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WEAPONS WORKSHOP
FBI ACADEMY
QUANTICO, VIRGINIA
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NCJRS

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The attendees were unanimous that the need for pistols to replace revolvers in law enforcement has become urgent. The advantages of pistols are overwhelming in two broad, but critical, areas. These areas are the tactical edge represented by pistols in shooting incidents, and the significant training enhancements that accrue with the use of pistols as general issue weapons.

In the area of training enhancements, the group identified six distinct enhancements which serve to improve training and make it more effective.

1. Pistols are easier to shoot than revolvers. Over 95% of the shots fired with a modern double action pistol are short, single action trigger pulls, as compared with a revolver in which 100% of the shots fired require a long, heavy, and difficult to control double action trigger pull. Further, pistols transmit recoil into the hand better than revolvers, spreading it out in time because of the cushioning effect of the slide action, and distributing it throughout the hand. The result is that shooters control the pistol better, and beginning shooters do not suffer damage to the hand as is common with revolvers. Revolver grips are too angular and position the hand too low below the barrel, thus increasing the perceived recoil and focussing the recoil upon small areas of the hand. At the lowest skill level, for example, a marginal shooter with a revolver will be a better shooter with a pistol, given the same amount of instruction. Ease of shooting translates into better shooters leaving basic training, and a higher level of maintained proficiency in the field when the amount of training and rounds fired inevitably decreases as compared to the basic training undergone. This gives rise to the second enhancement.

2. The ease of shooting and increased proficiency which results leads to an increased confidence level on the part of the shooter. A shooter's confidence in his ability with the weapon will translate into significantly improved effectiveness with that weapon should the need to use it arise.

3. The ease of shooting inherent to pistols will result in better proficiency attained sooner in the training curriculum. If the total number of hours and rounds remain unchanged, the end product will be a better shooter.

4. Higher scores can be realized during qualification and training, more so in the field than in basic training. In basic training, the time and rounds devoted to training are sufficiently intense to raise all shooters to an artificially high level of skill. Once those shooters graduate and enter

service in the field, the time devoted to training with the firearm inevitably decreases. The shooter's skill level subsides to a lower "maintenance" level because of the decreased time spent in training and the increased time between training sessions. That maintenance level of skill will be higher in the field due to the higher skill level attained in training school and due to the ease of shooting pistols, as compared to revolvers. Thus the Agent/officer in the field will attain higher scores and the effectiveness, credibility, and defensibility of the training program will be enhanced.

5. The pistol functions more reliably in the training situation. A constant problem with the revolver has been the accumulation of unburned powder under the extractor, which renders the weapon inoperable. This condition begins to occur with the revolver after firing several hundred rounds. Pistols routinely can be fired in excess of 1500-2000 rounds without cleaning and will still function reliably.

6. Pistols issued for duty use require the exclusive use of service ammunition. The recoil reducing effects of pistols enable extensive firing of service ammunition without any pain or fatigue being imposed on the shooter. There is no light recoiling, target ammunition such as the wadcutter used in revolvers. Shooters will train exclusively with the same ammunition carried on duty. This will enhance the shooter's ability to successfully resolve a shooting incident, and significantly enhance the agency's defense against a liability action. Training with light target loads and carrying heavy service loads on duty as is common with revolvers gives rise to a serious liability question. It is done because of the detrimental effects on the shooter of extensive firing of service ammunition. Those effects do not occur with pistols and the exclusive use of service ammunition is easily implemented.

The tactical edge which pistols hold over revolvers is equally pronounced and compelling. The group identified seven significant tactical advantages.

1. Ease of shooting, as discussed above.

2. Speed of reloading. A common thread which is apparent in all interviews with Agents/officers involved in shooting is the onset of a sense of helplessness and vulnerability upon having to reload. Revolvers are slow to reload even under range conditions and even with speedloaders. In the life and death stress of a shooting situation, they can be agonizingly difficult to reload due to the loss of fine motor control common under stress. The resultant time required to accomplish reloading can be fatal. If a hand has been injured or

incapacitated, it can be virtually impossible. The speed with which a pistol can be reloaded is a significant tactical edge. It does not require the use of fine motor control as does revolver reloading. It can be accomplished more readily with one hand. And the increased capacities of pistols can delay the necessity to reload enough that in most shootings it will not arise at all.

3. Increased proficiency, as discussed above under training enhancements, is a significant tactical advantage. A higher maintained level of skill represents a higher survival potential in an actual shooting incident.

4. Better durability and reliability. The modern double action pistol is more reliable and more durable than the revolver. The pistol is less likely to suffer damage during occasional abuse such as being dropped on pavement. With the single exception of a dud round, all stoppages occurring in a revolver require time and assistance to clear. Examples include powder under the extractor, a backed out extractor rod, a high primer binding the cylinder, double clutching the trigger which skips rounds in the cylinder, failing to completely eject empty cases, and failing to close the cylinder completely. There is no "immediate action" possible to immediately return a revolver to firing condition in the event any of these stoppages occur. Stoppages which occur with a pistol can be immediately resolved by the shooter and the weapon returned to a firing condition literally in seconds. Pistol stoppages include dud rounds, jams, failure to completely seat a magazine, and feeding failures. The incidence of such stoppages are no greater than stoppages with revolvers, and if good quality ammunition is used, the incidence of occurrence is less.

5. Faster, accurate shooting. The ease of shooting, short trigger travel required, and decreased perceived and felt recoil, enable any shooter to perform faster, with equal or better accuracy, than that same shooter can with a revolver.

6. Greater capacity. Although most advocates of pistols stress the greater capacity of the pistol as the primary advantage, the group identified it as merely one advantage among several, and not necessarily the greatest. Nevertheless, it is a real and compelling factor. Any Agent/officer who must reload is absolutely defenseless for however long it takes to actually reload. This moment of complete vulnerability can be postponed and perhaps avoided entirely due to the greater capacities of pistols, and if reloading does become necessary, it can be accomplished in mere seconds. In fact, ease and speed of reloading are identified as more significant tactically than the actual number of rounds available in the weapon. No agreement

was reached on the optimum number of rounds which should be available in the pistol, since the larger numbers can result in grip sizes too large for general issue use by widely varying hand sizes, and the smaller capacities available could not be called inadequate. Nine rounds was the minimum acceptable capacity, and more is definitely better, provided the number of rounds does not compromise other factors such as general usability, overall dimensions, etc.

7. Another advantage is reflected in the amount of ammunition that can comfortably be carried by the Agent/officer as backup. While speedloaders are bulky and cumbersome to operate, magazines are streamlined and simplistic in operation, containing a significantly larger number of rounds. Therefore, the Agent/officer gains a distinct advantage in this area.

The group further identified three issues which must be addressed relative to any contemplated change from revolvers to pistols.

1. New training techniques are mandatory. Pistols cannot be successfully fired with revolver trigger control techniques and instructional methods. The pistol is a completely different weapon system and requires different techniques and instructional methods. It is a mistake to attempt to shoot a pistol "like a revolver". To do so is to negate all the training advantages which apply to pistols.

2. Pistols cost significantly more than revolvers. The acquisition cost is approximately double that of a revolver, and the support costs for replacement magazines, magazine pouches, and ammunition are more.

3. There is a first shot liability question which must be resolved. Simply put, in potentially dangerous situations the Agent/officer is going to have his finger on the trigger. The overwhelming probability is that the situation will be resolved and the weapon holstered with no shot being fired. The long, heavy double action trigger pull of a revolver represents a safety margin which prevents the weapon from being unintentionally discharged in such a situation. This is why single action pistols are deemed inappropriate for general issue use. The first shot, and all subsequent shots, is a relatively light, short, single action trigger pull. Inevitably this will lead to an "unintentional" shot at the worst moment. It is unrealistic to instruct the Agent/officer to keep his finger off the trigger until he is intending to shoot. In actuality, the Agent/officer facing an unidentified subject in a potentially dangerous situation will have his finger on the trigger no matter what policy or instruction have said to the contrary, and common

sense and survival instincts dictate that he should. A relatively long, relatively heavy double action trigger pull provides the safety margin by which policy and instruction can allow the Agent/officer to do that which he will do anyway, and mitigate against the weapon firing unintentionally. In a double action pistol, once that first shot is fired, all the ease of shooting of a consistent single action trigger comes into play. Proper training in pistol techniques will also make effective hits with the first shot easily attained.

The consistent trigger pull of the revolver is often touted as an advantage. However, it actually means that every shot fired with a revolver is done so with a long, heavy trigger pull. This is good for preventing unintentional discharges, but bad for ease of shooting and effective maintenance of skill levels.

The single action pistol also has a consistent trigger pull. Every shot fired is done with a short, light trigger pull. This is excellent for ease of shooting and retention of skill levels, but unacceptable in terms of first shot liability in actual street usage wherein most of the time the weapon is drawn, pointed at someone with a finger on the trigger, and subsequently holstered with no shot being desired. If the single action trigger pull is increased to mitigate against first shot liability, then ease of shooting becomes impaired, if not eliminated. By the account of one member of the group, even an eight pound trigger is too light. In testing done by this member's agency, under stress the eight pound trigger felt like two to three pounds.

Thus the classical double action pistol is identified as the best choice for general law enforcement usage. The first shot, being relatively long and heavy, resolves the first shot liability, yet allows the shooter to hit effectively when a fast shot is intended and immediately transitions into short, relatively light single action trigger pulls for all subsequent shots. Thus ease of shooting is maintained for almost all shots fired from the pistol, yet that critical first shot requires an intentional trigger pull.

Absolute agreement upon an ideal pistol was not possible. Each agency represented had differences in one or more areas of specification. For example, several of the uniform departments represented insisted upon the presence of a manual safety on the weapon because they routinely carry their weapons exposed to the public. They cited several instances of officers' lives being saved because the subject who was attempting to shoot them with their own weapon could not figure out how to make the gun shoot with the safety on. Some representatives present did

not consider all steel construction to be desirable, preferring the slightly decreased weight over considerations of extended service life. Some wanted no controls on the pistol slide, others did not care about the presence of controls on the pistol slide. Some did not care about ambidextrous operation, others did. The concern over first shot liability discussed above was not a unanimous concern, although most of the representatives present agreed that it was an important factor. One of the uniform agencies represented was not completely convinced of the undesirable nature of a magazine disconnecter. The two points on which all present agreed unanimously was the need for pistols in law enforcement, and the fact that every individual agency will identify its own needs and select weapons accordingly.

Nevertheless, the following specifications were established as a guide line, and agreed to individually by at least a majority of those present. The group further recommends that any specifications be performance oriented and not engineering oriented. It is preferable to mandate what the weapon will do, rather than how it will be built. In the former case, if the weapon does not perform as desired there is redress available. In the latter case, if the manufacturer builds it as specified, and it does not perform as desired, there is no redress because the manufacturer has met the specification.

SPECIFICATIONS

- A. 40,000 round service life for the frame and slide.
- B. 20,000 round service life for the barrel.
- C. No magazine disconnecter.
- D. No manual safety.
- E. A firing pin lock to prevent firing without a finger on the trigger must be present.
- F. A disconnecter to prevent firing out of battery must be present.
- G. First shot should be a smooth, 10-12 pound trigger pull.
- H. Second and subsequent shots must be a short, 4-6 pound trigger pull.
- I. Must be able to decock the weapon without touching the trigger.

- J. Must have a pure decocking lever or control which has no other function and is preferably ambidextrous in operation.
- K. Magazine release on the frame, and it pushes "in" to release.
- L. All controls operable with the shooting hand.
- M. No dual function controls.
- N. Must have some means of altering or varying grip dimensions to fit variably sized hands.
- O. Either a fixed barrel bushing or no bushing at all.
- P. Inertial firing pin.
- Q. Easy to field strip for cleaning and maintenance.
- R. Magazines must always fall free when magazine release pushed.
- S. There must be a front lip on the bottom of magazine.
- T. The weapon capacity should be at least 12 rounds.
- U. The magazine base must extend below the bottom of the frame.
- V. The pistol and the magazines must not be capable of being reassembled incorrectly when field stripped.

The above specifications should not be regarded as all-inclusive. They represent those items that the majority of the attendees felt were desirable in a service weapon. As previously noted, individual departments voiced their desires for certain features they felt important based upon the usage of the weapon by their departments. Other specifications, such as sight configuration and adjustment, night sights, metal finish (stainless v. blued), grip style and material, i.e. wood, rubber or plastic, etc., were agreed to be individual features that will be dictated by departmental needs and preferences.

PISTOL TRANSITIONAL SHOOTING TRAINING PROGRAM

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DAY ONE

Introductions

Course Overview

Pros and Cons of Converting to Pistols (20 min.)

i.e. cons: increased complexity re repair
and maintenance

pros: increased fire power in amount
and speed

Personally Owned Pistols Proposal

Nomenclature of Pistols

with external safety (Smith & Wesson)

without external safety but with decocker
(Sig-Sauer)

Rules for Handling Firearms (See Training Aid)

NOMENCLATURE (USE EXPLODED DRAWING, SLIDES, HANDOUT)

- a. Frame assembly
- b. Slide assembly (w/breechblock)
- c. Barrel
- d. Recoil spring and guide
- e. Take-down lever
- f. Slide catch lever
- g. Decocking lever
- h. Magazine catch (release)
- i. Magazine
- j. Grips
- k. Hammer
- l. Ejection port
- m. Extractor hook and extractor

- n. Rails and pin holes
- o. Trigger
- p. Trigger guard
- q. Sights (Front-Rear)

NOTE TO INSTRUCTORS: There are 55 separate parts to a Sig P226, however, it would require a detailed strip to identify these parts. Only field stripping is authorized by students. Further disassembly is only authorized for qualified gunsmiths and armorers.

CYCLE OF OPERATION DEMONSTRATION

- a. Feeding
- b. Chambering
- c. Locking
- d. Firing
- e. Unlocking
- f. Extracting
- g. Ejecting
- h. Cocking

Unloading Pistol (making weapon safe - safety features)

MAKING SIG-SAUER P226 SAFE

- a. To render the P226 safe so as not to cause an accidental discharge.
 - 1) Always keep weapon pointed in a safe direction and finger off the trigger.
 - 2) Depress magazine catch and remove magazine. Note: No Magazine Safety.
 - 3) Grasp rear of slide (grasping grooves) making sure left elbow is not in front of barrel.

- 4) Lock slide assembly to rear by pressing upward with right thumb on the slide catch lever.
- 5) INSPECT CHAMBER
- 6) INSPECT CHAMBER AGAIN USING SMALL FINGER IN CASE OF POOR LIGHTING.

NOTE: DECOCK LEVER AND HAMMER SAFETY NOTCH

- a. Fully depressing decock lever forces sear cut of register with the fullcock notch of the hammer. After releasing decock lever mainspring pressure lowers the hammer which is then caught by sear engaging the safety intercept notch. During and after decocking the firing pin remains constantly locked provided the shooters finger is off of the trigger. The safety intercept notch also becomes effective in case of inadvertently tripping or releasing the hammer before the fullcock notch is reached when thumbcocking weapon.

NOTE: SAFETY FEATURES

- a. Firing Pin Lock - Can only be deactivated by intentionally pulling the trigger. This combination of locked firing pin and positive hammer rebound into a safety intercept notch, prevents accidental discharge of a chambered round, even if the loaded pistol is dropped in either the cocked or decocked condition.
- b. Disconnecter - If slide does not return to a fully locked position due to weapon, magazine, or ammunition malfunction, connection between the firing pin lock and safety lever is not made. Therefore, deactivation of the safety lock is automatically prevented. In this disconnected state the slide cams down the trigger bar and prevents trigger function.

Smith & Wesson 459

1. First step - safety on.
NOTE: Never leave the safety "on" when pistol is to be carried.
2. Follow basic steps for P226.
NOTE: S&W pistols do have a magazine safety in addition to firing pin lock and disconnecter.

INSPECTION PROCEDURE FOR S&W AUTOMATIC PISTOLS

1. Remove the magazine.
2. Lock slide to the rear and visually check chamber for live rounds.
3. While looking into ejection port, visually check extractor hook to assure it is not broken.
4. Check barrel visually for an obstruction, bulge, muzzle damage, and for cleanliness; making sure there is no lead build-up on feed ramp.
NOTE: Check for fractures at rails and sear pin holes. Check slide stop lever for looseness.
5. Check front and rear sights for damage or looseness.
6. If weapons have ambidextrous safety, check for tightness.
7. With safety in the off position, release slide by depressing slide stop. "Hammer should remain on full cock position" WITH AND WITHOUT MAGAZINE IN WEAPON.
8. Check Safety Features:
 - A. Magazine Safety.
 1. With the slide forward and magazine removed, cock the hammer, pull the trigger, the hammer should remain cocked.

Turn "upside-down" slap then try (with mag. out).
 2. Insert magazine, pull trigger, the hammer should fall.
 - B. Disconnecter Safety.
 1. With magazine in, slide forward, and hammer in the cocked position, draw slide rearward approximately 1/2". While holding the slide, pull trigger; hammer should not fall. (This prohibits weapon from firing before being in a fully locked position).

C. Firing Pin Lock Safety.

1. With no magazine in weapon and hammer in the cocked position, push forward on the firing pin with a small instrument. You should have only a small forward travel of firing pin.
2. Now, hold the trigger to the rear. Push forward on the firing pin with the small instrument and the firing pin should travel forward its full depth.

D. Manual Safety.

1. With magazine in the weapon, put the safety on, pull the trigger; the trigger should be disengaged.
2. Put the safety in the off position, cock the hammer. While viewing the firing pin from the rear, slowly engage the safety; the safety bar should cam in front of the firing pin prohibiting the hammer from striking it on falling.

E. Half Cock Notch.

1. NOTE: This is not to be used as a safety. Its function is to prohibit the weapon from firing if the hammer falls accidentally.

9. Remove magazine and check it for any damage, such as:

- A. Dents.
- B. Deformed feel lips.
- C. Hairline crack on back side.

10. Check slide stop button. It should be tight.

11. Check stocks for looseness.

THINGS TO CHECK WHEN WEAPON IS FIELD STRIPPED FOR CLEANING

1. Check recoil spring guide. Plunger should be free and bushing staked tightly.
2. Recoil spring should be free of kinks.
3. Periodically the firing pin and spring should be removed for cleaning. This should also include the cleaning of the firing pin chamber. This should only be done by the Gun Vault.
4. Periodically disassemble the magazine for proper cleaning.
5. Inspect for cracking along frame rails and around pin holes.

Shooting All Pistols (is different from the revolver)

1. Grip - support hand must be on the side of the pistol (i.e. rail marks). Starting Grip: Heel of weak thumb filling gap in strong hand grip.
2. Trigger control (explain transition shooting) (i.e. first round is double action, by holding the trigger to the rear, then riding the trigger forward until the sear engages, thence pressing the trigger to rear each subsequent shot is fired single action.) (Instructor is to demonstrate the required transition trigger travel of various pistols.) Note: Slow DA pull harder to control than quick (but smooth) DA pull. Center pad of trigger finger on trigger for all shots. Shooter must concentrate on holding the trigger back through the recoil. Exertion of recoil will drive finger off the trigger, leading to slapping or jerking subsequent shots. Shooter go slow until they can do this without thinking about it. Note: This is the reverse of revolver shooting where trigger must be allowed to travel fully forward.
3. Some pistols require SAFETY LEVER to be placed in the off position. (i.e. S&W 459)
4. Reloading - additional ammo is carried on the weak side. The magazine is taken from holder and inserted into pistol by the weak hand, index finger running along front edge of mag. Always grab magazine with palm in towards body. This insures magazine comes up in proper grip and position.
NOTE: Magazine is carried with "lips" of magazine pointed down in holder and bullet facing towards the front of the shooter.

Magazines are the subject of reloading not the pistol.

During the reloading process the pistol is tilted with the buttwell towards the weak side, and lowered to the most convenient position.

NOTE: Instructor mention the Tactical reload - reloading before the primary mag. is empty. Partially loaded mag. is placed into convenient pocket.

NOTE: Last round recoil is different than all others - advise students to be sensitive to the difference. It is probably unrealistic to count rounds - shoot to lock-back and reload. Can quickly check magazine at any time without removing weapon from holster.

LOADING

- a. Keep muzzle in safe direction. (S&W safety on is an option for greater safety.)
- b. Insert magazine and ensure that it has engaged the magazine catch.
- c. If slide forward, draw back slide and allow it to snap forward into battery. (Emphasize allowing slide to return at own speed.) Do not ease slide forward - can cause a misfeed. If slide open, release with weak thumb (right handers), weak forefinger (left handers).
- d. Immediately decock.
- e. The weapon is now loaded and ready to fire (in the double-action mode.) Top off by removing magazine, holstering weapon, load one rd. in magazine and reinserting magazine without drawing weapon.
Note: All rounds should be loaded from magazine. Do not drop a loose round into chamber and release slide. This forces extractor to "snap" over rim. In time, can weaken extractor and/or damage rim leading to a malfunction.

RELOADING DURING SHOOTING

- a. Remove empty magazine and insert fresh one. Press mag. release with strong hand while weak hand goes for fresh mag. Watch to see magazine drop. If it does not drop, do not interrupt motion to fresh magazine. Continue and "flick" out mag. with finger as weak hand returns to gun with fresh magazine.
- b. Thumb down the slide catch lever with the weak hand or draw back the slide and allow it to snap forward.
- c. The weapon is now loaded and ready to fire in the single-action mode.

UNLOADING

- a. Remove magazine (S&W insure safety is on).
- b. Draw back slide and verify that no rounds remain in chamber. Stress two rules again. (See attached "Rules for Handling Firearms")
- c. Let slide snap forward and decock. Reholster.
- d. The pistol is now unloaded, decocked, and safe.

SHOOTING EXERCISE

Course No. 1

Transition shooting (2 rd. drill) at the 7 yd. line (200 rds.) fire first round double action and second rd. single action (SA), decock and repeat thru 14 fully loaded mag. (watch for constant trigger contact by the trigger finger) (have shooters fire slowly and deliberately - they are to feel for the sear engagement). Have shooters alternate watching and coaching each other. Stand on weak side and watch trigger finger - coming off the trigger is easily observed.

(Return to classroom cleaning area.)

FIELD STRIPPING AND CLEANING SIG P226

- a. Remove magazine.
- b. Draw back slide and lock it in the arrest position by thumbing up on slide catch lever.
- c. Check visually to ensure chamber is empty. (Under poor lighting use small finger and feel empty chamber.)
- d. Double check to ensure chamber is empty.
- e. Thumb-down the take down lever.
- f. Disengage slide catch lever and holding slide assembly, slowly release and allow it to glide forward.
- g. The complete slide assembly has now been removed from frame assembly.
- h. Remove recoil spring/guide from slide.
- i. Remove barrel from slide.
- j. The P226 has now been field stripped.

NOTE: Field stripping is quite sufficient to allow for cleaning. Further disassembly (detailed strip) is only permitted by qualified gunsmiths and armorers.

Do Refresher On Field Stripping S&W Weapons.

PREVENTIVE MAINTENANCE

- a. After weapon has been field stripped clean barrel and chamber from the rear with quality gun oil.
- b. Clean recoil-block face and extractor hook - explain why.
- c. Never clean barrel from muzzle and do not use steel brushes because they damage the smooth barrel surfaces.
- d. Use suitable cleaning rods with correct caliber brushes.
- e. Coat barrel sparingly with quality gun oil.
- f. Put a few drops of oil on rails of slide and frame.
- g. Magazines should be cleaned occasionally. Both Sig and S&W have removable floorplates.
- h. After reassembly wipe off weapon with a soft cloth with a few drops of quality gun oil.
- i. Check weapon for performance by working slide and decocking features to ensure that weapon is properly functioning.

CLEAN PISTOLS

NOTE: Every time one of these pistols is disassembled, the shooter should inspect the frame rails and pin holes for any sign of cracking. this applies to all alloy frame pistols (Ex. Sig P226 and S&W M459).

END OF FIRST DAY

DAY TWO

Answer questions that students have.

SHOOTING EXERCISE

Course no. 1

Transition shooting (2 rd. drill) (50 rds.)

7 yd. fire two fully loaded mag.

15 yd. fire two fully load mag. Then fire: 2 mag. 2 rds. each in six seconds, including magazine change.

Course no. 2

10 yd. line reloading drill (60 rds.)

- a. Load two mags. with 4 rds. each with loaded pistol fire 8 rds. in 8 sec.
Repeat three times = 32 rds.
- b. Load two mags. with 7 rds. each with loaded pistol fire 14 rds. in 12 sec.
Repeat one time = 28 rds.

Course no. 3

25 yd. position shooting (60 rds.)

- a. Load two mags. with 10 rds. each
Fire twenty rds. strong hand barricade.
- b. Load two mags. with 10 rds. each
Fire twenty rds. over top of barricade.
- c. Load two mags. with 10 rds. each
Fire twenty rds. weak hand barricade.

NOTE: Lecture and demonstrate weak hand reload - no need to change hands to reload.

Course no 4

PQC COURSE (See instructions on next page)

COURSE OF FIRE

	<u>TIME</u>
I. On command, move from 50 to 25 and fire: 6 rounds prone barricade 6 rounds over top 6 rounds weak hand, kneeling (18 Rounds)	55 seconds (50 seconds if starting at 25)
II. On command, move from 25 to 15 and fire: 2 rounds Decock, stay at ready gun. On command, fire 2 rounds Repeat 3 more times, decocking each time. (10 Rounds)	6 sec. 3 sec.
III. On command, move from 15 to 7 and fire: 12 rounds (12 Rounds)	15 sec.
IV. On command, move from 7 to 5 and fire: 5 rounds, strong hand <u>only</u> and 5 rounds, weak hand <u>only</u>	15 sec. (Note: Depending on magazine capacity, a mag. change may occur here.)

NOTE: No alibis for jams or stoppages. Shooter must clear problem and continue within time limits.

RETURN TO CLEANING ROOM CLASSROOM
(Instructor cover inspection procedure)

PISTOL QUALIFICATION COURSE

This course is designed to test the shooter's ability with a semiautomatic pistol used in a realistic fashion. It may be used with ANY pistol. Depending upon the magazine capacity of the weapon, the shooter will have to change magazines at different points in the course. It is the student's responsibility to change magazines at whatever point it becomes necessary. The tower will not advise when magazines will be changed.

Basic Rules:

1. Shooters may change magazines during any phase only when the weapon is empty or has one round in the chamber. The shooter will eat any rounds in a magazine dropped during a phase of fire.
2. Between phases, the student is free to inspect the magazine in his weapon for rounds remaining. The shooter will not replace or top-off that magazine unless it is completely empty.
3. At the conclusion of each phase, students will decock and holster. They may refill any empty magazine dropped during the phase.
4. During firing, students will not decock when changing position at the 25 or after a magazine change. They will always decock before holstering or moving with the weapon.

EQUIPMENT

Pistol and two magazines (10+ round capacity)
Pistol and three magazines (7-10 round capacity)

SCORING

Hits x 2

Qualification: 80

DAY THREE

SHOOTING EXERCISE

Course no. 1

Transition shooting (2 rds. drill)

- a. 7 yd. line fire two fully loaded mag.
- b. 15 yd. line fire two fully loaded mag.
- c. Load two mags. with 2 rds. each, load pistol and fire four rds. in 5 sec. or less. Repeat twice.
- d. Repeat (c) above, but use two targets - two shots on one and two on the other. Stress trigger control throughout.

Course no. 2

Malfunctions

a. FAILURE TO FIRE - 1

Causes: 1. Improperly seated magazine.
2. Faulty ammunition - misfire.

Remedy: 1. Pull trigger Again (D/A)..
2. Tap magazine home.
3. Cycle action (slide) briskly,
keeping hand away from ejection port.
4. Resume firing.

b. FAILURE TO FIRE - 2 Slide Slightly out of battery

Causes: 1. Weak recoil spring.
2. Dirty extractor hook.
3. Weapon or cartridge dirty or weapon is heavily greased.

Remedy: 1. Bump slide fully closed with heel of non-shooting hand.
2. Clean weapon and cartridge (if not under fire).

c. FAILURE TO EJECT

- Causes:
1. Insufficient recoil due to dirt.
 2. Galling of slide on frame (no lube - dirt).
 3. Ammunition defect.

Visual Symptom: Easily recognized as cartridge case may block line of sight (Smoke stack - stove pipe).

- Remedy:
1. Sweep spent case clear, releasing slide at that point to chamber a fresh round.
 2. Resume firing.

d. DOUBLE FEED

- Causes:
1. Failure to extract fired casing from chamber and feeding fresh round from magazine in behind it.
 2. Split case swollen in chamber.
 3. Extractor hook broken or filled with residue.

Visual Symptom: Slide is probably held well out of battery. You can verify by glancing into ejection port.

- Remedy:
1. Remove magazine.
 2. Lock Slide to rear taking care to dump out the live round that has been trapped against the non-extracted case head.
 3. Release slide.
 4. Attempt to eject expended cartridge, after second attempt check weapon for broken extractor.
 5. After ejecting fired casing, reinsert loaded magazine, charge your weapon, continue firing.

e. STUDENT MANIPULATION IN CLEARING MALFUNCTIONS OF SEMI-AUTO

1. Using dummy rounds and empty cases, simulate each of the previously indicated stoppages and practice clearing same.

Note: a. Immediate Action in the Event of a Malfunction During Shooting

Stovepipe is readily apparent. Simply sweep empty case out and continue shooting. In order for stovepipe to occur, slide must have traveled to rear a sufficient distance to pick up next round in magazine, but not far enough to eject. By simply sweeping out empty case, the slide will close and feed the round it has picked up. Demonstrate.

b. Tap-Rack-Bang

This procedure will resolve all other malfunctions except a double feed. This eliminates the necessity for the shooter to take time to identify the malfunction in the middle of a shooting.

c. A double-feed cannot be cleared quickly. Fortunately, it is a rare occurrence.

Course no. 3

Malfunction Drills

Instructor is to conduct numerous drills utilizing dummy rounds and empty cases. i.e. have fellow students load shooter's pistol with mixture of live and dummy ammo.

One hand loading and shooting drills.

Course no. 4

One-hand Exercise

Instructor demonstrate one hand (weak and strong) loading. Turn pistol buttwell up and place between knees, load mag. with one hand, grip pistol release slide and shoot with one hand.

NOTE: One hand reload may be necessitated by injury. Since weapon will have round in chamber, or be locked back, no need to open slide. Demonstrate slide can be opened one handed if necessary by hooking rear sight on shoe, pushing edge of muzzle against shoe or other object, etc.

Course no. 5

50 yd. line position shooting (60 rds.)

- a. Load two mags. with 10 rds. each
With loaded pistol fire 20 rds. prone.
- b. Load two mags. with 10 rds. each
With loaded pistol fire 20 rds.
Weak hand barricade
- c. Load two mags with 10 rds. each
With loaded pistol fire 20 rds.
Strong hand barricade.

Course no. 6

PQC Course

Course no. 7

Transition shooting

Note: Instructors mention "ROTATION RULE"

Rotation of ammo in magazines and rotation of magazines in pistol. At monthly shooting, first fired ammo shall be the ammo carried for the last month by the shooter. Recommend change magazines every 30 days. 95% of magazines will never "take a set." However, the other 5% will and there is no way to identify them until it occurs.



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ANALYSIS OF SAFETY ISSUES

RE: Sig-Sauer Smith and Wesson Frame Failures

Alloy framed weapons such as the Sig-Sauer P226 and the S&W M459 will eventually fail. The history of frame failures among these weapons indicates a probable service life expectancy of 10,000 rounds.

When alloy frames fail, they do so by cracking at stress points. The Sig P226 cracks occur in the rear frame rails. The S&W M459 cracks occur in the rear surfaces of the forward frame rails. Radial cracks can appear in the pin holes and other openings in the sides of the frame. All such failures are readily apparent in the course of routine care and cleaning.

These failures do not stop the weapon from functioning. Both Sig and S&W have fired over 1,500 rounds in failed weapons. The only detrimental effect is a marked decrease in accuracy as the firing continues.

Further, these failures do not pose any hazard to the shooter. The slides of these weapons are held in place by the barrels, slide stops, and frame rails. When the rails crack, the affected area represents only 5-10% of the total rail area; the barrel lock-up is unchanged, and the integrity of the slide stop is not impaired. There is absolutely no way for any part of the weapon to come loose and strike the shooter.

The rails hold the slide down on the frame, but do not hold the slide on the gun relative to its fore and aft motion. The slide stop prevents the slide from coming off forward, and the barrel lock-up plus the entire mass of the frame prevent the slide from coming off to the rear.

The failures experienced by Sig and S&W weapons represent absolutely no hazard to the shooter. They will not stop the weapon from firing for at least 1,500 rounds, and they do not enable any part of the weapon to come loose.

In March, 1988, the FBI began test firing two Sig P226 pistols which incorporate the latest design modification intended to alleviate the early cracking of previous designs. To date, one test weapon has fired 11,120 rounds and the other has fired 4,525 rounds, with no cracking developing. The test firing is continuing.