Terminal Bullet Performance

The Accurate Reloading Forums

This topic can be found at:

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

capoward 28 December 2011, 03:49

Terminal Bullet Performance

quote:

Don't need tips in a double, long range is 50 yards

While true, don't the tips enhance the terminal penetration of the Raptors; i.e., deeper penetration by sheared petals and by remaining shank? And if so, wouldn't the use of the tips be beneficial against heavy boned DG such as buffalo?



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

John Wayne

srose 28 December 2011, 04:02

Pointy bullets in a double are worse than round noses!

boom stick 28 December 2011, 06:42

Sam, is it worth it to you to throw a tip in the lathe and make a shorter ogive to 13 degree tip?

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

we band of 45-70ers (Founder)

Single Shot Shooters Society S.S.S. (Founder)

rose 28 December 2011, 06:47

How about a round nose tip! HEE HEE

boom stick 28 December 2011, 06:52

Well it would please the RN crowd 😂

It would just help petal sheer and increase BC but the ogive would be the best length and BC compromise. Let's have fun with it!

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

we band of 45-70ers (Founder)

Single Shot Shooters Society S.S.S. (Founder)

capoward 28 December 2011, 06:54

quote:

Originally posted by srose:

Pointy bullets in a double are worse than round noses!

How about a semi-spitzer tip?



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

John Wayne

boom stick 28 December 2011, 07:09

On those .510"s a round nose could add only .2"ish to the length or less.

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Single Shot Shooters Society S.S.S.S. (Founder)

drewhenrytnt 29 December 2011, 13:45

Michael,

Better watch out. Child labor laws are gonna get ya' in the same way they want to cease children from working family farms!

We Band of Bubbas N.R.A Life Member TDR Cummins Power All The Way michael458 29 December 2011, 14:18

Yes Drew, we already have big issues with the DOL, in fact have an active lawsuit against DOL now! So those guys in the "Dark SunGlasses" might come knocking on my door any day now! HEH....... I am not too worried, I will just put Mercedes on their ass, she will sort them out in short order!

Tips Tips Tips! Lot's of discussion about tips! Me too. I have been in lots of discussion about tips with Dan all week. I think shorter tips, but I don't know for sure. I am going to try some tips I whittled down to different lengths with a "bastard file" today in the 9.3 210 Raptor. This tip thing is from one bullet to the next, and it does not seem to be something that carries over from one small bore to the next either. So one perfect length does not seem to be there?

Example, this .224 Raptor has been giving fits in the accuracy and stability arena. The other day I shot the second prototype 40 Raptor with both a new longer tip designed for it and the older shorter tip designed for the first Raptor. New bullet shot 5 rds in 1 hole with the old short tip! New longer tip, New Raptor, shot 5 rds in 3/4 inch! Big Big Difference!

The big news on the .224 Raptors is that Dan, myself, and Sam (which has been pushing this) decided the .224 Raptors will be different. Basically a BBW#13 NonCon, with bands pushed forward for seating and using with a Talon Tip fitting in most magazines. They will have a rear driving band to stabilize. This will end our issues with .224. 40 gr and 50 gr.

Other calibers are going forward with the Raptor as is so far. I shot the first prototypes of the new 100 gr 6.5 Raptor yesterday. VV EXCELLENT. I don't think this rifle ever shot so good. Just picked a load I had for a 120 gr TSX, 62/V-560. Loaded 2 as NonCons, two with Talon Tips, and 2 Solids. All 6 rounds landed in the same hole at 50 yds, with the two solids maybe .15 to the right side of the hole, still in the hole. There is zero issues with accuracy or stability with these! Looks like they are a GO! I am going to run some in Mom's 6.5X55 next day or so and see how they do as well.

Dan and company will work with the others, .277 and .284. I don't do these calibers at all, sorta like the .375 thing. Yes, I am a bit, eccentric? Some things I don't do.

Tips! Tips are showing excellent in the terminals, no doubt about it. I am sure there are some dynamic action going on between the tip and the bullet once terminals start. However there are other considerations as well, you are hitting with far more velocity retained as well, and we all know the BBW#13 NoNCon profile, Likes velocity. I think this is a big factor to consider along with the dynamic action between tip and bullet.

We will be doing some work in the coming weeks on retained velocity with and without the tips at 50 yds with many of the bullets, especially the bigger bores. That little extra retained velocity and hitting power might make a difference on that first shot. Let's find out!

Michael

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

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srose 29 December 2011, 19:14



First blood with 500 NE Sabatti with a 535 grain Non con. Neck shot at 70 yards as deer was standing dead away from me looking back over her shoulder. Love my peep sight.

Sam

chuck375 29 December 2011, 19:41

Sam how do you like that Sabati in 500 NE? They just got a good writeup in American Rifleman ...

Regards,

Chuck

"There's a saying in prize fighting, everyone's got a plan until they get hit"

Michael Douglas "The Ghost And The Darkness"

Chuck, So far I'm liking it pretty good. Yes I've had to do a little work on it but overall I'm pleased. I love the light weight and when I shot that deer it felt like shooting a 30-30.

Sam

Sorry. This Image Is currently Unavailable On photobucket

OK when I shot this deer it was facing away from me and had its head turned looking back at me. I shot for the neck and the deer dropped. It flopped down a hill and when I got to it its head was up. I shot it again through the shoulders. Both shots with CEB#13 Non cons 535 grain .510 loaded at 2150 fps. When cleaning the deer I found that the first shot went through the fleshy part of the neck and missed the neck bone, however a petal from the non con split the vertabrae and caused the shock. If it wouldn't have been for a non con I'd be tracking right now. You will notice petal in the hide in photo from finishing shot. Found 2 petals in the hide.

500 NE overkill for deer NAAAAAAAAA!

Sam

capoward 29 December 2011, 21:14

Nice deer Sam...especially with the first-prototype .510 caliber Raptor!!

Michael,

You'd mentioned stability problems with the 55gr Raptor but thought the 40gr Raptor was a success. So do I understand your comments correctly that neither .224 caliber Raptor will be reversable?



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

John Wayne

srose 29 December 2011, 21:50

Capo, No this was with a standard non con!!!!!!!

capoward 29 December 2011, 23:33

quote:

Originally posted by srose:

Capo, No this was with a standard non con!!!!!!!

Well...it's still a nice deer!



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

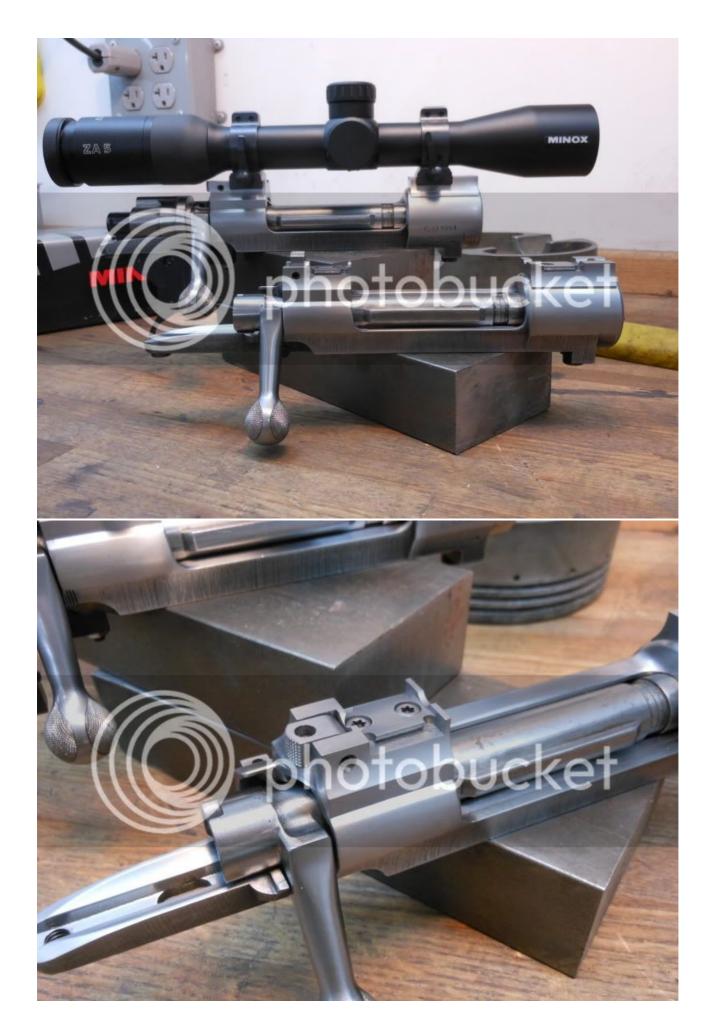
John Wayne

srose 29 December 2011, 23:48

Thanks Jim, It was fun!

capoward 30 December 2011, 04:11

Was just looking at Sam's peep sight over on the DR forums - $\frac{\text{http://forums.accuratereloadin...701030961}}{\text{forums.accuratereloadin...701030961}}$ so thought I'd post a couple of photos of the folding ghost ring peep sights that Steve Button has made for my two Mauser actions...





I'm extremely pleased with how they've come out.



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

srose 30 December 2011, 06:22

That's a nice looking peep sight.

BaxterB 30 December 2011, 06:51

capoward,

I have been designing a peep like that in my head for about a year...damn if I;m not a day late and a dollar short...again. Steve and I must have met on the astral plane or something...

capoward 30 December 2011, 07:41

quote:

Originally posted by srose: That's a nice looking peep sight.

Thanks Sam...I'm really pleased with how they came out.

Jim 🕮

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

capoward 30 December 2011, 08:02

quote:

Originally posted by BaxterB: capoward,

I have been designing a peep like that in my head for about a year...damn if I;m not a day late and a dollar short...again. Steve and I must have met on the astral plane or something...

Steve and I opened discussion regarding a folding peep sight for my Mauser build just over one year ago and I imagine that I caused him much gastritis with the desire that the peep sight to be integral with the rear scope base (wanted to eliminate the rear barrel sight as eyesight isn't what it once was), having it all fit on the rear bridge of a M98 Mauser (which is short in comparison to many newer actions), and then wanting the scopes to swap between the two rifles without issue. I understand after much measuring and a number of prototypes later Steve had a good final prototype model that he further refined for the peep sight/scope mounts that are pictured. I'm most happy with the result.



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

SGButton 30 December 2011, 11:00

Glad you like them.

"There is a bloody brave little animal called the honey badger in Africa. It may be the meanest animal in the world. It kills for malice and for sport, and it does not go for the jugular-it goes straight for the groin. It has a hell of a lot in common with the modern American woman."

Robert Ruark-The Honey Badger SGB7x57@Gmail.com 360-918-8283 NRA Life Member SCI Life Member

WANT TO RETURN TO AFRICA CLUB Life Member

boom stick 31 December 2011, 15:44

Making a point.

What if the Talon Tips were copper?

Probably better than brass.

This idea would be an option not a replacement.

A "Copper Top" Talon tip would act like a cam in the petal sheer and add 10 to 15% more weight if desired.

The copper tip would do all that the plastic one does but would be an added projectile.

Making them should not be difficult for CEB since the dimensions would be the same or a slight shaft mod.

Thoughts?

Worth testing?

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michael458 31 December 2011, 16:30

Boomy

Very expensive production issue with brass or copper tips. Not a bad idea, and we have been over that very thought, but in the end I don't think worth the effort. The nylon or plastic or whatever these tips are are doing a great job now, and I see no reason to screw with it. In the end I think it would be cost prohibitive for the value provided.

But I ain't always right either! HEH.....

Yes, have been busy here for sure the last few days. Paul Truccolo and his wonderful wife have been here visiting and I have been getting Paul up to speed on loading and messing with the 500 MDM. We have been on the range most of the time busting caps on the various B&Ms, loading and things like that. Sam came yesterday to visit with us, and we stayed busy shooting his 500 Nitros and messing with those a good bit.

I will report for all right now, right here, and for all to see, That 500 Nitro Sabatti that Sam has is a DAMNED DANDY rifle! It shoots great, it regulates with BBW#13s, and it weighs less than most 500 Nitros, which I like a lot. It does not have ground down muzzles, it was done up proper and sure seems to be a dandy piece of work, especially when you take into account the "For The Money" Factor! But what I like the most about Sam's Sabatti is that wonderful peep or ghost ring sight he made for it! Sam is a Genius with these things I tell you! Even I can see with it good enough to hit buffalo at 25 yds! HEH..........

No, I don't want one yet, those two barreled duct taped together things are still too finicky for me, and just seem a little "delicate" when compared to a real rifle like a Winchester M70!





Anyway, what the hell do I need to spend that much money on double rifles--I have Sam and he has more double rifles than the both of us can carry in a wagon anyway!

We did a quick test on the 520 gr Raptors Sam fashioned up in the 500 Nitro yesterday. It was not an official test as I only had some shot up test medium we quickly put together, and I even had some very ugly DRY and hardened thick catalogs in the back of the box I had forgot about. So it was not an official test that I could even post here. Can tell you that it drove to 52 inches, dead

straight, lost stability and went to 54 inches hitting that hard material in the back. I only had about 55-56 inches total mix in the box to begin with. So they did well, this was the solid end doing the work. Velocity was also very low at 2000 fps at the muzzle end, no down range velocity taken. Just FYI, more test work will be coming on that.

OK, it's off to the lab and the range for the day!

Michael

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01 January 2012, 07:33 capoward

Happy New Year everyone!!! I wish for everyone to have a much better 2012 than they had for 2011!



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

01 January 2012, 08:08 boom stick

2011 was an amazing year. A renaissance if I may say so. May 2012 be even better.

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

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

02 January 2012, 00:00 Phatman

Do we need Michael to roll around in bullets again, you know for luck??? Just asking

Cheers, John

Give me COFFEE and nobody gets hurt

boom stick 02 January 2012, 01:33

The annual rolling in the bullets lol.

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

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capoward 02 January 2012, 06:25

Perhaps this year Michael could be descretely covered while rolling around in bullets and Paul could take a picture to post it for us! Maybe one of those annual photograph kind of things...



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

02 January 2012, 19:47 I Bin Therbefor

Gentlemen, please, there is a young lady present as Michael's lab assistant.Restrain yourselves. 🤤

capoward 02 January 2012, 21:22

auote:

Originally posted by I Bin Therbefor:

Gentlemen, please, there is a young lady present as Michael's lab assistant. Restrain yourselves. 🤩



Yep your correct. Guess Michael will have to wait until Mercedes goes back to school!



michael458 02 January 2012, 22:04

You guys are on the wrong thread for "Porn", that is somewhere below in another forum I think! HEH......

Damn, I just got a load of 5000 BBW#13s too! Could have spread them out on that elephant leather I have, and................. Well, you get the "picture".



Headed off to Dallas come Wednesday, so I will be totally offline on "On the Floor" Thursday looking for my AR buddies! Chit Chat and BS until days end Saturday!

Andrew and I will be doing some loading and shooting tomorrow on the range, but probably no serious test work.

Michael

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I Bin Therbefor 05 January 2012, 23:21

Here we go.

"On December 2, 2011, U.S. Military, government and industry officials witnessed a demonstration of a new missile warhead casing material at the Naval Surface Warfare Center (NSWC) in Dahlgren, Virginia. The material, known as High-Density Reactive Material (HDRM), is the result of collaboration between the Office of Naval Research (ONR), NSWC Dahlgren and NSWC Indian Head Divisioncan and can be employed within existing designs, but with added destructive power.

When a steel casing is employed, kinetic energy is dissipated through the target on impact. HDRM will also dissipate kinetic energy but the material disintegrates within the target with an additional release of chemical energy. That is, damage is caused to the target not only by a high speed collision with dense material, but by a release of further energy as the material reacts.

Dr. Jason Jouet of the NSWC Indian Head Division stated, "with the strength of aluminum, density of steel, and more than one and a half times the energy of TNT, HDRM is truly a revolutionary enabling technology."

It should be noted that the comparison of the material's strength with aluminum here is likely in reference to strength per weight, not volume which is significant considering the material offers the same density as steel. Likewise the comparison with TNT refers to the energy released as the material reacts in a high-speed impact.

Why HDRM?

The implication of the technology is that a given target can be destroyed more easily as the material increases the probability of what is termed a "catastrophic kill." As Dr. Jouet states, "this approach may translate to less ordnance and ultimately fewer sorties to get the same result."

It should also be noted that the material will not explode unless involved in a high energy collision, which presents an obvious safety advantage over chemical explosives. Also, as fragments of the casing material explode on impact, there is likely to be less collateral damage effects as compared with the use of existing materials.

According to the BBC, HDRM is a combination of metals, polymers and oxidizers. The only apparent disadvantage of HDRM in comparison to existing materials appears to be its cost, with HDRM being some three to four times as expensive. HDRM may also have implications for improved interception of hostile missiles. With time, the material may be used not only for missile warheads but

for large caliber small arms rounds and other similar applications."

boom stick 06 January 2012, 02:44

Interesting.



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michael458 10 January 2012, 15:57

Good Morning Boys!

Hope all has been well with everyone!

We returned from an incredible trip to Dallas and DSC! A great time had by all, wonderful things to see, great people to talk with, and many greats from AR in attendance. We all had a great time. It just don't get any better!

I have to extend a special thanks to my friend Retriever, who always has the warmest welcome for all AR members and works hard to make sure everyone around him has a good time! Thanks Mike!

We had a great AR Dinner on Friday, the room was completely full from one end to the other! I got to meet some of you guys for the first time, and visit with many of you again from last year! Our little Saturday evening get together was just as fun as well!

I tell you now, all you guys that don't come to DSC are missing out! I know it can't always be arranged to attend, but you really should make an effort if you can, it's an incredible show to begin with, but the friendly atmosphere won't be found anywhere else at any other show, I have been to all of them, I know. AR in heavy attendance and what a great group! Make an effort next year if you can, you won't be sorry!

I regret not getting to meet more of our AR Brothers! Seems I missed many of you! I did get to visit with my buddy Mike70---whatever the rest of those numbers are (HEH--Can't ever remember all those numbers) LOL..... Damn, why don't you pick a caliber or something, I can remember? And of course his wonderful wife Katherine, and got to hear all about the really desperate, gruelingly difficult, 3 HOURS they spent in a leopard blind to shoot a stinking ass leopard! Thank you, really wanted to hear all about that

again! I hate leopards! Not sure I like Mike anymore either, 3 hours! Give me a break!



Got to meet my buddies ledvm, hog killer and lionhunter and Carl as well, which I enjoyed greatly. Just did not get to spend enough time with any of them! Saw my buddy Cross and we had a few good conversations, spent time with our boys from North Fork, of course we talked bullets, Dan, Nathan and Randy from Cutting Edge Bullets were in attendance and yes, we talked a lot about bullets as well! Karl and Walter, we always have to visit with these two, heh.... what a hoot! I think Walter is planning a visit in the coming weeks to the "Lab", so we are looking forward to that! Special thanks to David at Gray Ghost Safaris, which we use as a "Base Camp"! Thanks David! I of course had Andrew500 and SRose with me, Paul Truccolo and wonderful wife Deidre which visited with us just before DSC, and of course we spent a great deal of time with them at the show and other activities as well. Visited with Aaron Neilson at his area, the HHK boys, and my friend Richard Cooke and wife Belinda too. Also talked to the Judge, great guy, he let me know quickly his Hornday Factory Ammo was doing a great job, and the price was right--HEH HEH.... There are many more and I could go on, let's suffice to say, we all had a great time, thanks to AR and DSC!

OK, we will soon be back to work in the next day or two. I spent yesterday just trying to catch up a bit. I have some "Lab Assistants" here, Meplat and Andrew500, Andrew has to leave back to Africa tomorrow, will be hunting on Friday! Whew.... Meplat (Daryl) is here from Australia for the week and he has volunteered himself to do some heavy lifting for me! Off the top of my head we have some great big giant 525 gr Cast bullets to test, sent from Hog Killer, so we will put that together, got to put some test media in the box, get it soaked and will start those tests maybe by tomorrow, Thursday latest. We have some BC tests to conduct with some of the BBW#13 NonCons, big bores, with some new tips that Dan and Nathan provided. We have the latest prototypes of the new 223 Raptors, they will be given a complete workout and see what happens with them too. I am sure there is more on the bench to be sorted out and start work with too.

So lot's of work coming up, I think Dan is sending some prototype Raptors (hopefully some big'uns) this week so we can get started into big bore Raptors. I bet you right now, the big bore Raptors will be much easier to sort out than those "Rat Raptors". HEH HEH>.....

So Stay Tuned, We Ain't done Yet! HEH..... And they want me to write a book! LOL..... With that sort of Grammer? LOL.....

Michael

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boom stick 10 January 2012, 18:00

Sorry I missed the party I should go next year.

Sounds like you had some good company and a good time Michael.

A book? What would it be called? "Bullets and Grey Goose"? Hell with all the important info here it should be a set of books. Not too heavy on technical boring theory but performance and the journey to making the best bullets on the market. There are many books on guns and cartridges but how many on Bullets? A huge task and the story is still being written. Maybe when Michael retires 😂

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Hog Killer 10 January 2012, 19:52

auote:

we have some great big giant 525 gr Cast bullets to test, sent from Hog Killer,

It was great to me you FtF, Fri and Sat nights. Also to meet Dan from CEB.

Keith

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

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

michael458 11 January 2012, 00:08

Hi Hog!!!!!

Yeah, I will check them out the next day or so, and try to get some in the box. We have not met our goals today, but steady working at it. Teaching the guys how to blow out cases with corn meal right now. Soon as they get some loaded we are headed to the range. After that, making two full new boxes of test medium and getting it ready for tomorrow and Thursday. So by then I will have them weighed, recheck the velocities you needed, and see what we can come up with.

Man, I had a great time as well! I am sure we can do some pretty good things in the future! And looking forward to it too!

OK, gotta go before my Australians and South Africans blow themselves up!!!!!!



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Hog Killer 11 January 2012, 00:38

quote:

gotta go before my Australians and South Africans blow themselves up!!!!!!

You have to keep a eye on those two boys, they are from way back in the "sticks". and need some supervision. I would not be suprised of eletric lights were "new" to them.

Keith

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

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