

.357 Subsonic -The quiet Hunting Round



Task

My goal was to develop a subsonic cartridge, powerful enough for the culling of fenced-in deer and also, where permitted, to hunt with. The advantages of subsonic ammunition can be seen easily: Launching a bullet below the speed of sound (approx. 330m/sec-1083fps) avoids the sonic boom. Dampening the muzzle crack with a silencer too results in a noise comparable to that of an air gun.

Beside the lack of noise exposure of bystanders and abutting owners the silent shot has another major advantage: The culling of several animals with normal ammunition is difficult sometimes because of the panic the animals get after the first bang. On the one hand there is the possibility that animals fleeing into the fence get injured and on the other hand the meat quality of heavily stressed animals leaves a lot to be desired.

Tests with the new **.357 Subsonic** ammunition were positive with animals jumping only a few steps away after the first animal has been hit and starting feeding the next moment.

The Cartridge

As the muzzle velocity is limited it needs a heavy bullet to achieve sufficient power. The goal was 800+Joule (590 ft.-lbs). For this kind of energy you need a 250gr (16,2g) bullet at 320m/sec. The **.357 Magnum** case in combination with a 250gr Impala RN bullet and 11gr of a slow burning pistol powder results in a loading density of almost 100%

Bullet

All popular .357 revolver bullets were discarded a priori. They are simply too light to have enough energy at subsonic speed level. Rifle bullets of .358" (9mm) diameter are quite common. Most of them, however, work on the principle of deformation/fragmentation, developed during the last century and still popular today. None of these bullets can be expected to perform as desired at subsonic speed, let alone head shots. Only the shock wave inducing Impala bullet performs even at these extremely low velocities as practical tests with the **.357 Subsonic** have demonstrated.



Ballistic Data

.357 Subsonic Bullet	V (m/s) / E (J)				GEE	Trajectory (cm)				
	0m	50m	100m	150m		50m	75m	100m	125m	150m
110 gr KS	730/1899	629/1411	537/1028	456/740	131m	+2,4	+3,9	+3,5	+1,0	-4,0
180 gr LS	500/1458	461/1239	425/1055	394/904	104m	+3,6	+3,8	+0,8	-5,7	-15,8
250 gr RN	430/1498	397/1274	367/1093	343/955	90m	+1,3	+2,8	-2,7	-12,7	-27,5
250 gr RN*	320/829	306/757	298/698	283/649	70m	+3,7	-1,6	-13,8	-33,1	-59,9

*Subsonic Load

V = Velocity

E = Energy

GEE = Most Recommended Sight- in Range

Accuracy

All 4 loads deliver 3-shot groups around 15mm (0.6") at 50m und 30mm(1,2") at 100m.

The Gun

Starting basis was a Russian top-break rifle (IZH-18MH) in .223 Rem. Caliber. The barrel was opened up to .357" diameter with a 1-10" twist and chambered for .357 Magnum. This fast twist (normal twist rate: 1-18-3/4") stabilizes the 250gr RN bullet even at 300m/sec and less. The throat was reamed to a point where all bullet weights from 110-250gr gave excellent accuracy. Next step the barrel was shortened to 500mm (20") and the muzzle threaded to hold a Finnish ASE Ultra silencer. A bushing covers the thread when the suppressor is removed. Point of impact, by the way is the same when shot with or without silencer.

A MEOPTA 6X42 scope was mounted on the prototype rifle. It has a so called 4B reticle with 3 extra horizontal wires under the crosshair. This enables the shooter hold "dead on" far beyond the point blank range of 80m the subsonic cartridge has.



Overall Length: 91cm

Weight w/scope: 3322g

Weight of silencer: 686g

Result

Rifle and ammunition are perfectly suited for culling deer in fenced-in preserves. The excellent accuracy permits head shots out to 80m or so. Where these shots are not possible the 250gr RN bullet has adequate killing power on heart/lung shots too. The bullet exits reliably. There is little meat damage and hematomas, if at all, are very small.

With either hypersonic load the **.357 Subsonic** is an excellent hunting round up to a distance of 150m.