TRIARC systems

BALLISTIC DATA COLLECTION: Tailored Solutions: CQB

Conducted by: Jonas Polson and Christopher Reeves | November 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, "Tailored Solutions: CQB," Jonas Polson and Christopher Reeves set out to build the best CQB rifle.

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 when used with various types of ammunition in an easy to read and straightforward format. It is meant to give civilians, Law Enforcement agencies, administrators, and officers a comprehensive guide to make informed decisions on equipment that is intended to be used in the line of duty.

TRIARC SYSTEMS BALLISTIC DATA

Data was collected on 10 NOV 2020 using TRIARC Systems SBRs (8.3”, 10.5”, 11.5”) with Milspec BCGs, OSS muzzle devices suppressed (8.3”, 10.5”) and SureFire muzzle device suppressed (11.5”). All data was collected from the seated bench 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 10 NOV during testing was approximately 72 degrees.

Data was collected in five round shot groups for each ammunition load. These will be compared to the advertised MV (Manufacture Velocity) on the ammunition packaging.

For testing purposes, Christopher Reeves was the shooter and Jason Monroe was the recorder.

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

TRIARC TRACK 2.0, 8.3″

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	8.3″

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
1	PMC XTAC M193	5.56 NATO	55GR	3270 (20″ BARREL)	2386
					2377
					2354
					2338
					2366

Conclusions	
HIGH/LOW:	**2386 FPS / 2338 FPS**
SPREAD:	**48 FPS**
TOTAL AVERAGE VELOCITY:	**2364 FPS**

TRIARC TRACK 2.0, 8.3″

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	8.3″

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
2	HORNADY GMX	5.56 NATO	53GR	3157 (16″ BARREL)	2578
					2579
					2576
					2566
					2604

Conclusions	
HIGH/LOW:	**2604 FPS / 2566 FPS**
SPREAD:	**38 FPS**
TOTAL AVERAGE VELOCITY:	**2581 FPS**

TRIARC TRACK 2.0, 8.3″

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	8.3″

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
3	HORNADY TAP SBR	5.56 NATO	75GR	2321 (11.5″ BARREL)	2117
					2090
					2079
					2073
					2091

Conclusions	
HIGH/LOW:	**2117 FPS / 2073 FPS**
SPREAD:	**44 FPS**
TOTAL AVERAGE VELOCITY:	**2090 FPS**

TRIARC TRACK 2.0, 8.3″

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	8.3″

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
4	FEDERAL TACTICAL BONDED	.223 REM	62GR	3050 (20″ BARREL)	2306
					2307
					2296
					2308
					2313

Conclusions	
HIGH/LOW:	**2313 FPS / 2296 FPS**
SPREAD:	**17 FPS**
TOTAL AVERAGE VELOCITY:	**2306 FPS**

TRIARC TRACK 2.0, 8.3″

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	8.3″

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
5	PMC XTAC M855	5.56 NATO	62GR (GREENTIP)	3100 (20″ BARREL)	2380
					2398
					2357
					2369
					2343

Conclusions	
HIGH/LOW:	**2398 FPS / 2343 FPS**
SPREAD:	**55 FPS**
TOTAL AVERAGE VELOCITY:	**2369 FPS**

TRIARC TRACK 2.0, 10.5”

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	10.5”

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
6	PMC XTAC M193	5.56 NATO	55GR	3270 (20” BARREL)	2511
					2522
					2584
					2561
					2532

Conclusions	
HIGH/LOW:	**2561 FPS / 2511 FPS**
SPREAD:	**50 FPS**
TOTAL AVERAGE VELOCITY:	**2542 FPS**

TRIARC TRACK 2.0, 10.5”

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	10.5”

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
7	HORNADY GMX	5.56 NATO	53GR	3157 (16” BARREL)	2754
					2754
					2759
					2766
					2766

Conclusions	
HIGH/LOW:	**2766 FPS / 2754 FPS**
SPREAD:	**12 FPS**
TOTAL AVERAGE VELOCITY:	**2760 FPS**

TRIARC TRACK 2.0, 10.5”

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	10.5”

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
8	HORNADY TAP SBR	5.56 NATO	75GR	2321 (11.5” BARREL)	2223
					2246
					2200
					2256
					2255

Conclusions	
HIGH/LOW:	**2256 FPS / 2200 FPS**
SPREAD:	**56 FPS**
TOTAL AVERAGE VELOCITY:	**2236 FPS**

TRIARC TRACK 2.0, 10.5”

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	10.5”

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
9	FEDERAL TACTICAL BONDED	.223 REM	62GR	3050 (20” BARREL)	2469
					2491
					2465
					2505
					2484

Conclusions	
HIGH/LOW:	**2505 FPS / 2465 FPS**
SPREAD:	**40 FPS**
TOTAL AVERAGE VELOCITY:	**2483 FPS**

TRIARC TRACK 2.0, 10.5”

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	10.5”

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
10	PMC XTAC M855	5.56 NATO	62GR (GREENTIP)	3100 (20” BARREL)	2588
					2573
					2575
					2543
					2542

Conclusions	
HIGH/LOW:	**2588 FPS / 2542 FPS**
SPREAD:	**46 FPS**
TOTAL AVERAGE VELOCITY:	**2564 FPS**

TRIARC TRACK 2.0, 11.5”

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	11.5”

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
11	PMC XTAC M193	5.56 NATO	55GR	3270 (20” BARREL)	2663
					2687
					2681
					2699
					2666

Conclusions	
HIGH/LOW:	**2699 FPS / 2663 FPS**
SPREAD:	**36 FPS**
TOTAL AVERAGE VELOCITY:	**2679 FPS**

TRIARC TRACK 2.0, 11.5”

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	11.5”

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
12	HORNADY GMX	5.56 NATO	53GR	3157 (16” BARREL)	2933
					2927
					2932
					2949
					2916

Conclusions	
HIGH/LOW:	**2949 FPS / 2917 FPS**
SPREAD:	**32 FPS**
TOTAL AVERAGE VELOCITY:	**2931 FPS**

TRIARC TRACK 2.0, 11.5”

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	11.5”

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
13	HORNADY TAP SBR	5.56 NATO	75GR	2321 (11.5” BARREL)	2343
					2322
					2346
					2358
					2341

Conclusions	
HIGH/LOW:	**2358 FPS / 2322 FPS**
SPREAD:	**36 FPS**
TOTAL AVERAGE VELOCITY:	**2342 FPS**

TRIARC TRACK 2.0, 11.5”

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	11.5”

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
14	FEDERAL TACTICAL BONDED	.223 REM	62GR	3050 (20” BARREL)	2588
					2619
					2587
					2608
					2575

Conclusions	
HIGH/LOW:	**2619 FPS / 2575 FPS**
SPREAD:	**44 FPS**
TOTAL AVERAGE VELOCITY:	**2595 FPS**

TRIARC TRACK 2.0, 11.5”

Weapon	TRIARC Systems
Model	TSR-15
Barrel Length	11.5”

Shot Series	Ammunition Manufacture	Projectile Caliber	Projectile Weight	Manufacture Velocity (FPS)	Total Average Velocity (FPS)
15	PMC XTAC M855	5.56 NATO	62GR (GREENTIP)	3100 (20” BARREL)	2696
					2703
					2659
					2712
					2708

Conclusions	
HIGH/LOW:	**2712 FPS / 2659 FPS**
SPREAD:	**53 FPS**
TOTAL AVERAGE VELOCITY:	**2696 FPS**

FINDINGS

TRIARC is committed to ongoing testing regarding each tailored platform, as research is part of the brand's core foundation. The variance of ammunition results during this test proves that **it is key to understand the effect that bullet weight and velocity can have on performance through various barrel lengths.**

Although data will be ongoing, it's clear that end users should consider how to balance the appropriate ammunition when choosing shorter barrel lengths to obtain optimal performance. Based on *these* tailored CQB systems, **TRIARC's TRACK 2.0 8.3", 10.5", and 11.5" barrels, performed best with 5.56 NATO Hornady 53GR GMX in terms of consistent velocity and penetration depths.** Overall, we recommend that when running any short barreled rifle system for defense or duty use to use 5.56 chambered ammunition only.

For more information, be sure to check out the series:
"Tailored Solutions: CQB"

Stay tuned to the TRIARC YouTube channel for more explorations in research of the tailored solutions we provide.