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KAHR'S LIGHTWEIGHT

A few months ago, I saw a compact P40 in S&W caliber in the display case at the Florida Gun Exchange. The clean lines, contrasting stainless steel slide and black polymer frame of this Kahr Arms semi-auto just seemed to say, "Pick me up!"

The sales associate handed me the pistol, and I was immediately impressed by its light weight, the comfort of its grip and its lack of sharp edges. Clearly, this was a compact full-power .40-caliber handgun that would be easy to conceal and carry.

My only question about this pistol concerned how well it would handle the recoil of full-power .40-caliber loads. I'd met Kahr's director of sales and marketing, Frank Harris, at the SHOT Show some time ago, so I called him and asked if he'd send me a P40 with a stainless steel slide and night sights for evaluation.

THE UNIQUE, USER-FRIENDLY P40

The P40 is basically an enhanced version of Kahr's CW40. The main differences between the two guns are that the P40 has a match-grade barrel and a slide with dovetails that fit aftermarket sights. The P40 is also shipped with two factory magazines instead of one.

The P40 I received is the KP4043N version, which has a 3.6-inch barrel and a grip that fully encloses a six-shot magazine. The pistol will also accept an extended seven-shot magazine. With a seven-shot magazine in place, the pistol has a maximum capacity of eight shots, including one round in the chamber.

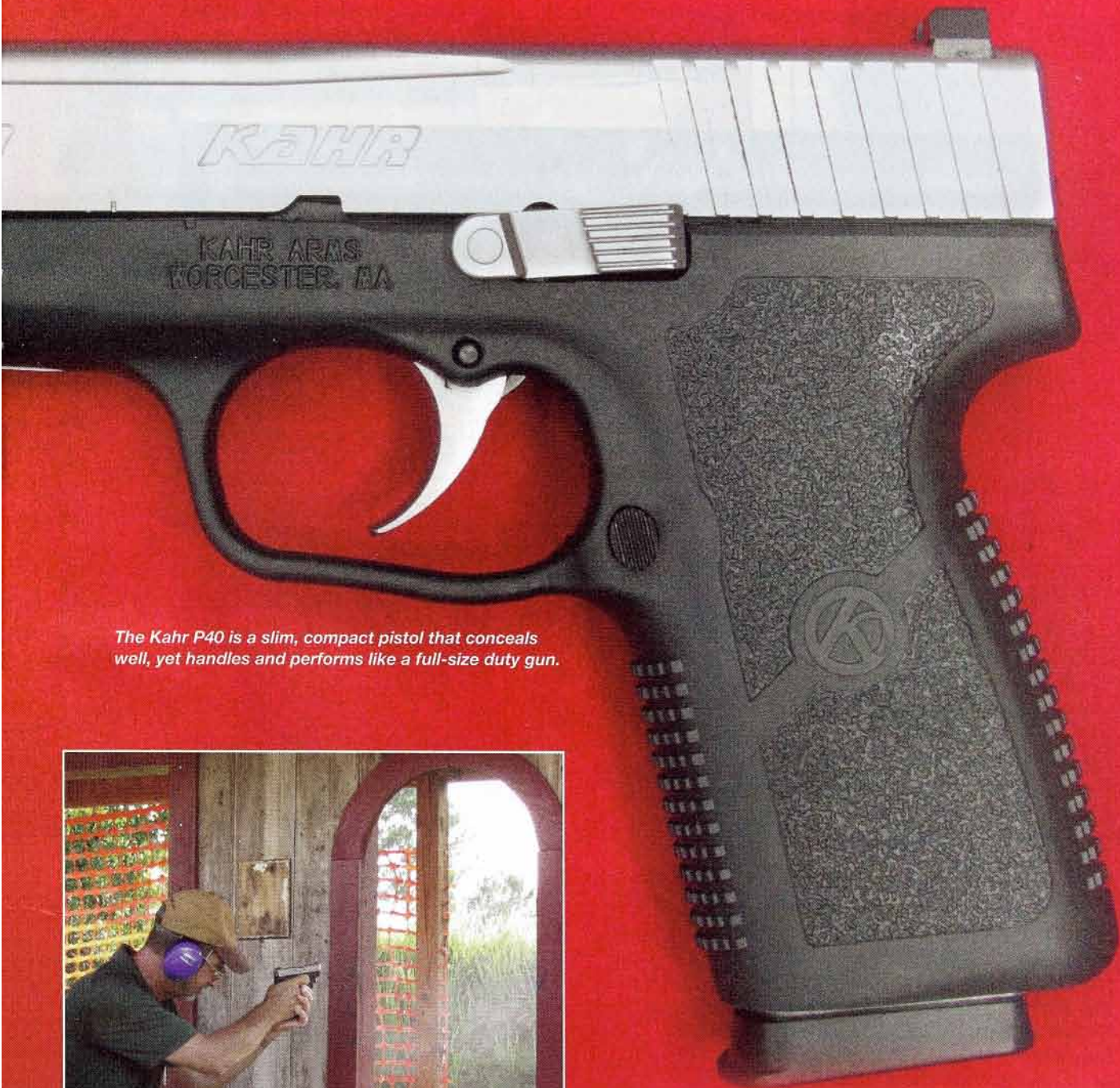
Kahr uses a number of unique features that set its small semi-autos apart from those of other manufacturers. First, Kahr is the only manufacturer I know of that uses an "offset barrel." This feature is immediately noticeable when

P40

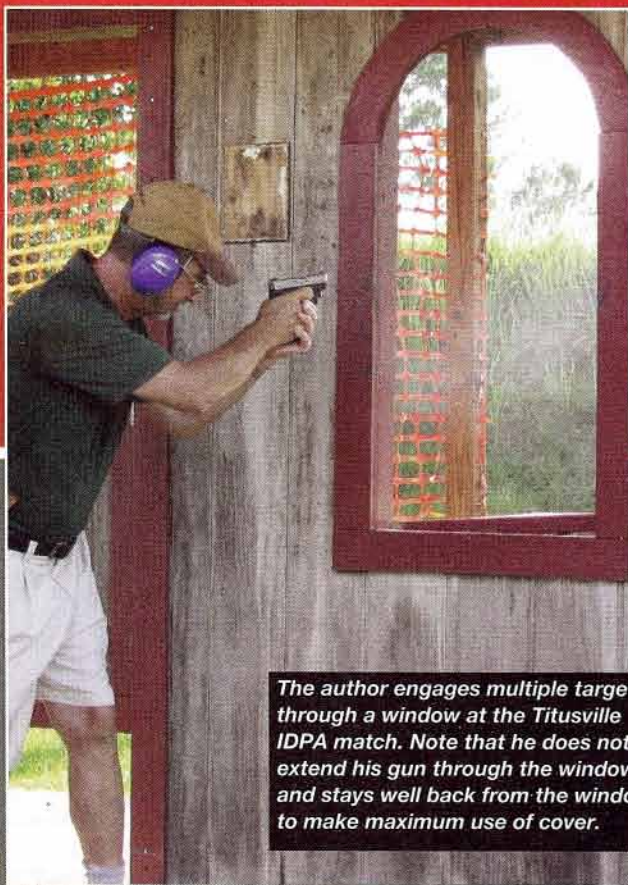
looking at the chamber of the P40. The barrel's integral feed ramp appears to be about half as wide as the ramps on other guns, and it's located to the left of the bore's center line. The ramp is in this position because Kahr has placed the pistol's trigger next to the barrel lug. The result is that all Kahr pistols sit lower in the hand than pistols with conventional trigger placement. Kahr claims that this results in less muzzle flip on firing, less felt recoil and better recoil control. After firing about 400 rounds through a P40, I can attest that this seems to be the case.

There's no doubt that this gun kicks, but I expected considerably more recoil from a gun that weighs only 22 ounces fully loaded. A second important feature of the P40's trigger design is its light, smooth 6-pound DAO trigger pull.

Two other features of the Kahr design that are of special interest include the self-cleaning extractor and the construction of the magazine. Because of the design of semi-auto breachfaces, the extractors of auto-pistols are directly exposed to firing residue. This makes them quite



The Kahr P40 is a slim, compact pistol that conceals well, yet handles and performs like a full-size duty gun.



The author engages multiple targets through a window at the Titusville IDPA match. Note that he does not extend his gun through the window and stays well back from the window to make maximum use of cover.



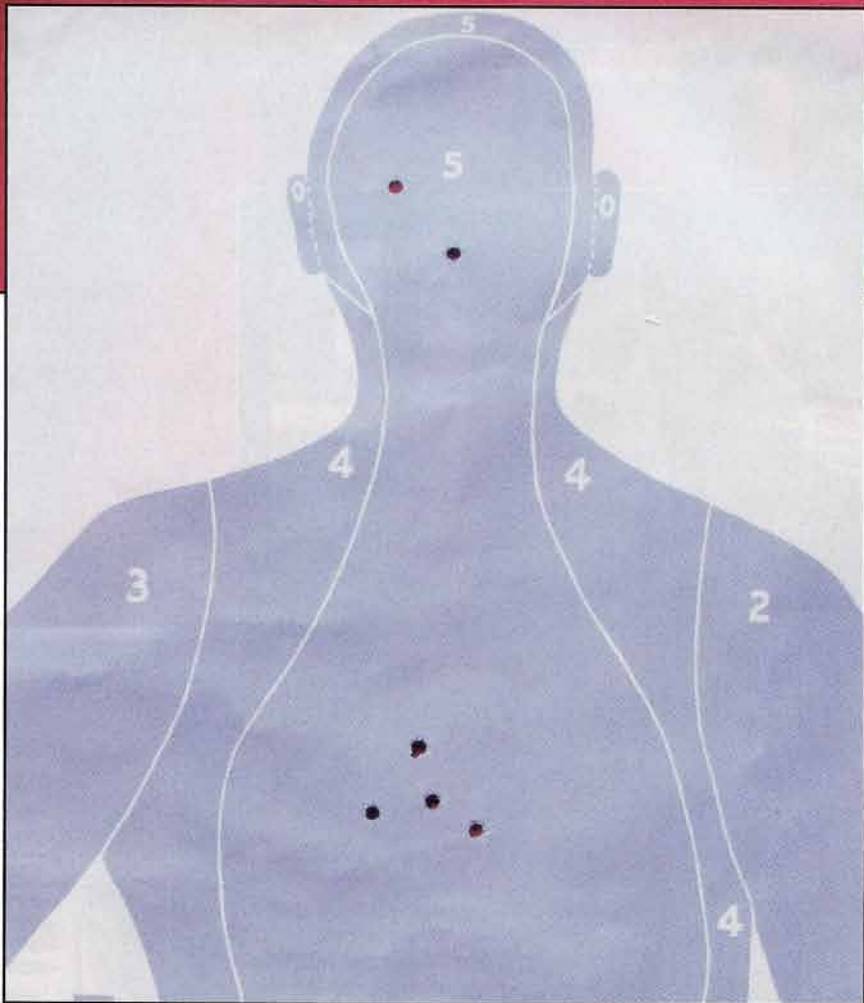
The Tru-Dot night sights on the P40 were very visible and made rapid sight acquisition quite easy in both daytime and low-light conditions.



Dr. Topper added a Crimson Trace laser sight and a Hogue Handall Jr. grip to the P40. The grips helped fit the gun to his extra-large hands, and the laser made for fast and accurate point shooting.

prone becoming fouled. I've actually seen extractors on semi-autos become so dirty that they freeze up and break during firing. When this happens the pistol often won't feed the next round. The Kahr design forces residue away from the extractor, keeping it clean and functional. In addition to this, the Kahr's slide prevents the extractor from moving too much and slipping off the case rim before it can be ejected.

With respect to the magazine, it's made of 400-series stainless steel and is tumbled to ensure a burr-free

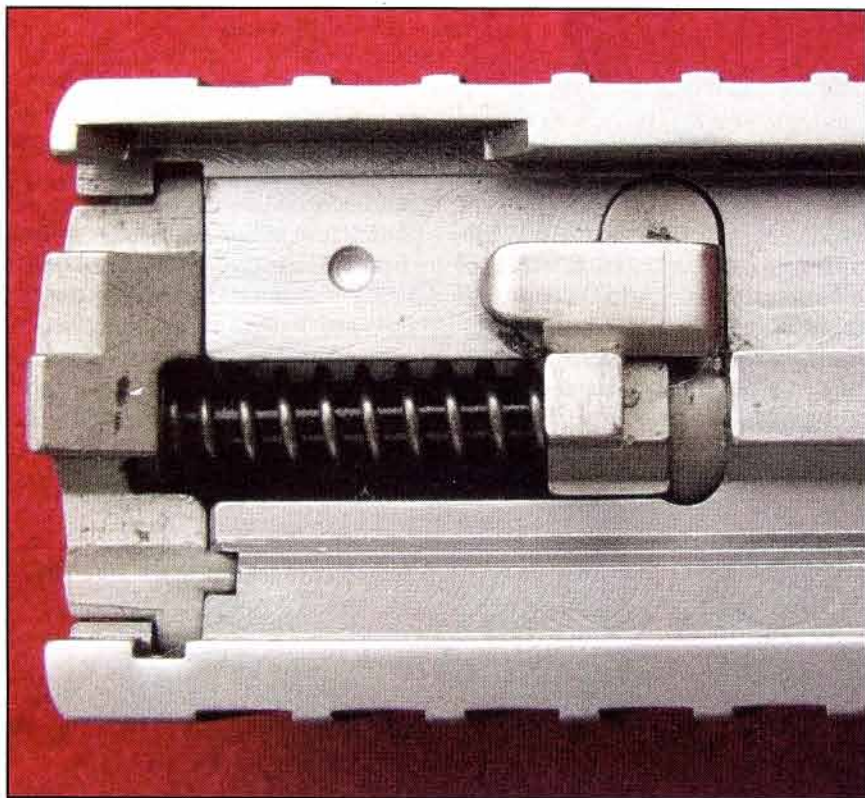


Dr. Topper fired two body armor drills on this target at 7 yards with the P40. Its excellent trigger pull combined with the Crimson Trace laser allowed him to shoot quickly and accurately.

"In addition to being quite accurate, the P40 also shot most loads to very similar points of impact."



The P40 has a match-grade stainless steel barrel that produced very good accuracy from the bench and in action shooting, as well.



The P40's striker block is located just above the striker on the underside of the slide. It is designed to prevent the gun from discharging if it is dropped with a live round in the chamber.

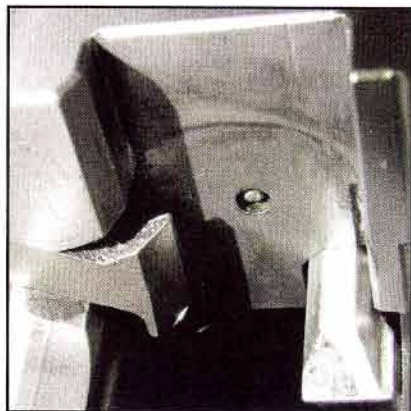
surface. The magazine's polymer follower has a steel insert that contacts the slide stop pin when the magazine is empty. The use of a steel insert in a polymer follower prevents the follower from being worn down. Worn followers are often the cause of slide lock failures that slow down reloads.

UNDER THE MICROSCOPE

Before taking the P40 to the range, I put it on my workbench and field stripped it for the usual examination

and cleaning. Kahr uses computer-aided design and computer-aided manufacturing (CAD/CAM) in the production of all of its pistols. When CAD and CAM are combined with computer numerically controlled (CNC) milling machines, it increases the speed with which products can be brought to market and reduces the possibility of production errors.

Regardless of whether a test gun is manufactured by computer or by hand, I always examine it for obvious signs of quality problems, such as metal filings, burrs, tool marks, checkering errors, sharp edges,



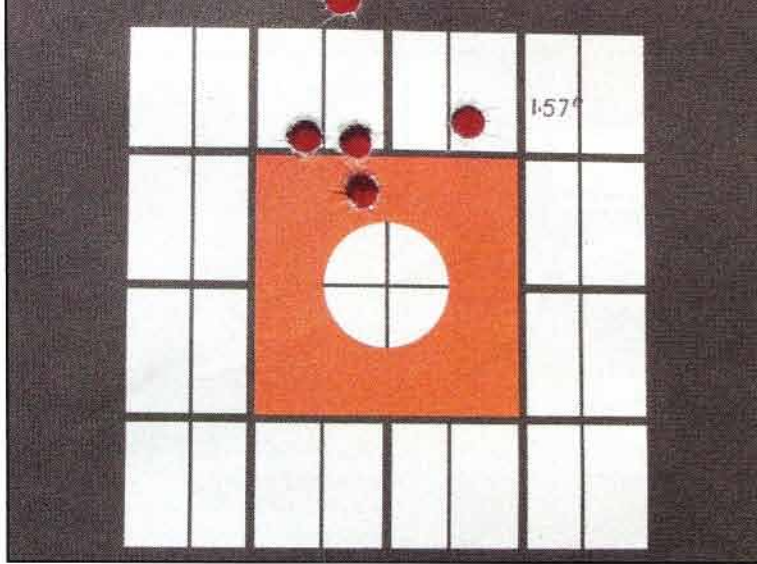
The P40 has a self-cleaning extractor. The extractor on the P40 used by Dr. Topper had not undergone any special cleaning and displayed only a minimal amount of firing residue after approximately 400 rounds had been fired.

uneven lines and scratches. I only found one minor issue with my P40, and that involved a magazine release which seemed a bit stiff. On the plus side, the pistol's edges were nicely rounded. There were no sharp areas that could cause small cuts or rapidly abrade clothing. The grip was a bit small for my extra-large hands, so I picked up a Hogue Hand-All Jr. grip at the Florida Gun Exchange and slipped it over the grip. After that, the pistol fit me much better.

I also called Crimson Trace and requested a laser sight. Over the last couple of years I've become quite fond of lasers. Today's lasers are much less bulky than early versions, they are very reliable, and they allow for fast target acquisition with both eyes open. Once the laser was installed, it was time to go to the range.

SHOTS FIRED

The design of the P40 raised several interesting questions about how it would perform on the range. Would its light weight affect the speed with which it could be fired or reduce its reliability? Would the pistol's 3.6-inch barrel be too short for optimum .40 S&W velocity or terminal performance? Would its offset barrel and narrow feed ramp cause stoppages? And, would its DAO trigger system affect the precision with which it could be fired?



This 1.57-inch five-shot group was fired using Cor-Bon 140-grain DPX ammunition. This high-performance load shot very well in the P40.

KAHR FACTS

- Kahr Arms' semi-auto pistols have steadily grown in popularity since they first appeared in 1993.
- Part of the reason for this lies in their unique ergonomic design. These slim semi-autos fit the hand nicely and point very naturally.
- Another likely reason they're in such high demand is because Kahr expanded its product line to include guns with lightweight polymer frames just when states increasingly began to pass "shall issue" concealed carry laws.
- Today, Kahr Arms produces a variety of double-action-only (DAO) pistols for both holster and pocket carry in a number of popular calibers from .380 ACP to .45 Auto. One of these is the compact P40 in .40 S&W caliber.

To answer these questions, I ran a few tactical drills and conducted accuracy, velocity and expansion tests at the Flagler Gun Club in Bunnell, Florida. I also used the P40 at an IDPA match at the Titusville Rifle and Pistol Club in Titusville, Florida.

With respect to accuracy, velocity,

expansion and reliability, I was fortunate to have a broad selection of ammunition on hand. I want to thank Winchester, Cor-Bon, Remington, Speer and Black Hills for providing much of the ammo I used. Altogether, I was able to fully test the gun with eight loads, and I also

had a few of Cor-Bon's Glaser Silver Safety Slugs for expansion and penetration testing in water.

When I test handgun bullets for expansion, I shoot into two plastic 3-gallon water jugs that are placed sideways in a line. The jugs are 9 inches wide, and this gives me an



All of the expanding bullets tested in the P40 performed well when shot into water jugs. They were (back row left to right) Black Hills' 180 gr. XTP, Remington's 180 gr. Golden Saber, Winchester's 180 gr. SXT, Speer's 180 gr. Gold Dot, and (front row left to right) Cor-Bon's 150 gr. JHP, 140 gr. DPX, 135 gr. Power Ball and Glaser Silver Safety Slug.

18-inch column of water that the bullets must penetrate before impacting the bullet recovery trap. Very few expanding handgun bullets penetrate the full 18 inches and end up in the trap. Ball, RNL or SWC bullets sometimes require three or four jugs, and I rarely test them when evaluating defensive handguns because they usually penetrate too deeply for most self-defense uses.

All of the expanding bullets mushroomed when fired from the P40. In addition, every expanding bullet except the Glaser penetrated at least halfway into the second jug. The Glaser Silver did exactly what it was designed to do: It shed its jacket and spread its #6 shot throughout the first jug. In the process, it ripped the jug wide-open as it expended all of its energy within its confines. Glasers are designed to deposit all of their energy within a target and reduce the possibility of over-penetration. That's exactly what the .40 S&W Glaser Silver did.

As for the other expanding bullets, the 180-grain JHPs penetrated deepest into the second jug and exhibited the least energy deposit in the first jug. The lighter JHPs and the Cor-Bon Power Ball load tended to penetrate a total of about 13 to 15 inches and hit the first jug quite a bit harder than the second one. The Power Ball and the Cor-Bon 150-grain JHP both shed their jackets in the first jug and caused it to dramatically rip open. This is to be expected because these two loads produced the highest kinetic energy of any of the loads that were tested. The 180-grain Remington Golden Saber also shed its jacket, but it did so in the second jug.

ACCURACY ASSESSMENT

When testing the P40 for accuracy, I fired three five-shot groups with each load at a distance of 15 yards using an MTM front rifle rest to steady the gun. I usually test a handgun for accuracy by using the iron sights, but the Crimson Trace laser was quite bright so I used it and shot with both eyes open. This allowed me to simultaneously test the laser



Dr. Topper ran a few practice drills point shooting while moving with the P40. Recoil proved to be quite controllable despite the fact that the P40 is chambered in the powerful .40 S&W caliber.

for consistency while testing the loads for accuracy. The Crimson Trace laser was very consistent, and the size of the groups in the accompanying table are as small as the groups I normally shoot when testing a gun by using the sights. For those of us who are fond of lasers, this is worth remembering. It's also important to remember that lasers are sighted in for specific distances. I usually sight mine in at 15 yards,

and if a target is more than 60 feet away, I use the iron sights instead.

The P40 was quite accurate and the average group size for five of the loads was less than 3 inches. I consider this good performance for a gun that has a long DAO trigger pull. Kahr's efforts to make the trigger light and smooth clearly paid off.

In addition to being quite accurate, the P40 also shot most loads to very similar points of impact. Not many

"I learned long ago that focusing on movement and cover is what keeps me from getting hit with simunitions rounds fired by my opponents during force-on-force training."

KAHR P40 AMMUNITION PERFORMANCE

Load	Muzzle Velocity (fps)	Extreme Spread (fps)	Muzzle Energy (ft/lbs)	15 yd. Group (inches)	Expansion (inches)
Cor-Bon 135 gr. Power Ball	1,282	56	493	4.16	.63*
Cor-Bon 140 gr. DPX	1,151	37	411	2.40	.76
Cor-Bon 150 gr. JHP	1,174	37	411	2.44	.55*
Speer 180 gr. Gold Dot	981	19	387	2.97	.62
Black Hills 180 gr. XTP JHP	981	11	387	1.81	.60
Speer Lawman 180 gr. JFN	978	14	382	2.93	
Remington 180 gr. Golden Saber	965	42	372	2.94	.72*
Winchester 180 gr. SXT	953	4	363	3.17	.61

* Jacket separated from core



The P40 uses a single recoil spring rather than the dual spring used by many other pistols with barrels less than 4 inches long. Use of the single spring did not cause feeding problems when shooting an IDPA match.

handguns do this, and one advantage of the Kahr is that its user doesn't need to re-sight the gun every time he or she happens to pick up a different brand of ammunition. Even with a gun that shoots many loads to the same point of aim, I always prefer to re-sight when changing ammo just to be sure. But there may be times when a favorite load isn't available and circumstances dictate buying what's on the shelf. At such times, having a gun that shoots good groups with the majority of loads and shoots most loads to the same point of aim at self-defense distances is clearly a plus.

When it comes to velocity and terminal energy, the P40's 3.6-inch barrel did not show any significant difference from the 4-inch barrels found on many other .40 S&W-caliber pistols. The load that generated the least velocity and energy was the Winchester SXT, which has now been replaced by Winchester's PDX-1. Even though it was the slowest load, the SXT still produced a muzzle velocity of 953 fps and 363 ft/lbs of muzzle energy. This clearly out-performs standard-velocity 9mm ammo as well as .38 Spl. +P and .380.

The hottest round tested was the 135-grain Cor-Bon Power Ball, which recorded an average of 1,282 fps and 493 ft/lbs at the muzzle. This load dramatically split the first jug wide open and spun the second jug and bullet trap 90 degrees to the left.

LET'S TALK RECOIL

For every action there's an equal and opposite reaction, and getting this

level of energy from a gun that weighs 22 ounces fully-loaded is going to generate some recoil. Sierra's Infinity software indicates that the Power Ball load generates about 9.3 ft/lbs of recoil in the P40. The Winchester SXT produced about 8.3 ft/lbs. The SXT produces about the same amount of recoil in the P40 that Winchester's 230-grain PDX-1 load generates in my 3-inch lightweight Colt New Agent .45 auto.



Kahr makes two magazines for the P40: a flush-fitting six-shot (right) and an extended one that holds seven shots (left).

So while recoil is stiff, it's about the same as a subcompact .45, and both are clearly less than firing a magnum 158-grain JHP in my Scandium S&W 340 PD snubbie. The magnum produces 16 ft/lbs of recoil, or about as much as a 165-grain .308 Winchester in an 8.5-pound hunting rifle.

Yet, foot pounds of recoil is only half the story. Recoil velocity is

equally important. The 20 fps of recoil velocity generated by most loads in the P40 is equal to the recoil velocity of most standard-velocity loads in the subcompact Colt. Both of these semi-autos have much less recoil velocity than the 37 fps produced when firing 158-grain magnum loads in the 340 PD. While there's no doubt that the P40 kicks, its recoil is still in the manageable range compared to the hard-kicking lightweight .357s.

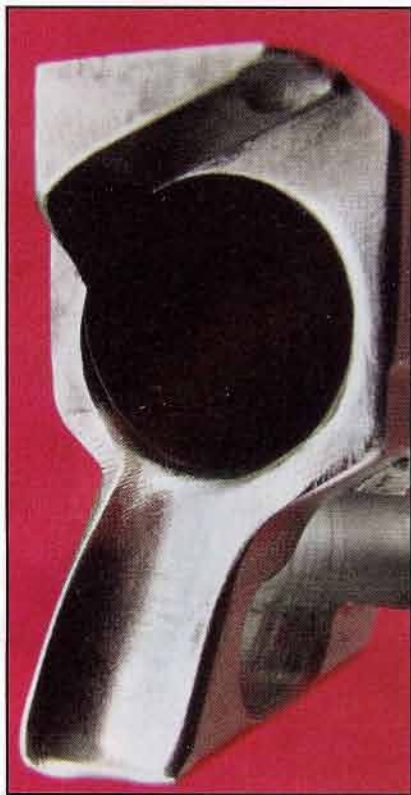
To further test recoil and evaluate reliability, I ran a few drills at the Flagler Club and took the P40 to an IDPA match at the Titusville Rifle and Pistol Club. I used a Rusty Sherrick IWB holster that was originally made for my Glock 26 when I was action shooting. The P40 with the laser fit very well in it.

At the IDPA match, I used a flash sight picture for the close targets and more precise sight alignment for longer distances. When shooting at the farther targets, I was again very pleased by the controllability of the P40's DAO trigger. I didn't measure how far the targets were, but the longest shots were at least 25 yards, and quite a few of my shots were in the center "-0" scoring ring. The P40's white outline night sights were very easy to pick up, and this also clearly contributed to my ability to deliver accurate fire.

My rate of fire during the match was somewhat slower with the P40 than it would have been with a 9mm, but I can't truly say that the P40's recoil did much to increase my times. Nor do I care. Rather than focusing on low times, I use IDPA for self-defense practice and concentrate on tactical movement and

effectively using cover. I learned long ago that focusing on movement and cover is what keeps me from getting hit with simunitions rounds fired by my opponents during force-on-force training.

IDPA does not have a category for laser-equipped pistols, so I usually run a few tactical drills with the laser at the Flagler Club's action range just to see how well the pistol/laser combination works. All drills were conducted from the holster and involved moving off the line of force while drawing.



The feedramp of the P40's "offset barrel" is somewhat narrow and has been moved toward the left side of the chamber to make room for the trigger. Moving the trigger up next to the feedramp helps control muzzle rise, and it makes the P40 point very naturally.

At 1 yard and 3 yards, I drew and fired triple taps while moving and point shooting using the laser. All shots were center of mass. The 7-yard body armor drill produced good results and the 15-yard triple taps to the body were all in the center of the 5-zone. As usual, the Crimson Trace laser could be seen at 15 yards in the



KAHR P40

SPECIFICATIONS

Caliber	.40 S&W
Capacity	6+1 rounds
Action	Trigger cocking DAO; lock breech
Barrel Length	3.6 inches
Overall Length	6.1 inches
Weight (w/mag)	18.7 ounces
Grips	Textured polymer
Sights	Drift adjustable, white bar-dot combat
Finish	Black polymer frame, matte stainless steel slide
Magazines	Two 6-round stainless
MSRP	\$739

Florida morning sun, which is good performance for a red laser.

As for reliability, the P40 worked very well during the drills and the IDPA match. When shooting from the bench, there were some failures to feed. Over the years I've found that stoppages can occur when shooting any semi-auto from a supported position, so I'm most concerned with how a pistol functions when I shoot it in tactical drills or when I'm plinking.

A WELL-DESIGNED PISTOL

The Kahr P40 offers a very good compromise between firepower, tactical accuracy, concealability and stopping power. It holds up to eight rounds and can easily be used to hit targets at 25 yards. It also conceals well under a shirt when carried in an IWB holster and has the same ballistics as a full-size .40 S&W. It won't fit in most pockets, but it clearly has a broader set of tactical applications than a .380 or a .38 snubby.

Of course, a lightweight 2-inch .357 Mag. has nearly as much shot-

for-shot stopping power as the P40, and it will fit in more pockets. But the slim P40 is easier to conceal inside the waistband than a revolver and it kicks much less than a magnum. It's also easier to reload. In the end, the P40 offers a lot for a person who wants full-size performance in a compact package. **GW**

SOURCES

Black Hills Ammunition
(605) 348-5150
www.black-hills.com

Cor-Bon Ammunition
(800) 626-7266
www.dakotaammo.net

Crimson Trace
(800) 442-2406
www.crimsontrace.com

Flagler Gun Club
(800) 595-6020
www.flaglertgunclub.com

Florida Gun Exchange
(386) 304-9499
www.floridagunexchange.com

Hogue Grips
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www.Kahr.com

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