

	A	B	C	D	E	F	G	H	I
1	Test Lab Request Form Instructions								
2									
3									
4	- The TLW request form can be found on the second worksheet (tabs at bottom of the screen) of this file. - Please fill in all required fields as noted in red. Please fill in all other fields if applicable / possible. Instructions for each field will appear when you click on the field. The procedure field is an embedded MS Word object which will allow you to use formatting features not possible in Excel (i.e. paragraphs, bullets, numbering, etc). - If possible, create your desired data table and/or graph formats in the additional worksheets of this file. This is preferred over extensive written procedures. - If the request is for High Speed Video, specify any desired parameters (i.e. frame rate, resolution, etc.) in the "HSV Setup" tab. If not specified, the videographer will document the parameters that they chose to use. - Once the form is completed, save this file on your personal computer using the following format: <i>TLW#### - Brief Description</i> Try to keep the description as concise as possible. Your name in the filename is no longer necessary. - Email the file to Phillip Reesor (primary) and Mark Hammond (secondary). Phillip will return your email with the assigned number and the assignee								
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	A	B	C	D	E	F	G	H	I	J	K
1											
2		Engineer: Vince Norton				Project #: 241493		TLW #: 2355			
3											
4		Date Submitted: 8/27/2007				Requested Completion Date: 9/21/2007					
5											
6											
7		Test Description:			Perform DAT on 15 Remington Model 770 bolt action rifles.						
8											
9											
10											
11		Test Procedure:			Perform DAT per flow chart and instructions.						
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37	Special Requirements:										
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41											
42	Supplies Availability:										
43											
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45											
46											
47	Results Required:										
48											
49	*****This section to be completed by Test Lab Manager*****										
50											
51	Assigned To:			Wade, Jeff		Start Date:					
52											
53	Assigned Date:			8/30/2007		Completion Date:					
54											
55	Comments:										
56											
57											
58											
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1	Double click to edit.								
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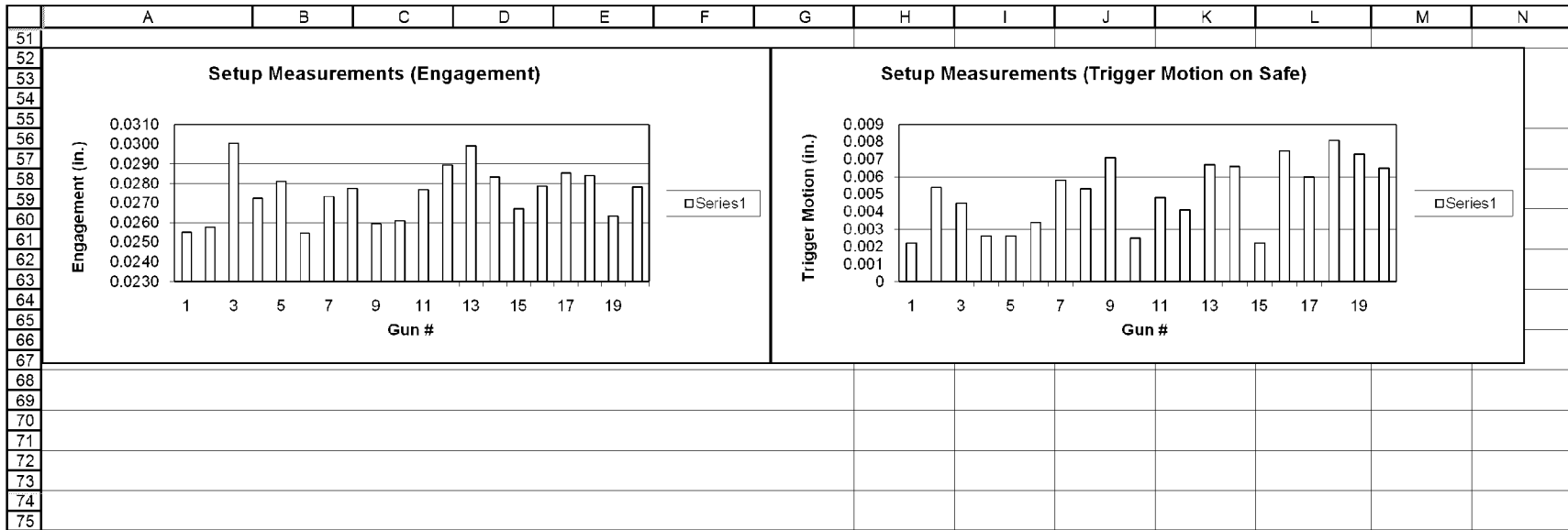
	A	B	C	D	E	F	G	H	I	J
1	HIGH SPEED VIDEO SETUP RECORD									
2										
3	ARCHIVE:		☐ ALL FILES			☐ REPRESENTATIVE FILE(S)			☒ NO ARCHIVE	
4			File Name:							
5										
6	TLW 2355						Date:			
7	Camera Operator:						Project No.:			
8										
9	File Names:									
10	Convention: TLWNo Description.avi i.e. [TLW2162 Shot 1 18in bbl GB.avi], [TLW2162 Shot 2 18in bbl GB.avi]									
11										
12										
13	Purpose of Test:									
14										
15										
16										
17										
18										
19										
20										
21										
22	Camera:			☒ APX-RS ☐ 1024PCI ☐ Canon 20D			Shutter Speed:			
23	Resolution (WxH, pixels):						Frame Rate (fps):			
24										
25	Lens:		Type (C or F):				f-stop used:			
26			Focal Length (mm):				zoom used (mm):			
27										
28	Equipment Height (in. above or below subject, no entry = in-plane with subject)									
29	Equipment	Position	Target	Symbol		Equipment	Position	Target	Symbol	
30	Camera									
31	L1 1000W									
32	L2 1000W									
33	L3 8-Bulb PAL									
34										
35	Set-up Diagram (w/linear dimensions)									
36										
37										

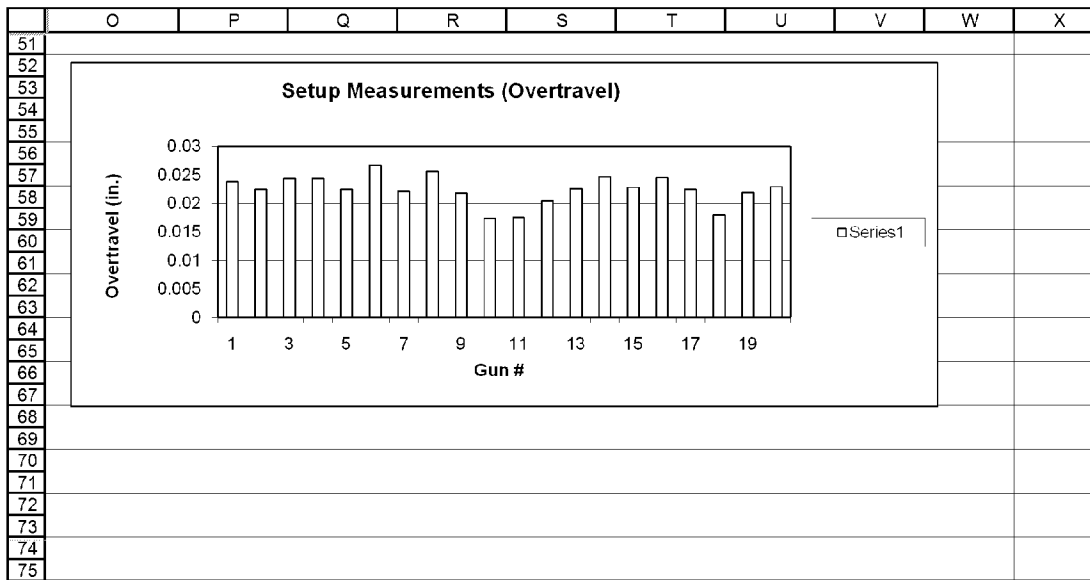
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not to scale.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	TLW 2355 - A (Measurements)													
2	Date: September 14, 2007													
3	Technician: Steve Wade													
4	Reference TLW 2370 thru 2374 for critical part inspection data													
5														
6	INITIAL SETUP													
7	Date: October 24, 2007 (A11-A20), November 5, 2007 (A6-A10), November 9, 2007 (A1-A5)													
8	Technician: Jeff Wade/Vince Norton													
9														
10	Gun I.D. #	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13
11	Gun Serial #	71378965	71378778	71378875	71378780	71378750	71401901	71402850	71403009	71403014	71403158	71288216	71388277	71389036
12	Caliber	243 WIN	243 WIN	243 WIN	243 WIN	243 WIN	7mm RM	7mm RM	7mm RM	7mm RM	7mm RM	30-06	30-06	30-06
13	Engagement	0.0255	0.0277	0.0252	0.0263	0.0268	0.0251	0.0260	0.0257	0.0268	0.0253	0.0275	0.0279	0.0278
14	Trigger Motion on Safe	0.0037	0.0035	0.0054	0.0032	0.0044	0.0040	0.0048	0.0041	0.0026	0.0036	0.0050	0.0023	0.0054
15	Overtravel	0.022	0.022	0.025	0.022	0.021	0.024	0.023	0.026	0.021	0.017	0.019	0.021	0.024
16	Trigger Pull	4.622	5.110	5.027	4.532	5.055	4.699	4.532	4.464	4.537	4.836	5.201	4.271	3.710
17	Notes: 1. Bolts with new bolt head and firing pin were difficult to open after firing. Bolt for A-11 Bound up and had to be beat open twice.													
18	Bolt was replaces with a broken in bolt on the third try.													
19														
20	TLW 2355 - B (Headspace/Proof/Headspace)													
21	Date: October 25, 2007 (A11-A20), November 7, 2007 (A6-A10)													
22	Technician: Jeff Wade													
23														
24	Gun I.D. #	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13
25	Headspace	4	3	4	4	4	4	4	4	4	4	4	5	3
26	Proof	x	x	x	x	x	x	x	x	x	x	x	x	x
27	Headspace	4	3	4	4	4	5	4	5	4	4	5	5	4
28	Notes: 1. Headspace values are all MIN +													
29														
30	TLW 2355 - C (Measurements of Assemblies)													
31	Date: October 26, 2007 (A11-A20), November 8, 2007 (A6-A10)													
32	Technician: Jeff Wade/Bob Lee													
33														
34	Gun I.D. #	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13
35	Engagment 1	0.0254	0.0260	0.0301	0.0271	0.0281	0.0256	0.0271	0.0275	0.0259	0.0260	0.0282	0.0289	0.0297
36	Engagment 2	0.0257	0.0257	0.0300	0.0275	0.0282	0.0253	0.0273	0.0279	0.0260	0.0264	0.0275	0.0288	0.0299
37	Engagment 3	0.0255	0.0256	0.0300	0.0271	0.028	0.0255	0.0276	0.0278	0.0260	0.0259	0.0273	0.0291	0.0301
38	Engagment Avg	0.0255	0.0258	0.0300	0.0272	0.0281	0.0255	0.0273	0.0277	0.0260	0.0261	0.0277	0.0289	0.0299
39	Trigger Motion on Safe	0.0022	0.0054	0.0045	0.0026	0.0026	0.0034	0.0058	0.0053	0.0071	0.0025	0.0048	0.0041	0.0067
40	Overtravel	0.0238	0.0224	0.0243	0.0243	0.0224	0.0267	0.0221	0.0256	0.0218	0.0173	0.0175	0.0204	0.0225
41	Trigger Pull	5.727	5.963	5.984	5.423	5.817	4.597	4.687	4.682	4.586	4.564	5.377	4.647	5.583
42	Safety On Force 1	5.630	4.610	4.440	6.180	5.775	4.590	4.335	4.900	4.845	4.630	3.135	3.400	3.250
43	Safety On Force 2	5.550	4.720	4.435	5.600	5.190	4.650	4.290	4.990	4.875	4.580	3.135	3.390	3.290
44	Safety On Force 3	5.355	4.495	4.530	5.820	5.840	4.405	4.215	4.980	4.815	4.470	3.145	3.410	3.270
45	Safety On Force Avg	5.512	4.608	4.468	5.867	5.602	4.548	4.280	4.957	4.845	4.560	3.138	3.400	3.270
46	Safety Off Force 1	2.675	2.975	2.765	2.870	3.085	3.330	3.180	3.380	3.125	2.905	3.630	3.715	4.105
47	Safety Off Force 2	2.385	2.990	2.835	2.835	3.130	3.290	3.210	3.665	3.065	2.880	3.620	3.725	4.125
48	Safety Off Force 3	2.380	2.690	2.975	2.790	3.145	3.525	3.450	3.360	3.050	2.845	3.635	3.690	4.100
49	Safety Off Force Avg	2.480	2.885	2.858	2.832	3.120	3.382	3.280	3.468	3.080	2.877	3.628	3.710	4.110
50	Safety Function Test	x	x	x	x	x	x	x	x	x	x	x	x	x

	O	P	Q	R	S	T	U	V	W	X
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9										
10	A-14	A-15	A-16	A-17	A-18	A-19	A-20			
11	71389063	71392364	71397532	71398288	71398292	71398631	71398641			
12	30-06	30-06	30-06	30-06	30-06	30-06	30-06			
13	0.0254	0.0277	0.0273	0.0267	0.0270	0.0261	0.0271			
14	0.0049	0.0026	0.0062	0.0031	0.0067	0.0052	0.0061			
15	0.024	0.022	0.025	0.025	0.025	0.022	0.022			
16	3.761	4.584	4.676	4.670	4.650	4.671	4.317			
17										
18										
19										
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21										
22										
23										
24	A-14	A-15	A-16	A-17	A-18	A-19	A-20			
25	5	5	4	3	3	3	3			
26	x	x	x	x	x	x	x			
27	5	6	4	4	3	4	4			
28										
29										
30										
31										
32										
33										
34	A-14	A-15	A-16	A-17	A-18	A-19	A-20			
35	0.0282	0.0268	0.0279	0.0287	0.0282	0.0261	0.0281			
36	0.0282	0.0267	0.0282	0.0283	0.0286	0.0263	0.0276			
37	0.0286	0.0266	0.0275	0.0286	0.0284	0.0266	0.0278			
38	0.0283	0.0267	0.0279	0.0285	0.0284	0.0263	0.0278			
39	0.0066	0.0022	0.0075	0.006	0.0081	0.0073	0.0065			
40	0.0247	0.0228	0.0245	0.0224	0.018	0.0219	0.0229			
41	5.253	5.024	5.842	4.568	5.162	5.065	5.566			
42	3.590	2.925	3.000	3.275	3.210	2.955	3.135			
43	3.655	3.170	3.205	3.250	3.315	2.950	3.145			
44	3.540	3.360	3.175	3.285	3.300	2.975	3.140			
45	3.595	3.152	3.127	3.270	3.275	2.960	3.140			
46	3.615	4.085	4.400	4.970	5.005	3.665	4.005			
47	3.625	3.975	4.225	4.995	5.450	3.800	4.150			
48	3.555	3.990	4.010	5.015	5.380	3.735	4.110			
49	3.598	4.017	4.212	4.993	5.278	3.733	4.088			
50	x	x	x	x	x	x	x			



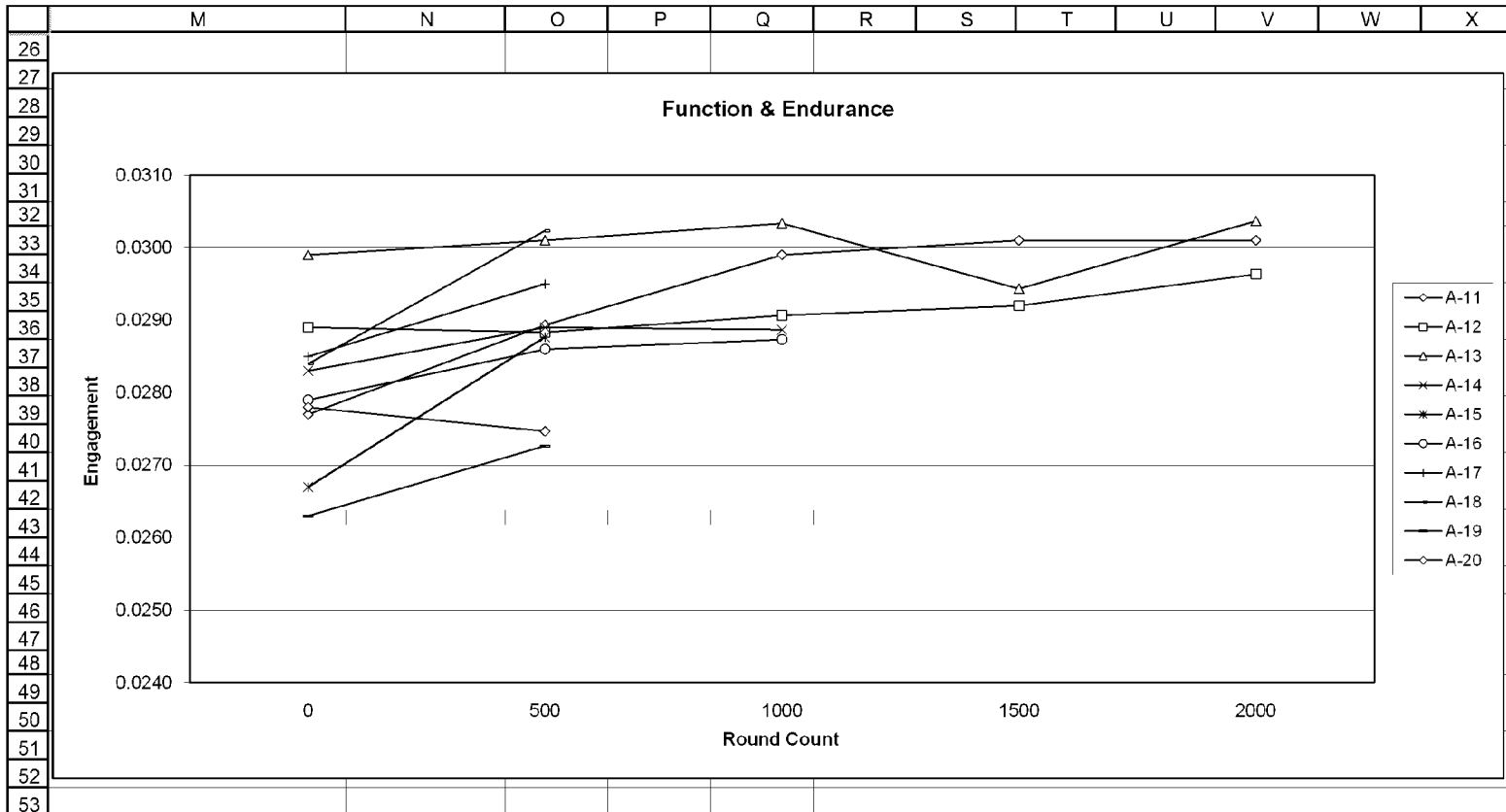


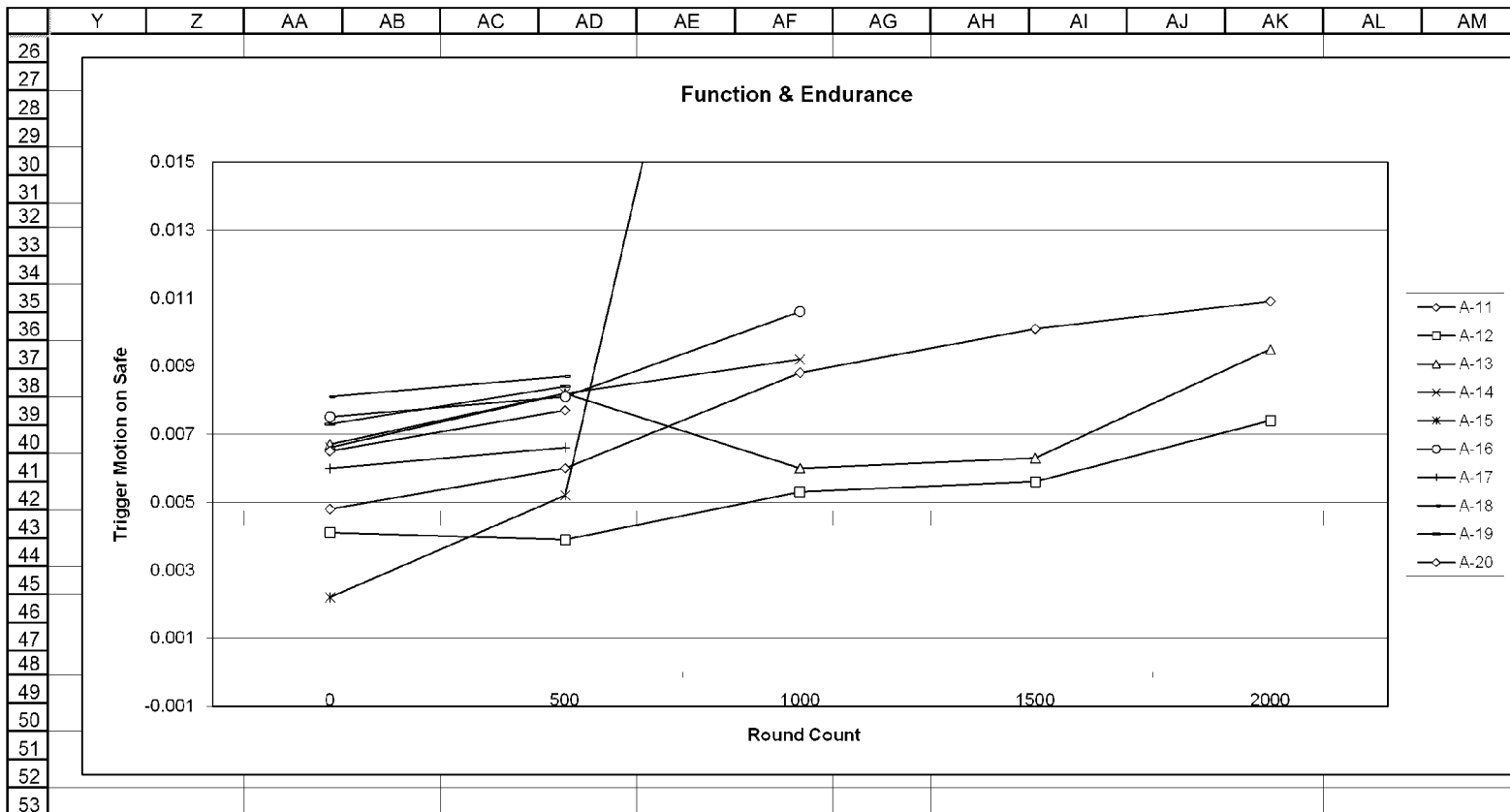
	A	B	C	D	E	F	G	H	I	J	K
1	TLW 2355 - F (Function & Endurance)										
2	Date: 11/13/07										
3	Technician: Jeff Wade & Bob Lee										
4	Gun I.D. #	A-11	A-12	A-13	A-14	A-15	A-16	A-17	A-18	A-19	A-20
5	Total Round Level	2000	2000	2000	1000	1000	1000	500	500	500	500
6	Malfunctions	0	2	2	0	0	0	2	0	0	1
7											
8	NOTES:										
9	All guns - Locking lug hitting tip of round in magazine during ejection										
10	A-12 - 2 Missfires										
11	A-13 - Sear did not fall on two occasions. SLS receiver inserts could "pinch" sear and cause it to not fall.										
12	OD of the receiver insert was sanded to eliminate binding. Problem went away.										
13	A-15 - Engagement went high out of viewing window and had to be reset.										
14	Trigger pull went low out of spec and trigger motion on safe went out of spec.										
15	A-16 - Magazine release lever broke at 720 rounds.										
16	A-17 - 2 Missfires										
17	A-20 - 1 Missfire										

	A	B	C	D	E	F	G	H	I	J	K	L
1	TLW 2355 - G (Inspection)											
2												
3	Initial measurements for reference											
4	Gun I.D. #	A-11	A-12	A-13	A-14	A-15	A-16	A-17	A-18	A-19	A-20	
5	Round Level	0	0	0	0	0	0	0	0	0	0	
6	Engagment 1	0.0282	0.0289	0.0297	0.0282	0.0268	0.0279	0.0287	0.0282	0.0261	0.0281	
7	Engagment 2	0.0275	0.0288	0.0299	0.0282	0.0267	0.0282	0.0283	0.0286	0.0263	0.0276	
8	Engagment 3	0.0273	0.0291	0.0301	0.0286	0.0266	0.0275	0.0286	0.0284	0.0266	0.0278	
9	Engagment Avg	0.0277	0.0289	0.0299	0.0283	0.0267	0.0279	0.0285	0.0284	0.0263	0.0278	
10	Trigger Motion on Safe	0.0048	0.0041	0.0067	0.0066	0.0022	0.0075	0.0060	0.0081	0.0073	0.0065	
11	Overtravel	0.0175	0.0204	0.0225	0.0247	0.0228	0.0245	0.0224	0.018	0.0219	0.0229	
12	Trigger Pull	5.377	4.647	5.583	5.253	5.024	5.842	4.568	5.162	5.065	5.566	
13												
14												
15	*Torque takedown screws to 50 in*lbs											
16												
17	Date: 10/31/07											
18	Technician: Bob Lee\Jeff Wade											
19	Gun I.D. #	A-11	A-12	A-13	A-14	A-15	A-16	A-17	A-18	A-19	A-20	
20	Round Level	500	500	500	500	500	500	500	500	500	500	
21	Headspace	0.005	0.005	0.005	0.005	0.006	0.005	0.006	0.004	0.005	0.004	
22	Engagement 1	0.0288	0.0290	0.0302	0.0287	0.0290	0.0288	0.0296	0.0309	0.0271	0.0276	
23	Engagement 2	0.0292	0.0287	0.0301	0.0293	0.0290	0.0284	0.0294	0.0301	0.0275	0.0271	
24	Engagement 3	0.0288	0.0288	0.0300	0.0287	0.0283	0.0286	0.0295	0.0297	0.0272	0.0277	
25	Engagement Avg	0.0289	0.0288	0.0301	0.0289	0.0288	0.0286	0.0295	0.0302	0.0273	0.0275	

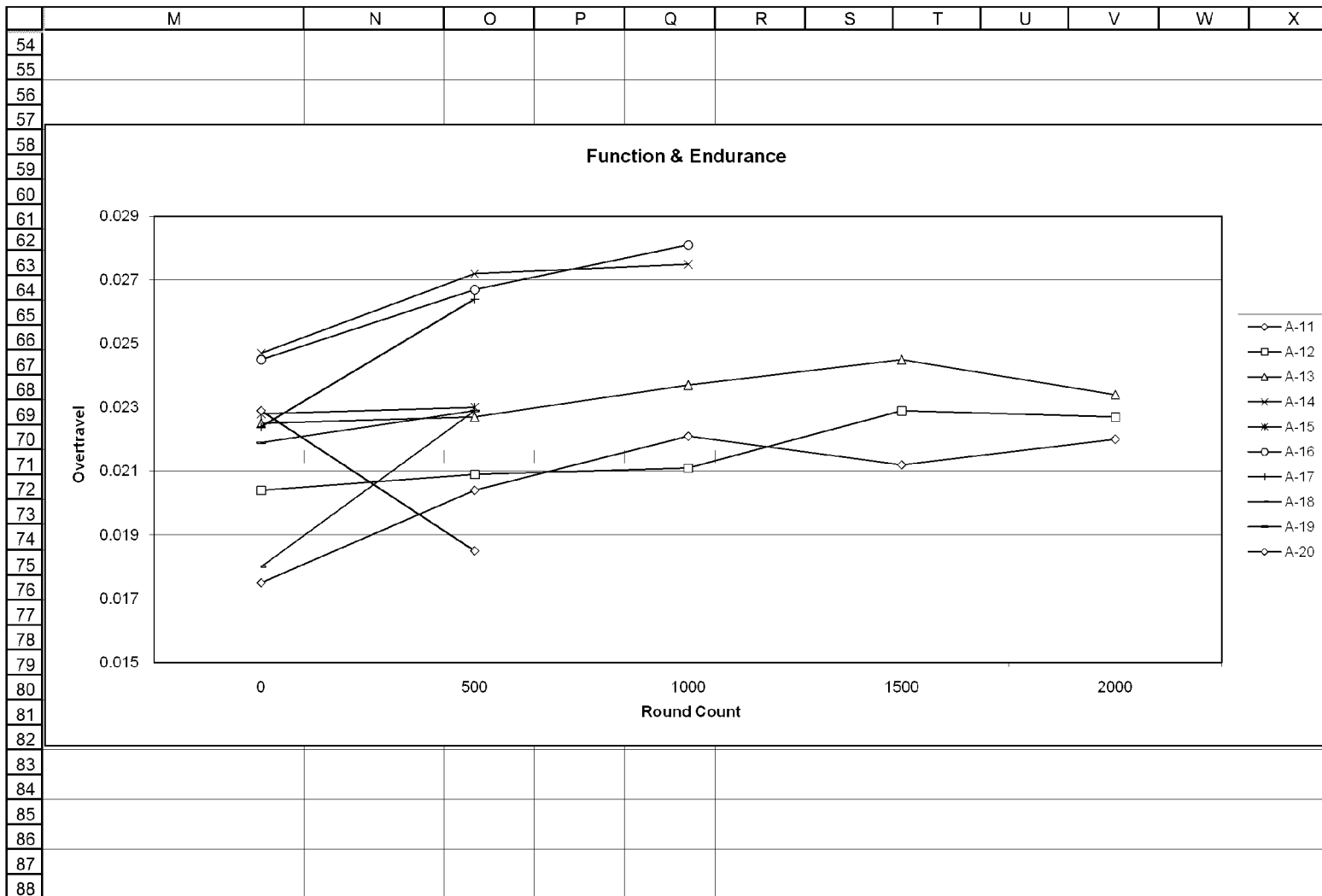
	M	N	O	P	Q	R	S	T	U	V	W	X
1												
2												
3	Data Summary											
4	Gun I.D. #	Round Level	A-11	A-12	A-13	A-14	A-15	A-16	A-17	A-18	A-19	A-20
5	Engagment	0	0.0277	0.0289	0.0299	0.0283	0.0267	0.0279	0.0285	0.0284	0.0263	0.0278
6		500	0.0289	0.0288	0.0301	0.0289	0.0288	0.0286	0.0295	0.0302	0.0273	0.0275
7		1000	0.0299	0.0291	0.0303	0.0289		0.0287				
8		1500	0.0301	0.0292	0.0294							
9		2000	0.0301	0.0296	0.0304							
10	Trigger Motion on Safe	0	0.0048	0.0041	0.0067	0.0066	0.0022	0.0075	0.0060	0.0081	0.0073	0.0065
11		500	0.0060	0.0039	0.0082	0.0082	0.0052	0.0081	0.0066	0.0087	0.0084	0.0077
12		1000	0.0088	0.0053	0.0060	0.0092	0.0349	0.0106				
13		1500	0.0101	0.0056	0.0063							
14		2000	0.0109	0.0074	0.0095							
15	Overtravel	0	0.0175	0.0204	0.0225	0.0247	0.0228	0.0245	0.0224	0.018	0.0219	0.0229
16		500	0.0204	0.0209	0.0227	0.0272	0.0230	0.0267	0.0264	0.0229	0.0229	0.0185
17		1000	0.0221	0.0211	0.0237	0.0275		0.0281				
18		1500	0.0212	0.0229	0.0245							
19		2000	0.022	0.0227	0.0234							
20	Trigger Pull	0	5.377	4.647	5.583	5.253	5.024	5.842	4.568	5.162	5.065	5.566
21		500	4.512	4.431	5.377	4.840	4.592	4.726	4.422	4.579	4.579	5.001
22		1000	4.600	4.190	4.670	4.868	3.802	4.670				
23		1500	4.791	4.726	5.361							
24		2000	4.450	4.346	5.416							
25												

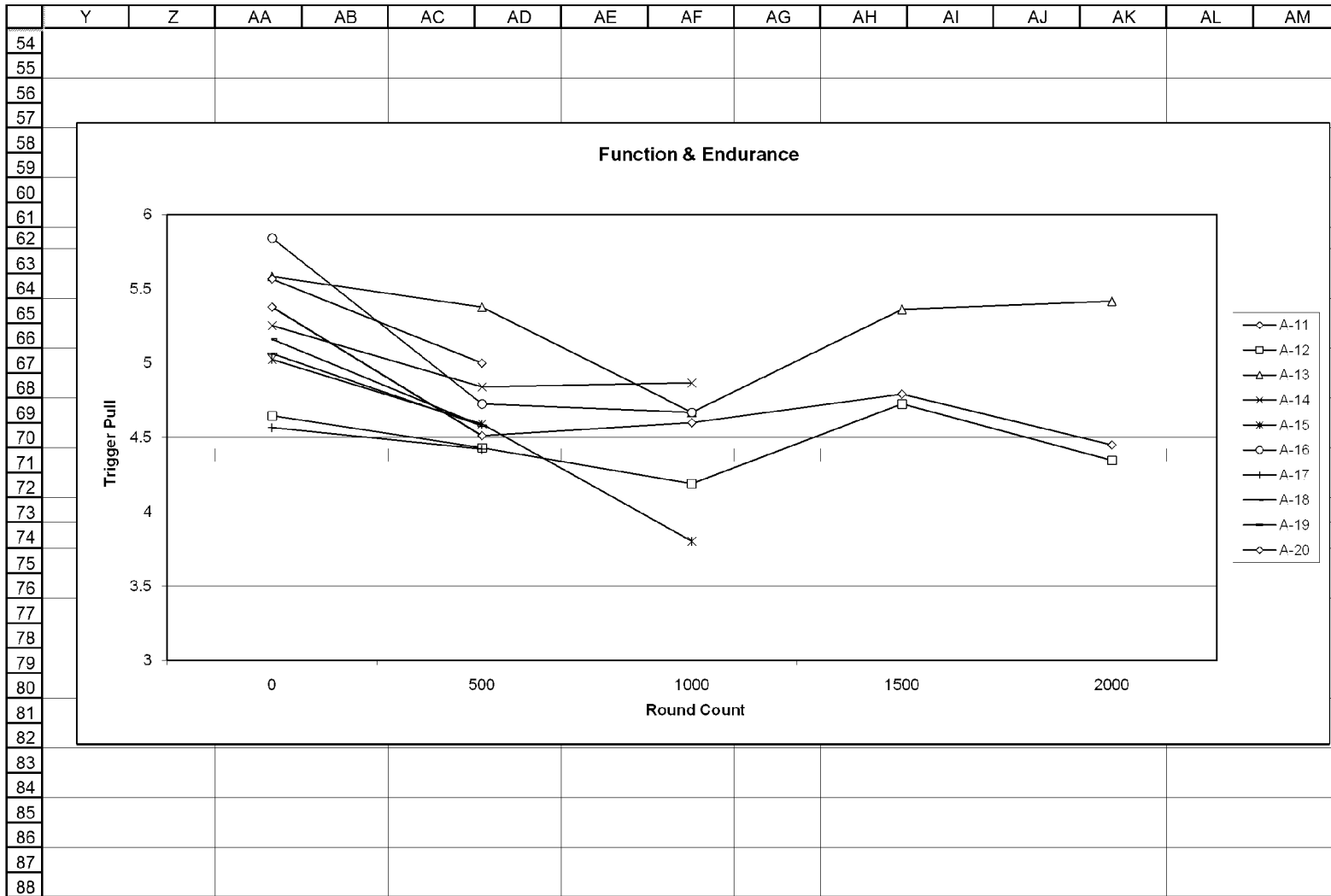
	A	B	C	D	E	F	G	H	I	J	K	L
26	Trigger Motion on Safe	0.0060	0.0039	0.0082	0.0082	0.0052	0.0081	0.0066	0.0087	0.0084	0.0077	
27	Overtravel	0.0204	0.0209	0.0227	0.0272	0.0230	0.0267	0.0264	0.0229	0.0229	0.0185	
28	Trigger Pull	4.512	4.431	5.377	4.840	4.592	4.726	4.422	4.579	4.579	5.001	
29	*All headspace dimensions are MIN +											
30												
31	Date: 11/9/07											
32	Technician: Bob Lee/Jeff Wade											
33	Gun I.D. #	A-11	A-12	A-13	A-14	A-15	A-16					
34	Round Level	1000	1000	1000	1000	1000	1000					
35	Headspace	0.005	0.005	0.005	0.005	0.006	0.005					
36	Engagement 1	0.0299	0.0292	0.0304	0.0289	*OW	0.0289					
37	Engagement 2	0.0300	0.0290	0.0302	0.0289	*OW	0.0286					
38	Engagement 3	0.0298	0.0290	0.0304	0.0288	*OW	0.0287					
39	Engagement Avg	0.0299	0.02907	0.03033	0.02887		0.02873					
40	Trigger Motion on Safe	0.0088	0.0053	0.0060	0.0092	0.0349	0.0106					
41	Overtravel	0.0221	0.0211	0.0237	0.0275	*OS	0.0281					
42	Trigger Pull	4.600	4.190	4.670	4.868	3.802	4.670					
43	*OW - Out of viewing window											
44	*OS - Off screen											
45	Engagement on A-15 was reset to .0254											
46												
47	Date: 11/12/07											
48	Technician: Bob Lee/Jeff Wade											
49	Gun I.D. #	A-11	A-12	A-13								
50	Round Level	1500	1500	1500								
51	Headspace	0.006	0.005	0.005								
52	Engagement 1	0.0302	0.0293	0.0293								
53	Engagement 2	0.0301	0.0292	0.0295								





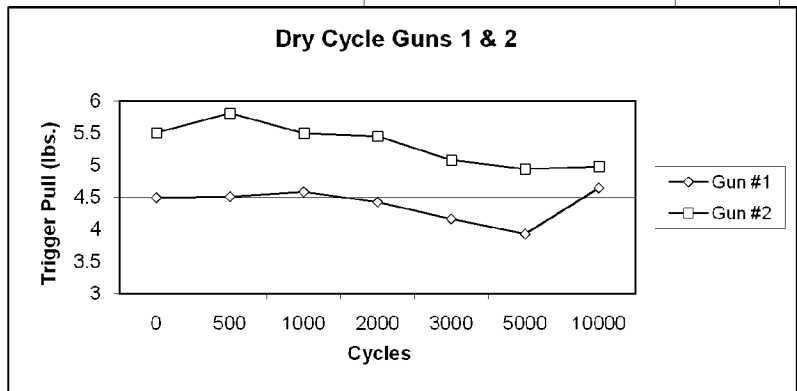
	A	B	C	D	E	F	G	H	I	J	K	L
54	Engagement 3	0.0300	0.0291	0.0295								
55	Engagement Avg	0.0301	0.0292	0.02943								
56	Trigger Motion on Safe	0.0101	0.0056	0.0063								
57	Overtravel	0.0212	0.0229	0.0245								
58	Trigger Pull	4.791	4.726	5.361								
59	Notes: Side plate screw loose on A-12. Retightened											
60												
61	Date: 11/14/07											
62	Technician: Bob Lee/Jeff Wade											
63	Gun I.D. #	A-11	A-12	A-13								
64	Round Level	2000	2000	2000								
65	Headspace	0.006	0.005	0.005								
66	Engagement 1	0.0301	0.0296	0.0303								
67	Engagement 2	0.0302	0.0297	0.0303								
68	Engagement 3	0.0300	0.0296	0.0305								
69	Engagement Avg	0.0301	0.02963	0.03037								
70	Trigger Motion on Safe	0.0109	0.0074	0.0095								
71	Overtravel	0.022	0.0227	0.0234								
72	Trigger Pull	4.450	4.346	5.416								
73												
74	RETEST OF A-15											
75	Date: 11/16/07											
76	Technician: Jeff Wade											
77	Gun I.D. #	A-15	A-15	A-15	A-15							
78	Round Level	start	1100	reset	1200							
79	Engagement	0.0286	0.0351	0.0273	*OW							
80	Trigger Motion on Safe	0.0078	0.0128	0.0078	N/A							
81	Overtravel	0.0276	0.0253	0.0253	N/A							
82	Trigger Pull	4.548	4.179	4.594	3.601							
83	*OW - Out of viewing window											
84												
85	11/19/07 - fire control was disassembled and inspected. No											
86	black max loctite was on the adjustment screws. Lack of											
87	black max loctite was the likely contributor to the adjustment											
88	screws moving during function & endurance. VBN											

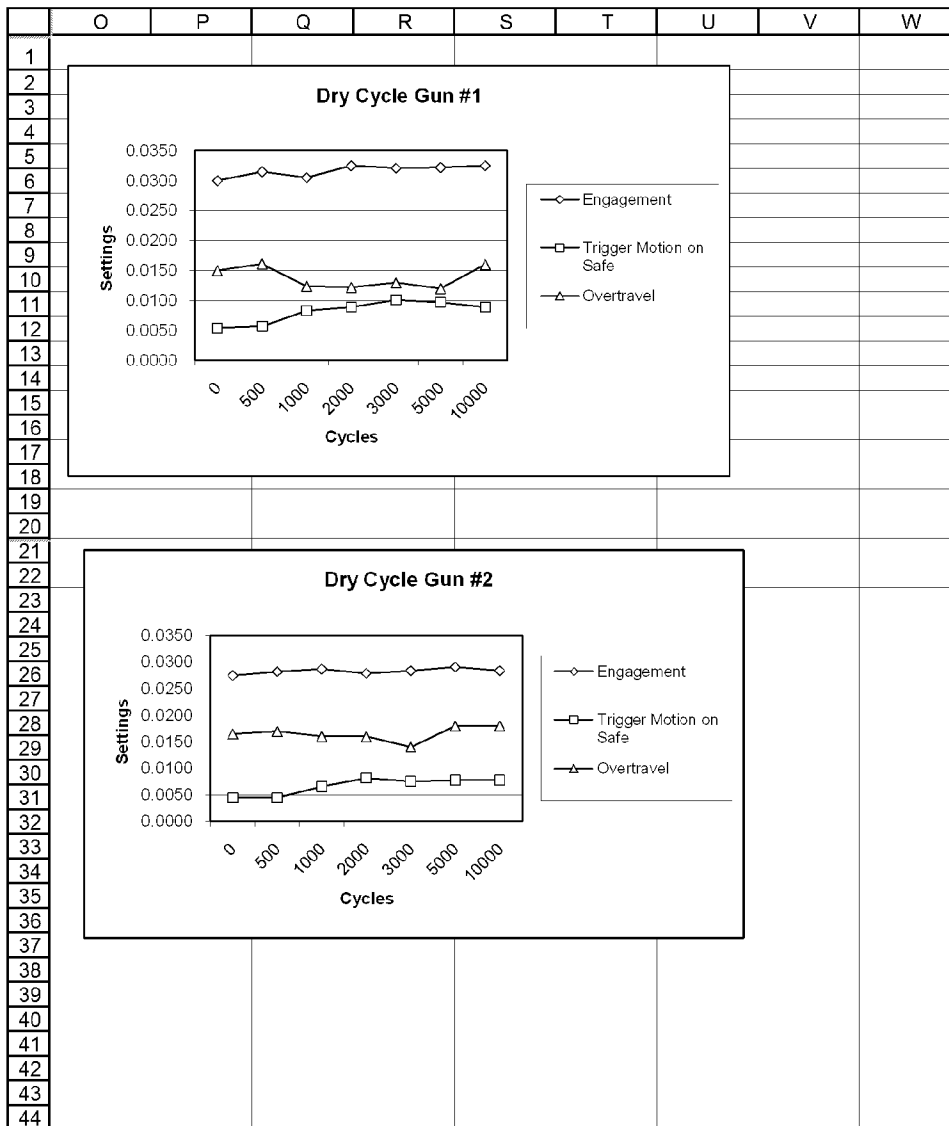




	A	B	C	D	E	F	G										
1	TLW 2355 - E (Accuracy)																
2	Date: 11/15/07																
3	Technician: Jonathan Sims																
4																	
5	Gun I.D. #	A-17	A-18	A-19	A-20												
6	Caliber	30-06	30-06	30-06	30-06												
7	Group #1	1.60	1.45	2.45	2.20												
8	Group #2	2.10	1.70	2.10	2.00												
9	Group #3	1.80	2.25	2.40	1.00												
10	Group Average	1.83	1.80	2.32	1.73												
11																	
12	Three - Five shot groups per gun																
13	*All guns were shot using Remington Express Core-Lokt, 180 GR R30065																
14	Lot #D29 HB1																
15																	
16	Accuracy Results <table><thead><tr><th>Gun #</th><th>Average Group Size (in.)</th></tr></thead><tbody><tr><td>A-17</td><td>1.83</td></tr><tr><td>A-18</td><td>1.80</td></tr><tr><td>A-19</td><td>2.32</td></tr><tr><td>A-20</td><td>1.73</td></tr></tbody></table>							Gun #	Average Group Size (in.)	A-17	1.83	A-18	1.80	A-19	2.32	A-20	1.73
Gun #								Average Group Size (in.)									
A-17								1.83									
A-18								1.80									
A-19								2.32									
A-20								1.73									
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
25																	
26																	
27																	
28																	
29																	
30																	
31																	
32																	
33																	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	TLW 2355 - Q (Dry Cycle)													
2	Date: October 26, 2007													
3	Technician: Cody Greenwell/Vince Norton													
4														
5	Gun I.D. #	1												
6	Serial #	71250971												
7	Cycles	0	500	1000	2000	3000	5000	10000						
8	Engagment	0.0300	0.0315	0.0305	0.0325	0.0321	0.0322	0.0325						
9	Trigger Motion on Safe	0.0054	0.0057	0.0083	0.0089	0.0101	0.0097	0.0089						
10	Overtravel	0.015	0.0161	0.0124	0.0122	0.013	0.012	0.016						
11	Trigger Pull	4.498	4.511	4.589	4.429	4.165	3.929	4.647						
12														
13														
14														
15														
16														
17														
18														
19	Gun I.D. #	2												
20	Serial #	71250948												
21	Cycles	0	500	1000	2000	3000	5000	10000						
22	Engagment	0.0275	0.0282	0.0287	0.0279	0.0284	0.0291	0.0284						
23	Trigger Motion on Safe	0.0045	0.0045	0.0066	0.0082	0.0076	0.0078	0.0078						
24	Overtravel	0.0165	0.017	0.016	0.016	0.014	0.018	0.018						
25	Trigger Pull	5.509	5.814	5.499	5.454	5.084	4.943	4.981						
26														
27														
28														
29														
30														
31														
32														
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34														
35														
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40														
41														
42														
43														
44														





	A	B	C	D	E	F	G	H	I	J	K
1	TLW 2355 - M (Jar-Off)										
2	Date: November 9, 2007										
3	Technician: Jeff Wade										
4	Gun I.D. #	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10
5	Gun Serial #	71378965	71378778	71378875	71378780	71378750	71401901	71402850	71403009	71403014	71403158
6	Caliber	243 WIN	243 WIN	243 WIN	243 WIN	243 WIN	7mm RM	7mm RM	7mm RM	7mm RM	7mm RM
7	Engagement at start	0.0255	0.0258	0.0259	0.0259	0.026	0.0255	0.0273	0.0277	0.0260	0.0261
8	Engagement at end	0.0253	0.0256	0.0256	0.0259	N/A	0.0253	0.0280	0.0280	0.0263	0.0287
9	Trigger Pull at start	4.552	4.58	4.591	4.582	4.582	4.597	4.584	4.682	4.586	4.564
10	Trigger Pull at end	4.586	5.289	4.570	4.572	4.16	4.610	3.710	4.609	4.557	3.086
11	SAAMI Jar-Off (2355-M)	Pass	Pass	Pass	Pass	*Fail	Pass	*Fail	Pass	Pass	*Fail
12	*A-5, A-7 & A-10 - Failed Barrel Horizontal, Bottom of Stock Down because of trigger pull out of spec low										
13	Trigger pull was reset to specification and retested										
14											
15	RETEST										
16	Date: November 9, 2007										
17	Technician: Jeff Wade										
18	Gun I.D. #	A-5	A-7	A-10							
19	Gun Serial #	71378750	71402850	71403158							
20	Caliber	243 WIN	7mm RM	7mm RM							
21	Engagement at start	0.0258	0.0280	0.0287							
22	Engagement at end	0.0256	0.0281	0.0283							
23	Trigger Pull at start	4.589	4.636	4.806							
24	Trigger Pull at end	4.291	4.401	4.645							
25	SAAMI Jar-Off (2355-M)	Pass	Pass	Pass							
26											
27											
28	TLW 2355 - N (Rotation)										
29	Date: November 9, 2007										
30	Technician: Jeff Wade										
31	Gun I.D. #	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10
32	Gun Serial #	71378965	71378778	71378875	71378780	71378750	71401901	71402850	71403009	71403014	71403158
33	Caliber	243 WIN	243 WIN	243 WIN	243 WIN	243 WIN	7mm RM	7mm RM	7mm RM	7mm RM	7mm RM
34	Engagement at start	0.0253	0.0256	0.0256	0.0259	0.0256	0.0253	0.0281	0.028	0.0263	0.0283
35	Engagement at end	0.0252	0.0253	0.0256	0.0266	0.0255	0.0253	0.0282	0.0281	0.0263	0.0277
36	Trigger Pull at start	4.586	4.659	4.57	4.572	4.593	4.610	4.748	4.609	4.557	4.645
37	Trigger Pull at end	4.889	4.558	4.406	4.564	4.605	4.660	4.652	4.691	4.615	4.973
38	SAAMI Rotation (2355-N)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
39											
40											
41	TLW 2355 - O (Drop)										
42	Date: November 9, 2007										
43	Technician: Jeff Wade										
44	Gun I.D. #	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10
45	Gun Serial #	71378965	71378778	71378875	71378780	71378750	71401901	71402850	71403009	71403014	71403158

	A	B	C	D	E	F	G	H	I	J	K
46	Caliber	243 WIN	243 WIN	243 WIN	243 WIN	243 WIN	7mm RM	7mm RM	7mm RM	7mm RM	7mm RM
47	Engagement at start	0.0252	0.0253	0.0256	0.0255	0.0255	0.0253	0.0282	0.0281	0.0263	0.0277
48	Engagement at end	0.0253	0.0252	0.0259	0.0256	0.0257	N/A	0.0281	0.0280	0.0262	N/A
49	Trigger Pull at start	4.571	4.558	4.556	4.564	4.605	4.660	4.652	4.691	4.615	4.579
50	Trigger Pull at end	5.172	3.794	4.404	4.255	4.803	4.660	4.807	4.208	4.408	4.621
51	SAAMI Drop Test (2355-O)	Pass	Pass	Pass	*Fail	Pass	*Fail	Pass	Pass	Pass	*Fail
52	*A-4, A-6 & A-10 - Failed Barrel Horizontal, Bottom of Stock Up because of broken insert										
53	Broken inserts were replaced and retested										
54											
55	RETEST										
56	Date: November 9, 2007										
57	Technician: Jeff Wade										
58	Gun I.D. #	A-4	A-6	A-10							
59	Gun Serial #	71378780	71401901	71403158							
60	Caliber	243 WIN	7mm RM	7mm RM							
61	Engagement at start	0.0251	0.0259	0.0254							
62	Engagement at end	0.025	0.0262	0.0255							
63	Trigger Pull at start	4.616	4.575	4.563							
64	Trigger Pull at end	5.338	4.808	4.714							
65	SAAMI Drop Test (2355-O)	Pass	Pass	Pass							

	A	B	C	D	E	F	G	H
1	TLW 2355 - P (SAAMI Safety Operation Test - 40 lb. Trigger Pull Test)							
2	Date: 11/15/07							
3	Technician: Jeff Wade							
4	Gun I.D. #	A-11	A-12	A-13				
5	Gun Serial #	71288216	71388277	71389036				
6	Caliber	30-06	30-06	30-06				
7	40 lb. Trigger Pull Test	Pass	Pass	Pass				
8								
9								
10	TLW 2355 - H (Dynamic Sand and Dust Test)							
11	Date: 11/15/07							
12	Technician: Jeff Wade							
13	Gun I.D. #	A-14	A-16					
14	Dust/Debris Test	Pass	Pass					
15	500 ml, 75 PSI							
16	15 live rounds per gun, 3 magazines							
17	1 in chamber & 4 in magazine							
18								
19								
20	TLW 2355 - I (Hot Test)							
21	Date: 11/16/07							
22	Technician: Bob Lee							
23	Gun I.D. #	A-17	A-18					
24	Hot Test	Pass	Pass					
25								
26								
27	TLW 2355 - J (Cold Test)							
28	Date: 11/16/07							
29	Technician: Bob Lee							
30	Gun I.D. #	A-19	A-20					
31	Cold Test	Pass	Pass					
32								
33								
34	TLW 2355 - K (Salt Fog Test)							
35	Date: 11/26/07							
36	Technician: Jeff Wade							
37	Gun I.D. #	A-17	A-18					
38	Salt Fog Test	Complete	Complete					
39	Hours in Chamber	22	24					
40	Condition in Chamber	Bolt Open	Bolt Closed					
41								
42								
43	TLW 2355 - L (Metallurgical Check of Triggers)							
44	Date: 12/2/07							
45	Engineer: Jim Urbon							
46	Gun I.D. #	A-15						



C:\salt fog gun
pics.zip



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1																		
2																		
3		Microhardness																
4																		
5		Sample Prep																
6		The trigger from gun A15 was sectioned, mounted, and polished for case depth analysis. The sear engagement end of the trigger was sectioned off and mounted laying on its side.																
7		This section was then ground to mid plane. A series for microhardness indents were ran from the top of the trigger 0.050" back from the front corner of the trigger.																
8																		
9		Distance from surface, inches	Hardness, HV	Hardness, HRc														
10		0.002	640	57.36136														
11		0.004	640	57.35465														
12		0.006	566	53.38171														
13		0.008	539	51.69266														
14		0.010	511	49.85006														
15		0.012	505	49.45893														
16		0.014	497	48.93291														
17		0.016	473	47.17051														
18		0.018	474	47.21232														
19		0.020	471	46.96577														
20		0.022	448	45.20535														
21		0.024	463	46.40042														
22		0.026	465	46.54471														
23		0.028	453	45.59615														
24		0.030	441	44.56657														
25		0.035	431	43.70489														
26		0.040	448	45.1413														
27		0.045	456	45.85844														
28		0.050	449	45.23185														
29																		

