

# THE ACCURATERELOADING.COM BIG BORE FORUMS



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## Terminal Bullet Performance Login/Join

**465H&H**  
One of Us Hide Post

posted 18 July 2010 19:59

Michael,

i am still here but just haven't had anything significant to contribute.

465H&H

Posts: **5686** | Location: **Nampa, Idaho** | Registered: **10 February 2005**

**RIP**  
one of us Hide Post

posted 18 July 2010 20:37

quote:

Originally posted by michael458:  
... **big fan of "Blowing Petals" off**. The bullets I use in the .500s are not annealed, so at velocity they will blow. Brass will blow at much lower velocity and in an even pattern time after time. Now I can only assume that the brass bullets blowing their petals will inflict that same sort of trauma to animals, but have yet to have a chance to use the brass ones. I will at some point soon. But I have invested pretty heavy in the brass ones, and have a .500 470 gr version in the works now in brass to assure those petals shear.

I think that would be extremely traumatic to old simba, in fact I can seem him leaping straight up in the air now, and hitting the dirt stone cold! Yep, having a vision!

Michael

Ditto. 🙄  
The S&H brass monometal NonCon VeloHexploder .395/310-grainer loses all petals reliably, leaving a cylindrical penetrator remnant tough enough to hold together on a straight path, whether at 1600 fps (tested) or 2800 fps (tested).

The copper monometal GSC HV .510/450-grainer driven at 2800 fps is also a NonCon petal blower.  
However, at impact velocities of 2500 fps and lower, it is likely to retain all petals, in water or soft tissue impacts.

I want to kill some game with those two bullets.  
I will back them up with what I believe to be two of the best possible solids:  
S&H .395/330-grain Brass FN  
S&H .510/535-grain Brass FN

Yep, ditto the petal shedding.  
Saeed's copper Walterhogs will retain petals at long range impacts, not up close with high velocity impacts, but they work great either way.  
Gotta be so, since he has safaried way past scientific significance.

Posts: **28032** | Location: **KY** | Registered: **09 December 2001**

**buffalo**  
One of Us Hide Post

posted 18 July 2010 21:17

quote:

Originally posted by rose:  
Like you I never get bored trying something new. Whats next after this?  
Sam

You can count me in that club as well 😊

Posts: **873** | Location: **Denmark** | Registered: **04 January 2005**

**Macifej**  
One of Us Hide Post

posted 18 July 2010 23:49

quote:

Originally posted by RIP:

quote:

Originally posted by michael458:  
... **big fan of "Blowing Petals" off**. The bullets I use in the .500s are not annealed, so at velocity they will blow. Brass will blow at much lower velocity and in an even pattern time after time. Now I can only assume that the brass bullets blowing their petals will inflict that same sort of trauma to animals, but have yet to have a chance to use the brass ones. I will at some point soon. But I have invested pretty heavy in the brass ones, and have a .500 470 gr version in the works now in brass to assure those petals shear.

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Gotta be so, since he has safaried way past scientific significance.

Max observed the HX scrambled the internals of his Elk a few seasons back ...

Posts: **13301** | Location: **On the Couch with West Coast Cool** | Registered: **20 June 2007**

<p><b>MJines</b> One of Us</p> 	<p>posted 19 July 2010 00:05 <a href="#">Hide Post</a></p> <p>quote: Originally posted by 465H&amp;H: Michael, I am still here but just haven't had anything significant to contribute. 465H&amp;H</p> <p>When did that ever stop 90%+ of the other folks that post?</p> <p>Mike</p> <p>Posts: <b>20471</b>   Registered: <b>03 January 2006</b></p>
<p><b>michael458</b> One of Us</p> 	<p>posted 19 July 2010 00:28 <a href="#">Hide Post</a></p> <p>Well here is how I look at the copper non cons that I use. Lower velocity, the petals hang on, big expansion, 6 blades, kill very effectively, so really no down side if petals retain, they become just conventional. I personally believe at this point in time that when the petals shear at that moment it inflicts greater trauma to the target. Now with the copper petals they do not shear at one time, but throughout the length of penetration, and they stay in the same wound channel. Now the question is this, does that matter, is that good or indifferent? With the brass HPs they shear at a consistent rate and the petals move away from the center wound channel, creating 6 smaller wound channels as they move away from center. Is that better, or inflicting greater trauma to target? I don't know, YET. Next little foray I am on I will be using brass HPs and gathering data, and even more important watching animal reactions to taking these! I have no doubts about the effectiveness and the penetration and so forth. Only thing I care about digging around in flesh for is to see where those petals shear inside the body, and how far they go in the body.</p> <p>I know the brass petals shear consistently in the test medium at 2-3 inches, time after time after time. That should equate into 4 inches inside the body cavity. The petals penetrate in the test medium from shearing to as far as 8 inches, which would mean the petals could penetrate on their own at least 5-8 inches in animal tissue. This to me is amazing seeing how they have little weight behind them.</p> <p>With that being said I have more interest in watching animal reactions to taking the bullet, and how much trauma is transferred to the target.</p> <p>I believe strongly in the non cons and their ability to inflict trauma upon the target. Penetration of the remaining slug being deeper than conventional expanding bullets effects tissue that would not be effected with a conventional expanding. More tissue destroyed, the better.</p> <p>Michael</p> <p><a href="http://www.b-mriflesandcartridges.com/default.html">http://www.b-mriflesandcartridges.com/default.html</a></p> <p>The New Word is "Non-Conventional", add "Conventional" to the Endangered Species List! Live Outside The Box of "Conventional Wisdom"</p> <p>I do Not Own Any Part of Any Bullet Company, I am not in the Employ Of Any Bullet Company. I do not represent, own stock, nor do I receive any proceeds, or monies from ANY BULLET COMPANY. I am not in the bullet business, and have no Bullets to sell to you, nor anyone else.</p> <p>Posts: <b>8426</b>   Location: <b>South Carolina</b>   Registered: <b>23 June 2008</b></p>
<p><b>michael458</b> One of Us</p> 	<p>posted 19 July 2010 00:35 <a href="#">Hide Post</a></p> <p>465HH</p> <p>Hey, good thing, glad you are around, hopefully this week will sort the meplat test out that you instigated some months ago!</p> <p>MJines</p> <p>FUNNY! And So true!</p> <p>Now, meplat test this week. Soon modified cup point tests to check for limited penetration solids. Then 577 tests coming up for some of those big solids Sam has been turning. That should be good for the double crowd. Multi bands, I am no expert on doubles, but would sure seem to be logical that multi band solids would be much safer than a steel jacketed FMJ, or at least it seems to me, less bearing surface. But what do I know?</p> <p>M</p> <p><a href="http://www.b-mriflesandcartridges.com/default.html">http://www.b-mriflesandcartridges.com/default.html</a></p> <p>The New Word is "Non-Conventional", add "Conventional" to the Endangered Species List! Live Outside The Box of "Conventional Wisdom"</p> <p>I do Not Own Any Part of Any Bullet Company, I am not in the Employ Of Any Bullet Company. I do not represent, own stock, nor do I receive any proceeds, or monies from ANY BULLET COMPANY. I am not in the bullet business, and have no Bullets to sell to you, nor anyone else.</p> <p>Posts: <b>8426</b>   Location: <b>South Carolina</b>   Registered: <b>23 June 2008</b></p>
<p><b>michael458</b> One of Us</p> 	<p>posted 19 July 2010 16:54 <a href="#">Hide Post</a></p> <p>Where is my other test partner here, Mike? Damn, guess he is up on african discussing the latest in proper safari wear!</p> <p>If you lurk by how about a meplat opinion based on your experiences?</p> <p>Michael</p> <p><a href="http://www.b-mriflesandcartridges.com/default.html">http://www.b-mriflesandcartridges.com/default.html</a></p> <p>The New Word is "Non-Conventional", add "Conventional" to the Endangered Species List! Live Outside The Box of "Conventional Wisdom"</p> <p>I do Not Own Any Part of Any Bullet Company, I am not in the Employ Of Any Bullet Company. I do not represent, own stock, nor do I receive any proceeds, or monies from ANY BULLET COMPANY. I am not in the bullet business, and have no Bullets to sell to you, nor anyone else.</p> <p>Posts: <b>8426</b>   Location: <b>South Carolina</b>   Registered: <b>23 June 2008</b></p>
<p><b>416Tanzan</b> One of Us</p> 	<p>posted 19 July 2010 19:04 <a href="#">Hide Post</a></p> <p>Off-thread:</p> <p>I've never tried to bring dried,smoked buffalo or antelope meat into the US. Does anyone know about how it might be done, legally of course?</p> <p>++-+-++-+-++</p> <p>"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.</p> <p>Posts: <b>4253</b>   Registered: <b>10 June 2009</b></p>
<p><b>michael458</b> One of Us</p> 	<p>posted 19 July 2010 19:16 <a href="#">Hide Post</a></p> <p>Tanzan</p> <p>What you been smoking? HEH. Can't be done as far as I know! Customs will confiscate. Even packaged goods as I am told, if they find it. And those little beagle dogs find everything.</p> <p>Michael</p> <p><a href="http://www.b-mriflesandcartridges.com/default.html">http://www.b-mriflesandcartridges.com/default.html</a></p> <p>The New Word is "Non-Conventional", add "Conventional" to the Endangered Species List! Live Outside The Box of "Conventional Wisdom"</p> <p>I do Not Own Any Part of Any Bullet Company, I am not in the Employ Of Any Bullet Company. I do not represent, own stock, nor do I receive any proceeds, or monies from ANY BULLET COMPANY. I am not in the bullet business, and have no Bullets to sell to you, nor anyone else.</p> <p>Posts: <b>8426</b>   Location: <b>South Carolina</b>   Registered: <b>23 June 2008</b></p>
<p><b>srose</b> One of Us</p>	<p>posted 19 July 2010 23:48 <a href="#">Hide Post</a></p> <p>Tanzan,</p> <p>I had a bunch of dried sheep sausage that I bought in duty free shop in Norway that when I came into the US the customs agent didn't even ask just threw it in the trash. I'd say no on bringing any red meat back into US. They let me keep some smoked salmon on the same trip.</p> <p>Sam</p> <p>Posts: <b>2823</b>   Location: <b>NC</b>   Registered: <b>08 July 2006</b></p>

<p><b>michael458</b> One of Us</p> 	<p>posted 20 July 2010 02:28 <a href="#">Hide Post</a></p> <p>Sam</p> <p>Dried Goat Sausage! Gee, I don't blame the Customs Agent for trashing that! I don't eat goats! Nasty! Some things are not fit for human consumption, goats are in that category!</p> <p>Making progress on the meplat testing! I hope to be completed by Wednesday or so!</p> <p>Michael</p> <p><a href="http://www.b-mriflesandcartridges.com/default.html">http://www.b-mriflesandcartridges.com/default.html</a></p> <p>The New Word is "Non-Conventional", add "Conventional" to the Endangered Species List! Live Outside The Box of "Conventional Wisdom"</p> <p>I do Not Own Any Part of Any Bullet Company, I am not in the Employ Of Any Bullet Company. I do not represent, own stock, nor do I receive any proceeds, or monies from ANY BULLET COMPANY. I am not in the bullet business, and have no Bullets to sell to you, nor anyone else.</p>	<p>Posts: <b>8426</b>   Location: <b>South Carolina</b>   Registered: <b>23 June 2008</b></p>
<p><b>srose</b> One of Us</p>	<p>posted 20 July 2010 02:37 <a href="#">Hide Post</a></p> <p>Michael,</p> <p>Yeah mutten yuk! That dried sausage was the best I ever tried and it killed me to see it trashed.</p> <p>Glad to hear tests are going well. I'm sure everyone is on the edge of their seats waiting for the results. I'm tired of going to this site every few minutes to see if you have posted the results. You like keeping everyone in suspense don't you?</p> <p>Sam</p>	<p>Posts: <b>2823</b>   Location: <b>NC</b>   Registered: <b>08 July 2006</b></p>
<p><b>michael458</b> One of Us</p> 	<p>posted 20 July 2010 02:46 <a href="#">Hide Post</a></p> <p>quote:</p> <div style="border: 1px solid black; padding: 5px;"> <p>Originally posted by srose: Michael, Yeah mutten yuk! That dried sausage was the best I ever tried and it killed me to see it trashed.</p> <p>Glad to hear tests are going well. I'm sure everyone is on the edge of their seats waiting for the results. I'm tired of going to this site every few minutes to see if you have posted the results. You like keeping everyone in suspense don't you?</p> <p>Sam</p> </div> <p>Sam</p> <p>You know how TV works, like a series show at the end of the year something really big happens&gt;&gt;&gt;&gt;&gt;&gt;Then you have to wait until next season to find out the outcome! NEXT YEAR! 😊</p> <p>M</p> <p><a href="http://www.b-mriflesandcartridges.com/default.html">http://www.b-mriflesandcartridges.com/default.html</a></p> <p>The New Word is "Non-Conventional", add "Conventional" to the Endangered Species List! Live Outside The Box of "Conventional Wisdom"</p> <p>I do Not Own Any Part of Any Bullet Company, I am not in the Employ Of Any Bullet Company. I do not represent, own stock, nor do I receive any proceeds, or monies from ANY BULLET COMPANY. I am not in the bullet business, and have no Bullets to sell to you, nor anyone else.</p>	<p>Posts: <b>8426</b>   Location: <b>South Carolina</b>   Registered: <b>23 June 2008</b></p>
<p><b>michael458</b> One of Us</p> 	<p>posted 20 July 2010 02:51 <a href="#">Hide Post</a></p> <p>Well.....This Ain't TV! This is REAL! So we won't have to wait until next season, or next year, just until Wednesday afternoon, maybe Thursday Morning before completing. I am taking an extreme amount of care and attention to this one, I don't want any issues, anomalies, no bugs in this. It is my hope that this will define many things for us, and right now with what I have completed to this point I am seeing a strong trend. But, we will have to wait for the total sum before conclusions.</p> <p>Michael</p> <p><a href="http://www.b-mriflesandcartridges.com/default.html">http://www.b-mriflesandcartridges.com/default.html</a></p> <p>The New Word is "Non-Conventional", add "Conventional" to the Endangered Species List! Live Outside The Box of "Conventional Wisdom"</p> <p>I do Not Own Any Part of Any Bullet Company, I am not in the Employ Of Any Bullet Company. I do not represent, own stock, nor do I receive any proceeds, or monies from ANY BULLET COMPANY. I am not in the bullet business, and have no Bullets to sell to you, nor anyone else.</p>	<p>Posts: <b>8426</b>   Location: <b>South Carolina</b>   Registered: <b>23 June 2008</b></p>
<p><b>srose</b> One of Us</p>	<p>posted 20 July 2010 04:01 <a href="#">Hide Post</a></p> <p>OK I'LL wait. I'm sure you are doing it right and I don't want to rush you. I know the data will be spot on!</p>	<p>Posts: <b>2823</b>   Location: <b>NC</b>   Registered: <b>08 July 2006</b></p>
<p><b>srose</b> One of Us</p>	<p>posted 20 July 2010 04:03 <a href="#">Hide Post</a></p> <p>Its partly my fault for making you so many bullets!</p>	<p>Posts: <b>2823</b>   Location: <b>NC</b>   Registered: <b>08 July 2006</b></p>
<p><b>michael458</b> One of Us</p> 	<p>posted 20 July 2010 04:42 <a href="#">Hide Post</a></p> <p>Sam</p> <p>Got a little package in the mail this afternoon from you!</p> <p>Unfortunately I was not able to get one in the mail to you today. My man left here without it. It will go out tomorrow.</p> <p>Test results are coming soon!</p> <p>M</p> <p><a href="http://www.b-mriflesandcartridges.com/default.html">http://www.b-mriflesandcartridges.com/default.html</a></p> <p>The New Word is "Non-Conventional", add "Conventional" to the Endangered Species List! Live Outside The Box of "Conventional Wisdom"</p> <p>I do Not Own Any Part of Any Bullet Company, I am not in the Employ Of Any Bullet Company. I do not represent, own stock, nor do I receive any proceeds, or monies from ANY BULLET COMPANY. I am not in the bullet business, and have no Bullets to sell to you, nor anyone else.</p>	<p>Posts: <b>8426</b>   Location: <b>South Carolina</b>   Registered: <b>23 June 2008</b></p>

MikeBurke  
One of Us



posted 20 July 2010 05:35

[Hide Post](#)

quote:

Originally posted by michael458:  
Where is my other test partner here, Mike? Damn, guess he is up on african discussing the latest in proper safari wear!  
If you lurk by how about a meplat opinion based on your experiences?

Michael

My money is on the 70% bullet, 65% close second.

Been busy with work and fishing offshore, the Gulf of Mexico still has plenty of good areas.

MJines'

"When did that ever stop 90%+ of the other folks that post?"

and

Rip's

"I suspect that a snappy housekeeper such as you might have neglected to keep his action screws properly torqued?"

are two of the funnier one liners on here in a while.

7 weeks and I will be testing the tests in the field. My wife has been practicing with a 308 and is becoming a very good shooter. Her 7 by 57 will be delivered next week.

Posts: 2939 | Registered: 26 March 2008



RIP  
one of us

posted 20 July 2010 08:01

[Hide Post](#)

Donkey, buy a donkey. 🤡🤡🤡

Posts: 28032 | Location: KY | Registered: 09 December 2001



michael458  
One of Us



posted 20 July 2010 16:04

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Mike

Good to hear from you! I did not think it was quite time for you to be across the pond playing with ""donkeys"" as RIP says! But knew it was getting closer. We do expect photos of you in "proper Safari" fashion upon return from the field test mission!

Almost half done with the meplat test, trends are showing up early. I hope to finish this morning, maybe have results by tomorrow.

RIP

Any word on 458??? I suspect it should be on the way this week?

M

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

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Posts: 8426 | Location: South Carolina | Registered: 23 June 2008



RIP  
one of us

posted 21 July 2010 05:18

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Not yet.

When it gets here it will really be buy a donkey, buy a, buy a donkey time!!! 🤡🤡🤡

Posts: 28032 | Location: KY | Registered: 09 December 2001



michael458  
One of Us



posted 21 July 2010 16:00

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The results are in on the meplat size test! Before diving right in I want to point out a couple of things. While this test shows a trend and in my mind confirms many of the questions we have had in the past, it is a sample of two each. Many, would say this too small a sample, and in many ways that is correct. However, when taken with prior experiences and other tests done right here, this test firms things up a bit. Each of you will have to make up your own mind concerning what has been done here. I have done this myself, and feel very excellent about the results, good enough to base decisions on, such as getting a new order together for bullets in the various .500s I shoot.

Now if one considers hunting buffalo, elephant, hippo a dangerous affair, which statistically speaking getting in the car and going to the grocery is far more dangerous, however a prudent individual will not do so with bald tires, neither should one hunt dangerous game with less than the best equipment, or bullet in this case. I personally have made decisions based on much of this test work in the past to use the test work as a basis of which bullet I would choose for this sort of work. What you do is your decision based on whatever data you choose to work with.

This small body of test work done on meplat size just helps to confirm things with me. Variables enter into this, rifle/barrel, twist rate may not be exactly the same, nose profiles might be different, velocity and other factors that could change this test somewhat, but the basic trend is here, and the basic behavior is established. All I can do is present the raw data, you decide for yourself.

Do not get focused on penetration depth as compared to other tests. I requested that Sam do these bullets a bit light so that I could very easily achieve the velocity I wanted to test at in the .500s, which was 2150-2200 fps. I purposely did not want to test at higher or lower velocity because most hunters or shooters go to the field with a cartridge in this range of velocity, or slightly higher, myself included. What I wanted to see was the basic "Behavior" of the bullet for straight line penetration. That we see very clearly as we moved up in meplat size.

I will present this in two posts, or two parts to break it up, and some points I wish to make without them running together. 465HH has also done a statistical analysis for us that he will hopefully get added later in the day, I am of course on the "Right" side of the country here in the wonderful independent state of South Carolina, so I am a few hours ahead of "H". Now "H" will freely proclaim that the sample is not large enough for a really good analysis, and he is correct on that point. But some of the information he will present should be noted, and you decide for yourself. It's another part of the test work that will assist some in making proper decisions, or not, and at that point I turn the floor over to him for that analysis.

Michael

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

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Posts: 8426 | Location: South Carolina | Registered: 23 June 2008



michael458  
One of Us



posted 21 July 2010 16:17

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Now without further BS let's get the show on the road!

This post will show Round Nose, 50% meplat, 55% meplat, and 60% meplat. Within each test the bullets are nearly exact, but from one jump to the next there is a slight difference in weight, and a slight difference in velocity as we move forward. These differences are not significant, and do not effect the overall behavior. Sam did a wonderful job on getting these bullet ready for this test. Thank you Sam for making this possible.

First the Round Nose to start things off.

**50 B&M  
1:12 Twist Rate  
415 gr Round Nose  
Muzzle Velocity 2221 fps  
22 yd Impact Velocity 2132 fps  
#1--13 Inches Straight-Veer Down  
out at 22"--4" off course  
#2--21 Inches Straight-Tumbled to  
28"--4" off course**



Next the 50% Meplat.

**50 B&M  
1:12 Twist Rate  
419 gr FN 50% Meplat  
Muzzle Velocity 2205 fps  
22 yd Impact Velocity 2096 fps  
#1--19 Inches Straight-Tumbled to  
24"--3" off course  
#2--22 Inches Straight--Veer left to  
29"--4" off course**



55% Meplat





60% Meplat



Now for my part I look at "Straight Line Penetration", that is about all I am concerned with. At what point does that bullet start to behave poorly by veering off course or tumbling? The rest is really a moot point to me. "Terminal Stability" is what we are after, or what I am chasing. I want stability so that I know I can count on that in the field, as much as allowed when other variables are introduced! As stated a 1000 times, if it works and is successful in the test work, then the better probability that it will be successful in the field.

As we work our way up the meplat ladder we see a trend starting to appear, added "Terminal Stability". Even a jump from RN to 50% made a difference, even if they overlap a bit in straight line penetration, we see the two bullets start to come closer together. The RN being unstable showing a wide difference in straight line penetration, the 50% meplat starting to show closer numbers with straight line penetration. At 55% we see this come even closer, and at 60% straight line penetration takes a huge jump in penetration depth. In addition one must look at the total amount of "Off Course Veering" from 50% to 60% meplat. At 50% and 55% we see from 2" to 4" off course at the end of penetration, most of those at 4" actually left the test medium to the sides or to the bottom. With 60% meplat size we see a significant jump in straight line penetration, and in addition at the end of that total penetration we see 1" and 2" off course! I find this significant. No doubt about a trend in my mind. But I will let you judge this for yourself.

Michael

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

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Posts: **8426** | Location: **South Carolina** | Registered: **23 June 2008**

**416Tanzan**  
One of Us



posted 21 July 2010 16:47

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Very interesting.  
I was thinking that the short bullet length might stabilize at 60% meplat.  
And at 38" average straight-line penetration, and only off by a max of 2" at the end, it did sufficiently well for most real-life applications. But not good enough for me.  
After all, one of the purposes of a solid is a follow up shot on a fleeing buffalo, rump to boiler room.

Interesting, so . . . drum roll . . .  
Michael is about to show us the 65% . . .

+++++

"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.

Posts: **4253** | Registered: **10 June 2009**

**michael458**  
One of Us



posted 21 July 2010 17:08

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The second part of the test with the 65%, 70%, 75% and 80% meplat for caliber showed a significant gain in "Terminal Stability".

65% Meplat



70% Meplat



**50 B&M  
1:12 Twist Rate  
430 gr 70% Meplat  
Muzzle Velocity 2180 fps  
22 yd Impact Velocity 2090 fps  
#1--46 Inches Dead Straight  
#2--44" Dead Straight**



photobucket



75% Meplat

**50 B&M  
1:12 Twist Rate  
435 gr 75% Meplat  
Muzzle Velocity 2179 fps  
22 yd Impact Velocity 2080 fps  
X2--40 Inches Dead Straight**



photobucket



80% Meplat





Of little doubt we achieved "Terminal Stability" with the 65% meplat for caliber. Both were found dead straight, nose forward. Straight line penetration made another increase over the 60% meplat, however we note that total penetration was near identical on average. With the 60% just not being quite as stable as the 65% meplat.

At 70% meplat for caliber "Terminal Stability" and depth of penetration was basically equal with the 65% meplat. This was the only true anomaly I encountered in the test with the 1 70% that penetrated to 44 inches. All test medium has it's faults, my is not excluded. This one bullet found the binding of a magazine that I insert in the mix, one edge of the meplat was damaged somewhat, and the other edge had a clear outline of a staple across the meplat. It is my assertion that this caused the very slightly less penetration of the 1 70% meplat bullet. It did not effect straight line penetration at all, and the bullet was found nose forward and dead straight. Just lost a couple of inches over it's brother, and I believe that to be the culprit. Here again, a larger sample size would have sorted that out, yes I know, but the trend is evident regardless.

Here is one of the questions that I thought I knew the answer, but not 100% confident, now I am confident, even with such a small sample size. At 75% we see a definite reduction in total straight line penetration. Meaning, we found the meplat size where we start to limit total penetration! Terminal Stability is 100%, no veer, nothing but dead straight penetration and both bullets found nearly side by side, nose straight forward. This is the same behavior as we saw in Agent J's bullet. In no way is this a detriment, with one exception, this is the point at which my beloved Winchesters started to balk at feeding the large meplat, catching at the bottom of the feed ramp before jumping under the extractor.

Again at 80% meplat for caliber we see yet another reduction in total penetration, which even further confirms in my mind that we can in fact limit penetration if that should be desired by using a larger meplat size. Again, 100% terminal stability, dead straight line penetration, both found nose forward.

Something that also should be pointed out, I observed (I should have actually measured) as we increased meplat size we also increased the impact trauma to target with larger wound channels and destruction of test medium. I wished I had taken the time to get actual measurements, but that is hind sight now, you will just have to trust me on this one.

Well guys there it is. Agree, disagree, whatever you choose to do, that is it in a nut shell and reported exactly as I found it, no sugar coating. I think this basically confirms prior test work done on the subject, and I know for a fact that this could be repeated over and over, basic results on behavior would be the same.

Everything done with a barrel of 1:12 twist rate, which no doubt assisted the bullets of less than 65% meplat. A slower twist rate I am sure would have showed the less than 65% meplat far less stable than they are at 1:12.

Thanks to Sam for making the bullets, thanks to 465HH for his collaboration in the effort and his upcoming statistical conclusions, and all the efforts all of you put into this and the input you give. Not one of us has all the answers, but as a group we have discovered much and continue to do so! Thanks to all who push me a little bit from time to time to make the effort, otherwise I might get lazy! HEH.

Michael

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

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Live Outside The Box of "Conventional Wisdom"

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Posts: 8426 | Location: South Carolina | Registered: 23 June 2008



srose  
One of Us

posted 21 July 2010 17:30

[Hide Post](#)

You put the 70% up twice!

Posts: 2823 | Location: NC | Registered: 08 July 2006



**srose**  
One of Us

posted 21 July 2010 17:36

[Hide Post](#)

Michael,

Thank you for taking the time to make this test. I think it clearly shows what you have been saying all along. 65% to 67% meplat is the way to go.

Sam

Posts: **2823** | Location: **NC** | Registered: **08 July 2006**



**michael458**  
One of Us



posted 21 July 2010 17:52

[Hide Post](#)

quote:

Originally posted by srose:  
You put the 70% up twice!

Thanks Sam--I got it right now!

Well I am very happy with a meplat size of 65-70%, and that is exactly what I have been shooting in the various .500 caliber rifles with very good success. Most (9.3 excluded) of the Barnes Banded come in this size meplat, the North Forks, and all the best solids have it right as far as I am concerned. While 65% to 70% is optimum, but we can't forget that 75% will do what is needed too and I am not sure where SH Precision is on other bullets, but the wonderful .510 calibers were 75%! 80% might stretch things a bit. If I was a double guy I would consider 70-75% and the bolt guys 65-70%. I would not exceed 75% I don't think.

Michael

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Posts: **8426** | Location: **South Carolina** | Registered: **23 June 2008**



michael458

One of Us

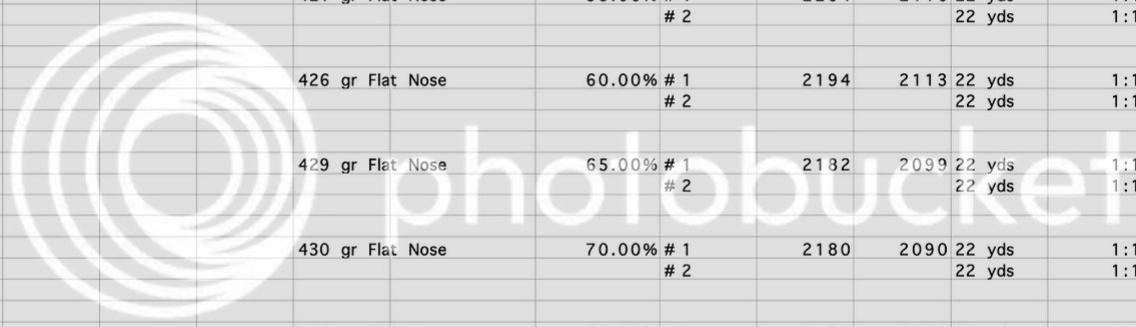


posted 21 July 2010 17:55

Meplat Test from Round Nose to 80% Meplat of Caliber

.500 Caliber Solids Made by SRose

Bullet	% Meplat	Muzzle Velocity	Impact Velocity	Impact Distance	Twist Rate
415 gr Round Nose	0 # 1	2221	2132	22 yds	1:12
	# 2			22 yds	1:12
419 gr Flat Nose	50.00% # 1	2205	2096	22 yds	1:12
	# 2			22 yds	1:12
421 gr Flat Nose	55.00% # 1	2204	2116	22 yds	1:12
	# 2			22 yds	1:12
426 gr Flat Nose	60.00% # 1	2194	2113	22 yds	1:12
	# 2			22 yds	1:12
429 gr Flat Nose	65.00% # 1	2182	2099	22 yds	1:12
	# 2			22 yds	1:12
430 gr Flat Nose	70.00% # 1	2180	2090	22 yds	1:12
	# 2			22 yds	1:12
435 gr Flat Nose	75.00% X2	2179	2080	22 yds	1:12
438 gr Flat Nose	80.00% X2	2170	2067	22 yds	1:12



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Posts: 8426 | Location: South Carolina | Registered: 23 June 2008

CCMDoc

One of Us



posted 21 July 2010 18:31

[Hide Post](#)

Michael,

Just checked out your website - absolutely fantastic stuff there 😊


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**

Posts: 3448 | Location: In the Shadow of Griffin&Howe | Registered: 24 November 2007





**416Tanzan**  
One of Us  


posted 21 July 2010 18:32 [Hide Post](#)

Pretty conclusive to me.

In addition, several have produced statistical studies where progressive tests of very small samplings can produce overall reliability, and this is what we see going on here. Though I will differ to a statistician to put this into numbers.

Basically, the lightweight, relatively slow bullets penetrated adequately, though about 10" less than 'our' expectations. Not a problem.

Of a side note, the 60% meplat did penetrate to the same level as the 65%, though I would prefer the 65% 'dead straight' over the couple of inches deeper penetration of one of the 60%'s.


It appears that the bullet manufacturers have already done some of these tests, since their bullets clock 65-70%.

Great job all around.

I might even try out the 400 grain banded solid in .416 now. I have been afraid to go that route because of the slow twist in my CZ550 (16.5"). If the meplat guarantees the penetration as it appears to, then I may be able to go up to 400 grains. (That would mean next year. My bullets are bought and loaded for this year's Tanzania hunting.)

+++++-----

\*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.

Posts: **4253** | Registered: **10 June 2009** 


**srose**  
One of Us

posted 21 July 2010 18:54 [Hide Post](#)

Michael,

Thanks again for all of your work! Great test and valuable information. Yep got to make some 70% 2 band 577's for my double for us to test.

Sam

Posts: **2823** | Location: **NC** | Registered: **08 July 2006** 


**srose**  
One of Us


posted 21 July 2010 19:00 [Hide Post](#)

Michael,

I'm looking forward to you testing the rest of the mix to see how the rest of the 65% meplat bullets perform.

Sam

Posts: **2823** | Location: **NC** | Registered: **08 July 2006** 


**boom stick**  
One of Us  


posted 21 July 2010 19:18 [Hide Post](#)

If 80% does as well as 60% I'd use 80% 😊

[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)

Posts: **27557** | Location: **Where tech companies are trying to control you and brainwash you.** | Registered: **29 April 2005** 

**RIP**  
one of us

posted 21 July 2010 19:41 [Hide Post](#)

Wow!

Go away overnight and I am way behind on my reading! 🤖

Just wanted to tell Doc M that my .458 B&M is shipping from SSK, I have been invoiced, I have paid, and Jeannie is getting Mr.UPS involved now. Thanks to Gunsmith Brian and all at SSK.


Now back to studying the latest research ...


Got it!  
Doc M has elucidated the latest experiment.  
As usual, he has left nothing much needing saying about the results.

Any statistical analysis will be interesting, but hardly necessary. 😊

Pick a number?  
67.5% Meplat for FN solids to maximize straight-line penetration.  
Larger meplats or expanding copper Cup Points for special applications.

Cheers! 🍻🍻🍻

Posts: **28032** | Location: **KY** | Registered: **09 December 2001** 


**capoward**  
One of Us  



posted 21 July 2010 20:48 [Hide Post](#)

Very interesting test results Michael. Were there any visual trauma differences within your paper mass between 60% meplat and the 75%-80% meplats?

Sam, very nice work with the bastard file on the test bullets! 😊

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

Posts: **4954** | Location: **Central Texas** | Registered: **15 September 2007** 


**boom stick**  
One of Us  



posted 21 July 2010 20:55 [Hide Post](#)

Sam... "Bastard Bullet Works" should be your company name 😊  
"Shoot the Bastard" can be your motto lol  
Yell "Who's your daddy" when you shoot them

[577 BME 3"500 KILL ALL 358 GREMLIN 404-375](#)

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

Posts: **27557** | Location: **Where tech companies are trying to control you and brainwash you.** | Registered: **29 April 2005** 


**boom stick**  
One of Us  


posted 21 July 2010 20:57 [Hide Post](#)

I think you will find 69 the magic number if you want all the way penetration. 🤖🤖

[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)

Posts: **27557** | Location: **Where tech companies are trying to control you and brainwash you.** | Registered: **29 April 2005** 

michael458  
One of Us



posted 21 July 2010 21:34

[Hide Post](#)

RIP

No worries, I am now behind just since this morning! Excellent news about the 458 on the way home finally! I will be on pins and needles till you get a photo posted on the B&M Thread! Hopefully before you spray paint it, or beat it against the concrete wall, or some other magic "RIP Aesthetic" that I have seen in the past!!!! LOL. Very good! I am looking forward to the Barnes Buster test in that 1:10 barrel of yours!

As for the test work, yes, I think we are in total agreement.

Capo

Yes, I did make mention of the increased trauma inflicted as we increased meplat size under the second post with the 65% to 80% meplats. I wish that I had taken time now to actually measure more in depth on that subject, but I did not do so, hind sight is great and I was stealing an hour here and there to get the work done. I observed it, I noted it, but did not measure it. The trauma showed up right from the start and continued to increase with each 5% more meplat. Of course with 75% and 80% having the most trauma up front, slowing down after about 10-12 inches.

"Bastard Bullet Works" "69% meplat" No need to say who that come from, we all know!

Boomy, sometimes.....

No need to worry about new tests, already in the works and being planned now. Sam will not let me get lazy at all. Just as important as anything, Sam has made and sent some wonderful cup points and they have 65% meplats, weigh in the same range, 430 grs, and will be shot with the same gun and load, so these will fit into the test work done above nicely and give us an idea of just how much the cup point effects penetration. We already have some data comparing the North Fork 450s. This will further that research.

Sam has also sent new and improved 9.3s in 250 gr and 225 grs to test.

I have the "Srew Bullets" loaded and ready, small meplats on those as I recall. Also a different .500 caliber nose profile, and heavy 500 gr bullet, with a LARGE MEPLAT--but very workable, forget the size exactly as I am not in front of my notes just now.

Sam and I are also in the works of planning a 577 test, and we hope that comes to happen next week sometime, as our days allow. That will be a hammer!

So while we complete and discuss our current meplat test, while 465HH gets his glasses on straight so he can capture all the data for the "statistic report", we have plans to continue, and I still have about 1500 lbs of test medium (Dry Weight) to work with!

Sam cuts me no breaks and no slack, new and wild designs coming in each week!

He has already worn out several sets of bastard files on these!

Michael

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Posts: **8426** | Location: **South Carolina** | Registered: **23 June 2008**



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