Warrior **13 February 2010, 16:38**

Terminal Bullet Performance
VVarior,

Trying to be clever is not helping your cause one bit ...
The 5 th option, which you have omitted, seems to prove that you are Gerard's wondering ghost.
The post of Alf follows below - posting 4971 - see very last sentence.

Warrior

* *

"George:

The resistance to penetration in materials with visco-elastic properties and primary water like properties is proportional to velocity, increase the velocity and the resistance (drag) goes up exponentially dependent on the elasticity and density of the target material.

It's akin to diving into a pool of water from a diving board, at normal diving board height you dont come to harm, dive from the Golden Gate bridge it's like hitting concrete.

Soft solids also exhibit shear thickening, it's like spooning honey, do it slowly and the spoon will move with little resistance, speed up the spoon motion and resistance increases.

If we look at the temporary cavitation phenomenon in Wounds we see the greater the velocity the greater the temporary cavity diameter but the shallower the penetration. If we increase a theoretical non deforming stable projectile in target we see that the TC increases in size but penetration decreases. Eventually we would have a very shallow wound with very large TC. If the projectile goes at 10,000 fps it literally vapourizes on impact without much penetration, all the kinetic energy will have been absorbed by the target and as long as the target tissue is strong enough
(elastic enough) it will absorb the energy without damage.

If however the target is a liver or brain we are going have one massive explosion of tissue as the relatively in elastic, non compressable liver or brain is going to have to deal with all that impact energy."
Posts: 4971 | Registered: 16 August 2000

VVarrior **13 February 2010, 18:41**

Hey Warrior,
Do you always pay such close attention to everything you dish up as proof?

> quote:
>
> Trying to be clever is not helping your cause one bit ...
> The 5 th option, which you have omitted, seems to prove that you are Gerard's wondering ghost.
> The post of Alf follows below - posting 4971 - see very last sentence.

> quote:
>
> Posts: 4971 | Registered: 16 August 2000

Alf is on 5592 today. Below is yours from today. Tomorrow it will be more, depending on how much you run off at the mouth.

> quote:
>
> Posts: 1149 | Location: South of the Zambezi | Registered: 31 January 2007

Give us a link. Cutting and pasting is not good enough. You change things to suit yourself so we don't believe you any more.

You might say I am Gerard's "wondering" ghost. Like him, and most others here, we wonder what funny you will come up with next.

VVarrior

Warrior **13 February 2010, 20:25**

Go play with yourself or write to Alf and satisfy yourself. You are not contributing here one iota.

Warrior

DWright **13 February 2010, 20:51**

Hmmmm, only 32 pages so far. . . . .
I knew this post would never get off the ground!

http://www.mazamasportinggoods.com

michael458 **13 February 2010, 20:52**

RIP

Oh My God!!!!!! I just remembered! Somewhere I thought I saw you say something about a 23 inch 458 B&M?????? Tell me my eyes deceived me, tell me you made a typo, tell me anything but that!!!!!!!!!!!!


I am just not sure I can bear it!!!

Designed wonderfully for 18 and 20 inches!!!!!!


OK yes, I would not have one with over 20 inches of barrel, but that's for me going to the bush and having to tote it around all day, and 18 is far more to my preference, and when I take the 458 B&Ms on mission, it will be the 18 inch guns!

Now, with that said, I have a Winchester 1885 in 458 B&M---24 inch barrel version!!!!! 24 inches on an 1885 is exactly same overall length as a 20 inch bolt gun! It is slim, and handy, and 24 inches of barrel did not hurt it at all, aesthetics are good too.

With the 24 inch barrel the same exact loads that push the 450s at 2200-2225 in 18 inches push the 450s at 2340 fps in the 24 inches, at 60000 psi. 500s at 2200 fps at 61000 psi. 23 inches would be very similar, slightly less but not much.

Just FYI

Michael

http://www.b-mriflesandcartridges.com/default.html

The New Word is "Non-Conventional", add "Conventional" to the Endangered Species List!
Live Outside The Box of "Conventional Wisdom"

I do Not Own Any Part of Any Bullet Company, I am not in the Employ Of Any Bullet Company. I do not represent, own stock, nor do I receive any proceeds, or monies from ANY BULLET COMPANY. I am not in the bullet business, and have no Bullets to sell to you, nor anyone else.

michael458 **13 February 2010, 20:55**

Dwright

Where you been! Yeah, dead post, people don't like me I think! They keep running away.

Oh well,,,,,,,whatta gonna do?

Michael

http://www.b-mriflesandcartridges.com/default.html

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jwp475 **13 February 2010, 20:59**

quote:

> Originally posted by michael458:
> Phats
>
> A long time ago I got hot on the 460 Rowland! I bought 500 pieces of brass, got a barrel fitted to one of my 1911s, and was set to jet. Loaded up a magazine full of something hot as hell--460 Rowland stuff! Shot one magazine full and that was it!!!! The whipping recoil twisting my wrist, causing undue trauma to my wrist I packed that shit up and forgot about 460 Rowland!!!!! Eventually I traded the brand new 500 pieces of 460 Rowland brass for 500 pieces of 45 Colt brass and have been very happy ever since to put the 460 Rowland out to pasture! Ugly recoil on a 1911 frame! Whipping, turning my wrist sideways, screw that!

Michael

Then the recoil of the 50 BMG on the 1911 frame "must be out of the question"

Yes it has been done

A 9mm may expand to a larger diameter, but a 45 ain't going to shrink

Men occasionally stumble over the truth, but most of them pick themselves up and hurry off as if nothing had happened.
- Winston Churchill

VVarrior **13 February 2010, 21:02**

Hey Warrior,
Exposed again hey? There are no links. Not even to empty posts by Alf. Making up facts from nothing seems like a niche talent for you. Or are you perhaps Alf's "wondering" ghost?

VVarrior

Phatman **13 February 2010, 21:22**

Micheal,

On your 1911, try a EGW firing pin stop.
It makes a huge difference in the way the gun handles. I know it sounds like BS but its true.

John

Give me COFFEE and nobody gets hurt

capoward **13 February 2010, 22:19**

quote:

> Originally posted by boom stick:
> Capo...
> Can you run Quickload for a 50 grain bullet out of a 45 ACP???
>
> If a handgun can get a 50 grain bullet going 3,000 FPS that will be 1,000 FPE
> If it can get 2,500 that will be 700 FPE. That would almost double a standard 45 ACP load. A standard load delivers 230 @ 850 for 370 FPE

Boomy,

It'll take a few minutes to gin up the size shape of the bullet in QD then to run it in QL...will do and post shortly.

Jim
"Life's hard; it's harder if you're stupid"
John Wayne

capoward **13 February 2010, 23:39**

quote:

> Originally posted by capoward:
>
> quote:
>
> > Originally posted by boom stick:
> > Capo...
> > Can you run Quickload for a 50 grain bullet out of a 45 ACP???
> >
> > If a handgun can get a 50 grain bullet going 3,000 FPS that will be 1,000 FPE
> > If it can get 2,500 that will be 700 FPE. That would almost double a standard 45 ACP load. A standard load delivers 230 @ 850 for 370 FPE
>
> Boomy,
>
> It'll take a few minutes to gin up the size shape of the bullet in QD then to run it in QL...will do and post shortly.

Ok bullet designed and multiple simulations in QL run, here's the results:

45 semi-auto handgun
45 ACP cartridge (SAAMI Pmax (MAP) = 21000 psi)
ADI AP 70N Propellant
50gr .452 SST HP Aluminum Solid bullet:
4.0" barrel: 12.6grs = 2023fps & 454ft-lbs @ 20617 psi (F/LR: 105.0%, PB: 77.9%)
5.0" barrel: 12.6grs = 2172fps & 524ft-lbs @ 20617 psi (F/LR: 105.0%, PB: 81.7%)
6.0" barrel: 12.6grs = 2285fps & 580ft-lbs @ 20617 psi (F/LR: 105.0%, PB: 84.3%)
8.0" barrel: 12.6grs = 2449fps & 666ft-lbs @ 20617 psi (F/LR: 105.0%, PB: 87.7%)
10.0" barrel: 12.6grs = 2567fps & 731ft-lbs @ 20617 psi (F/LR: 105.0%, PB: 89.8%)
230gr .452 Winchester RN FMJ bullet:
4.0" barrel: 6.1grs = 885fps & 410ft-lbs @ 20423 psi (F/LR: 66.5%, PB: 99.81%)
5.0" barrel: 6.1grs = 943fps & 454ft-lbs @ 20423 psi (F/LR: 66.5%, PB: 99.81%)
6.0" barrel: 6.1grs = 977fps & 488ft-lbs @ 20423 psi (F/LR: 66.5%, PB: 99.81%)
8.0" barrel: 6.1grs = 1025fps & 537ft-lbs @ 20423 psi (F/LR: 66.5%, PB: 99.81%)
10.0" barrel: 6.1grs = 1059fps & 573ft-lbs @ 20423 psi (F/LR: 66.5%, PB: 99.81%)

That's about it.

Jim
"Life's hard; it's harder if you're stupid"
John Wayne

jwp475 **14 February 2010, 00:23**

quote:

Originally posted by boom stick:

quote:

Originally posted by boom stick:
LOL

Maybe in recoil but for humans and small game they will be deadly as all get out.

An aluminum bullet albeit light going that fast and with the hollow point will be more devastating than conventional handgun bullets close range.

Did you see the quickload numbers for the 500 S&W?

The weight of a 9mm bullet but going 2,652 FPS!!!

138gr .500 SST FN Shredder Aluminum Solid bullet
Hodgdon HS-6 Propellant
UCC: 40.9grs, CW: 34.0grs = 2652fps & 2156ft-lbs @ 61534 psi

It wont be like having sex and the girl goes "Is it in yet?" this banshee will scream!

Let's put it this way...

You praised the 45 ACP that dumped all of its energy in the skull of the big guy and did not exit.

The 45 ACP in the high range produces 400 FPE
Imagine a bullet that does not exit (To be determined) that dumps FOUR TIMES that amount with a wound channel from hell.

Yes these are a newfandangled idea but you as a wildcatter par excellence should be open to new ideas.

If the 45 ACP bullets and the aluminum human quesinart bullets penetrate the same but deliver 4 or 5 times the energy that is a revolution in home defense.

http://www.youtube.com/watch?v=JOxGL5G8Pbk

Unlike the threat from Dirty Harry about the 44 magnum with aluminum bullets it might just "Blow your head clean off"

OK going back I found out that the 45 ACP bullets penetrated THE SAME AMOUNT as the 100 grain aluminum bullets but delivered 2,350 FPE That is about 2,000 more FPE than the 45 ACP's!!!!!

What will do more damage???

Not apples to apples I admit but compare what a 500 S&W with wider heavier aluminum bullets going even faster... you get the idea.

An apples to apples comparison of the same cart/gun would be interesting. Figuring out the optimal aluminum bullet size and comparing the results would be interesting.

A wheel gun with the "Aluminator" bullet (in my best Aaaahnold voice) against the 45 ACP is no comparison.

Capo...
Can you run Quickload for a 50 grain bullet out of a 45 ACP???

If a handgun can get a 50 grain bullet going 3,000 FPS that will be 1,000 FPE
If it can get 2,500 that will be 700 FPE. That would almost double a standard 45 ACP load. A standard load delivers 230 @ 850 for 370 FPE

Booming do you have any ides what FPE means? I'll tell you it means absolutely nothing. In an inelastic collision (which is what a bullet strike is) the FPE transforms into most thermal energy. What is transfered is momentum and the heavier bullets have MUCH more momentum to transfer. That is why they do more damage and penetrate deeeper. Put a hole through the vitails and death soon follows.

My 338 Laupa at 2800 FPS witha 300 SMK hs more FPE than does a 500 grain out of a 458 Win mag. Does that make the 338 Laupa an Elephant round because it has the 5000+ FPE? Of course it doesn't. A light wieght Aluminum bullet is not new and is not progress.

A 9mm may expand to a larger diameter, but a 45 ain't going to shrink

Men occasionally stumble over the truth, but most of them pick themselves up and hurry off as if nothing had happened.
- Winston Churchill

RIP **14 February 2010, 02:36**

Boomer,
O.K., so the bad guy hit between the eyes, will have his head exploded, with an allyoominium, or allyoonyum, or aluminum bullet (including all dialects for pronunciations).
Agreed.
I would rather see him simply drop dead with his eyes bugging out.
Standard ammo for me, in the 45ACP.
That will take care of the hardest human heads, with less mess to clean off the ceiling.

Michael,
Here are the case capacities from the fireformed cases I have from your rifle, a freebie from you when I purchased the reloading dies from you at cost. Thank you very much, generous Sir!

Of the 10 Quality Cartridge .458 B&M Headstamped cases,
3 of them were outliers, averaging
271.3 grains of brass weight
92.1 grains of gross water capacity and
2.233" length.

The other 7 QC cases averaged
252.4 grains of brass weight
95.0 grains of gross water capacity and
2.239" length.

The only 3 cases formed from 300 RUM averaged
252.2 grains of brass weight
94.4 grains of gross water capacity and
2.235" length.
This is almost identical to the QC "normal" brass,
any difference could be explained by length difference,
or insignificant with such a small sample.

I do not know what to make of the 3 pieces of QC brass that averaged about 19 grains heavier than the other 7 pieces,
unless the spent primers in those had lead in their cups.
Easy to sort out those by weighing.
Those 3 cases will become feed-work dummies loaded short and long. 3.000" and 3.600" COLs.

.458 WinMag brass by RP from my lot of brass was measured by the same technique as the .458 B&M brass (Your mileage may vary.):

10 pieces averaged
236.3 grains in brass weight (fireformed with spent primer in place as above)
94.8 grains of gross water capacity and
2.489" length.

a .458-caliber bullet displaces 41.6 grains of water per inch of full-diameter shank.

If the **.458 WinMag RP brass** is allowed to grow to max length of 2.500", case capacity becomes:
95.3 grains H2O

If the **.458 B&M QC or RP brass** is allowed to grow to max length specified at Ammoguide, by you, 2.295", case capacity becomes:
97.3 grains of H2O

The .458 B&M is 2 grains bigger on this sampling, and also more efficient to boot, eh?
****

I think I might have to build two of these .458 B&Ms
One a shortie with 20" barrel and 3" box, with twist of 1:12" or faster.

The other will have a 23" barrel and a 3.6" box for Peacekeeping, Whaling, and Whispering purposes, with a 1:10" twist.
Letter Rip

MikeBurke **14 February 2010, 03:00**

I have completed the first round of penetration testing.

Caliber: 470 Nitro Express
Rifle: Krieghoff Double
Brass: Jamison
Primer: Remington 9 1/2M
Powder: Reloder 15

The test box is fabricated from 2 by 6 pine boards and is 72” long.
Test media consisted of ¼” luan, 12” of saturated newspaper, 2 by 6 treated pine (shooting through the 1 5”8” thickness), and approximately 60” of saturated newspaper. Great care was taken to make certain the newspaper was thoroughly soaked in a tub prior to placing in the test bed.
After placing the paper in the test bed excess water was permitted to drain for 30 minutes.
The bullet entered the box at 32 feet from the muzzle.

Bullets tested:
Woodleigh 500 Grain solid @ an average impact velocity of 2065
North Fork 500 Grain solid @ an average impact velocity of 2075

First portion of the test consisted of firing consisted of firing 5 Woodleigh bullets in the test media.

Shot 1: 36” of penetration then came out of the top.
Shot 2: 40” of penetration then stopped at the top of the newspaper.
Shot 3: 33” of penetration then came out of the side
Shot 4: 40” of penetration then stopped in paper, seemed to be straight.
Shot 5: 39” of penetration then came out of the top

The first 12” of penetration was very straight line. I matched the luan from the front of the box to the 2 by 6 positioned 12” behind the luan and the bullet path was straight. Only after traveling through the 1 5/8” of treated pine did the bullet path start to deviate. Please note the bullets entered the wood at a 90º angle. I placed the 2 by 6 to simulate bone.

After this test, five more tests were conducted firing one Woodleigh and then one North Fork. Penetration was measured and the media was changed prior to the next test. While there possibly could have been variations in density from test to test, both brands of bullets were fired in each lot of paper.

All of the North Fork bullets had straightline penetration the entire length of the box. One actually exited the 2 by 6 on the back of the test bed. The others were stuck in the 2 by 6 or the plywood I added at the rear of the box to make certain the bullet did not leave the box. The engraving looked good on the bullets. None were bent or otherwise damaged.

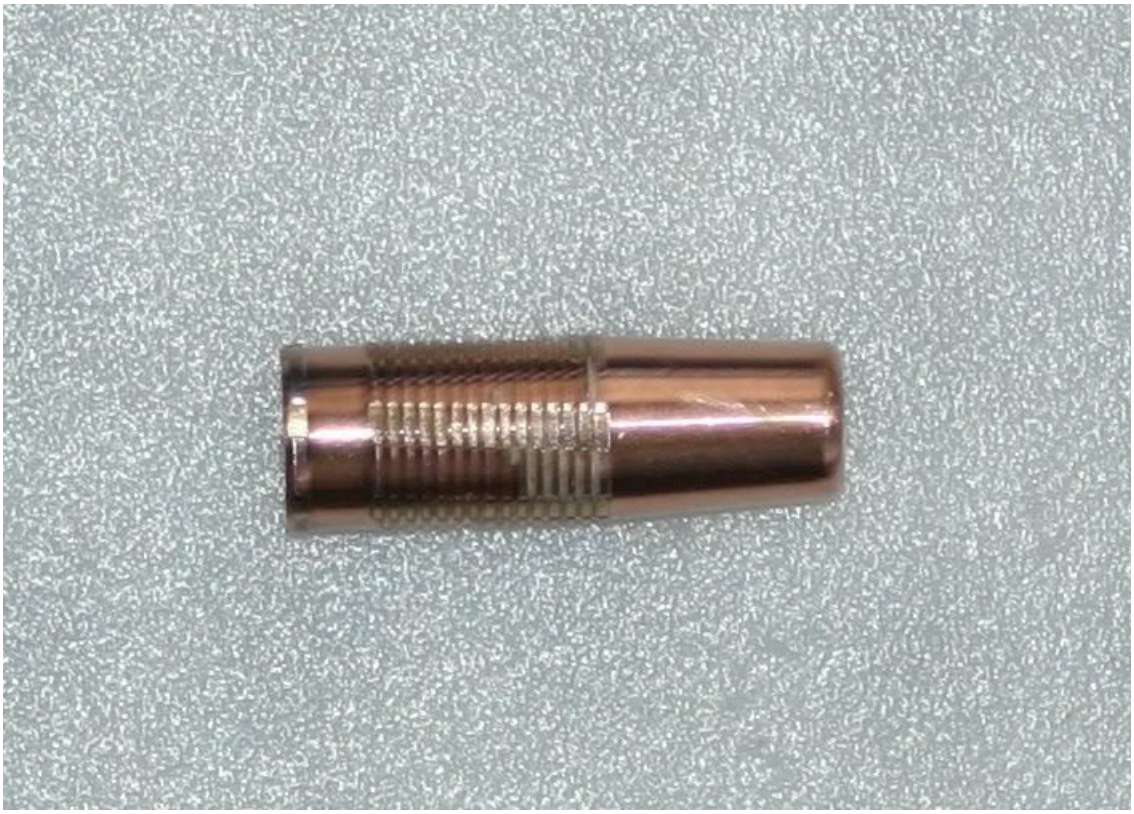
The Woodleigh bullets performed the same as the first five; straight penetration until reaching the 2 by 6. Average reasonably straight penetration was 20” total. After that the bullet would start turning and exit the box out of the top or hit the side or stop sideways in the newsprint at an average of 41”.

If any variations in results were noted I would have continued testing. The results were very conclusive: In this media the North Fork Solids simply outperform the Woodleigh Solids in heads up testing.
The next test will be the penetration of standard 470 Nitro velocities versus 1650-1700 fps velocity. Both Woodleigh and North Fork bullets will be tested.

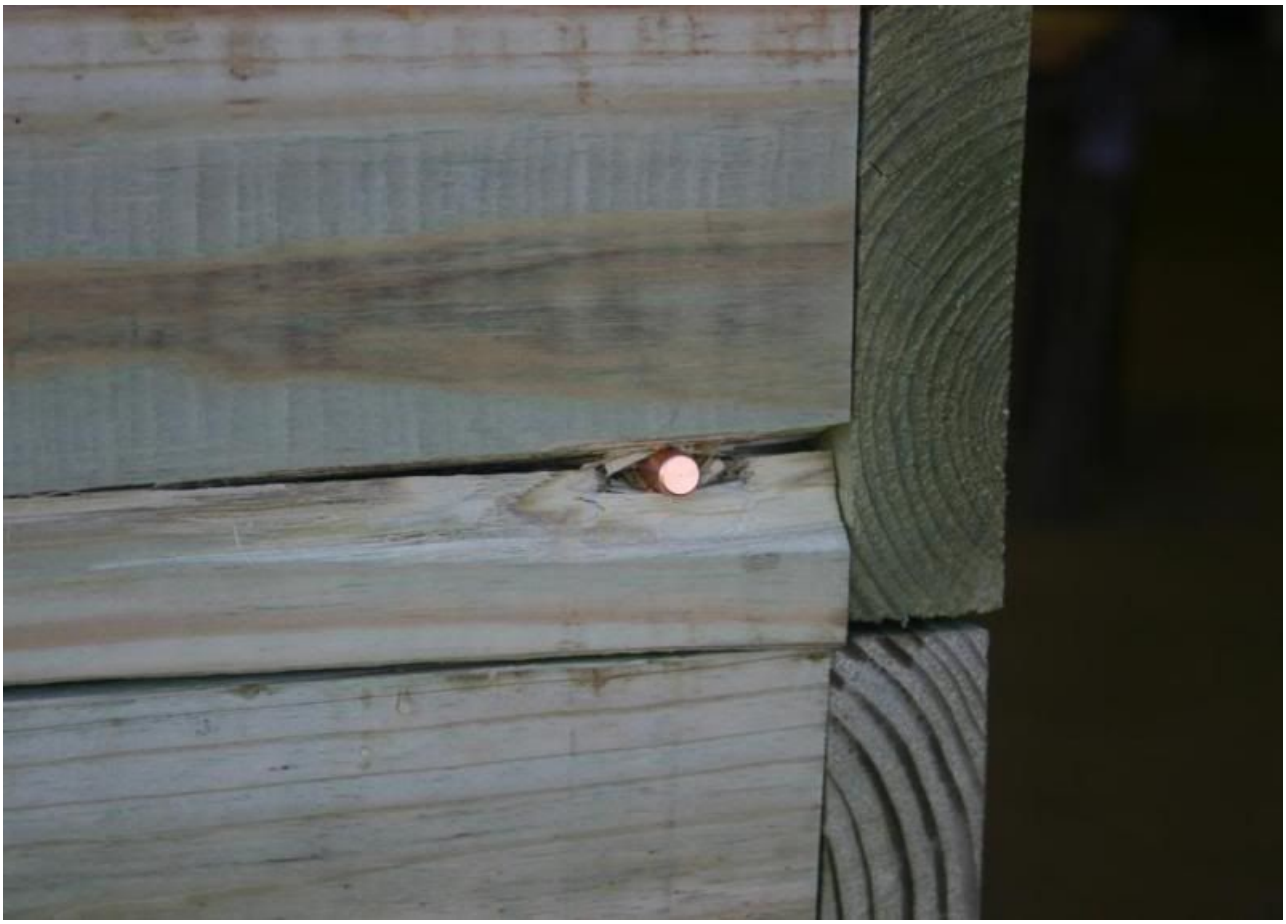
Above is the test box with chronograph.

Above is typical damage to the test box caused by the Woodleigh bullets veering off line.

Typical position of Woodleigh bullet found in media.



The above picture is of the typical condition of North Fork bullet after firing.



The above picture is taken from outside of box. It is a North Fork bullet after traveling through 72" of test media.

The above picture is taken from inside of box. It is another North Fork bullet after traveling through 72" of test media.

RIP **14 February 2010, 03:06**

Great work Mike!

All round nose solids were banned from the IWBB after a few tests.
Gets expensive to replace the steel mangled by carreening roundnoses.
FN solids by North Fork (FP) or GSC (FN) were always straight and deep.
Proven again by your excellent work

Should be interesting to see if they penetrate deeper when you slow them down.

Does Krieghoff use the traditional slow twist for the 470 NE?
about 1:21" per CIP (1:533.00mm = 1:20.98").
Gotta have the velocity for RPS.
At some point the lower velocity will lose gyrostability, but even if still stable in air, how much of that slack can be taken up by the FN shoulder-stabilizing-yaw-correction on transition from air to target?
I tested my 470 NE Merkel only at about 2050 fps impact at 25 yards.

Slower impacts as you suggest will be interesting.

someoldguy **14 February 2010, 03:52**

I think I understand why I didn't get any feedback when I made this comment.

> quote:
>
> What I do is take the kinetic energy, in ft-lbs, on impact (I don't have to go through the calculation because most of us know it or can find it out) multiply by 12 and divide by the penetration depth in inches. The result is what I call the "resisting force." (It was actually someone else who called it that, but I forget who.)
>
> I don't think this calculation is hyperanalyzing. Or I hope not. Because the resisting force tells us quite a bit IMO. It tells us if the bullet was damaged (if we know the strength of the bullet material), whether there was cavitation or trauma, the target torn all to hell, etc.

To this I might add heat (thermal energy) generated.

Some of y'all must think I'm ~~crazy~~ crazier than what I usually appear.

Now, I'm not arguing with the physics and I'm not arguing with any of you because you're right. But I can prove what I'm talking about.

Here is a physics problem that appears on this page that addresses a matter that's of interest to all of us: Bullet penetration.

http://mcasco.com/qa_marf.html

> quote:
>
> Question:
> How do you find the magnitude of a resisting force if you have a rifle bullet with at mass of 12 grams traveling with a speed of 400 m/s strikes a large wooden block which it penetrates to a depth of 15 cm. What is the magnitude of the resisting force that acts on the bullet?
>
> Need help!
>
> Thank you;
>
> Answer:
> Here are some things we know. The change in velocity is 400 m/s. The change in momentum is 400*0.012 kgm/s. The average resistance force is the change in momentum divided by the time required to stop the bullet. The distance covered under constant acceleration is 1/2 a* t^2. The average acceleration is the change in velocity divided by the time.
>
> Let's write a as 400/t. then 0.15=1/2(400/t)*t^2 or 0.15=200t or t=0.15/200=7.5e-4 seconds. The resistance force then must be 400*0.12/7.5e-4 N = 6400 N.

Of course, there's an error on the last line. 0.12 should read 0.012. Picky, picky.

But remember the result 6400 N.

Now what is the KE in metric units? It's easy to figure: 400^2 x .012 / 20 = 960 joules.

But remember that joules is defined as

> quote:

> the energy exerted by the force of one newton acting to move an object through a distance of one metre

(I say meter, they say metre...)

http://en.wikipedia.org/wiki/Joule

So we know that the bullet penetrated 15 cm or 0.15 meter. So all you have to do is divide 960 by 0.15 and you get exactly 6400 Newtons!

In practical terms, all this means is that the shortcut to finding out the resisting force is to divide the kinetic energy on impact by the distance penetrated. In English units, to divide foot-pounds of KE by the distance penetrated in feet. That's the only thing I'm suggesting. What this means to me is that KE might indirectly indicate the extent to which a bullet is **retarded** .

Glenn

I Bin Therbefor **14 February 2010, 07:47**

All this talk about Al bullets reminds me of:

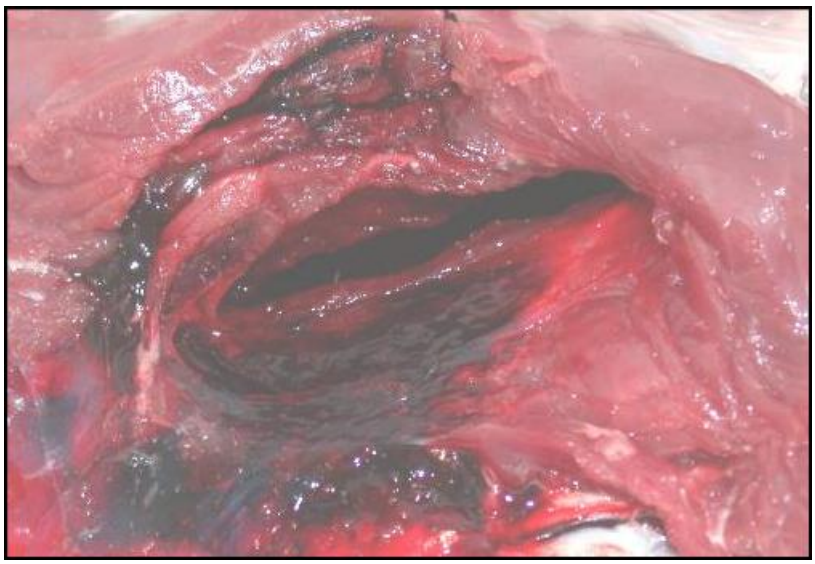
"The A-Square Lion Load is at the opposite end of the spectrum from the Monolithic Solid. The Lion Load sacrifices penetration in exchange for maximum destruction. The bullet is designed to turn itself inside out like a self-forged munition and launch the core of the bullet as secondary fragments in a radial pattern.
The Lion Load bullet creates maximum possible tissue destruction. However, it only penetrates between 12 and 24 inches. Consequently, it should be used only for those animals with a thin skin and lightweight bone structure, specifically predator animals.

The Lion Load is extremely useful for lion across the bait or in a charge, or other hunting situations where penetration can be traded off for maximum expansion."

As I recall the use of this bullet design rapidly fell into disfavor as the field results showed a lot of very superficial flesh wounds that stopped nothing! Instead there were very angry lions that required very dangerous follow up.

someoldguy **14 February 2010, 14:12**

In defense of the lowly 9mm Parabellum, some loads have given some awesome performance in deer. Here is an example of one with Hornady's 124-grain XTP at about 1250 fps (+P velocity, I know):



(Image taken from here:

http://www.hipowersandhandguns.com/HornadyXTP.htm)

Of course, I also know of some tremendous performance from big bore handguns in "lesser" configurations like the .45 ACP and non +P loads of the .45 Colt. However, I don't have photos.

Glenn

Gerard **14 February 2010, 14:50**

Pontificus Erroneus - More lies to answer for.

Warrior **14 February 2010, 17:49**

The permanent wound cavity is formed by the bullet crushing tissue during penetration. The bullet also pushes the surrounding tissue outwards from the bullet path and muscle tissue exhibits an oscillating wave before it comes to a stop, and this stretch is called the temporary cavity. This behavior of muscle tissue is due to its much stronger cohesion than the liver or brain tissue, which is incompressible. Muscle tissue that is being pushed outwards will get bruised but will fully recover whereas as the liver won't. When a bullet strikes the liver at high velocity it will shred or blow the liver apart and it won't contact like muscle.

I suspect that only the South African Rasputin is in disagreement with this.

Warrior

416Tanzan **14 February 2010, 18:23**

I think I agree, but to bring us back to the real world, we need to admit that a high velocity shot through the liver might lead to a long tracking job. Maybe its never happened to you, and you are blessed for it, but its happened to me. I prefer to find 'bright blood' on an impact exit wound rather than darker, more purple blood.

+-+-+-+-+-+-+

"A well-rounded hunting battery might include:
500 AccRel Nyati, 416 Rigby or 416 Ruger, 375Ruger or 338WM, 308 or 270, 243, 223" --
Conserving creation, hunting the harvest.

Whitworth **14 February 2010, 19:31**

> quote:
>
> Originally posted by 416Tanzan:
> I think I agree, but to bring us back to the real world, we need to admit that a high velocity shot through the liver might lead to a long tracking job. Maybe its never happened to you, and you are blessed for it, but its happened to me. I prefer to find 'bright blood' on an impact exit wound rather than darker, more purple blood.

I have to agree with this. My hunting experience has shown this to be true.

"Ignorance you can correct, you can't fix stupid." JWP

If stupidity hurt, a lot of people would be walking around screaming.

Semper Fidelis

"Building Carpal Tunnel one round at a time"

VVarrior **14 February 2010, 21:43**

Hey Warrior,

> quote:
>
> When a bullet strikes the liver at high velocity it will shred or blow the liver apart

What do you call high velocity?

VVarrior

Gerard **15 February 2010, 10:27**

Pontificus E - Take your garbage here. You have stuffed up this thread enough now.

N E 450 No2 **15 February 2010, 10:51**

Michael

I always keep a magazine or two of 45 ACP 230 ball close by as well..

Have you tested any of the Hornady 185, 200, or 230gr XTP in 45 ACP, or any of the XTP bullets in 44 Mag???

DOUBLE RIFLE SHOOTERS SOCIETY

michael458 **15 February 2010, 15:56**

NE450#2

No it's been a long time since I did any handgun bullets, and I don't even own a 44 any longer. About 20 yrs ago I decided I did not need to feed 44 and 45, so I dropped the 44s and went 100% 45 Colt. A few years ago I did a lot of 45 Colt work in both revolver and a Win M94. I did several tests with the 250 XTP and 300 XTP in 45 Colt. I found the 250 a very tough bullet, and the 300 just about perfect in the little rifle, will dig some of that out this week and look at it.

Michael

http://www.b-mriflesandcartridges.com/default.html

The New Word is "Non-Conventional", add "Conventional" to the Endangered Species List!
Live Outside The Box of "Conventional Wisdom"

I do Not Own Any Part of Any Bullet Company, I am not in the Employ Of Any Bullet Company. I do not represent, own stock, nor do I receive any proceeds, or monies from ANY BULLET COMPANY. I am not in the bullet business, and have no Bullets to sell to you, nor anyone else.

boom stick **16 February 2010, 02:56**

Jim...

Thanks for the numbers.

What is interesting is the aluminum bullets exceed the energy of the conventional bullets.

The 6" barrel has 25% more energy.

Even with a pistol round the numbers either match or exceed so apples to apples the aluminum bullets can have an an energy advantage but penetration and wound channel has yet to be seen.

My guess is that the penetration will be about the same.

I think that the real advantage is with larger cases for revolver rounds and rifle rounds but it is good to see that there seems to be good even for the wonderful 45 ACP.

Have to do a wait and see until someone with a lathe wants to make some.

Energy aside I think a fat bullet going over 2,000 FPS out of your 1911 would be something fun to play with.

quote:

Originally posted by capoward:

quote:

Originally posted by capoward:

quote:

Originally posted by boom stick:
Capo...
Can you run Quickload for a 50 grain bullet out of a 45 ACP???

If a handgun can get a 50 grain bullet going 3,000 FPS that will be 1,000 FPE
If it can get 2,500 that will be 700 FPE. That would almost double a standard 45 ACP load. A standard load delivers 230 @ 850 for 370 FPE

Boomy,

It'll take a few minutes to gin up the size shape of the bullet in QD then to run it in QL...will do and post shortly.

Ok bullet designed and multiple simulations in QL run, here's the results:
45 semi-auto handgun
45 ACP cartridge (SAAMI Pmax (MAP) = 21000 psi)
ADI AP 70N Propellant
50gr .452 SST HP Aluminum Solid bullet:
4.0" barrel: 12.6grs = 2023fps & 454ft-lbs @ 20617 psi (F/LR: 105.0%, PB: 77.9%)
5.0" barrel: 12.6grs = 2172fps & 524ft-lbs @ 20617 psi (F/LR: 105.0%, PB: 81.7%)
6.0" barrel: 12.6grs = 2285fps & 580ft-lbs @ 20617 psi (F/LR: 105.0%, PB: 84.3%)
8.0" barrel: 12.6grs = 2449fps & 666ft-lbs @ 20617 psi (F/LR: 105.0%, PB: 87.7%)
10.0" barrel: 12.6grs = 2567fps & 731ft-lbs @ 20617 psi (F/LR: 105.0%, PB: 89.8%)
230gr .452 Winchester RN FMJ bullet:
4.0" barrel: 6.1grs = 885fps & 410ft-lbs @ 20423 psi (F/LR: 66.5%, PB: 99.81%)
5.0" barrel: 6.1grs = 943fps & 454ft-lbs @ 20423 psi (F/LR: 66.5%, PB: 99.81%)
6.0" barrel: 6.1grs = 977fps & 488ft-lbs @ 20423 psi (F/LR: 66.5%, PB: 99.81%)
8.0" barrel: 6.1grs = 1025fps & 537ft-lbs @ 20423 psi (F/LR: 66.5%, PB: 99.81%)
10.0" barrel: 6.1grs = 1059fps & 573ft-lbs @ 20423 psi (F/LR: 66.5%, PB: 99.81%)

That's about it.

we band of 45-70ers (Founder)
Single Shot Shooters Society S.S.S.S. (Founder)

Whitworth **16 February 2010, 03:06**

Energy shmenergy -- something calculated, not measured, and meaningless -- save for a cleaver marketing tool for ammo manufacturers. Not a good measure of a cartridge's effectiveness. Most of my rifles handily "out energy" my big handguns, but oddly enough, they don't kill any better.....

"Ignorance you can correct, you can't fix stupid." JWP

If stupidity hurt, a lot of people would be walking around screaming.

Semper Fidelis

"Building Carpal Tunnel one round at a time"

someoldguy **16 February 2010, 04:40**

> quote:
> Most of my rifles handily "out energy" my big handguns, but oddly enough, they don't kill any better.....

I think that's called efficiency. Requiring less energy to do the same thing, or better, than something that has more energy. And quite a few big bore handguns have proven themselves worthy of being efficient, from what I've seen.

Damn, I think I'll go trade all my 9mms for a good .45 now.

Glenn

boom stick **16 February 2010, 04:40**

I agree more testing needs to be done 

577 BME 3"500 KILL ALL 358 GREMLIN 404-375

we band of 45-70ers (Founder)
Single Shot Shooters Society S.S.S.S. (Founder)

jeffeosso **16 February 2010, 04:49**

got a box of hammerheads .. to say i am underwhelmed with appear woudl be an OVER statement

#dumptrump

opinions vary band of bubbas and STC hunting Club

Information on **Ammoguide** about
the416AR, 458AR, 470AR, 500AR
What is an AR round? Case Drawings 416-458-470AR and 500AR.
476AR,
http://www.weaponsmith.com

boom stick **16 February 2010, 05:22**

Let the testing begin! 

Multiple velocities would be great to prove/disprove his theory of slower is better.

577 BME 3"500 KILL ALL 358 GREMLIN 404-375

we band of 45-70ers (Founder)
Single Shot Shooters Society S.S.S.S. (Founder)

jeffeosso **16 February 2010, 05:27**

at the better part of $100 a box, well.. don't harsh my gig!

#dumptrump

opinions vary band of bubbas and STC hunting Club

Information on **Ammoguide** about
the416AR, 458AR, 470AR, 500AR
What is an AR round? Case Drawings 416-458-470AR and 500AR.
476AR,
http://www.weaponsmith.com

boom stick **16 February 2010, 05:30**

How will you test them?

577 BME 3"500 KILL ALL 358 GREMLIN 404-375

we band of 45-70ers (Founder)
Single Shot Shooters Society S.S.S.S. (Founder)

Whitworth **16 February 2010, 05:30**

quote:

> Originally posted by boom stick:
> Let the testing begin! 
>
> Multiple velocities would be great to prove/disprove his theory of slower is better.

Slower is often better with hardcast bullets because they cannot take a lot of velocity before the nose starts to deform and it hurts their penetration potential.

"Ignorance you can correct, you can't fix stupid." JWP

If stupidity hurt, a lot of people would be walking around screaming.

Semper Fidelis

"Building Carpal Tunnel one round at a time"

jwp475 **16 February 2010, 06:12**

Micheal458, I would like to submit an idea for a tesst on meplat percentage and shape. I contend that if one takes a Barnes 458 500 grain and machines a meplat of 78% of bullet diameter in a truncated cone with sharp not rounded edges, that this bullet would out penetrate th stock bullet by a considerable margin. The would prove or disprove the meplats influence on petration of flat point solid. The Barnes meplat and the modified meplat will be mad of the exact same material, the only difference woul be the meplat style and diameter. The modified bullet would wiegh a bit less but should still out penetrate the un-modified bullet.

A 9mm may expand to a larger diameter, but a 45 ain't going to shrink

Men occasionally stumble over the truth, but most of them pick themselves up and hurry off as if nothing had happened.
- Winston Churchill

boom stick **16 February 2010, 06:15**

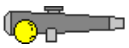
The rounded nose to meplat is to aid in feeding right?

577 BME 3"500 KILL ALL 358 GREMLIN 404-375

we band of 45-70ers (Founder)
Single Shot Shooters Society S.S.S.S. (Founder)

jwp475 **16 February 2010, 06:23**

quote:

> Originally posted by boom stick:
> I agree more testing needs to be done 

More testing??? The Aluminum bullet can not make up for it's lack of mass simply by increasing FPE. All that more testing will do is confirm that science has not changed. Physics is still correct inelastic collisions (bullet strikes) are about Mass, Momentum, Velocity, Energy figures are not very important other than as a mechanism to aquire the momentum

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A 9mm may expand to a larger diameter, but a 45 ain't going to shrink

Men occasionally stumble over the truth, but most of them pick themselves up and hurry off as if nothing had happened.
- Winston Churchill

jwp475 **16 February 2010, 06:27**

quote:

> Originally posted by boom stick:
> The rounded nose to meplat is to aid in feeding right?

It's only purpose. In the 1800 the great British Engineer Whitworth concluded the supiriority of the flat point for penetration.

Nothing new in the shooting world, it is only re-visited

A 9mm may expand to a larger diameter, but a 45 ain't going to shrink

Men occasionally stumble over the truth, but most of them pick themselves up and hurry off as if nothing had happened.
- Winston Churchill

someoldguy **16 February 2010, 08:29**

quote:

> Multiple velocities would be great to prove/disprove his theory of slower is better.

IMO it's like this:

This isn't widely known, but Goldilocks' other claim to fame was as an earnest terminal ballistics student. Like Michael. Goldilocks had a high-dollar, custom-made, Mauser-action .458 Lott rifle that shot like a laser! (This is rumored to be why the Three Bears left her alone.)
Some time later, her now good friends, the Three Bears, sent her three cartridges to test.
Goldilocks first fired Papa Bear's cartridge into her test box. But after seeing the test results, she shook her head disapprovingly and said, "This one's velocity was toooo slow!"

Then she tried Mama Bear's cartridge. And again she was displeased. "This one's velocity is toooo fast!"

And finally it was time to shoot Baby Bear's cartridge. To her amazement, the cartridge gave stellar results! Smiling, she said, "And this one's velocity is juuuust right!"

Glenn