

This topic can be found at:

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

michael458

15 January 2012, 02:47

Terminal Bullet Performance

quote:

Originally posted by boom stick:
What did you do?

My New Lab Assistant and I have been CHEWING TEST MEDIUM for two days straight!!!!!!

We spent 3 hours this morning shooting trying to get two different downrange chronos to work, which we NEVER got to work when doing 50 yard terminals today! Finally when we switched to 22 yds we learned it was the wires going from the infared screens to the plug that were bad, the very last thing we tested--On two different chronographs!

It worked all day yesterday just fine!

I like my new Lab Assistant! He takes orders very good! My OLD lab assistant was getting cranky! HEH..... Man I say Jump, this new one asks "How Hi Boss?!" 😊
Sweeps range floors, cleans up, hands and knees looking for blades off the NonCons, records data perfectly, shoots good, I suppose I am going to have to get him a "Lab Coat" as well!

To bad he has to head back to Australia! Maybe he just becomes one of those Aliens? You know, like and illegal alien? HEH HEH.....

Michael

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

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Hog Killer

15 January 2012, 08:34

quote:

To bad he has to head back to Australia! Maybe he just becomes one of those Aliens? You know, like and illegal alien? HEH HEH.....

That would make him a "saltwater wetback". 🇺🇸

Keith

IGNORE YOUR RIGHTS AND THEY'LL GO AWAY!!!

We Band of Bubbas & STC Hunting Club, The Whomper Club

michael458

15 January 2012, 15:32

Keith



Daryl and I have been steady at it for the last several days, doing all sorts of things. However one of the main things I wanted to see is the difference between Standard NonCon vs NonCon + Talon Tip Added. Of course I am talking BBW#13 NonCons. Buffalo Bullets! I was not so much after getting BC numbers, as I was "retained" velocity and how that worked with terminals at 50 yd impacts. Trauma and penetration.

The main test we conducted Friday with the 458 B&M and the 475 B&M I totally screwed up with a bang!

I am going to post the results, however the data on depth of penetration is "Soiled" to say the least. You see, I have been doing the smaller bore Raptors for the most part the last few weeks, and I wanted to be as productive as possible. With the small bores one can shoot 4 bullets into the same medium without any interference or what I am going to term as "Trauma CrossOver" between the holes. One bullet does not interfere or disturb the other, just too small for that. But when you do any of the Big Bore BBW#13s, trying to shoot one above the other by 3 or so inches apart, then the trauma CrossOver does interfere and causes disturbance and even instability. We had the remaining bullets going unstable which has never once happened. Depth of penetration was just crazy varied, and introducing instability it almost or does in fact invalidate the test, especially concerning depth of penetration. So this was a major blunder on my part.

Saturday we corrected this error, not with the same bullets, but with a study concerning the Super Short bullets in .500 and .474 caliber

and things settled down considerably and reacted exactly as I expected them too, straight line penetration, depths with little variance, nose forward behavior and such as that. This was only X2 in each individual test, middle of the test medium and 4 or so inches apart, with no interference from Trauma CrossOver.

Will try and get some of this posted today and tomorrow for you to look at and give you my opinion concerning adding a tip for that first round, and some of the differences we observed.

Michael

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416Tanzan

15 January 2012, 15:47

The changing density of the medium introduces an unpredictable element but one that needs to be considered separately: what kind of instability is created by a changing medium.

For example, we have always known that solid boards cannot test straightline penetration because even roundnose bullets pass the test. So it will be good to know what happens to 'straight line' penetration in changing media. Penetration is not as important on this test as 'straightness'. Solids will certainly penetrate far enough, but will they be straight, rump to front?

+ + + + + + + +

"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.

boom stick

15 January 2012, 16:05

Might have to go old school and paper patch the non con nose in front of the bands so you can achieve neck tension and mag feed the longer nose heavies. Maybe dissect an envelope where the glue is and do two wrap arounds to get the same diameter as the groove diameter.

Should be a fun test.

[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)

michael458

15 January 2012, 16:18

quote:

Originally posted by boom stick:
Might have to go old school and paper patch the non con nose in front of the bands so you can achieve neck tension and mag feed the longer nose heavies. Maybe dissect an envelope where the glue is and do two wrap arounds to get the same diameter as the groove diameter.
Should be a fun test.



Boomy, what in the hell are you smoking this morning?

Either you are smoking, or I missed something along the way?

What are you talking about?

M

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michael458

15 January 2012, 16:22

quote:

Originally posted by 416Tanzan:
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what kind of instability is created by a changing medium.

For example, we have always known that solid boards cannot test straightline penetration because even roundnose bullets pass the test. So it will be good to know what happens to 'straight line' penetration in changing media. Penetration is not as important on this test as 'straightness'. Solids will certainly penetrate far enough, but will they be straight, rump to front?

Tanz

This was all NonCon tests, MASSIVE TRAUMA inflicted with the 458 B&M and the 475 B&M with real BUFFALO BULLETS. Some even got sideways after shearing early on and still went on to achieve "Buffalo Penetration" with ease! Some were close to the top of the test, I think we lost one in the process.

M

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boom stick

15 January 2012, 16:29

If you paper patch the non con in front of the bands you can load the tipped non cons to magazine length. Just a thought. About a half inch wide strip of paper patching might do the trick for those who want to mag feed the longer tipped bullets.
I'll make one up to show you when I get back.

[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)

michael458

16 January 2012, 02:53

What I am about to show you are tests that are in one way "Invalid" because of the method used to test, 4 Big Bore NonCons in one test DOES NOT WORK! But I continued, did it anyway!

What you see is extreme variance in penetration depths, showing instability because of "Trauma Cross Over" from one bullet to the next. Some of the bullets were fired too close to the top of the test medium, this in combination with the trauma inflicted by the bullet below caused instability after they blow the blades. Totally my fault, and trying to be too productive and do too much at once.

The Test? The Purpose?

This test was done at 50 yards using a 458 B&M and a 450 gr BBW#13 NonCon with Talon Tips and Without Talon Tips, also a 420 BBW#13 NonCon, and a 475 B&M with 420 BBW#13 NonCons. What I wanted to see is how much more velocity with the added Talon Tip we would achieve and what that would mean to Terminal Performance.

Of late it has been my contention to use a BBW#13 With Added Talon Tip to retain extra velocity at DG ranges, 50 yds and less. Also I alleged that the extra velocity retained would increase trauma substantially, along with penetration of the remaining bullet. This was put to the test.

475 B&M
1:14 Twist Rate
1/13/2012
420 BBW#13 NonCon
No Talon Tip
Muzzle Velocity 2312 fps
50 Yd Impact Velocity 2122 fps
X2--23 Inches

475 B&M
1:14 Twist Rate
1/13/2012
420 BBW#13 NonCon
With Talon Tip
Muzzle Velocity 2323 fps
50 Yd Impact Velocity 2223 fps
X1--29 Inches
X1--21 Inches



458 B&M
1:14 Twist Rate
1/13/2012
420 BBW#13 NonCon
No Talon Tip
Muzzle Velocity 2279 fps
50 Yd Impact Velocity 2092 fps
X1--22 Inches
X1--23 Inches

458 B&M
1:14 Twist Rate
1/13/2012
420 BBW#13 NonCon
With Talon Tip
Muzzle Velocity 2281 fps
50 Yd Impact Velocity 2202 fps
X1--33 Inches
X1--37 Inches





IMPORTANT ADDED NOTE: I just noticed that I have the VELOCITY reversed on the 458 B&M 450 BBW#13 Tests!

Believe it or not, this was a rather intensive study, taking up many hours on the range. We dug out blades and studied the trauma and wound channels in the first 10 inches of every test page by page by page! Of course after each test a large portion of the test medium was in shreds and had to be replaced and started all over again. Rather tedious and time consuming, which is why I am rather peeved with myself for the instability of the penetration part of this test!

As you can plainly see there is a lot of variance and instability in depth of penetration.

What did Daryl and I learn?

Yes, because the BBW#13 NonCon on average hit about a 100 fps faster with a Talon Tip than without at 50 yards there was a noticeable increase in trauma inflicted. However, it was NOT as much as I thought it might be. In my opinion a Talon Tip is not required by any stretch, but still is not a downside either.

One of the things that we did take note of, and was consistent across the board, is blade behavior at the higher velocity. Blades remained closer to center wound channel for a longer period of time with the Talon Tip installed. We placed witness cards in each test at 4 inches inside the test medium. The one below shows a 4 inch card with standard NonCons on the Left, and Talon Tipped NonCons on the right.



It is pretty easy to see from the witness cards how the blades behaved with and without tip. I do contend that the longer those blades stay relatively close to center, as seen here, that the blades are working with the center bullet chewing and tearing away a larger wound channel, therefore inflicting more trauma. I believe this is more of an action caused by that little bit of extra velocity than because a tip was installed, however I do plan on testing that as well in the near future just to make sure.

In summary I contend there is no downside to having the tip on that all important 1st Shot. But if you do not have a Talon Tip installed, then you are not "undergunned" either! I am not real sure any of the buffalo I shot this past year would have noticed or not, as the mighty BBW#13 NonCon was EXTREMELY SUCCESSFUL without the tip. But I think I might make the effort to have a few Talon Tipped NonCons along with me this year as I have found no downside to a BBW#13 hitting at higher velocity!

Saturdays work is far more consistent than what this test was!

Michael

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boom stick

16 January 2012, 05:08

Flexibility and choice is a good thing.

Cheers for working so hard for the betterment of us all. 🍻🍻🍻

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)

RIP

16 January 2012, 07:12

Interesting to say the least! 🙌🙌

What's not to like about the ESP Raptor, or a talon Tip placed on a heavier DGBR NonCon?

1. No accuracy deterioration.
2. Higher impact velocity, fully +100 fps at 50 yards, and greater benefits at longer range.

3. Greater wounding/lethality at close range and long range.

Explaining the wounding dynamics: I will leave that to the scientists at MIB. I tried thinking about it and it made my head hurt. 😊

Another big experiment for Doc M, another giant leap for mankind. 🙌🙌

The USA may not have much of a space program anymore, but we have Doc M and the MIB, still going where no man has gone before, expanding the universe of terminal ballistic knowledge.

High speed photography in clear ballistic gelatin would be an interesting look at the difference between the tipped and nontipped NonCon terminals.

Maybe some of that idle NASA equipment and personnel could be sent to South Carolina for betterment of mankind ...

prof242

16 January 2012, 08:49

🙌 All right, Gentlemen. Back to work. Yes this has added to man's knowledge on bullets, but you have much more work to do. 😊

.395 Family Member

DRSS, po' boy member

Political correctness is nothing but liberal enforced censorship

pagosawingnut

16 January 2012, 08:53

Michael or Sam,

I loaded some of the CEB's in 500 gr solid today for the .470 Nitro. The noncon's are 460 gr. Do you recommend that I use the same load to begin that I loaded the 500 grainers with?

Thanks

Rick

416Tanzan

16 January 2012, 12:19

OK, now for the ballpark BC's on last week's tests:

475 420 grain
no tip BC 0.186
with tip BC 0.358

458 420 grain
no tip BC 0.187
with tip BC 0.451

458 450 grain
no tip BC 0.189
with tip BC 0.555

The results will become quite significantly different out at 100, 200, 300 yards. Assuming that the tests continue forward, I'll be feeding light-for-calibre, tipped bullets to my rifles.

+ + + + +

"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

16 January 2012, 15:45

quote:

Originally posted by pagosawingnut:

Michael or Sam,

I loaded some of the CEB's in 500 gr solid today for the .470 Nitro. The noncon's are 460 gr. Do you recommend that I use the same load to begin that I loaded the 500 grainers with?

Thanks

Rick

Rick, I do, use the exact same load and give it a try. What you should find is that you will have from 25-40 fps more velocity with the matching NonCon, on average 5000 PSI less pressure as well. You should also see same or very very close the same POI at 50 yds. You can normally get away easy with a grain or two more powder to equal out pressures, add velocity, but POI will rise a bit with the faster NonCon if you do. Normally not enough to be an issue. For now, stay with the same load and check it out.

Michael

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michael458

16 January 2012, 16:07

Most everyone is at Shot this coming week, including Dan and CEB crews. Once that is over, and they have recovered, it's back to work for CEB as well. I expect some big bore Raptors to be knocking on the door before too long, so work here is FAR from getting caught up. In the meantime we have been in a whirlwind of all sorts of shooting activities here for weeks now.

I have many other projects that I am working on as well as some Terminals.

Saturday Daryl and I did another BBW#13 NonCon and Talon Tip test, but this time using two of the Super Shorts, a 50 and 475. Both having some meaning to each of us, Daryl has a 475 Super Short, and I intend to take both Super Shorts to Australia for buffalo testing in August.

This test conducted proper! Two bullets, each test, no Trauma Cross Over effect, no instability of medium!

We did have a MAJOR issue with our Down Range Chronographs! No Readings! Time after Time, change this, change that, bring another chrono down, No Readings! ?????? It was baffling to say the least, and rather aggravating as we needed that down range velocity! Finally we figured out the infrared wire and plug had died, we changed that with another and started getting readings. And, it was the very last thing of course we changed and tried. Something along the lines of 2-3 hours time "shot to hell" you might say! We did manage to get some exercise in, many walks down 50 yds and back just to see if we got a reading or not!





I consider anything from 18 inches of penetration in this test medium to be a Buffalo Bullet!

Michael

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michael458

16 January 2012, 16:32

quote:

High speed photography in clear ballistic gelatin would be an interesting look at the difference between the tipped and nontipped NonCon terminals.

RIP--For sure, I would love to see those blades in action, slow motion action! Dan and I have talked about that, I think sometime in the future he may be able to work something out with that.

quote:

The USA may not have much of a space program anymore, but we have Doc M and the MIB, still going where no man has gone before, expanding the universe of terminal ballistic knowledge.



M

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boom stick

16 January 2012, 17:32

What happens in Vegas stays in Vegas 😊

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)

srose

16 January 2012, 20:15

quote:

Originally posted by michael458:

quote:

Originally posted by pagosawingnut:
Michael or Sam,

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Thanks
Rick

Rick, I do, use the exact same load and give it a try. What you should find is that you will have from 25-40 fps more velocity with the matching NonCon, on average 5000 PSI less pressure as well. You should also see same or very very close the same POI at 50 yds. You can normally get away easy with a grain or two more powder to equal out pressures, add velocity, but POI will rise a bit with the faster NonCon if you do. Normally not enough to be an issue. For now, stay with the same load and check it out.

Michael

Rick,

Yes I use same load as solid. So far this has worked just right.

Sam

pagosawingnut

16 January 2012, 20:28

Thanks Gentlemen!

I will get them loaded and hope for a break in the snow to try them out. I will let you know the results.

Rick

416Tanzan

16 January 2012, 22:08

Well, despite the troubles with the chrono, we do have some data.

However, the data is spread over 22 yards, with probably 18 yards, max, as the chrono separation distance, so the error factors will cause some significant distortion. Still, it is always useful to see the data, and the tips make a big difference.

50 cal, 345 grain
no tip BC 0.142

TIP -- BC 0.326

47 cal. 320 grain
no tip BC 0.131
TIP -- BC 0.222

These were the very lightweight bullets and I think that Dan and the gang will be looking at just a little more weight for true buffalo bullets. These would work in a pinch, but they are marginal in comparison to adding about 25% weight. By the way, the added weight will also be a ballpark figure of the resulting BC.

Thus, a 345 grain .50" calibre bullet with a BC of 0.326 would likely end up something like a 450 grain .50" bullet with a BC of 0.425 (plus/minus the inherent error of such short range testing)

I can live with .425 BC's. There is even room to drop down to 420 grains and still remain a 0.400 BC.

+ + + + +

"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

16 January 2012, 22:38

quote:

These were the very lightweight bullets and I think that Dan and the gang will be looking at just a little more weight for true buffalo bullets.

Tanz

First off, these bullets are designed "Specifically" for the 50 B&M Super Short and the 475 B&M Super Short. 1.65 inch cases, Win M70 WSSM rifles, 16.25 inch barrels, overall length 36 inches, and weigh in at 6.25 lbs.

Standard Buffalo Bullet penetration in this medium, Benchmark Bullets and Cartridge is 458 Lott-various conventional 500 gr Bullets drive from 19 inches to 24 inches in this test medium. Bullets used for this Benchmark Penetration are; 500 Nosler Partition (New Version) 500 Woodleigh Soft, 500 Swift A Frame, 450 Swift A Frame, all driven to Lott Average Velocity of 2250 to 2275 fps.

So the little light for caliber (and they are) Super Short Bullets go to Buffalo Penetration Indeed. And I think they will out perform the damned conventional Benchmark bullets on buffalo too! I intend to find out in Australia this year.

Michael

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capoward

17 January 2012, 00:16

Tanz,

To add to Michael's comments...don't forget the .500 caliber already has the proven 460gr BBW#13 HP NonCon bullets so no need for CEB to recreate another proven buffalo killer bullet in this weight range.

Now for an ESP Raptor with Talon Tips...that's another story altogether. For that I'm thinking overall length rather than weight...something in the range of 1.30"-1.35" length should work just fine in Michael's 500 MDM, the 50 B&M and 50 B&M SA as well as RIP's 49-10. Will have to keep the length to 1.00"-1.08" length to work in the 50 B&M SS. Weight I don't care as the overall length will be the limiting factor. Heck the 500 MDM and 49-10 could easily go 1.40"-1.50" and still work from the magazine but that length would eliminate their usability in the 50 B&M and 50 B&M SA rifles.

Anyway...just saying...HP NonCons are taken care of...ESP Raptors are still being mixed and baked.

That said...I think some FN Solids in the 520gr-530gr range and HP NonCons in the 480gr-490gr range would likely turn the .510 caliber on

its ear...at least for bolt rifles.



Jim

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

michael458

17 January 2012, 00:35

quote:

FN Solids in the 520gr-530gr range

I have some .500 550 gr BBW#13 Solids! HEH.....



M

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Rob H

17 January 2012, 02:37

quote:

Originally posted by 416Tanzan:
OK, now for the ballpark BC's on last week's tests:

475 420 grain
no tip BC 0.186
with tip BC 0.358

458 420 grain
no tip BC 0.187
with tip BC 0.451

458 450 grain
no tip BC 0.189
with tip BC 0.555

The results will become quite significantly different out at 100, 200, 300 yards. Assuming that the tests continue forward, I'll be feeding light-for-calibre, tipped bullets to my rifles.

Question, these BC values you are estimating are for the CEB BBW#13 NonCons, right?

capoward

17 January 2012, 02:48

quote:

Originally posted by michael458:

quote:

FN Solids in the 520gr-530gr range

I have some .500 550 gr BBW#13 Solids! HEH.....



M



I was talking about .510 caliber for Tanz. 550gr in .500 caliber must be for those Texas heart shots at elephant brains!



Jim

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

michael458

17 January 2012, 03:05

quote:

Originally posted by Rob H:

quote:

Originally posted by 416Tanzan:

OK, now for the ballpark BC's on last week's tests:

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Question, these BC values you are estimating are for the CEB BBW#13 NonCons, right?

Rob

Correct. Those are Tanz estimates, probably pretty close. I think his BC program is better than mine!

Capo

Yes, correct, shoot for the rectum, come out the nose! LOL.....

Hey, I got a copy of the new Pierre whatever his name is book at DSC. While I have not read, just sorta skimming through, have not had time yet, it looks GREAT! He has done an incredible job, and right now APPEARS to be the BEST OF IT'S KIND IN 40 YEARS!!!!!! FINALLY it looks like someone is catching on to REALITY!!!!!! And not the same old BS and crap spouted for 40 years!

If you don't have this book, MAKE EVERY EFFORT to get one!

The world as THEY have known it is getting ready to Change! We are doing our part for sure!

Michael

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Rob H **17 January 2012, 03:29**

Has anyone done any testing on BC for the solids? I would assume similar values as the NonCon-non tipped...

416Tanzan **17 January 2012, 13:04**

quote:

RobH
Has anyone done any testing on BC for the solids? I would assume similar values as the NonCon-non tipped...

for Rob--

Something was done a solids a way back in the thread. Yes, it would be ballpark like the non-tip. They will lose most of their zip after 200 yards.

quote:

Capo--
That said...I think some FN Solids in the 520gr-530gr range and HP NonCons in the 480gr-490gr range would likely turn the .510 caliber on its ear...at least for bolt rifles.

I would hope for something lighter than 480-490grain raptor. The 480 grainers would probably like to jump out of the blocks at around 2450fps in the 500AccR and I would prefer something around 2600fps, if practical.

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The Ruger Hawkeye magazines look like an easy capacity up to about 3.4" COL. After that it would take some tinkering and whatnot to try to approach 3.5".

+ + + + +

"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

17 January 2012, 14:32

quote:

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Tanz

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458--300 and 350
474--375
.500--400
.510--425

This will be the first prototype run of big bore Raptors, we will see how they do. Raptors are different than the BBW#13 NonCons--meant for big heavy mean things, like buffalo! Raptors cover everything else lesser. But, Raptors will be INCREDIBLE on the kitties and bears.

M

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

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416Tanzan

17 January 2012, 15:36

quote:

Originally posted by michael458:

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M

I like this.

425 grain in .510" sounds about ideal as a Raptor for that diameter.

"big bore Raptors, we will see how they do."

Yes, we will see how they do.

And I am expecting that they will do fine for buffalo, nyati, mbogo.

.425 grains in .510" should leave a core to go decisively over the 20" mark. We need this little extra surety for buffalo because they don't always stand at 90 degrees facing, sometimes the body may be 110 or 120 degrees away while the head is at 90, and we want the far shoulder smashed, not retaining the bullet, except perhaps for the rubbery skin.

In .458 I would want the 350 Raptor for buffalo. Basically, its sectional density would equate to about a 434 grain .510". It should penetrate in close approximation to the .510, perhaps slightly better as long as its petal weight is not too high.

On .416" the 300 Raptor should be plenty. It would have an equivalent sectional density to a 450 grain .510". We will need to watch the tests on this one, it should be plenty for buffalo and if its petals are not relatively long/heavy for its weight, then it might out-penetrate them all, but only by very little, possibly inside of the margins of error.

So we await the tests, we can collect thoughts after the chips fall. And even the lightest bullets will probably work fine in the field.

PS: it will be useful to have the RESULTING WEIGHT of the core of the bullets as a potential explanatory guide to interpreting the results. Once we have the RESULTING WEIGHT of the core bullet, we can calculate the resulting SD and see how well it, or its (momentum)/(frontal area), correlates to penetration beyond the 2" 'shear' threshold.

PSS: Using comparable SD as a scale and back-calculating from the .510" prototype, I came up with the following as similar SD weights for the various bores:

283 grains for .416,

343 grains for .458,

367 grains for .474,

409 grains for .500, and of course, by definition,

425 grains for .510".

[For reference and consideration of results, the sectional densities may give a fairly linear prediction on penetration, except for the variation in the differing percentages of petal-shearing weight versus resultant core weight.

For equal sectional densities in the various bores, the sectional density relationships require factors of

1.503 less weight in .416 (that is divide the .510" standard weight by 1.503),

1.240 less weight in .458,

1.156 less weight in .474,

1.040 less weight in .500.

Or stated the other way around, building

from a .416 standard, the wider bores will need

1.212 times more weight in .458, and

1.298 more weight in .474", and

1.445 more weight in .500", and finally,

1.503 more weight in .510".]

Perhaps, simply, the proposed SD's would help:

.416" 300 grain is an SD of .248

.458" 350 grain is an SD of .238

.474" 375 grain is an SD of .238

.500" 400 grain is an SD of .229

.510" 425 grain is an SD of .233

all look great for Raptors

and obviously they are all similar, within 4%, at .238 +/- .010.

Let the over-40 Raptor games begin.

-

+ + + + + + + +

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500 AccRel Nyati, 416 Rigby or 416 Ruger, 375Ruger or 338WM, 308 or 270, 243, 223" --

Conserving creation, hunting the harvest.

michael458

17 January 2012, 19:40

Yes Tanz--I too am looking forward to getting my hands on the "Over 40 Raptors", I am SICK TO DEATH of dealing with these small bore bastard things--I hate Small Bores!!!! I just hate them! No, better yet, I DESPISE the bastards! Finicky crap good for rats is all!

Anyway, speaking of SMALL BORES----- 😊

I found this yesterday in the SCI Rag of a magazine, thought it was a bit interesting!



Left to right, 6.5x53R, .375 H&H, .404 Jeffery, .500 Jeffery. In just a few days Boddington observed these cartridges of radically different power levels used on buffalo. All did the job, with the best choices probably falling from the .375 up to the .404 and .416s.

We all thought this was a bit crazy, but we agreed to give it a go...hoping for an ideal presentation and plenty of open ground! A buddy of Bill's, Corbin Shell, necked down .303 British for brass and loaded up some CEB 155-grain flat-point homogenous alloy solids at a modest velocity of 2,325 fps.

It took quite a bit of crawling, but Craig Hamman got Bill a clean broadside shot at about 70 yards. The report of that little rifle is as mild as the recoil, and the bullet hit with an odd slapping sound. He turned immediately into the herd, so no backup shot was possible. The herd moved maybe 100 yards in open ground, then turned. We could quickly pick out Bill's bull from blood on his nose, but before a second shot opened up he lay down...and the herd moved off and left him there. Bill shot him again, a sensible precaution, but he was truly not going anywhere. That little bullet entered centrally right behind the shoulder...and exited the same place on the opposite side!

This was the penetration that early hunters like Stigand, Bell and Selous raved about. It was the first time I've seen it demonstrated on a buffalo, and it was an

That little thing on the far left photo is that 6.5 something or other that Corbin plays with, and of course we know Corbin has a thing for 6.5. He had Dan make a special run of BBW#13 Solids, I have yet to see or lay hands on these! Looks like a copper solid.

I figure they should have done a Brass BBW#13 NonCon--that buffalo would not have made it to 100 yds before laying down I reckon!

Michael

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

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BaxterB

17 January 2012, 21:38

Hmmm...this must have ben Craig's trip to Moz I remember reading about. As a rat-gun fan I'd like to see more stuff on them...hmm, maybe i'll have to visit SC more often and become the rat-gun tester and leave Michael to his big bores...hmmm

capoward

17 January 2012, 22:11

quote:

Originally posted by 416Tanzan:

quote:

Capo--

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Tanz,

The CEB .500 caliber are different from the other calibers with the FN Solid and HP NonCon being as close to the exact same length as manufacturing possible...the 500gr/460gr bullets are 1.328" in length. Perhaps wrongly...I assumed comparable length FN Solid and HP NonCon would weigh within the weight ranges I previously noted.

I'll make two assumptions...both of which may be incorrect:

1st: With the .500 caliber Michael was concerned with bullet overall length to properly work in the 500 MDM and 50 B&M so the FN Solids and HP NonCons were designed to be the same length. This 'same length' was carried over to the shorter bullets for the 50 B&M SS. Finally band adoptions were made for the lever guns.

2nd: All other caliber bullets gave consideration to traditional weights for potential use in DRs which resulted in different bullet lengths for FN Solidarity and the HP NonCons. So bullets weights are projected which results in the HP NonCons being longer than the FN Solids.

As we know from Michael's testing as well as from field results...both methods work very well.

So if bullet length is the primary concern then the bullet length needs to be the primary specification and let the bullet weight(s) fall where they fall. At least that's my way of thinking.

Jim 

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

John Wayne

michael458

20 January 2012, 00:04

I started fire forming brass only about 15 years ago. So not all that long. Most of what I was doing then was with corn meal. I would take 375HH brass, 15 or so grs of Bullseye, toilet tissue on top of that, pack the case full to the top with corn meal, then tap it off with a piece of toilet tissue to hold everything in place. Shoot it outside in the rifle, and damn near perfect 458 Lott brass would come out of the rifle, ready to load.

Then I had a bunch of 416 Remington brass, learned that is was even better than the 375 HH. So I did 416 Remington into 458 Lott brass from then on. Then I had those 470 Capsticks, same story, took 416 Remington, blew it out to 470 Capstick. Worked great, but it is labor intensive.

I still use the corn meal today to blow out 375 RUM to 500 MDM. I gave several classes on that over the last few weeks, to Paul, Daryl and Andrew, just in case they ever need to do any. It's cheap and very easy to do. Just labor is all.

Sam was involved I am pretty sure in one of my "Classes" to one of the guys, and he was urging me to just get Dan to make some fire form "Bullets" for me. I have heard of this sort of thing, but never used it. In other words, if you have a 375 RUM for instance, you want

to take to .500 caliber, then you have to have a bullet with a .375 shank, and then for the bore that bullet must be .500 caliber. Load, shoot the bullet, instant brass. Even more simple than the corn meal, and not quite as messy too. In addition, you could actually use this bullet to hunt antelope or deer or something such, while making brass at the same time. Multi Use!

Sam probably knows I am a little slow on getting some things done, depending on the work load here, so a few days ago I get a little package in the mail? Hmmm? He had already taken several .500 caliber 460 BBW#13 NonCons, turned the shanks down to .375 caliber, leaving 3 driving bands at the top in .500 caliber, Fire Form Bullets! Little bit ugly too! HEH.....

Man, I had to try them you know, my curious nature got the best of me, and Sam knows this is so, that's why he sent them! He knew I might not bother to do any with Dan, but he knew I could not resist it if I had them in hand!

It took a couple of bullets to figure out how much H-322 it was going to take to accomplish the mission, 88 grs did a good job without stressing the brass.



How do you like the looks of that cartridge? The loaded one? UGLY! LOL.....

OK, well how about bullet performance?

500 MDM
1/19/2012
1:12 Twist Rate
388 BBW#13 Fire Form Bullet
Muzzle Velocity 2520 fps
22 Yd Impact
X2--20 Inches Dead Straight

photobucket



X2--20 Inches Dead Straight



Surprised me, because of the velocity, massive massive trauma inflicted from 2-8 inches, blades sheared normal, blades found from 5-8 inches, normal. Drove dead straight to 20 inches. The retained weight was 273 grs.

For those of you that would like to have fire form bullets, just figure out what you are after and it can be done. I think I will get Dan to make up a few hundred of these for me!

Michael

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CCMDoc

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M



I thought you said you were going to be testing **Big Bore** Raptors ...



NRA Lifer; DSC Lifer; SCI member; DRSS; AR member since November 9 2003

STILL waiting for my Taksdale double or a refund

Don't Save the best for last, the smile for later or the "Thanks" for tomorrow

michael458

20 January 2012, 00:20

quote:

Whistling Whistling Whistling

I thought you said you were going to be testing Big Bore Raptors ...

Dan has to make some first!!!!!!

CEB Crews are busy at Shot Show all this week, they left last week. Driving, they had so much stuff to carry out there. So.....

M

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capoward

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Michael

LOL 🤔 Sam definitely has your number!!! 😊 And they're definitely fugly...

Oh..Oh... I've got it. A brand new series of bullets for Dan...ta da... the new **FFB Raptor!** (or would that be **FFB HP NonCon?**) Slight boat tail on the reduced shank and you can use Talon Tips for enhanced down range performance!!!

What we need are some .423 caliber FFB Raptors with the shank cut down to .338" to send to RIP and have him test them in his .423/.338 Lapua at 300yds (and beyond if possible). This could make fire forming into a whole new category of fun as well as hunting. 🤖

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

boom stick

20 January 2012, 02:20

I never want to hear a complaint on any of my ideas after seeing that. Lol! 🤖 🗨️

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)

capoward

20 January 2012, 02:42

Boomy...are you still at the Shot Show? I heard there was good traffic at the CEB shooting lane on Media Day and that you really enjoyed shooting Dan's 416 Barrett at 930yds.

Jim 🤖
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John Wayne