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

jwp475 14 March 2010, 03:53

Terminal Bullet Performance

quote:

Originally posted by capoward:

quote:

Originally posted by michael458:

Jim

The 30 220 Barnes is 1.5065 inches long!

Geez, even the GreenHill software tool notes a 1:9" twist is required for this bullet length. But I'll bet that wouldn't provide within mass stability for this bullet; will take faster than 1:9" twist for that.

I have a 1 in 8 twist 300 RUM. Want to test that michel 458? I also have a 1 in 11 twist that I could send as well

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

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

MikeBurke 14 March 2010, 04:46

I have a 30" Long 1 in 8 barrel on a 30-338 Win Mag. if we need some testing done.

jwp475 14 March 2010, 05:29

quote:

Originally posted by Mike70560:

I have a 30" Long 1 in 8 barrel on a 30-338 Win Mag. if we need some testing done.

You are only about 2 hours from me

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

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

michael458 14 March 2010, 06:00

OK Busy tonight! Let me catch up, been mashing my ass in my big chair!

RIP

Your measurements on Agent Js bullets are damn near exactly on all counts that I made just this morning, and already put into the spread sheet later this afternoon. Meplat exactly the same, .385 for just over 75% on the .510 535. Agent J--Job well done! These are some super bullets!

.510 caliber tests this week! Starting Tuesday at the latest.

Now I must tell you about a USPS episode last October and 500 of my 510gr .500 caliber bullets! They are gone, have never shown up, can't be tracked down, never delivered, never returned! I suppose they are scattered along a dirt road somewhere here in SC? We never send USPS ever, not with something important! Those were shipped from Ohio!

Now concerning the twist and the 220 Barnes.

They are interesting bullets. But I don't even think they are available anymore? I doubt it. Have not looked at anything 30 in a very long time, so I am not aware of what is cooking for 30s anymore. Personally I am really not all that interested, I had them here, thought why not give it a go.

Now, if Mike or any of you guys want to see if they work, I will be happy to send out some samples for Mike to test? Seems he has

a 1:8 and can do so.

You guys decide and let me know, I will get them on the way to him.

1WP

You are a good man! You could either get in your truck and head this way or send the RUM. But it seems we have a much easier solution and Mike has volunteered to test if we so choose. Up to the guys!

This particular bullet looks a lot like the nose profile of the 6.5 RN we did last week.

Where in the hell do they come up with these nose profiles from? That is certainly far different than the old RN barnes from 416 and up, and like the 9.3 Woodleigh, so different from others! Where do these profiles come from?

Damn RIP, looking at those bullets reminds me of just a few weeks ago with all my brass bullets in the floor! Hmmmmm?

As I said, Agent J takes great pride in his work, things are about as perfect as you can get, great looking bullets, great package, everything! Job well done! How long will those last you RIP?

Michael

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

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RTP 14 March 2010, 06:45

Doc M.

No, I will not spill the bullets for you to roll in! Forget about it!

I will have to get to work on 500 Mbogo load development tomorrow, and hope to add some testing here, to this "terminal thread," to give you a breather ...

but keep your mind out of the gutter don't get any bullet-rolling carnal ideas about my bullets! 🕮

Maybe a last hurrah for the IWBB before moving on to SIM-TEST.

That will be my calibration run for the new S&H .510/535-grain FN, a goodbye to the IWBB (Iron WaterBoard Buffalo) and onward to the STAB (SIM-TEST ARTIFICIAL BUFFALO).

Water buckets and plywood, I have some left over, need to be used up ...

Agent J's fine new bullet should be super in any .510-cal.

Listing all of them would make me feel like Bubba listing varieties of shrimp dishes for Forrest Gump ...

50s and 500s and 510s:

Hit it Bubba! 🕮

Macifei 14 March 2010, 07:07

quote:

last hurrah for the IWBB

Shrimp & Bison Gumbo Forrest ... 🕮



The IWBB has served well. What is the current record for Buffalo Ventilation sir ..?? Will there be a BMG Buff colonoscopy demonstration ..??

RTP 14 March 2010, 08:03

Yup, shrimp goes good with bison, makes a great gumbo!

Can forget the alligator tail if you have bison with your shrimp!

Lest we forget, the best penetrator I have yet to see in the IWBB, is the S&H .395/330-grain brass FN at 2800-ish-fps from a 1:12" twist.

It is hard, fast, and heavy enough, and I cannot explain fully why such a rounded FN meplat worked so well. The ink-stamped diameter of the FN meplat is .225",

that is only 57%.

If the edges were sharp instead of radiused, the nose would be about .320" meplat, or 81%.

Must be like tha Speer AGS tungsten solid,

with enough compensating factors to make the small flat area of the nose work: High velocity and adequate spin and SD right at .302, with minimal deformation ...

This bullet by S&H is the best penetrator I tested while the IWBB was roaming the range.

It is a model bullet for best penetration yet with good feed function:



It edged out the slightly slower and heavier and softer GSC .395/340 gr FN.

Unfired noses:



Recovered noses:



First Place: 79.75"



Second Place: 69.5"



416Tanzan 14 March 2010, 13:06

quote:

Originally posted by capoward:

quote

Originally posted by michael458:

Jim

Geez, even the GreenHill software tool notes a 1:9" twist is required for this bullet length. But I'll bet that wouldn't provide within mass stability for this bullet; will take faster than 1:9" twist for that.

Using the Miller formula, 1in 10", 2650fps, gets a 1.7 stability factor, which is great in air. In a dense target, though, it will need more cavitation than it apparently produces.

+-+-+-+-+-+

"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 14 March 2010, 16:53

RTP

Those bullets do look tempting for sure! HEH! Like a dog on a bone rolling around!

I am still very interested in the SIM TEST material too, but I still have not got around to calling about it. Thinking of it's longevity on the range when not in use, a good fridge would preserve it and for how long? Ya Ya!

Agent J's bullet is a fine looking bullet no doubt. Again I can't say enough I was very impressed with the presentation which was sent to me. Shows pride in work, and precision! Each one of my samples came in it's own little plastic bag! Wrapped to perfection!

I also concur that "Compensating Factors" concerning the .395 are kicking in. Of course adequate twist rate being very important, but I also think of just as much importance in this case is Velocity!

I won't get to it until tomorrow now, but I brought out all the 51's I have on hand, 600 Woodleigh FMJ, 570 Woodleigh FMJ, 535 Woodleigh FMJ, a "Modified Barnes 570 Banded" and now Agent J's 535. Sorry to tell you this, I think WE ALL know the outcome of this test! It's not which bullet is going to do best, it's Agent J's Bullet hands down, don't have to test to know that. It's HOW BAD are the others going to be? My interest in 51 went downstream as soon as I laid hands on the big Ruger in 510 Wells, and of course at the same time my .500s starting rolling in. I also have a couple of 50 Alaskans (.510) hanging around that don't get much use either, with the 50 B&M AK on the scene. So the 51s have just been hanging around gathering dust for a few years. I did test briefly the 535 Woodleigh and the Modified Barnes and we are looking at around 38 inches of straight penetration with both of those in 2007, both becoming unstable and going off course. I had the 570 Barnes modified by taking the meplat down in size so it would feed in the Ruger. As it comes in the box it will not feed at all. Bad mistake! Meplat size is down 53% of caliber. I have on order a box of 570 Hornady DGS and will have them this week in time for testing. That will be the wild card unknown in the mix. All depending on meplat size. I am sure it's a compromise bullet, between meplat size and feeding in most rifles.

In addition I have on the way 474 and 458 Hornady DGS. I want to fall in with a couple of 470 tests with the Barnes Banded. And again as RIP and I have been discussing I think I have bad barrels on my Capsticks, so I am not expecting good results from it. I will say that expanding bullets the rifles do very well, does not matter much, and they are both accurate enough at 50 yds to not matter. But with the solids I think they are crap! I am not interested enough to worry with having them re-barreled or worry with them. I gave up taking them to the field early in this decade!

I have us a pretty hectic schedule coming up the next couple of weeks!

Michael

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srose 14 March 2010, 22:31

Michael,

Would you like to borrow my 470NE to test those DGS bullets. I could load some cases up less bullets for you and bring it down to you. I don't have any 470 DGS bullets but do has some loaded up in my 500NE. I have my 577 and 500 ammo loaded for us to test. Not sure when I could make it this week but probably could make it Saturday if that would work for you. If I bring three of those shotgun looking things I might get you converted.

Sam

Macifej 15 March 2010, 01:30

quote:

also have a couple of 50 Alaskans (.510) hanging around that don't get much use either

Michael

I've had a couple queries from customers regarding this bullet in their 50 Alaskans. Might be a great opportunity to demonstrate the viability of big solids in short cases.

michael458 15 March 2010, 05:06

Sam

Twist rate in your Nitro is probably slow as Christmas, but bring it anyway! Saturday we can make work I am sure, or sort something out. Those shotgun looking rifles of yours are nice, I have no doubt, but I am far too gone to ever be converted. Most of my shotguns are one barrel and very short! HEh

J

I can make a load for the magic J bullet in a 50 AK. Will take some fine photos and send to you in 50 AK and try it out too!

Michael

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I Bin Therbefor 15 March 2010, 06:13

quote:

Originally posted by RIP:

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Can forget the alligator tail if you have bison with your shrimp!

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Must be like tha Speer AGS tungsten solid,

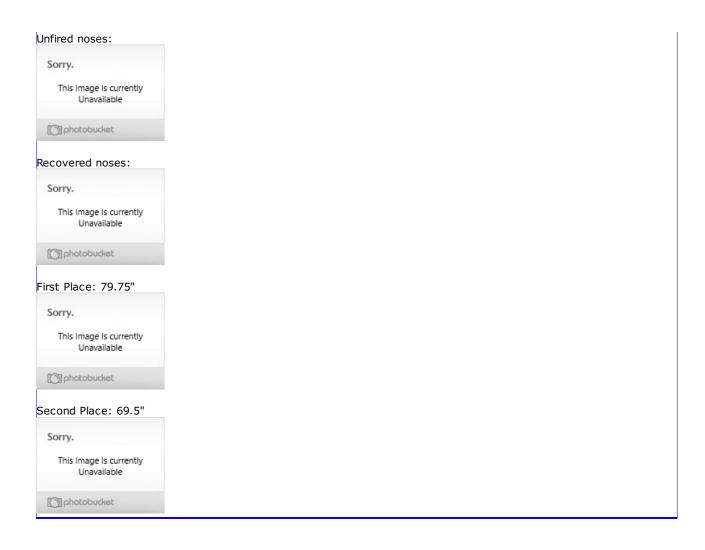
with enough compensating factors to make the small flat area of the nose work: High velocity and adequate spin and SD right at .302, with minimal deformation ...

This bullet by S&H is the best penetrator I tested while the IWBB was roaming the range.

It is a model bullet for best penetration yet with good feed function:



It edged out the slightly slower and heavier and softer GSC .395/340gr FN.



I sure wish North Fork had built 395s as you requested. That would be 3 to test!!! Think they might change their collective minds if you asked again?

RIP 15 March 2010, 08:59



North Fork .395-caliber boolits?

That is just too funny!



The .395 is obsolete ... again ... and it is mine! ALL MINE!!! ... (insert sound of demented laughter here)



15 March 2010, 10:19 **Low Wall**

quote:

Originally posted by RIP: Funny A

North Fork .395-caliber boolits?

That is just too funny!

The .395 is obsolete ... again ... and it is mine! ALL MINE!!! ... (insert sound of demented laughter here) 📽



Can .395 barrels still be had?

Macifej 15 March 2010, 11:34



.395" Barrels

North Fork 15 March 2010, 20:51

North Fork can cut our FPS design to .395. We just don't have any way of testing them ourselves. We have created many custom bullets for people the last year.

Here is our standard custom order:

Minium of 5 boxes (50 in each box) 15% over closest diameter/weight standard NF FPS.

Please call us at (541) 929-4016 if interested.

Regards, North Fork

North Fork Technologies www.northforkbullets.com

Low Wall 15 March 2010, 21:06

quote:

Originally posted by Macifej: .395" Barrels

Thank you sir!...

Macifej 15 March 2010, 21:59

quote:

Originally posted by Low Wall:

quote:

Originally posted by Macifej:

Can .395 barrels still be had?

.395" Barrels

Thank you sir... 🕮 [/QUOTE]

Quite welcome. The .395" Mafia can always use new recruits. RIP has done some pretty amazing shooting with that barrel and our bullet. See here:

Low Wall 15 March 2010, 22:17

Yes, I remember those photo's...

Being a single shot fan the 400-395 3" NE is what interest me.. Haven't been able to shake the thought of it since RIP first trotted Elvira out.. 🗇

Macifej 15 March 2010, 22:20

Yep! I'm a SS junky too. Putting a new one together myself. If you need help re your project feel free to contact me and I'm sure RIP would be willing to welcome any .395" inductees.

16 March 2010, 05:02

This is a rather interesting article comparing the Big Bore rifles out there. http://470mbogo.com/BigBores/BigBores.html

In the article he tried to get penetration tests in wet paper but failed to get them to stabilize. Instead of finding out why, as our intrepid Dr. M has, he simply changed the experiment to fit the rifles. Not a very good example of proper science, if you ask me.



Give me COFFEE and nobody gets hurt

16 March 2010, 07:17 I Bin Therbefor

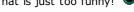
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Originally posted by RIP:



North Fork .395-caliber boolits?

That is just too funny!



The .395 is obsolete ... again ... and it is mine! ALL MINE!!! ... (insert sound of demented laughter here) 👻



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Regards, North Fork"

It's BAAAACCKK

michael458 16 March 2010, 20:19

Well I promised 51's this week, so I am going to give you 51's!

While I am not finished with 51 yet, I re-tested all the FMJs and Solids I had on hand, to go along with and compare to Agent J's 535 S&H FN! At any rate it had been several years since I played with 51, so I felt a re-test was in order. However, I am not stupid, and I already know what the results were going to be, so I shot only 1 round of the FMJ bullets and there were zero surprises there!

The tests today consisted of these bullets.

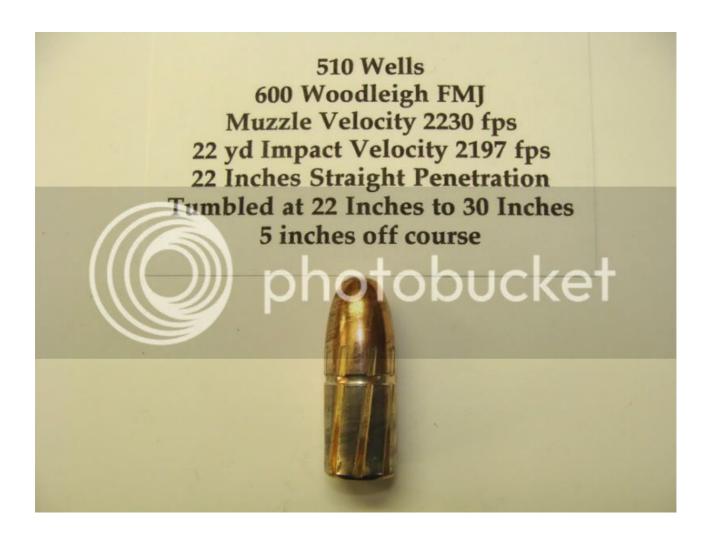


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michael458 16 March 2010, 20:20

There were no surprises with the results of this!



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michael458 16 March 2010, 20:21

Again, No Surprises here either!



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michael458 16 March 2010, 20:22

More of the same old same, no surprises!



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jwp475 16 March 2010, 20:24

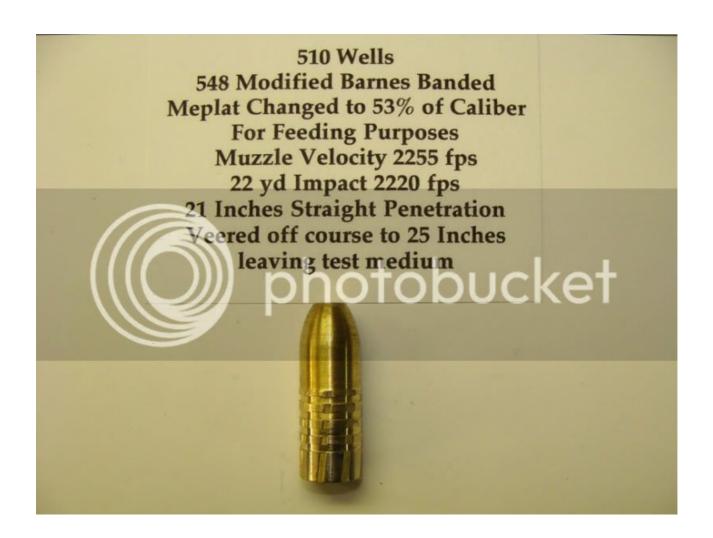
No surprises so far....

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

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

michael458 16 March 2010, 20:25

This was an attempt on my part to come up with a bullet that would feed in the 510 Wells, built on a Ruger Magnum action. This thing will not feed a flat nose bullet at all. As you can see, while it feeds in the gun, the bullet is not a success at all. It's a modified 570 Barnes Banded. Which I don't have any on hand. I did order some 570 Hornady DGS for giggles to try and they are on the way, today, maybe tomorrow! I did test this bullet before, so I knew the outcome, and it did not surprise me.



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michael458 16 March 2010, 20:28

Now for the real bullet! I can't say enough about how nice Agent J puts together a package! Excellent bullets, packaged great, the works! Very very Professional, even the samples he sent to me were packaged in their own little bag!



And of course I was not surprised at the 100% Dead Straight Line Penetration that the bullet gave either! So once again, no surprises at the superb performance!



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jwp475 16 March 2010, 20:38

It would be interesting to see if some of the radiuos of the nose was removed if that would help? More of a truncated cone

I am of course refering to the modified Barnes in the 510 Wells

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

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

- Winston Churchill

I Bin Therbefor 16 March 2010, 23:23

INTERESTING

Turns out that in these tests the 535 S&H and the 535 Woodliegh have VERY close Taylor KO values and the MMs. Both numbers are used to assess the "effectiveness" of a cartridge. Looks like penetration needs to be added to these two measurements.

Macifej 17 March 2010, 00:00

Michael,

What was the charge, type & weight? Primer?

Thanks

J

Whitworth 17 March 2010, 00:36

quote:

Originally posted by jwp475:

quote:

Originally posted by Mike70560:

I have a 30" Long 1 in 8 barrel on a 30-338 Win Mag. if we need some testing done.

You are only about 2 hours from me

By helicopter or lear jet?

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

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

Semper Fidelis

"Building Carpal Tunnel one round at a time"

Macifej 17 March 2010, 00:47

JP has a new jet ...!?!? Why am I always the last guy to know these things ...??

6

michael458 17 March 2010, 00:56

quote:

Originally posted by Macifej:

Michael,

What was the charge, type & weight? Primer?

Thanks J

106 grs RL 15. Is there another primer besides Fed 215?

М

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

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Macifej 17 March 2010, 01:12

quote:

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Originally posted by michael458:

quote:

Originally posted by Macifej:
Michael,

What was the charge, type & weight? Primer?

Thanks

J

106 grs RL 15. Is there another primer besides Fed 215?
```

Not if you have 215's ... 📵

srose 17 March 2010, 01:20

Michael,

Great .510 tests, boy I know I'm going to be disappointed in my big doubles with Woodleigh's after reading this. It will be interesting to see how the Hornaday DGS does. I'm surely looking for a new solid to shoot in my doubles.

Sam

boom stick 17 March 2010, 01:52

Jay's bullets are as pretty as they are deadly.

Would be cool to see a test from a BMG. These are some tough bullets.

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

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

465H&H 17 March 2010, 02:38

465H&H