I'm not a statistician. After talking it over with a fellow HP shooter and mathematician (Tom Helak) I realized I made a mistake in how I computed the standard deviation of the error. Originally I took the square root of the some X error Standard deviation squared and the Y error standard deviation squared. In talking with Tom it was determined it was more accuarte to take the standard deviation of the radial error (Column J). This is more representative of what is going on and is what Elley does. In doing this you will see the SD values are smaller.

300 yards

					3.94	-85.706					
				mean	2.06	11.706	0	-8.9E-016	SD mm	SD Inches	SD MOA
				SD	6.40	4.48	6.40	4.48	**4.27**	0.17	0.056
	p-x	p-y	e-x	e-y	dx	dy	dx0	dy0	Err (x+y)		
1	-35.4	-10.8	-39	-3	-3.6	7.8	-5.66	-3.91	6.88		
2	-23.7	6.88	-32	16	-8.3	9.12	-10.36	-2.59	10.68		
3	-3	35.2	-9	47	-6	11.8	-8.06	0.09	8.06		
4	49.6	18.2	52	29	2.4	10.8	0.34	-0.91	0.97		
5	69	17.1	77	30	8	12.9	5.94	1.19	6.06		
6	-67.9	1	-69	13	-1.1	12	-3.16	0.29	3.17		
7	-19	77.6	-19	97	0	19.4	-2.06	7.69	7.97		
8	37.8	31.9	39	47	1.2	15.1	-0.86	3.39	3.50		
9	-37.9	-10	-40	1	-2.1	11	-4.16	-0.71	4.22		
10	-49	10	-38	21	11	11	8.94	-0.71	8.97		
11	-15.6	51.1	-21	71	-5.4	19.9	-7.46	8.19	11.08		
12	81	6.2	100	8	19	1.8	16.94	-9.91	19.62		
13	8.7	25.2	15	37	6.3	11.8	4.24	0.09	4.24		
14	-15.1	33.9	-11	48	4.1	14.1	2.04	2.39	3.15		
15	2.9	8.3	11	20	8.1	11.7	6.04	-0.01	6.04		
16	-61.2	14.2	-63	31	-1.8	16.8	-3.86	5.09	6.39		
17	-6.1	20.7	-6	35	0.1	14.3	-1.96	2.59	3.25		
18	16.7	1	21	10	4.3	9	2.24	-2.71	3.51		
19	15.6	-37.2	19	-34	3.4	3.2	1.34	-8.51	8.61		
20	-77.6	-49.6	-76	-39	1.6	10.6	-0.46	-1.11	1.20		

500yd

						1.3575	-45.9755				
				mean		4.6425	-28.0245	0	-3.2E-015	SD mm	SD Inch	SD MOA
				SD		7.68	7.83	7.68	7.83	**5.11**	0.20	0.0669796
	p-x	p-y	e-x	e-y		dx	dy	dx0	dy0	Err (x+y)		
1	-55.5	18.3	-48	-21		7.5	-39.3	2.86	-11.28	11.63		
2	48.1	53.92	50	20		1.9	-33.92	-2.74	-5.90	6.50		
3	-90.5	-42.3	-95	-78		-4.5	-35.7	-9.14	-7.68	11.94		
4	-130.4	71.8	-132	49		-1.6	-22.8	-6.24	5.22	8.14		
5	125	-17.5	126	-44		1	-26.5	-3.64	1.52	3.95		
6	56.6	-8.61	64	-39		7.4	-30.39	2.76	-2.37	3.63		
7	-77.4	-56.1	-95	-90		-17.6	-33.9	-22.24	-5.88	23.01		
8	104.2	44.3	109	33		4.8	-11.3	0.16	16.72	16.73		
9	19.8	-100.9	18	-134		-1.8	-33.1	-6.44	-5.08	8.20		
10	92.1	90.8	104	68		11.9	-22.8	7.26	5.22	8.94		
11	70.7	43.8	82	19		11.3	-24.8	6.66	3.22	7.40		
12	-64.8	109.6	-54	92		10.8	-17.6	6.16	10.42	12.11		
13	10.5	41.2	22	10		11.5	-31.2	6.86	-3.18	7.56		
14	-61	76.58	-62	51		-1	-25.58	-5.64	2.44	6.15		
15	-87.4	17.3	-75	-26		12.4	-43.3	7.76	-15.28	17.13		
16	140.6	78.4	145	62		4.4	-16.4	-0.24	11.62	11.63		
17	-28.8	53.7	-22	29		6.8	-24.7	2.16	3.32	3.96		
18	89.05	39.1	104	7		14.95	-32.1	10.31	-4.08	11.08		
19	17.5	19.3	28	-6		10.5	-25.3	5.86	2.72	6.46		
20	-64.2	28.8	-62	-1		2.2	-29.8	-2.44	-1.78	3.02		

600yd

					21.78	-87.365					
				mean	-15.78	13.365	0	0	SD mm	SD Inch	SD MOA
				SD	8.19	6.09	8.19	6.09	**4.34**	0.17	0.0568191
	p-x	p-y	e-x	e-y	dx	dy	dx0	dy0	Err (x+y)		
1	-6	-73	-30	-70	-24	3	-8.22	-10.37	13.23		
2	146	-44.6	133	-32	-13	12.6	2.78	-0.76	2.88		
3	90	-3	86	15	-4	18	11.78	4.64	12.66		
4	-36	-64	-58	-59	-22	5	-6.22	-8.37	10.42		
5	68.5	-102.3	53	-100	-15.5	2.3	0.28	-11.07	11.07		
6	18	-8	0	9	-18	17	-2.22	3.64	4.26		
7	-47	-51.5	-68	-37	-21	14.5	-5.22	1.14	5.34		
8	-128	-85	-161	-70	-33	15	-17.22	1.64	17.30		
9	14.6	60	-2	76	-16.6	16	-0.82	2.64	2.76		
10	-19	-52.7	-32	-40	-13	12.7	2.78	-0.66	2.86		
11	198	46.4	189	62	-9	15.6	6.78	2.24	7.14		
12	42	43	34	57	-8	14	7.78	0.64	7.81		
13	79	122	73	142	-6	20	9.78	6.64	11.82		
14	-122	77.1	-131	93	-9	15.9	6.78	2.54	7.24		
15	65	0	64	16	-1	16	14.78	2.64	15.01		
16	25.5	87.4	6	104	-19.5	16.6	-3.72	3.24	4.93		
17	-43	99.2	-60	125	-17	25.8	-1.22	12.44	12.49		
18	-128	39	-143	42	-15	3	0.78	-10.37	10.39		
19	-50	-111	-78	-102	-28	9	-12.22	-4.37	12.98		
20	-96	45.7	-119	61	-23	15.3	-7.22	1.94	7.47		

600 yds

					21.78	-87.365					
				mean	-15.78	13.365	-17.84	1.659	SD mm	SD Inches	SD MOA
				SD	8.19	6.09	8.19	6.09	**7.77**	0.31	0.051
	p-x	p-y	e-x	e-y	dx	dy	dx0	dy0	Err (x+y)		
1	-6	-73	-30	-70	-24	3	-26.06	-8.71	27.48		
2	146	-44.6	133	-32	-13	12.6	-15.06	0.89	15.09		
3	90	-3	86	15	-4	18	-6.06	6.29	8.74		
4	-36	-64	-58	-59	-22	5	-24.06	-6.71	24.98		
5	68.5	-102.3	53	-100	-15.5	2.3	-17.56	-9.41	19.92		
6	18	-8	0	9	-18	17	-20.06	5.29	20.75		
7	-47	-51.5	-68	-37	-21	14.5	-23.06	2.79	23.23		
8	-128	-85	-161	-70	-33	15	-35.06	3.29	35.21		
9	14.6	60	-2	76	-16.6	16	-18.66	4.29	19.15		
10	-19	-52.7	-32	-40	-13	12.7	-15.06	0.99	15.09		
11	198	46.4	189	62	-9	15.6	-11.06	3.89	11.73		
12	42	43	34	57	-8	14	-10.06	2.29	10.32		
13	79	122	73	142	-6	20	-8.06	8.29	11.57		
14	-122	77.1	-131	93	-9	15.9	-11.06	4.19	11.83		
15	65	0	64	16	-1	16	-3.06	4.29	5.27		
16	25.5	87.4	6	104	-19.5	16.6	-21.56	4.89	22.11		
17	-43	99.2	-60	125	-17	25.8	-19.06	14.09	23.70		
18	-128	39	-143	42	-15	3	-17.06	-8.71	19.15		
19	-50	-111	-78	-102	-28	9	-30.06	-2.71	30.18		
20	-96	45.7	-119	61	-23	15.3	-25.06	3.59	25.32		

Now again let me make a couple points.

1. This was done during a match. This was a special setup for a test under ideal circumstances.
2. This is using the current algorithms, once the SOLO algorythms (sub mm accuracy) are in the G2 it will be much better.