



H. P. WHITE LABORATORY
EST. 1936

ONE TEST IS WORTH A THOUSAND EXPERT OPINIONS.
— THE RIEHLE AXIOM

APPENDIX A - DATA RECORDS

EVALUATION OF THE CALIBER 5.56MM,
M16A1 RIFLE IN ACCORDANCE WITH
NATO DOCUMENT AC/225 (PANEL III) D/14

Prepared For

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PRELIMINARY INSPECTION DATA

Time and tools necessary for:

- A. Complete disassembly (see Figures 10 and 11)
 - 1. 45 minutes
 - 2. Punch 1/16 inch, punch 1/8 inch, punch 1/4 inch, hammer, screw driver, adjustable wrench, snap ring pliers, needle nose pliers.
- B. Complete reassembly (see Figures 10 and 11)
 - 1. 75 minutes
 - 2. Punch 1/16 inch, punch 1/8 inch, punch 1/4 inch, hammer, screw driver, adjustable wrench, snap ring pliers, needle nose pliers, torque wrench
- C. Field strip (see Figure 9)
 - 1. 48.3 seconds
 - 2. One (1) 5.56mm Ball round
- D. Reassembly (see Figure 9)
 - 1. 1 minute, 10.3 seconds
 - 2. None

PRELIMINARY INSPECTION DATA

(Physical Audit)

Serial No.	Function	Control Audit				Headspace*	
		Firing Pin Protrusion (in.)	Trigger Pull (lbs.)	Bore (in.)	Unsupported Cartridge Length (in.)	Go	No-Go
4917684	satisfactory	.034	7.0	.220	.006	OK	OK
4911447	satisfactory	.030	6 3/4	.220	.006	OK	unsatisfactory**
4906393	satisfactory	.032	6 1/2	.220	.006	OK	OK
4915674	satisfactory	.032	9.0	.219	.006	OK	unsatisfactory**
4920720	satisfactory	.031	8 3/4	.220	.006	OK	OK
4921606	satisfactory	.033	8 3/4	.220	.006	OK	OK
4907194	satisfactory	.032	7 3/4	.220	.006	OK	OK
4917323	satisfactory	.032	9.0	.219	.006	OK	OK
4925366	satisfactory	.030	8.0	.220	.006	OK	OK
4925914	satisfactory	.032	8 3/4	.219	.006	OK	OK
4914642	satisfactory	.033	10.0	.219	.006	OK	OK
*Headspace Gage:		"Go" = 1.4636 inches					
		"No-Go" = 1.4676 inches					
**Accepted		1.4676-inch "No-Go" gage but would not accept 1.4686-inch gage.					

PRELIMINARY INSPECTION DATA

(Spring Displacement Data)

Nomenclature: Spring, Magazine Catch (FSN 1005-992-7301)

Serial Number					
4917684		4911447		4906393	
Displacement (in.)	Weight (lbs.)	Displacement (in.)	Weight (lbs.)	Displacement (in.)	Weight (lbs.)
1.18	0	1.17	0	1.22	0
1.0	1.5	1.0	2.0	1.0	2.0
0.75	4.0	0.75	4.25	0.75	4.0
0.5	6.0	0.5	5.75	0.5	5.75
0.31	7.25	0.31	7.9	0.31	7.75
0.25	7.75	0.25	8.0	0.25	8.0

PRELIMINARY INSPECTION DATA
 (Spring Displacement Data)

Nomenclature: Spring, Ejector and Safety Detent (FSN 1005-992-7292)

Serial Number					
4917684		4911447		4906393	
Displacement (in.)	Weight (lbs.)	Displacement (in.)	Weight (lbs.)	Displacement (in.)	Weight (lbs.)
.932	0	.925	0	.925	0
.900	1.0	.900	2.0	.900	1.0
.850	3.5	.850	4.0	.850	2.75
.800	4.75	.800	5.0	.800	4.75
.625	13.0	.625	14.0	.625	14.0

PRELIMINARY INSPECTION DATA

(Spring Displacement Data)

Nomenclature: Spring, Hammer (FSN 1005-992-6648)

Serial Number					
4917684		4911447		4906393	
Deflection (degrees)	Weight (lbs.)	Deflection (degrees)	Weight (lbs.)	Deflection (degrees)	Weight (lbs.)
60	2.0	63	1.75	63	2.25
70	2.5	72	2.5	72	2.75
80	2.5	81	2.75	81	3.0
90	2.5	90	3.0	90	3.25
100	2.5	99	3.5	99	3.25
110	2.75	108	3.6	108	3.3
120	3.25	117	3.6	117	3.4
130	3.25	126	3.6	126	3.75
140	3.5	135	3.75	135	3.75
150	3.75	144	4.5	144	4.0
160	3.75	153	4.75	153	4.25

PRELIMINARY INSPECTION DATA
(Spring Displacement Data)

Nomenclature: Spring, Trigger (FSN 1005-992-7308)

Serial Number					
4917684		4911447		4906393	
Deflection (degrees)	Weight (lbs.)	Deflection (degrees)	Weight (lbs.)	Deflection (degrees)	Weight (lbs.)
30	1.0	36	1.0	36	1.2
40	1.2	45	1.2	45	1.2
50	1.5	54	1.5	54	2.0
60	2.0	63	1.9	63	2.1
70	2.5	72	2.0	72	2.2

PRELIMINARY INSPECTION DATA

(Spring Displacement Data)

Nomenclature: Spring, Magazine (FSN 1005-056-2237)

Serial Number					
4917684		4911447		4906393	
Weight (lbs.)	Displacement (in.)	Weight (lbs.)	Displacement (in.)	Weight (lbs.)	Displacement (in.)
0	7 1/2	0	7 13/16	0	7 5/8
3.0	4	2.4	4	2.4	4
3.2	3 1/2	3.0	3 1/2	3.0	3 1/2
4.0	3	3.4	3	3.4	3
4.2	2 1/2	4.0	2 1/2	3.9	2 1/2
4.7	2	4.4	2	4.2	2
6.2	5/8 (compressed)	6.0	5/8 (compressed)	6.0	5/8 (compressed)

PRELIMINARY INSPECTION DATA

(Spring Displacement Data)

Nomenclature: Spring, Action (FSN 1005-992-6665)

Serial Number					
4917684		4911447		4906393	
Weight (lbs.)	Displacement (in.)	Weight (lbs.)	Displacement (in.)	Weight (lbs.)	Displacement (in.)
0	12 7/16	0	12 5/16	0	11 7/8
5.0	9	5.0	9	4.2	9
6.2	8	6.4	8	5.8	8
9.8	6	9.2	6	8.4	6
12.8	4	12.2	4	11.8	4
15.4	3 1/4 (compressed)	14.0	3 3/16 (compressed)	13.0	3 7/32 (compressed)

CHARACTERISTICS EXAMINATION DATA

Nomenclature: Rifle, 5.56mm, M16A1

Physical Audit

Weight:	Without accessories or magazine	6.8 pounds
	With loaded magazine	7.6 pounds
	With loaded magazine and accessories	10.1 pounds
Length:	Without accessories	39 inches
	With accessories (bayonet only)	44 1/4 inches
Barrel:	Length with flash suppressor	21 1/8 inches
	Length without flash suppressor	19 3/4 inches
	Rifling - Number of grooves	6
	Pitch, including direction of twist	Right hand 1 turn in 12 inches
	Diameter across grooves	.224 inch
	Diameter across bore	.220 inch
Sighting:	Front sight	Adjustable click
	Rear sight	Two-position flip type, short and long range
	Sight radius	19.75 inches
	Height of sight line above bore line	2.50 inches
	Distance from rear sight to a line projected from the top rear of the stock, this line being perpendicular to the bore axis	12 1/8 inches
Magazine capacity and weight:	Loaded	20 rounds/11 ounces
	Loaded	30 rounds/16 ounces
	Empty	20 rounds/3 ounces
	Empty	30 rounds/4 ounces

Functional Description

Operation:	Gas
Gas adjustment:	None
Regulation of fire:	Semi and auto
Mechanism position:	Closed bolt
Extraction:	Claw type
Ejection:	Plunger

CHARACTERISTICS EXAMINATION DATA (Continued)

Functional Description (Continued)

Cocking:	Cocks with opening of bolt
Flash hider:	Bar flash suppressor
Muzzle compensating device:	None
Other ancillary equipment:	Bayonet Bayonet scabbard Bipod Bipod case Cleaning rod Cleaning brush, case, and 5-ounce bottle Bore and chamber cleaning brushes 30-round magazine

PRELIMINARY FIRING TEST DATA
(Proof Firing, Ref. 2.2.2, b)

Ammunition: Cartridge, Test, High Pressure, M197

Rifle Serial No.	Headspace*	
	Initial	After Firing
4917684	OK	OK
4911447	Unsatisfactory**	Unsatisfactory**
4906393	OK	Unsatisfactory**
4915674	Unsatisfactory**	Unsatisfactory**
4920720	OK	OK
4921606	OK	OK
4907194	OK	OK
4917323	OK	OK
4925366	OK	OK
4925914	OK	OK
4914642	OK	OK
*Headspace Gages:	"Go" = 1.4636 inches "No-Go" = 1.4676 inches	
**Accepted 1.4676-inch "No-Go" gage but would not accept 1.4686-inch gage.		

FIRING RECORD

H. P. WHITE LABORATORY
 BEL AIR, MARYLAND 21014

JOB NO. 1892

Ammunition: 5.56mm Ball M193

Case:	Used X:	Catalog No.:
Primer:	Loader:	Lot No.: FC-40
Powder: gr.	On:	Seating Depth:
Bullet: gr.		Overall Length:

Weapon: M16A1	Ser. No.: 4917684	Bbl. Length:
Bore: .220 inch Groove	Number:	Twist:

Round No.	VELOCITY		PRESSURE		REMARKS
	Time	f. p. s.	Lo=		
	Over fr.	@	Lc	p. s. i.	
	.00633	3160			fouling round
	.00633	3160			fouling round
1	.00633	3160			
2	.00633	3160			
3	.00637	3140-			
4	.00624	3205			
5	.00621	3221			
6	.00623	3210			
7	.00625	3200			
8	.00623	3210			
9	.00625	3200			Average: 3193 fps
10	.00621	3221+			Extreme Variation: 81 fps
1	.00626	3195			
2	.00629	3180-			
3	.00626	3195			
4	.00628	3185			
5	.00619	3231			
6	.00621	3221			
7	.00614	3257+			
8	.00628	3185			
9	.00620	3226			Average: 3208 fps
10	.00623	3210			Extreme Variation: 77 fps

	Velocity	Pressure	CLIENT
Average:			
Extreme Var.:			
Mean Var.:			
Standard Dev.:			

Range Conditions:	Barometer:	Date: 27 June 1973
Dry Bulb Temp:	Wind:	Range:
Wet Bulb Temp.:	Chronograph No. 1	Gunner: Black
Rel. Humidity:	Screens @ 5 and 25 feet	Recorder: Blackburn

FIRING RECORD

H. P. WHITE LABORATORY
 BEL AIR, MARYLAND 21014

JOB NO. 1892

Ammunition: 5.56mm Ball 193

Case:	Used X:	Catalog No.:
Primer:	Loader:	Lot No.: FC-40
Powder: gr.	On:	Seating Depth:
Bullet: gr.		Overall Length:
Weapon: M16A1		Ser. No.: 4911447
Bore: .220 inch	Groove	Number:
		Bbl. Length:
		Twist:

Round No.	VELOCITY		PRESSURE		REMARKS
	Time	f. p. s.	Lo=		
	Over	fr. @	Lc	p. s. i.	
	.00632	3165			fouling round
	.00627	3190			fouling round
1	.00625	3200			
2	.00620	3226			
3	.00631	3170-			
4	.00627	3190			
5	.00624	3205			
6	.00620	3226			
7	.00625	3200			
8	.00628	3185			
9	.00620	3226+			Average: 3201 fps
10	.00629	3180			Extreme Variation: 56 fps
1	.00623	3210			
2	.00625	3200			
3	.00637	3140-			
4	.00632	3165			
5	.00621	3221			
6	.00622	3215			
7	.00618	3236			
8	.00620	3226			
9	.00617	3242+			Average: 3207 fps
10	.00622	3215			Extreme Variation: 102 fps

	Velocity	Pressure	CLIENT
Average:			
Extreme Var.:			
Mean Var.:			
Standard Dev.:			

Range Conditions:	Barometer:	Date: 27 June 1973
Dry Bulb Temp:	Wind:	Range:
Wet Bulb Temp.:	Chronograph No. 1	Gunner: Black
Rel. Humidity:	Screens @ 5 and 25 feet	Recorder: Blackburn

PRELIMINARY FIRING TEST DATA
(Cyclic Rate, Ref. 2.2.2, g)

Serial No.	Time of 20-Round Burst (sec.)				
4917684	1.4	1.5	1.4	1.4	1.4
4911447	1.5	1.4	1.4	1.4	1.4
4906393	1.5	1.5	1.5	1.4	1.4

COLD TEST DATA

(Ref. 2.14.1, NATO D/14)

Two (2) M16A1 rifles (Serial Nos. 4915674 and 4920720) were prepared and fired in accordance with Paragraph 2.14.1 of D/14. A rigid mount was positioned within the cold chamber and the rifles mounted, conditioned and fired from this mount. Each rifle was inspected prior to its introduction into the chamber and after each 600 rounds of firing. Muzzle caps were installed and dust covers closed during the conditioning cycles of this test. The rifles were conditioned with a full magazine, a chambered round and the selector in the safe position for a minimum of six (6) hours at -65° F (± 5° F) prior to each firing sequence.

Serial No. 4915674

Date	Cold Conditioning		Firing (Note 1)			Remarks
	Start	Complete	Semi 30 rds.	Auto 30 rds.	Burst 40 rds.	
6/27/73	1000	1600	OK	OK	OK	
	1700	2300	OK	OK	OK	
6/28/73	0000	0800	OK	OK	OK	
	0900	1500	OK	OK	OK	
	1530	2230	OK	OK	OK	
	2300	----	--	--	--	
6/29/73	----	0800	OK	OK	OK	
			--Cleaning--			
	0900	1500	OK	OK	OK	
	1530	2230	OK	OK	OK	
	2300	----	--	--	--	
6/30/73	----	0800	OK	OK	OK	
	0900	1500	OK	OK	OK	
	1600	2300	OK	OK	OK	
7/1/73	0900	1500	OK	OK	OK	
			--Cleaning--			
	1600	2200	OK	OK	OK	
	2300	----	--	--	--	
7/2/73	----	0800	OK	OK	OK	
	0900	1500	OK	OK	OK	
	1600	2200	OK	OK	OK	
	2300	----	--	--	--	
7/3/73	----	0800	OK	OK	OK	
	0900	1500	FBR (2)	OK	OK	
			--Cleaning--			

COLD TEST DATA (Continued)

Serial No. 4915674 (Continued)

Date	Conditioning Time		Firing (Note 1)			Remarks
	Start	Complete	Semi 30 rds.	Auto 30 rds.	Burst 40 rds.	
7/3/73	1600	2200	FBR	OK	OK	WEP
	2300	-----	---	--	--	
	-----	0800	OK	OK	OK	
	0900	1500	OK	OK	OK	
	1600	2200	OK	OK	OK	
	2300	-----	---	--	--	
7/4/73	-----	0800	OK	OK	OK	FBR/WEP, FFR/WEP (Rd. 18)
7/5/73	0900	1500	FBR	OK	FBR	
--Cleaning--						
7/6/73	1600	2200	Note (2)	OK	OK	WEP
	0900	1530	OK	FBR	OK	WEP
	1600	2200	OK	OK	FFR	WEP (Rd. 1)
	2300	-----	--	--	--	
7/7/73	-----	0800	OK	OK	OK	WEP, WEP
	0900	1500	(Note 3)	OK	OK	
	1600	2200	FBR	FBR	OK	
Note 1:	Chamber temperature during firing increased to between -55° F and -50°F.					
Note 2:	First eighteen (18) rounds of the first magazine in this phase fired alternately with trigger pull and trigger release.					
Note 3:	Round 6 fired on release of trigger after firing Round 5.					

COLD TEST DATA (Continued)

Serial No. 4920720

Date	Cold Conditioning		Firing (Note 1)			Remarks
	Start	Complete	Semi 30 rds.	Auto 30 rds.	Burst 40 rds.	
7/17/73	1630	----	---	---	---	
7/18/73	----	0800	OK	OK	OK	
	0900	1500	OK	OK	OK	
	1600	2200	OK	OK	OK	
7/19/73	0800	1500	FF, FBR	OK	OK	FBR/WEP, FF/Unk (Rd. 3)
	1600	2200	OK	OK	OK	
	2300	----	---	---	---	
7/20/73	----	0800	FFR, FJ	FBR	OK	FBR/WEP, FFR/WEP (Rd. 1) FJ/WEP (Rd. 3)
			--Cleaning--			
	0900	1500	OK	OK	OK	
7/21/73	1600	2200	OK	OK	OK	
	2300	----	---	---	---	
	----	0800	OK	FF	FF	WEP (Rds. 3 and 4) FBR/WEP, FF/WEP (Rd. 3) WEP (Rd. 3)
	0900	1500	OK	FF	FBR	
1600	2200	OK	OK	FF		
2300	----	---	---	---		
7/22/73	----	0800	OK	FF (2)	OK	WEP (Rds. 3 and 10)
			--Cleaning--			
	0900	1500	OK	FFR	OK	
7/23/73	1600	2200	OK	OK	OK	WEP (Rd. 21)
	2300	----	---	---	---	
	----	0800	OK	OK	OK	
	0900	1500	FBR, F2R	OK	OK	
7/23/73	1600	2200	FF	OK	OK	FBR/WEP, F2R/Unk (Rds. 1 and 2) FF/WEP (Rd. 2)
	2300	----	---	---	---	
	----	0800	FBR	OK	OK	
7/24/73	----	0800	FBR	OK	OK	WEP
			--Cleaning--			
	0900	1500	OK	OK	OK	
7/24/73	1600	2200	OK	OK	OK	
	2300	----	---	---	---	

COLD TEST DATA (Continued)

Serial No. 4920720 (Continued)

Date	Cold Conditioning		Firing (Note 1)			Remarks	
	Start	Complete	Semi 30 rds.	Auto 30 rds.	Burst 40 rds.		
7/25/73	----	0800	OK	OK	OK		
	0900	1500	OK	OK	OK		
	1600	2200	OK	OK	OK		
	2300	----	---	---	---		
7/26/73	----	0800	OK	OK	OK		
	--Cleaning--						
	0900	1500	OK	OK	OK		
	1600	2200	OK	OK	OK		
7/27/73	----	0800	OK	OK	OK	WEP (Rd. 3)	
	0900	1500	OK	OK	OK		
	1600	2200	OK	FF	OK		
	2300	----	---	---	---		
7/28/73	----	0800	FBC	OK	OK	WEP (Rd. 12)	
Note 1:	Chamber temperature during firing increased to between -55° F and -50° F.						

ICING TEST DATA

(Ref. 2.14.4, NATO D/14)

Two (2) M16A1 rifles (Serial Nos. 4920720 and 4912365) were prepared in accordance with Paragraph 2.14.4 of D/14. During the six (6) hour conditioning period at -20° F (\pm 5° F) muzzle caps were in place, dust covers closed and the selector placed in the semi-automatic position. The ice build up on Rifle Serial No. 4920720 at the initiation of firing tests was approximately 1/8 inch while that of Rifle Serial No. 4912365 was approximately 1/4 inch. Each rifle was then mounted and fired in a rigid mount.

Rifle Serial No. 4920720 (1/8 inch ice accumulation)

The initial charging of the rifle required the use of both hands to overcome the ice accumulation. Ten (10) rounds were fired in each of the semi- and full automatic modes of fire without malfunction. However, the bolt did not remain in the open position after firing the last round.

Rifle Serial No. 4912365 (1/4 inch ice accumulation)

In order to retract the bolt to load the initial round the base of the bayonet was used to tap and loosen the accumulation of ice in the area of the bolt and charging handle. Chambering of the initial round required repeated operation of the bolt and carrier and application of repeated blows to the forward assist assembly with the base of the bayonet. After the initial round was chambered, no further difficulty or malfunctions were encountered in firing ten (10) rounds in each of the semi- and full automatic modes of fire. After firing the last round, the bolt did not remain in the rearward position.

WATER SPRAY TEST DATA
(Ref. 2.18.2, NATO D/14)

Date: 30 July 1973
Serial No.: 4915674

Water Temperature: 62° F
Air Temperature: 71° F

	Exposure Time (min.)		Rain (ins.)	
	Increments	Cumulative	Increments	Cumulative
<u>Horizontal</u>				
Bolt open	5.1	5.1	1.8	1.8
Loaded, bolt closed	4.8	9.9	2.0	3.8
100 rounds semi-automatic (see Note 1)	4.7	14.6	2.1	5.9
Bolt open	4.7	19.3	2.0	7.9
Loaded, bolt closed	5.0	24.3	1.8	9.7
100 rounds full automatic (see Notes 2, 3 and 4)	0.1	24.4	0.2	9.9
Bolt open	5.1	29.5	2.1	12.0
Loaded, bolt closed	4.9	34.4	2.1	14.1
100 rounds full automatic (see Note 5)	4.0	38.4	1.7	15.8
<u>Muzzle Up</u>				
Bolt open	4.8	43.2	1.9	17.7
Loaded, bolt closed	5.1	48.3	2.1	19.8
Opened and drained				
100 rounds semi-automatic (see Note 6)	4.0	52.3	1.5	21.3
Bolt open	5.1	57.4	2.0	23.3
Loaded, bolt closed	5.0	62.4	2.0	25.3
Opened and drained				
100 rounds full automatic (see Note 7)	3.9	66.3	1.3	26.6
<u>Muzzle Down</u>				
Bolt open	5.0	71.3	2.0	28.6
Loaded, bolt closed	5.0	76.3	1.9	30.5
Opened and drained				
100 rounds semi-automatic (see Note 6)	4.0	80.3	1.6	32.1

WATER SPRAY TEST DATA (Cont'd.)

	Exposure Time (min.)		Rain (ins.)	
	Increments	Cumulative	Increments	Cumulative
<u>Muzzle Down (Cont'd.)</u>				
Bolt open	5.1	85.4	2.1	34.2
Loaded, bolt closed	5.1	90.5	2.0	36.2
Opened and drained 100 rounds full automatic	3.9	94.4	1.5	37.7
(see Note 7)		(see Note 8)		(see Note 8)
<p>Note 1: Three (3) malfunctions occurred in semi-automatic fire. The third, second and third rounds of the first, second and third magazines, respectively, did not feed.</p> <p>Note 2: The first round of the first magazine of full automatic fire ruptured its case, bending the extractor and dismounted the magazine.</p> <p>Note 3: The rifle was fitted with a new bolt and bolt carrier and the full automatic portion of the conditioning and firing repeated except that the rifle was drained and remounted at the completion of the "Loaded, Bolt Closed" conditioning and prior to the firing sequence.</p> <p>Note 4: Subsequent examination of the rifle uncovered a bulge of approximately .010 inch, 2 inches from the muzzle of the barrel.</p> <p>Note 5: No malfunctions were encountered in the second full automatic firing sequence.</p> <p>Note 6: No malfunctions were encountered in semi-automatic fire.</p> <p>Note 7: No malfunctions were encountered in full automatic fire.</p> <p>Note 8: Includes partial retesting in horizontal portion of test.</p>				

WATER SPRAY TEST DATA (Cont'd.)

Date: 30 July 1973
 Serial No.: 4906393

Water Temperature: 62° F
 Air Temperature: 71° F

	Exposure Time (min.)		Rain (ins.)	
	Increments	Cumulative	Increments	Cumulative
<u>Horizontal</u>				
Bolt open	5.0	5.0	1.5	1.5
Loaded, bolt closed	4.8	9.8	1.8	3.3
100 rounds semi-automatic	4.6	14.4	2.0	5.3
Bolt open	4.8	19.2	1.5	6.8
Loaded, bolt closed	5.0	24.2	1.9	7.7
100 rounds full automatic	2.0	26.2	1.0	8.7
<u>Muzzle Up</u>				
Bolt open	4.7	29.4	2.0	10.7
Loaded, bolt closed	5.1	34.5	2.1	12.8
Opened and drained				
100 rounds semi-automatic	4.0	38.5	1.8	14.6
Bolt open	5.0	43.5	2.2	16.8
Loaded, bolt closed	4.5	48.0	2.0	18.8
Opened and drained				
100 rounds full automatic	2.0	50.0	1.8	20.6
<u>Muzzle Down</u>				
Bolt open	5.1	55.1	2.3	22.9
Loaded, bolt closed	4.7	59.8	2.1	25.0
Opened and drained				
100 rounds semi-automatic	1.0	60.8	1.5	26.5
Bolt open	4.9	65.7	2.1	28.6
Loaded, bolt closed	4.9	70.6	2.1	30.7
Opened and drained				
100 rounds full automatic	4.0	74.6	1.9	32.6
Note 1: No malfunctions were encountered in any of the firing sequences.				

DROP TEST DATA
(Ref. 2.20.3, NATO D/14)

Rifle: Serial Nos. 4916881 and 4912365

Drop Configuration: New condition with blank round in chamber, full magazine of blank cartridges in place, cocked and safety in "safe" position.

Impact Surface: Meadowland in accordance with Paragraph 2.20.3.1 of D/14

Drop Height: 40 feet

Drop	Impact Orientation (1)	4916881	Impact Orientation (1)	4912365
1	Right Side Muzzle Down 45°	Right Handguard Cracked	Muzzle Up 80°-90°	Stock Broken (See Photo)
2	Horizontal, Handguard Up	No New Damage	Handguard Up, Butt Down 45°	Stock Damage Increased
3	Left Side Butt Down 20°-30°	Left Handguard Cracked	Left Side, Flat	No Additional Damage
(1)	Rifles were released in normal horizontal attitude and were free to assume a random impact attitude. Recorded impact attitudes are based on test personnel observations.			
(2)	No primer initiations occurred during this test.			

DROP TEST DATA (Continued)

Range: 100 yards

Mode: Machine Rest

Ammunition: Ball, M193

Drop Height: 40 feet

Round	Serial No. 4912365				Serial No. 4916881			
	Prior To Dropping		After Dropping		Prior To Dropping		After Dropping	
	x	y	x	y	x	y	x	y
1	+2.3	-1.5	+0.3	-0.4	+6.9	-4.1	+0.2	-5.2
2	+1.9	-1.6	+0.2	-1.3	+7.4	-4.3	-0.1	-5.9
3	+2.7	-2.1	+0.4	-1.6	+8.1	-4.2	+1.0	-5.7
4	+0.5	-2.7	-1.8	-2.3	+6.6	-4.9	+1.2	-5.8
5	+1.4	-3.6	-0.8	-2.4	+5.6	-5.5	+2.0	-5.3
6	+0.8	-4.2	-0.4	-2.3	+7.8	-5.5	+2.0	-5.9
7	+1.2	-4.2	+0.6	-2.4	+7.5	-5.7	+1.5	-6.5
8	+1.3	-4.2	+0.8	-2.3	+6.9	-6.0	+0.5	-7.3
9	+1.8	-4.8	-0.1	-3.2	+7.1	-3.0	+0.3	-7.5
10	+0.5	-4.9	+0.6	-3.7	+8.1	-6.5	+2.1	-7.4

DROP TEST DATA (Continued)

Rifle: Serial Nos. 4912365 and 4920720

Drop Configuration: New condition with blank round in chamber, full magazine of blank cartridges in place, cocked and selector in "safe" and "semi" positions.

Impact Surface: Concrete

Drop Height: 5 feet

Drop	Impact Orientation	4912365 (1)	4920720 (1)
<u>Safety On</u>			
1	Vertical, butt down	Small crack in stock at butt plate. 3/4-inch in length.	Butt plate and stock near butt plate damaged.
2	Vertical, muzzle down	No damage.	No damage.
3	Horizontal, right side down	25% of rear sight windage drum broken off.	No damage.
4	Horizontal, left side down	Right hand guard disassembled without damage.	No damage.
5	Horizontal, grip down	Magazine difficult to remove.	Pistol grip damaged. Stock cracks near receiver.
6	Horizontal, sights down	Carrying handle slightly mashed in area of rear sight.	Carrying handle damaged restricting sight adjustment.
<u>Selector in Semi</u>			
1	Vertical, butt down	Stock and butt plate damaged.	Butt plate and stock near butt plate damaged.
2	Vertical, muzzle down	Safety rotated half way to full automatic position.	No damage.
3	Horizontal, right side down	No damage.	Stock cracked near receiver.

DROP TEST DATA (Continued)

Drop	Impact Orientation	4912365 (1)	4920720 (1)
Selector in Semi (Contd.)			
4	Horizontal, left side down	Right handguard disassembled without damage.	Right handguard disassembled without damage.
5	Horizontal, grip down	Slight damage to base of pistol grip.	Butt plate and stock damaged. Front sight guard slightly deformed.
6	Horizontal, sights down	25% of rear sight windage drum broken off. Carrying handle mashed in area of rear sight.	Carrying handle mashed.
Note 1:	After each drop the rifles were fired. None of the damaged sustained had effect on safe and reliable operation.		
Note 2:	Damaged stocks and windage drums were replaced prior to subsequent drops.		

DROP TEST DATA (Continued)

Range: 100 yards
 Mode: Machine Rest
 Ammunition: Ball, M193
 Drop Height: 5 feet

Round	Serial No. 4912365				Serial No. 4920720			
	Prior to Dropping		After Dropping		Prior to Dropping		After Dropping	
	x	y	x	y	x	y	x	y
1	-1.5	-0.3	-1.3	+0.7	+2.6	+1.9	-1.2	+0.8
2	-1.2	-1.3	-0.5	+0.1	-2.1	-0.3	-0.7	+0.7
3	-0.8	+1.1	-0.1	+0.8	-1.2	-0.4	+0.3	+0.3
4	+0.5	+0.3	+0.5	+0.9	-0.9	-0.7	+0.8	+0.6
5	-0.2	-0.6	+1.3	+0.8	-0.3	-0.5	+1.3	+0.1
6	+0.4	-1.3	-0.2	0	0	0	+0.8	-0.1
7	-0.8	-0.2	+0.1	+0.1	+0.5	-0.4	+0.9	-0.2
8	+2.0	+0.8	0	-0.5	0	-0.9	+0.7	-0.8
9	-0.3	-0.2	+0.1	-0.8	-0.7	-1.9	-0.5	-0.1
10	-0.5	+0.5	-1.7	-0.9	+0.8	-1.8	-0.2	-0.3

DUST TEST DATA

(Ref. 2.18.4, NATO D/14)

Two (2) M16A1 rifles (Serial Nos. 4911447 and 4925366), fully loaded with a 30-round magazine, a round in the chamber, closed dust cover, muzzle taped and safety set on "safe" were mounted in a dust conditioning chamber. A dust mixture was prepared and introduced into the dust chamber in accordance with Paragraph 2.18.4 of D/14.

Rifle Serial No. 4911447

Semi-Automatic (15 rounds)

1. OK
2. OK
3. Chambered but did not fire.
4. OK
5. OK
6. Jam - round being fed misoriented.
7. OK
8. OK
9. OK
10. Failure to feed bolt override.
11. OK
12. OK
13. OK
14. OK
15. OK

Full Automatic

15 rounds without malfunction.

Note: All malfunctions attributable to accumulation of dust in magazine, receiver and bolt locking mechanism.

DUST TEST DATA (Continued)

Rifle Serial No. 4925366

Semi-Automatic (15 rounds)

1. OK
2. OK
3. OK
4. OK
5. OK
6. Failure to feed.
7. OK
8. OK
9. OK
10. OK
11. OK
12. Failure to feed.
13. OK
14. OK
15. OK

Full Automatic

15 rounds without malfunction.

Note: All malfunctions attributable to accumulation of dust in magazine, receiver and bolt locking mechanism.

MUD TEST DATA

(Ref. 2.18.6, NATO D/14)

Two M16A1 rifles (Serial Nos. 4911447 and 4925366) fully loaded with 30-round magazine, a round in the chamber, closed dust cover, muzzle taped and safety set on "safe" were immersed for 60 seconds in a mud mixture conforming to the specification of Paragraph 2.18.6 of D/14. While immersed in the mud each rifle was agitated in all directions by rapid movements approximately 1 inch in length. Each rifle upon removal from the mud was wiped clean by hand without the aid of rags, brushes, solvents, etc., and 15 rounds fired in each of the semi-automatic and automatic modes of fire.

Rifle Serial No. 4925366

Semi-Automatic

1. OK
2. OK
3. Bolt locking required manual assistance.
4. Failed to feed and bolt failed to lock.
Closed with manual assistance on empty chamber.
5. Misfire - no indentation of primer.
6. Misfire - no indentation of primer.
7. Bolt locking required manual assistance.
Fired but did not eject.
8. Misfire - no indentation of primer.
9. Misfire - light indentation of primer.
10. Failed to extract.
11. Failed to extract.
12. Misfire - no primer indentation.
13. Failed to feed.
14. Failed to extract.
15. OK

MUD TEST DATA (Continued)

Rifle Serial No. 4925366

Automatic

First magazine (immersed in mud)

1. Failed to eject.
2. Failed to extract.
3. Failed to extract.
4. Misfire--light primer indentation.
5. Failure to extract.
6. Failure to extract.
7. Failure to extract.

Changed magazines

Second magazine (clean magazine)

All 15 rounds of the second magazine fed and fired properly but each failed to extract.

Rifle Serial No. 4911447

Semi-Automatic

1. OK
2. Bolt locking required manual assistance.
3. OK
4. Jam--round misoriented.
5. Bolt locking required manual assistance.
6. Failure to feed.
7. Failure to feed.
8. Failure to feed.

MUD TEST DATA (Continued)

Rifle Serial No. 4911447 (Continued)

Semi-Automatic

Changed magazine

Second magazine (immersed in mud)

1. Failed to eject. Bolt locking required manual assistance.
2. Failed to eject. Bolt locking required manual assistance.
3. Failed to eject. Bolt locking required manual assistance.
4. Failed to eject. Bolt locking required manual assistance.
5. Failed to eject. Bolt locking required manual assistance.
6. Failed to eject. Bolt locking required manual assistance.
7. Failed to eject. Bolt locking required manual assistance.

Changed magazine

Third magazine (clean)

1. Bolt locking required manual assistance.
2. Failure to feed and failure to eject.
3. Failure to eject.
4. Failure to eject.
5. Failure to eject.
6. Failure to eject.
7. Failure to eject.
8. Failure to eject.
9. Failure to eject. Terminated test.

COOK-OFF TEST DATA
(Ref. 2.19, NATO D/14)

Serial No.: 4907194
Ammunition, Conditioning: Ball, M193
Ammunition, Cook-Off: Ball, M193

Ambient Temperature: 72°-76°F
Time Determination: Chronometer
Temperature Determination: Tempilstik

Rounds Fired		Cook-Off		Temperature (°F)		
Quantity (rds.)	Time (min/sec)	yes/no	Time (min/sec)	Throat	Gas Port	Muzzle
198	1:04	yes	0:54	1550	1550+	1550+
188	0:58	yes	0:18	1550	1550+	1550+
178	0:55	yes	0:27	1500	1550	1550+
168	0:51	yes	1:17	1450	1550	1550+
160	0:49	no	N/A	1350	1500	1550+
158	0:48	no	N/A	1150	1400	1550+
158	0:47	no	N/A	1350	1500	1550+
158	0:47	no	N/A	1250	1400	1550+
158	0:45	no	N/A	1250	1500	1550+
158	0:42	no	N/A	1350	1500	1550+

COOK-OFF TEST DATA (Continued)

Serial No.: 4921606
Ammunition, Conditioning: Ball, M193
Ammunition, Cook-Off: Ball, M193

Ambient Temperature: 72°-76°F
Time Determination: Chronometer
Temperature Determination: Tempilstik

Rounds Fired		Cook-Off		Temperature (°F)		
Quantity (rds.)	Time (min/sec)	yes/no	Time (min/sec)	Throat	Gas Port	Muzzle
298	1:23	yes	0:06	1550+	1550+	1550+
178	0:54	yes	0:29	1500	1550	1550+
168	0:52	yes	1:44	1450	1550	1550+
160	0:47	yes	1:49	1400	1500	1550+
158	0:48	no	N/A	1200	1450	1550+
158	0:45	no	N/A	1250	1450	1550+
158	0:57	no	N/A	1100	1350	1550+
158	0:53	no	N/A	1300	1400	1550+
158	0:43	no	N/A	1300	1450	1550+

COOK-OFF TEST DATA (Continued)

Serial No.: 4907194

Ambient Temperature: 72^o-76^oF

Ammunition, Conditioning: Ball, M193

Time Determination: Chronometer

Ammunition, Cook-OFF: Tracer M197

Temperature Determination: Tempilstik

Rounds Fired		Cook-Off		Temperature (°F)			Tracer Burn	
Quantity (rds.)	Time (min/sec)	yes/no	Time (min/sec)	Throat	Gas Port	Muzzle	On Cook Off	When Fired
168	0:58	no	N/A	1450	1550+	1550+	N/A	no
158	1:02	no	N/A	1350	1450	1550+	N/A	no
158	0:40	no	N/A	1300	1400	1550+	N/A	yes
158	1:06	no	N/A	1350	1400	1550+	N/A	yes

COOK-OFF TEST DATA (Continued)

Serial No.: 4921606

Ambient Temperature: 72°-76°F

Ammunition, Conditioning: Ball, M193

Time Determination: Chronometer

Ammunition, Cook-Off: Tracer M197

Temperature Determination: Tempilstik

Rounds Fired		Cook-Off		Temperature (°F)			Tracer Burn	
Quantity (rds.)	Time (min/sec)	yes/no	Time (min/sec)	Throat	Gas Port	Muzzle	On Cook Off	When Fired
178	1:02	yes	0:22	1200	1450	1550+	no	N/A
168	1:02	yes	0:32	1350	1500	1550+	no	N/A
158	0:49	no	N/A	1150	1400	1550+	N/A	yes
158	0:58	no	N/A	1250	1450	1550+	N/A	no

LIQUID IMMERSION TEST DATA (GASOLINE)

(Ref. 2.20.4, NATO D/14)

Rifle: Serial Nos. 4921606 and 4907194

Liquid: Gasoline, American Oil Company Super Premium 100 Octane conforming to FED SPEC VVG 76-B

Immersion Time: 60 seconds

Immersion Configuration: Each rifle was immersed with a 20-round magazine in place, and with the bolt, dust cover and muzzle open. Each weapon was drained and wiped as clean as possible with only the use of the bare hand.

	0 Hrs. (7/11/73)		24 Hrs. (7/12/73)		48 Hrs. (7/13/73)	
	Semi 10 rds.	Full 10 rds.	Semi 10 rds.	Full 10 rds.	Semi 10 rds.	Full 10 rds.
4921606	OK	OK	OK	OK	OK	OK
4907194	OK	OK	OK	OK	OK	OK
Remarks:	First several rounds of each rifle were accompanied by excessive muzzle flash.					

LIQUID IMMERSION TEST DATA (DIESEL FUEL)

(Ref. 2.20.4, NATO D/14)

Rifle: Serial Nos. 4921606 and 4907194

Liquid: Diesel Fuel, American Oil Company, DF-2, conforming to MIL SPEC 16884

Immersion Time: 60 seconds

Immersion Configuration: Each rifle was immersed with a 20-round magazine in place, and with the bolt, dust cover and muzzle open. Each weapon was drained and wiped as clean as possible with only the use of the bare hand.

	0 Hrs. (7/11/73)		24 Hrs. (7/12/73)		48 Hrs. (7/13/73)	
	Semi 10 rds.	Full 10 rds.	Semi 10 rds.	Full 10 rds.	Semi 10 rds.	Full 10 rds.
4921606	OK	OK	OK	OK	OK	OK
4907194	OK	OK	OK	OK	FF Rd. 4	OK
Remarks:	First several rounds of each rifle were accompanied by excessive smoke.					

LIQUID IMMERSION TEST DATA (MOTOR OIL)

(Ref. 2.20.4, NATO D/14)

Rifle: Serial Nos. 4921606 and 4907194

Liquid: Motor Oil, SAE 20W, Western Auto "Wear Well"

Immersion Time: 60 seconds

Immersion Configuration: Each rifle was immersed with a 20-round magazine in place, and with the bolt, dust cover and muzzle open. Each weapon was drained and wiped as clean as possible with only the use of the bare hand.

	0 Hrs. (7/11/73)		24 Hrs. (7/12/73)		48 Hrs. (7/13/73)	
	Semi 10 rds.	Full 10 rds.	Semi 10 rds.	Full 10 rds.	Semi 10 rds.	Full 10 rds.
4921606	OK	OK	OK	OK	OK	OK
4907194	OK	OK	OK	OK	OK	OK
Remarks:	First several rounds of each rifle were accompanied by excessive smoke.					

ACCURACY AND DISPERSION TEST DATA
(Ref. Para. 2.4, NATO D/14)

Phase: Semi-Automatic
Range: 100 Meters
Position: Prone
Wind Speed: 0-2 Knots

Date: 12 July 1973
Shooter: 1
Ammunition: Ball, M193
Weapon Serial No.: 4917323

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-1.8	-0.3	-2.4	-3.7	-2.0	+3.0
2	-4.0	-0.5	+1.9	-4.8	-0.5	+2.7
3	-4.4	-1.6	-2.8	-4.9	-0.1	+1.4
4	-3.9	-1.8	-8.6	-6.6	-3.0	+0.8
5	-4.0	-2.1	-0.8	-7.1	-2.2	+0.4
6	-2.2	-2.5	+2.5	-7.8	-2.0	0
7	-1.2	-3.6	-2.3	-9.8	+1.2	-0.4
8	-4.8	-4.2	-1.1	-10.9	-1.8	-1.1
9	-4.5	-4.9	-0.8	-11.9	-2.1	-1.5
10	-0.8	-7.9	+2.8	-13.5	-4.5	-1.5
Center of Impact	-3.16	-2.94	-1.16	-8.1	-1.7	+0.4
Hor. Std. Dev.	1.42	n/a	3.16	n/a	1.53	n/a
Vert. Std. Dev.	n/a	2.18	n/a	3.13	n/a	3.55
Hor. Spread	4.0	n/a	11.4	n/a	5.7	n/a
Vert. Spread	n/a	7.6	n/a	9.8	n/a	4.5
Mean Radius		2.31		4.1		1.9
Accuracy Std. Dev.		1.84		3.14		2.73

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 100 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 13 July 1973
 Shooter: 1
 Ammunition: Ball, M193
 Weapon Serial No.: 486568

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-3.0	-4.0	-2.0	-5.1	-1.9	+3.4
2	-0.3	-5.4	-3.3	-5.1	-0.1	+3.9
3	-0.9	-5.9	-2.5	-5.9	0	+2.1
4	-0.1	-5.9	-1.0	-6.2	+2.0	+2.1
5	+0.2	-6.1	+1.2	-6.4	-1.4	+1.9
6	-5.2	-7.7	-1.9	-6.9	+1.4	+0.3
7	-6.5	-9.3	-0.1	-7.3	-0.1	+0.1
8	-3.5	-9.7	-1.9	-8.2	+0.8	-2.9
9	-2.1	-10.3	-1.0	-8.8	+1.8	-3.1
10	-0.1	-10.1	+1.2	-16.8	+1.3	-3.8
Center of Impact	-2.15	-7.44	-1.13	-7.67	+0.4	+0.4
Hor. Std. Dev.	2.23	n/a	1.43	n/a	1.24	n/a
Vert. Std. Dev.	n/a	2.15	n/a	3.25	n/a	2.66
Hor. Spread	6.7	n/a	4.5	n/a	3.9	n/a
Vert. Spread	n/a	7.3	n/a	11.7	n/a	7.7
Mean Radius	3.0		2.6		2.5	
Accuracy Std. Dev.	2.19		2.52		2.07	

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 100 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 12 July 1973
 Shooter: 2
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-1.3	-1.3	-2.3	-0.5	+2.1	+3.0
2	-1.6	-1.5	-0.7	-2.0	+1.6	+1.5
3	-3.8	-1.6	-3.1	-2.6	+1.8	0
4	+0.1	-1.9	-0.4	-3.6	+2.3	-0.6
5	0	-4.1	-0.6	-5.1	+2.2	-4.0
6	-1.4	-4.9	+0.1	-6.2	+4.8	-8.0
7	-3.4	-5.6	-2.4	-6.1	+2.4	-8.5
8	-0.5	-5.8	-2.8	-6.3	+5.3	-9.4
9	-1.8	-5.9	-2.1	-7.1	+4.7	-10.2
10	-1.3	-7.2	+0.1	-7.7	+3.1	-11.1
Center of Impact	-1.5	-4.0	-1.4	-4.7	+3.0	-4.7
Hor. Std. Dev.	1.12	n/a	1.17	n/a	1.31	n/a
Vert. Std. Dev.	n/a	2.1	n/a	2.29	n/a	4.95
Hor. Spread	3.9	n/a	3.2	n/a	3.7	n/a
Vert. Spread	n/a	5.9	n/a	7.2	n/a	14.1
Mean Radius	2.4		2.5		4.9	
Accuracy Std. Dev.	1.72		1.81		3.62	

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 100 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 12 July 1973
 Shooter: 2
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+0.1	-8.8	+1.0	-8.5	+4.0	-8.3
2	-1.5	-9.9	+0.3	-10.1	+2.5	-8.6
3	+0.6	-10.5	+3.4	-10.2	+3.5	-8.9
4	+0.9	-10.9	+2.2	-10.8	+2.8	-9.1
5	+1.3	-11.1	0	-11.0	+4.2	-9.1
6	0	-12.0	+2.4	-11.0	+4.6	-9.4
7	+3.2	-12.0	0	-12.1	+7.3	-10.6
8	+1.8	-13.5	+2.5	-12.5	+6.8	-10.9
9	+0.7	-14.1	+1.8	-13.9	+1.8	-12.8
10	+0.1	-16.1	-0.1	-16.4	+3.2	-15.2
Center of Impact	+0.7	-11.9	+1.4	-11.6	+4.1	-10.3
Hor. Std. Dev.	1.16	n/a	1.03	n/a	1.72	n/a
Vert. Std. Dev.	n/a	2.06	n/a	2.14	n/a	2.08
Hor. Spread	4.7	n/a	3.5	n/a	5.5	n/a
Vert. Spread	n/a	7.3	n/a	7.9	n/a	6.9
Mean Radius	2.1		2.3		2.5	
Accuracy Std. Dev.	1.67		1.68		1.89	

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 100 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 13 July 1973
 Shooter: 3
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-3.0	+1.9	-6.1	+0.8	-1.9	+5.3
2	-1.1	+1.9	-4.0	-0.1	-1.8	+3.9
3	+1.3	-1.3	-3.6	-1.4	-1.9	+1.4
4	-0.8	-1.4	-2.1	-2.0	0	+0.3
5	+1.9	-2.0	-2.0	-2.1	+0.2	-0.4
6	-4.5	-3.5	0	-2.9	-2.0	-1.0
7	-4.1	-4.2	-4.3	-3.6	-0.1	-1.0
8	-1.9	-4.4	-2.2	-4.1	+2.2	-1.8
9	-6.2	-5.7	-4.5	-5.8	-1.3	-3.2
10	-6.5	-8.1	-2.9	-6.3	-2.3	-4.8
Center of Impact	-2.5	-2.7	-3.2	-2.8	-0.9	-1.3
Hor. Std. Dev.	2.74	n/a	1.26	n/a	1.37	n/a
Vert. Std. Dev.	n/a	3.0	n/a	2.12	n/a	3.12
Hor. Spread	8.4	n/a	4.1	n/a	4.5	n/a
Vert. Spread	n/a	10.0	n/a	7.1	n/a	10.1
Mean Radius		3.8		2.5		3.0
Accuracy Std. Dev.		2.88		1.77		2.40

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 100 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 12 July 1973
 Shooter: 3
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+4.5	-3.6	+1.3	-5.0	+0.7	-5.1
2	0	-6.3	+0.9	-5.1	+0.9	-5.9
3	+4.5	-6.6	+1.9	-5.5	+1.1	-6.6
4	+6.8	-6.3	+1.1	-5.5	-1.9	-7.1
5	+4.9	-7.5	+0.4	-6.2	+1.4	-9.8
6	+1.4	-8.5	+2.2	-7.5	+3.8	-10.5
7	+2.2	-8.8	+0.7	-8.4	+1.1	-10.6
8	+1.3	-9.5	-1.4	-9.0	+3.2	-11.4
9	-0.6	-12.2	-2.5	-9.5	+2.7	-12.0
10	+6.0	-12.5	-4.2	-9.4	+2.0	-14.8
Center of Impact	+3.1	-8.2	+0.4	-7.1	+1.5	-9.4
Hor. Std. Dev.	2.23	n/a	2.0	n/a	1.51	n/a
Vert. Std. Dev.	n/a	4.12	n/a	1.76	n/a	2.94
Hor. Spread	7.4	n/a	6.4	n/a	3.1	n/a
Vert. Spread	n/a	8.9	n/a	4.5	n/a	9.7
Mean Radius	3.2		2.4		3.0	
Accuracy Std. Dev.	2.43		1.88		2.34	

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 200 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 13 July 1973
 Shooter: 1
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+0.2	+5.0	-6.0	-4.0	+7.0	+4.8
2	-6.0	+4.8	+2.3	-3.9	+3.9	+1.8
3	-2.9	+3.2	+0.3	-8.0	+4.4	+1.5
4	-8.0	+1.9	+2.8	-10.5	+3.9	+1.1
5	-6.2	-0.1	-1.3	-11.5	+2.5	+0.2
6	+0.8	-0.6	+7.1	-13.3	+2.6	-1.9
7	+2.9	-1.9	+8.1	-18.1	+5.0	-1.9
8	+1.4	-4.2	-1.9	-19.5	-3.0	-4.5
9	+7.0	-7.5	+6.5	-24.0	+8.1	-5.0
10	+5.3	-8.7	+8.3	-26.0	+3.3	-6.6
Center of Impact	-0.5	-0.8	-2.6	-13.9	+3.8	-1.0
Hor. Std. Dev.	4.81	n/a	6.97	n/a	2.84	n/a
Vert. Std. Dev.	n/a	4.57	n/a	7.4	n/a	3.39
Hor. Spread	15.0	n/a	14.3	n/a	11.1	n/a
Vert. Spread	n/a	13.7	n/a	22.1	n/a	11.4
Mean Radius		6.0		9.2		3.7
Accuracy Std. Dev.		4.70		7.18		3.12

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 200 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 13 July 1973
 Shooter: 1
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-5.3	+9.8	0	-8.6	+8.4	+6.5
2	-4.6	+4.8	+1.9	-12.9	+7.5	+5.1
3	+4.0	+3.5	+1.3	-14.2	+9.9	+4.6
4	+7.0	+2.4	-8.7	-15.0	+6.2	+4.3
5	+4.1	-0.7	+1.5	-15.3	+9.8	+2.5
6	-4.2	-4.0	+5.7	-17.5	+9.5	+1.9
7	-2.1	-7.7	+5.5	-21.7	+11.3	+1.4
8	+1.4	-8.9	+2.7	-25.4	+12.4	-0.1
9	+20.5	-12.6	MT	MT	+7.1	-0.2
10	MT	MT	MT	MT	+8.0	-1.9
Center of Impact	n/a		n/a		+9.0	+2.4
Hor. Std. Dev.	n/a		n/a		1.83	n/a
Vert. Std. Dev.	n/a		n/a		n/a	2.56
Hor. Spread	n/a		n/a		5.3	n/a
Vert. Spread	n/a		n/a		n/a	8.4
Mean Radius	n/a		n/a			2.9
Accuracy Std. Dev.	n/a		n/a			2.22

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 200 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 13 July 1973
 Shooter: 2
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-1.8	-9.3	-6.0	-1.9	+4.1	-2.5
2	0	-9.2	-4.1	-2.5	+4.9	-3.2
3	+6.0	-9.3	-1.9	-3.2	+8.9	-4.9
4	-7.9	-11.1	+4.4	-2.8	+11.8	-5.4
5	-0.3	-12.0	-3.9	-5.9	+8.6	-5.8
6	-0.2	-12.3	-1.1	-7.6	+3.5	-8.0
7	-11.5	-16.9	-1.0	-11.5	+4.2	-8.5
8	-5.8	-17.0	-2.0	-13.3	+2.0	-12.0
9	+0.1	-17.0	-6.9	-14.7	+5.9	-11.8
10	-6.4	-23.7	+0.8	-14.5	+5.8	-18.9
Center of Impact	-2.8	-13.8	-2.2	-7.8	+6.0	-8.1
Hor. Std. Dev.	4.72	n/a	3.15	n/a	2.83	n/a
Vert. Std. Dev.	n/a	4.5	n/a	4.99	n/a	4.72
Hor. Spread	17.5	n/a	11.3	n/a	9.8	n/a
Vert. Spread	n/a	14.5	n/a	12.8	n/a	16.4
Mean Radius	5.9		5.4		5.0	
Accuracy Std. Dev.	4.61		4.17		3.90	

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 200 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 13 July 1973
 Shooter: 2
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+0.4	-5.8	+2.2	-2.5	+9.6	-9.4
2	+2.5	-6.8	+0.3	-5.7	+7.7	-9.6
3	+3.2	-7.9	-2.1	-7.1	+3.7	-12.1
4	+1.1	-7.9	+5.1	-8.4	+5.5	-12.4
5	-2.0	-9.4	-1.5	-11.6	+6.8	-13.6
6	-0.4	-11.0	+4.7	-13.4	-0.9	-14.9
7	+2.9	-12.3	-3.8	-14.5	+5.7	-16.1
8	+2.3	-12.4	0	-15.8	+3.3	-17.2
9	-0.3	-13.2	+2.1	-18.7	+13.5	-19.9
10	-2.8	-15.5	+3.3	-19.9	+0.6	-26.0
Center of Impact	+0.7	-10.2	+1.0	-11.8	+5.6	-15.1
Hor. Std. Dev.	1.97	n/a	2.72	n/a	4.0	n/a
Vert. Std. Dev.	n/a	2.88	n/a	5.45	n/a	4.78
Hor. Spread	6.0	n/a	8.9	n/a	14.4	n/a
Vert. Spread	n/a	9.7	n/a	17.4	n/a	16.6
Mean Radius	3.3		5.8		5.3	
Accuracy Std. Dev.	2.53		4.30		4.41	

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 200 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 13 July 1973
 Shooter: 3
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-2.8	-3.5	+2.9	+4.8	+8.1	+1.5
2	+0.9	-3.1	+2.2	+2.9	+3.4	-2.9
3	+1.3	-5.7	0	-0.6	+5.0	-3.1
4	-2.5	-7.7	+2.2	-0.9	-2.0	-3.9
5	-0.8	-8.1	-0.5	-5.3	+11.1	-4.9
6	+6.1	-8.9	+3.6	-4.9	+1.0	-7.5
7	-2.0	-9.0	-3.5	-7.8	+0.5	-7.6
8	+2.5	-10.1	+10.2	-9.8	-3.6	-7.8
9	+1.8	-12.9	+4.4	-10.7	+4.0	-9.1
10	+1.4	-13.0	+0.4	-13.7	+5.1	-14.5
Center of Impact	+0.6	-8.2	+2.2	-4.6	+3.3	-6.0
Hor. Std. Dev.	2.58	n/a	3.04	n/a	4.45	n/a
Vert. Std. Dev.	n/a	3.24	n/a	5.75	n/a	4.12
Hor. Spread	8.9	n/a	13.7	n/a	14.7	n/a
Vert. Spread	n/a	9.9	n/a	18.5	n/a	16.0
Mean Radius	3.9		6.0		5.3	
Accuracy Std. Dev.	2.92		4.60		4.30	

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 200 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 13 July 1973
 Shooter: 3
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+2.4	+4.8	-5.2	-0.9	-1.3	-0.3
2	+2.2	-2.9	-12.9	-2.2	-2.2	-3.9
3	-0.1	-4.1	+0.1	-4.5	-4.0	-4.5
4	-0.1	-4.2	-4.0	-6.8	+7.0	-5.0
5	-3.4	-4.7	+4.4	-9.7	+0.3	-5.2
6	-3.8	-6.1	-7.0	-9.9	-1.0	-7.0
7	-3.3	-8.5	+2.5	-11.3	+1.0	-7.0
8	-0.9	-8.3	-11.6	-12.8	-0.9	-7.3
9	-3.0	-9.5	-3.7	-12.5	+0.4	-7.5
10	-4.5	-17.7	-2.1	-13.7	+4.7	-8.3
Center of Impact	-1.4	-6.1	-4.0	-8.4	+0.4	-5.6
Hor. Std. Dev.	2.38	n/a	5.3	n/a	3.08	n/a
Vert. Std. Dev.	n/a	5.44	n/a	4.35	n/a	2.25
Hor. Spread	6.9	n/a	17.3	n/a	11.0	n/a
Vert. Spread	n/a	22.5	n/a	12.8	n/a	8.0
Mean Radius	4.6		6.3		3.3	
Accuracy Std. Dev.	4.18		4.85		2.70	

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 300 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 16 July 1973
 Shooter: 1
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-3.1	+6.5	-3.3	-11.5	+12.9	-12.5
2	-3.5	-3.6	-4.6	-15.2	+8.9	-14.1
3	-6.7	-4.5	+4.8	-18.1	-0.2	-15.0
4	+0.4	-6.2	+6.2	-18.4	+6.8	-17.1
5	+6.1	-6.7	+10.7	-20.6	+3.6	-18.8
6	-2.9	-7.9	-0.4	-22.9	+2.6	-18.9
7	+18.0	-9.5	+10.9	-27.7	+8.4	-20.9
8	-1.4	-12.7	+17.0	-28.8	+8.9	-22.4
9	+2.7	-30.3	+18.3	-28.9	+10.5	-26.7
10	+13.5	-29.5	+19.8	-29.3	+10.8	-28.6
Center of Impact	+2.3	-10.4	+7.9	-22.1	+7.3	-19.5
Hor. Std. Dev.	7.56	n/a	8.44	n/a	3.9	n/a
Vert. Std. Dev.	n/a	10.83	n/a	5.98	n/a	5.0
Hor. Spread	24.7	n/a	24.4	n/a	13.1	n/a
Vert. Spread	n/a	36.8	n/a	17.8	n/a	16.1
Mean Radius		11.3		9.4		5.9
Accuracy Std. Dev.		9.35		7.34		4.49

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 300 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 16 July 1973
 Shooter: 1
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-2.1	+4.1	-15.5	+15.9	-10.0	+1.3
2	+2.4	-1.1	-0.8	+1.0	+0.4	-5.3
3	-15.1	-2.7	-1.7	-0.8	-2.5	-6.1
4	-20.0	-2.9	+2.1	-2.3	-3.8	-6.9
5	-3.4	-5.3	+8.5	-6.7	+3.9	-10.3
6	+1.5	-6.8	-17.8	-7.2	+5.3	-11.4
7	+10.0	-12.0	-2.8	-6.9	+8.9	-16.5
8	-11.1	-18.7	-2.3	-12.4	+3.5	-16.5
9	MT	MT	-22.0	-12.0	-2.7	-17.3
10	MT	MT	-0.2	-13.0	+12.6	-26.0
Center of Impact	n/a		-5.2	-4.4	+1.6	-11.5
Hor. Std. Dev.	n/a		9.26	n/a	6.27	n/a
Vert. Std. Dev.	n/a		n/a	8.35	n/a	7.4
Hor. Spread	n/a		30.5	n/a	22.6	n/a
Vert. Spread	n/a		n/a	28.9	n/a	27.3
Mean Radius	n/a			10.9		8.3
Accuracy Std. Dev.	n/a			8.80		6.88

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 300 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 16 July 1973
 Shooter: 2
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-8.3	-0.8	-12.2	-5.7	+13.0	-13.9
2	-10.6	-2.1	-11.2	-10.9	+8.0	-19.6
3	-5.9	-4.3	-9.8	-6.1	+5.8	-20.5
4	-7.8	-6.8	-9.9	-11.8	+6.9	-21.4
5	+0.6	-7.4	-7.1	-17.4	+12.0	-25.5
6	-8.7	-8.1	-7.5	-8.9	MT	MT
7	-4.7	-13.1	-7.4	-8.4	MT	MT
8	-11.5	-16.0	-7.7	-4.9	MT	MT
9	-13.3	-17.0	-6.3	-4.1	MT	MT
10	-10.8	-19.7	-0.8	-23.0	MT	MT
Center of Impact	-8.1	-9.5	-8.0	-10.1	n/a	
Hor. Std. Dev.	3.8	n/a	3.02	n/a	n/a	
Vert. Std. Dev.	n/a	6.21	n/a	5.71	n/a	
Hor. Spread	13.9	n/a	11.4	n/a	n/a	
Vert. Spread	n/a	18.9	n/a	18.9	n/a	
Mean Radius	6.7		5.3			
Accuracy Std. Dev.	5.15		4.56			

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 300 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 16 July 1973
 Shooter: 2
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-18.0	+5.1	-4.0	-2.0	+12.9	+2.5
2	-2.1	+1.5	-8.2	-7.2	-2.5	-9.3
3	-1.1	-5.5	-3.0	-7.5	+5.0	-12.2
4	-5.8	-6.4	-11.7	-9.2	+11.0	-12.9
5	-1.7	-6.5	-4.7	-8.2	+11.5	-14.0
6	+3.0	-7.9	-5.7	-10.0	-5.8	-16.2
7	-0.8	-9.5	-7.5	-12.2	+5.3	-19.0
8	-7.8	-12.0	-10.4	-13.5	-4.1	-19.8
9	-6.5	-13.2	+0.9	-16.0	-8.8	-21.6
10	-5.1	-14.9	-6.2	-21.1	+11.8	-26.5
Center of Impact	-4.6	-6.9	-6.0	-10.7	+3.6	-14.9
Hor. Std. Dev.	5.42	n/a	3.48	n/a	7.84	n/a
Vert. Std. Dev.	n/a	5.95	n/a	5.04	n/a	7.53
Hor. Spread	17.2	n/a	12.6	n/a	21.7	n/a
Vert. Spread	n/a	20.0	n/a	19.1	n/a	29.0
Mean Radius	6.8		5.4		10.2	
Accuracy Std. Dev.	5.70		4.32		7.70	

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 300 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 16 July 1973
 Shooter: 3
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-6.0	-3.0	-3.2	-2.3	-16.1	-17.9
2	-8.8	-5.9	+1.4	-3.2	-8.8	-18.7
3	+9.2	-8.0	-5.3	-3.8	-6.1	-23.7
4	-6.1	-10.0	-7.7	-3.9	-9.9	-26.9
5	0	-17.1	+6.3	-7.1	MT	MT
6	-5.3	-19.2	-8.2	-9.1	MT	MT
7	-3.3	-25.4	-3.1	-13.3	MT	MT
8	-15.0	-23.5	-20.9	-15.7	MT	MT
9	MT	MT	-8.9	-18.1	MT	MT
10	MT	MT	-10.3	-20.3	MT	MT
Center of Impact	n/a		-6.0	-9.7	n/a	
Hor. Std. Dev.	n/a		6.91	n/a	n/a	
Vert. Std. Dev.	n/a		n/a	6.35	n/a	
Hor. Spread	n/a		27.2	n/a	n/a	
Vert. Spread	n/a		n/a	18.0	n/a	
Mean Radius	n/a			8.5		
Accuracy, Std. Dev.	n/a			6.65		

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 300 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 16 July 1973
 Shooter: 3
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-6.2	+3.5	+10.0	+14.8	+2.6	-8.3
2	+0.2	+0.9	-2.1	+0.1	-3.0	-12.3
3	-6.6	-1.6	+1.9	-5.5	-2.1	-15.4
4	-6.0	-8.3	-6.5	-5.7	+0.8	-15.7
5	-11.1	-9.8	+4.2	-5.9	+5.0	-18.9
6	-13.8	-10.2	+5.3	-7.8	-2.1	-20.0
7	-16.1	-10.8	-10.5	-12.1	+4.6	-20.9
8	-3.0	-12.1	-0.3	-12.5	+4.3	-23.4
9	-14.9	-15.1	+2.8	-13.6	+5.4	-28.9
10	-10.4	-20.2	+9.5	-19.2	+3.8	-31.5
Center of Impact	-8.8	-8.4	+1.4	-6.7	+1.9	-19.5
Hor. Std. Dev.	5.17	n/a	6.19	n/a	3.1	n/a
Vert. Std. Dev.	n/a	7.17	n/a	6.18	n/a	6.76
Hor. Spread	16.3	n/a	20.5	n/a	8.4	n/a
Vert. Spread	n/a	23.7	n/a	34.0	n/a	23.2
Mean Radius		7.8		8.8		6.7
Accuracy Std. Dev.		6.15		6.18		5.26

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 400 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 17 July 1973
 Shooter: 1
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-5.0	+11.9	+2.0	+4.2	-17.0	+8.5
2	-5.0	+11.0	-1.1	+0.8	-6.8	+4.9
3	+8.1	+8.0	-15.7	-5.8	-4.0	+5.2
4	-2.2	+4.4	+4.4	-8.8	+1.3	+3.0
5	-16.3	-15.0	-12.3	-10.9	-7.0	-0.6
6	+4.2	-14.6	-3.8	-19.7	-4.1	-0.9
7	+6.2	-13.9	+12.5	-23.0	-11.8	-16.2
8	+12.5	-16.6	-9.5	-24.7	-18.8	-24.8
9	+5.0	-26.8	MT	MT	-5.1	-24.7
10	-7.8	-28.5	MT	MT	MT	MT
Center of Impact	-0.3	-8.0	n/a		n/a	
Hor. Std. Dev.	8.27	n/a	n/a		n/a	
Vert. Std. Dev.	n/a	14.6	n/a		n/a	
Hor. Spread	28.8	n/a	n/a		n/a	
Vert. Spread	n/a	40.4	n/a		n/a	
Mean Radius	16.0					
Accuracy Std. Dev.	11.90					

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 400 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 17 July 1973
 Shooter: 1
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+14.5	+22.1	+0.8	+14.8	-0.7	+16.5
2	+6.5	+8.2	-21.3	+9.0	+2.0	+14.3
3	+6.2	+4.8	-5.5	-1.1	+4.0	+13.5
4	+15.7	+3.1	-6.7	-2.5	+3.6	+8.8
5	+21.7	-1.0	+3.3	-2.9	-8.5	+4.0
6	+8.8	-5.4	+12.9	-3.5	+1.9	+2.5
7	+19.0	-6.6	+3.5	-8.8	+11.9	+1.5
8	+19.2	-12.8	-4.7	-11.1	0	-5.0
9	MT	MT	-1.9	-12.8	+10.0	-6.3
10	MT	MT	+1.7	-14.2	MT	MT
Center of Impact	n/a		-1.8	-3.3	n/a	
Hor. Std. Dev.	n/a		8.45	n/a	n/a	
Vert. Std. Dev.	n/a		n/a	8.85	n/a	
Hor. Spread	n/a		34.2	n/a	n/a	
Vert. Spread	n/a		n/a	29.0	n/a	
Mean Radius	n/a			10.6		
Accuracy, Std. Dev.	n/a			8.67		

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 400 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 17 July 1973
 Shooter: 2
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-8.7	+3.3	0	+4.5	-1.0	+12.0
2	+13.2	-7.7	-2.5	-3.8	-6.0	+12.1
3	-6.8	-8.6	-6.0	-7.0	-15.8	+11.0
4	-10.5	-9.3	+10.7	-9.7	-13.1	+6.1
5	-4.5	-15.0	+9.3	-16.7	-13.5	+6.5
6	-7.5	-18.0	+3.6	-17.9	+0.3	+4.8
7	-20.5	-20.0	+7.2	-20.0	+2.1	+3.5
8	-9.0	-20.0	-0.9	-19.2	-10.4	+0.3
9	-6.4	-21.3	-15.8	-22.7	-13.4	-1.4
10	-7.8	-28.8	MT	MT	-10.8	-7.9
Center of Impact	-7.0	-14.5	n/a		-8.2	+4.7
Hor. Std. Dev.	7.84	n/a	n/a		6.19	n/a
Vert. Std. Dev.	n/a	8.65	n/a		n/a	6.07
Hor. Spread	33.7	n/a	n/a		17.9	n/a
Vert. Spread	n/a	32.1	n/a		n/a	20.0
Mean Radius		10.0				8.3
Accuracy Std. Dev.		7.53				6.14

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 400 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 17 July 1973
 Shooter: 2
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+3.3	+1.1	+1.8	-12.6	+9.4	+20.2
2	+8.9	-1.9	-0.6	-12.6	+10.1	+20.3
3	+4.0	-5.8	-7.5	-16.5	+4.3	+13.0
4	+9.3	-10.5	-6.1	-16.2	+0.6	+9.2
5	+7.4	-12.3	-4.1	-17.1	+8.7	+9.5
6	-0.3	-12.2	-9.0	-25.0	+4.9	+8.3
7	-11.5	-15.4	-7.7	-25.8	+7.1	+5.7
8	-7.8	-18.3	-4.9	-25.0	+8.1	+4.5
9	+1.5	-21.5	+1.7	-20.2	+16.2	+1.2
10	+7.2	-22.6	MT	MT	+8.5	-8.7
Center of Impact	+2.2	-11.9	n/a		+7.8	+8.3
Hor. Std. Dev.	6.69	n/a	n/a		3.91	n/a
Vert. Std. Dev.	n/a	7.53	n/a		n/a	6.17
Hor. Spread	20.8	n/a	n/a		15.6	n/a
Vert. Spread	n/a	23.7	n/a		n/a	29.0
Mean Radius		9.3				7.6
Accuracy Std. Dev.		7.12				5.17

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 400 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 17 July 1973
 Shooter: 3
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-17.2	+24.0	+12.2	+0.1	+2.0	+19.1
2	-4.6	+21.0	-6.8	-0.2	+5.1	+9.1
3	-15.4	+15.7	-2.4	-2.5	+11.0	+9.1
4	-3.3	+17.7	+12.3	-5.6	+16.4	+7.7
5	+1.4	+17.9	+7.9	-9.3	+2.8	+6.8
6	-10.2	+11.8	+1.1	-8.1	+12.3	+6.0
7	-11.0	+6.7	+2.4	-13.9	-2.7	-5.2
8	0	+13.0	-1.3	-15.4	+0.3	-8.9
9	-18.4	+1.5	-7.0	-22.2	+14.7	-14.5
10	-3.7	-23.2	-0.9	-23.3	+3.2	-20.8
Center of Impact	-8.2	+10.6	+1.8	-10.0	+6.5	+0.8
Hor. Std. Dev.	6.31	n/a	6.65	n/a	6.3	n/a
Vert. Std. Dev.	n/a	12.9	n/a	8.05	n/a	11.9
Hor. Spread	19.8	n/a	19.2	n/a	19.1	n/a
Vert. Spread	n/a	47.2	n/a	24.3	n/a	39.9
Mean Radius	11.7		9.4		12.4	
Accuracy, Std. Dev.	10.17		7.39		9.51	

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Semi-Automatic
 Range: 400 Meters
 Position: Prone
 Wind Speed: 0-2 Knots

Date: 17 July 1973
 Shooter: 3
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Unsupported		Sling		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-4.6	+17.5	+4.5	+10.1	-0.5	+13.2
2	+3.2	+15.0	-15.5	-8.4	+8.5	+2.7
3	-0.7	+12.1	+15.5	-9.2	+11.6	+3.0
4	+11.5	+11.0	+0.4	-15.0	+18.5	+4.0
5	-15.3	+6.3	-8.0	-22.2	+22.1	+4.7
6	-2.9	-1.3	-3.4	-21.5	+10.5	-6.0
7	+11.0	-1.8	-2.5	-22.9	+7.7	-9.9
8	+9.3	-8.7	+10.7	-19.7	+10.9	-10.3
9	-11.5	-11.9	MT	MT	MT	MT
10	MT	MT	MT	MT	MT	MT
Center of Impact	n/a		n/a		n/a	
Hor. Std. Dev.	n/a		n/a		n/a	
Vert. Std. Dev.	n/a		n/a		n/a	
Hor. Spread	n/a		n/a		n/a	
Vert. Spread	n/a		n/a		n/a	
Mean Radius	n/a		n/a		n/a	
Accuracy Std. Dev.	n/a		n/a		n/a	

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 25 Meters
 Position: Standing
 Wind Speed: 0-2

Date:
 Shooter: 1
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+15.1	+6.2	+10.4	+10.9	+14.2	+20.0
2	+3.2	+2.3	+10.5	+9.8	+10.8	+17.5
3	+18.1	-0.9	+19.0	+9.6	+9.7	+6.2
4	+6.5	-1.0	+5.3	+5.2	+6.8	+2.8
5	-2.0	-8.5	+11.2	+3.5	-3.1	-6.6
6	-2.4	-8.5	+10.4	+2.1	-1.1	-8.0
7	+1.5	-5.0	+5.8	-6.4	-1.9	-10.5
8	+6.8	-3.9	-0.5	-8.9	+5.2	-10.3
9	MT		-3.2	-11.2	+7.9	-12.3
10	MT		+1.5	-12.0	+10.0	-19.7
Hits on Panel (14.4 x 24.6 ins.)	6		5		5	

- Note: (1) "MT" missed target measuring 8 x 8 feet.
 (2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 25 Meters
 Position: Standing
 Wind Speed: 0-2

Date:
 Shooter: 1
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+17.0	+17.5	+5.7	+6.2	+13.1	+9.5
2	+9.2	+10.3	-2.9	+2.1	+5.4	+7.4
3	+7.0	+9.1	+5.7	-1.3	+19.7	+6.3
4	+14.9	+7.9	-1.5	-5.3	+5.2	+4.5
5	+14.5	+7.3	-1.9	-5.3	+7.9	+0.8
6	+25.5	+7.1	+19.7	-7.3	+14.6	-0.3
7	+6.4	+5.7	+5.5	-7.8	+13.3	-3.3
8	-3.1	-5.0	-5.6	-6.9	-1.8	-4.4
9	-1.1	-9.2	-4.6	-7.5	-4.1	-4.9
10	-3.3	-7.9	MI		-0.4	-5.0
Hits on Panel (14.4 x 24.6 ins.)	5		8		5	

- Note: (1) "MI" missed target measuring 8 x 8 feet.
 (2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 25 Meters
 Position: Standing
 Wind Speed: 0-2

Date:
 Shooter: 2
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+1.7	+25.0	+5.8	+15.2	-20.2	+23.2
2	-2.9	+24.4	-2.2	+7.3	+2.4	+7.0
3	-7.9	+22.0	-1.9	+6.9	+1.8	+4.4
4	+2.0	+12.9	+1.2	+1.3	+11.1	+5.8
5	+16.8	+10.3	+6.8	-8.0	-2.0	+3.7
6	+0.2	+8.6	-3.0	-12.9	-3.1	+2.3
7	+5.3	+7.5	-4.8	-13.0	-1.8	-9.7
8	+0.6	-10.9	-1.3	-15.7	-3.7	-13.4
9	-2.0	-13.5	+1.1	-16.5	+0.1	-15.3
10	-1.8	-14.1	MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	3		4		5	

- Note: (1) "MT" missed target measuring 8 x 8 feet.
 (2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 25 Meters
 Position: Standing
 Wind Speed: 0-2

Date:
 Shooter: 2
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-24.8	+28.1	-7.3	+10.0	+1.2	+23.2
2	-9.8	+22.6	-3.0	+9.2	-12.9	+12.8
3	-13.2	+20.0	+3.8	+7.7	-8.6	+11.6
4	-15.5	+11.8	-3.4	+8.0	-7.2	+9.1
5	-9.6	-8.7	-7.9	+5.8	-9.0	+6.3
6	-4.3	-12.7	+6.5	-11.0	+0.2	-11.3
7	-9.5	-15.3	-0.2	-14.2	-1.8	-13.7
8	MT		-2.1	-14.5	-3.3	-14.8
9	MT		0	-14.8	-1.2	-16.1
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	2		5		2	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst

Date:

Range: 75 Meters

Shooter: 1

Position: Standing

Ammunition: Ball, M193

Wind Speed: 0-2

Weapon Serial No.: 4917323

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-7.4	-7.7	-13.2	+10.6	-2.4	-16.2
2	+14.4	-6.8	-2.8	-18.8	-7.9	-20.4
3	+0.1	-14.9	MT		MT	
4	MT		MT		MT	
5	MT		MT		MT	
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	1		0		0	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 75 Meters
 Position: Standing
 Wind Speed: 0-2

Date:
 Shooter: 1
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+13.9	+23.4	+22.7	+12.0	-18.0	-4.7
2	-4.7	-16.2	+3.6	-16.4	+2.5	-17.2
3	-1.8	-18.3	-11.8	-23.0	-15.2	-23.0
4	MT		MT		MT	
5	MT		MT		MT	
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	0		0		0	

- Note: (1) "MT" missed target measuring 8 x 8 feet.
 (2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst

Date:

Range: 75 Meters

Shooter: 2

Position: Standing

Ammunition: Ball, M193

Wind Speed: 0-2

Weapon Serial No.: 4917323

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+5.2	+22.4	+2.8	+24.5	-6.0	-14.5
2	+1.8	-20.8	+14.3	+20.8	+4.8	-17.8
3	-5.2	-21.1	-7.4	-10.1	MT	MT
4	MT		+1.3	-15.7	MT	
5	MT		MT		MT	
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)		0		1		0

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst

Date:

Range: 75 Meters

Shooter: 2

Position: Standing

Ammunition: Ball, M193

Wind Speed: 0-2

Weapon Serial No.: 4886568

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-0.4	-20.1	-9.5	+25.0	-15.4	+17.2
2	-0.8	-21.2	MT		+7.0	+15.8
3	+4.4	-21.8	MT		MT	
4	MT		MT		MT	
5	MT		MT		MT	
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	0		0		0	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst

Range: 75 Meters

Position: Standing

Wind Speed: 0-2

Date:

Shooter: 3

Ammunition: Ball, M193

Weapon Serial No.: 4917323

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-14.6	+26.8	-6.5	+22.4	+12.9	+22.8
2	-18.3	+22.2	-3.4	+16.0	+12.5	-12.3
3	-9.2	+17.0	+5.6	+15.4	+6.8	-16.1
4	+4.6	-5.9	+8.8	-8.8	+16.8	-18.2
5	+16.2	-12.7	+7.5	-13.2	MT	
6	+16.6	+16.0	+6.1	-18.1	MT	
7	MT		-12.2	+1.4	MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	1		0		0	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 75 Meters
 Position: Standing
 Wind Speed: 0-2

Date:
 Shooter: 3
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-14.0	+25.7	-15.5	+20.4	-12.7	+23.1
2	-10.8	+12.5	-5.7	-4.1	-14.6	+16.7
3	+12.7	-12.8	+11.5	-7.4	-7.2	-15.2
4	+17.7	-14.2	+3.8	-15.2	+16.2	-15.8
5	+13.5	-17.5	+15.5	-23.6	+13.3	-21.8
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	0		1		0	

- Note: (1) "MT" missed target measuring 8 x 8 feet.
 (2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 100 Meters
 Position: Prone
 Wind Speed: 0-2

Date:
 Shooter: 1
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+9.9	+11.9	+15.0	+7.2	+5.0	-5.5
2	+22.2	+3.5	+18.0	+1.8	+5.6	-9.2
3	+1.2	-2.0	-0.2	-2.9	+2.9	-11.6
4	-1.1	-10.3	-3.0	-3.0	-3.3	+20.9
5	-0.8	-10.9	+3.0	-20.2	MT	MT
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	3		2		3	

- Note: (1) "MT" missed target measuring 8 x 8 feet.
 (2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 100 Meters
 Position: Prone
 Wind Speed: 0-2

Date:
 Shooter: 1
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+0.8	-1.0	-22.2	+10.4	+3.1	-8.0
2	-0.9	-5.5	+3.9	-13.9	+7.2	-9.3
3	+2.0	-14.8	+1.3	-18.6	+3.4	-13.4
4	MT		+4.4	-21.1	-0.1	-15.4
5	MT		MT		MT	
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	2		0		2	

- Note: (1) "MT" missed target measuring 8 x 8 feet.
 (2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 100 Meters
 Position: Prone
 Wind Speed: 0-2

Date:
 Shooter: 2
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-2.2	+2.2	+6.6	-11.9	+20.4	+11.5
2	-0.8	-4.1	+0.1	-13.5	+9.7	+8.4
3	-3.8	-7.9	-5.4	-16.7	+13.7	+3.8
4	-2.4	-17.1	MT		-1.1	-22.5
5	MT		MT		MT	
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	3		1		0	

- Note: (1) "MT" missed target measuring 8 x 8 feet.
 (2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 100 Meters
 Position: Prone
 Wind Speed: 0-2

Date:
 Shooter: 2
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+6.8	-12.2	-0.3	-16.3	+3.3	-10.5
2	-6.9	-15.5	-0.8	-22.2	+2.6	-16.3
3	+5.8	-19.3	MT		+6.0	-22.0
4	MT		MT		MT	
5	MT		MT		MT	
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	1		0		1	

- Note: (1) "MT" missed target measuring 8 x 8 feet.
 (2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 100 Meters
 Position: Prone
 Wind Speed: 0-2

Date:
 Shooter: 3
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+20.3	+15.9	+0.1	+23.0	+22.0	+11.4
2	+20.2	+5.9	+0.3	-16.3	+23.7	+2.0
3	-6.5	-11.8	-2.1	-22.0	+4.3	-6.1
4	+1.2	-13.9	MT		+4.2	-13.7
5	+0.8	-17.7	MT		0	-15.0
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	1		0		1	

- Note: (1) "MT" missed target measuring 8 x 8 feet.
 (2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst

Range: 100 Meters

Position: Prone

Wind Speed: 0-2

Date:

Shooter: 3

Ammunition: Ball, M193

Weapon Serial No.: 4886568

Round	Sling		Sling		Sling	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+12.8	-7.7	+5.0	-14.9	-9.0	+15.0
2	0	-10.5	-0.3	-17.1	-5.0	-14.9
3	-4.1	-13.5	+1.7	-20.3	+6.1	-14.5
4	MT		MT		+0.2	-20.8
5	MT		MT		MT	
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	1		0		0	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 100 Meters
 Position: Prone
 Wind Speed: 0-2

Date:
 Shooter: 1
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-9.5	+8.3	-3.2	+3.2	-1.3	+7.5
2	-3.9	-5.9	-2.2	+2.2	+0.2	+6.2
3	-8.4	-0.9	-3.8	-3.8	-4.9	+2.2
4	-25.5	-13.6	-2.5	-2.0	-11.2	-2.9
5	-8.6	-18.2	-24.2	-8.5	-8.0	-5.0
6	-7.3	-20.9	-13.3	-13.3	-5.8	-8.2
7	MT		-17.9	-17.9	MT	
8	MT		-20.9	-20.9	MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	1		4		4	

- Note: (1) "MT" missed target measuring 8 x 8 feet.
 (2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 100 Meters
 Position: Prone
 Wind Speed: 0-2

Date:
 Shooter: 1
 Ammunition: Ball, M193
 Weapon Serial No.: 4886568

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-1.9	+10.8	-3.8	+7.0	-1.0	+7.5
2	-3.8	+5.8	+1.0	+7.1	-6.1	+0.5
3	-1.5	+2.4	+3.4	+3.4	-5.9	-3.1
4	+16.9	-11.5	-23.2	+3.0	+1.3	-10.8
5	MT		-25.1	-4.2	-3.2	-12.8
6	MT		-19.9	-5.9	MT	
7	MT		-16.2	-7.5	MT	
8	MT		-20.9	-14.9	MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	3		3		4	

- Note: (1) "MT" missed target measuring 8 x 8 feet.
 (2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 100 Meters
 Position: Prone
 Wind Speed: 0-2

Date:
 Shooter: 2
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-18.5	+10.3	+3.8	-7.3	-25.4	+14.1
2	-5.2	-0.9	-0.7	-17.8	-23.2	+11.0
3	-2.3	-0.2	+2.6	-18.2	-2.8	-13.5
4	+8.7	+2.0	-2.8	-21.8	-7.8	-16.9
5	+12.5	-11.8	-0.2	-21.7	-3.9	-16.2
6	+12.6	-17.5	+7.1	-21.2	+7.5	-18.8
7	-6.6	-12.0	MT		+10.2	-25.3
8	-3.6	-13.2	MT		-7.3	-26.7
9	-2.0	-14.9	MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	3		1		0	

- Note: (1) "MT" missed target measuring 8 x 8 feet.
 (2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst

Range: 100 Meters

Position: Prone

Wind Speed: 0-2

Date:

Shooter: 2

Ammunition: Ball, M193

Weapon Serial No.: 4886568

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-3.6	+5.0	-7.5	-15.2	-2.7	-3.6
2	-1.5	-4.9	0	-15.0	-4.8	-18.8
3	-0.7	-5.2	-5.8	-19.3	+20.4	-19.2
4	+19.5	-8.8	-9.8	-20.9	-9.2	-21.1
5	+2.6	-16.2	-0.8	-20.8	MT	
6	MT		-10.4	-24.8	MT	
7	MT		+18.8	-23.0	MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	3		0		1	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 100 Meters
 Position: Prone
 Wind Speed: 0-2

Date:
 Shooter: 3
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+2.1	-8.1	+13.7	-4.7	-2.8	-9.4
2	-5.2	-9.7	+23.6	-7.9	-1.9	-10.2
3	-4.8	-13.0	+18.1	-10.8	-2.9	-15.3
4	MT		+14.8	-11.0	+22.0	-14.7
5	MT		+9.9	-10.7	+24.8	-17.0
6	MT		-5.8	-10.9	+25.5	-20.5
7	MT		-5.7	-13.8	MT	
8	MT		-6.0	-16.2	MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	2		1		2	

- Note: (1) "MT" missed target measuring 8 x 8 feet.
 (2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst

Range: 100 Meters

Position: Prone

Wind Speed: 0-2

Date:

Shooter: 3

Ammunition: Ball, M193

Weapon Serial No.: 4886568

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-3.5	+3.2	+1.4	-3.9	+2.2	-2.0
2	-1.9	+3.7	-2.4	-5.7	+3.4	-5.5
3	-1.2	-0.6	+1.3	-7.0	+4.4	-6.1
4	-1.3	-6.2	+6.6	-7.1	-19.3	-9.5
5	+22.8	-13.0	+12.7	-9.2	+3.8	-19.8
6	+21.0	-19.3	+14.2	-17.1	+6.0	-18.6
7	+17.7	-24.5	+7.9	-20.7	+8.4	-18.5
8	+3.1	-26.4	+3.0	-20.3	+14.2	-20.9
9	MT		MT		+15.1	-23.0
10	MT		MT		+10.6	-24.5
Hits on Panel (14.4 x 24.6 ins.)		4		4		3

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 200 Meters
 Position: Prone
 Wind Speed: 0-2

Date:
 Shooter: 1
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-2.3	+18.2	-8.1	+10.1	-7.3	+5.2
2	-2.1	+15.2	-2.2	+4.8	-3.2	+1.5
3	+2.6	+7.8	-4.6	+3.9	+0.5	-5.3
4	+12.4	+4.8	-19.2	-20.2	-14.6	-5.2
5	+19.2	-3.2	MT		-5.1	-9.8
6	-22.8	-24.0	MT		-17.8	-12.0
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	1		2		4	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst

Range: 200 Meters

Position: Prone

Wind Speed: 0-2

Date:

Shooter: 1

Ammunition: Ball, M193

Weapon Serial No.: 4886568

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-1.0	+25.0	+0.8	+20.8	-0.1	+7.6
2	+2.3	+24.0	+0.9	+16.1	-3.1	+4.4
3	0	+19.2	-17.2	-2.3	-2.4	-16.0
4	-2.2	-1.2	-18.7	-7.4	-18.4	-18.5
5	+1.5	-8.0	-15.1	-7.8	-12.2	-23.5
6	+3.8	-8.8	-11.3	-20.8	-4.3	-22.0
7	-17.6	-14.3	-4.9	-23.2	MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	3		0		2	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst
 Range: 200 Meters
 Position: Prone
 Wind Speed: 0-2

Date:
 Shooter: 2
 Ammunition: Ball, M193
 Weapon Serial No.: 4917323

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+11.3	+17.8	+7.4	+13.5	-21.3	+21.0
2	+8.1	+17.0	-8.7	+12.5	-19.1	-8.3
3	+3.9	+5.9	-7.8	+10.9	-3.1	-9.8
4	+2.3	+2.2	-7.2	+9.9	-0.8	-10.5
5	+20.0	+1.2	-19.2	+10.0	-0.8	-11.3
6	+7.0	-3.0	+7.0	-5.1	-23.7	-22.8
7	-12.4	-3.8	-10.9	-17.2	-17.6	-22.0
8	MT		MT		+3.2	-23.3
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)		3		2		3

- Note: (1) "MT" missed target measuring 8 x 8 feet.
 (2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst

Range: 200 Meters

Position: Prone

Wind Speed: 0-2

Date:

Shooter: 2

Ammunition: Ball, M193

Weapon Serial No.: 4886568

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+7.1	-7.6	-14.3	+16.1	-17.8	-6.7
2	+3.3	-10.4	-4.6	+1.6	+19.0	-8.3
3	MT		+8.8	-13.3	MT	
4	MT		-2.1	-18.2	MT	
5	MT		MT		MT	
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	2		1		0	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ACCURACY AND DISPERSION TEST DATA (Continued)

Phase: Controlled Burst

Date:

Range: 200 Meters

Shooter: 3

Position: Prone

Ammunition: Ball, M193

Wind Speed: 0-2

Weapon Serial No.: 4917323

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+14.0	+20.6	-4.0	+25.3	-19.9	+16.1
2	-18.1	+2.2	-6.1	+15.9	-7.9	-0.2
3	-12.3	+5.3	-3.8	+2.9	-2.3	-1.1
4	-11.2	+3.9	+20.0	-4.1	0	+0.4
5	+0.8	+4.6	-9.0	-6.8	+10.3	-2.8
6	MT		-12.5	-14.7	MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	1		1		2	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Controlled Burst

Range: 200 Meters

Position: Prone

Wind Speed: 0-2

Date:

Shooter: 3

Ammunition: Ball, M193

Weapon Serial No.: 4886568

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-0.6	+18.7	-6.3	+18.8	+3.3	+13.1
2	-0.3	+17.0	-5.1	+14.2	-4.5	+8.8
3	-9.5	+15.5	0	+14.5	-3.3	+1.3
4	+22.8	+11.8	-21.5	-9.6	+13.6	-1.9
5	-4.1	+12.6	MT		-4.9	-10.8
6	-14.9	+3.2	MT		+14.1	-18.9
7	+13.4	-6.9	MT		MT	
8	-13.5	-15.4	MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	0		0		2	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Controlled Burst

Range: 300 Meters

Position: Prone

Wind Speed: 0-2

Date:

Shooter: 1

Ammunition: Ball, M193

Weapon Serial No.: 4917323

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+1.5	+17.1	-11.8	+22.4	-6.3	+19.0
2	+2.8	+11.1	+18.0	+19.0	-4.3	+11.9
3	-6.1	-2.8	-9.8	+14.0	-3.6	+6.5
4	MT		-10.4	-6.5	+9.9	-6.9
5	MT		MT		MT	
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	2		0		2	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Controlled Burst

Range: 300 Meters

Position: Prone

Wind Speed: 0-2

Date:

Shooter: 1

Ammunition: Ball, M193

Weapon Serial No.: 4886568

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-2.2	+21.8	+15.9	+6.1	-15.0	+20.0
2	-9.0	+6.8	+0.1	+7.4	+7.6	+17.9
3	-7.1	+1.3	+0.5	+7.5	-1.0	+8.5
4	-2.8	-0.1	+4.0	-7.7	-8.8	-0.6
5	+5.2	-0.1	-2.9	-10.7	-10.2	-1.3
6	MT		+2.6	-12.8	+11.1	+2.7
7	MT		+21.0	-25.0	+18.0	-21.3
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)		3		4		1

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Controlled Burst

Range: 300 Meters

Position: Prone

Wind Speed: 0-2

Date:

Shooter: 2

Ammunition: Ball, M193

Weapon Serial No.: 4917323

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-5.1	+8.5	-11.1	+1.9	+6.0	+6.5
2	+2.8	+7.3	-5.8	0	+3.8	-5.2
3	-1.7	-15.8	-3.8	-10.3	+25.0	-12.1
4	-0.4	-17.0	-10.0	-12.0	MT	
5	MT		-12.5	-16.0	MT	
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	2		2		2	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Controlled Burst

Range: 300 Meters

Position: Prone

Wind Speed: 0-2

Date:

Shooter: 2

Ammunition: Ball, M193

Weapon Serial No.: 4886568

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+0.6	+8.8	-0.2	+19.5	+5.3	-19.8
2	-1.8	+1.7	+15.7	+11.1	MT	
3	-13.2	-3.7	-3.5	-4.1	MT	
4	MT		+11.2	-8.3	MT	
5	MT		-3.8	-17.0	MT	
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)		2		1		0

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Controlled Burst

Range: 300 Meters

Position: Prone

Wind Speed: 0-2

Date:

Shooter: 3

Ammunition: Ball, M193

Weapon Serial No.: 4917323

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-9.3	+11.9	-6.1	+16.2	-22.4	-4.0
2	-4.8	-2.3	-0.4	+4.8	-16.7	-11.3
3	-15.9	-1.2	-15.9	0	-0.2	-8.7
4	-23.4	+0.5	-10.9	-2.1	MT	
5	-10.5	-4.6	-14.8	-15.9	MT	
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)		1		1		1

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Controlled Burst

Range: 300 Meters

Position: Prone

Wind Speed: 0-2

Date:

Shooter: 3

Ammunition: Ball, M193

Weapon Serial No.: 4886568

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+1.0	+8.9	+7.5	+9.8	-19.4	+11.1
2	-2.3	+6.3	-2.0	+1.1	-1.9	+11.1
3	-0.4	-4.5	+4.5	-1.2	+10.7	-1.2
4	+22.6	-13.2	MT		+8.8	-1.5
5	MT		MT		+7.1	-9.5
6	MT		MT		MT	
7	MT		MT		MT	
8	MT		MT		MT	
9	MT		MT		MT	
10	MT		MT		MT	
Hits on Panel (14.4 x 24.6 ins.)	3		3		2	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Full Automatic
Range: 100 Meters
Position: Prone
Wind Speed: 0-2 Knots

Date: 18 July 1973
Shooter: 1
Ammunition: Ball, M193
Weapon Serial No.: 4925914

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-3.2	+0.6	-4.5	-0.7	-2.3	+10.1
2	-21.7	-13.3	-4.9	-10.6	-16.8	-5.4
3	-20.5	-14.5	-0.5	-10.1	-23.8	-11.0
4	-15.6	-14.8	-3.0	-14.9	MT	MT
5	-16.8	-16.9	-3.2	-15.3	MT	MT
6	-13.1	-18.1	-1.2	-15.3	MT	MT
7	-12.6	-19.0	-2.8	-16.2	MT	MT
8	-18.9	-18.7	-3.9	-17.0	MT	MT
9	-22.2	-18.0	+1.2	-16.2	MT	MT
10	-23.4	-18.2	-1.4	-18.5	MT	MT
Hits on Panel (14.4 x 24.6 ins.)	1		3		1	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Full Automatic

Range: 100Meters

Position: Prone

Wind Speed: 0-2 Knots

Date: 18 July 1973

Shooter: 1

Ammunition: Ball, M193

Weapon Serial No.: 4914642

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-0.9	-6.8	-2.9	+3.5	-2.6	-7.1
2	-20.9	-16.6	-7.2	+2.3	-17.2	-16.8
3	MT	MT	-6.0	+0.4	-22.5	-16.9
4	MT	MT	-9.2	-2.0	-18.1	-18.1
5	MT	MT	-7.8	-2.0	-25.0	-20.1
6	MT	MT	-12.8	-3.4	-17.1	-20.0
7	MT	MT	-13.3	-7.0	-18.2	-21.8
8	MT	MT	-13.5	-8.1	-22.1	-23.1
9	MT	MT	-13.0	-9.2	MT	MT
10	MT	MT	-7.9	-9.0	MT	MT
Hits on Panel (14.4 x 24.6 ins.)		1		3		1

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Full Automatic
Range: 100 Meters
Position: Prone
Wind Speed: 0-2 Knots

Date: 18 July 1973
Shooter: 2
Ammunition: Ball, M193
Weapon Serial No.: 4925914

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-10.2	+16.5	-2.2	-13.8	-2.3	-7.9
2	-7.2	+11.2	+6.9	-14.8	MT	MT
3	-7.7	+16.9	+9.1	-17.3	MT	MT
4	-2.8	+4.9	+6.1	-17.9	MT	MT
5	+3.9	+2.4	+3.8	-20.3	MT	MT
6	+3.0	-1.5	+5.5	-22.9	MT	MT
7	+2.5	-4.9	MT	MT	MT	MT
8	+0.5	-6.4	MT	MT	MT	MT
9	-2.0	-7.8	MT	MT	MT	MT
10	-11.3	-11.2	MT	MT	MT	MT
Hits on Panel (14.4 x 24.6 ins.)	7		0		1	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Full Automatic

Range: 100 Meters

Position: Prone

Wind Speed: 0-2 Knots

Date: 18 July 1973

Shooter: 2

Ammunition: Ball, M193

Weapon Serial No.: 4914642

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-4.0	-6.5	-23.4	+3.4	+7.4	-5.1
2	+13.5	-7.9	-5.0	-9.8	+13.2	-16.2
3	+13.2	-8.4	+20.0	-19.5	+21.2	-14.9
4	+14.8	-8.7	MT	MT	+23.9	-17.5
5	+11.2	-13.8	MT	MT	MT	MT
6	+7.6	-15.1	MT	MT	MT	MT
7	+2.7	-16.8	MT	MT	MT	MT
8	+6.4	-17.6	MT	MT	MT	MT
9	+2.8	-22.6	MT	MT	MT	MT
10	+2.4	-24.9	MT	MT	MT	MT
Hits on Panel (14.4 x 24.6 ins.)		1		1		1

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Full Automatic

Range: 100 Meters

Position: Prone

Wind Speed: 0-2 Knots

Date: 18 July 1973

Shooter: 3

Ammunition: Ball, M193

Weapon Serial No.: 4925914

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-1.6	+0.5	+2.5	-2.4	-0.5	-1.6
2	-12.7	-18.3	-4.3	+2.9	-15.4	-1.9
3	MT	MT	-11.8	-2.6	-19.7	-2.9
4	MT	MT	-14.8	+3.9	-7.1	-6.8
5	MT	MT	-17.8	-0.3	-16.9	-6.8
6	MT	MT	-18.4	+2.3	-19.4	-8.4
7	MT	MT	-20.8	+3.9	-24.4	-13.1
8	MT	MT	-23.5	+9.8	MT	MT
9	MT	MT	-22.5	+12.3	MT	MT
10	MT	MT	MT	MT	MT	MT
Hits on Panel (14.4 x 24.6 ins.)		1		2		2

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Full Automatic
Range: 100 Meters
Position: Prone
Wind Speed: 0-2 Knots

Date: 18 July 1973
Shooter: 3
Ammunition: Ball, M193
Weapon Serial No.: 4914642

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-23.4	+7.9	-12.4	+14.4	+12.9	+19.2
2	-22.2	+8.2	-10.9	+14.2	-3.4	+7.4
3	-17.9	-13.2	-11.8	+12.0	-19.9	-10.4
4	-21.2	-14.8	-12.7	+11.2	MT	MT
5	-19.6	-16.0	-16.3	+7.8	MT	MT
6	-6.2	-6.1	+0.2	+6.0	MT	MT
7	MT	MT	-17.9	+2.2	MT	MT
8	MT	MT	-17.9	0.0	MT	MT
9	MT	MT	-13.8	0.0	MT	MT
10	MT	MT	-22.0	-3.1	MT	MT
Hits on Panel (14.4 x 24.6 ins.)	1		1		1	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Full Automatic

Range: 150 Meters

Position: Prone

Wind Speed: 0-2 Knots

Date: 18 July 1973

Shooter: 1

Ammunition: Ball, M193

Weapon Serial No.: 4925914

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-5.5	+1.5	-5.4	+14.2	-4.6	+7.5
2	-10.6	-3.3	-10.2	+4.6	-21.6	-3.5
3	-12.9	-7.2	-13.9	+0.2	-22.4	-8.1
4	-9.9	-9.5	-10.2	-3.6	-18.0	-8.2
5	-8.0	-9.8	-15.2	-7.5	-14.4	-11.3
6	-9.8	-10.3	-12.6	-7.8	-16.4	-12.1
7	-7.2	-12.2	-11.7	-12.3	-17.1	-14.1
8	-5.5	-12.0	-15.0	-13.8	-16.8	-15.6
9	-5.2	-12.9	-17.1	-14.9	-20.0	-14.1
10	-7.1	-16.8	-18.3	-16.8	MT	MT
Hits on Panel (14.4 x 24.6 ins.)	3		0		1	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Full Automatic

Range: 150 Meters

Position: Prone

Wind Speed: 0-2 Knots

Date: 18 July 1973

Shooter: 1

Ammunition: Ball, M193

Weapon Serial No.: 4914642

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+0.9	-13.8	-6.5	-1.6	+2.0	-12.0
2	+3.9	-24.1	-6.2	-5.5	MT	MT
3	MT	MT	-4.2	-9.6	MT	MT
4	MT	MT	0.0	-9.2	MT	MT
5	MT	MT	-11.9	-14.0	MT	MT
6	MT	MT	-3.3	-16.3	MT	MT
7	MT	MT	-10.8	-21.5	MT	MT
8	MT	MT	-11.9	-24.0	MT	MT
9	MT	MT	-20.3	-25.0	MT	MT
10	MT	MT	MT	MT	MT	MT
Hits on Panel (14.4 x 24.6 ins.)	0		4		1	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Full Automatic

Range: 150 Meters

Position: Prone

Wind Speed: 0-2 Knots

Date: 18 July 1973

Shooter: 2

Ammunition: Ball, M193

Weapon Serial No.: 4914642

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+1.0	-17.0	MT		+8.0	+20.9
2	-9.9	-19.2	MT		+15	+21.2
3	MT	MT	MT		-0.4	+20.6
4	MT	MT	MT		+0.7	+12.0
5	MT	MT	MT		-2.6	+8.9
6	MT	MT	MT		-6.8	+6.2
7	MT	MT	MT		-4.6	-5.9
8	MT	MT	MT		MT	MT
9	MT	MT	MT		MT	MT
10	MT	MT	MT		MT	MT
Hits on Panel (14.4 x 24.6 ins.)	0		0		4	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Full Automatic
Range: 150 Meters
Position: Prone
Wind Speed: 0-2 Knots

Date: 18 July 1973
Shooter: 2
Ammunition: Ball, M193
Weapon Serial No.: 4925914

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-2.0	-13.3	-9.9	-5.1	+1.0	-4.0
2	MT	MT	MT	MT	MT	MT
3	MT	MT	MT	MT	MT	MT
4	MT	MT	MT	MT	MT	MT
5	MT	MT	MT	MT	MT	MT
6	MT	MT	MT	MT	MT	MT
7	MT	MT	MT	MT	MT	MT
8	MT	MT	MT	MT	MT	MT
9	MT	MT	MT	MT	MT	MT
10	MT	MT	MT	MT	MT	MT
Hits on Panel (14.4 x 24.6 ins.)		0		0		1

- Note: (1) "MT" missed target measuring 8 x 8 feet.
(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Full Automatic

Range: 150 Meters

Position: Prone

Wind Speed: 0-3 Knots

Date: 19 July 1973

Shooter: 3

Ammunition: Ball, M193

Weapon Serial No. 4925914

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+3.2	-3.2	+2.8	-12.1	-7.8	-12.6
2	+5.0	-11.9	MT	MT	-10.5	-21.8
3	MT	MT	MT	MT	-6.9	-21.5
4	MT	MT	MT	MT	MT	MT
5	MT	MT	MT	MT	MT	MT
6	MT	MT	MT	MT	MT	MT
7	MT	MT	MT	MT	MT	MT
8	MT	MT	MT	MT	MT	MT
9	MT	MT	MT	MT	MT	MT
10	MT	MT	MT	MT	MT	MT
Hits on Panel (14.4 x 24.6 ins.)	2		1		0	

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Full Automatic
Range: 150 Meters
Position: Prone
Wind Speed: 0-3 Knots

Date: 19 July 1973
Shooter: 3
Ammunition: Ball, M193
Weapon Serial No.: 4914642

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-4.6	+4.0	-2.4	+0.3	-1.1	-11.9
2	-10.0	-11.2	-4.2	-13.5	-20.4	-17.5
3	-23.6	-9.5	MT	MT	-25.6	-22.9
4	MT	MT	MT	MT	-23.5	-25.2
5	MT	MT	MT	MT	MT	MT
6	MT	MT	MT	MT	MT	MT
7	MT	MT	MT	MT	MT	MT
8	MT	MT	MT	MT	MT	MT
9	MT	MT	MT	MT	MT	MT
10	MT	MT	MT	MT	MT	MT
Hits on Panel (14.4 x 24.6 ins.)	1		1		1	

- Note: (1) "MT" missed target measuring 8 x 8 feet.
(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Full Automatic
Range: 200 Meters
Position: Prone
Wind Speed: 0-3 Knots

Date: 19 July 1973
Shooter: 1
Ammunition: Ball, M193
Weapon Serial No.: 4925914

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	-9.3	-1.3	-17.6	-7.6	-2.4	-1.1
2	-5.5	-25.0	MT	MT	-7.3	+18.9
3	MT	MT	MT	MT	+2.6	-24.8
4	MT	MT	MT	MT	MT	MT
5	MT	MT	MT	MT	MT	MT
6	MT	MT	MT	MT	MT	MT
7	MT	MT	MT	MT	MT	MT
8	MT	MT	MT	MT	MT	MT
9	MT	MT	MT	MT	MT	MT
10	MT	MT	MT	MT	MT	MT
Hits on Panel (14.4 x 24.6 ins.)		0		0		1

- Note: (1) "MT" missed target measuring 8 x 8 feet.
(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Full Automatic

Range: 200 Meters

Position: Prone

Wind Speed: 0-3 Knots

Date: 19 July 1973

Shooter: 2

Ammunition: Ball, M193

Weapon Serial No.: 4914642

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	+3.2	+4.5	-3.3	+8.2	-6.0	-20.5
2	+24.1	-16.1	+15.9	-3.2	MT	MT
3	MT	MT	+6.5	-3.0	MT	MT
4	MT	MT	-4.5	-10.1	MT	MT
5	MT	MT	MT	MT	MT	MT
6	MT	MT	MT	MT	MT	MT
7	MT	MT	MT	MT	MT	MT
8	MT	MT	MT	MT	MT	MT
9	MT	MT	MT	MT	MT	MT
10	MT	MT	MT	MT	MT	MT
Hits on Panel (14.4 x 24.6 ins.)		1		3		0

Note: (1) "MT" missed target measuring 8 x 8 feet.

(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

DATA RECORD

Accuracy and Dispersion
(Ref. Para. 2.4, NATO D/14)

Phase: Full Automatic
Range: 200 Meters
Position: Prone
Wind Speed: 0-3 Knots

Date: 19 July 1973
Shooter: 3
Ammunition: Ball, M193
Weapon Serial No.: 4914642

Round	Sling and Bipod		Sling and Bipod		Sling and Bipod	
	-x-	-y-	-x-	-y-	-x-	-y-
1	0.0	-1.9	-16.8	+0.8	+2.1	-11.2
2	MT	MT	-7.6	-12.6	+5.4	-10.9
3	MT	MT	MT	MT	MT	MT
4	MT	MT	MT	MT	MT	MT
5	MT	MT	MT	MT	MT	MT
6	MT	MT	MT	MT	MT	MT
7	MT	MT	MT	MT	MT	MT
8	MT	MT	MT	MT	MT	MT
9	MT	MT	MT	MT	MT	MT
10	MT	MT	MT	MT	MT	MT
Hits on Panel (14.4 x 24.6 ins.)	1		0		0	

- Note: (1) "MT" missed target measuring 8 x 8 feet.
(2) Incomplete groups renders spread, deviation, mean radius and center of impact data reduction meaningless.

ENDURANCE TEST DATA

(Ref. Section 2.7.2 of NATO D/14)

Rifle Serial No. 4886568

	Rounds Fired In Prior Tests	Endurance Test Firing				Total Rounds Fired
	970	1970	2970	3970	4970	6020
Bore (in.)	.219	N/A	N/A	N/A	N/A	.219
Headspace (in.)	1.4691	N/A	N/A	N/A	N/A	1.4706
Firing time— 20 rds. (sec.)	1.4	N/A	N/A	N/A	N/A	1.3
Velocity (fps)						
1	3236	3236	3205		3201	3228
2	3226	3215	3157		3266	3277
3	3215	3215	3256		3287	3245
4	3229	3226	3224		3253	3309
5	3196	3290	3246		3235	3226
6	3268	3215	3187		3285	3203
7	3207	3236	3190		3250	3236
8	3247	3210	3252		3240	3255
9	3247	3247	3249		3241	3289
10	3157	3221	3256		3228	3293
Average	3223	3231	3222		3249	3256
Max. Var.	111	75	99		86	106
Note: All firings except velocity and accuracy firings were conducted with a 4 to 1 ratio of Ball (M193) and Tracer (M196) ammunition.						

ENDURANCE TEST DATA
(Ref. Section 2.7.2 of NATO D/14)
Rifle Serial No. 4886568 (Continued)

Mode: Machine Rest

Range: 100 yards (indoor)

Ammunition: Ball, M193

Accuracy (in.)	Rounds Fired In Prior Tests		Endurance Test Firing										Total Rounds Fired	
	970		1970		2970		3970		4970		6020			
	x	y	x	y	x	y	x	y	x	y	x	y		
1	-2.1	+1.2	-1.8	+1.1	-3.8	+0.8	-0.6	+5.5	+1.1	+2.5	-2.4	-0.8		
2	+0.1	+1.1	-0.3	+1.0	-3.7	+0.7	-0.7	+2.4	-0.4	+1.2	-1.4	-1.1		
3	-1.8	0	+0.1	+1.2	-2.6	+1.2	+1.0	+1.0	-1.4	+0.8	+0.2	-2.5		
4	-1.1	-0.3	+0.5	+1.1	-0.5	+1.2	-1.8	+0.8	-1.9	-0.8	0	+2.2		
5	+1.0	+0.1	-0.5	+0.4	+0.7	+0.8	0	0	-2.2	-1.9	+0.4	+0.9		
6	+1.9	+0.1	+0.4	0	+0.8	-0.1	-0.7	-0.4	-1.0	-1.0	+0.4	+0.1		
7	+2.0	-0.4	-0.4	-0.8	-3.2	-0.6	-2.7	-1.3	-1.2	-2.2	+0.6	+0.1		
8	+2.0	-1.0	-0.1	-1.0	-1.7	-1.2	-1.5	-1.4	-0.2	-0.3	+0.8	+0.1		
9	+2.1	-1.2	-0.1	-1.3	+1.6	-0.9	-2.9	-1.3	+1.0	-2.1	+0.6	-0.7		
10	-1.0	-1.5	+0.2	-1.2	+3.8	-0.7	-0.5	-2.3	+2.0	-1.1	+1.2	-0.7		
Center of Impact	+0.3	-0.2	-0.2	-0.05	-0.9	+0.1	-0.4	-0.5	-0.5	+0.8	+0.04	-0.2		
Hor. Std Dev.	1.61	N/A	0.62	N/A	2.43	N/A	1.32	N/A	3.12	N/A	1.04	N/A		
Vert. Std. Dev.	N/A	0.85	N/A	0.99	N/A	0.87	N/A	1.47	N/A	2.3	N/A	1.19		
Hor. Spread	4.2	N/A	2.3	N/A	7.6	N/A	4.2	N/A	9.2	N/A	3.6	N/A		
Vert. Spread	N/A	2.7	N/A	2.5	N/A	2.4	N/A	4.7	N/A	7.7	N/A	4.7		
Mean Radius	1.75		1.08		2.37		1.9		3.3		1.4			
Accuracy Std. Dev.	1.29		0.83		1.82		1.4		2.75		1.12			

ENDURANCE TEST DATA

(Ref. Section 2.7.2 of NATO D/14)

Rifle Serial No. 4886568 (Continued)

Orientation (Para. 2.7.2.4)	Rounds Fired*	Malfunctions**
a	100	N/A
b	100	N/A
c	100	N/A
d	100	N/A
e	100	N/A
f	100	N/A
g	100	N/A
h	100	N/A
i	100	N/A
j	100	FF (983/3)
k	100	N/A
l	100	N/A
m	100	N/A
n	100	N/A
2.7.2.5***	3650	FF (2131/11) (2515/5) (2517/7) (2527/17) (2640/10) (2642/12) (2760/10) (2920/20) (3003/13) (3011/21) (3150/10) (3334/14) (3360/10) (3388/8) (3443/3) (3546/16) (3563/3) (3565/5) (3582/22) (3628/8) (3880/20) (3892/2) (3893/3) (3899/9) (4062/22) (4080/10) (4107/7) (4144/14) (4148/18) (4168/8)****
Total	5050	FFR (2698/8) (3483/13) 33
*Tracer Ball mix of 1:4.		
**Parenthesized number is round number and position of round from top of magazine.		
***Items a thru n with 20-round magazine. Item 2.7.2.5 with 30-round magazine.		
****Magazines used to this point were set aside and new magazines used. No further malfunctions were encountered.		

ENDURANCE TEST DATA
(Ref. Section 2.7.2 of NATO D/14)

Rifle Serial No. 4914642

	Rounds Fired In Prior Tests	Endurance Test Firing					Total Rounds Fired
	270	1270	2270	3270	4270	5270	6020
Bore (in.)	.219	N/A	N/A	N/A	N/A	N/A	.219
Headspace (in.)	1.4676	N/A	N/A	N/A	N/A	N/A	1.4691
Firing time— 20 rds. (sec.)	1.4	N/A	N/A	N/A	N/A	N/A	1.3
Velocity (fps)							
1	3222	3218	3222	3196	3256	3215	3203
2	3214	3211	3212	3303	3189	3235	3191
3	3225	3232	3195	3234	3261	3232	3217
4	3218	3225	3237	3266	3240	3286	3222
5	3248	3224	3247	3274	3225	3259	3182
6	3199	3228	3231	3258	3226	3203	3238
7	3220	3214	3244	3290	3192	3229	3194
8	3295	3211	3229	3295	3258	3213	3255
9	3214	3199	3297	3264	3202	3209	3254
10	3213	3222	3225	3259	3226	3261	3213
Average	3227	3218	3234	3264	3228	3234	3217
Max. Var.	96	33	102	107	72	83	73

ENDURANCE TEST DATA
(Ref. Section 2.7.2 of NATO D/14)

Rifle Serial No. 4914642

Mode: Machine Rest

Range: 100 yards (indoor)

Ammunition: Ball, M193

Accuracy (in.)	Rounds Fired In Prior Tests		Endurance Test Firing										Total Rounds Fired	
	270		1270		2270		3270		4270		5270		6020	
	x	y	x	y	x	y	x	y	x	y	x	y	x	y
1	-0.1	+1.8	-1.1	+3.2	+0.7	+1.3	+0.5	+4.9	+2.6	+1.8	+1.2	+1.5	-2.9	-0.5
2	+2.1	+1.0	-1.5	+3.1	0	+0.5	+2.1	+1.0	+1.9	+1.4	+0.8	0	-1.8	-1.0
3	-0.2	+0.2	-3.1	+3.0	-1.1	0	+0.8	+0.7	-0.5	-0.2	-0.3	-0.2	-1.2	-0.2
4	+0.3	-0.4	-2.4	+2.4	-0.1	-0.1	+0.9	0	-2.8	-0.5	-1.2	-1.1	-0.6	+0.1
5	+0.4	-0.6	-1.2	+2.6	-0.2	-0.4	-0.1	-1.5	-2.8	-1.6	-0.9	-0.9	+0.5	+0.9
6	+0.2	-0.7	-1.2	+1.8	+1.0	0	-1.3	-3.3	-2.1	-1.1	-0.5	0	+1.1	+0.9
7	0	-0.5	-1.2	+1.3	+1.1	-0.5	-1.1	-3.9	-1.8	-1.7	+0.1	-0.3	+1.5	+1.7
8	-0.1	-1.5	-1.2	+1.2	+1.1	-0.7	-0.9	-4.1	-0.9	-0.8	-1.3	-0.9	+0.7	+0.4
9	-0.9	-1.9	-1.1	+0.5	-0.6	-1.1	-0.1	-4.5	-0.5	-0.8	-1.0	-1.6	+0.5	-0.1
10	-2.1	-1.6	+1.6	-1.8	+0.7	-1.5	-2.2	-5.1	+0.2	-1.5	-0.9	-0.9	+1.9	-1.0
Center of Impact	-0.04	-0.4	-1.2	+1.7	+0.3	-0.2	-0.1	-1.6	-0.7	-0.5	-0.4	-0.4	-0.03	+0.1
Hor. Std Dev.	1.0	N/A	1.14	N/A	0.72	N/A	1.2	N/A	1.75	N/A	0.81	N/A	1.47	N/A
Vert. Std. Dev.	N/A	1.1	N/A	1.46	N/A	0.75	N/A	2.99	N/A	1.14	N/A	0.8	N/A	2.7
Hor. Spread	4.2	N/A	4.7	N/A	2.2	N/A	4.3	N/A	5.4	N/A	2.5	N/A	4.8	N/A
Vert. Spread	N/A	3.7	N/A	5.0	N/A	2.8	N/A	10.0	N/A	3.5	N/A	3.1	N/A	2.7
Mean Radius	1.17		1.35		1.05		2.8		1.64		0.97		1.5	
Accuracy Std. Dev.	1.05		1.31		0.74		2.28		1.48		0.8		2.18	

ENDURANCE TEST DATA

(Ref. Section 2.7.2 of NATO D/14)

Rifle Serial No. 4914642 (Continued)

Orientation (Para. 2.7.2.4)	Rounds Fired	Malfunctions*
a	100	N/A
b	100	N/A
c	100	N/A
d	100	N/A
e	100	N/A
f	100	N/A
g	100	N/A
h	100	N/A
i	100	N/A
j	100	N/A
k	100	FF (1063/3)
l	100	N/A
m	100	N/A
n	100	N/A
2.7.2.5**	4350	FF (4930/20) (5638/8)
Total	5750	3
<p>*Parenthesized number is round number and position of round from top of magazine.</p> <p>**Items a thru n with 20-round magazine. Item 2.7.2.5 with 30-round magazine.</p>		

ENDURANCE TEST DATA
(Ref. Section 2.7.2 of NATO D/14)

Rifle Serial No. 4925914

	Rounds Fired In Prior Tests	Endurance Test Firing					Total Rounds Fired
	270	1270	2270	3270	4270	5270	6020
Bore (in.)	.219	N/A	N/A	N/A	N/A	N/A	.219
Headspace (in.)	1.4691	N/A	N/A	N/A	N/A	N/A	1.4691
Firing time— 20 rds. (sec.)	1.4	N/A	N/A	N/A	N/A	N/A	1.3
Velocity (fps)							
1	3221	3247	3205	3218	3190	3165	3188
2	3236	3225	3240	3239	3189	3174	3181
3	3226	3235	3225	3249	3255	3156	3215
4	3187	3212	3181	3223	3238	3214	3197
5	3256	3298	3240	3193	3190	3257	3203
6	3246	3199	3166	3238	3217	3199	3182
7	3190	3180	3253	3227	3222	3218	3201
8	3226	3186	3222	3229	3299	3244	3264
9	3207	3207	3180	3248	3222	3230	3224
10	3243	3239	3228	3288	3171	3192	3243
Average	3224	3220	3214	3235	3219	3205	3210
Max. Var.	69	118	87	95	128	101	83

ENDURANCE TEST DATA

(Ref. Section 2.7.2 of NATO D/14)

Rifle Serial No. 4925914 (Continued)

Mode: Machine Rest

Range: 100 yards (indoor)

Ammunition: Ball, M193

Accuracy (in.)	Rounds Fired In Prior Tests		Endurance Test Firing										Total Rounds Fired	
	270		1270		2270		3270		4270		5270		6020	
	x	y	x	y	x	y	x	y	x	y	x	y	x	y
1	+1.1	+1.1	-1.3	+1.2	-1.0	+1.7	+2.6	+3.1	+0.6	+0.8	-1.0	+2.2	-2.1	0
2	+0.6	+0.8	-0.5	+1.5	+1.8	+1.9	-2.0	+1.2	+1.5	-0.1	0	+1.8	-1.5	0
3	+0.7	+0.7	+0.6	+1.2	-1.7	+0.3	-1.7	+0.8	0	0	+0.4	+2.8	-1.2	-0.1
4	-0.2	+0.5	+0.7	+0.9	-1.5	+0.3	-2.7	+0.2	0	0	+0.5	+2.3	-1.1	+0.2
5	-0.8	+0.2	0	+0.4	-1.1	+0.5	-1.8	-0.3	+0.3	-0.2	+2.0	+2.0	-0.7	+0.7
6	-0.9	-0.1	-0.6	+1.0	-0.3	+0.2	-1.2	-0.2	-1.2	-0.1	-2.1	-0.6	+0.1	+0.8
7	+0.1	-0.4	-1.1	+0.5	-1.2	-0.8	-0.9	-0.2	-0.6	-0.3	-1.8	-1.3	+0.3	+0.5
8	+0.5	-0.1	+1.1	0	-1.8	-1.5	-0.8	-0.3	-0.1	-0.5	-1.7	-1.8	+0.9	+0.1
9	+0.7	-0.2	+0.9	-0.3	-0.3	-1.9	+0.1	-1.0	-0.3	-0.8	-0.5	-1.4	+1.0	-1.0
10	+1.0	-1.0	+1.2	-1.5	0	-1.8	-1.2	-3.0	-1.7	-0.7	+0.1	-2.4	+1.8	-1.4
Center of Impact	+0.3	+0.2	+0.1	+0.5	-0.7	-0.1	-1.0	+0.03	-0.2	-0.2	-0.4	+0.4	-0.2	-0.02
Hor. Std Dev.	0.67	N/A	0.88	N/A	1.0	N/A	1.39	N/A	0.85	N/A			1.19	N/A
Vert. Std. Dev.	N/A	0.6	N/A	0.64	N/A	1.28	N/A	1.13	N/A	0.42			N/A	0.66
Hor. Spread	2.0	N/A	2.5	N/A	3.6	N/A	5.3	N/A	3.2	N/A	4.1	N/A	3.9	N/A
Vert. Spread	N/A	2.1	N/A	3.0	N/A	3.8	N/A	6.1	N/A	1.6	N/A	5.2	N/A	2.2
Mean Radius	0.75		1.02		1.4		1.45		0.75				1.3	
Accuracy Std. Dev.	0.64		0.77		1.15		1.27		0.67				0.96	

ENDURANCE TEST DATA

(Ref. Section 2.7.2 of NATO D/14)

Rifle Serial No. 4925914 (Continued)

Orientation (Para. 2.7.2.4)	Rounds Fired	Malfunctions*
a	100	N/A
b	100	N/A
c	100	N/A
d	100	N/A
e	100	N/A
f	100	N/A
g	100	N/A
h	100	FF (754/14)
i	100	N/A
j	100	FF (924/4)
k	100	N/A
l	100	N/A
m	100	N/A
n	100	FF (1383/3)
2.7.2.5**	4350	FF (2246/6) (2964/4) (5312/12) (5428/8) (5432/12) FFR (5436/16)
Total	5750	9
*Parenthesized number is round number and position of round from top of magazine.		
**Items a thru n with 20-round magazine. Item 2.7.2.5 with 30-round magazine.		

ENDURANCE TEST DATA
(Ref. Section 2.7.2 of NATO D/14)

Rifle Serial No. 4917323

	Rounds Fired In Prior Tests	Endurance Test Firing				Total Rounds Fired
		970	1970	2970	3970	
Bore (in.)	.219	N/A	N/A	N/A	N/A	.219
Headspace (in.)	1.4691	N/A	N/A	N/A	N/A	1.4706
Firing time— 20 rds. (sec.)	1.4	N/A	N/A	N/A	N/A	1.3
<u>Velocity (fps)</u>						
1	3233	3234	3194	3202	3262	3280
2	3181	3221	3187	3243	3179	3281
3	3220	3215	3207	3267	3165	3239
4	3181	3186	3211	3213	3197	3202
5	3236	3209	3188	3218	3228	3267
6	3210	3181	3224	3189	3203	3222
7	3262	3191	3210	3179	3169	3250
8	3218	3234	3199	3262	3247	3284
9	3208	3236	3240	3262	3222	3231
10	3239	3239	3177	3232	3228	3226
Average	3218	3214	3204	3227	3210	3248
Max. Var.	81	58	63	88	97	82

ENDURANCE TEST DATA
(Ref. Section 2.7.2 of NATO D/14)

Rifle Serial No. 4917323 (Continued)

Mode: Machine Rest

Range: 100 yards (indoor)

Ammunition: Ball, M193

	Rounds Fired In Prior Tests		Endurance Test Firing										Total Rounds Fired	
	970		1970		2970		3970		4970		6020			
Accuracy (in.)	x	y	x	y	x	y	x	y	x	y	x	y		
1	-0.7	+0.6	+0.1	+0.9	-1.1	+1.9	+2.9	+1.6	-1.8	+1.1	-3.8	-1.3		
2	-1.7	-0.1	+0.8	+0.5	+0.1	+1.1	-1.5	+0.3	-0.8	+1.0	-0.9	+0.7		
3	0	+0.1	+0.8	+0.3	+0.1	+0.3	-2.5	-0.5	-0.7	+0.9	-1.1	-0.1		
4	+0.3	+0.1	+0.4	-0.1	+0.1	0	-1.8	-0.3	-0.9	+0.3	+0.2	+0.2		
5	+1.7	-0.1	+0.3	+0.1	+0.5	-0.1	-2.8	-1.6	+0.1	+0.6	-0.9	+0.7		
6	0	-0.1	-0.2	-0.1	+1.1	0	-2.1	-1.1	+0.6	+0.5	0	-0.7		
7	-0.2	-0.3	0	-0.8	-1.2	-1.2	-1.9	-0.9	+1.5	+0.2	+0.2	-0.3		
8	0	-0.4	-0.2	-1.0	+0.3	-0.9	-1.3	-1.2	+2.1	0	+0.7	-0.7		
9	+0.3	-0.3	-0.2	-0.8	+0.8	-1.3	-1.2	-1.0	+0.2	-0.8	+1.1	-0.2		
10	+0.1	-0.9	-1.0	-1.0	0	-2.0	+0.3	-0.5	-0.3	-1.0	+2.7	-0.3		
Center of Impact	-0.2	-0.1	+0.08	-0.2	+0.07	-0.2	-1.2	-0.5	0	+0.3	-0.2	-0.2		
Hor. Std. Dev.	0.8	N/A	0.4	N/A	0.7	N/A	1.6	N/A	1.1	N/A	1.6	N/A		
Vert. Std. Dev.	N/A	0.4	N/A	0.2	N/A	1.0	N/A	0.9	N/A	0.7	N/A	0.6		
Hor. Spread	2.3	N/A	1.8	N/A	2.3	N/A	5.7	N/A	3.9	N/A	6.5	N/A		
Vert. Spread	N/A	3.9	N/A	1.9	N/A	3.9	N/A	3.2	N/A	2.1	N/A	2.0		
Mean Radius	0.64		0.71		1.11		1.26		1.2		1.5			
Accuracy Std. Dev.	0.63				0.85		1.27		0.92		1.22			

ENDURANCE TEST DATA
(Ref. Section 2.7.2 of NATO D/14)

Rifle Serial No. 4917323 (Continued)

Orientation (Para. 2.7.2.4)	Rounds Fired	Malfunctions*
a	100	N/A
b	100	N/A
c	100	N/A
d	100	N/A
e	100	N/A
f	100	N/A
g	100	N/A
h	100	N/A
i	100	N/A
j	100	N/A
k	100	N/A
l	100	N/A
m	100	N/A
n	100	N/A
2.7.2.5**	3650	N/A
Total	5050	0
<p>*Parenthesized number is round number and position of round from top of magazine.</p> <p>**Items a thru n with 20-round magazine. Item 2.7.2.5 with 30-round magazine.</p>		

FLASH TEST DATA

(Ref. 2.12.2, NATO D/14)

Rifles:	4917684 (M16A1)	4917323 (M16A1)	663588 (M14, Control)
Prior Firing:	136 Ball, 1 Proof	6020 Ball, 1 Proof	(Unknown)
Ammunition:	Ball M193	Ball M193	Ball, M80
Ambient Temperature:	92 ⁰ F		

The cumulative flash of twenty rounds from each rifle was photographed in a darkened room at ambient temperature and immediately after firing 180 rounds. The 180 conditioning rounds were fired in full automatic in the M16A1 rifles and as rapidly as possible in the semi-automatic mode in the M14 rifle. The twenty (20) rounds for which the flash was photographed were fired in four (4) automatic five (5) round bursts in the M16A1 rifles and in a continuous semi-automatic string from the M14 rifle.

The photographs were taken with Royal Pan 4141 film, a Linhof 4 x 5 camera with 1:4.5/150mm lens and an aperture setting of f4.5 positioned approximately 4 1/2 feet to the right of the rifles. The test fixture and rifle were bathed with subdued light, the room darkened and the cumulative flash photographed with the lens open.

NOISE TEST DATA

(Ref. 2.13, NATO D/14)

Rifles:	4925914	4917684	663588 (M14, Control)
Prior Firings:	6021	577	(Unknown)
Ammunition:	Ball, M193	Ball, M193	Ball, M80
Ambient Temperature:	79°F	79°F	79°F
Pick Up:	B & K microphone (1/4 inch diameter) located 33 inches behind and 2 inches above the muzzle (approximating a right-handed shooter's left ear) with an oscilloscope display.		

Round	Peak (db)	Decay Time to 20 db (milliseconds)	Density of Fluctuations of Main Envelope	Duration of Peak (milliseconds)	Time to Peak (milliseconds)
4925914					
1	159	.29	10	.12	.05
2	159.4	.29	8	.13	.075
3	159	.30	11	.11	.10
4	158.5	.30	9	.14	.075
5	158	.22	6	.16	.05
4917684					
1	157.7	.30	8	.13	.05
2	158.2	.30	7	.13	.05
3	159.0	.15	6	.12	.05
4	157.9	.15	5	.12	.05
5	157.3	.24	8	.12	.075
663588					
1	160.5	.28	9	.14	.05
2	160.7	.25	9	.14	.05
3	160.6	.28	7	.15	.05
4	160.5	.27	8	.12	.075
5	161.1	.23	6	.12	.05

TEMPERATURE/HUMIDITY TEST DATA

(Ref. 2.14.3, NATO D/14)

Rifles: 4925366 and 4917323

Ammunition: Ball, M193

Conditioning Cycle:

Time (hrs)	Temperature (°F)	Relative Humidity (%)
0	72	54
0-4	increasing to 105	increasing to 95
4-16	105	90-95
16-20	decreasing to 70	increasing to 100
20-24	70	95-150

Repeated for a total of five (5) cycles with firing sequences between each cycle.

Firing Sequence: 125 rounds in semi-automatic mode - each rifle.
125 rounds in full automatic mode - each rifle.

Results:

Serial No. 4925366

Rust and slight pitting on external surfaces of the barrel, front sight, flash suppressor, hammer pin, magazine latch, bolt assist and bolt carrier. Round 220 of third firing sequence failed to chamber, necessitating use of the bolt assist.

Serial No. 4917323

Rust and slight pitting on external surfaces of barrel, flash suppressor, front sight, trigger, butt plate screws, bolt assist and bolt carrier. Rounds 145 of second firing sequence and 67 of fifth firing sequence failed to chamber, necessitating use of the bolt assist.

RECOIL TEST DATA

(Ref. 2.16, NATO D/14)

Rifle: 4917684

Ammunition: Ball, M193

The rifle was chambered with one (1) round, suspended in a ballistic pendulum with an empty magazine in place. Upon firing, the rearward velocity of the butt of the rifle was computed using breaker circuits and an Electronic Counters, Inc. Model 4010 chronograph calibrated in May of 1973.

The rifle was allowed to recoil 3/16 inch before breaking the "starting" circuit. The continued rearward movement of the rifle then broke the "stop" circuit located one (1) inch from the "start" circuit. The elements in the "start" and "stop" circuit which were actually broken were pencil leads (2200D, 3H, .074 inch diameter).

The average velocity of twenty (20) rounds fired in this manner was then used to compute recoil energy in accordance with Paragraph 2.16.3.2,h of D/14.

IF: Weight of rifle (w/empty case and suspension brackets) (W):	8.63 lbs
Average recoil velocity (10 rounds (V ave):	3.53 fps
Maximum recoil velocity (V max):	4.38 fps
Minimum recoil velocity (V min):	3.18 fps

AND: Recoil Energy = $\frac{WV^2}{2g}$

THEN: Recoil Energy (V ave) = 1.68 ft-lbs

Recoil Energy (V max) = 2.57 ft-lbs

Recoil Energy (V min) = 1.36 ft-lbs

RECOIL TEST DATA (Continued)

RECOIL VELOCITY

<u>Round</u>	<u>Time (Seconds)</u>	<u>Velocity (fps)</u>
1	.019802	4.209
2	.024001	3.472
3	.019077	4.369
4	.023598	3.531
5	.026201	3.181
6	.025951	3.211
7	.022338	3.731
8	.022527	3.700
9	.025991	3.206
10	.026132	3.189
Average:	.0235618	3.54
Maximum:	.026201	4.37
Minimum:	.019077	3.18
Variation:	.007124	1.19

UNLUBRICATED TEST DATA

(Ref. Paragraph 2.18.1, NATO D/14)

Rifle: Serial Nos. 4917684 and 4911447

Each rifle was totally disassembled, cleaned, inspected and allowed to soak in "Bond" cold solvent for a period of two (2) hours. Upon reassembly each rifle fired 1000 rounds of caliber 5.56mm, Ball ammunition (M193) in sixty (60) round groups--alternating modes of fire from semi-automatic to burst fire after each group.

Rifle Serial No. 4917684 completed the firing sequence without malfunction.

Rifle Serial No. 4911447

Round	Position in Magazine	Mode of Fire	Malfunction	Cause
219	9	Burst	FF	Gun
276	6	Semi	FF	Gun
311	11	Burst	FF	Gun
427	7	Burst	FF	Gun
521	11	Semi	FF	Gun
580	10	Burst	FF	Gun
638	8	Semi	FF	Gun
642	12	Semi	FF	Gun
938	8	Burst	FF	Gun
942	12	Burst	FF	Gun
971	11	Burst	FF	Gun
973	13	Burst	FF	Gun
Total		8--Burst 4--Semi-Auto	12 FF	12 Gun

SALT WATER IMMERSION TEST DATA
(Ref. Paragraph 2.18.3, NATO, D/14)

Rifle: Serial Nos. 4925914, 4914642, 4886568, 4916881

Preparation: Immersion in a salt water bath prepared in accordance with Paragraph 2.18.3, NATO, D/14.

Conditioning Temperature: 105° F ± 5° F

Conditioning Relative Humidity: Uncontrolled—see below

Ammunition: Caliber 5.56mm Ball, M193

Two (2) M16A1 rifles (Serial Nos. 4925914 and 4914642) were immersed for a thirty (30) second period in the salt water bath at the start of the test and after each of three (3) twenty-four (24) hour periods thereafter. Prior to each immersion, 60 rounds of ammunition were fired in the semi-automatic mode of fire. After three (3) days, the test was terminated without malfunctions because of ambiguity in the procedure specified in D/14. In the belief that D/14 is patterned after MIP-3-2-059, the test was restarted with two (2) other rifles (Serial Nos. 4886568 and 4916881) and the procedure altered to immerse the rifles at the initiation of the test only.

All rifles were stored in a temperature conditioning chamber at 105° F ± 5° F and high but uncontrolled relative humidity between firings. The humid environment was created by inclusion of a pan (10" x 12" x 4") with 3 inches of water and cotton wicking added to the 12" x 22" x 70" temperature chamber.

Both rifles fired sixty (60) rounds in semi-automatic fire after each of five (5) twenty-four (24) hour periods thereafter without malfunction.

GRENADE LAUNCHING TEST DATA

(No Reference)

Grenade Launching Rifle: 4925317

Control Rifle (M193, Ball): 4925866

Grenade: M11A3 AT

Launching Cartridge: M195

Prior Firings: 4925317 4925866
 None None

Each of the rifles was totally disassembled, cleaned, visually inspected and found to be in good working condition. A brittle coating (Stresscoat) was applied to each rifle in accordance with the manufacture's (Magnaflux Corporation) instructions and allowed to cure for a 24-hour period at 70°F and 75% relative humidity prior to initiation of the firing tests.

Twenty (20) M193, caliber 5.56mm Ball rounds were fired from the control rifle at an elevation of 45°. The upper corner of the rifle butt was firmly held against a vertical steel plate and the lower corner of the butt rested on firm meadowland.

Twenty (20) grenades were launched from the other rifle at 45° elevation. The initial two (2) rounds were launched with the lower corner of the butt held firmly on concrete. Rounds 3, 4 and 5 were launched with the rifle butt resting on firm meadowland and the remaining firings (15) were conducted with the upper corner of the stock held firmly against a vertical steel plate and the lower corner of the butt resting on firm meadowland.

After each firing, the rifles were visually inspected for evidence of component failure or deformation. After every fifth firing, the stress coatings were examined and significant stress patterns photographed.

After the twentieth firing, each rifle was stripped of its "stresscoat" and dye penetrant tests were conducted of all critical components.

Rifle Serial No. 4925317

Ammunition: M11A3 AT Grenade

<u>Round</u>	<u>Support (45°)</u>	<u>Results</u>
1	Lower corner of butt against concrete	Lower corner of butt damaged.
2	Lower corner of butt against concrete	Damage to butt increased. Stress patterns appeared around bolt and magazine catches on left side of receiver.

GRENADe LAUNCHING TEST DATA (Continued)

<u>Round</u>	<u>Support (45°)</u>	<u>Results</u>
3	Meadowland	Light stress indications on forward top portion of stock.
4	Same	No change.
5	Same	No change.
6	Upper corner of butt against vertical steel plate and lower corner on firm meadowland.	Stress patterns appeared in area of cam pin recess on forward left side of receiver. Cracks appeared in heel of stock and butt plate.
7	Same	Damage to stock and butt progressing.
8	Same	Parts of butt plate broken out. Light stress patterns around bolt and magazine catches increased.
9	Same	Increased damage to butt and stock. Stress patterns appeared on rear left side of upper receiver.
10	Same	No change.
11	Same	Damage to butt and stock increased. Pieces of stock and butt broken off.
12	Same	No change.
13	Same	No change.
14	Same	Minor stress patterns appeared on barrel at chamber throat and on gas tube directly over throat.
15	Same	No change.
16	Same	Stock and butt damage increased. Top screw hole of butt plate broken out.
17	Same	Damage to stock increased.
18	Same	No change.
19	Same	No change.
20	Same	No change.

Dye penetrant test of barrel, upper and lower receiver, bolt and carrier uncovered no cracks or failures. Rifle considered serviceable except for jagged condition of butt.

GRENADA LAUNCHING TEST DATA (Continued)

Rifle Serial No. 4925866

Ammunition: Caliber 5.56mm, M193 Ball

<u>Round</u>	<u>Support (45°)</u>	<u>Results</u>
1	Upper corner of butt against vertical steel plate. Lower corner of butt on firm meadowland	No apparent effect.
2	Same	No change.
3	Same	Stress patterns appeared around bolt catch and cam pin recess on forward left side of upper receiver.
4	Same	Stress patterns appeared on rear, right side of upper receiver.
5	Same	Result of No. 4 increased.
6	Same	Stress patterns appeared on left side of receiver.
7	Same	No change.
8	Same	No change.
9	Same	Result of No. 4 increased.
10	Same	No change.
11	Same	Result of No. 6 increased.
12	Same	No change.
13	Same	No change.
14	Same	No change.
15	Same	No change.
16	Same	No change.
17	Same	No change.
18	Same	No change.
19	Same	No change.
20	Same	No change.

Dye penetrant tests uncovered no cracks or failures.
Rifle considered serviceable.