

Testing M1811 Grip Module Performance

Performance improvement assessment for Brouwer LLC M1811 Grip Module.

This evaluation is to be considered an ongoing assessment, with additional data and analysis added to this report, as it becomes available. The intention is to continue to evaluate and identify configurations and characteristics that exhibit notable improvement. The outcomes and observations of this ongoing assessment will be used to help make developmental decisions for future products and collaborative efforts by Brouwer LLC.

Testing Methodology

Each configuration will be allocated a standalone day for testing. Participants will only perform this assessment on one configuration in a day. Starting fresh for each iteration, all participants will perform the assessment in the same order, using the same ammunition.

Aggregate relative performance is compiled using the following drills.

- Bulls: 25 Yards, 10 rounds, shot on NRA B8 target with no time limit, for score. This Drill is repeated three times per participant and configuration.
- 1 Shot from holster: 7 yards shot on NRA B8 target for time and score. Shooter stands on the line in the ready position with hands at their side below the waistline. At the sound of the timer, the shooter draws the weapon and places one round as quickly as is accurate on the target. This is repeated 10 times, scoring weighed as Hit Factor.
- Bill Drill: 7 yards shot on IPSC/USPSA target for time and score. Shooter stands on the line in the ready position with hands at their side below the waistline. At the sound of the timer, the shooter draws and fires 6 shots as quickly as is accurate on the target. This is repeated a minimum of three times to compile an average, scoring weighed as Hit Factor.
- Shot to Shot Reload: 7 yards shot on IPSC/USPSA target for time and score. Shooter stands on the line with their weapon pointed at the target and their finger on the trigger. After the sound of the timer, when the shooter is ready, the shooter fires the weapon, performs a slide lock reload, and fires again. The time between the first shot and the second shot is recorded, as the amount of time it takes to perform a slide lock reload. This is repeated ten times and Scored as Hit Factor.

Performance evaluation is calculated using two different methods.

- Points: Are used when accuracy is the only factor to be considered.
- Hit Factor: A mathematical balance between accuracy and speed, Hit Factor scoring takes the number of points earned, and divides them by the time it took to achieve them. This ratio-based approach focuses on optimal performance as a blend.

$$\text{Scored Points (SP) / Time (T) = Hit Factor (HF)}$$

Configurations

- Sig Legion: With its long slide, added weight, Dawson Precision Sights, 30% lighter trigger pull, a factory tuned 14lb or 12lb 1911 style spring, and optic-ready slide, many consider the X5 Legion to offer the best bang/buck out of the box performance for Optics Division Shooting. In addition the test Legion was equipped with a Springer Precision Tungsten guide rod, Grey Guns Comp Trigger.
- Sig Legion Slide with M1811 Grip Module: This configuration utilizes the Sig Legion Slide and Fire Control Unit (FCU). The grip is replaced with the Brouwer LLC. M1811 Grip module and extended Magwell.
- M18 with M1811 Grip Module: This configuration utilizes a Sig Sauer M18 slide and M18 FCU, with KGM Trigger, Legion rear sights, Dawson Precision front sights.
- Icarus: This configuration utilizes an Icarus A.C.E. SOCOM Carry Grip Module with Sig Sauer M18 slide and M18 FCU, with KGM Trigger, Legion rear sights, Dawson Precision front sights.
- Wilson: This configuration utilizes a Wilson Combat WCP320 Grip Module with Sig Sauer M18 slide and M18 FCU, with KGM Trigger, Legion rear sights, Dawson Precision front sights.
- Staccato: This configuration features a Staccato P.

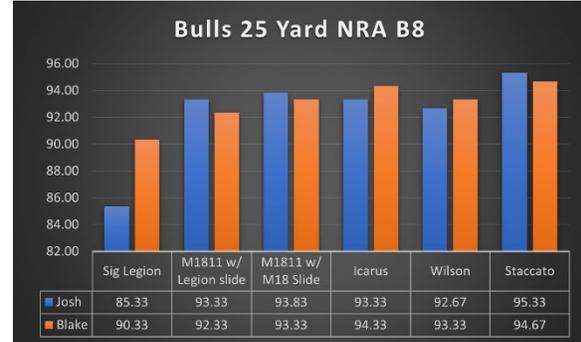
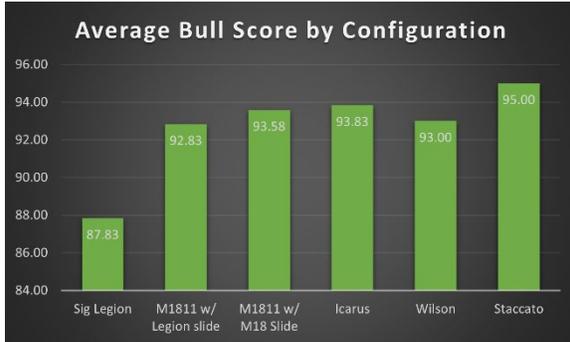
Participants

- Blake Brouwer USPSA C Class Shooter
- Joshua Bennett USPSA A Class Shooter
- Jim Palmer USPSA B Class Shooter

Test Results / Data

Drill: Bulls

Participants: Blake, Josh

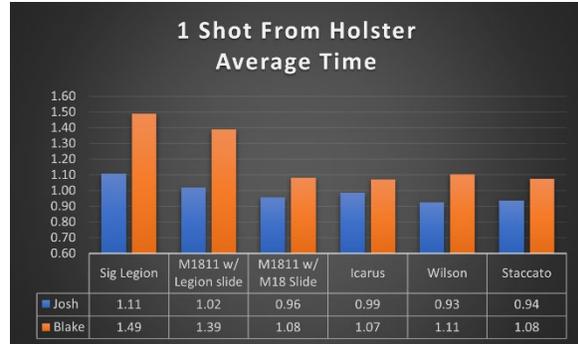
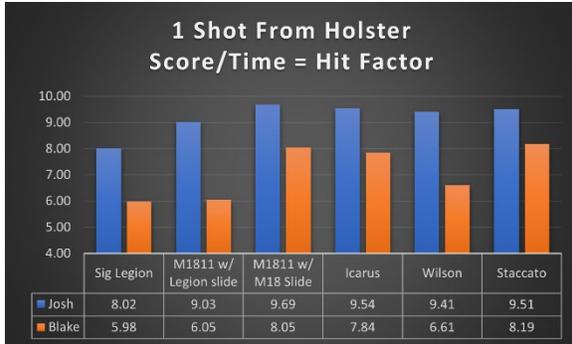


Bulls 25 yard NRA B8 Target							
Configuration	Participant	Score 1	Score 2	Score 3	Score 4	Score 5	Average Score
Sig Legion	Josh	89					85.33
		81					
	Blake	86					
		92					
		91					
		88					
M1811 w/ Legion slide	Josh	91					93.33
		92					
		97					
	Blake	91					
		93					
		93					
M1811 w/ M18 Slide	Josh	92					93.83
		91					
		92					
		94					
		100					
	Blake	94					
		95					
		91					
		91					
		93					
		97					
		91					
Icarus	Josh	97					93.33
		91					
	Blake	92					
		94					
		95					
		94					
Wilson	Josh	92					92.67
		92					
		94					
	Blake	95					
		93					
		92					
Staccato	Josh	97					95.33
		93					
		96					
	Blake	95					
		94					
		95					

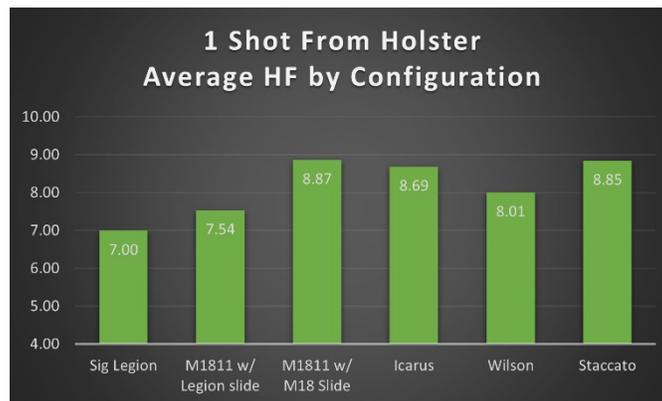
Test Results / Data (cont.)

Drill: 1 Shot from Holster

Participants: Blake, Josh



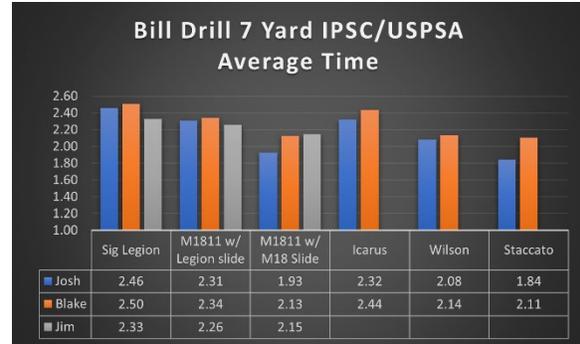
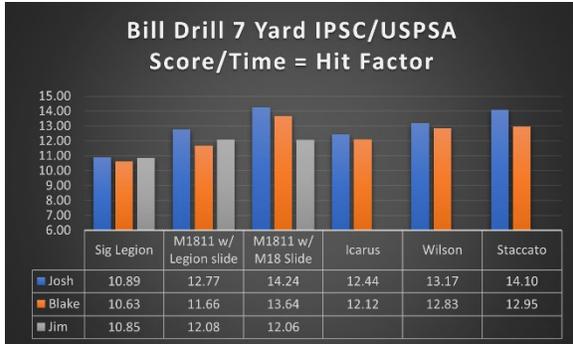
1 Shot From Holster - Scored on NRA B8 at 7 yards																		
												Total Time	Average Time	Score	Number of "X" ring hits	Hit Factor	Average HF	Config AVG HF
Sig Legion	Josh	1.20	1.15	1.17	1.24	1.06	1.07	1.12	1.08	1.02	0.99	11.10	1.11	89	1	8.02		
	Blake	1.67	1.72	1.37	2.09	1.38	1.51	1.23	1.38	1.33	1.21	14.89	1.49	89	1	5.98		7.00
M1811 w/ Legion slide	Josh	1.12	1.11	1.04	1	1.06	0.97	0.98	0.94	1.04	0.93	10.19	1.02	92	n/a	9.03		
	Blake	1.48	1.69	1.4	1.29	1.38	1.39	1.26	1.33	1.37	1.3	13.89	1.39	84	n/a	6.05		7.54
M1811 w/ M18 Slide	Josh	1.11	0.93	0.95	0.89	0.85	1.04	0.88	0.87	0.83	1.12	9.47		94	3	9.93		
	Josh	0.96	1.15	0.9	1.08	0.99	0.94	0.93	0.93	0.86	0.89	9.63	0.96	91	2	9.45	9.69	
	Blake	1.17	1.14	1.11	1.13	1.27	1.13	1.1	1.12	1.13	1.19	11.49		91	2	7.92		
	Blake	1.04	0.94	1.02	0.98	0.98	0.87	1.26	1.03	1.02	1.01	10.15	1.08	83	2	8.18	8.05	8.87
Icarus	Josh	1	0.99	1.2	1.01	0.99	0.94	0.94	0.91	0.91	0.96	9.85	0.99	94	1	9.54		
	Blake	1.02	1.06	1.12	1.34	1.1	1.06	0.93	0.97	1.07	1.05	10.72	1.07	84	2	7.84		8.69
Wilson	Josh	0.96	0.97	1.16	0.92	0.88	0.88	0.88	0.88	0.85	0.87	9.25	0.93	87	2	9.41		
	Blake	1.26	1.05	1.09	1.06	1.13	1.1	1.15	1.06	1.05	1.1	11.05	1.11	73	2	6.61		8.01
Staccato	Josh	1	0.99	0.95	0.96	0.9	0.88	0.91	0.87	0.89	1.01	9.36	0.94	89	2	9.51		
	Blake	0.96	1.14	1.09	1.23	1.06	0.99	1.06	1.03	1.1	1.09	10.75	1.08	88	2	8.19		8.85



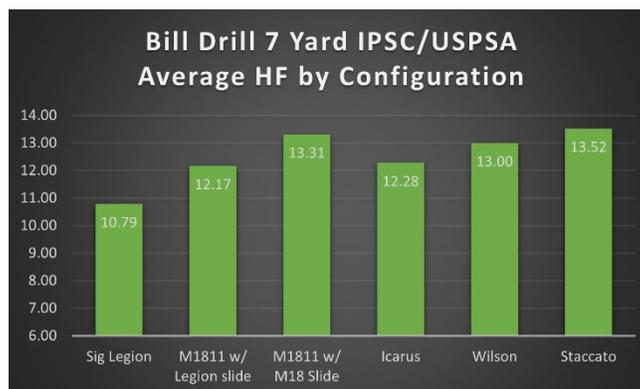
Test Results / Data (cont.)

Drill: Bill

Participants: Blake, Josh, Jim



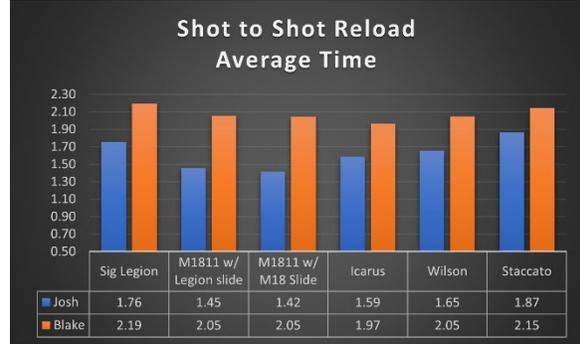
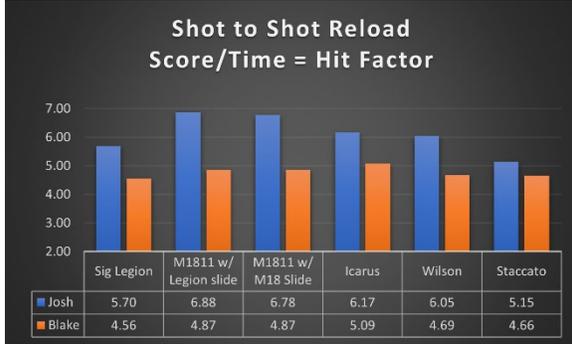
Sig Legion		Number of Hits						Points						Average Time	Hit Factor	Average HF	Config AVG	
		A=5	C=3	D=1	A=5	C=3	D=1	A=5	C=3	D=1	A=5	C=3	D=1					
Sig Legion	Josh #1	2.58	5	1	0	25	3	0	28									
	Josh #2	2.27	5	1	0	25	3	0	28									
	Josh #3	2.53	4	1	1	20	3	1	24									
	Blake #1	2.45	2	4	0	10	12	0	22									
	Blake #2	2.52	5	1	0	25	3	0	28									
	Blake #3	2.54	6	0	0	30	0	0	30									
	Jim#1	2.31	2	4	0	10	12	0	22									
	Jim#2	2.22	3	3	0	15	9	0	24									
	Jim#3	2.55	3	3	0	15	9	0	24									
	Jim#4	2.61	3	3	0	15	9	0	24									
	Jim#5	2.18	6	0	0	30	0	0	30									
	Jim#6	2.1	4	2	0	20	6	0	26									
M1811 w/ Legion slide																		
M1811 w/ Legion slide	Josh #1	2.55	6	0	0	30	0	0	30									
	Josh #2	2.22	6	0	0	30	0	0	30									
	Josh #3	2.15	5	1	0	25	3	0	28									
	Blake #1	2.44	6	0	0	30	0	0	30									
	Blake #2	2.28	5	1	0	25	3	0	28									
	Blake #3	2.31	3	3	0	15	9	0	24									
	Jim#1	2.22	3	3	0	15	9	0	24									
	Jim#2	2.33	6	0	0	30	0	0	30									
	Jim#3	2.23	5	1	0	25	3	0	28									
	M1811 w/ M18 Slide																	
	M1811 w/ M18 Slide	Josh #1	2.26	6	0	0	30	0	0	30								
		Josh #2	1.79	3	2	1	15	6	1	22								
Josh #3		1.94	4	1	1	20	3	1	24									
Josh #1		1.88	5	1	0	25	3	0	28									
Josh #2		1.84	6	0	0	30	0	0	30									
Josh #3		1.84	6	0	0	30	0	0	30									
Blake #1		2.07	6	0	0	30	0	0	30									
Blake #2		2.26	6	0	0	30	0	0	30									
Blake #3		2.23	6	0	0	30	0	0	30									
Blake #1		2.13	6	0	0	30	0	0	30									
Blake #2		2.1	5	1	0	25	3	0	28									
Blake #3		1.97	4	2	0	20	6	0	26									
Jim#1	2.22	5	1	0	25	3	0	28										
Jim#2	2.19	5	1	0	25	3	0	28										
Jim#3	2.04	3	2	1	15	6	1	22										
Icarus																		
Icarus	Josh #1	2.06	5	1	0	25	3	0	28									
	Josh #2	2.54	6	0	0	30	0	0	30									
	Josh #3	2.35	5	1	0	25	3	0	28									
	Blake #1	2.22	6	0	0	30	0	0	30									
	Blake #2	2.63	5	1	0	25	3	0	28									
	Blake #3	2.46	6	0	0	30	0	0	30									
Wilson																		
Wilson	Josh #1	2.21	5	1	0	25	3	0	28									
	Josh #2	1.96	5	1	0	25	3	0	28									
	Josh #3	2.07	4	2	0	20	6	0	26									
	Blake #1	2.24	4	2	0	20	6	0	26									
	Blake #2	2.96	6	0	0	30	0	0	30									
	Blake #3	2.11	4	2	0	20	6	0	26									
Staccato																		
Staccato	Josh #1	1.84	4	2	0	20	6	0	26									
	Josh #2	1.96	5	1	0	25	3	0	28									
	Josh #3	1.73	3	3	0	15	9	0	24									
	Blake #1	2.11	5	1	0	25	3	0	28									
	Blake #2	2.04	3	3	0	15	9	0	24									
	Blake #3	2.17	6	0	0	30	0	0	30									



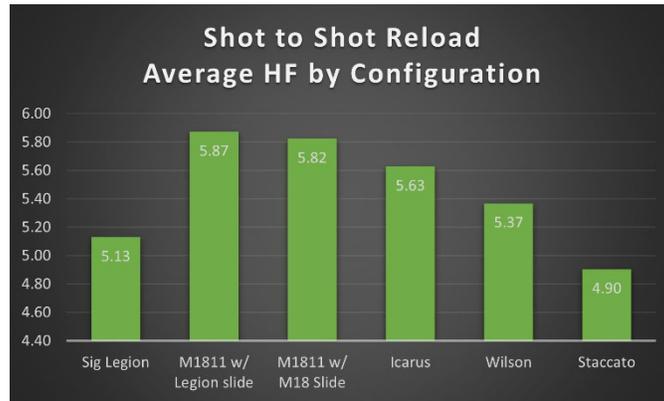
Test Results / Data (cont.)

Drill: Shot to Shot Reload

Participants: Blake, Josh

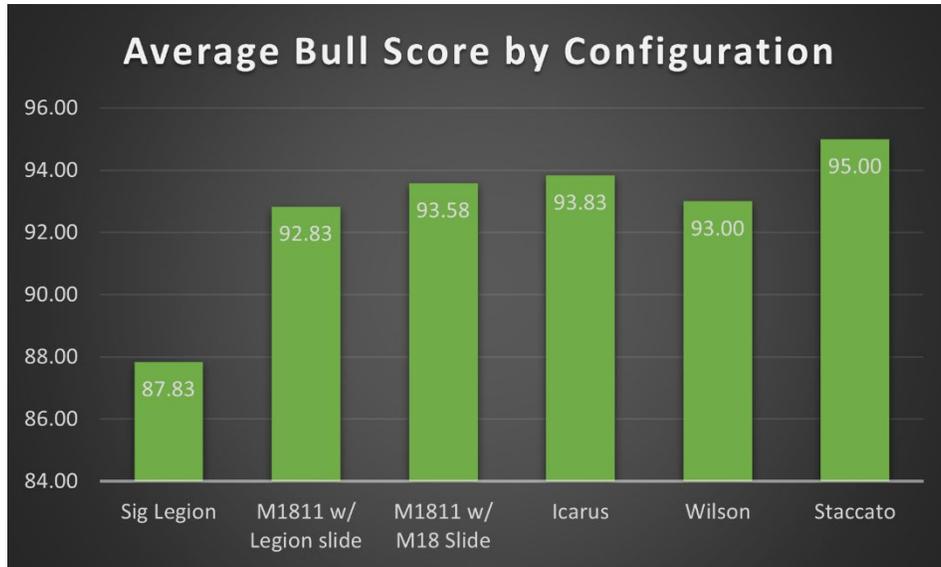


Shot to Shot Reload													Total Time	Average Time	Score	Hit Factor	AVG HF	Config AVG
Sig Legion	Josh	1.98	1.79	1.87	2.27	1.76	1.64	1.50	1.71	1.46	1.57	17.55	1.76	100	5.70			
	Blake	2.03	2.21	2.09	2.04	2.97	2.06	2.08	2.15	2.16	2.13	21.92	2.19	100	4.56	5.13		
M1811 w/ Legion slide	Josh	1.80	1.51	1.75	1.48	1.42	1.40	1.38	1.30	1.25	1.25	14.54	1.45	100	6.88			
	Blake	2.33	2.23	1.93	1.90	2.37	2.08	1.95	1.90	1.91	1.94	20.54	2.05	100	4.87	5.87		
M1811 w/ M18 Slide	Josh	1.84	1.54	1.36	1.31	1.26	1.55	1.30	1.24	1.38	1.31	14.09		100	7.10			
	Josh	1.70	1.71	1.40	1.33	1.38	1.32	1.38	1.32	1.45	1.25	14.24	1.42	92	6.46	6.78		
	Blake	2.15	2.41	2.10	2.71	2.17	2.96	2.00	1.89	1.94	1.80	22.13		100	4.52			
	Blake	2.08	1.80	1.83	1.79	1.75	2.03	2.25	1.67	1.66	1.92	18.78	2.05	98	5.22	4.87		
Icarus	Josh	1.82	1.73	2.18	1.53	1.35	1.37	1.41	1.38	1.74	1.37	15.88	1.59	98	6.17			
	Blake	2.27	1.92	1.93	1.99	1.87	2.16	2.25	1.74	1.82	1.71	19.66	1.97	100	5.09	5.63		
Wilson	Josh	2.17	1.52	1.60	1.43	1.64	1.44	1.74	1.64	1.47	1.88	16.53	1.65	100	6.05			
	Blake	2.53	1.91	1.92	2.12	2.08	1.89	1.76	2.27	1.98	2.02	20.48	2.05	96	4.69	5.37		
Staccato	Josh	2.18	1.80	1.65	2.10	1.78	2.00	1.51	1.75	1.48	2.40	18.65	1.87	96	5.15			
	Blake	2.23	2.21	1.90	1.93	2.33	2.15	2.06	1.88	2.53	2.23	21.45	2.15	100	4.66	4.90		



Overall Performance Observations

For Bull shooting, the Staccato P performed the best with the M18/M1811, Icarus and Wilson all within 1 point of each other, and outpacing the legion by at least 5.6%.



For the following drills: 1 Shot from Holster, Bill Drill, and Shot to Shot reload, all Hit Factor scores were compiled and averaged by configuration using data from all participants.

