

This topic can be found at:

<https://forums accuratereloading.com/eve/forums/a/tpc/f/4711043/m/2861098911>

Extremist458

22 April 2010, 00:04

Terminal Bullet Performance

416Tanzan and Michael458, Had some experience with the .416 Rigby a few years back. Tested the 380FN from GS and found it to work fantastically. I know I keep harping on you to try out some of the GS FN's, so I might just have to bring some to your door when I stop in for a visit, along with the bottle of Knob Creek and Gray Goose. Anyways, they stabilize very well in the 16.6 twist Rigby's have and have taken Ele redily. Fast or slow, this is the choice for a 416. Even after expansion at high speeds, penetration is excellent and the shock and damage they cause it phenominal. Here is what tech page on the bullet:

<http://www.gsgroup.co.za/416380FN053.html>

and here is a pic of a bad shot on an Ele: <http://www.gsgroup.co.za/galloweElephant.html>

and here's a good one for you Michael and your 500's: <http://www.gsgroup.co.za/johnharrisele.html>

For you .338 guys, here is the bullet you should be shooting: <http://www.gsgroup.co.za/338225HV055.html> I am willing to bet it will out-penetrate and out perform your new heavy X's easily. Not to mention with less bullet drop!

-Extremist

"Pain is weakness leaving the body" -Instructor

Victory in life is dying for what you were born to do.

"I hope you live forever" -300

"Never judge an enemy by his words, he might turn out to be a better shot then a writer"

<http://www.gscustomusa.com>

416Tanzan

22 April 2010, 00:54

quote:

Originally posted by Extremist458:

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Well, in this forum, Michael loves to test with real bullets, and to see what penetrates and how. There are sometimes surprises, and extra velocity does not always produce more penetration. We'll just have to see how a 225 grain mono-metal does vis-a-vis a 250 or 285. The 225 TTSX did great in the 338WM and pretty much equalled the 338 RUM.

On the 416 rigby, bullet length and meplat are the two biggest factors after bullet strength. The 380 GSC looks like its meplat is a bit wider, but it is longer than the 350gr. Barnes. Again, some testing is in order.

+++++

"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.

michael458

22 April 2010, 01:11

Extreme

Gerard also noted that he always recommends the 380 FN GS over the 410 back when I tested the 410s and learned they were not stable in my rifles.

Now as far as the Harping on the GS, that's ok, I don't mind. The design is first class, nose profile is good, there is nothing wrong that I can see with the GS Bullets! For me personally it's only a matter of availability and access to them is all. To me the Barnes Banded, GS Custom, North Forks, and SH Precision bullets, and of course the bullets I am having David make for the .500s along with JD's nose profiles are the top of the class and hard to equal. Agent J's nose profile (SH Precision) is close to the GS and the North Forks, all being superb, and all with great attributes for each. Barnes Banded has never failed me, and easy access to them, go to Midway.com, order, two days they are on the doorstep. I think if I had easy access to the GS bullets I would use more, I certainly would test the hell out of them for sure! And the results I know would be good! So it's ok to harp, that's what this thread is about--Bullets!

Extreme--I gotcha! Where you say "here's a good one for your 500's", that's a 500 Nitro, they are .510 caliber? Let's not forget MY 500's are real true .500 caliber, not .510. I don't think Gerard has started making any .500s ?

HEH!

Yes, by all means when you visit bring a few bags of GS Customs with you! Keep the Knob Creek, while I love the bottle I can't do the "brown", but don't forget the Goose! I am waiting!

Michael

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

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Live Outside The Box of "Conventional Wisdom"

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michael458

22 April 2010, 01:25

Tanzan

You hit it on the head with there are sometimes surprises! I get them often just when I thought I had a handle on it! And you are correct, in many cases the velocity in the 338 RUM was too much and gave less. We know here I am a short range shooter, so I have no idea what the hell I am doing with a 338 RUM? In fact I am not sure what I am doing with anything less than 400 caliber, I suppose I just like to have different things built is all I can figure? But at least most things we come up with worthwhile I have something to test them in I suppose. I was thinking of 338 the other day and I have a nice little 338 WSM with a 22 inch barrel, I suppose if I were to go to the field with a 338 sometime in the future it would be that one, instead of the bigger, longer guns chambered in the Win mag or the Ultra. Just can't think about carrying another 24 inch heavy gun in the field anymore, not after the B&Ms!

Michael

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Extremist458

22 April 2010, 22:11

416Tanzan,

quote:

Well, in this forum, Michael loves to test with real bullets

What is that suppose to imply? I hope that wasn't an insult.

Yes, I know velocity doesn't always produce more penetrations, I am very much aware of conventional bullets and the such, but GS Custom Bullets are not among them. The HV's will produce much better penetration at high speeds then the Barnes X, and that is why I suggested the test. Not all mono-metal bullets are alike, and have great in-depth knowledge of the differences between Barnes and GS. Now when it comes to the FN's, there is less differences, and it becomes a matter of preference aside from velocity, but with the HV's there is a great deal of improvement over the X bullets. I have been reading this thread from the beginning and I am familiar with Michael's work, and I cannot show enough appreciation for it. That is why I asked for the test. To see how they stack up and show the rest of you here on AR what you've been missing.

I do know of the differences on the 416 bullets. In your conversation about the 400 grain that would be borderline stable, or the lack of weight of the 350 you are currently shooting, the 380FN is a better choice. Not to mention it's performance is vastly better. This is why I linked the picture and story. Trama, penetration and stability, all precisely what you are asking for. So I was hoping you would give them a try and see for yourself.

Michael458,

Yes, the 380 is a much better bullet, unless you have the faster twist. It's unfortunate that so many have the slower twist, but that's OK since that 380 performs so well.

Now with regard to the GS bullets being available, that will change shortly. They are moving the entire GS Custom shop right here to Niles MI! Actually, they are building a new facility that will increase both output and quality (as if 5 micron wasn't enough, they are going to 3), and you can have bullets within days, not months. Not to mention entirely made in the US with US materials and tooling, and the owner, Gina, has already moved here and is waiting for the machines to arrive to start up!

When it comes to design, I just have to mention that GS was the first to come out with this design some 10+ years ago. No offense to NF, but they didn't make them like they do now, and only started too a few years ago. It's a good design, and it's not like nose profiles are patented, so it's fine, but I just like to give credit where credit is due. In fact, and I can testify to this, one of GS's customers use to work with Barnes and their engineers and was actually present when the engineer designed the Barnes banded solid. He had the GS bullets on his desk and told Ryan (who now works for a private firm) that this was the bullet they were using to design their new bullets; even went so far as to describe why. Now Barnes bullets do not expand like GS bullets do, and that's might be just what you are looking for, but I have found the originals to still be the best. That slight expansion always improves stability in game, creates more damage, more shock and nearly the same if not more penetration then other FN's. Cavitation is key to penetration, and GS has it figured out. And the greatest part of all this, is that they only expand proportionately with the velocity and energy you give the bullet! If it strikes slow, around 2000fps, little to no expansion happens and you maximize penetration bases off energy spend in the creation of that wound channel. When you give the bullet the extra speed, like in magnum's and the like of which we all shoot here, the bullet USES that energy and transfers it into the game through wound, shock and penetration. Even Agent J's bullets use to have the exact same nose design.

About that 500Nitro...ya, I know they are .510's, but I thought you had a few .510's still, no? If not, then Gerard does make .500's.

They are the same bullets, you just have to ask for them. See, in SA where he's at, and with his PH customers, no one has .500's. All they ask for are .510's, but if you want those, all you have to do is ask. GS is a custom bullet company, and has been from the start back in 1993. They currently offer well over 260 different bullets, and a lot of them are not listed. When they build the US website, it will have all the up to date bullets and data. I also linked that page to show you the recovered bullet and the story behind it. Impressive to me at least.

So on to the important stuff now: where was it that I seen the picture of Knob creek here?...I'll find it. I remember commenting on it. That is my favorite, but I'll be sure to bring the GG instead then. So how far are you from the NRA show?

-Extremist

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Extremist458

22 April 2010, 23:28

Oh, too bad, it was RIP that likes the Knob Creek and Buffalo Trace, Page 13 ironically...just reminicing...sitting back on the porch or next to the camp fire, watching the sun set over the bush in the Limpopo vally, sipping some of these fine spirits. It's been to long since I was there last; will have to go back soon. Went with my bow last time, but I'm taking both this next trip.

-Extremist

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416Tanzan

23 April 2010, 00:05

For Extremist458:

Sorry for the miscommunication. The implication was that this will make for a nice test. See below. Nothing derogatory was in the slightest intended. In fact, my feelings are the opposite. I would have loved to have gotten a hold of some GS bullets last year but they weren't available in the USA, at least not easily, nor in TZ.

On testing, it is my wish that we might get some nice testing with Barnes and GS. I am aware of the history and have devored just about everything on the GS site. But surprises happen in tests, and it will be interesting to see what actually happens when a 380 GS is put thru a 16.5" twist in 416 rigby versus the 350 Barnes in Michael's media (or someone else with acces to 16.5" twist 416s). The same holds for testing the 350 TSX versus the 330 HV. Tests for the expanding 'monos' (HV, TSX) should probably cover several dimensions, including depth, shape of wound channel, and petal retention.

+ + + + +

"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.

Extremist458

23 April 2010, 00:25

Thanks Tanzan. I am with you on this one; I would love to see some testing between the two, and I'm sure I will have the chance to do so shortly after the shop gets up and running here. I know a lot of customers are waiting on the doors to open, so it will great to have the bullets readily available. I can take some of them down to M458's as well, whenever that might happen. Have to see how close he will be to the NRA show in Charlotte.

-Extremist

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23 April 2010, 00:38

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A couple of questions:

when do you think that some USA 416 330gr HVs will be ready?

what load data would you suggest for up to 60k psi in 416 rigby? (I don't consider the 47k SAAMI spec to be very useful for the

Rigby.)

+ + + + +

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michael458

23 April 2010, 00:42

Extreme

Wow, That is good news on the GS being available and here in the US.

WHEW! I love your enthusiasm Extreme! I read everything honestly! LOL. I am pretty familiar with GS, and of course have used and been to the website many times, and it has been a source of "education" for myself. I always welcome Gerard that visits this thread often too and welcome his knowledge greatly!

As for the NRA Show, I will be there on the floor Friday afternoon and all day Saturday. We must make a plan to meet there I think!

When you get the doors open on the shop, send me an inventory and we can all go to work doing some tests!

Michael

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Macifej

23 April 2010, 01:25

quote:

Gina, has already moved here

OH NO!! Gina if you're out there ... when you get tired of high crime, deep snow, and bad food let us know. We're happy to have you out here!!



RIP

23 April 2010, 02:22

Extremist458:



If Gina and GS are expanding into the USA with production facilities, I'll drink to that!

Yes, make mine Knob Creek or Buffalo Trace. 🍷🍷🍷

Maybe now I can get a .395 barrel or two to Gerard.

Will Gerard be in the USA to work on things here too?

I would hate for to ask Gina to smuggle the barrels back to RSA in her pant legs. 🤔

I was onto the .416/380-grain GSC FN in 2001.

I fired three of them in Botswana.

The first one smacked dead center of a 1-inch ballpoint-pen-inked dot on a paper envelope, pinned to an umbrella thorn tree, using a thorn from the tree, at one hundred yards.

Proof of zero for PH benefit. 🤔

The 16" diameter tree trunk was penetrated fully at max diameter, and that GSC bullet continued on to hit another 12" diameter umbrella thorn 25 yards beyond, passed clean through that tree too.

For all I know the bullet is still ricocheting around the Okavango.

The second bullet killed a cape buffalo, through the heart.

The third bullet was insurance paid to the spine between the shoulders, after the death bellow.

Mine was a 1:14" twist Ruger .416 Rigby, "Old Purple."

Ol' Purple put three shots into 0.140 MOA at 100 yards, with the first three GSC bullets I ever fired, using the Buhmiller-O'Connor

load of 105 grains of H4831. 🏹

2509 fps.

Maybe still posted at GSC, that target ...

□

boom stick

23 April 2010, 03:05

quote:

I would hate for to ask Gina to smuggle the barrels back to RSA in her pant legs.

That might raise a few eyebrows 😊
Check in luggage 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)

Extremist458

23 April 2010, 09:43

Very true, they don't like that much when you go through the metal detector! But we can just tell 'em it's her magnetic personallity!

Mac, She said "what's so great about Col-E-forn-E-A, they can't even own a 50 Browning there? 😊" Well, we won't have snow until November anyways, and crime is MUCH less then in SA, especially JNB! As for the food, she is a great cook, so no worries there! Besides, I have a large Polish and Italian family, we make great pasta and pedrogis!

RIP, thanks for that, gave me a good chuckle. Gina just told me about you, so I look forward to sharing a tot of "the good stuff" with you; it would be an honor. Same to you Michael, we will have to do dinner one of the nights at the show.

-Extremist

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Jack D Bold

24 April 2010, 21:30

Mike,

First of all, thanks for the hard work. Incredible amount of good information here.

Just thought I would share some anecdotal evidence. Last month, I shot a bull elephant on the top wrinkle with a .470 using Woodleigh solids, 2140 fps. At the shot, the ele starting shaking his head, then moved off.

At first, it looked as if the shot went about an inch and a half high. Fair enough.

Thats the entry hole in the top wrinkle.

□

When we skinned that ele out, I saw a triagular formation of bone in his forehead. My first shot entered the hard bone which forms the top point of this triangle. Just an inch below is a soft opening, a channel looking to lead strait to the brain.

But we later saw the wound channel. The bullet was recovered behind the left ear, just under the skin. It veered approx 45 degrees off true course. The bullet also deformed

□

Next to brass

□

I do have a bone to pick with Woody. I know they will never be in my tubes on safari, ever. There is just too much at stake, including my own life, to trust these bullets again.

My friend used Hornadys, which he really liked. Either these or the NF will be the preferred projectile next year.

"You only gotta do one thing well to make it in this world" - J Joplin

465H&H

24 April 2010, 21:48

Jack,

If you think that this couldn't happen when usinf a FN solid, your in for a disappointment somewhere along the line. Under the right conditions any style of solid can veer but it is an exteremely rare occurance.

465H&H

Jack D Bold

24 April 2010, 21:55

Quite probably true. Ballistics chat can be hotter than the campfire we sit around.

At the end of the day, y'all shoot whatever pill you are confident with. I just know what I will NOT be shooting.

"You only gotta do one thing well to make it in this world" - J Joplin

michael458

25 April 2010, 01:07

465HH is quite correct, anything can happen and will happen in the field. But I dare say that I would most definitely put my money on the good FN solid as opposed otherwise!

Of course there is little or no doubt that there is LESS POTENTIAL for a properly stable FN to veer off course, of that there can be no argument in any camp! One that argues that is someone not to waste ones time upon.

Jack

Thanks so much for the report. It is what I have been trying to get across for some time now, falling on deaf ears on a few counts. While I KNOW that it is not 100% of the time this happens with a RN solid of any sort, the POTENTIAL is there, it can and it does happen on occasion. Less in animal tissue that test work is fact.

What some CANNOT understand about the test work is that if one tests two types of bullets and one finds that 1 particular design fails, or veers off course 100% of the time in that test, while another design SUCCEEDS 100% of the time in the same test, then is it not obvious what the better design may be? Seems fairly logical to me, at least to one that can reason and think for themselves.

I think it is not quite as rare as some would think that a round nose design veers off course. I have seen them do it first hand myself, now you have also, and Mike has a very strong suspicion that one of his veered off course! Hmmm, maybe it's not so rare after all! In your case Jack, it's 100% failure rate as I calculate!

Thanks for joining, we are glad to have you, lot's of good shooters here and we are continuing to strive for knowledge and move forward.

I will be starting up some serious tests this week, so be sure and stay tuned, that goes for all of you. Top of my list is to jump all over Hornadys DGS in 458-470- and .510 caliber this week! I think Sam is coming down Tuesday, we may even have some of his serious doubles to play with, I know there was mention of .577 something or other??

So stay tuned, and Jack welcome and don't be shy, speak up when you need to!

Michael

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465H&H

25 April 2010, 01:27

quote:

Originally posted by Jack D Bold:
Quite probably true. Ballistics chat can be hotter than the campfire we sit around.

At the end of the day, y'all shoot whatever pill you are confident with. I just know what I will NOT be shooting.

We are all either the beneficiary or the victim of our experience. Fully understanding what happened and why it happened decides which you are. You have decided that RN Woodleighs are not for you while JPK has decided that the Woodleigh RN solids do better than FN solids on penetrating elephant head bones. That is an interesting difference in opinions. I wonder who has the better understanding of what happened and why it happened?

465H&H

465H&H

25 April 2010, 01:31

quote:

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Michael

Michael,

I think that you will agree that there have been many more RN solids shot into elephant heads than FN solids. Consequently, one would expect more reports of veering. What will happen as FN solids are used more and more in the field? Will we see more and more reports of veering? Only time will tell.

465H&H

michael458

25 April 2010, 01:54

465HH

Well with a 100+ years of old round nose designs and about 5 years of new flat nose technology it goes without saying there have been more round nose solids shot than flat nose.

You ask what will happen as FN solids are used more? I will tell you what will happen, and I have no doubt of it!

When folks start shooting more proper flat nose designs into elephants, with proper calibers, twist rates and velocities more elephants will start dropping to that first shot in the brain! There will be more dead elephants and LESS LOST ELEPHANTS, that is what will happen and I will bet on it if you are around another hundred years to help me collect the data on it!

I see, I hear, I speak with people all the time, I thought I had the sights right where they were supposed to be, the elephant went down, but got right back up again? I thought the sights was there, the shot felt good, but the elephant just ran off? My goodness, what ammo were you using? I was using that factory stuff, can't remember exactly by who, but it shot good in my gun? Most likely a good old round nose factory load!

Don't worry, the days of the round nose are over, I predicted 4 years ago that the future will hold that every single major bullet manufacturer will have a flat nose solid design in the future because of the superior technology involved, today that is true, even Woodleigh!

Time will tell that is for sure, All My Bets are on good and proper Flat Nose designs, and ALL MY RIFLES ARE LOADED WITH THEM TOO!

As for who might have a better understanding of what happened and why??? God Almighty, you surely jest at that statement! Do not go there.

Michael

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

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RIP

25 April 2010, 07:02

Doc M,

Gerard was making the GSC FN solids back in the late 1990's.

Everyone else has copycatted GSC, to one degree or another, after the likes of Ross Seyfried and I 😊 bragged about them. More than a decade of FN solid use, more than enough to tell their greater value already. Roundnose solids are going the way of the dodo bird.

Half-hard copper for GSC.

Full-hard copper for North Fork.

Brass by S&H and Barnes might be best material of all for solids.

I await a .458 B&M.

It may not be the shortest, but it may be the lightest one yet, and the fastest twist.

JackPhantomHuckleberryHoundDog, RIP.

465H&H

25 April 2010, 07:24

Michael may be right about deeper penetration from FN solids, in fact he is probably right based on my very limited use of FN solids on elephant. He may also be right on the veering issue. When the final results come out, I believe we will see little if any difference between the two nose shapes. What I am confident in is that neither will be at such a high rate of veering to make it worth worrying about.

Using FN solids whether of the DGS type or the North Fork type do create other problems that hunters must realize and take into account when selecting shot placement on elephants or even buff for that matter. They penetrate so well that you may not be able to take a side body shot the elephant of your choice if it is standing in a herd. The odds of it completely penetrating and wounding or killing another behind it is too high. I need to amend that as there also some RN solids from some calibers that will do the same such as the 505 Gibbs and the 458 Lott with 550 grain Woodleighs. Know what to expect from your solid and how they will limit you. FN solids may have gotten too good.

If I read Gerard correctly he also believes that FN solids have gotten too good and that we can give up some penetration and allow the nose to expand to create more tissue damage. Interestingly, I received a personal e-mail from C. Boddington agreeing 100%(his words)with my take given above.

465H&H

jwp475

25 April 2010, 07:53

I and a lot of others have been using the flat point technology in big bore revolvers for decades and they are light years ahead of rounds nose. In fact they make they big bore revolvers work on large heavy game. Rifles get away with the inferior rounds nose design, where the big bore revolvers do not.

Flat point solids rule, round nose solids drool 🤔

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

michael458

25 April 2010, 15:56

quote:

Originally posted by RIP:
Doc M,
Gerard was making the GSC FN solids back in the late 1990's.
Everyone else has copycatted GSC, to one degree or another, after the likes of Ross Seyfried and I 😊 bragged about them.
More than a decade of FN solid use, more than enough to tell their greater value already.
Roundnose solids are going the way of the dodo bird.

Half-hard copper for GSC.
Full-hard copper for North Fork.
Brass by S&H and Barnes might be best material of all for solids.

I await a .458 B&M.
It may not be the shortest, but it may be the lightest one yet, and the fastest twist.
JackPhantomHuckleberryHoundDog, RIP.

Doc RIP

Thank you, While I most definitely include Gerard, and GS Custom right at the top of the list for proper FN solids and design, I had left them out of the "majority", as I did Jack Carter and the Sledgehammer, that both has been around for a couple or more decades now. Yes, more than enough to make the grade. The "majority" did not catch on until much later of course. I think that this has been a "evolutionary" process, and the fact that it has taken so long for average shooters, and "Especially" hunters to catch on to the tech of the matter, of which includes myself! Today, I think the cat is out of the bag now, the Genie has finally escaped and there is no going back now!

Yes, we got a short metallurgy lesson from North Fork, which was welcomed. I don't know what they do to get Full Hard (hmmmm?), half Hard copper, and don't need to know myself, but that explains what I need to know. I am 99% sure the copper solids I am using made by David in .500 caliber is full hard, and I am extremely pleased with them. Had concerns from the beginning about how they would hold up on the nose when contacted hard material, but not anymore, like the North Forks, I think FULL HARD.

The Barnes and S&H and a lot of JD's designs are the brass whatever, not brittle these days, and hard as nails. Excellent bullets by all. The only reason I went to the copper back 5 yrs ago was the WEIGHT factor, which was not much, about 5-6% more with the same exact bullet, I was still under the impression in my ignorant youth-5 yrs ago, that SD had more meaning than it actually does! So I have now grown up, and find that a little SD has no meaning at all, I could easily exchange our designs for the brass bullets and would loose nothing in the penetration department! But, I did not realize that then! A slow learner I suppose, but I eventually get there!

Look here, JPHHD RIP, Spoke with Brian on matters of a couple of 500 MDM the other day, and asked about your 458 B&M. He's

working on it of course, but has some concerns about the barrel band and the barrel contour, he said he would address that with you? If not yet, give him a call and ya'll sort it out! Yes, I understand it's the close to the same muzzle diameter of my 9.3 and 375 B&M barrels! It will be light! JH in PA built a light 416 B&M with the same or close to the same barrel diameter.

JackPhantomHuckleberryHoundDog>>>>>>> 😊 You are a trip!

Michael

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

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416Tanzan

25 April 2010, 16:22

quote:

Originally posted by michael458:

Doc RIP

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Michael

Ballistic coefficient may have had an affect on rifle hunters. Most prefer sleek designs "other things being equal". We are learning, have learned, that other things are not equal.

+ + + + +

"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.

michael458

25 April 2010, 16:45

quote:

Originally posted by 465H&H:

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465H&H

Something that needs to enter into the conversation considering various FN solids veering off course, of very import note I think.

First, yes, a FN can and will, and does veer off course in the test work. I have stated many times "Not All FN Solids Are Created Equal" any more than "Not All RN Solids Are Created Equal". We have all seen failures and grand success with both right here on this thread! Of course we see more success with the FN solids, and fewer successes with the RN.

What we have learned, and are continuing to learn, is that other factors, very important factors come into play. One at the top of the list is "Twist Rate" and Actual "Meplat Size for Caliber". Twist rate as we have learned is very important, and as Gerard so aptly

pointed out during the test of the 410 GS Customs that while meplat size, and nose design are excellent, twist rate in my rifles was not fast enough to stabilize the bullet for terminal penetration! Another great example can be seen in Mikes test work in his 470. The North Fork 500 has enough meplat for caliber to stabilize itself during terminal penetration and 1:18.9 twist rate. The 500 Hornady DGS is close, is better than a RN but is having to struggle to stabilize because of the Less than Optimum meplat size! So can a FN veer off course? Yes, it can and it does. Factors come into play that must be addressed and all FN solids cannot be lumped into a single category, anymore than all RN solids can! All factors must be accounted for.

Well just what is the proper twist rates, meplat sizes and so forth? We are learning that right now, but it is not an easy or fast solution. I will state that I believe in my 416 B&Ms that I would be much better off with 1:12 twist, than the standard 1:14s that I have. I am not having much issue with my 1:14s in 458 Caliber with up to 500 gr bullets, but I suspect that even 1:12 would be a good twist rate to have and go with for all purposes, and would increase stability in the 458s. In 470 caliber, I think RIP stated that Art Alphin did the Capsticks in 1:10 for stability issues during terminals, he is most likely correct. My Winchesters in Capstick are 1:10, but lord knows what the barrels are in caliber, loose I think and that is not good. I will be testing the 500 Hornady DGS this week in those guns, but I am very afraid the barrels may not even engrave the bullets, as I have seen this on other bullets in the past, not a good situation in an attempt to have "stability" for terminals! In the near future with a new 475 B&M the issue with barrels will be sorted out for sure, and I will request 1:10 if available. But even 1;12 should do nicely for that.

465HH

While I agree wholeheartedly with your concerns of shooting thru elephant, and especially buffalo in herds, I disagree STRONGLY with the comment that the FN solids CREATED this problem by being too GOOD.

Honestly, and I mean no disrespect, that is a lame excuse. I have hunted both elephants and buffalo in herds MANY times, even back when I was stupid and using RN Barnes solids! Even when I hunt buffalo today with my standard EXPANDING bullet of whichever design or model, I would never shoot a buffalo or elephant if I could see another behind it. I have seen and have expanding bullets that have passed completely through buffalo broadside shots, so are the Expanding bullets TOO GOOD THESE DAYS TOO???? Maybe we should hunt buffalo and elephant with SMALLER CALIBERS and LESS DESIRABLE bullets so we make sure we have no pass thrus? How about we use Nosler Ballistic Tips so that we make 100% sure that on elephant and buffalo we never have that problem and we can make sure we don't shoot anything on the other side? I think that is the solution to your problem with this, we will have someone start making big bore Nosler Ballistic tips and make them to break up as soon as they enter the body cavity.

I think that regardless of bullet design, regardless of solid design or anything else, this factor would ALWAYS be present, and should be considered always. There are no 100% guarantees that this situation cannot happen when hunting with any bullet of proper design for the Heavies!

Yes, I know this happened with you and yes it happened with a 500 Hornady DGS in 458. But it is not the fault of the bullet being too good, and they did not create this situation. To assert that we must all use sub-standard, or less bullets so that we do not have this happen is an exercise in futility and one can make a scenario for any situation.

So what if you are not able to take a shot because you might think it would pass thru? A good shooter and hunter will wait for a proper shot and a proper opportunity to take that shot. If the horn size or the ivory size is just more than you can bear and you must take that shot or forever be heart broken, then I don't think you belong in the bush to begin with! If it is that important, be more patient, more diligent, and let that opportunity for a better shot present itself and put yourself in that position to do so. Yes, it is very possible that opportunity might never be there again, but that is why they call it hunting eh?

To think otherwise, to consider a bullet too good, is reaching for straws and excuses of why they should not be used. I don't buy that at all. Sorry, I mean no disrespect, you are a fine chap, and so is Craig Boddington, but both of you are grabbing for straws and it just does not pan out in my book.

Agree or disagree, it's ok. But that is my opinion, that's my story, and I will damn sure stick to it!

Michael

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michael458

25 April 2010, 17:06

I apologize up front for stealing this statement and post from Gerard over on the other thread concerning penetration discussion in the DR section. But it is extremely relevant here in this discussion, and should be brought to "light" again here.

Gerard
one of us

Posted Apr 25, 2:13 AM Hide Post

FN solids tumble and veer off course frequently. By this I mean proper FN solids, not RN solids with a flat on the nose. I have seen this in testing on media, water, building material stop boxes and also in game. It always happens when the bullet is too long for a given rate of twist. No rocket science needed to figure that one out.

When the length of an FN is properly matched to the twist rate of the rifle, an FN can always be relied upon to give straight line penetration in any animal medium, more frequently than any other nose shape.

As a result of the reduced probability of an FN yawing in target, penetration depth is usually also greater.

If a RN solid does not yaw in target, it may go straight and deeper than an equivalent FN. I will take "relied upon" over "if" and

"may" any day.

www.gscustom.co.za

Posts: 1782 | Location: Port Elizabeth, South Africa | Registered: 12 August 2002

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

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capoward

25 April 2010, 19:30

Very interesting discussion this "too much penetration" from a properly designed FN solid... It would seem from the multitude of test results from this thread that a simple solution to mitigate the "excess penetration" would be to reduce the impact velocity or simply to drop to a lighter weight FN solid...Or perhaps a combination of both. Who knows, the slightly lower velocity/lighter weight FN solid just might result in greater accuracy on the part of the hunter and just might lead to even fewer wounded DG with the first shot. Anyway, just my 2¢ on the subject.

Jim 🤖

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

jwp475

25 April 2010, 19:33

Too much penetration, is that like "having too much money"? Or too much fun? I say bring it on 🤖

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

25 April 2010, 20:01

Doc M,
Oh yeh, thanks for the reminder. Jack Carter's Trophy Bonded Sledge Hammer might have been the "nonmonometal-smooth-shanked" FN "solid" that pushed Gerard over the edge into perfecting it as the GSC FN everyone else is now copying to one degree or another.

I will tell Brian to forget the barrel band sling base if that is any problem at all.
It was only an afterthought, gilding the lilly, just useless weight!

I much prefer the forward sling base to be on the very tip of the stock forend.

Yep, agree with jwp475 regarding "too much penetration" with a solid: Never! ... as long as it is in a straight line from entrance to exit ...

JackPhantomHuckleBerryHoundDog, RIP

465H&H

25 April 2010, 20:19

Jim,

It seems with any choice there are trade offs. The trade off of going to a lower weight bullet at a lower velocity is the loss of momentum (stopping power). Not so much a problem with buff but a real problem in stopping an elephant charge. Face a couple of determined elephant charges and stopping power becomes critical to you. Also I tried to make it clear above that over penetration problems not only occur with FN solids but also RN solids in some calibers.

All of these bullets are good but to put them to best use you must understand how they will each perform and then select the one that does what you need it to do without them unduly restricting your shot options.

465H&H

jwp475

25 April 2010, 20:24

Bullet momentum is meaningless if the bullet does not penetrate deeply enough. Penetration is what is needed to reach the Brain on a frontal brain shot on a charging Elephant. No trade off here with a proper Flat Point solid. NF, GS Custom, Barnes Banded Solid, etc

A 500 grain 458 solid that bend, rivets, and or brakes up has the same amount of momentum as one that doesn't compromise its integrity and penetrates deeply. The latter will work perfectly the former will most likely fail 🤖

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

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- Winston Churchill

jwp475

25 April 2010, 20:27

quote:

Originally posted by Gerard:

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If a RN solid does not yaw in target, it may go straight and deeper than an equivalent FN. I will take "relied upon" over "if" and "may" any day.

This was proven back in the 1800's by the British Engineer Whitworth

The Flat Earther's, have been denying it ever since

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

capoward

25 April 2010, 21:05

H,

quote:

Also I tried to make it clear above that over penetration problems not only occur with FN solids but also RN solids in some calibers.

Yes I saw where'd you'd clarified your comment and I definitely understood that your concern was the multiple-animal thru shot regardless of bullet style used. I believe I have read that Rigby' RN FMJ solids were renowned for their very deep penetration due to extremely thick jackets in the nose and nose radius areas which virtually eliminated the deformed bullet failures that some other manufacturer's suffered.

My comment was directed more towards Michael's and Mike's test results which has demonstrated that a variety of cartridge/ FN monometal bullet weights, calibers, impact velocity, and barrel twist rate combinations can result in 50+" of straight-line within mass penetration when properly tuned to work together.

Basically I believe that the modern hunter by expending a small amount of effort on their part can perform ballistics testing to identify a "very accurate" cartridge/bullet weight/velocity combination that: 1) gives lesser felt recoil to the hunter (to reduce flinching potential for the occasional hunter), and 2) maintaining more than sufficient within mass straight-line for the frontal elephant brain shot (to reduce potential for wounded animals), while 3) also perhaps limiting the multiple-animal thru shot potential.

Perhaps the visual trauma of the bullet impact upon the DG animal from this reduced bullet weight/velocity will be lacking from say the identical combo at a +300fps impact velocity... but if the bullet is accurately delivered and the within mass straight-line penetration is in the 50+" range then the animal should be sufficiently dead from the bullet delivery to make the visual impact trauma meaningless.

Just my 2¢ on the subject. However if my thinking is off in wrong direction then I certainly desire to be corrected and will reorient my thinking appropriately.

Jim 

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

465H&H

25 April 2010, 21:15

Michael458,

You have several times referred to your experiences with RN solids veering off course on game. You may have detailed those

experiences in the past but if you have I missed it. You appear to have had more bad experiences than others and I think it would be valuable to us all for you to detail those experiences. If you have time please list caliber, bullet make, form and construction, chronographed velocity, barrel twist rate, species of game, distance to game, entry and exit points along with major organs or bones hit. Thanks!

465H&H

DWright

25 April 2010, 21:17

Sounds like way too much home work to me.



<http://www.mazamasportinggoods.com>

DWright

25 April 2010, 21:53

OK, can't take it anymore!

The RN vs FN straight line penetration has been fairedly figured out several years back in the world of handgunning. It's just that 'good folk' like Michael has resently been bringing it to light in the rifle world.

Veral Smith of 'Lead Bullet Technology', has written quite a bit about the dynamics of just how and why this works in his book 'Jacket Performance with Cast Bullets.'

The principle is extremely basic and makes simple sence. I retired from construction work after 36 years in the trade. If I wanted to punch a hole in something hard and thick in a straight line, we use something with a flat tip that will dig in and not vere off course; not a round point that has a great tendency to glance off when angles are encountered. Of course bullets do it at a much higher velocity, and yes I understand that a few other factors then come into play here, but the result is the same. Point shape and stability, coupled with sectional density are what create penetration. A RN can and will change it's course depending on the shape and density of the object impacted.

The sharper edge of a FP will dig in and carry the force in a straighter line to the rear of the bullet (the steering end), and therefore maintain a truer course. Very simple! Hell, even I can figure that out.

I've followed Michael's ramblings here for a while, and say he is spot on with his tests. I don't give a damn whether it's a Epolumps head, or a pile of sawdust. The results will reflect the same. The only difficult obstacle to penetrate on this subject, is the obsolete opinions of those that have only used the old and now obsolete RN designs.

The RN designs were created in order to have a better BC then a FP, but more so to feed into the chamber of a rifle more reliably. NOT because they penetrate better. A FP will also create more distruction then any RN of solid construction. The Meplate slaps tissue out from it's middle at a 90 degree angle creating latteral damage that a RN will not. This creates a larger 'perminate' wound channel then a RN.

OK, I'm tired of rambling on here, but I just wish all these old obsolete armchair theorist's would sit quietly, listen, and maybe learn from updated technology.

The frickin world is NOT flat. . . . and that's a GOOD thing!

Now. . . . Michael. . . . where were ya. . . ?

<http://www.mazamasportinggoods.com>

465H&H

25 April 2010, 23:58

Jim,

I agree with almost all that you said including "if the bullet is accurately placed" the problem is that in a charge bullets are not always accurately placed. Ask the most experienced and most accurate PH or client for that matter and find one that has never placed an inaccurate bullet into a charging ele. That would be one rare duck.

465H&H

jwp475

26 April 2010, 00:23

quote:

Originally posted by 465H&H:

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465H&H

Making the Flat Point solid the perfect choice. More wound trauma and staight line penetration. The Flat point is a Win, Win no matter how you slice it, except for the Flat Earth Society 🙄

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- Winston Churchill