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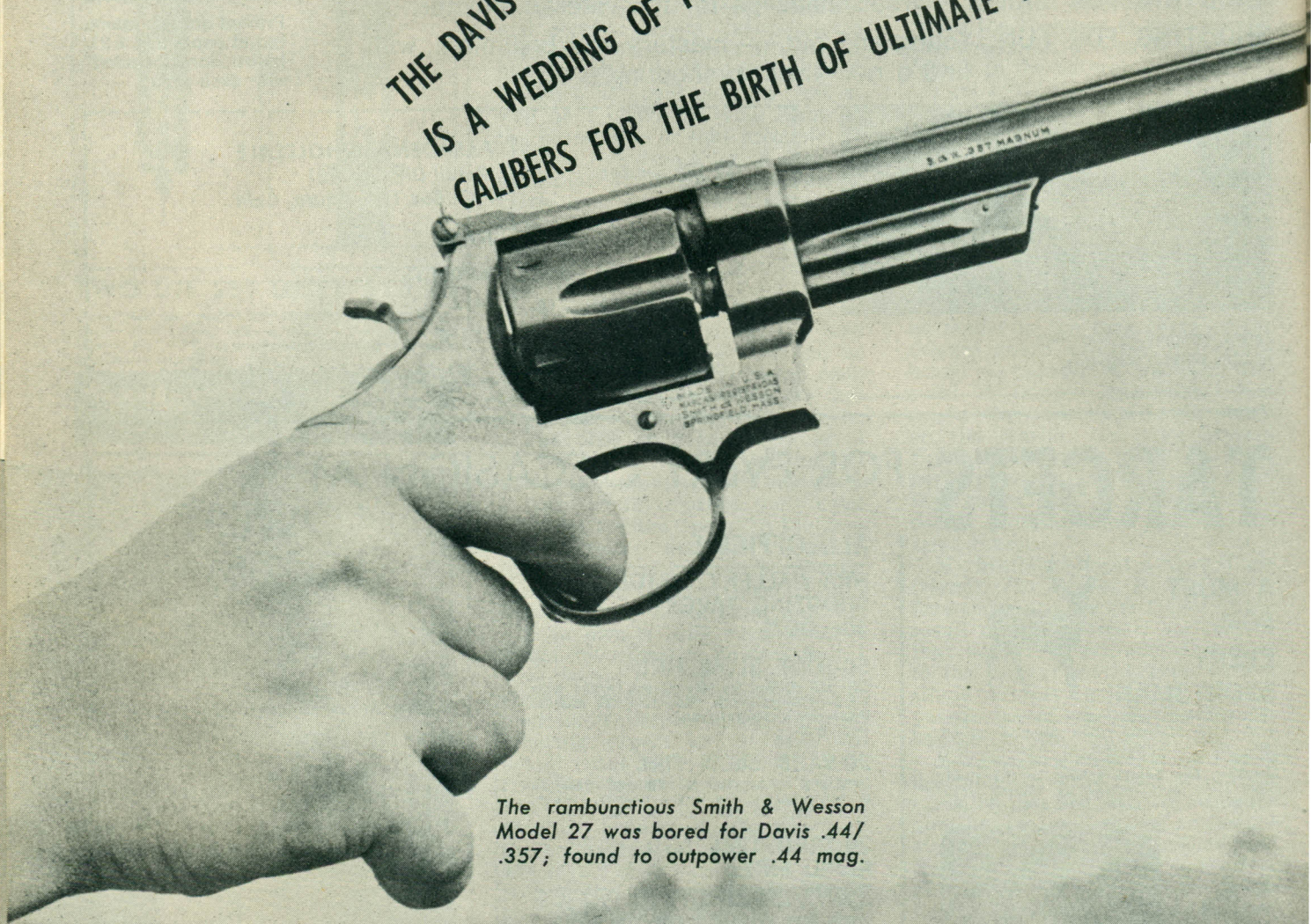
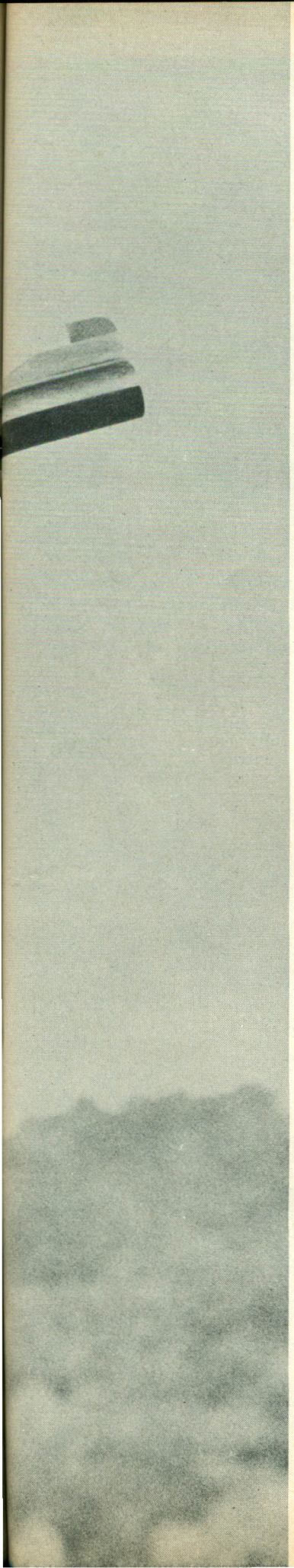
VARMINT RIFLE TEST

.270 BULLPUP: FACT OR FREAK?

THE DAVIS .44/.357 IS A WEDDING OF TWO MAGNUM CALIBERS FOR THE BIRTH OF ULTIMATE VELOCITIES!



The rambunctious Smith & Wesson Model 27 was bored for Davis .44/ .357; found to outpower .44 mag.



MORE POWDER= MORE POWER!

By Dan Cotterman

A quarter century ago, a handgun cartridge known as the .357 magnum was cooked up by Colonel Doug Wesson. The announcement of this elongated version of the p'or ol' .38 Special created quite a storm. Handgunners flocked to the shootzenshops to buy a factory-announced whirlwind 1510 feet per second, and the gunscribes went right along, agog with ejaculations like, "This is the most powerful handgun cartridge in the world!"

They were right, but, since there was no such thing as the .44 magnum, or revolvers that would withstand magnum loads in the .45 Long Colt, the rest of the competition left the victory as bare as winning a strip poker game with a gang of nudists!

No one I ever heard of was able to buy that original 1510 fps in a .357 magnum over the counter. Outside the laboratory, where it shot from test barrels or on paper, it never existed. The same is true of the currently advertised 1410 to 1430 f/s. These latter figures reflect a reduction in factory loading. 'Twould have seemed better to have left the loading alone and downgraded the velocity claims!

Colonel Charles Askins, writing in these pages a while back, recounted his efforts to hike that max-1430 f/s from the .357 magnum. Barrels of up to ten inches in length were used on revolvers, with no success. Finally, a Model 92 carbine was made up, using an eighteen inch barrel. The velocity was 1434 f/s! A marvelously deflating "grain of salt" in the mumbo-jumbo of sales potion that says you can expect 1410 to 1430 f/s for the .357's 158-grain bullet from an 8⅜-inch pipe!!

Checks made in recent months with some of the newly-released cartridges have shown factory velocity figures to be, if anything, a bit on the conservative side. This is good to see. Still, the misinformation about velocities of the .357 magnum and other earlier cartridges hangs on. Despite the incessant carping of experimenters about these real grim fairy tales, the tables are reprinted, year after year, with religious adherence to widely disproved velocity, energy, and trajectory figures. A lot of gun buyers know the score and buy .357 magnum revolvers because of things like loading and caliber versatility, and because the .357 is, at least, a whale of a lot more load than the .38 Special. Others continue to be disappointed after hocking their eye teeth to get ballistics that only "shoot" on paper!

This brings us to the .44/.357. It's simply the mighty .44 magnum case, necked down for .357 bullets. Earlier, gunsmith Keith Davis and the writer had discussed the pros and cons of necking this same hull down for a magnum .32. Since that time, however, other tentative developments on such a round have been made and, unless all bets go wrong, the .32 magnum for handgunners will be announced in a few months. For now, however, the quest was for a cartridge that would at least duplicate the performance *claims* made for the .357 magnum. That sort of thing takes a lot of doin'! How sensational can something be if it only measures

This wildcat handgun was tested, using Beckman electronic instrument to check velocities. A 150-grain bullet was found to travel at 1970 fps.

up to what is said of the competition? After all, don't they tell 'em that the .357 will goose out at 1400-odd f/s. Regardless of whether it's actually only getting along at 900 to 1200 f/s, the numbers are there in black and white for folks to read and go ga-ga over! I've fired dozens of shots with the .357 through the screens of a chronograph. Without exception, I've been unable to squeeze the trigger hard enough to squirt bullets out at better than about 1225 f/s, regardless of barrel length!

The gun selected for tests on the .44/.357 was the Smith & Wesson Model 27, .357 magnum with an 8⅜-inch barrel. The .357 cylinder chambers can be reamed to accept the .44/.357 rounds. The S & W Model 28 *Highway Patrolman* in .357 magnum also would work for this conversion, but the same is not true of the S&W .357 Combat Magnum, Model 19. This latter gun's cylinder is too small in diameter.

While the strength of our experimental Model 27's frame and cylinder was a matter of fact, the limits of tolerance with a new cartridge of unknown performance were in doubt. For this reason, Davis and I elected to run a number of "Lanyard Loads" — that's the kind you stand back and pull with a long string — to see if the gun would come apart under the assault of high pressures. And pressures are high . . . Of course, the bullets are lighter, up to 158 or 160-grains, than you'd be using in the .44 magnum, but you've got all that expanding gas trying to get out of there in one helluva hurry! Chances are better with a larger "port," such as with the .44. Bring 'er down to .357, and you've partially blocked the exit for these gases. The result is increased pressures.

This explanation is laid out for the express purpose of not deluding anyone into believing that the .44/.357 is *incapable* of blowing up: It would be possible with too much of the wrong powder. At the same time, it's only reasonable to point to the fact that *any* fairly large centerfire cartridge — and that includes the .38 Special — is liable to cause a blow-up if improperly loaded.

The thing we were interested in learning was whether the .44/.357 could be loaded and fired under ordinary conditions with a comfortable margin of safety. In the gun we used, things proved quite satisfactory. We found, as an example, that maximum charges of 2400, while reasonably good for the "stock" .357, raise the devil in this larger capacity case. I won't mention the velocity we got with 22 grains of 2400 behind the 158-grain bullet in this gun: The load is *definitely not safe!* It is only significant that a cylinder-full of these were touched off without damage to the gun, though four of six of the cases were blown in twain on the first loading. Other ultra-heavy loads also were used.

First tests were run during the evening at the Bain & Davis shop. Bullets from the .44/.357 passed through the Avtron T-333's screens, which were spaced five feet apart, then through a foot-thick eucalyptus log and into a heavy steel bullet trap behind it. I don't recall that any of the bullets ricocheted through

For sake of comparison, from left, are: .44 magnum round; a standard .357 and the Davis .44/.357. Latter combines characteristics of other two.

Necked down cases were split in two by "blue pill" loads used to test gun's strength, but the gun held up.

the full diameter of the log; since they were soft lead, or copper-jacketed with soft lead points, I doubt it. I did, however, discover a good way to split up stove wood and still get some shooting done!

The load, 22 grains of 2400, with 158-grain bullet was considered entirely too hot for use as other than a "proof" load. This quantity of 2400 was, however, used by fellow experimenter Tom Milburn with a 150-grain lead slug. Velocity from the .44/.357's blazing muzzle was 1970 f/s!! This charge represents what was considered an absolute maximum of 2400 with this size bullet. This means that, as a maximum, it should be approached *only* after cautious loading has been done with quantities of 2400, begining with about 18 grains and increasing by small amounts. Dropping the 2400 down to a charge of 21 grains, using the 148-grain bullets and CCI Large Pistol Magnum primers and necked down Super-X brass, velocity ran a neat 1900 f/s. This is still a maximum loading, however, and should be approached with caution.

Looking back now to the .357 Magnum, "stock" loading, velocities with 158-grain bullets were running just over 1200 f/s with the 8⅜-inch tube, and around 1175 from the six-incher. Let's stretch a little for the .357 and say the velocity was running to 1225 f/s from the longer barrel. A charge of 17 grains of 2400 ran velocities for the .44/357 to an average 1235 f/s. A charge of 16 grains of the same powder is about tops for the regular .357; more invites trouble.

Analytically speaking, it can readily be noted that it takes more powder to get equal results with the more voluminous case. That plays right along with discoveries made during work with what I called the .357 Short, a trimmed (.910-inch) version of the .38 Special. *More* power was achieved with *less* powder!

In the case of the .44/.357 vs. the standard .357 Magnum, the same rule holds true, but is vastly outweighed by the capacity advantage of the larger case. Seating a 158-grain bullet such as the excellent Remington .358-diameter jacketed soft point (#22846) down to the cannelure atop 18 grains of 2400 in the .357 Magnum would constitute a compressed load. Not so with the .44/.357 . . . Capacity increase, with 2400, amounts to about 7.5 grains, measured to the base of its .330-inch neck. It'll hold approximately 25.5 grains of 2400, 24.5 grains of 4227, and about 19 grains of 4759. This latter powder is made up of heavy sticks, though, and burns slowly enough to be compressible. You, therefore, might stack it a bit higher, say under 146 through 160-grain bullets, and compress it over CCI Magnum primers. Again, don't start with maximum charges of any of the powders discussed here. (See the included table of loads and velocities for suggestions.)

Right now, there are two known .44/.357s in existence. I have the first; Tom Milburn has the second. Milburn's Model 27 S&W lay on the bench at Bain & Davis that night of the initial tests, with the order, according to Keith Davis, to convert if tests were successful. Originally, case forming was done with a set of two custom forming dies. It was later discovered, reports Davis, that the second forming die could be skipped, pending use of the regular sizing die. Some less flexible cases might, however, require the use of both forming steps. At any rate, making cases for this rambunctious blaster is easy.

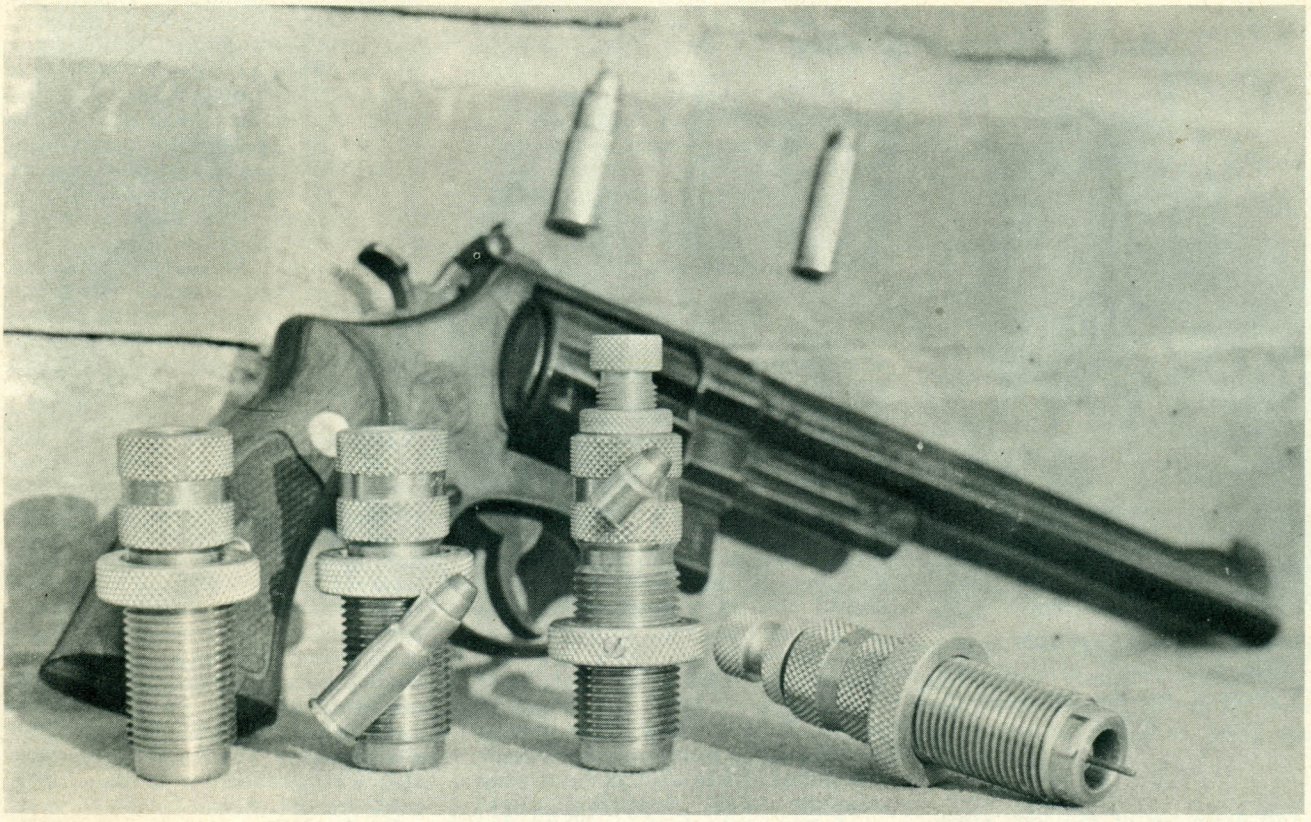
The .44/.357 has been carried afield with loads of 18 grains of 2400 and the 148-grain (H&G #73) Green Bay cast bullets, and 19 grains of 4759, both with CCI Magnum primers. These bullets were treated, as were all lead bullets in these tests, with *Swagemagic* for the purpose of eliminating bore leading and increasing accuracy. A double-dip of bullets into this stuff can work wonders for a clean, accurate-shooting bore. For maximum sharpness in the barrel, the bore also was swabbed with this lubricant. An optical aid in the form of a Bushnell *Phantom* handgun scope was attached. Accuracy attained was such as to extend the effectiveness of this caliber to probably three hundred yards in the hands of an ordinary pistol shot. Longest ranges would naturally demand that shots be taken from rest.

TABLE OF LOADS AND PERFORMANCES

Ctge. Davis .44/.357, Cases W-W, Smith & Wesson Model 27, 8⅜-inch bbl.

Powder	Amt.	Primer	Bullet Wt.	Bullet Type	Muzzle Vel.	Muzzle Energy	REMARKS
Uniq.	14.0	Win.	113	Swaged	2170	1181	Maximum
Uniq.	12.0	CCI #300	140	Swaged	1460	662	Good load
2400	21.0	CCI #350	148	Green Bay	1742	997	Maximum
4227	24.0	CCI #350	148	Green Bay	1703	952	Maximum
2400	18.0	CCI #300	148	Green Bay	1377	620	Medium-hvy
4759	19.0	CCI #350	158	Rem. Soft-Pt.	1418	705	Good Load
2400	20.0	CCI #350	158	Rem. Soft-Pt.	1483	771	Nr. Maximum
4227	22.0	CCI #350	158	Rem. Soft-Pt.	1490	779	Maximum
2400	17.0	CCI #300	158	Rem. Soft-Pt.	1235	535	Beats .357 Mg
2400	22.0	Win.	150	Cast	1970	1291.5	**Absolute Max.**
Factory Ctgs.							
.357 Mag (Rem.-Peters)			158		1430	717	Fac. tables.*
.44 Mag (Super-X)			240		1470	1150	Fac. tables.*

*See text.



S&W Model 27 backgrounds C-H forming and reloading dies used in tests. Bullet is the excellent Remington softpoint 158-grain, .358 in diameter.

No one was out to "get" the .44 magnum — to top it for power — when this thing started. The idea was to come up with a cartridge that would measure up to factory claims for the standard .357 magnum. Someone, in checking energy figures, just happened to notice that the 1291.5 foot pounds for Milburn's 150 grainer at 1970 f/s was appreciably greater than the factory-loaded .44 magnum 240 grainer at (so they say) 1470 f/s. Energy for this load would run 1149.6 foot pounds. The .44/.357 thus tops the lordly .44 magnum! This, it is worth adding, is conceding the fact that the factory claim of 1470 f/s for the 240-grain .44 magnum bullet is correct. This is supposed to be from a 6½-inch barrel.

Again referring to Askins,' and the writer's experiments with the .44 magnum, the factory loading will not achieve this 1470 f/s. It won't achieve it from a ten-inch barrel, or from an eight-inch tube, much less from a 6½-inch barrel!

Though I have not personally worked with the Ruger Carbine with its eighteen-inch barrel, Askins went on to run factory handgun rounds through this longer tube. Velocity average finally came up to 1462 f/s, just shy of the 1470 f/s claimed from a 6½-inch handgun barrel!! This infernal crazy quilt of claims and rebuttals is enough to turn a feller to stamp collecting, I know, but when you read one thing and subsequently discover another is true . . . Well, it deserves reporting.

Thus far, two protracted chronographing sessions have been carried out with this new cartridge. The first, as mentioned, with the Avtron T-333, then another with a special Beckman Instruments unit. The prolix of the .44/.357 would involve confessions about difficult case extraction. Fairness demands that any mention of difficult extraction be accompanied by the explanation that it occurred with ultra-heavy loads only: Ordinarily, extraction was good for a magnum cartridge of this type. The same set of qualifications would apply to cylinder rotation . . . It was satisfactory, save with the very heaviest of loads. Most will agree that these rules will apply with any heavy centerfire round in a revolver.

I haven't mentioned the use of either Bullseye or Unique in this case. Light charges of Bullseye are in order for short and mid-range target work, though no experimenting with them yet has been carried out. Unique, burning more slowly than Bullseye, was tried. I found one of the most pleasing loads for this round to be 12.0 grains of Unique with a 140-grain swaged, half-jacket bullet. Velocity ran to around 1460 f/s with energy up around 662 foot pounds. Momentum, incidentally, held up with all these loads. For comparative "stopping power" momentum figures, multiply mass (bullet weight, in grains) times velocity (in foot-seconds). Divide the result by 7000 to express in pounds.

Somewhere I seem to remember reading about a British experimental autoloading handgun called the *Mars*. This one was supposed to have launched 158-grain .357 bullets at velocities of around 1750 f/s. That's a bit more than has been done thus far with the .44/.357. I further seem to recall reading that the *Mars* pistols were abandoned in the face of hopeless impracticality. I don't believe that will be the fate of this new revolver round. Keith Davis is ready to make additional conversions for about $20 each and C-H Die Company is standing by with .44/.357 reloading dies. From here it looks as if the popularity of the .44/.357 could spread nationwide! ●