

138197

"T.P.D. 9MM Semi-Auto Task Force Report"

138197

U.S. Department of Justice
National Institute of Justice

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NCJRS

AUG 28 1992

ACQUISITIONS

City of Toledo
Division of Police
July 6, 1989

To: The Honorable Mayor and Members of City Council

Through: Phillip A. Hawkey, City Manager
Attn: Lourdes Santiago, Staff Manager

Through: Raymond J. Norris, Safety Director / Commissioner
of Traffic Engineering

From: Marti D. Felker, Chief of Police

Subject: Police Division Conversion to Semi-Auto Pistols

On April 11, 1986 our nation's law enforcement community was shocked as it learned of what happened on a Miami, Florida street. Two FBI agents were killed and five others seriously wounded, as they attempted to arrest two heavily armed robbery suspects. That incident has been referred to as one of the greatest tragedies in FBI history and it launched a comprehensive review of the type of firearms, ammunition systems, and training agents receive. This review and analysis process was repeated across the country by state, county, and municipal agencies. Although the controversy continues over which caliber, make, or model is superior there is overwhelming agreement, that revolvers no longer meet the needs of the modern law enforcement officer.

The ongoing trend of the criminal, to select weapons with rates of fire and calibers superior to those which our officers carry, demanded a response.

At my direction, a Task Force was formed on May 23, 1988 comprised of 10 officers, representing various ranks, areas of interest and expertise from within the Division, as well as the Toledo Police Patrolmen's Association and Toledo Police Command Officer's Association. They were tasked to conduct a staff study of two issues:

1. Should the Toledo Police Division convert to a semi-automatic pistol as a service weapon?
2. Providing there is an affirmative recommendation to the above issue, which manufacturer and or weapon does the Task Force recommend for Division use?

Following a collection, review, and analysis of available information the Task Force unanimously recommended that the Division change from a revolver to a semi-auto pistol service weapon and began deliberations regarding the second issue.

The test and evaluation program, completed in November of 1988, began with an objective review and analysis of sales brochures, published studies, reports by other agencies, magazine articles, video tapes, and personal interviews.

Five manufacturers, which the Task Force determined to be representative of the highest standards in workmanship and state of the art technology in semi-automatic pistols, were selected for further consideration: Beretta, Glock, Heckler & Koch, Sig Sauer, and Smith & Wesson.

Each of the above manufacturers was contacted and they supplied sample weapons for evaluation. The weapon consistently rated as the best, throughout the testing and evaluation process, was the Sig Sauer.

The pistols were subjected to a Phase I (subjective evaluation) during which nine qualities were rated on a scale of 1 (poor) to 5 (excellent): Quality of Finish & Workmanship, Slide Action, Trigger Pull, Safety Mechanisms, Weight & Balance (Unloaded), Grip Size, Magazine Release Mechanism, Slide Release Mechanism, Ease of Field Stripping & Re-Assembly (User Maintenance).

In the Phase I evaluation the Sig Sauer received scores in excess of 4.0 and was rated as the overall best weapon. It exceeded the other weapons in 6 of 9 qualities (SEE Annex A).

During Phase II the weapons were evaluated for: Weight & Balance Loaded, Grip Finish, Recoil, Magazine Insertion, and Loading. This phase rated Sig Sauer 4.4 or higher in four out of six qualities and rated it overall best weapon. It was preferred to other pistols in the areas of Grip Finish, Recoil, Magazine Insertion, and ease of Loading (SEE Annex B).

In addition, shooting scores of Task Force members firing each weapon, were considered. Weapons were evaluated under similar weather conditions during, daylight (outside) only, with each of the 10 Task Force members firing two 36 round exercises per weapon for a total of 720 rounds per weapon. Members using the Sig Sauer pistols acquired the highest average shooting scores.

Maximum Score 360	AVERAGE SCORES OF 10 SHOOTERS	
	(Practice Ammo)	(Street Loads)
Sig Sauer	329.00	333.80
Glock	325.10	322.10
H & K	318.00	322.90
S&W	313.40	315.20
Beretta	282.70	304.20

The Sig Sauer achieved a reliability score of 99.4% discharging 716 out of 720 rounds (720 = 100%).

The cost of implementing a transition to the Sig Sauer pistol is included in Annex C of this report.

I have reviewed and given careful consideration to the Task Force final report, concur with both recommendations, and request an affirmative vote for funding a transition to semi-auto pistols.

Marti D. Felker
Chief of Police

MDF:pjw

City of Toledo
Division of Police
November 8, 1988

To: Marti D. Felker, Chief of Police
Through: Richard Koperski, Deputy Chief, Assistant Chief
From: Henry J. Hiris, Lieutenant, Planning & Inspection
Task Force Chairman
Subject: Semi-Auto Pistol Selection Committee Report

During the period May 23, through November 7, 1988 selected individuals met in committee to consider two issues relating to semi-auto weapons:

1. Whether the Toledo Police Division should convert to the semi-automatic pistol?
2. Selecting a manufacturer or type of weapon appropriate for Division use, in the event of an affirmative recommendation to convert to a semi-auto pistol.

Conclusions were drawn from a subjective and objective review and analysis of (1) printed material(sales brochures, published studies conducted by other agencies, and magazine articles) (2) video tapes, (3) hands on weapons examination, and (4) firing on the pistol range.

9MM semi-automatic pistol manufacturers considered were:

1. Beretta
2. Glock
3. Heckler & Koch (H&K)
4. Sig Sauer
5. Smith & Wesson (S&W)

The report which follows represents a consensus of opinion by the committee members (M. Antel, D. Dunham, J. Hennessey, H. Hiris, C. Latscha, R. Manrow, W. Phillips, T. Schroeder, H. Thoman, P. J. Wesley).

Henry J. Hiris
Lt / Planning & Inspections

HJH: pjw
Encl
cc: Safety Director

November 8, 1988

Issue:

To determine whether the Division should convert to a 9MM semi-auto pistol as the standard service weapon.

To recommend a 9MM semi-auto pistol for Division use if an affirmative recommendation to convert is made.

Assumptions:

The national trend by law enforcement agencies toward semi-auto pistols as a service weapon, in response to perceived or actual threats by criminals, will continue.

Officer safety is affected by trends in the preferred weapons of criminals.

The 9MM is considered an effective and appropriate caliber for use by law enforcement officers in an urban setting by several state and federal agencies.

Facts relating to issue:

Weapon models and manufacturers were selected, in part, from those identified in an August 1987 N.I.J. Technology Assessment Report " Equipment Performance 9mm and .45 Cal Auto-Loading Pistol Test ".

Reference materials were collected and provided for review by committee members (ANNEX A - Reference List).

Only 9MM pistols were considered.(ANNEX B Evaluations)

Weapons received a subjective evaluation during :

Phase I - Nine qualities were rated on a scale of 1 (Poor) to 5 (Excellent).

Phase II - Six qualities were rated while using CCI Blazer 9mm 115 GR. TMJ ammunition (practice ammo) on a scale of 1 to 5.

Phase II - Six qualities were rated while using Olin - Winchester SUPER - X, 9mm LUGER (PARABELLUM) 115 GR. SILVERTIP HOLLOW POINT ammunition (factory ammo) on scale of 1 to 5.

Weapons were fired under similar weather conditions, daylight (outside) only, during two 36 round exercises by each member of the committee with an allocation of 720 rounds per weapon.

720 Possible (100%)

Sig Sauer	fired	716 rounds	99.4 %
H & K	"	714 rounds	99.1 %
Glock	"	713 rounds	99.0 %
S & W	"	710 rounds	98.6 %
Beretta	"	677 rounds	94.0 %

Non-fired rounds were the result of a combination of problems attributed to ammo type, a specific pistol model, magazine disfunction, shooter difficulty, or non-specific failure to feed or eject.

The committee determined that the Division should, in the interest of officer safety, convert to a semi-auto pistol.

Evaluations ranked
weapons :

Sig Sauer
Glock
S & W
Beretta
H & K

Shooting scores
ranked weapons:

Sig Sauer
Glock
H & K
S & W
Beretta

Discussion (Pro and Con):

Converting to a semi-auto pistol service weapon will provide each officer with an increased number of rounds per weapon and faster re-loading capability as compared to current revolvers.

Current manufacturing techniques and quality control provide several types of semi-automatic pistols with a high degree of dependability and durability.

The training required for conversion could range from a minimum of 3 days (24 hrs) to a maximum of 5 days (40 hrs) or more for officers who experience difficulty mastering semi-auto pistol craft, which could necessitate expanding the range training staff throughout the duration of transitional training.

Proponents for semi-auto pistols and 9mm caliber may consider conversion to such weapons as pro-active, progressive, and in the best interest of officer safety and survivability not waiting until officers are "out-gunned" in a shoot out.

Opponents to conversion of the 9mm caliber may consider such a conversion as reacting to national trends that are not perceived as applicable to our officer's work environment; that the availability of an increased number of rounds will result in excessive numbers of rounds being fired; that a revolver with .357 mag round or pistol with a .45 cal is better than a 9mm pistol; that some officers will not be able to learn semi-auto pistol craft.

Conclusions:

All of the weapons considered were well made and the differences between rating points were statistically insignificant.

Some committee members preferred one or more characteristics (i.e., field stripping ease, type of sights, grips, etc.) in the weapons examined, but could not find all such individually preferred characteristics in a single weapon.

Weapons were eliminated from consideration when a sufficient number of undesirable characteristics, as agreed upon by a majority of the committee, were identified as present in the weapon under consideration.

The Sig Sauer pistols were consistently rated the best of all the weapons evaluated.

Recommendations:

1. The Toledo Police Division should establish a program of conversion to a semi-auto pistol service weapon.
2. The following Sig Sauer models should be purchased in sufficient quantities to begin the conversion process, and be established as the standard issued weapon:

Model P 225 (Considered for plainclothes)

Model P 226 (Considered for the Field
Operations Bureau)

*

A Discussion of the estimated cost of conversion is included in Appendix I which immediately follows this report.

A P P E N D I X I

Cost per weapon (Government Price) as quoted by C & P
Distributors (Detroit, MI 313-274-2673) as of 31 OCT 88;
+ / - \$10.00:

GLOCK 17	\$365.00	GLOCK 19	\$365.00
H&K P7M8	\$691.00	H&K P7M13	\$947.00
S&W 6906	\$420.00	S&W 5906	\$440.00
SIG P225	\$433.00	SIG P226	\$464.00
BERETTA (Compact)	\$433.00	BERETTA 92F	\$464.00

Cost per weapon will be reduced as the number of weapons purchased increases and competitive bidding between distributors occurs.

Assuming purchase of the Sig Sauer P226:

775 weapons = \$359,600.00

Holster & Magazine Carrier:

\$70.00 @ 775 officers = 54,250.00

\$413,850.00

The budgetary impact of conversion on the Division's Law Enforcement Equipment fund will be partially offset by:

1. Trade in allowance given for current service revolvers.
2. Conversion to police use and sale of weapons from property room authorized by court.
3. Inclusion of funds that are authorized for maintenance and replacement costs of current weapons.

PROJECTED AMMUNITION COST

STATE MANDATED SPOs	38 Cal* Training Ammo \$46.50/M .047/rnd	9mm** Training Ammo \$75.00/M .075/rnd
1 385 round practice exercise	\$17.90/off.	\$28.88/off.
1 385 round practice exercise	\$17.90/off.	\$28.88/off.
1 104 round qualifying exercise	\$ 4.84/off	\$ 7.80/off.
Total Cost	\$40.64/off.	\$65.56/off.
Cost Difference		+ \$24.92/Off.
Total Cost @ 750 Personnel	\$30,477.00	\$49,170.00
Cost Difference		+ <u>\$18,693.00</u>
Total Cost @ 775 Personnel	\$31,492.90	\$50,809.00
Cost Difference		+ <u>\$19,317.00</u>

-- The number of rounds in each exercise is based upon the new state mandated firearms performance objectives. One 385 round exercise will be required to familiarize the officer with the new firearms objectives. However, at least two 385 round exercises are anticipated, depending upon the individual officer's ability to adapt to a semi-automatic weapon, and his/her shooting expertise.

-- The cost projections are estimates based upon prices provided by Michigan Ammo Inc., which presently supplies the 38 caliber practice ammunition used by the Division in firearms training.

* The cost of the 38 caliber practice ammunition currently being used is priced at \$46.50 per thousand rounds, which is based on the return of the brass cartridges.

** The cost of the 9mm caliber practice ammunition is estimated by Michigan Ammo Inc. to be \$75.00 per thousand rounds, and is based upon the return of the brass cartridges.

The 9mm ammunition under consideration is 125 grain, jacketed, soft end with a velocity of 1150 ft./sec. It is specifically designed for indoor ranges, although it can be used on outdoor ranges, and to provide the same shooting experience as the factory ammunition used for on-duty.

A N N E X A

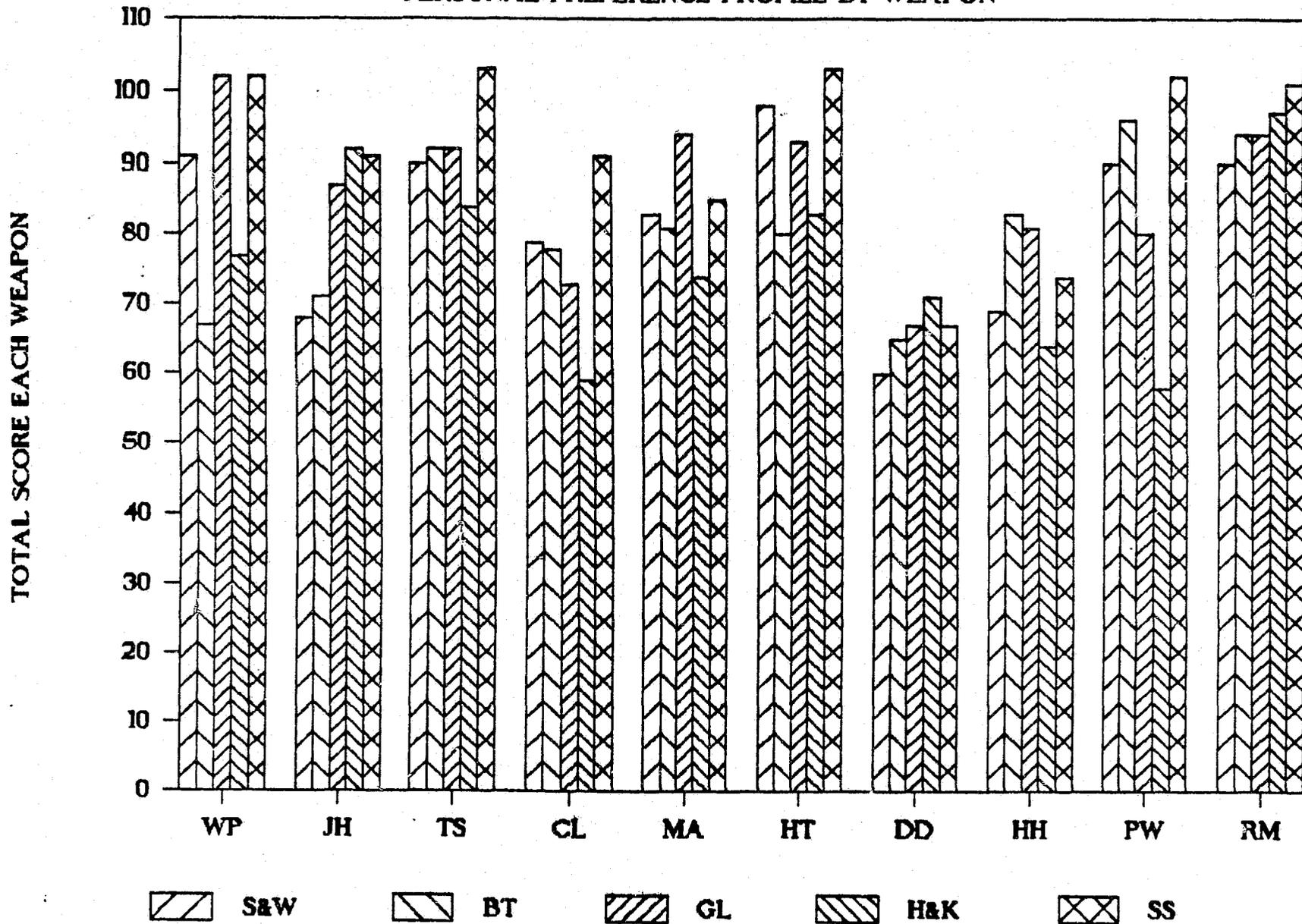
" R E F E R E N C E M A T E R I A L S "

" Equipment Performance Report: 9MM and .45 Caliber Auto- Loading Pistol Test Results " with supplement 1	National Institute of of Justice Technology Assessment Program
" Semi-Auto Pistol Tests"	Oakland Fla. PD
" 1988 Ammunition Study"	LA Ca. Sheriff
" Glock Study "	LA Ca. Sheriff
" Sig Sauer study "	LA Ca. Sheriff
" Beretta Study "	LA Ca. Sheriff
" 9MM evaluations "	LA Ca. PD
" 9MM Handguns "	Michigan State Police
" Semi-Auto Evaluation"	Bedford Indiana PD
" 9MM Semi-Autos"	Vanderburgh Sheriff In.
"S.W.A.T. Ammo Tests"	Columbus Ohio PD
" The Arsenal "	Police Product News
" 9MM Double Action"	American Rifleman
" For Our Police? "	American Rifleman
" Sig Sauer P226"	American Rifleman
" Glock St Paul's Choice"	Law & Order
" Minneapolis Policy"	Minneapolis PD
"Beretta 92 F"	Crime Control Digest
" Arms Race in Backyard"	US News & World Report
"9MM Semiautomatic Weapons)	Michigan State Police
" The Glock"	Glock Manufacturing
" The Beretta"	Beretta Manufacturing
" S & W "	Smith & Wesson
" H & K "	Heckler & Koch

" H & K New Jersey State Police"	Police Marksman Magazine
" Sig Sauers"	Sigarms
" Focus Report Weapons"	Law & Order 85
" Buyers Guide "	Law Enforcement Tech 88
" Weapons Issue"	Law Enforcement Tech 84
" Focus Report Weapons"	Law & Order 86
" Weapon Directory"	Law Enforcement Tech 87
" Handgun Tests "	Test Magazine 1981
" New Support - Gun Control"	Newsweek
" 3-inch Revolver Study	TPD 86
" Equipment Performance Report: .38 & .357 Caliber Revolver Test Results"	National Institute of Justice Technology Assessment Program
" Tactical Pistolcraft - Semi Automatic Pistol"	Ohio Peace Office Training Academy
" Holster Evaluation 9MM pistols"	Michigan State Police
" Deadly Effects - Wound Ballistics"	Video Tape 40 mins
" Beretta 92SB-F 9MM"	Video Tape 30 mins
" Survival Edge by Berretta"	Video Tape 34 mins
" H & K by N J State Police"	Video Tape 8 mins
" H & K Firepower USA "	Video Tape 20 mins
" 9MM Evaluation by Mich State Police"	Video Tape 13 mins

WEAPONS EVALUATION

PERSONAL PREFERENCE PROFILE BY WEAPON



LEGEND

PHASE I

Q F W = Quality of Finish & Workmanship
S A = Slide Action
T P = Trigger Pull
S M = Safety Mechanism
W B = Weight & Balance (UNLOADED)
G S = Grip Size
M R M = Magazine Release Mechanism
S R M = Slide Release Mechanism
E F S = Ease of Field Stripping & Re-Assembly

PHASE I I (P A = Practice Ammunition F A = Factory Ammunition)

W B L = Weight & Balance (LOADED)
G F = Grip Finish
S = Sites
R = Recoil
M I = Magazine Insertion
L = Loading
S S = Shooting Score

SEMI-AUTO PISTOL EVALUATION

O V E R A L L R A T I N G S

P H A S E I

Q F W =

Sig Sauer (4.38)
Beretta (4.30)
S & W (4.20)
H & K (4.00)
Glock (3.80)

S A =

Beretta (4.22)
Sig Sauer (4.10)
Glock (3.89)
S & W (3.80)
H & K (3.33)

T P =

Glock (4.33)
Sig Sauer (4.10)
H & K (3.78)
S & W (3.60)
Beretta (3.56)

S M =

Sig Sauer (4.10)
S & W (3.70)
Glock (3.56)
Beretta (3.56)
H & K (2.89)

W B =

Sig Sauer (4.10)
S & W (3.90)
Glock (3.78)
Beretta (3.78)
H & K (3.22)

G S =

Sig Sauer (4.00)
S & W (3.90)
Glock (3.67)
Beretta (3.44)
H & K (2.89)

M R M =

Sig Sauer (4.40)
Beretta (4.11)
S & W (3.80)
Glock (3.44)
H & K (3.00)

S R M =

Beretta (4.22)
Sig Sauer (4.10)
Glock (3.33)
H & K (3.67)
S & W (3.30)

E F S =

Sig Sauer (4.50)
Beretta (4.44)
H & K (3.11)
Glock (2.56)
S & W (2.20)

SEMI-AUTO HANDGUN EVALUATION REPORT

PHASE I

Weapon: _____ Ser: _____

 Evaluator Sex Yrs of Service

	POOR		GOOD		EXCELLENT	
	1	2	3	4	5	
	(Circle One)					
Quality of Finish & Workmanship	1	2	3	4	5	
Slide Action	1	2	3	4	5	
Trigger Pull	1	2	3	4	5	
Safety Mechanism	1	2	3	4	5	
Weight & Balance (UNLOADED)	1	2	3	4	5	
Grip Size	1	2	3	4	5	
Magazine Release Mechanism	1	2	3	4	5	
Slide Release Mechanism	1	2	3	4	5	
Ease of Field Stripping & Re-Assembly	1	2	3	4	5	

TOTAL SCORE: _____

COMMENTS:

WEAPON									
SIG SAUER	QFW	SA	TP	SM	WB	GS	MRM	SRM	EFS
PHILLIPS	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
HENNESSEY	5.0	3.0	4.0	3.0	3.0	4.0	5.0	4.0	5.0
SCHROEDER	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0
LATSCHA	5.0	5.0	4.0	5.0	4.0	4.0	3.0	4.0	4.0
ANTELL	5.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	5.0
THOMAN	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	3.0
DUNHAM	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0
HIRIS	4.0	3.0	4.0	3.0	4.0	4.0	4.0	3.0	4.0
WESLEY	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MANROW	5.0	5.0	3.0	5.0	5.0	4.0	5.0	5.0	5.0
TOTAL	35.0	33.0	33.0	33.0	33.0	32.0	35.0	33.0	36.0
AVERAGE	4.38	4.1	4.1	4.1	4.1	4.0	4.4	4.1	4.5

WEAPON	QFW	SA	TP	SM	WB	GS	MRM	SRM	EF5
SMITH AND WESSON									
PHILLIPS	5.0	5.0	4.0	4.0	4.0	4.0	5.0	5.0	3.0
HENNESSEY	4.0	3.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0
SCHROEDER	5.0	4.0	5.0	5.0	5.0	5.0	5.0	1.0	1.0
LATSCHA	4.0	4.0	3.0	4.0	4.0	4.0	3.0	4.0	3.0
ANTELL	4.0	4.0	4.0	4.0	3.0	4.0	3.0	3.0	3.0
THOMAN	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	3.0
DUNHAM	3.0	3.0	3.0	2.0	3.0	3.0	3.0	3.0	1.0
HIRIS	3.0	3.0	4.0	3.0	3.0	3.0	4.0	3.0	1.0
WESLEY	5.0	4.0	2.0	4.0	4.0	4.0	3.0	3.0	2.0
MANROW	5.0	4.0	4.0	3.0	5.0	4.0	4.0	3.0	2.0
TOTAL	42.0	38.0	36.0	37.0	39.0	39.0	38.0	33.0	22.0
AVERAGE	4.20	3.80	3.60	3.70	3.90	3.90	3.80	3.30	2.20

WEAPON	QFW	SA	TP	SM	WB	GS	MRM	SRM	EF5
BERETTA									
PHILLIPS	4.0	4.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0
HENNESSEY	3.0	4.0	2.0	2.0	3.0	2.0	2.0	4.0	4.0
SCHROEDER	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	5.0
LATSCHA	4.0	4.0	3.0	4.0	3.0	4.0	5.0	4.0	5.0
ANTELL	5.0	4.0	4.0	4.0	3.0	3.0	3.0	4.0	3.0
THOMAN	4.0	4.0	4.0	2.0	4.0	4.0	5.0	4.0	5.0
DUNHAM	4.0	3.0	3.0	4.0	3.0	3.0	3.0	4.0	4.0
HIRIS	4.0	4.0	3.0	4.0	4.0	4.0	5.0	3.0	4.0
WESLEY	5.0	5.0	5.0	5.0	4.0	4.0	5.0	5.0	5.0
MANROW	5.0	5.0	3.0	2.0	5.0	4.0	4.0	5.0	5.0
TOTAL	43.0	38.0	32.0	32.0	34.0	31.0	37.0	38.0	40.0
AVERAGE	4.30	4.22	3.56	3.56	3.78	3.44	4.11	4.22	4.44

WEAPON									
GLOCK	QFW	SA	TP	SM	WB	GS	MRM	SRM	EFS
PHILLIPS	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0
HENNESSEY	5.0	5.0	5.0	1.0	4.0	4.0	3.0	4.0	2.0
SCHROEDER	5.0	5.0	5.0	5.0	4.0	4.0	5.0	4.0	1.0
LATSCHA	3.0	3.0	4.0	4.0	4.0	3.0	3.0	4.0	2.0
ANTELL	3.0	4.0	5.0	5.0	5.0	4.0	3.0	3.0	5.0
THOMAN	4.0	4.0	4.0	4.0	5.0	5.0	5.0	2.0	2.0
DUNHAM	4.0	3.0	4.0	3.0	3.0	3.0	4.0	4.0	3.0
HIRIS	4.0	3.0	3.0	2.0	3.0	3.0	3.0	3.0	1.0
WESLEY	2.0	3.0	5.0	3.0	3.0	2.0	2.0	2.0	3.0
MANROW	4.0	5.0	4.0	5.0	3.0	5.0	3.0	4.0	4.0
TOTAL	38.0	35.0	39.0	32.0	34.0	33.0	31.0	30.0	23.0
AVERAGE	3.80	3.89	4.33	3.56	3.78	3.67	3.44	3.33	2.56

WEAPON									
H&K	QFW	SA	TP	SM	WB	GS	MRM	SRM	EFS
PHILLIPS	4.0	4.0	4.0	2.0	3.0	2.0	3.0	3.0	4.0
HENNESSEY	5.0	4.0	5.0	5.0	4.0	4.0	3.0	4.0	3.0
SCHROEDER	5.0	2.0	5.0	5.0	4.0	2.0	5.0	4.0	5.0
LATSCHA	4.0	3.0	2.0	1.0	2.0	4.0	2.0	4.0	4.0
ANTELL	5.0	4.0	4.0	1.0	3.0	2.0	3.0	3.0	3.0
THOMAN	4.0	4.0	4.0	2.0	2.0	3.0	4.0	4.0	2.0
DUNHAM	3.0	3.0	3.0	3.0	3.0	3.0	2.0	3.0	1.0
HIRIS	3.0	3.0	4.0	3.0	3.0	2.0	3.0	3.0	3.0
WESLEY	3.0	2.0	2.0	2.0	3.0	3.0	1.0	3.0	2.0
MANROW	5.0	5.0	5.0	4.0	5.0	3.0	4.0	5.0	5.0
TOTAL	32.0	30.0	34.0	26.0	29.0	26.0	27.0	33.0	28.0
AVERAGE	4.00	3.33	3.78	2.89	3.22	2.89	3.00	3.67	3.11

(Phase II "PA" Practice Ammunition)

SEMI-AUTO PISTOL EVALUATION

O V E R A L L ----- R A T I N G S

W B L =

Glock (4.70)
Sig Sauer (4.40)
H & K (4.00)
S & W (3.90)
Beretta (3.60)

G F =

Sig Sauer (4.40)
Glock (4.40)
S & W (3.80)
Beretta (3.70)
H & K (3.60)

S =

S & W (4.70)
H & K (4.60)
Glock (4.30)
Sig Sauer (3.90)
Beretta (3.60)

R =

Sig Sauer (4.40)
Glock (4.40)
S & W (4.30)
Beretta (3.80)
H & K (3.40)

M I =

Sig Sauer (4.70)
S & W (4.60)
Glock (4.50)
Beretta (4.00)
H & K (3.90)

L =

Sig Sauer (4.40)
Glock (4.40)
S & W (4.40)
Beretta (3.30)
H & K (2.60)

S S =

"PA"

"FA"

Sig Sauer	(AVG - 329.00)	-----	(333.80)
Glock	(AVG - 325.10)	-----	(322.10)
H & K	(AVG - 318.00)	-----	(322.90)
S & W	(AVG - 313.40)	-----	(315.20)
Beretta	(AVG - 282.70)	-----	(304.20)

(Phase II "FA" Factory Ammunition)

SEMI-AUTO PISTOL EVALUATION

O V E R A L L ----- R A T I N G S

W B L =

Sig Sauer (4.60)
Glock (4.50)
H & K (4.30)
Beretta (3.90)
S & W (3.70)

G F =

Sig Sauer (4.70)
Glock (4.40)
Beretta (4.10)
H & K (3.90)
S & W (3.70)

S =

Sig Sauer (4.40)
Glock (4.40)
H & K (4.20)
S & W (4.00)
Beretta (3.60)

R =

Sig Sauer (4.40)
Glock (4.40)
H & K (4.00)
Beretta (3.80)
S & W (3.80)

M I =

Sig Sauer (4.50)
Glock (4.40)
Beretta (4.40)
H & K (4.30)
S & W (4.30)

L =

Sig Sauer (4.50)
Glock (4.10)
S & W (3.80)
Beretta (3.70)
H & K (3.20)

S S =

"F A"

"P A"

Sig Sauer	(AVG - 333.80)-----	(329.00)
Glock	(AVG - 322.10)-----	(325.10)
H & K	(AVG - 322.90)-----	(318.00)
S & W	(AVG - 315.20)-----	(313.40)
Beretta	(AVG - 304.20)-----	(282.70)

PHASE II

WEAPON: _____ SER: _____

Evaluator	Sex		Yrs of Service		
	POOR	GOOD	EXCELLENT		
	1	2	3	4	5
Weight & Balance (LOADED)	1	2	3	4	5
Grip Finish	1	2	3	4	5
Sites	1	2	3	4	5
Recoil	1	2	3	4	5
Magazine Insertion	1	2	3	4	5
Loading	1	2	3	4	5

TOTAL SCORE					

NUMBER OF ROUNDS FIRED: _____

*NOTE:
Comment Mandatory on any malfunctions or misfires to include which round(s). If none state none.

COMMENTS:

WEAPON	PA						TOTAL	SS	
	SMITH AND WESSON	WBL	GF	S	R	MI			L
PHILLIPS		4.0	5.0	5.0	4.0	5.0	5.0	28.0	325.0
HENNESSEY		4.0	4.0	5.0	5.0	4.0	4.0	26.0	260.0
SCHROEDER		5.0	3.0	5.0	4.0	5.0	5.0	27.0	355.0
LATSCHA		4.0	4.0	4.0	5.0	5.0	4.0	26.0	349.0
ANTELL		3.0	3.0	5.0	4.0	5.0	4.0	24.0	334.0
THOMAN		4.0	4.0	5.0	5.0	5.0	5.0	28.0	303.0
DUNHAM		3.0	3.0	4.0	3.0	3.0	3.0	19.0	283.0
HIRIS		2.0	3.0	4.0	3.0	4.0	4.0	20.0	226.0
WESLEY		5.0	5.0	5.0	5.0	5.0	5.0	30.0	352.0
MANROW		5.0	4.0	5.0	5.0	5.0	5.0	29.0	347.0
TOTAL		39.0	38.0	47.0	43.0	46.0	44.0	257.0	3134.0
AVERAGE		3.90	3.80	4.70	4.30	4.60	4.40	25.7	313.4

WEAPON

BERETTA	WBL	GF	S	R	MI	L	TOTAL	SS
PHILLIPS	2.0	3.0	3.0	2.0	4.0	4.0	18.0	288.0
HENNESSEY	3.0	3.0	4.0	3.0	4.0	4.0	21.0	287.0
SCHROEDER	4.0	5.0	4.0	4.0	4.0	1.0	22.0	248.0
LATSCHA	4.0	4.0	2.0	4.0	4.0	3.0	21.0	329.0
ANTELL	4.0	4.0	4.0	5.0	5.0	4.0	26.0	330.0
THOMAN	4.0	4.0	3.0	3.0	3.0	3.0	20.0	265.0
DUNHAM	2.0	3.0	2.0	3.0	3.0	3.0	16.0	219.0
HIRIS	4.0	4.0	4.0	5.0	4.0	4.0	25.0	258.0
WESLEY	5.0	5.0	5.0	4.0	4.0	2.0	25.0	258.0
MANROW	4.0	2.0	5.0	5.0	5.0	5.0	26.0	345.0
TOTAL	36.0	37.0	36.0	38.0	40.0	33.0	220.0	2827.0
AVERAGE	3.60	3.70	3.60	3.80	4.00	3.30	22.00	282.70

WEAPON								
GLOCK	WBL	GF	S	R	MI	L	SS	
PHILLIPS	5.0	4.0	5.0	5.0	5.0	5.0	29.0	329.0
HENNESSEY	5.0	5.0	5.0	3.0	4.0	4.0	26.0	323.0
SCHROEDER	5.0	5.0	2.0	5.0	5.0	5.0	27.0	326.0
LATSCHA	4.0	4.0	5.0	3.0	4.0	4.0	24.0	345.0
ANTELL	5.0	4.0	5.0	5.0	5.0	5.0	29.0	341.0
THOMAN	5.0	5.0	5.0	5.0	4.0	4.0	28.0	328.0
DUNHAM	3.0	3.0	3.0	3.0	3.0	3.0	18.0	249.0
HIRIS	5.0	4.0	5.0	5.0	5.0	4.0	28.0	328.0
WESLEY	5.0	5.0	5.0	5.0	5.0	5.0	30.0	337.0
MANROW	5.0	5.0	3.0	5.0	5.0	5.0	28.0	345.0
TOTAL	47.0	44.0	43.0	44.0	45.0	44.0	267.0	3251.0
AVERAGE	4.70	4.40	4.30	4.40	4.50	4.40	26.70	325.10

WEAPON								
H&K	WBL	GF	S	R	MI	L	SS	
PHILLIPS	2.0	2.0	5.0	4.0	4.0	4.0	21.0	288.0
HENNESSEY	5.0	5.0	5.0	3.0	4.0	5.0	27.0	329.0
SCHROEDER	5.0	4.0	5.0	5.0	4.0	1.0	24.0	344.0
LATSCHA	3.0	3.0	4.0	1.0	3.0	1.0	15.0	327.0
ANTELL	4.0	3.0	5.0	2.0	3.0	2.0	19.0	314.0
THOMAN	5.0	5.0	5.0	5.0	5.0	3.0	28.0	338.0
DUNHAM	4.0	3.0	4.0	4.0	4.0	4.0	23.0	310.0
HIRIS	3.0	3.0	3.0	3.0	3.0	1.0	16.0	254.0
WESLEY	4.0	3.0	5.0	3.0	4.0	1.0	20.0	333.0
MANROW	5.0	5.0	5.0	4.0	5.0	4.0	28.0	343.0
TOTAL	40.0	36.0	46.0	34.0	39.0	26.0	221.0	3180.0
AVERAGE	4.00	3.60	4.60	3.40	3.90	2.60	22.10	318.00

SIG SAUER	WBL	GF	S	R	MI	L	TOTAL	SS
PHILLIPS	5.0	4.0	4.0	5.0	5.0	5.0	28.0	328.0
HENNESSEY	5.0	5.0	4.0	4.0	5.0	5.0	28.0	319.0
SCHROEDER	5.0	5.0	4.0	5.0	5.0	5.0	29.0	345.0
LATSCHA	4.0	4.0	4.0	5.0	5.0	5.0	27.0	351.0
ANTELL	4.0	5.0	3.0	4.0	5.0	4.0	25.0	330.0
THOMAN	5.0	5.0	5.0	5.0	5.0	5.0	30.0	328.0
DUNHAM	3.0	3.0	3.0	3.0	3.0	3.0	18.0	280.0
HIRIS	3.0	3.0	3.0	3.0	4.0	3.0	19.0	308.0
WESLEY	5.0	5.0	5.0	5.0	5.0	4.0	29.0	346.0
MANROW	5.0	5.0	4.0	5.0	5.0	5.0	29.0	355.0
TOTAL	44.0	44.0	39.0	44.0	47.0	44.0	262.0	3290.0
AVERAGE	4.4	4.4	3.9	4.4	4.7	4.4	26.2	329.0

GRAND TOTALS

TOTAL SCORES	206.0	199.0	211.0	203.0	217.0	191.0	1227.0	15682.0
AVERAGE	4.12	3.98	4.22	4.06	4.34	3.82	24.54	313.64
STD	0.95	0.91	0.92	1.03	0.74	1.24	4.29	36.09

WEAPON

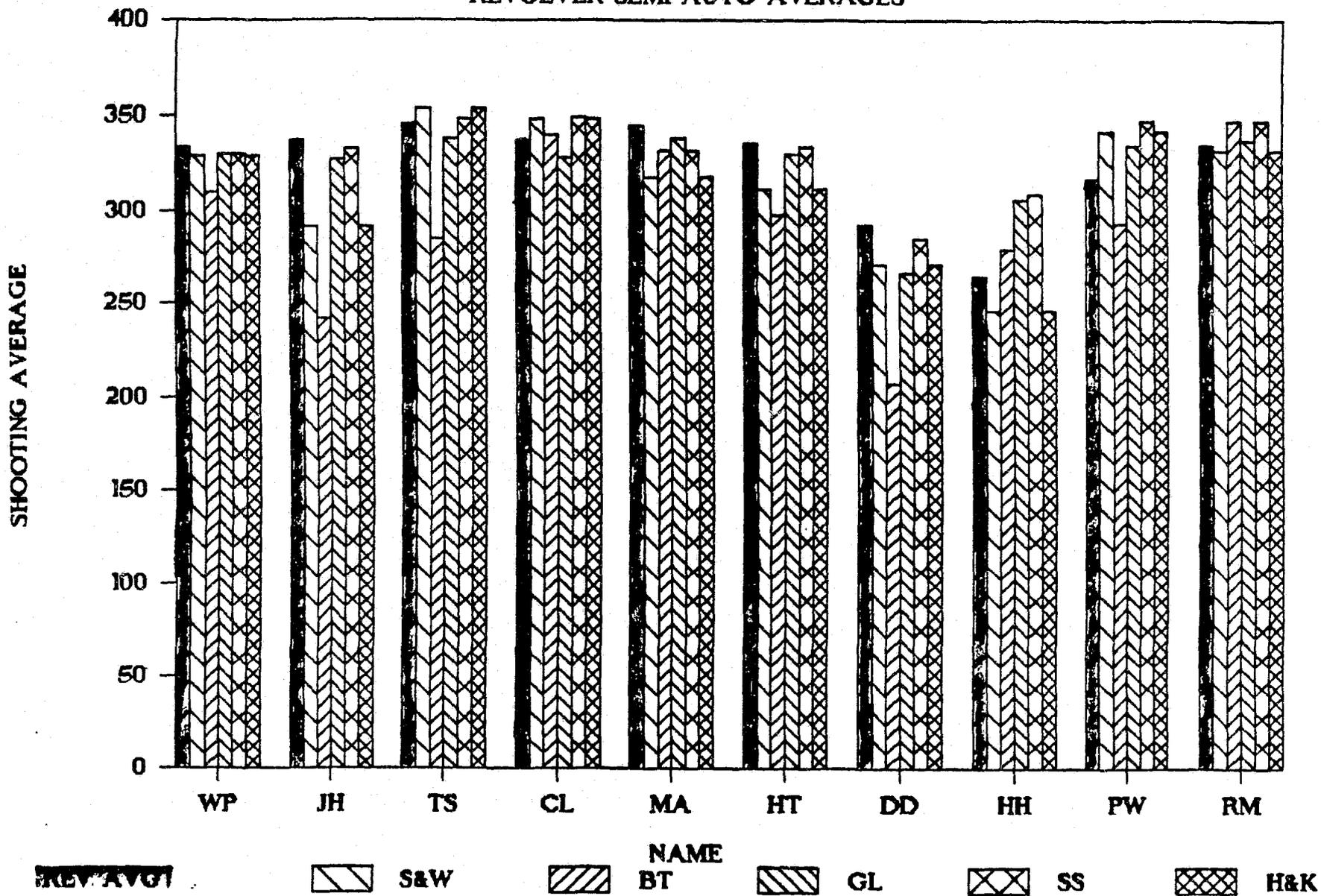
SIG SAUER	WBL	GF	S	R	MI	L	TOTAL	SS
PHILLIPS	5.0	5.0	4.0	5.0	5.0	5.0	29.0	332.0
HENNESSEY	5.0	5.0	4.0	4.0	4.0	5.0	27.0	346.0
SCHROEDER	5.0	5.0	5.0	5.0	5.0	5.0	30.0	351.0
LATSCHA	4.0	5.0	4.0	5.0	4.0	4.0	26.0	347.0
ANTELL	4.0	4.0	4.0	4.0	5.0	5.0	26.0	333.0
THOMAN	5.0	5.0	5.0	5.0	5.0	5.0	30.0	339.0
DUNHAM	4.0	4.0	4.0	3.0	3.0	3.0	21.0	291.0
HIRIS	4.0	4.0	4.0	3.0	4.0	3.0	22.0	310.0
WESLEY	5.0	5.0	5.0	5.0	5.0	5.0	30.0	349.0
MANROW	5.0	5.0	5.0	5.0	5.0	5.0	30.0	340.0
TOTAL	46.0	47.0	44.0	44.0	45.0	45.0	271.0	3338.0
AVERAGE	4.6	4.7	4.4	4.4	4.5	4.5	27.1	333.8

WEAPON

H&K	WBL	GF	S	R	MI	L	TOTAL	SS
PHILLIPS	5.0	5.0	5.0	5.0	5.0	2.0	27.0	337.0
HENNESSEY	4.0	5.0	4.0	5.0	5.0	5.0	28.0	243.0
SCHROEDER	5.0	4.0	3.0	4.0	4.0	3.0	23.0	320.0
LATSCHA	4.0	2.0	3.0	3.0	4.0	2.0	18.0	347.0
ANTELL	4.0	4.0	5.0	4.0	5.0	5.0	27.0	333.0
THOMAN	5.0	5.0	4.0	4.0	4.0	4.0	26.0	332.0
DUNHAM	4.0	4.0	4.0	4.0	4.0	4.0	24.0	312.0
HIRIS	4.0	4.0	4.0	4.0	4.0	1.0	21.0	317.0
WESLEY	3.0	2.0	5.0	3.0	3.0	1.0	17.0	342.0
MANROW	5.0	4.0	5.0	4.0	5.0	5.0	28.0	346.0
TOTAL	43.0	39.0	42.0	40.0	43.0	32.0	239.0	3229.0
AVERAGE	4.30	3.90	4.20	4.00	4.30	3.20	23.90	322.9

COMPARISON

REVOLVER-SEMI AUTO AVERAGES



WEAPON

GLOCK	WBL	GF	S	R	MI	L	TOTAL	SS
PHILLIPS	5.0	5.0	5.0	5.0	5.0	5.0	30.0	331.0
HENNESSEY	5.0	4.0	5.0	4.0	5.0	5.0	28.0	331.0
SCHROEDER	5.0	5.0	3.0	5.0	5.0	4.0	27.0	351.0
LATSCHA	3.0	4.0	4.0	3.0	3.0	2.0	19.0	311.0
ANTELL	5.0	5.0	5.0	4.0	4.0	5.0	28.0	335.0
THOMAN	5.0	5.0	5.0	5.0	5.0	5.0	30.0	332.0
DUNHAM	3.0	3.0	3.0	3.0	3.0	3.0	18.0	285.0
HIRIS	5.0	5.0	5.0	5.0	5.0	3.0	28.0	284.0
WESLEY	4.0	3.0	5.0	5.0	4.0	4.0	25.0	332.0
MANROW	5.0	5.0	4.0	5.0	5.0	5.0	29.0	329.0
TOTAL	45.0	44.0	44.0	44.0	44.0	41.0	262.0	3221.0
AVERAGE	4.50	4.40	4.40	4.40	4.40	4.10	26.20	322.1

WEAPON

BERETTA	WBL	GF	S	R	MI	L	TOTAL	SS
PHILLIPS	3.0	4.0	3.0	3.0	4.0	1.0	18.0	331.0
HENNESSEY	3.0	3.0	4.0	4.0	5.0	5.0	24.0	198.0
SCHROEDER	4.0	5.0	4.0	4.0	5.0	5.0	27.0	322.0
LATSCHA	4.0	4.0	2.0	4.0	4.0	3.0	21.0	350.0
ANTELL	4.0	4.0	2.0	4.0	4.0	4.0	22.0	334.0
THOMAN	4.0	4.0	4.0	3.0	5.0	4.0	24.0	331.0
DUNHAM	3.0	3.0	3.0	3.0	3.0	3.0	18.0	197.0
HIRIS	4.0	4.0	4.0	4.0	4.0	3.0	23.0	302.0
WESLEY	5.0	5.0	5.0	4.0	5.0	4.0	28.0	328.0
MANROW	5.0	5.0	5.0	5.0	5.0	5.0	30.0	349.0
TOTAL	39.0	41.0	36.0	38.0	44.0	37.0	235.0	3042.0
AVERAGE	3.90	4.10	3.60	3.80	4.40	3.70	23.50	304.2

WEAPON	FA						TOTAL	SS
SMITH AND WESSON	WBL	GF	S	R	MI	L		
PHILLIPS	4.0	4.0	5.0	2.0	5.0	4.0	24.0	332.0
HENNESSEY	2.0	2.0	2.0	3.0	3.0	3.0	15.0	323.0
SCHROEDER	5.0	4.0	4.0	4.0	5.0	5.0	27.0	352.0
LATSCHA	2.0	3.0	4.0	3.0	4.0	4.0	20.0	347.0
ANTELL	4.0	4.0	5.0	4.0	4.0	2.0	23.0	302.0
THOMAN	5.0	5.0	5.0	5.0	5.0	4.0	29.0	321.0
DUNHAM	3.0	2.0	3.0	3.0	3.0	3.0	17.0	260.0
HIRIS	4.0	3.0	4.0	4.0	4.0	3.0	22.0	267.0
WESLEY	5.0	5.0	4.0	5.0	5.0	5.0	29.0	331.0
MANROW	3.0	5.0	4.0	5.0	5.0	5.0	27.0	317.0
TOTAL	37.0	37.0	40.0	38.0	43.0	38.0	233.0	3152.0
AVERAGE	3.70	3.70	4.00	3.80	4.30	3.80	23.30	315.20

GRAND TOTALS

TOTAL SCORES	210.0	208.0	206.0	204.0	219.0	193.0	1240.0	15982.0
AVERAGE	4.20	4.16	4.12	4.08	4.38	3.86	24.80	319.64
STD	0.85	0.92	0.86	0.82	0.72	1.22	4.24	34.49

IN SHOOTING
EAPON

PW
 HH
 DD
 HT
 MA
 CL
 TS
 JH
 WP
 H&K
 SS
 GL
 BT
 S&W
 NAME
 BT
 S&W
 GLOCK

S&W
FA

PA

CHI SQ

RESIDUAL

332	325	0.151	18.03	0.39
323	260	15.265	16.12	3.91
352	355	0.025	18.84	-0.16
347	349	0.011	18.68	-0.11
302	334	3.066	18.28	-1.75
321	303	1.069	17.41	1.03
260	283	1.869	16.82	-1.37
267	226	7.438	15.03	2.73
331	352	1.253	18.76	-1.12
317	347	2.594	18.63	-1.61

CHI SQ =

32.742

= .001

21.666

BARETTA

FA

PA

CHI SQ

RESIDUAL

331	288	6.420	16.97	2.53
198	287	27.599	16.94	-5.25
322	248	22.081	15.75	4.70
350	329	1.340	18.14	1.16
334	330	0.048	18.17	0.22
331	265	16.438	16.28	4.05
197	219	2.210	14.80	-1.49
302	258	7.504	16.06	2.74
328	258	18.992	16.06	4.36
349	345	0.046	18.57	0.22

CHI SQ =

102.679

.001

21.666

GLOCK

FA

PA

CHI SQ

RESIDUAL

331	329	0.012	18.14	0.11
331	323	0.198	17.97	0.45
351	326	1.917	18.06	1.38
311	345	3.351	18.57	-1.83
335	341	0.106	18.47	-0.32
332	328	0.049	18.11	0.22
285	249	5.205	15.78	2.28
284	328	5.902	18.11	-2.43
332	337	0.074	18.36	-0.27
329	345	0.742	18.57	-0.86

CHI SQ =

17.556

.001

21.666

	SIG SAUER FA	PA	CHI SQ		RESIDUAL
PHILLIPS	332	328	0.049	18.11	0.22
HENNESSEY	346	319	2.285	17.86	1.51
SCHROEDER	351	345	0.104	18.57	0.32
LATSCHA	347	351	0.046	18.73	-0.21
ANTELL	333	330	0.027	18.17	0.17
THOMAN	339	328	0.369	18.11	0.61
DUNHAM	291	280	0.432	16.73	0.66
HIRIS	310	308	0.013	17.55	0.11
WESLEY	349	346	0.026	18.60	0.16
MANROW	340	355	0.634	18.84	-0.80

CHI SQ = 3.985
 CHI SQ/9DF P=.001 21.666

	H&K FA	PA	CHI SQ		RESIDUAL
PHILLIPS	337	288	8.337	16.97	2.89
HENNESSEY	243	329	22.480	18.14	-4.74
SCHROEDER	320	344	1.674	18.55	-1.29
LATSCHA	347	327	1.223	18.08	1.11
ANTELL	333	314	1.150	17.72	1.07
THOMAN	332	338	0.107	18.38	-0.33
DUNHAM	312	310	0.013	17.61	0.11
HIRIS	317	254	15.626	15.94	3.95
WESLEY	342	333	0.243	18.25	0.49
MANROW	346	343	0.026	18.52	0.16

CHI SQ = 50.87926
 CHI SQ/9DF P=.001 21.666

August 10, 1989

To: John Bryan, Deputy Chief
Commander, Support Services Bureau

Michael Schroeder, Captain
Commander, Planning & Inspections Section

From: Marti D. Felker, Chief of Police

Subject: Semi-Auto Handgun Transition Program

The transition to a semi-auto service weapon will involve training and logistical requirements beyond that of normal Division operations.

The Support Services Bureau, in coordination with Planning & Inspections and the Secretary of Police, is to assume responsibility for a transition program that includes a planning calendar. Also, identify any activities that may require additional manpower or reallocation of other assets from within the Division to provide for an effective and timely transition to the semi-auto service pistol.

Provide me with a preliminary report on the status of the transition program no later than September 1, 1989.

Marti D. Felker
Marti D. Felker
Chief of Police

MDF:pjw
CF:
Assistant Chief