TRIARC systems

BALLISTIC DATA COLLECTION: ULTIMATE RECCE BUILD

Conducted by: Brandon Bridge & Jonathan Towns | October 2020

SUMMARY

The firearms industry continues to evolve with new technology, machining techniques, and ballistic properties. End users must know and trust that their equipment will perform on demand, every time, regardless of the conditions. This is where TRIARC Systems is constantly Pushing Forward. TRIARC Systems aims to aid the professional end user with current ballistic data that accounts for these improvements in correlation with tailored TRIARC weapon systems.

In TRIARC's recently released YouTube videos, "Ultimate Recce Build," we set out to build the best short length reccee rifle. We sat down with Brandon Bridge and Jonathan Towns to do just that.

YouTube

This document is supplemental data to the series and was created to give the professional end user access to the performance data of our platforms using various types of ammunition in an easy to read, straightforward format. It is meant to give civilians and Law Enforcement agencies, administrators, and officers a comprehensive guide so that they may make informed decisions about equipment used in the line of duty.

TRIARC SYSTEMS BALLISTIC DATA

Data was collected on 2 OCT 2020 using TRIARC Systems 12.5" SBR with Law Tactical Folder, Milspec BCG, OSS muzzle device unsuppressed. All data was collected from the prone position using a LABRADAR with an offset of exactly 6", in line with the muzzle device.

Cresson, TX sits at an elevation of 1,050 feet. Temperature on 2 OCT during testing was approximately 83 degrees, approximate humidity of 74%, and air pressure was approximately 32 (data collected via weather.com).

Data was collected in two, five round shot groups for a total of ten rounds of each ammunition load. These will be compared to the advertised MV (Manufacture Velocity) on the ammunition packaging.

In order to maintain consistency in testing, Jonathan Towns was the shooter and Brandon Bridge was the recorder. Jonathan had zeroed with the Federal Premium 62GR; this was used for one (1x) group to show a constant. This is the only round that was shot for one data group instead of two.

*Note: The unit of measurement of all velocities recorded in this document is FPS (Feet Per Second)

TRIARC TRACK 2.0, 12.5”

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	12.5

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
0111	FEDERAL PREMIUM LE BONDED SP	223 REMINGTON	62GR	3050	2569
					2539
					2518
					2552
					2517

Conclusions	
HIGH/LOW:	**2569 FPS / 2517 FPS**
SPREAD:	**52 FPS**
TOTAL AVERAGE VELOCITY:	**2539 FPS**

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	12.5

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
0112	PMC XTAC LAP	5.56 NATO	62GR (GREEN TIP)	2920	2772
					2762
					2762
					2746
					2763
					2772
					2796
					2736
					2742
					2777
Conclusions					
HIGH/LOW:			**2796 FPS / 2742 FPS**		
SPREAD:			**54 FPS**		
TOTAL AVERAGE VELOCITY:			**2763 FPS**		

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	12.5

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity	Total Average Velocity
0113	HORNADY TAP SBR	5.56 NATO	75GR SPIRE POINT	2310	2400
					2372
					2340
					2380
					2385
					2365
					2352
					2395
					2383
					2390

Conclusions	
HIGH/LOW:	**2400 FPS / 2340 FPS**
SPREAD:	**60 FPS**
TOTAL AVERAGE VELOCITY:	**2376 FPS**

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	12.5

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
0114	HORNADY TAP GMX	5.56 NATO	53GR POLYMER TIP COPPER ALLOY	3300	4853*
					3002
					2970
					2971
					2982
					2981
					2992
					2955
					3005
					8283*

Conclusions	
HIGH/LOW:	**3005 FPS / 2970 FPS**
SPREAD:	**35 FPS**
TOTAL AVERAGE VELOCITY:	**2982 FPS**

*Note: Velocities in red are obvious misreads. Conclusion data excludes these misreads.

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	12.5

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
0115	HORNADY SUPERFORMANCE MATCH	5.56 NATO	75GR BTHP	2910	2645
					2613
					2629
					2608
					2646
					2651
					2634
					2661
					2664
					2633

Conclusions	
HIGH/LOW:	**2651 FPS / 2608 FPS**
SPREAD:	**43 FPS**
TOTAL AVERAGE VELOCITY:	**2638 FPS**

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	12.5

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
0116	FRONTIER	5.56 NATO	75GR BTHP	2860	2575
					2541
					2488
					2551
					2544
					2529
					2491
					2490
					2494
					2541

Conclusions	
HIGH/LOW:	**2575 FPS / 2488 FPS**
SPREAD:	**87 FPS**
TOTAL AVERAGE VELOCITY:	**2524 FPS**

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	12.5

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
0117	IMI SYSTEMS RAZOR CORE	5.56 NATO	69GR BTHP	2740	2606
					2542
					2548
					2522
					2574
					2573
					2558
					2546
					2564
					2571

Conclusions	
HIGH/LOW:	**2606 FPS / 2522 FPS**
SPREAD:	**84 FPS**
TOTAL AVERAGE VELOCITY:	**2560 FPS**

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	12.5

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
0118	BALL M855	5.56 NATO	62GR	3020	2840
					2822
					2811
					2773
					2771
					2796
					2754
					2795
					2841
					2817

Conclusions	
HIGH/LOW:	**2841 FPS / 2754 FPS**
SPREAD:	**87 FPS**
TOTAL AVERAGE VELOCITY:	**2802 FPS**

FINDINGS

Highest MV consistency: Hornady TAP GMX 53GR
Most consistent MV with least spread: Hornady TAP GMX 53GR
Most accurate for Towns at 100yd: IMI Systems Razor Core 69GR
Most accurate for Bridge at 100yd: IMI Systems Razor Core 69GR
Least accurate for Towns at 100yd: Hornady Superformance 75GR
Least accurate for Bridge at 100yd: Hornady Superformance 75GR

TRIARC is committed to continuous testing of each tailored platform, as research is part of the brand's core foundation. The variances in ammunition results during this test **prove the importance of understanding the effect bullet weight and velocity can have on performance, given the purpose of the particular weapon system.**

Although testing will be ongoing, *this* tailored Recce build, with **TRIARC's TRACK 2.0 12.5" barrel, performed at its best with ammunition comprised of mid-range weight and velocity.** Heavier bullets with high velocities or slow velocities, performed poorly when evaluated for accuracy with this barrel length. In conclusion, in order to compensate for the 12.5" barrel length, 69GR ammunition with mid-range velocities should be used to achieve the highest level of accuracy.

For more information, be sure to check out the series:
"Ultimate Recce Build"

Stay up to date on the most current explorations and evaluations of the tailored solutions we provide by subscribing to the TRIARC Systems YouTube channel.