE K

ROTATION OF THE EARTH, DEFLECTION EFFECTS IN MILS DUE TO

Latitude 20° (North)

Range Yards	Azimuth of Target - Degrees						
	0 360	30 330	60 300	90 270	120 240	150 210	180 180
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+
3000	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+
4000	-0.1+	-0.1+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+
5000	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+
6000	-0.2+	-0.2+	-0.2+	-0.2+	-0.3+	-0.3+	-0.3+
7000	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+
8000	-0.3+	-0.3+	-0.3+	-0.3+	-0.4+	-0.4+	-0.4+
9000	-0.3+	-0.3+	-0.4+	-0.4+	-0.4+	-0.4+	-0.4+
10000	-0.4+	-0.4+	-0.4+	-0.4+	-0.5+	-0.5+	-0.5+
11000	-0.4+	-0.4+	-0.5+	-0.5+	-0.5+	-0.6+	-0.6+
12000	-0.4+	-0.5+	-0.5+	-0.6+	-0.6+	-0.6+	-0.7+
13000	-0.5+	-0.5+	-0.5+	-0.6+	-0.7+	-0.7+	-0.7+
14000	-0.5+	-0.5+	-0.6+	-0.7+	-0.8+	-0.8+	-0.8+
15000	-0.5+	-0.6+	-0.6+	-0.7+	-0.8+	-0.9+	-1.0+
16000	-0.6+	-0.6+	-0.7+	-0.8+	-0.9+	-1.0+	-1.1+
17000	-0.6+	-0.6+	-0.7+	-0.9+	-1.1+	-1.2+	-1.2+
18000	-0.6+	-0.7+	-0.8+	-1.0+	-1.2+	-1.3+	-1.4+
19000	-0.6+	-0.7+	-0.9+	-1.1+	-1.3+	-1.5+	-1.6+
20000	-0.5+	-0.7+	-0.9+	-1.2+	-1.5+	-1.7+	-1.8+
21000	-0.5+	-0.6+	-0.9+	-1.3+	-1.7+	-2.0+	-2.1+
22000	-0.3+	-0.5+	-0.9+	-1.5+	-2.1+	-2.5+	-2.7+
22180	-0.2+	-0.4+	-0.9+	-1.6+	-2.3+	-2.9+	-3.1+
	180 180	150 210	120 240	90 270	60 300	30 330	0 360
	Azimuth of Target - Degrees						

Latitude 20° (South)

NOTE: A negative sign means that the effect is to the right; a positive sign, to the left. For the argument at the top of the tables use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.

FOZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XX

PART 2b-1 TABLE K

SHELL, T.P., 260 LB., MK.XVIII

NORMAL CHARGE - M.V. 2100 f/s

ROTATION OF THE EARTH, DEFLECTION EFFECTS IN MILS DUE TO

Latitude 30° (North)

Range Yards	Azimuth of Target - Degrees						
	0 360	30 330	60 300	90 270	120 240	150 210	180 180
1000	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+
2000	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+
3000	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+
4000	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+
5000	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+
6000	-0.3+	-0.3+	-0.3+	-0.4+	-0.4+	-0.4+	-0.4+
7000	-0.4+	-0.4+	-0.4+	-0.4+	-0.4+	-0.4+	-0.4+
8000	-0.5+	-0.5+	-0.5+	-0.5+	-0.5+	-0.5+	-0.5+
9000	-0.5+	-0.5+	-0.5+	-0.6+	-0.6+	-0.6+	-0.6+
10000	-0.6+	-0.6+	-0.6+	-0.6+	-0.7+	-0.7+	-0.7+
11000	-0.6+	-0.7+	-0.7+	-0.7+	-0.8+	-0.8+	-0.8+
12000	-0.7+	-0.7+	-0.8+	-0.8+	-0.9+	-0.9+	-0.9+
13000	-0.8+	-0.8+	-0.8+	-0.9+	-1.0+	-1.0+	-1.0+
14000	-0.8+	-0.9+	-0.9+	-1.0+	-1.1+	-1.1+	-1.1+
15000	-0.9+	-0.9+	-1.0+	-1.1+	-1.2+	-1.3+	-1.3+
16000	-1.0+	-1.0+	-1.1+	-1.2+	-1.3+	-1.4+	-1.4+
17000	-1.0+	-1.0+	-1.1+	-1.3+	-1.5+	-1.6+	-1.6+
18000	-1.1+	-1.1+	-1.2+	-1.4+	-1.6+	-1.8+	-1.8+
19000	-1.1+	-1.2+	-1.3+	-1.6+	-1.8+	-2.0+	-2.0+
20000	-1.1+	-1.2+	-1.4+	-1.7+	-2.0+	-2.2+	-2.3+
21000	-1.1+	-1.3+	-1.5+	-1.8+	-2.2+	-2.5+	-2.7+
22000	-1.1+	-1.3+	-1.7+	-2.2+	-2.7+	-3.1+	-3.3+
22180	-1.0+	-1.2+	-1.7+	-2.3+	-3.0+	-3.5+	-3.7+
	180 180	150 210	120 240	90 270	60 300	30 330	0 360
	Azimuth of Target - Degrees						

Latitude 30° (South)

NOTE: A negative sign means that the effect is to the right; a positive sign, to the left. For the argument at the top of the tables, use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FOZE, B.D., MK.X

PART 2b-1 TABLE K

ROTATION OF THE EARTH, DEFLECTION EFFECTS IN MILS DUE TO

Latitude 40° (North)

Range Yards	Azimuth of Target - Degrees						
	0 360	30 330	60 300	90 270	120 240	150 210	180 180
1000	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+
2000	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+
3000	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+
4000	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+
5000	-0.4+	-0.4+	-0.4+	-0.4+	-0.4+	-0.4+	-0.4+
6000	-0.4+	-0.4+	-0.4+	-0.5+	-0.5+	-0.5+	-0.5+
7000	-0.5+	-0.5+	-0.5+	-0.5+	-0.6+	-0.6+	-0.6+
8000	-0.6+	-0.6+	-0.6+	-0.6+	-0.6+	-0.7+	-0.7+
9000	-0.7+	-0.7+	-0.7+	-0.7+	-0.7+	-0.8+	-0.8+
10000	-0.8+	-0.8+	-0.8+	-0.8+	-0.9+	-0.9+	-0.9+
11000	-0.9+	-0.9+	-0.9+	-0.9+	-1.0+	-1.0+	-1.0+
12000	-0.9+	-1.0+	-1.0+	-1.0+	-1.1+	-1.1+	-1.1+
13000	-1.0+	-1.1+	-1.1+	-1.2+	-1.2+	-1.2+	-1.3+
14000	-1.1+	-1.2+	-1.2+	-1.3+	-1.3+	-1.4+	-1.4+
15000	-1.2+	-1.3+	-1.3+	-1.4+	-1.5+	-1.5+	-1.6+
16000	-1.3+	-1.4+	-1.4+	-1.5+	-1.6+	-1.7+	-1.8+
17000	-1.4+	-1.5+	-1.6+	-1.7+	-1.8+	-1.9+	-2.0+
18000	-1.5+	-1.6+	-1.7+	-1.8+	-2.0+	-2.1+	-2.2+
19000	-1.6+	-1.7+	-1.8+	-2.0+	-2.2+	-2.3+	-2.4+
20000	-1.7+	-1.8+	-2.0+	-2.2+	-2.4+	-2.6+	-2.7+
21000	-1.8+	-1.9+	-2.1+	-2.4+	-2.7+	-3.0+	-3.2+
22000	-1.9+	-2.0+	-2.3+	-2.8+	-3.3+	-3.6+	-3.8+
22180	-1.8+	-2.0+	-2.4+	-3.0+	-3.6+	-4.1+	-4.3+
	180 180	150 210	120 240	90 270	60 300	30 330	0 360
	Azimuth of Target - Degrees						

Latitude 40° (South)

NOTE: A negative sign means that the effect is to the right; a positive sign, to the left. For the argument at the top of the tables use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.

FUZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XX

PART 2b-1 TABLE K

SHELL, T.P., 260 LB., MK.XVIII

NORMAL CHARGE - M.V. 2100 f/s

ROTATION OF THE EARTH, DEFLECTION EFFECTS IN MILS DUE TO

Latitude 50° (North)

Range Yards	Azimuth of Target - Degrees						
	0 360	30 330	60 300	90 270	120 240	150 210	180 180
1000	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+
2000	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+
3000	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+
4000	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+	-0.4+	-0.4+
5000	-0.4+	-0.4+	-0.4+	-0.4+	-0.4+	-0.5+	-0.5+
6000	-0.5+	-0.5+	-0.5+	-0.5+	-0.5+	-0.6+	-0.6+
7000	-0.6+	-0.6+	-0.6+	-0.6+	-0.7+	-0.7+	-0.7+
8000	-0.7+	-0.7+	-0.7+	-0.7+	-0.8+	-0.8+	-0.8+
9000	-0.8+	-0.8+	-0.8+	-0.9+	-0.9+	-0.9+	-0.9+
10000	-0.9+	-0.9+	-1.0+	-1.0+	-1.0+	-1.0+	-1.0+
11000	-1.0+	-1.1+	-1.1+	-1.1+	-1.1+	-1.2+	-1.2+
12000	-1.2+	-1.2+	-1.2+	-1.2+	-1.3+	-1.3+	-1.3+
13000	-1.3+	-1.3+	-1.3+	-1.4+	-1.4+	-1.5+	-1.5+
14000	-1.4+	-1.4+	-1.5+	-1.5+	-1.6+	-1.6+	-1.6+
15000	-1.5+	-1.5+	-1.6+	-1.7+	-1.7+	-1.8+	-1.8+
16000	-1.6+	-1.7+	-1.7+	-1.8+	-1.9+	-2.0+	-2.0+
17000	-1.8+	-1.8+	-1.9+	-2.0+	-2.1+	-2.2+	-2.2+
18000	-1.9+	-2.0+	-2.1+	-2.2+	-2.3+	-2.4+	-2.5+
19000	-2.1+	-2.1+	-2.2+	-2.4+	-2.5+	-2.7+	-2.8+
20000	-2.2+	-2.3+	-2.4+	-2.6+	-2.8+	-3.0+	-3.1+
21000	-2.4+	-2.5+	-2.7+	-2.9+	-3.2+	-3.4+	-3.5+
22000	-2.6+	-2.7+	-3.0+	-3.4+	-3.8+	-4.1+	-4.2+
22180	-2.6+	-2.7+	-3.1+	-3.6+	-4.1+	-4.5+	-4.6+
	180 180	150 210	120 240	90 270	60 300	30 330	0 360
	Azimuth of Target - Degrees						

Latitude 50° (South)

NOTE: A negative sign means that the effect is to the right; a positive sign, to the left. For the argument at the top of the tables, use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.

SHELL, A.P., 260 LB., MK.XX
 SHELL, T.P., 260 LB., MK.XVIII
 NORMAL CHARGE - M.V. 2100 f/s

FUZE, B.D., MK.X

PART 2b-1 TABLE K

ROTATION OF THE EARTH, DEFLECTION EFFECTS IN MILS DUE TO

Latitude 60° (North)

Range Yards	Azimuth of Target - Degrees						
	0 360	30 330	60 300	90 270	120 240	150 210	180 180
1000	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+
2000	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+
3000	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+
4000	-0.4+	-0.4+	-0.4+	-0.4+	-0.4+	-0.4+	-0.4+
5000	-0.5+	-0.5+	-0.5+	-0.5+	-0.5+	-0.5+	-0.5+
6000	-0.6+	-0.6+	-0.6+	-0.6+	-0.6+	-0.6+	-0.6+
7000	-0.7+	-0.7+	-0.7+	-0.7+	-0.7+	-0.7+	-0.7+
8000	-0.8+	-0.8+	-0.8+	-0.9+	-0.9+	-0.9+	-0.9+
9000	-1.0+	-1.0+	-1.0+	-1.0+	-1.0+	-1.0+	-1.0+
10000	-1.1+	-1.1+	-1.1+	-1.1+	-1.1+	-1.1+	-1.1+
11000	-1.2+	-1.2+	-1.2+	-1.3+	-1.3+	-1.3+	-1.3+
12000	-1.3+	-1.3+	-1.4+	-1.4+	-1.4+	-1.4+	-1.5+
13000	-1.5+	-1.5+	-1.5+	-1.6+	-1.6+	-1.6+	-1.6+
14000	-1.6+	-1.6+	-1.7+	-1.7+	-1.8+	-1.8+	-1.8+
15000	-1.8+	-1.8+	-1.8+	-1.9+	-1.9+	-2.0+	-2.0+
16000	-1.9+	-1.9+	-2.0+	-2.1+	-2.1+	-2.2+	-2.2+
17000	-2.1+	-2.1+	-2.2+	-2.3+	-2.4+	-2.4+	-2.4+
18000	-2.3+	-2.3+	-2.4+	-2.5+	-2.6+	-2.6+	-2.7+
19000	-2.4+	-2.5+	-2.6+	-2.7+	-2.8+	-2.9+	-3.0+
20000	-2.6+	-2.7+	-2.8+	-3.0+	-3.1+	-3.2+	-3.3+
21000	-2.9+	-3.0+	-3.1+	-3.3+	-3.5+	-3.6+	-3.7+
22000	-3.2+	-3.3+	-3.5+	-3.8+	-4.1+	-4.3+	-4.4+
22180	-3.3+	-3.4+	-3.7+	-4.1+	-4.5+	-4.8+	-4.9+
	180 180	150 210	120 240	90 270	60 300	30 330	0 360
	Azimuth of Target - Degrees						

Latitude 60° (South)

NOTE: A negative sign means that the effect is to the right; a positive sign, to the left. For the argument at the top of the tables use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.

FUZE, B.D., MK.X

SHELL, A.P., 260 LB., MK.XX

PART 2b-1 TABLE K

SHELL, T.P., 260 LB., MK.XVIII

NORMAL CHARGE - M.V. 2100 f/s

ROTATION OF THE EARTH, DEFLECTION EFFECTS IN MILS DUE TO

Latitude 70° (North)

Range Yards	Azimuth of Target - Degrees						
	0 360	30 330	60 300	90 270	120 240	150 210	180 180
1000	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+	-0.1+
2000	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+	-0.2+
3000	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+	-0.3+
4000	-0.4+	-0.4+	-0.4+	-0.4+	-0.4+	-0.4+	-0.4+
5000	-0.5+	-0.5+	-0.5+	-0.5+	-0.5+	-0.5+	-0.5+
6000	-0.7+	-0.7+	-0.7+	-0.7+	-0.7+	-0.7+	-0.7+
7000	-0.8+	-0.8+	-0.8+	-0.8+	-0.8+	-0.8+	-0.8+
8000	-0.9+	-0.9+	-0.9+	-0.9+	-0.9+	-0.9+	-0.9+
9000	-1.0+	-1.0+	-1.1+	-1.1+	-1.1+	-1.1+	-1.1+
10000	-1.2+	-1.2+	-1.2+	-1.2+	-1.2+	-1.2+	-1.2+
11000	-1.3+	-1.3+	-1.3+	-1.4+	-1.4+	-1.4+	-1.4+
12000	-1.5+	-1.5+	-1.5+	-1.5+	-1.5+	-1.5+	-1.6+
13000	-1.6+	-1.6+	-1.7+	-1.7+	-1.7+	-1.7+	-1.7+
14000	-1.8+	-1.8+	-1.8+	-1.9+	-1.9+	-1.9+	-1.9+
15000	-2.0+	-2.0+	-2.0+	-2.0+	-2.1+	-2.1+	-2.1+
16000	-2.1+	-2.2+	-2.2+	-2.2+	-2.3+	-2.3+	-2.3+
17000	-2.3+	-2.4+	-2.4+	-2.5+	-2.5+	-2.6+	-2.6+
18000	-2.5+	-2.6+	-2.6+	-2.7+	-2.8+	-2.8+	-2.8+
19000	-2.8+	-2.8+	-2.8+	-2.9+	-3.0+	-3.1+	-3.1+
20000	-3.0+	-3.0+	-3.1+	-3.2+	-3.3+	-3.4+	-3.5+
21000	-3.3+	-3.3+	-3.4+	-3.6+	-3.7+	-3.8+	-3.9+
22000	-3.7+	-3.8+	-3.9+	-4.1+	-4.3+	-4.4+	-4.5+
22180	-3.9+	-4.0+	-4.2+	-4.4+	-4.7+	-4.9+	-5.0+
	180 180	150 210	120 240	90 270	60 300	30 330	0 360
	Azimuth of Target - Degrees						

Latitude 70° (South)

NOTE: A negative sign means that the effect is to the right; a positive sign, to the left. For the argument at the top of the tables use the sign that precedes the number; for the argument at the bottom, the sign that follows the number. Azimuth is measured clockwise from the North.