

Project information		Coordinate System	
Name:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID.vce	Name:	US State Plane 1983
Size:	1 MB	Datum:	NAD 1983 (Conus)
Modified:	12/22/2015 1:38:22 PM (UTC:-7)	Zone:	Wyoming East Central 4902
Time zone:	Mountain Standard Time	Geoid:	GEOID12A (Conus)
Reference number:		Vertical datum:	NAVD88
Description:			

Baseline Processing Report

Processing Summary

Observation	From	To	Occupation Start Time	Occupation Stop Time	Solution Type	H. Prec. (Meter)	V. Prec. (Meter)	ΔX (Meter)	ΔY (Meter)	ΔZ (Meter)	Geodetic Az.	Ellipsoid Dist. (Meter)	Δ Height (Meter)	Processing Start Time	Processing Stop Time	Satellite Available
NR0224 --- CAS305 (B1)	NR0224	CAS305	4/12/2015 3:43:17 PM	4/12/2015 4:18:35 PM	Fixed	0.007	0.013	23071.981	-10690.074	-4137.999	102°27'27"	25756.295	-45.417	4/12/2015 3:43:29 PM	4/12/2015 4:18:29 PM	GPS: 11 GLONASS: 0 Galileo: 0 BeiDou: 0 QZSS: 0
NR0224 --- CAS632 (B2)	NR0224	CAS632	4/12/2015 2:28:34 PM	4/12/2015 3:18:27 PM	Fixed	0.007	0.009	22086.196	-21402.341	-15310.614	127°31'22"	34345.975	122.298	4/12/2015 2:28:44 PM	4/12/2015 3:18:24 PM	GPS: 9 GLONASS: 0 Galileo: 0 BeiDou: 0 QZSS: 0
NR0224 --- CAS619 (B3)	NR0224	CAS619	4/13/2015 3:57:35 PM	4/13/2015 4:47:58 PM	Fixed	0.006	0.010	29572.143	7877.824	17242.283	48°03'10"	35116.899	154.775	4/13/2015 3:57:44 PM	4/13/2015 4:47:44 PM	GPS: 11 GLONASS: 0 Galileo: 0 BeiDou: 0 QZSS: 0
NR0224 --- CAS622 (B4)	NR0224	CAS622	4/13/2015 2:16:03 PM	4/13/2015 2:50:46 PM	Fixed	0.009	0.011	20860.686	7449.343	14083.982	42°58'26"	26242.342	72.963	4/13/2015 2:16:14 PM	4/13/2015 2:50:44 PM	GPS: 9 GLONASS: 0 Galileo: 0 BeiDou: 0 QZSS: 0

NR0224 --- CAS620 (B5)	NR0224	CAS620	4/13/20 15 1:14:02 PM	4/13/2 015 1:49:3 8 PM	Fixed	0.011	0.013	24313. 131	3971.0 98	11502. 062	54°42' 09"	27181. 193	46.363	4/13/2 015 1:14:1 4 PM	4/13/2 015 1:49:2 9 PM	GPS: 7 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS308 (B6)	NR0224	CAS308	4/13/20 15 11:37:0 5 AM	4/13/2 015 12:12: 14 PM	Fixed	0.009	0.020	8257.8 25	- 13743. 058	- 10716. 597	142°11' '35"	19267. 207	676.59 8	4/13/2 015 11:37: 14 AM	4/13/2 015 12:12: 14 PM	GPS: 7 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS307 (B7)	NR0224	CAS307	4/13/20 15 10:39:1 6 AM	4/13/2 015 11:15: 28 AM	Fixed	0.008	0.011	14032. 910	- 15934. 277	- 11123. 624	131°23' '32"	23950. 624	755.39 5	4/13/2 015 10:39: 29 AM	4/13/2 015 11:15: 14 AM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS306 (B8)	NR0224	CAS306	4/13/20 15 9:27:34 AM	4/13/2 015 10:03: 43 AM	Fixed	0.008	0.011	10932. 501	- 10963. 653	- 7810.1 49	128°23' '19"	17336. 155	140.63 4	4/13/2 015 9:27:4 4 AM	4/13/2 015 10:03: 29 AM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS304 (B9)	NR0224	CAS304	4/13/20 15 8:23:08 AM	4/13/2 015 8:58:2 9 AM	Fixed	0.010	0.013	23829. 462	- 7900.6 39	- 972.58 4	92°54' 03"	25117. 602	- 10.652	4/13/2 015 8:23:1 4 AM	4/13/2 015 8:58:2 9 AM	GPS: 10 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS636 (B10)	NR0224	CAS636	4/14/20 15 1:28:53 PM	4/14/2 015 2:01:0 2 PM	Fixed	0.013	0.014	- 29013. 334	- 21508. 388	- 31159. 378	207°05' '42"	47687. 553	109.90 1	4/14/2 015 1:28:5 9 PM	4/14/2 015 2:00:5 9 PM	GPS: 8 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0

NR0224 --- CAS635 (B11)	NR0224	CAS635	4/14/20 15 12:15:4 1 PM	4/14/2 015 1:05:2 4 PM	Fixed	0.008	0.012	- 32792. 262	- 18108. 102	- 28815. 130	213°50 '00"	47248. 150	97.880	4/14/2 015 12:15: 44 PM	4/14/2 015 1:05:1 4 PM	GPS: 8 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS637 (B12)	NR0224	CAS637	4/14/20 15 11:07:0 6 AM	4/14/2 015 11:57: 33 AM	Fixed	0.007	0.015	- 24911. 998	- 16863. 460	- 25125. 123	209°10 '46"	39185. 116	43.354	4/14/2 015 11:07: 14 AM	4/14/2 015 11:57: 29 AM	GPS: 8 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS634 (B13)	NR0224	CAS634	4/14/20 15 10:10:5 8 AM	4/14/2 015 10:46: 31 AM	Fixed	0.010	0.011	- 14012. 776	- 10645. 604	- 15356. 447	206°29 '46"	23350. 244	- 18.338	4/14/2 015 10:10: 59 AM	4/14/2 015 10:46: 29 AM	GPS: 10 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS633 (B14)	NR0224	CAS633	4/14/20 15 9:15:22 AM	4/14/2 015 9:50:3 9 AM	Fixed	0.008	0.011	- 5831.6 39	- 13385. 825	- 15529. 509	184°50 '16"	21309. 911	82.696	4/14/2 015 9:15:2 9 AM	4/14/2 015 9:50:2 9 AM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS309 (B15)	NR0224	CAS309	4/14/20 15 8:21:39 AM	4/14/2 015 8:56:0 9 AM	Fixed	0.011	0.015	- 4031.5 74	- 8803.1 79	- 10312. 850	185°33 '36"	14142. 224	19.556	4/14/2 015 8:21:4 4 AM	4/14/2 015 8:55:5 9 AM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS629 (B16)	NR0224	CAS629	4/15/20 15 2:15:10 PM	4/15/2 015 3:05:0 9 PM	Fixed	0.014	0.013	- 53069. 926	30536. 484	15203. 137	289°16 '45"	63070. 339	226.46 2	4/15/2 015 2:15:1 4 PM	4/15/2 015 3:04:5 9 PM	GPS: 8 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0

NR0224 --- CAS630 (B17)	NR0224	CAS630	4/15/20 15 1:02:10 PM	4/15/2 015 1:52:4 5 PM	Fixed	0.016	0.018	- 63697. 846	36932. 823	18333. 137	289°26 '05"	75858. 373	209.20 7	4/15/2 015 1:02:4 4 PM	4/15/2 015 1:52:4 4 PM	GPS: 6 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS626 (B18)	NR0224	CAS626	4/15/20 15 11:12:1 5 AM	4/15/2 015 11:48: 12 AM	Fixed	0.010	0.028	- 9994.5 42	- 1988.4 00	- 5095.7 31	232°20 '59"	11390. 576	15.062	4/15/2 015 11:12: 29 AM	4/15/2 015 11:47: 59 AM	GPS: 7 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS301 (B19)	NR0224	CAS301	4/15/20 15 10:15:1 0 AM	4/15/2 015 10:50: 29 AM	Fixed	0.009	0.009	415.36 9	3202.9 94	3457.6 11	353°48 '57"	4730.2 31	18.326	4/15/2 015 10:15: 14 AM	4/15/2 015 10:50: 29 AM	GPS: 10 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS311 (B20)	NR0224	CAS311	4/15/20 15 9:24:05 AM	4/15/2 015 9:59:2 2 AM	Fixed	0.005	0.007	- 1649.3 41	1412.7 64	955.32 4	303°20 '05"	2371.9 27	0.792	4/15/2 015 9:24:1 4 AM	4/15/2 015 9:59:1 4 AM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS310 (B21)	NR0224	CAS310	4/15/20 15 8:32:38 AM	4/15/2 015 9:07:2 5 AM	Fixed	0.008	0.015	- 1523.6 22	- 3588.7 85	- 4147.4 35	184°28 '16"	5690.8 05	17.922	4/15/2 015 8:32:4 4 AM	4/15/2 015 9:07:1 4 AM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS303 (B22)	NR0224	CAS303	4/16/20 15 5:48:22 PM	4/16/2 015 6:23:2 4 PM	Fixed	0.055	0.037	25284. 112	- 2978.8 87	4641.9 68	75°49' 48"	25872. 081	53.353	4/16/2 015 6:04:5 9 PM	4/16/2 015 6:23:1 4 PM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0

NR0224 --- CAS302 (B23)	NR0224	CAS302	4/16/20 15 4:40:22 PM	4/16/2 015 5:15:2 0 PM	Fixed	0.010	0.012	11961. 214	1005.3 06	4666.1 01	60°17' 25"	12875. 194	-1.844	4/16/2 015 4:40:2 9 PM	4/16/2 015 5:15:1 4 PM	GPS: 11 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS623 (B24)	NR0224	CAS623	4/16/20 15 3:53:22 PM	4/16/2 015 4:30:0 1 PM	Fixed	0.009	0.014	12793. 727	4079.6 88	8097.6 07	45°07' 30"	15677. 080	6.904	4/16/2 015 3:53:2 9 PM	4/16/2 015 4:29:5 9 PM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS621 (B25)	NR0224	CAS621	4/16/20 15 3:02:21 PM	4/16/2 015 3:38:0 3 PM	Fixed	0.006	0.011	14798. 593	12194. 453	17161. 586	24°39' 15"	25726. 898	90.661	4/16/2 015 3:02:2 9 PM	4/16/2 015 3:37:5 9 PM	GPS: 10 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS617 (B26)	NR0224	CAS617	4/16/20 15 2:02:58 PM	4/16/2 015 2:38:3 4 PM	Fixed	0.008	0.011	16404. 688	16414. 065	21880. 539	20°19' 30"	31886. 950	31.906	4/16/2 015 2:02:5 9 PM	4/16/2 015 2:38:2 9 PM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS616 (B27)	NR0224	CAS616	4/16/20 15 12:52:2 8 PM	4/16/2 015 1:43:4 4 PM	Fixed	0.010	0.012	25947. 353	26223. 142	34583. 572	20°11' 11"	50553. 867	- 75.563	4/16/2 015 12:52: 29 PM	4/16/2 015 1:43:4 4 PM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS615 (B28)	NR0224	CAS615	4/16/20 15 11:49:2 5 AM	4/16/2 015 12:39: 38 PM	Fixed	0.009	0.017	26649. 083	33422. 429	42023. 239	15°33' 42"	59928. 803	- 134.74 7	4/16/2 015 11:49: 29 AM	4/16/2 015 12:39: 29 PM	GPS: 7 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0

NR0224 --- CAS314 (B29)	NR0224	CAS314	4/16/20 15 10:30:2 3 AM	4/16/2 015 11:05: 29 AM	Fixed	0.010	0.012	9799.8 85	- 777.83 6	2173.3 16	72°48' 38"	10065. 549	-1.795	4/16/2 015 10:30: 29 AM	4/16/2 015 11:05: 29 AM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS312 (B30)	NR0224	CAS312	4/16/20 15 9:33:49 AM	4/16/2 015 10:06: 44 AM	Fixed	0.010	0.010	14867. 208	- 5912.0 30	- 1688.1 33	97°57' 24"	16084. 300	- 62.757	4/16/2 015 9:33:5 9 AM	4/16/2 015 10:06: 44 AM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS313 (B31)	NR0224	CAS313	4/16/20 15 8:31:08 AM	4/16/2 015 9:06:2 9 AM	Fixed	0.009	0.017	6446.0 93	- 7274.9 49	- 5611.4 51	132°43' '53"	11220. 584	- 36.627	4/16/2 015 8:31:1 4 AM	4/16/2 015 9:06:2 9 AM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- NR0223 (B32)	NR0224	NR0223	4/17/20 15 4:36:17 PM	4/17/2 015 5:18:4 4 PM	Fixed	0.005	0.005	- 1461.5 19	1240.6 29	831.90 3	302°58' '09"	2089.2 74	-1.679	4/17/2 015 4:36:2 9 PM	4/17/2 015 5:18:4 4 PM	GPS: 11 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- AA2138 (B33)	NR0224	AA2138	4/17/20 15 3:17:23 PM	4/17/2 015 3:59:0 6 PM	Fixed	0.007	0.013	12253. 311	- 9618.0 39	- 6085.7 38	120°02' '25"	16719. 256	92.696	4/17/2 015 3:17:2 9 PM	4/17/2 015 3:58:5 9 PM	GPS: 11 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS624 (B34)	NR0224	CAS624	4/17/20 15 12:56:3 4 PM	4/17/2 015 1:31:3 6 PM	Fixed	0.013	0.015	- 473.27 5	10855. 149	11042. 833	346°49' '28"	15488. 105	6.108	4/17/2 015 12:56: 44 PM	4/17/2 015 1:31:2 9 PM	GPS: 7 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0

NR0224 --- CAS627 (B35)	NR0224	CAS627	4/17/20 15 11:54:5 2 AM	4/17/2 015 12:27: 47 PM	Fixed	0.029	0.023	- 14595. 265	10590. 623	6546.4 76	297°36 '55"	19179. 283	74.900	4/17/2 015 11:54: 59 AM	4/17/2 015 12:27: 44 PM	GPS: 6 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS625 (B36)	NR0224	CAS625	4/17/20 15 11:03:3 4 AM	4/17/2 015 11:39: 41 AM	Fixed	0.009	0.018	- 17960. 541	14711. 435	9740.2 04	301°48 '54"	25170. 393	73.014	4/17/2 015 11:03: 44 AM	4/17/2 015 11:39: 29 AM	GPS: 8 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS631 (B37)	NR0224	CAS631	4/17/20 15 10:13:3 4 AM	4/17/2 015 10:50: 18 AM	Fixed	0.009	0.010	- 23640. 941	18048. 166	11432. 978	299°18 '06"	31856. 128	90.388	4/17/2 015 10:13: 44 AM	4/17/2 015 10:50: 14 AM	GPS: 10 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CAS628 (B38)	NR0224	CAS628	4/17/20 15 9:05:38 AM	4/17/2 015 9:56:5 3 AM	Fixed	0.007	0.010	- 40027. 762	23378. 922	11815. 692	289°47 '07"	47824. 860	108.68 6	4/17/2 015 9:05:4 4 AM	4/17/2 015 9:56:4 4 AM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
WYRF --- NR0224 (B39)	NR0224	WYRF	4/13/20 15 7:52:14 AM	4/13/2 015 5:30:4 4 PM	Fixed	0.003	0.010	9796.0 20	- 7577.5 83	- 4813.7 34	119°41 '45"	13283. 956	28.722	4/13/2 015 7:52:1 4 AM	4/13/2 015 5:30:4 4 PM	GPS: 23 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
CASPER_A PT --- NR0224 (B47)	NR0224	CASPE R_APT	6/4/201 5 5:47:59 AM	6/4/20 15 4:15:5 9 PM	Fixed	0.001	0.001	986.80 9	497.52 1	819.50 5	35°49' 30"	1375.4 78	3.375	6/4/20 15 5:47:5 9 AM	6/4/20 15 4:15:5 9 PM	GPS: 26 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0



NR0224 --- CP117A (B48)	NR0224	CP117A	11/1/20 15 9:22:49 AM	11/1/2 015 9:58:2 1 AM	Fixed	0.006	0.015	- 11592. 554	- 13822. 405	- 17831. 546	196°29 '12"	25359. 057	33.398	11/1/2 015 9:22:4 9 AM	11/1/2 015 9:58:1 4 AM	GPS: 7 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP118A (B49)	NR0224	CP118A	11/1/20 15 10:33:5 3 AM	11/1/2 015 11:09: 37 AM	Fixed	0.008	0.012	- 17504. 662	- 17332. 109	- 23378. 123	200°27 '49"	33952. 523	-7.654	11/1/2 015 10:34: 17 AM	11/1/2 015 11:09: 37 AM	GPS: 10 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP120A (B50)	NR0224	CP120A	11/1/20 15 12:02:5 2 PM	11/1/2 015 12:39: 06 PM	Fixed	0.008	0.010	- 4179.2 81	- 14242. 173	- 15818. 446	179°55 '18"	21685. 480	146.08 3	11/1/2 015 12:02: 52 PM	11/1/2 015 12:39: 06 PM	GPS: 10 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP101A (B51)	NR0224	CP101A	11/2/20 15 8:59:34 AM	11/2/2 015 9:35:4 2 AM	Fixed	0.013	0.021	- 63865. 231	37172. 843	18528. 209	289°34 '01"	76162. 944	211.55 8	11/2/2 015 8:59:4 6 AM	11/2/2 015 9:35:3 8 AM	GPS: 7 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP102A (B52)	NR0224	CP102A	11/2/20 15 9:50:52 AM	11/2/2 015 10:29: 21 AM	Fixed	0.024	0.040	- 63207. 520	36160. 449	17708. 218	288°59 '05"	74922. 326	212.90 7	11/2/2 015 9:51:1 6 AM	11/2/2 015 10:29: 11 AM	GPS: 8 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP103A (B53)	NR0224	CP103A	11/2/20 15 10:44:4 8 AM	11/2/2 015 11:20: 07 AM	Fixed	0.014	0.018	- 62706. 439	35413. 945	17142. 221	288°34 '11"	74007. 729	238.10 7	11/2/2 015 10:44: 48 AM	11/2/2 015 11:19: 48 AM	GPS: 11 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0

NR0224 --- CP104A (B54)	NR0224	CP104A	11/2/20 15 11:52:1 0 AM	11/2/2 015 12:27: 20 PM	Fixed	0.010	0.016	- 53816. 863	29157. 932	13514. 961	287°12 '46"	62665. 690	196.46 5	11/2/2 015 11:52: 10 AM	11/2/2 015 12:27: 10 PM	GPS: 10 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP106A (B55)	NR0224	CP106A	11/2/20 15 12:42:2 1 PM	11/2/2 015 1:19:0 5 PM	Fixed	0.010	0.016	- 52878. 401	30119. 983	14833. 687	288°56 '02"	62619. 864	223.29 9	11/2/2 015 12:42: 21 PM	11/2/2 015 1:19:0 5 PM	GPS: 11 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP105A (B56)	NR0224	CP105A	11/2/20 15 1:30:03 PM	11/2/2 015 2:05:5 2 PM	Fixed	0.010	0.012	- 51131. 213	29307. 010	14571. 151	289°10 '23"	60692. 697	234.28 0	11/2/2 015 1:30:0 3 PM	11/2/2 015 2:05:5 2 PM	GPS: 11 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP107A (B57)	NR0224	CP107A	11/2/20 15 2:23:19 PM	11/2/2 015 2:58:1 2 PM	Fixed	0.011	0.012	- 46162. 506	26610. 696	13379. 033	289°25 '03"	54922. 128	233.06 0	11/2/2 015 2:23:1 9 PM	11/2/2 015 2:57:5 4 PM	GPS: 10 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP109A (B58)	NR0224	CP109A	11/2/20 15 3:13:35 PM	11/2/2 015 3:48:4 1 PM	Fixed	0.008	0.014	- 45379. 516	25883. 180	12863. 483	289°03 '06"	53787. 733	221.92 6	11/2/2 015 3:13:3 5 PM	11/2/2 015 3:48:4 1 PM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP108A (B59)	NR0224	CP108A	11/2/20 15 3:56:59 PM	11/2/2 015 4:32:2 2 PM	Fixed	0.010	0.012	- 43763. 389	24894. 818	12325. 704	288°57 '08"	51821. 326	197.59 7	11/2/2 015 3:56:5 9 PM	11/2/2 015 4:32:2 2 PM	GPS: 9 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0

NR0224 --- CP116A (B60)	NR0224	CP116A	11/3/20 15 7:41:03 AM	11/3/2 015 8:16:2 8 AM	Fixed	0.009	0.010	29994. 196	- 10359. 050	- 1772.8 77	94°06' 04"	31774. 284	- 79.732	11/3/2 015 7:41:0 3 AM	11/3/2 015 8:16:2 8 AM	GPS: 7 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP115A (B61)	NR0224	CP115A	11/3/20 15 9:20:12 AM	11/3/2 015 9:55:2 3 AM	Fixed	0.009	0.018	26452. 063	31272. 856	39820. 357	16°47' 24"	57112. 023	- 109.81 6	11/3/2 015 9:21:0 2 AM	11/3/2 015 9:55:2 3 AM	GPS: 7 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP114A (B62)	NR0224	CP114A	11/3/20 15 10:22:4 0 AM	11/3/2 015 10:58: 34 AM	Fixed	0.017	0.021	29371. 666	34215. 406	43722. 839	17°05' 56"	62794. 560	- 74.138	11/3/2 015 10:23: 04 AM	11/3/2 015 10:58: 29 AM	GPS: 10 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP119A (B63)	NR0224	CP119A	11/3/20 15 11:16:4 3 AM	11/3/2 015 11:51: 57 AM	Fixed	0.010	0.012	25388. 234	35530. 953	43755. 815	13°21' 02"	61804. 154	- 157.88 6	11/3/2 015 11:16: 43 AM	11/3/2 015 11:51: 42 AM	GPS: 11 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP111A (B64)	NR0224	CP111A	11/3/20 15 1:32:48 PM	11/3/2 015 2:08:0 2 PM	Fixed	0.009	0.009	- 37016. 558	22243. 053	11611. 912	290°48' '14"	44707. 556	119.81 0	11/3/2 015 1:32:4 8 PM	11/3/2 015 2:08:0 2 PM	GPS: 11 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP113A (B65)	NR0224	CP113A	11/3/20 15 2:23:07 PM	11/3/2 015 2:58:1 4 PM	Fixed	0.009	0.011	- 37282. 834	22660. 882	11963. 344	291°12' '10"	45227. 981	124.53 1	11/3/2 015 2:23:3 1 PM	11/3/2 015 2:58:0 6 PM	GPS: 10 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0

NR0224 --- CP110A (B66)	NR0224	CP110A	11/3/20 15 3:20:12 PM	11/3/2 015 3:55:1 8 PM	Fixed	0.008	0.014	- 39579. 116	23747. 192	12361. 408	290°44 '15"	47770. 701	127.67 4	11/3/2 015 3:20:3 6 PM	11/3/2 015 3:55:1 8 PM	GPS: 8 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0
NR0224 --- CP112A (B67)	NR0224	CP112A	11/3/20 15 4:23:30 PM	11/3/2 015 4:58:4 1 PM	Fixed	0.011	0.010	- 38837. 853	22838. 016	11660. 830	290°03 '01"	46527. 301	126.34 6	11/3/2 015 4:23:5 4 PM	11/3/2 015 4:58:4 1 PM	GPS: 12 GLON ASS: 0 Galileo : 0 BeiDo u: 0 QZSS: 0

Acceptance Summary

Processed	Passed	Flag		Fail	
60	60	0		0	

NR0224 - CAS305 (3:43:17 PM-4:18:35 PM) (S1)

Baseline observation:	NR0224 --- CAS305 (B1)
Processed:	7/1/2015 8:39:33 AM
Solution type:	Fixed
Frequency used:	Dual Frequency (L1, L2)
Horizontal precision:	0.007 m
Vertical precision:	0.013 m
RMS:	0.001 m
Maximum PDOP:	2.544
Ephemeris used:	Broadcast
Antenna model:	NGS Absolute
Processing start time:	4/12/2015 3:43:29 PM (Local: UTC-6hr)
Processing stop time:	4/12/2015 4:18:29 PM (Local: UTC-6hr)
Processing duration:	00:35:00
Processing interval:	15 seconds

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470641.199 m	Latitude	N42°53'23.95296"	Latitude	N42°53'23.95295"
Northing	365795.872 m	Longitude	W106°28'06.58311"	Longitude	W106°28'06.58311"
Elevation	1618.510 m	Height	1605.340 m	Height	1605.340 m

To:		CAS305			
Grid		Local		Global	
Easting	495847.412 m	Latitude	N42°50'22.41547"	Latitude	N42°50'22.41546"
Northing	360498.272 m	Longitude	W106°09'39.10026"	Longitude	W106°09'39.10026"
Elevation	1573.190 m	Height	1559.923 m	Height	1559.923 m

Vector					
Δ Easting	25206.213 m	NS Fwd Azimuth	102°27'27"	Δ X	23071.954 m
Δ Northing	-5297.600 m	Ellipsoid Dist.	25756.295 m	Δ Y	-10690.143 m
Δ Elevation	-45.320 m	Δ Height	-45.417 m	Δ Z	-4137.929 m

Standard Errors

Vector errors:					
σ Δ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.003 m
σ Δ Northing	0.003 m	σ Ellipsoid Dist.	0.002 m	σ Δ Y	0.006 m
σ Δ Elevation	0.007 m	σ Δ Height	0.007 m	σ Δ Z	0.004 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000072900		
Y	0.0000073088	0.0000335917	
Z	-0.0000046642	-0.0000168871	0.0000171008

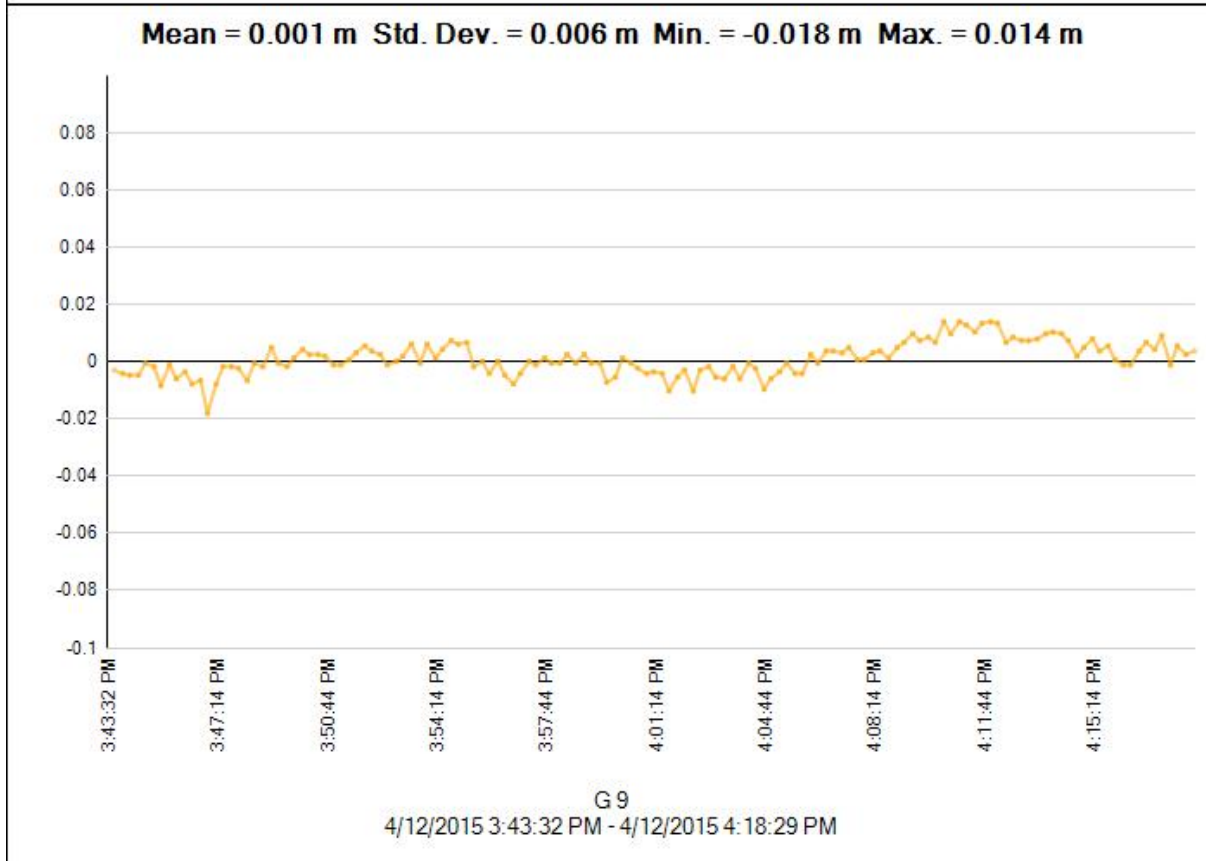
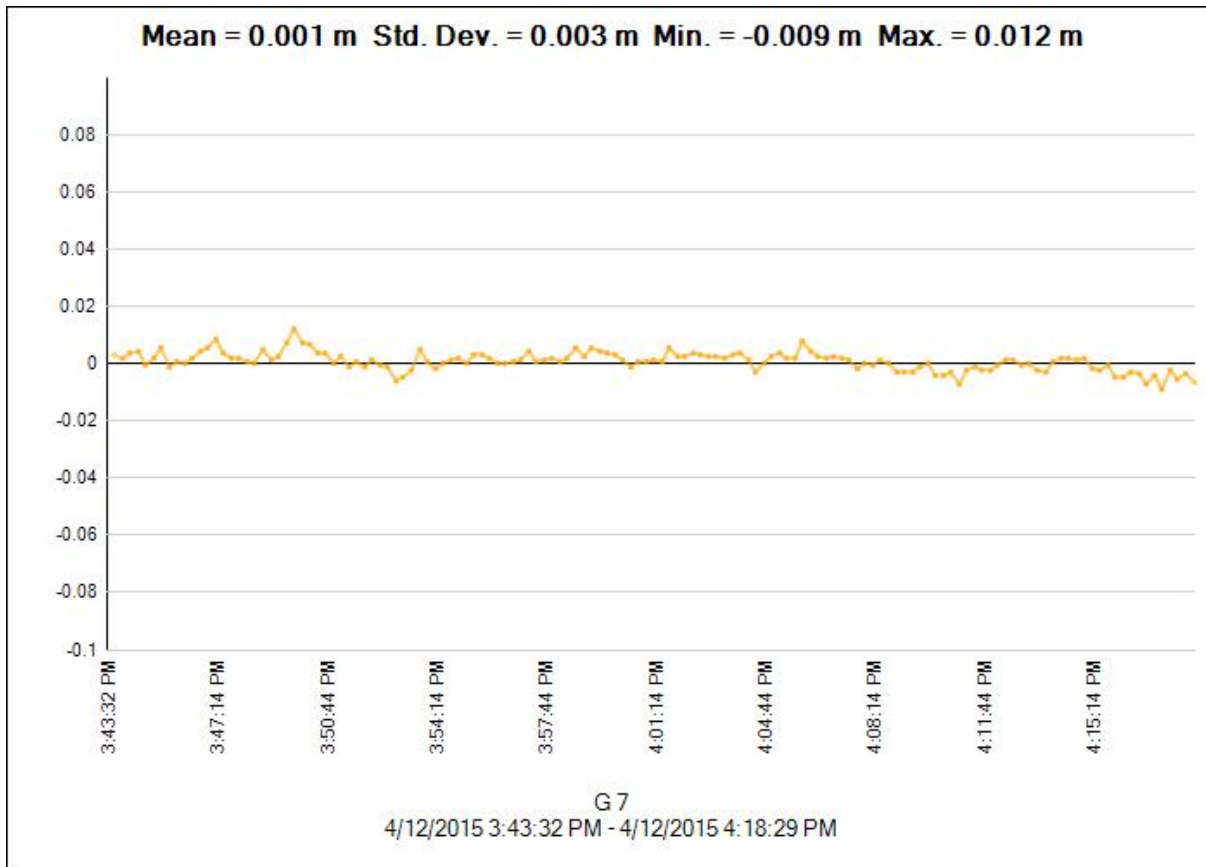
Occupations

	From	To
Point ID:	NR0224	CAS305
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601021.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801021.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.642 m	1.540 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

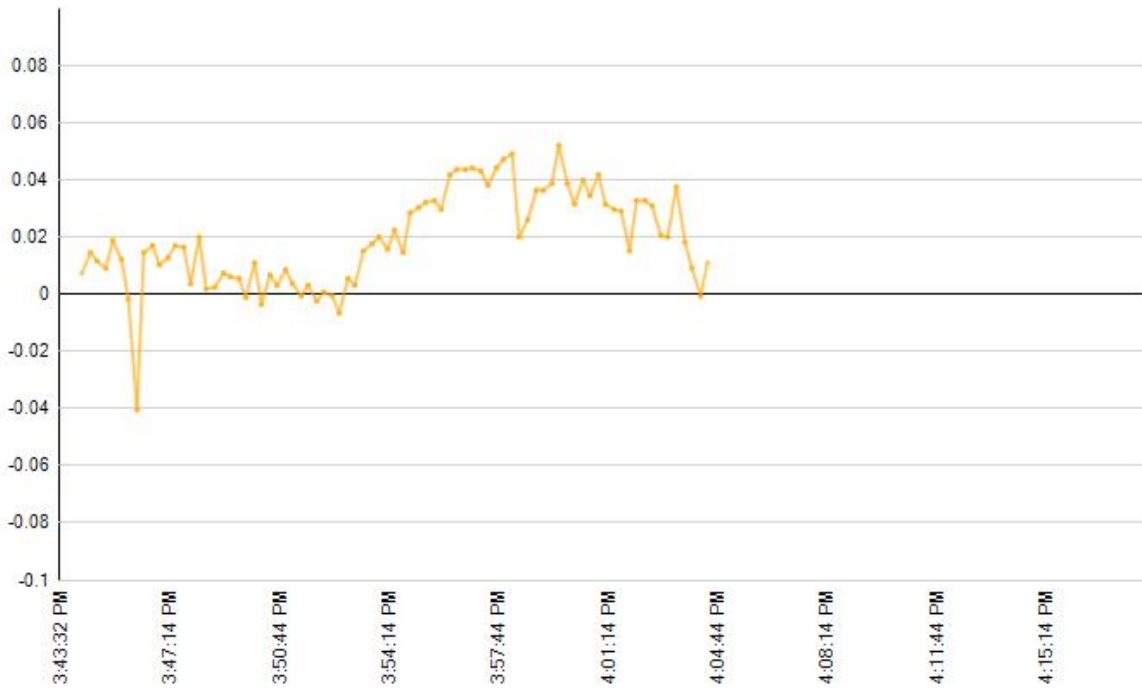
Tracking Summary

SV	4/12/2015 3:43:17 PM	Duration: 00:35:18	Major interval: 00:01:00	4/12/2015 4:18:35 PM
G 5	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 11	L1 L2			
G 13	L1 L2			
G 16	L1 L2			
G 19	L1 L2			
G 20	L1 L2			
G 23	L1 L2			
G 27	L1 L2			
G 28	L1 L2			
G 30	L1 L2			

Residuals

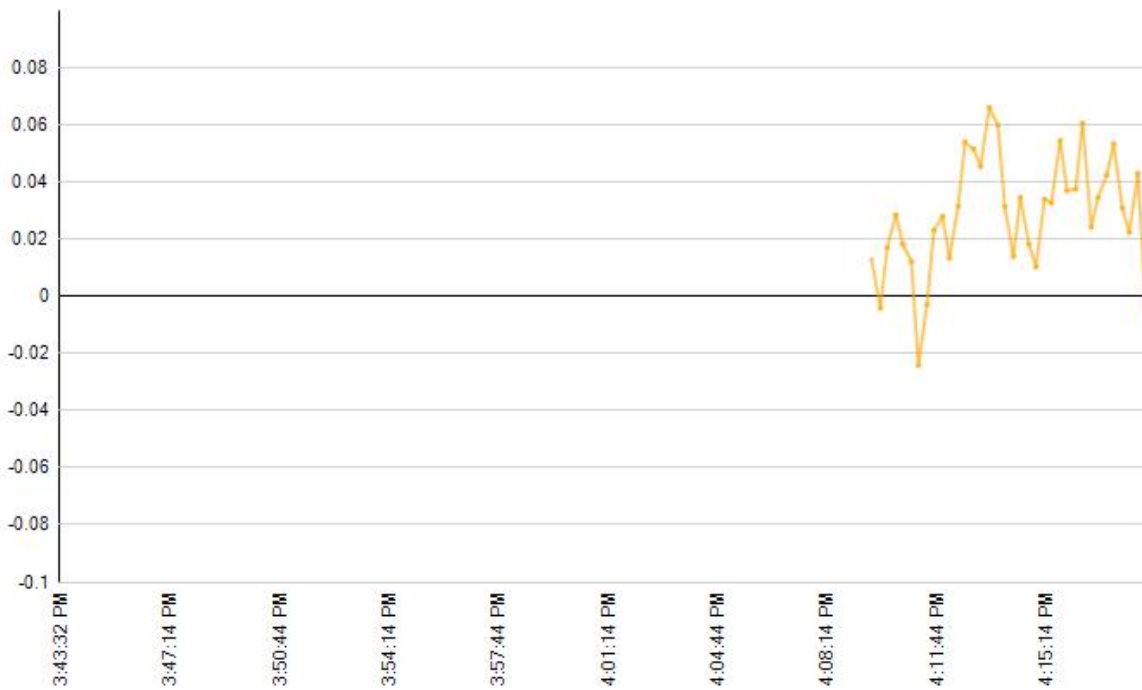


Mean = 0.019 m Std. Dev. = 0.017 m Min. = -0.041 m Max. = 0.052 m



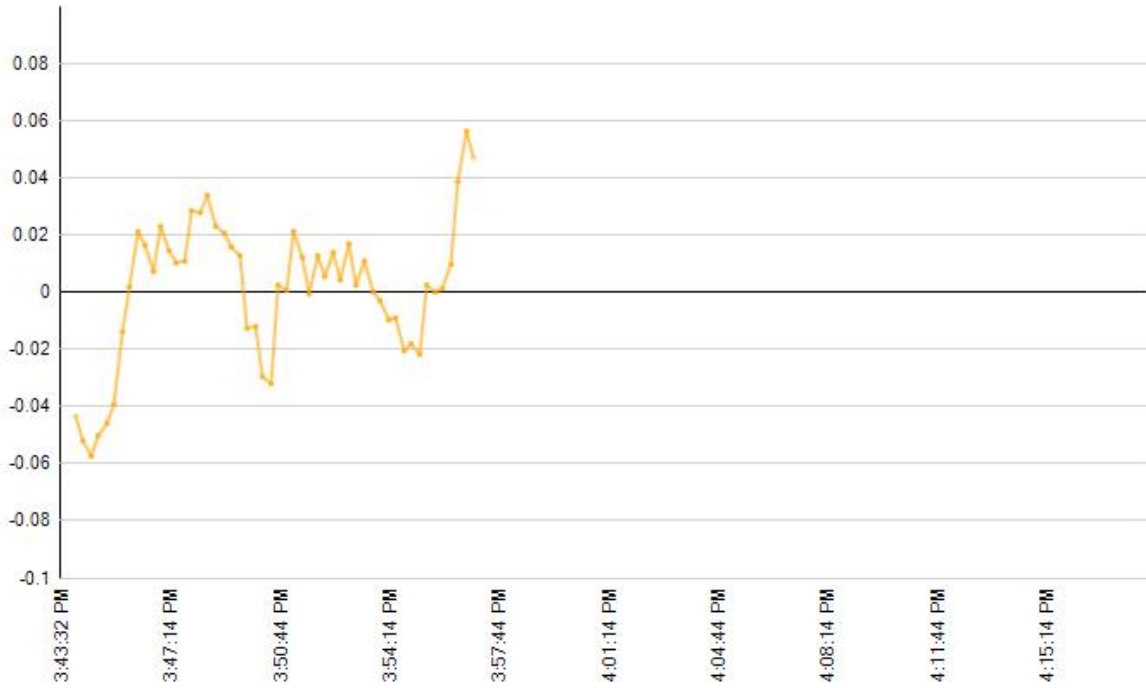
G 10
4/12/2015 3:43:32 PM - 4/12/2015 4:18:29 PM

Mean = 0.029 m Std. Dev. = 0.020 m Min. = -0.024 m Max. = 0.066 m



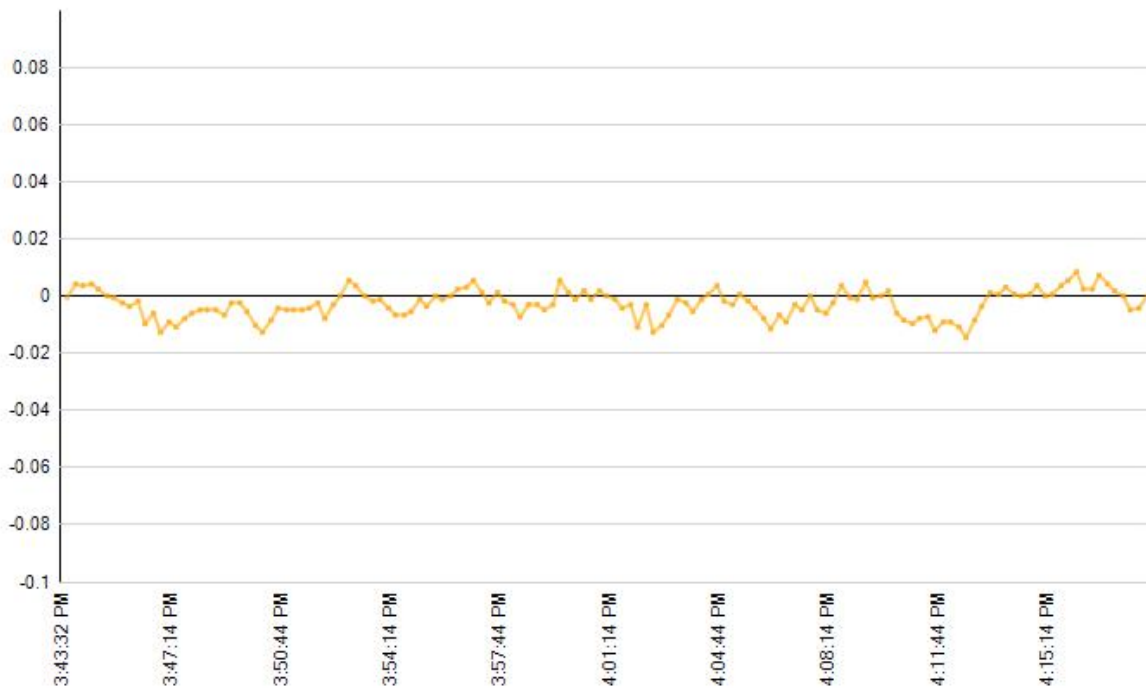
G 11
4/12/2015 3:43:32 PM - 4/12/2015 4:18:29 PM

Mean = 0.001 m Std. Dev. = 0.025 m Min. = -0.057 m Max. = 0.056 m



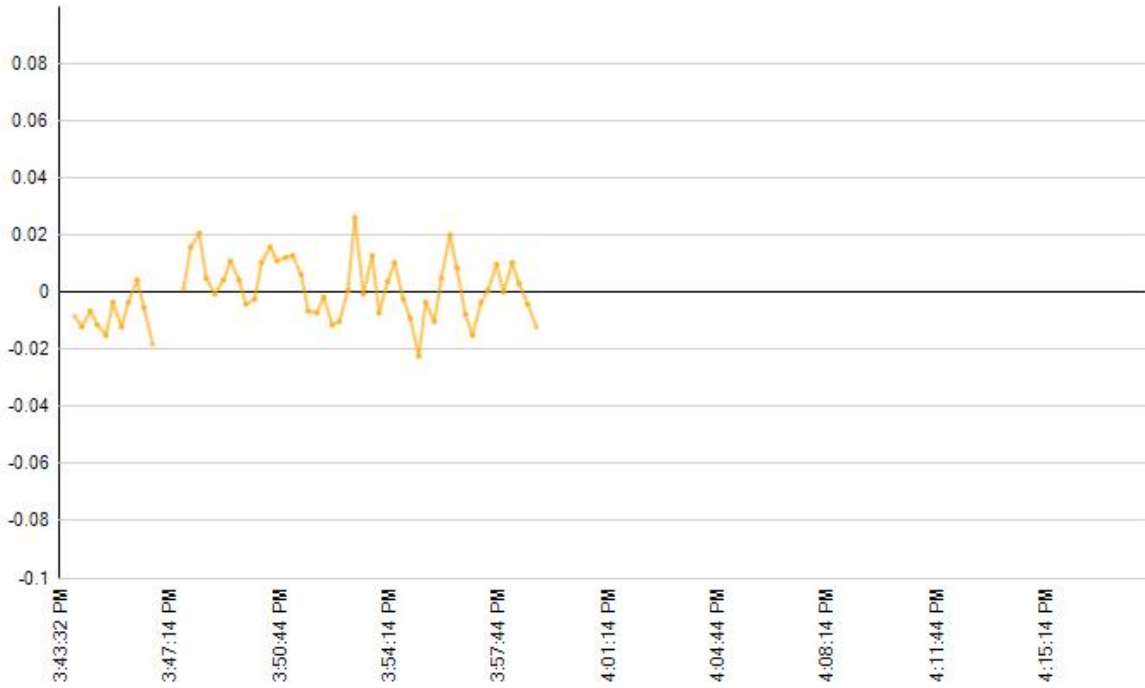
G 16
4/12/2015 3:43:32 PM - 4/12/2015 4:18:29 PM

Mean = -0.003 m Std. Dev. = 0.005 m Min. = -0.014 m Max. = 0.009 m



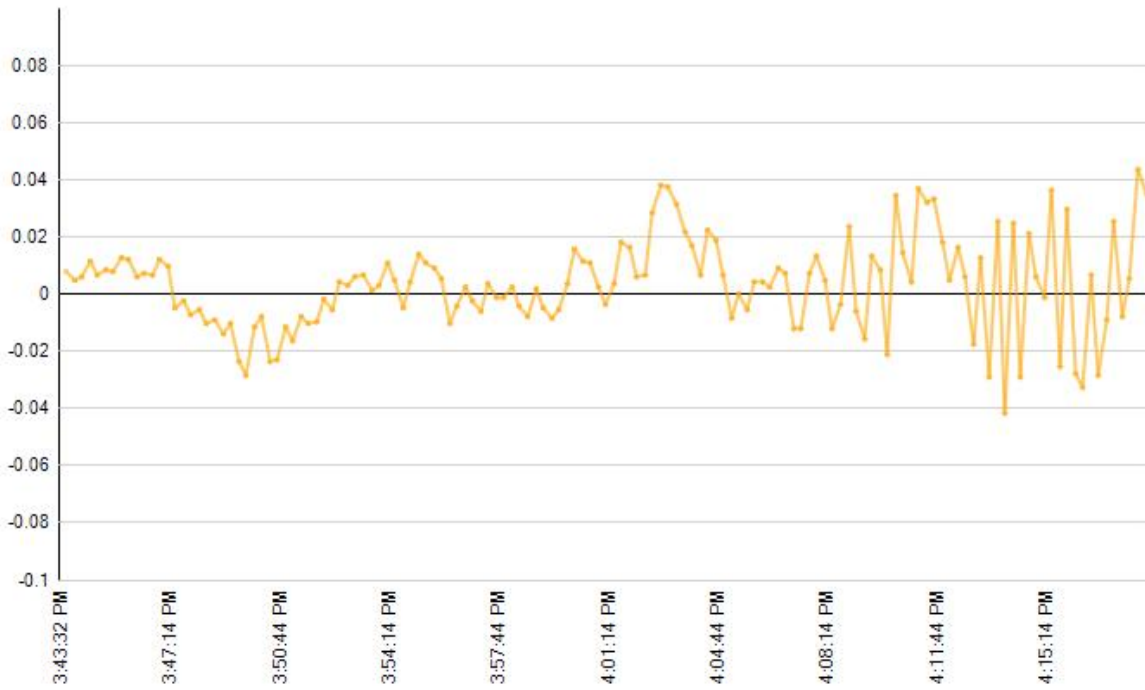
G 19
4/12/2015 3:43:32 PM - 4/12/2015 4:18:29 PM

Mean = 0.000 m Std. Dev. = 0.010 m Min. = -0.022 m Max. = 0.026 m



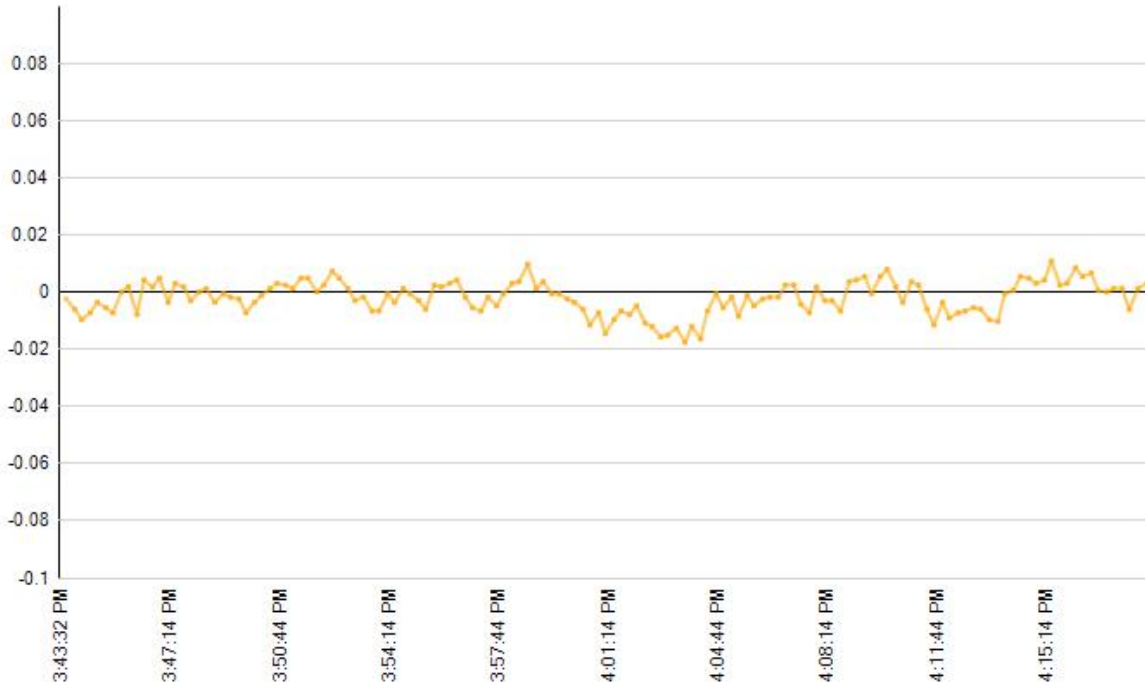
G 20
4/12/2015 3:43:32 PM - 4/12/2015 4:18:29 PM

Mean = 0.003 m Std. Dev. = 0.016 m Min. = -0.042 m Max. = 0.044 m



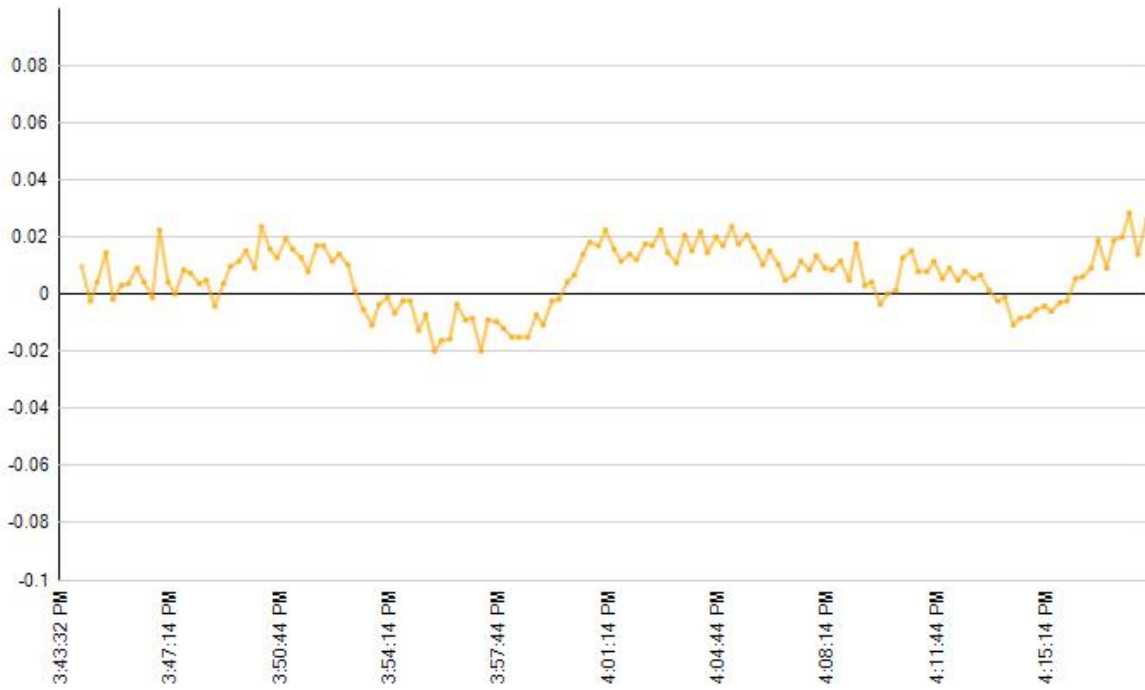
G 23
4/12/2015 3:43:32 PM - 4/12/2015 4:18:29 PM

Mean = -0.002 m Std. Dev. = 0.006 m Min. = -0.018 m Max. = 0.011 m

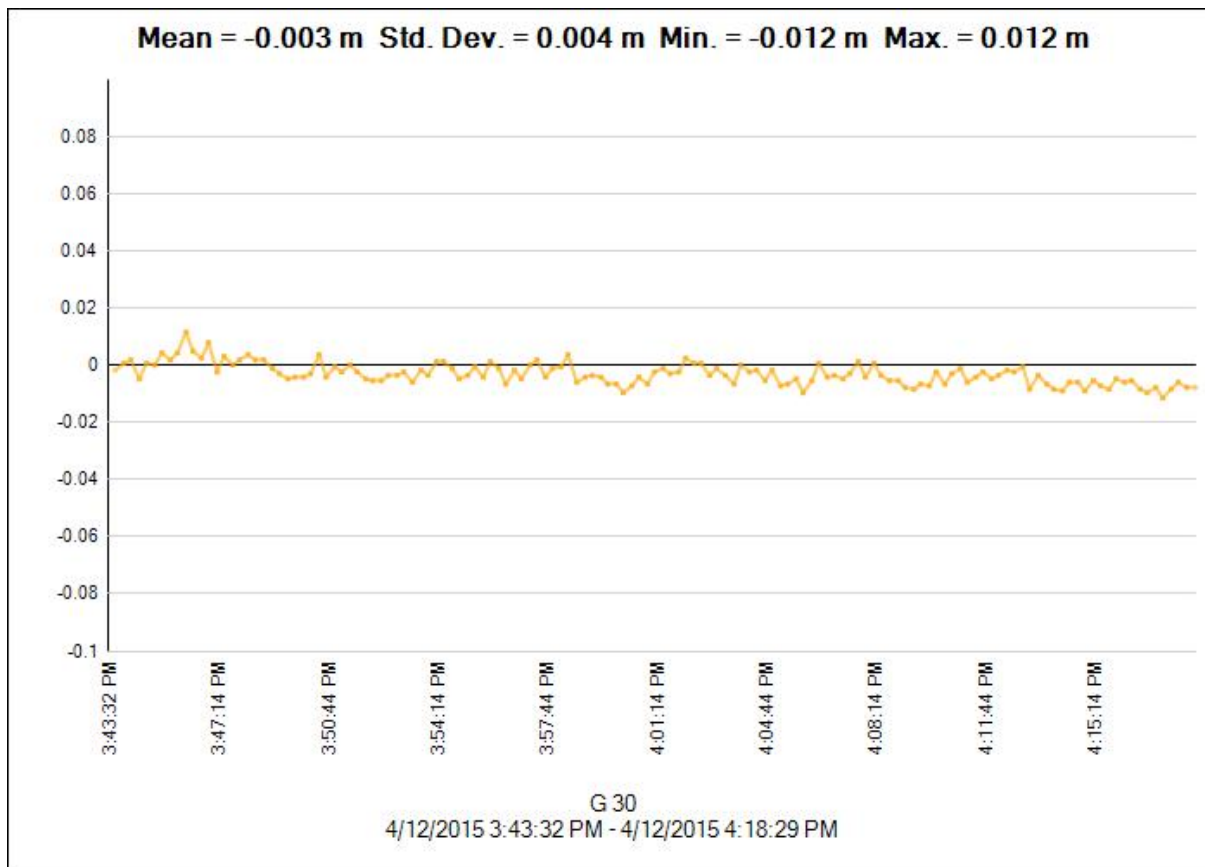


G 27
4/12/2015 3:43:32 PM - 4/12/2015 4:18:29 PM

Mean = 0.006 m Std. Dev. = 0.011 m Min. = -0.020 m Max. = 0.029 m





G 28
4/12/2015 3:43:32 PM - 4/12/2015 4:18:29 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS632 (2:28:34 PM-3:18:27 PM) (S2)

Baseline observation: NR0224 --- CAS632 (B2)
 Processed: 7/1/2015 8:39:33 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.007 m
 Vertical precision: 0.009 m
 RMS: 0.002 m
 Maximum PDOP: 2.236
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/12/2015 2:28:44 PM (Local: UTC-6hr)
 Processing stop time: 4/12/2015 3:18:14 PM (Local: UTC-6hr)
 Processing duration: 00:49:30
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470641.199 m	Latitude	N42°53'23.95296"	Latitude	N42°53'23.95295"
Northing	365795.872 m	Longitude	W106°28'06.58311"	Longitude	W106°28'06.58311"
Elevation	1618.510 m	Height	1605.340 m	Height	1605.340 m

To: CAS632					
Grid		Local		Global	
Easting	498095.155 m	Latitude	N42°42'04.28956"	Latitude	N42°42'04.28956"
Northing	345156.414 m	Longitude	W106°08'09.72226"	Longitude	W106°08'09.72226"
Elevation	1739.970 m	Height	1727.638 m	Height	1727.638 m

Vector					
ΔEasting	27453.956 m	NS Fwd Azimuth	127°31'22"	ΔX	22086.181 m
ΔNorthing	-20639.458 m	Ellipsoid Dist.	34345.975 m	ΔY	-21402.365 m
ΔElevation	121.460 m	ΔHeight	122.298 m	ΔZ	-15310.581 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.002 m
$\sigma \Delta$ Northing	0.003 m	σ Ellipsoid Dist.	0.002 m	$\sigma \Delta$ Y	0.003 m
$\sigma \Delta$ Elevation	0.005 m	$\sigma \Delta$ Height	0.005 m	$\sigma \Delta$ Z	0.004 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000037198		
Y	0.0000029182	0.0000110709	
Z	-0.0000008815	-0.0000076817	0.0000162689

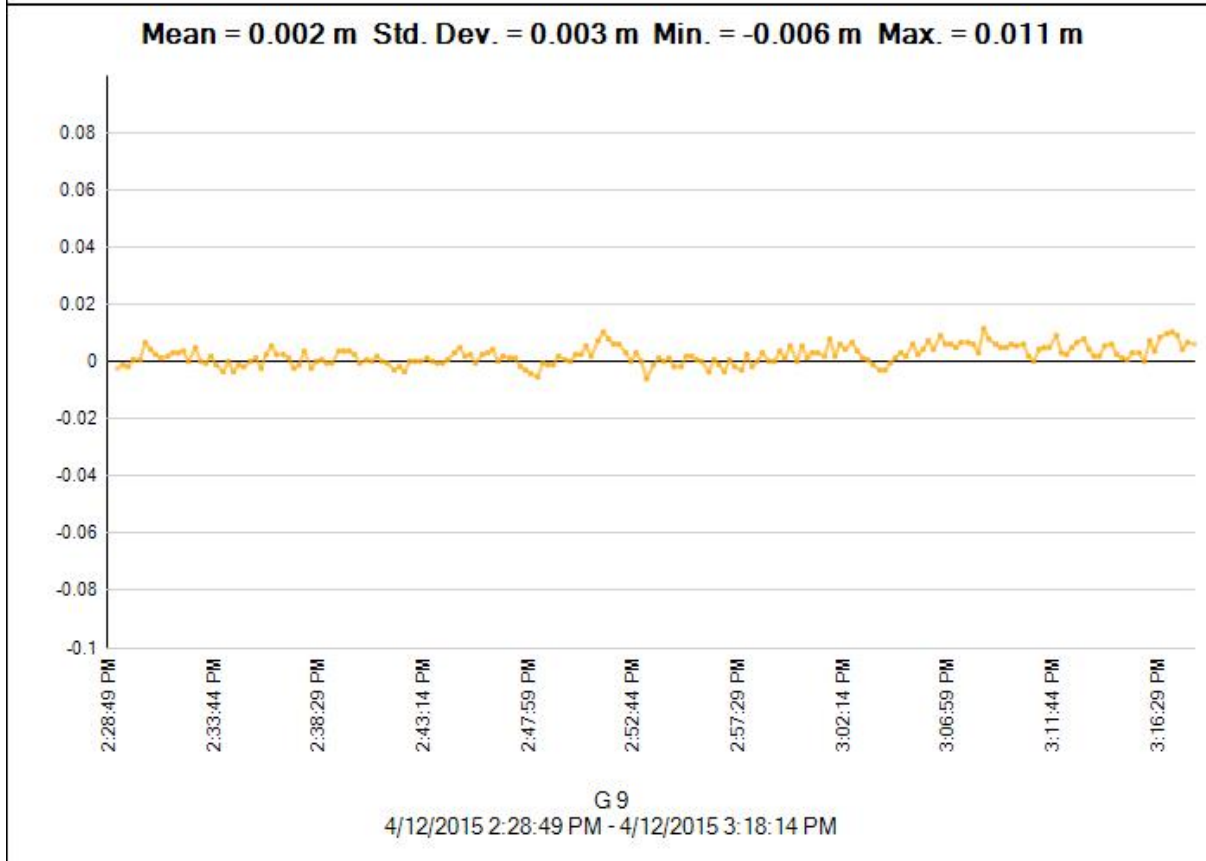
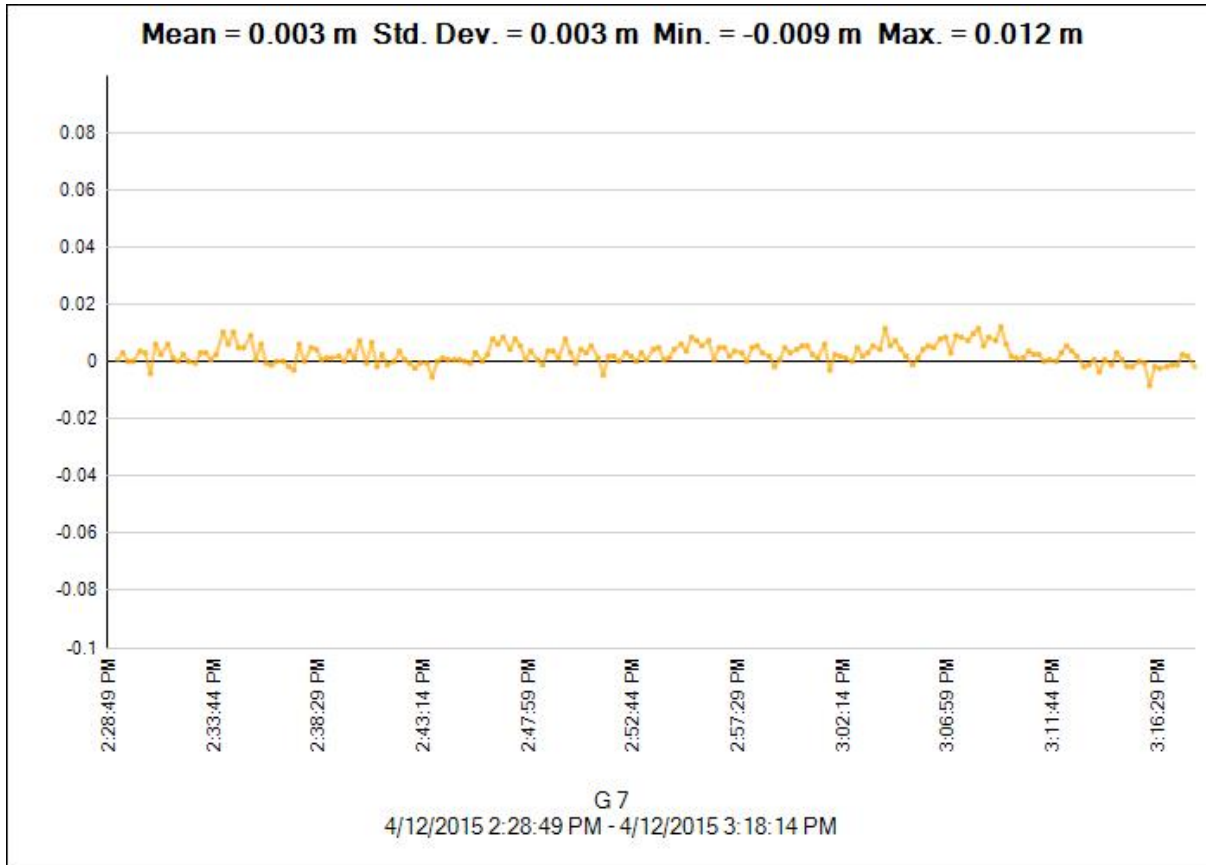
Occupations

	From	To
Point ID:	NR0224	CAS632
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601021.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801020.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.642 m	1.600 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

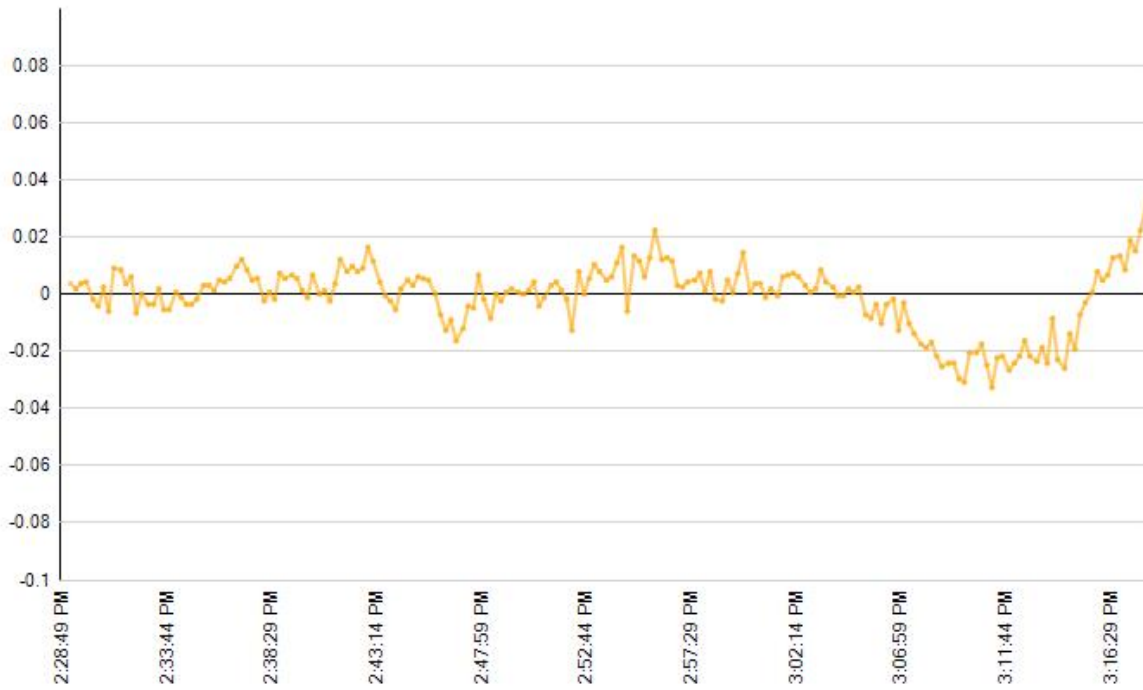
Tracking Summary

SV	4/12/2015 2:28:34 PM	Duration: 00:49:53	Major interval: 00:10:00	4/12/2015 3:18:27 PM
G 3	L1 L2			
G 5	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 16	L1 L2			
G 19	L1 L2			
G 20	L1 L2			
G 23	L1 L2			
G 27	L1 L2			
G 28	L1 L2			
G 30	L1 L2			

Residuals

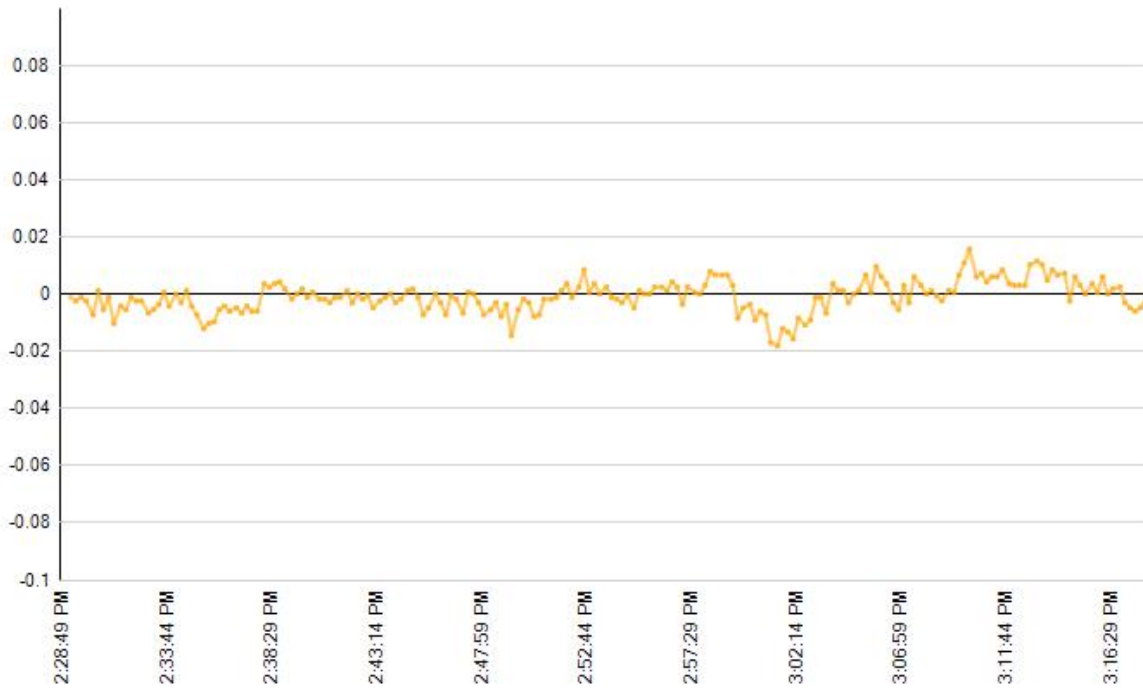


Mean = -0.001 m Std. Dev. = 0.011 m Min. = -0.033 m Max. = 0.033 m



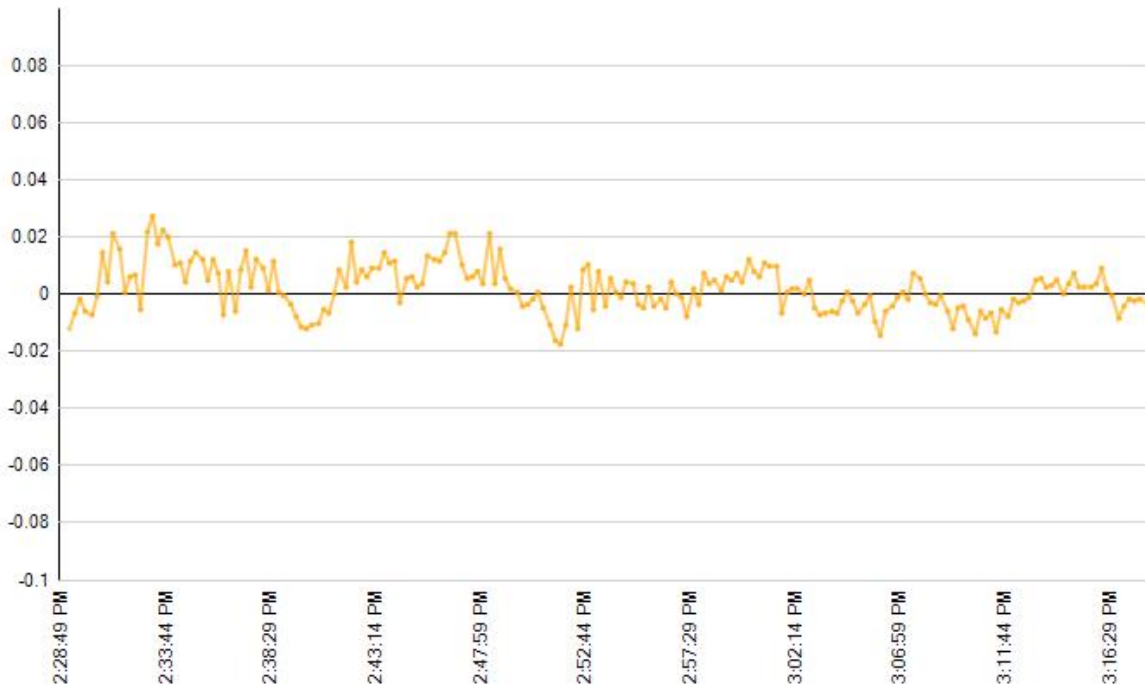
G 10
4/12/2015 2:28:49 PM - 4/12/2015 3:18:14 PM

Mean = -0.001 m Std. Dev. = 0.005 m Min. = -0.018 m Max. = 0.016 m



G 16
4/12/2015 2:28:49 PM - 4/12/2015 3:18:14 PM

Mean = 0.002 m Std. Dev. = 0.008 m Min. = -0.018 m Max. = 0.027 m



G 19

4/12/2015 2:28:49 PM - 4/12/2015 3:18:14 PM

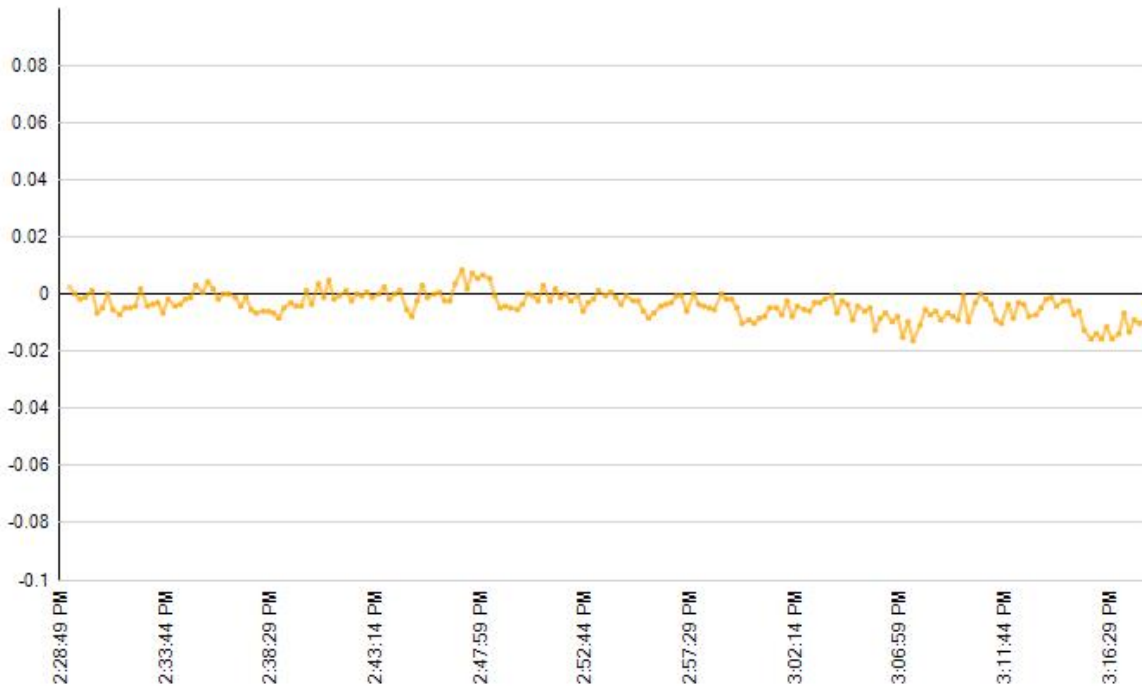
Mean = -0.013 m Std. Dev. = 0.015 m Min. = -0.049 m Max. = 0.022 m



G 20

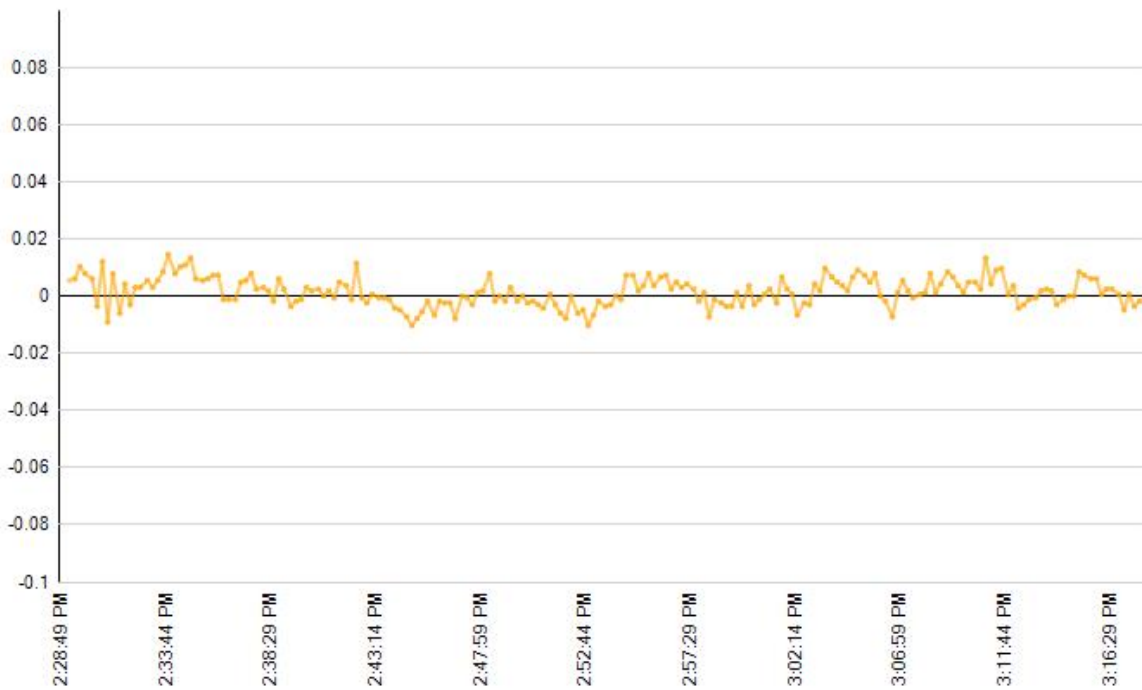
4/12/2015 2:28:49 PM - 4/12/2015 3:18:14 PM

Mean = -0.004 m Std. Dev. = 0.004 m Min. = -0.016 m Max. = 0.009 m

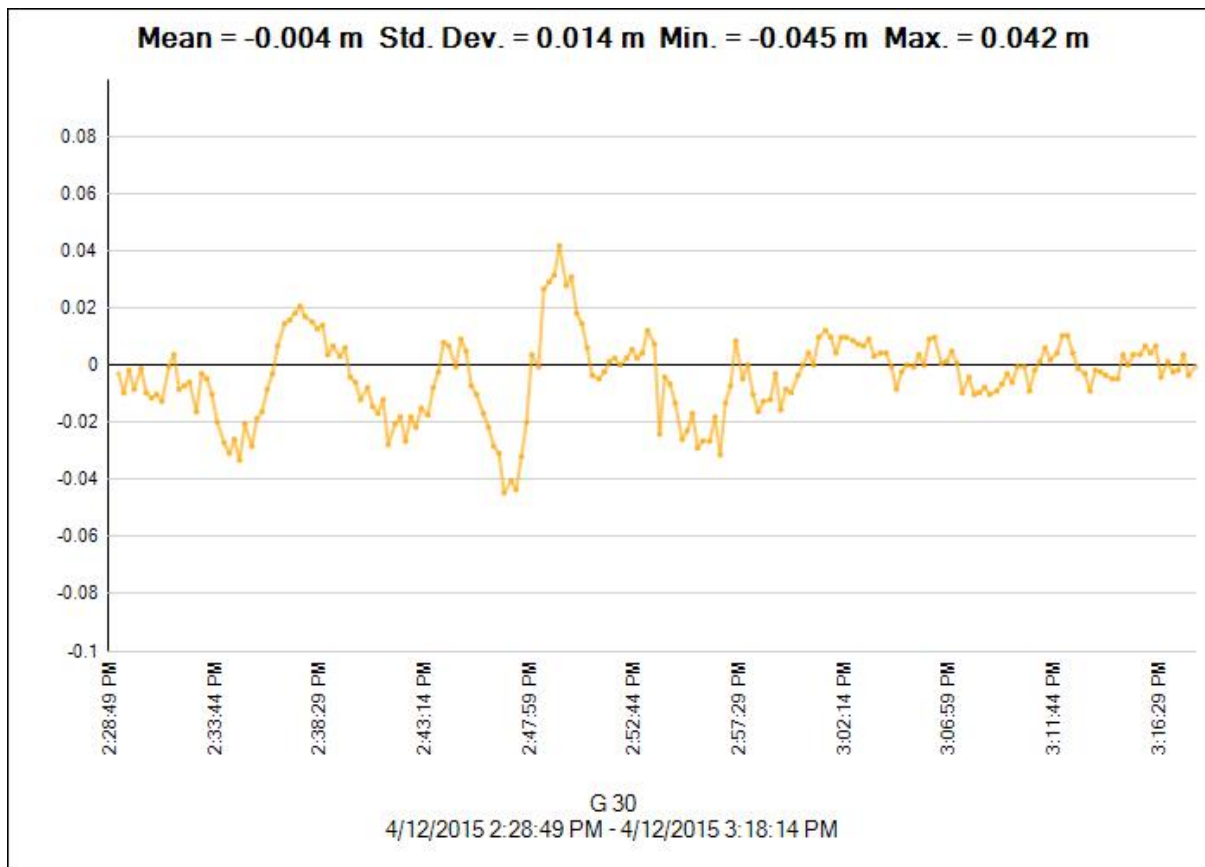


G 23
4/12/2015 2:28:49 PM - 4/12/2015 3:18:14 PM

Mean = 0.001 m Std. Dev. = 0.005 m Min. = -0.010 m Max. = 0.015 m





G 27
4/12/2015 2:28:49 PM - 4/12/2015 3:18:14 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS619 (3:57:35 PM-4:47:58 PM) (S3)

Baseline observation: NR0224 --- CAS619 (B3)
 Processed: 7/1/2015 8:42:29 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.006 m
 Vertical precision: 0.010 m
 RMS: 0.001 m
 Maximum PDOP: 2.545
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/13/2015 3:57:44 PM (Local: UTC-6hr)
 Processing stop time: 4/13/2015 4:47:44 PM (Local: UTC-6hr)
 Processing duration: 00:50:00
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470640.050 m	Latitude	N42°53'23.96348"	Latitude	N42°53'23.96348"
Northing	365796.185 m	Longitude	W106°28'06.63359"	Longitude	W106°28'06.63359"
Elevation	1616.606 m	Height	1603.437 m	Height	1603.437 m

To: CAS619					
Grid		Local		Global	
Easting	496516.230 m	Latitude	N43°06'03.02217"	Latitude	N43°06'03.02216"
Northing	389538.118 m	Longitude	W106°08'51.61597"	Longitude	W106°08'51.61597"
Elevation	1772.071 m	Height	1758.212 m	Height	1758.212 m

Vector					
ΔEasting	25876.179 m	NS Fwd Azimuth	48°03'10"	ΔX	29572.082 m
ΔNorthing	23741.933 m	Ellipsoid Dist.	35116.899 m	ΔY	7877.641 m
ΔElevation	155.464 m	ΔHeight	154.775 m	ΔZ	17242.455 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.002 m
$\sigma \Delta$ Northing	0.003 m	σ Ellipsoid Dist.	0.002 m	$\sigma \Delta$ Y	0.005 m
$\sigma \Delta$ Elevation	0.005 m	$\sigma \Delta$ Height	0.005 m	$\sigma \Delta$ Z	0.003 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000044399		
Y	0.0000033102	0.0000220126	
Z	-0.0000023277	-0.0000099846	0.0000116296

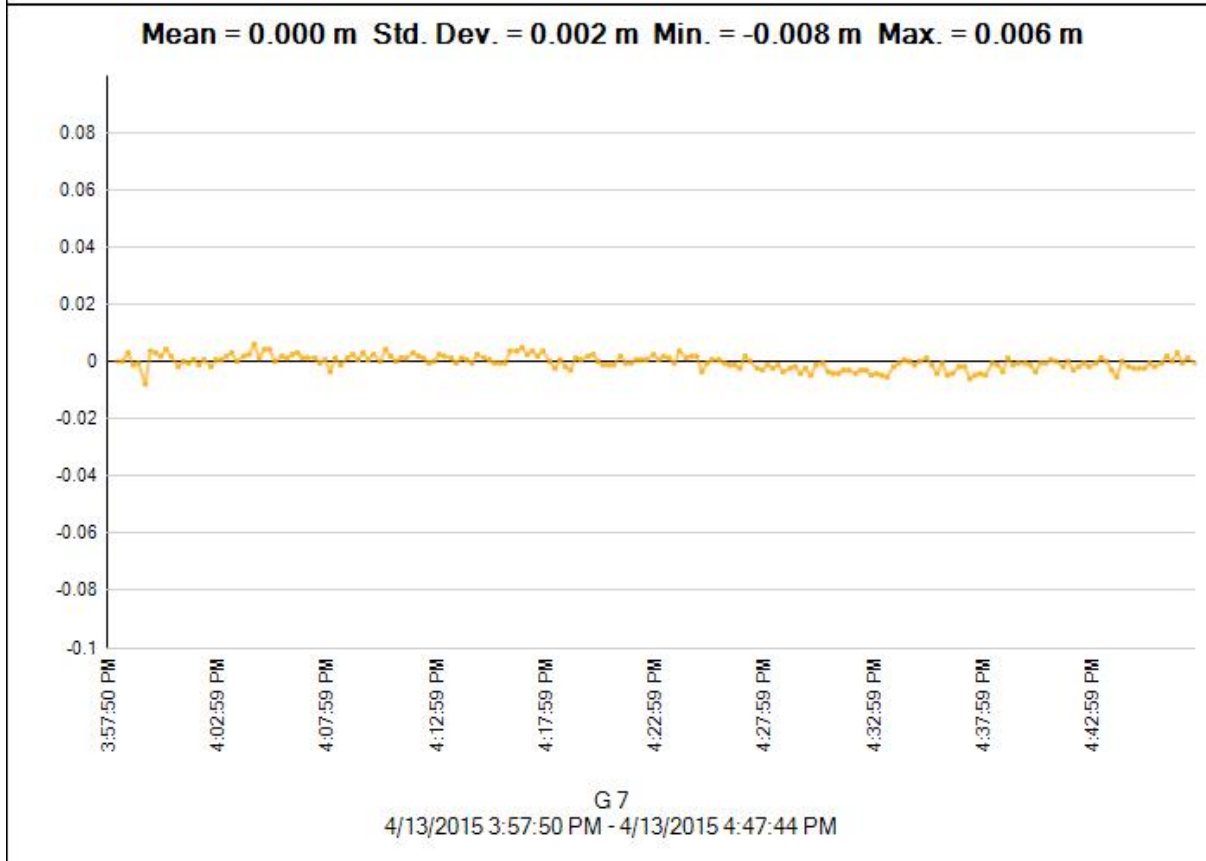
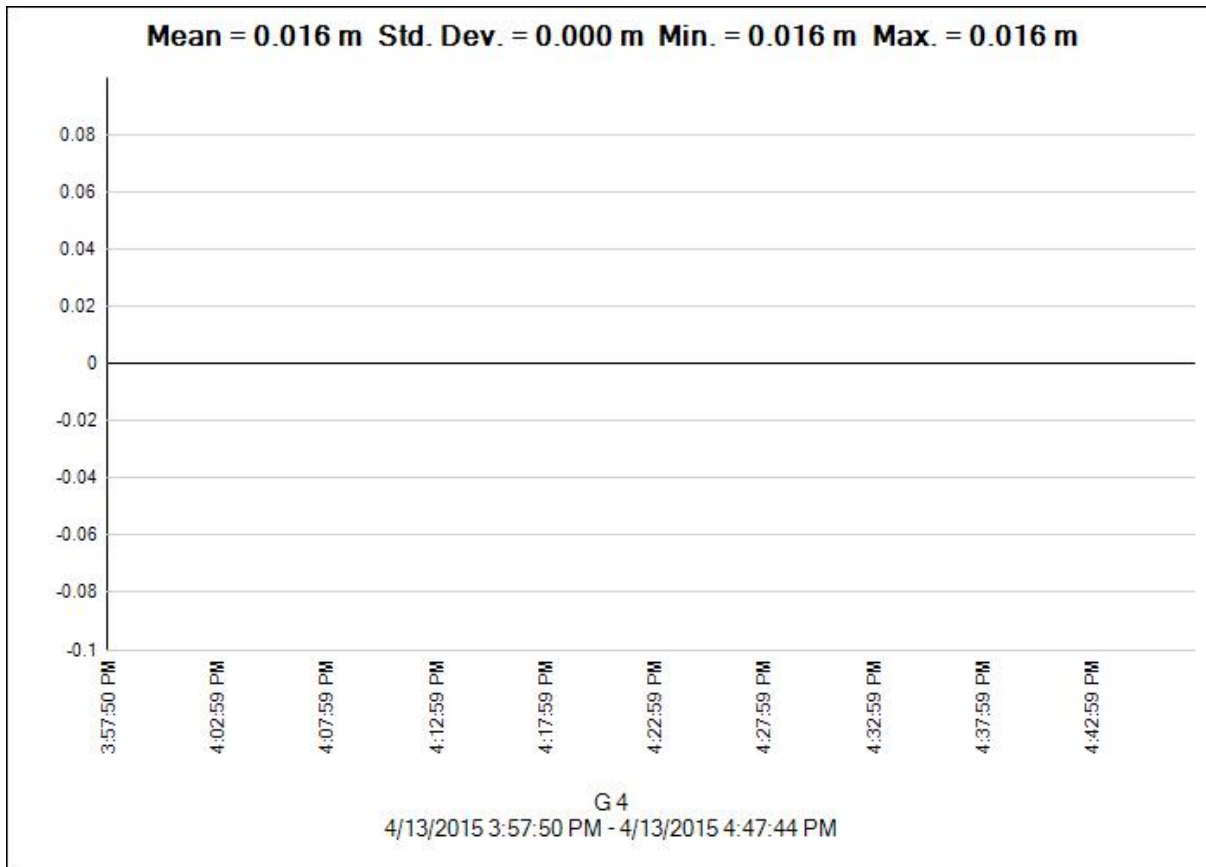
Occupations

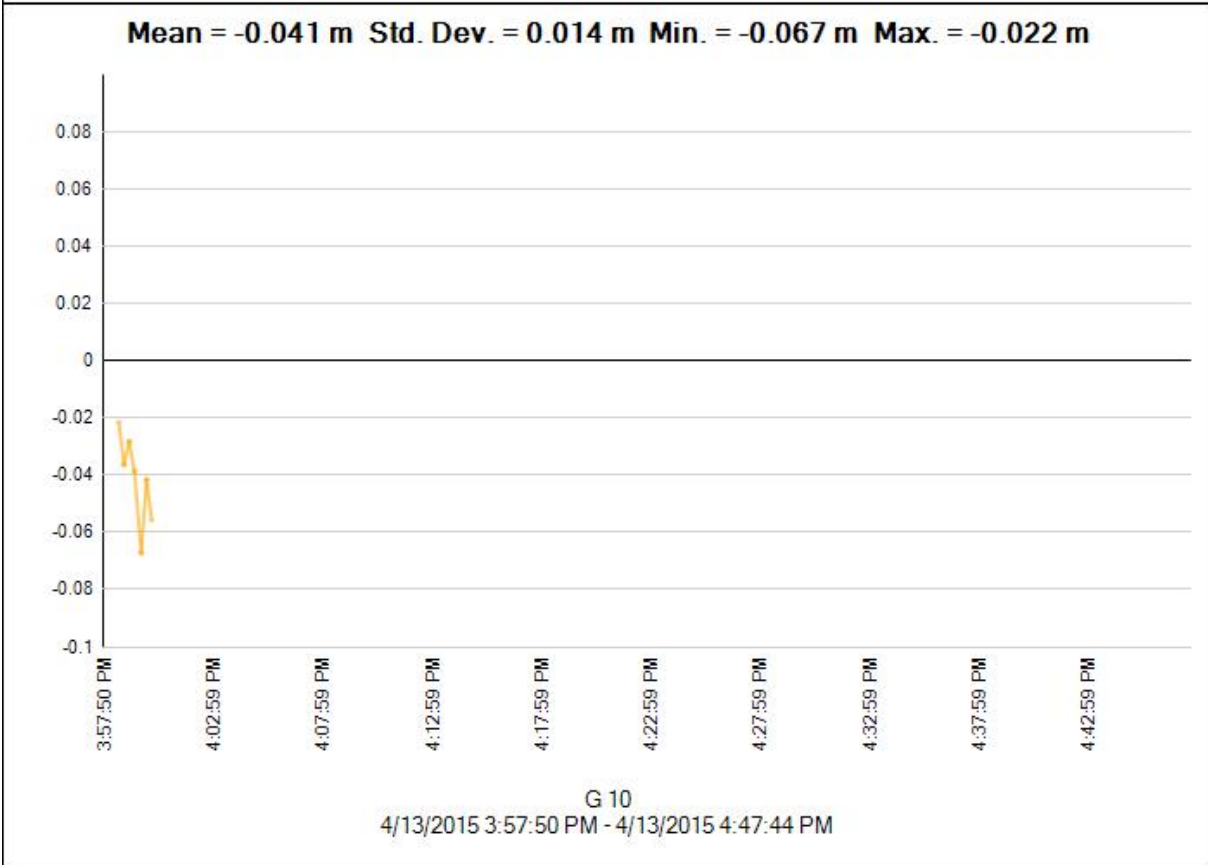
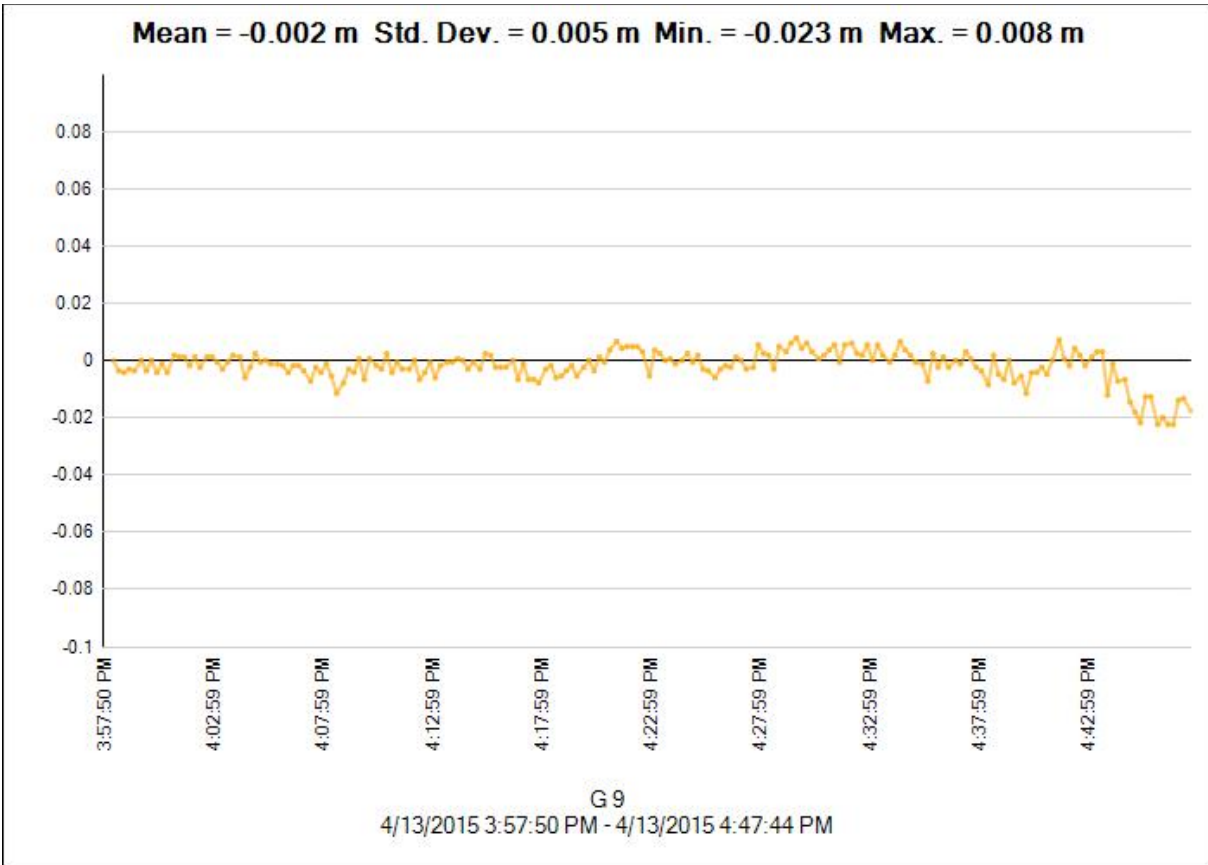
	From	To
Point ID:	NR0224	CAS619
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601030.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801036.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.766 m	1.508 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

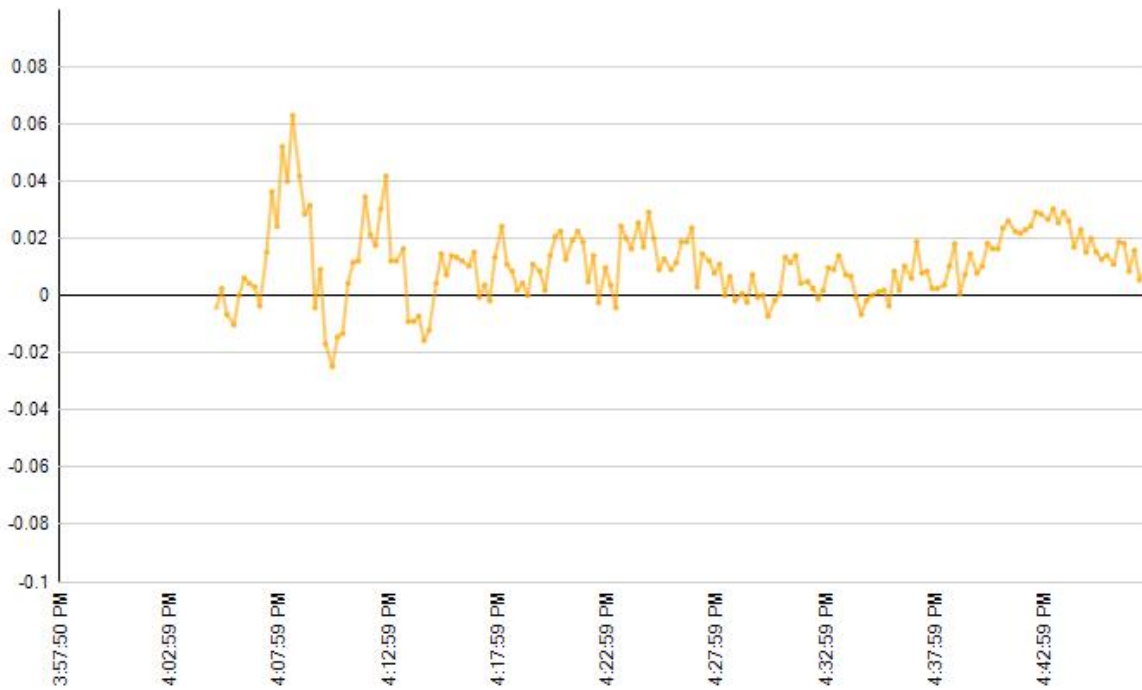
SV	4/13/2015 3:57:35 PM	Duration: 00:50:23	Major interval: 00:10:00	4/13/2015 4:47:58 PM
G 1	L1 L2			
G 4	L1 L2			
G 5	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 11	L1 L2			
G 13	L1 L2			
G 16	L1 L2			
G 19	L1 L2			
G 20	L1 L2			
G 23	L1 L2			
G 27	L1 L2			
G 28	L1 L2			
G 30	L1 L2			

Residuals





Mean = 0.011 m Std. Dev. = 0.013 m Min. = -0.025 m Max. = 0.063 m



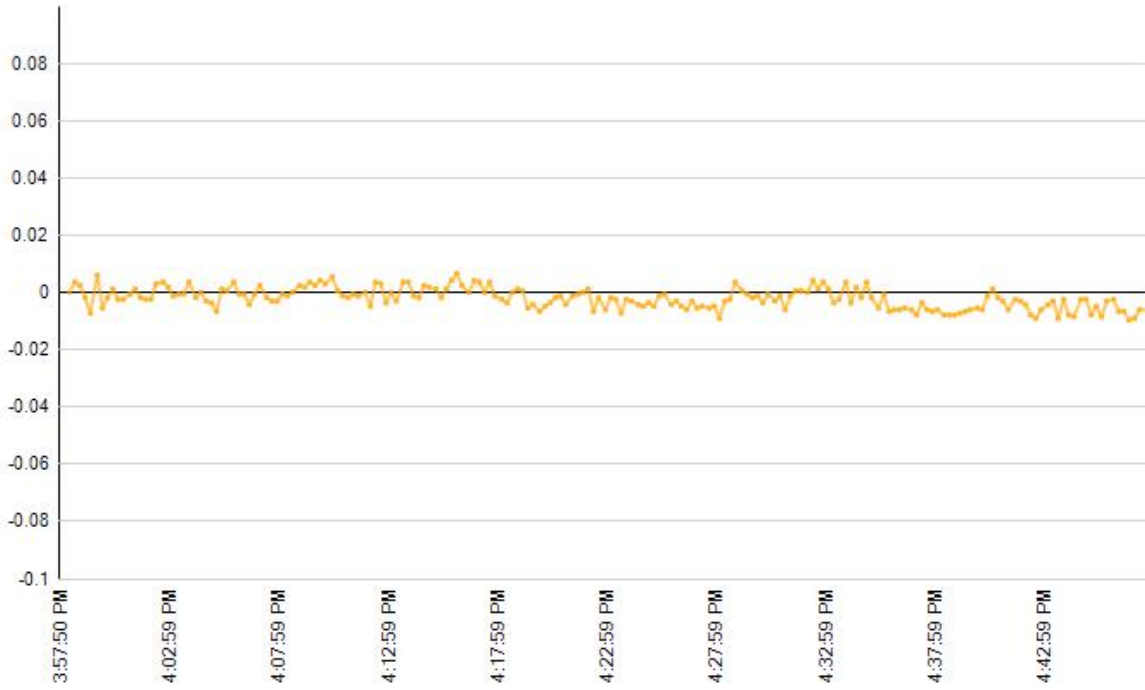
G 11
4/13/2015 3:57:50 PM - 4/13/2015 4:47:44 PM

Mean = 0.001 m Std. Dev. = 0.021 m Min. = -0.039 m Max. = 0.046 m



G 13
4/13/2015 3:57:50 PM - 4/13/2015 4:47:44 PM

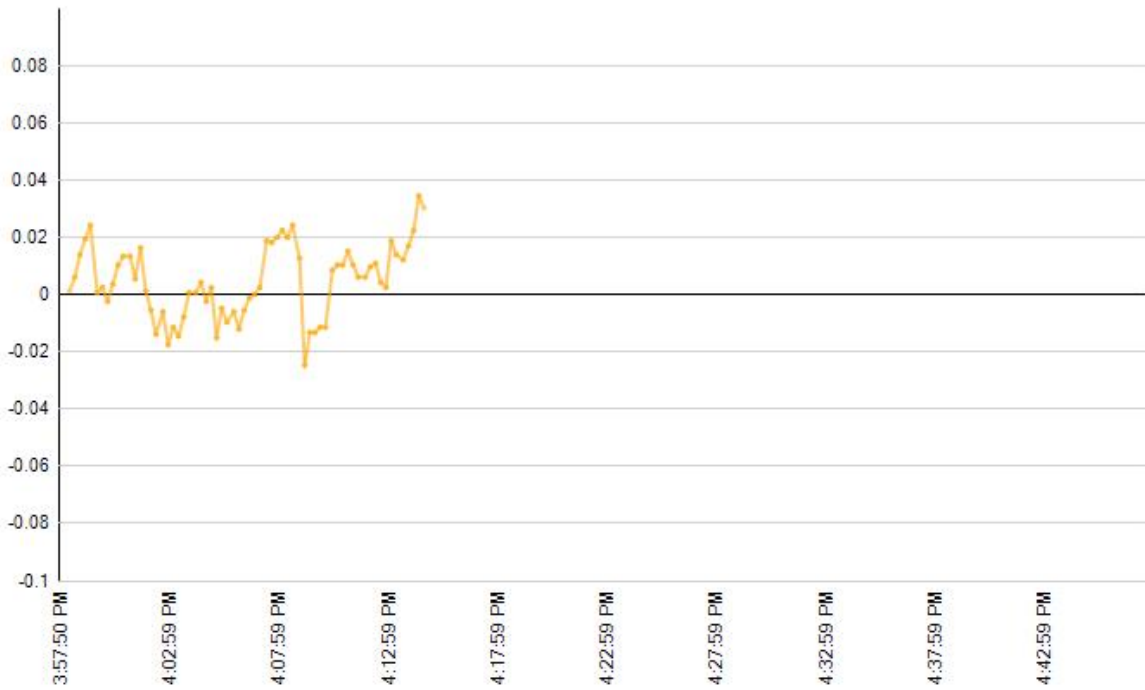
Mean = -0.002 m Std. Dev. = 0.004 m Min. = -0.009 m Max. = 0.006 m



G 19

4/13/2015 3:57:50 PM - 4/13/2015 4:47:44 PM

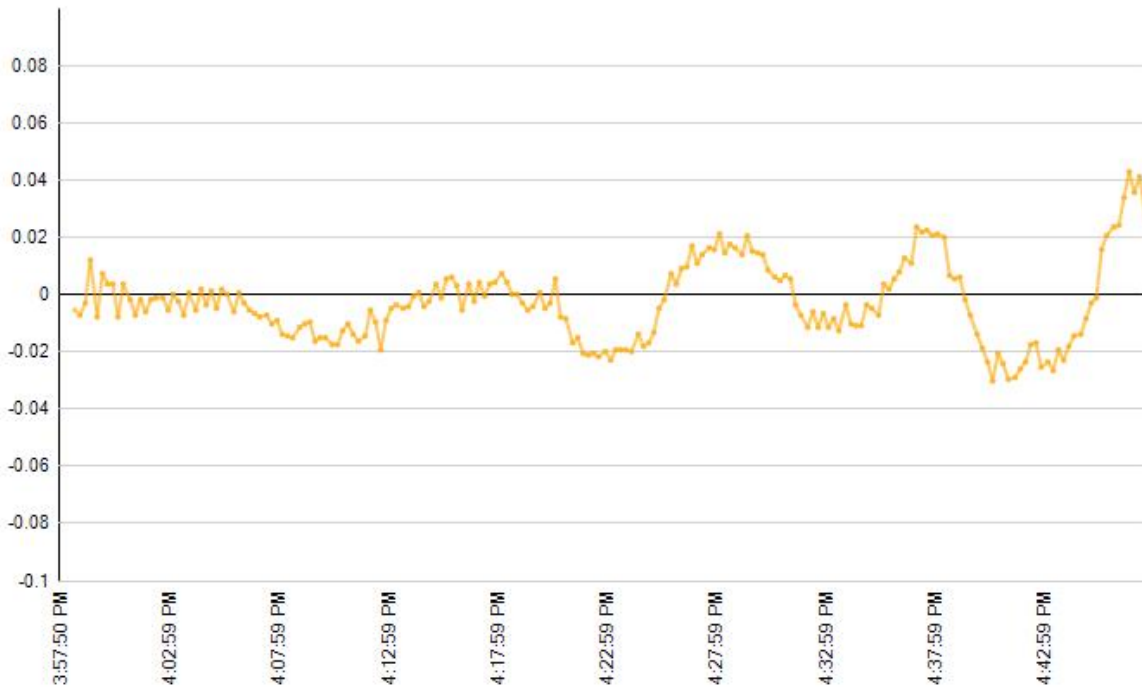
Mean = 0.005 m Std. Dev. = 0.013 m Min. = -0.025 m Max. = 0.035 m



G 23

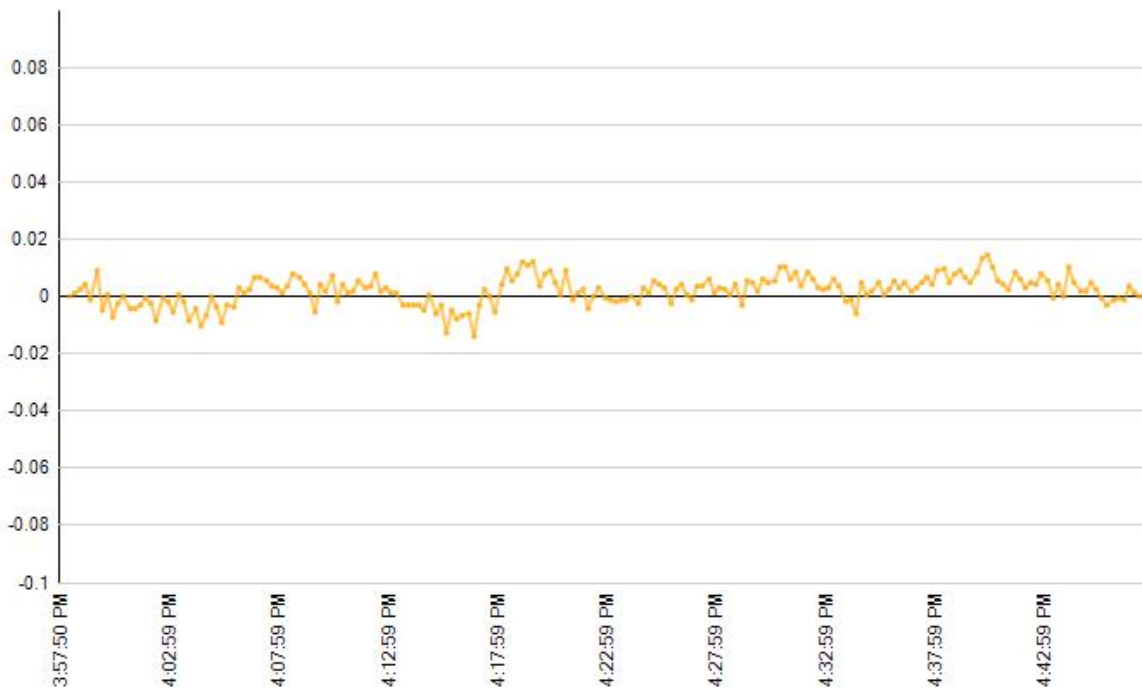
4/13/2015 3:57:50 PM - 4/13/2015 4:47:44 PM

Mean = -0.003 m Std. Dev. = 0.014 m Min. = -0.030 m Max. = 0.043 m

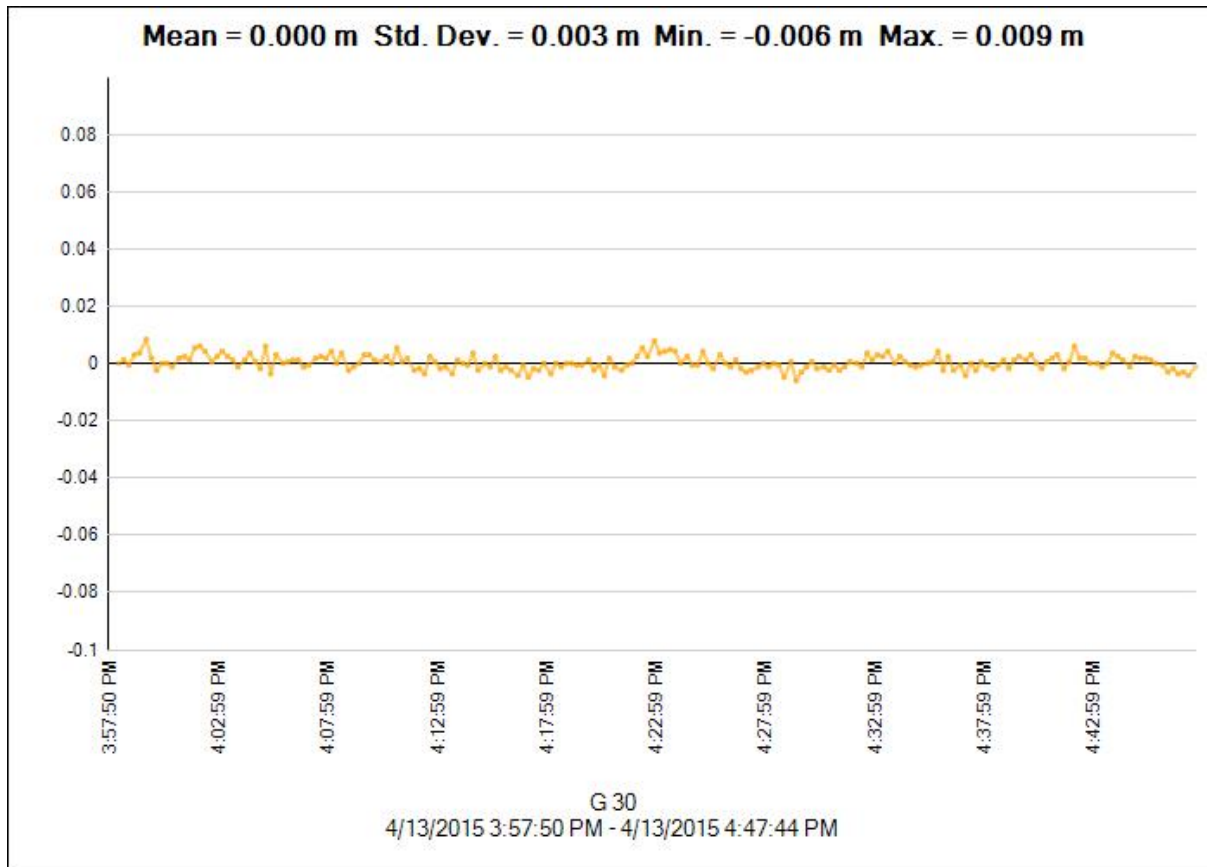


G 27
4/13/2015 3:57:50 PM - 4/13/2015 4:47:44 PM

Mean = 0.002 m Std. Dev. = 0.005 m Min. = -0.014 m Max. = 0.014 m





G 28
4/13/2015 3:57:50 PM - 4/13/2015 4:47:44 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS622 (2:16:03 PM-2:50:46 PM) (S4)

Baseline observation: NR0224 --- CAS622 (B4)
 Processed: 7/1/2015 8:42:29 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.009 m
 Vertical precision: 0.011 m
 RMS: 0.001 m
 Maximum PDOP: 2.325
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/13/2015 2:16:14 PM (Local: UTC-6hr)
 Processing stop time: 4/13/2015 2:50:44 PM (Local: UTC-6hr)
 Processing duration: 00:34:30
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470640.050 m	Latitude	N42°53'23.96348"	Latitude	N42°53'23.96348"
Northing	365796.185 m	Longitude	W106°28'06.63359"	Longitude	W106°28'06.63359"
Elevation	1616.606 m	Height	1603.437 m	Height	1603.437 m

To: CAS622					
Grid		Local		Global	
Easting	488330.217 m	Latitude	N43°03'45.41248"	Latitude	N43°03'45.41247"
Northing	385180.195 m	Longitude	W106°14'56.06338"	Longitude	W106°14'56.06338"
Elevation	1690.084 m	Height	1676.400 m	Height	1676.400 m

Vector					
ΔEasting	17690.167 m	NS Fwd Azimuth	42°58'26"	ΔX	20860.636 m
ΔNorthing	19384.010 m	Ellipsoid Dist.	26242.342 m	ΔY	7449.189 m
ΔElevation	73.478 m	ΔHeight	72.963 m	ΔZ	14084.126 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.002 m
$\sigma \Delta$ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.004 m
$\sigma \Delta$ Elevation	0.006 m	$\sigma \Delta$ Height	0.006 m	$\sigma \Delta$ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000062489		
Y	0.0000050597	0.0000170535	
Z	-0.0000008017	-0.0000096648	0.0000238019

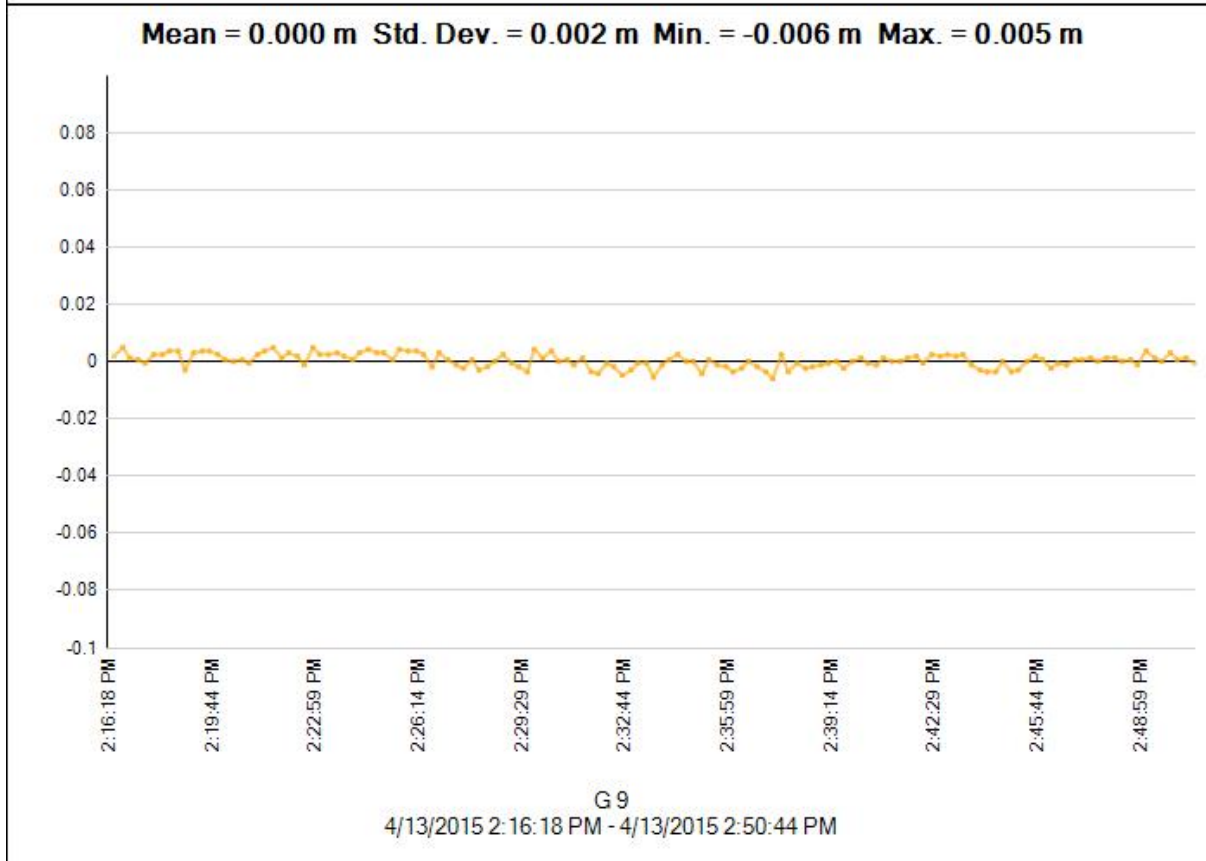
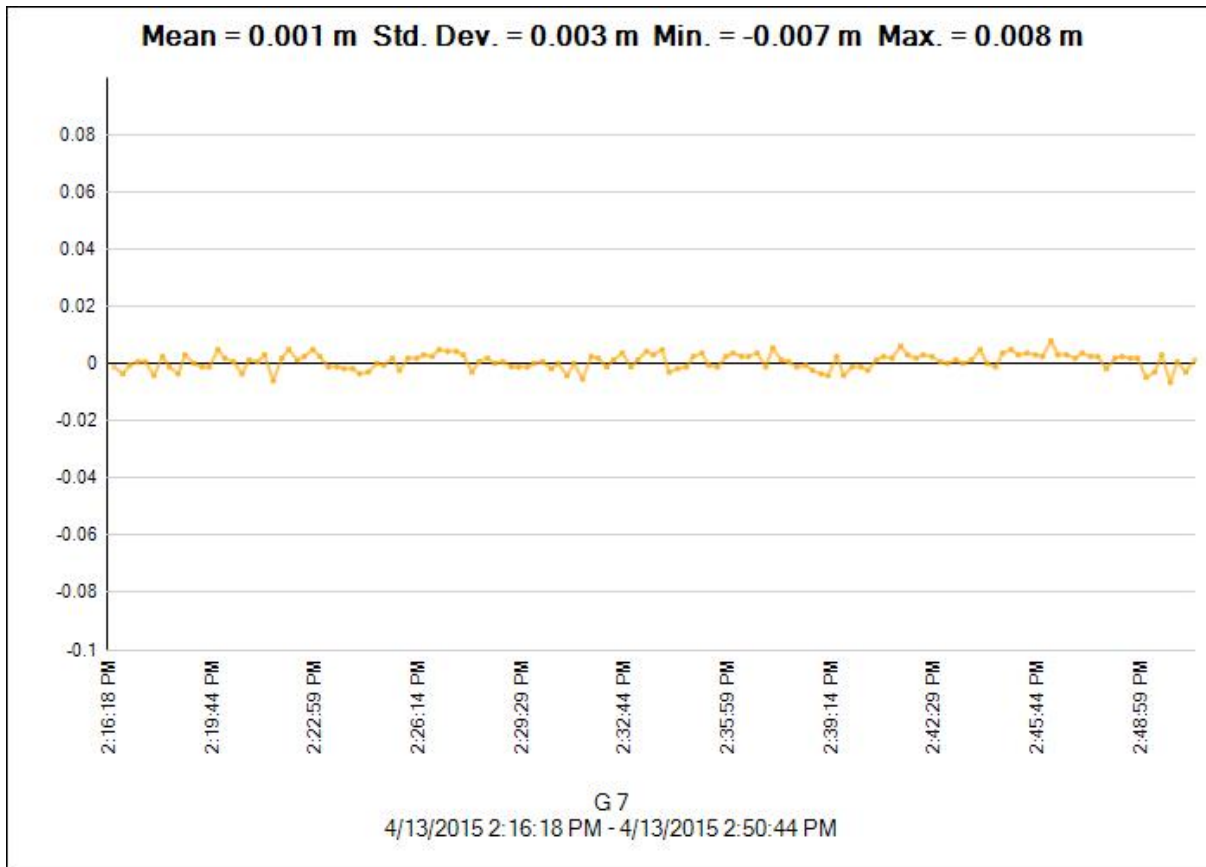
Occupations

	From	To
Point ID:	NR0224	CAS622
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601030.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801035.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.766 m	1.549 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

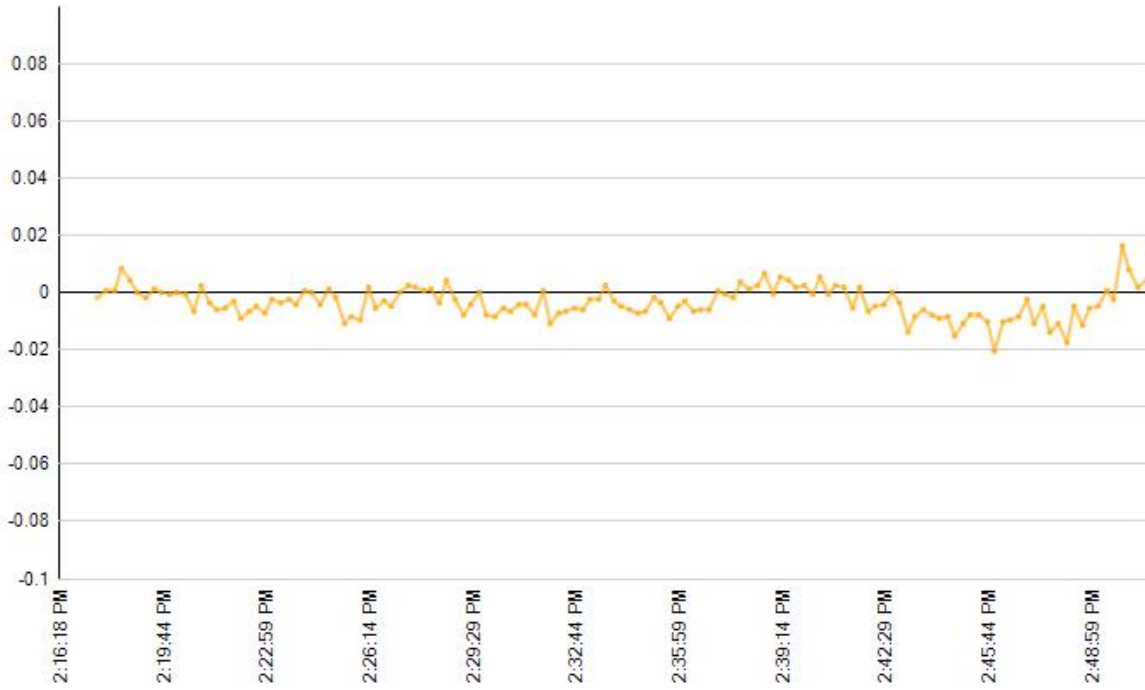
Tracking Summary

SV	4/13/2015 2:16:03 PM	Duration: 00:34:43	Major interval: 00:01:00	4/13/2015 2:50:46 PM
G 3	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 16	L1 L2			
G 19	L1 L2			
G 20	L1 L2			
G 23	L1 L2			
G 27	L1 L2			
G 30	L1 L2			

Residuals

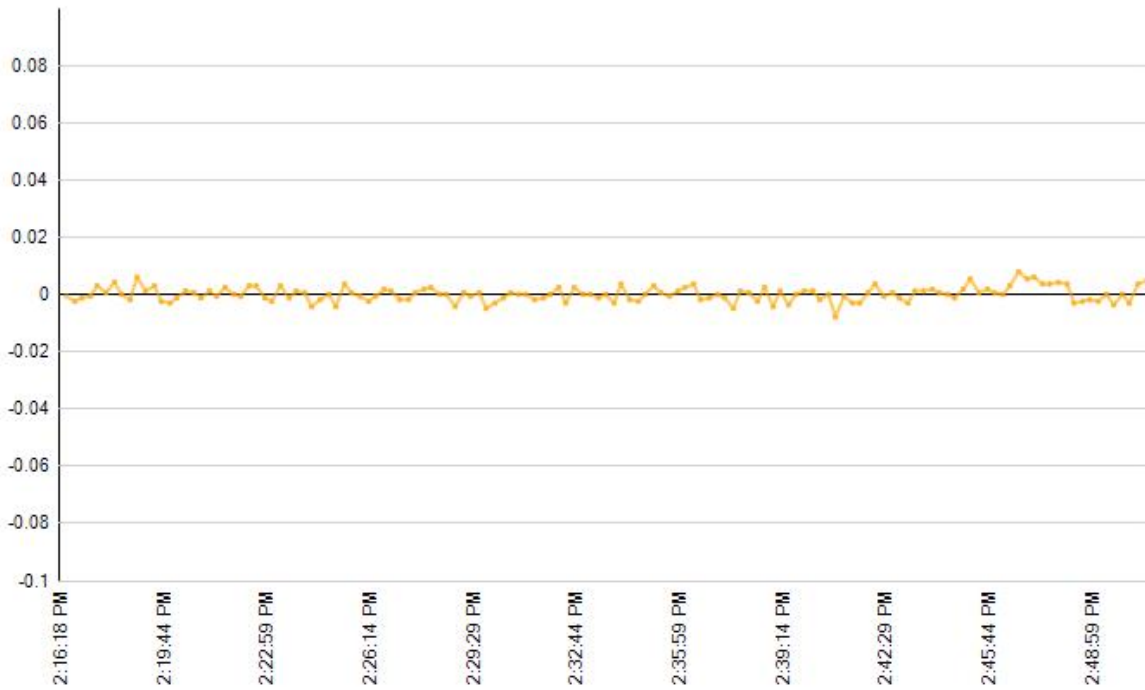


Mean = -0.003 m Std. Dev. = 0.005 m Min. = -0.021 m Max. = 0.016 m



G 10
4/13/2015 2:16:18 PM - 4/13/2015 2:50:44 PM

Mean = 0.000 m Std. Dev. = 0.003 m Min. = -0.008 m Max. = 0.008 m



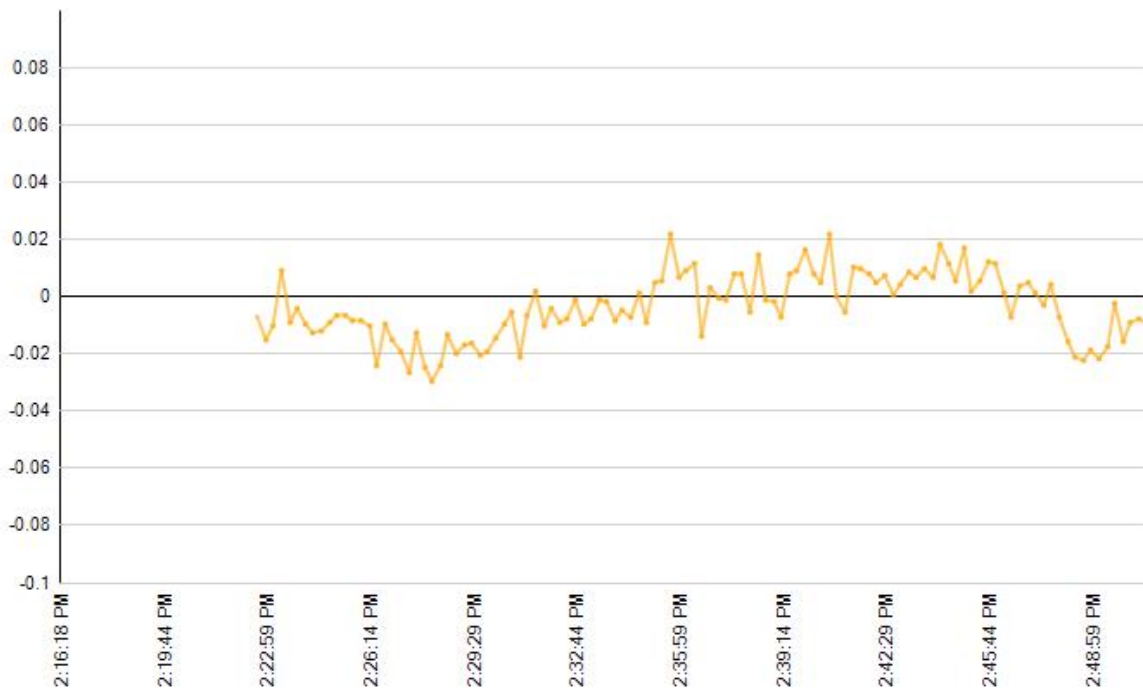
G 16
4/13/2015 2:16:18 PM - 4/13/2015 2:50:44 PM

Mean = -0.002 m Std. Dev. = 0.011 m Min. = -0.034 m Max. = 0.018 m



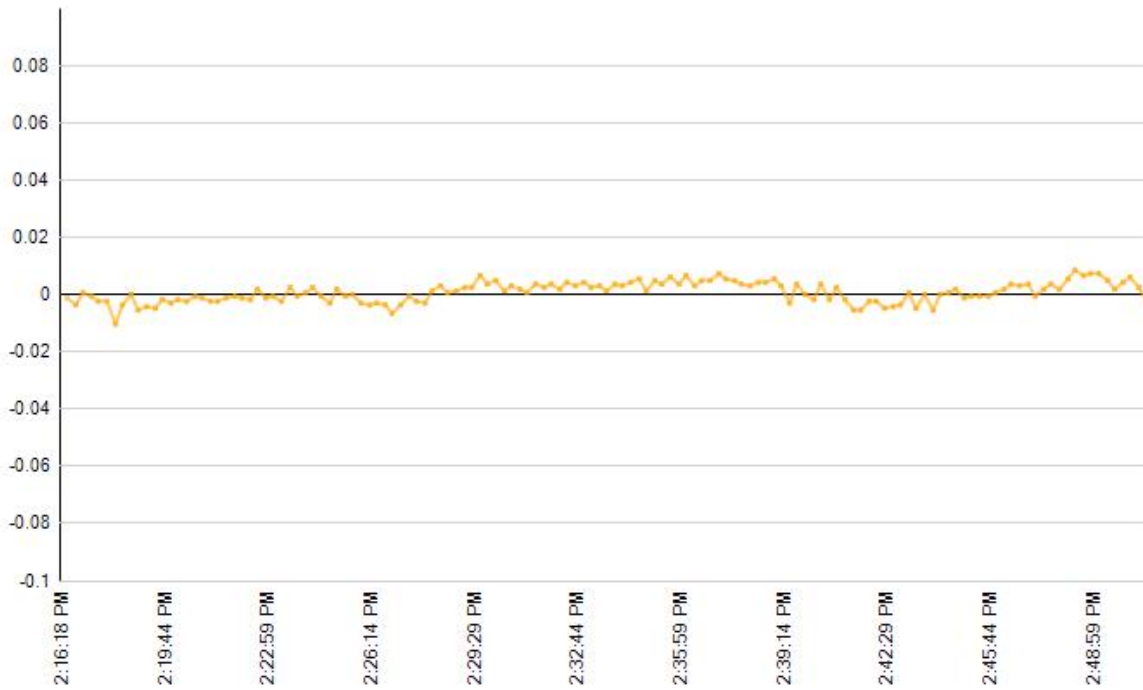
G 19
4/13/2015 2:16:18 PM - 4/13/2015 2:50:44 PM

Mean = -0.004 m Std. Dev. = 0.011 m Min. = -0.029 m Max. = 0.022 m



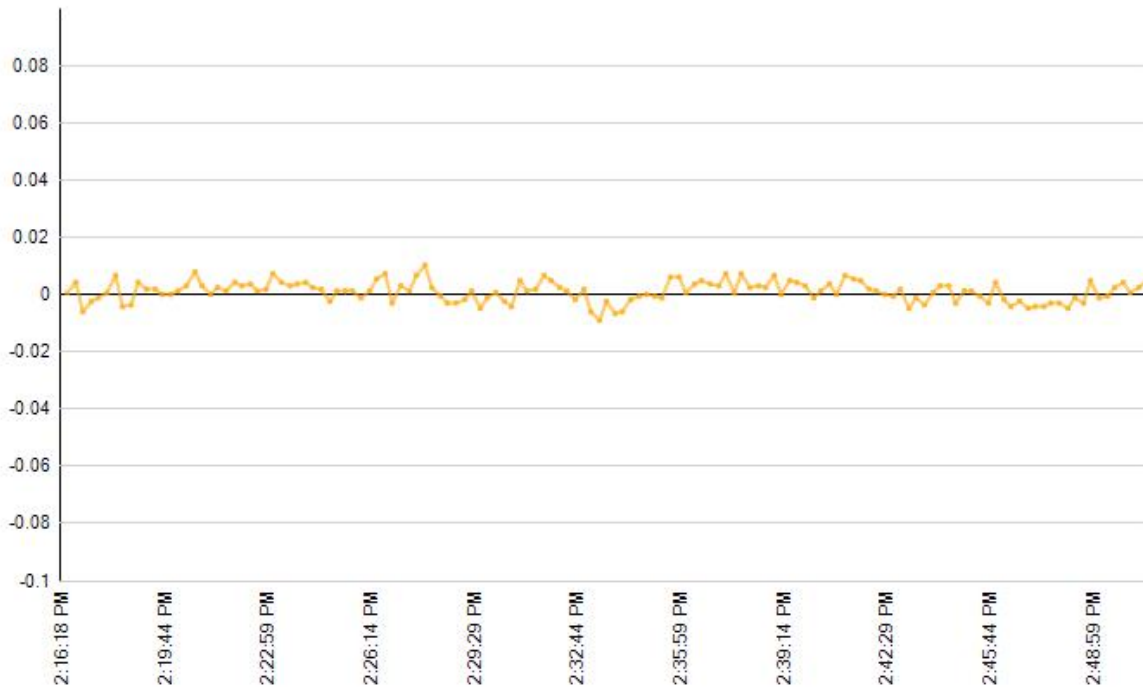
G 20
4/13/2015 2:16:18 PM - 4/13/2015 2:50:44 PM

Mean = 0.001 m Std. Dev. = 0.003 m Min. = -0.010 m Max. = 0.008 m

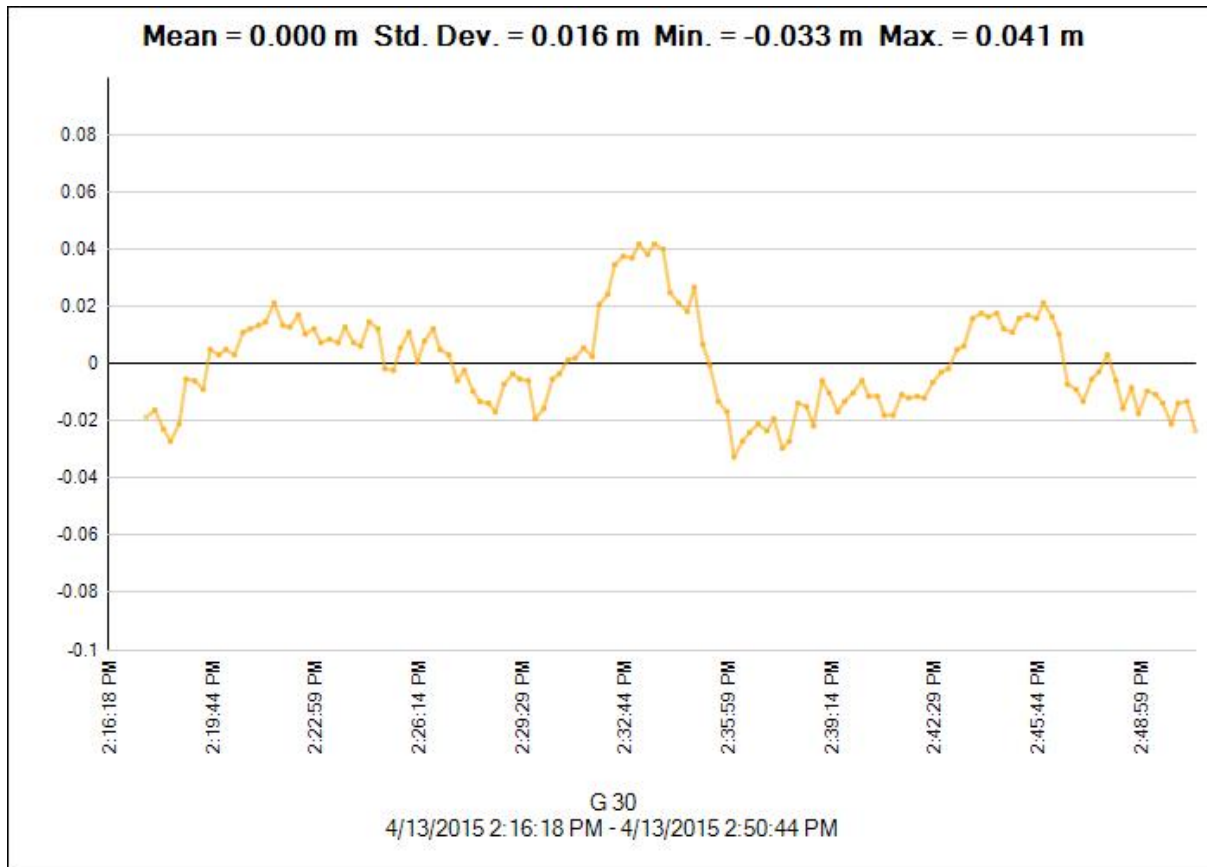


G 23
4/13/2015 2:16:18 PM - 4/13/2015 2:50:44 PM

Mean = 0.001 m Std. Dev. = 0.004 m Min. = -0.009 m Max. = 0.010 m





G 27
4/13/2015 2:16:18 PM - 4/13/2015 2:50:44 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS620 (1:14:02 PM-1:49:38 PM) (S5)

Baseline observation: NR0224 --- CAS620 (B5)
 Processed: 7/1/2015 8:42:29 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.011 m
 Vertical precision: 0.013 m
 RMS: 0.001 m
 Maximum PDOP: 3.781
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/13/2015 1:14:14 PM (Local: UTC-6hr)
 Processing stop time: 4/13/2015 1:49:29 PM (Local: UTC-6hr)
 Processing duration: 00:35:15
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470640.050 m	Latitude	N42°53'23.96348"	Latitude	N42°53'23.96348"
Northing	365796.185 m	Longitude	W106°28'06.63359"	Longitude	W106°28'06.63359"
Elevation	1616.606 m	Height	1603.437 m	Height	1603.437 m

To: CAS620					
Grid		Local		Global	
Easting	492662.002 m	Latitude	N43°01'51.75902"	Latitude	N43°01'51.75902"
Northing	381729.811 m	Longitude	W106°11'46.71285"	Longitude	W106°11'46.71285"
Elevation	1663.534 m	Height	1649.799 m	Height	1649.799 m

Vector					
ΔEasting	22021.951 m	NS Fwd Azimuth	54°42'09"	ΔX	24313.083 m
ΔNorthing	15933.626 m	Ellipsoid Dist.	27181.193 m	ΔY	3970.953 m
ΔElevation	46.928 m	ΔHeight	46.363 m	ΔZ	11502.199 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.005 m
$\sigma \Delta$ Northing	0.004 m	σ Ellipsoid Dist.	0.004 m	$\sigma \Delta$ Y	0.006 m
$\sigma \Delta$ Elevation	0.007 m	$\sigma \Delta$ Height	0.007 m	$\sigma \Delta$ Z	0.004 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000219679		
Y	0.0000211988	0.0000346871	
Z	-0.0000079667	-0.0000121514	0.0000168507

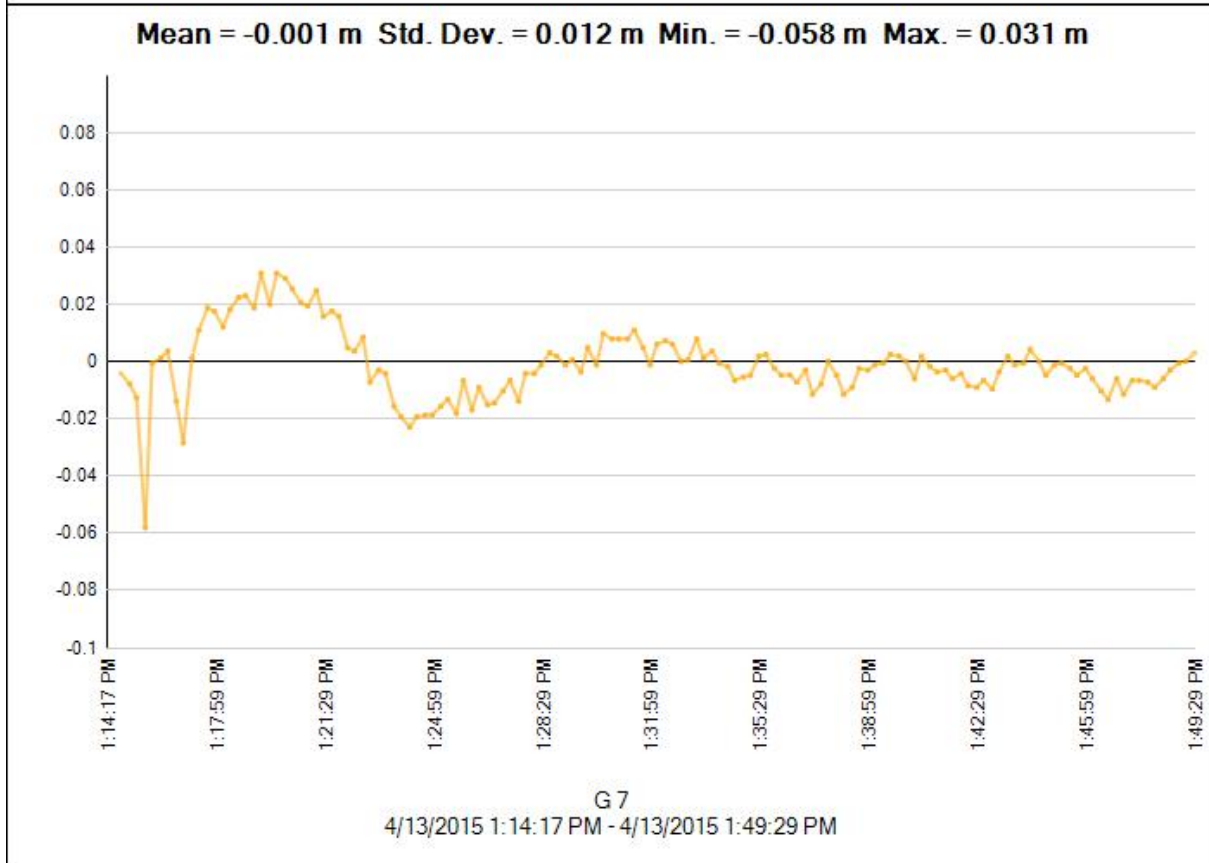
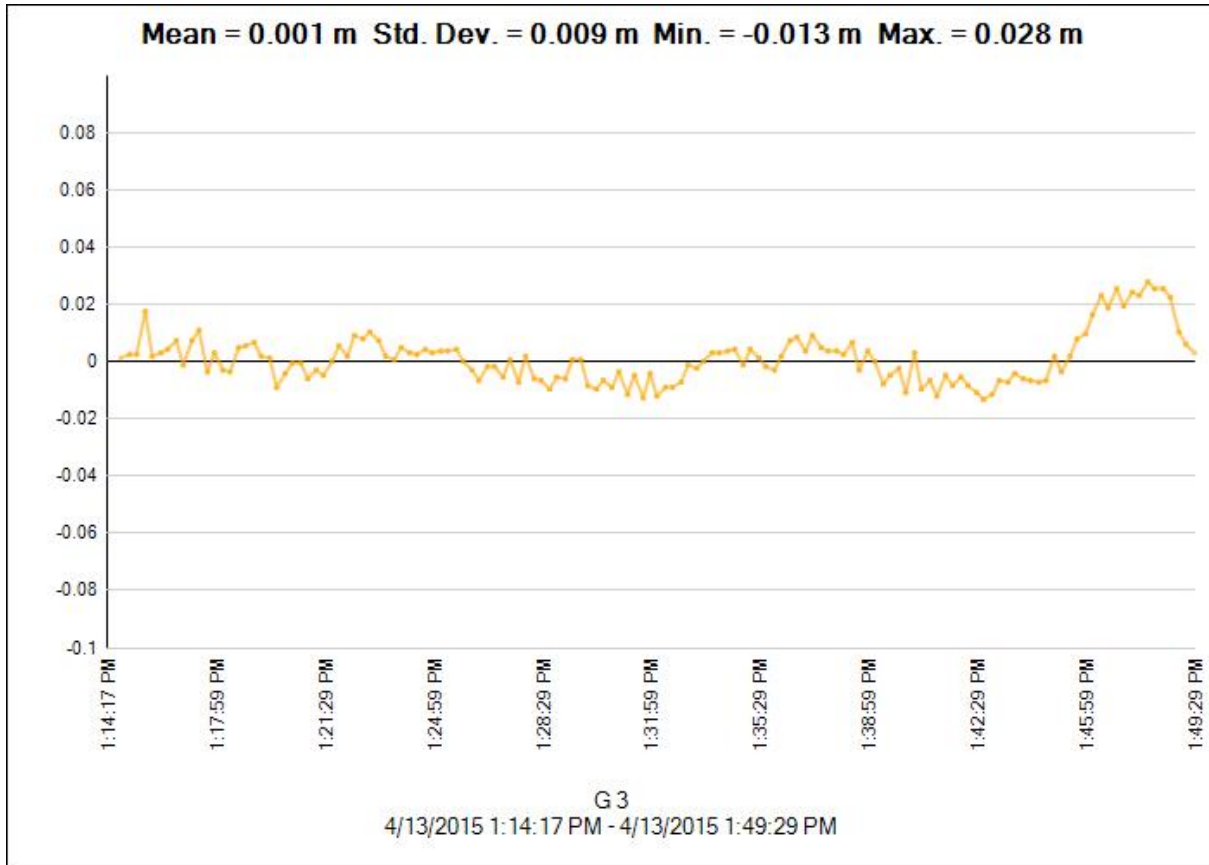
Occupations

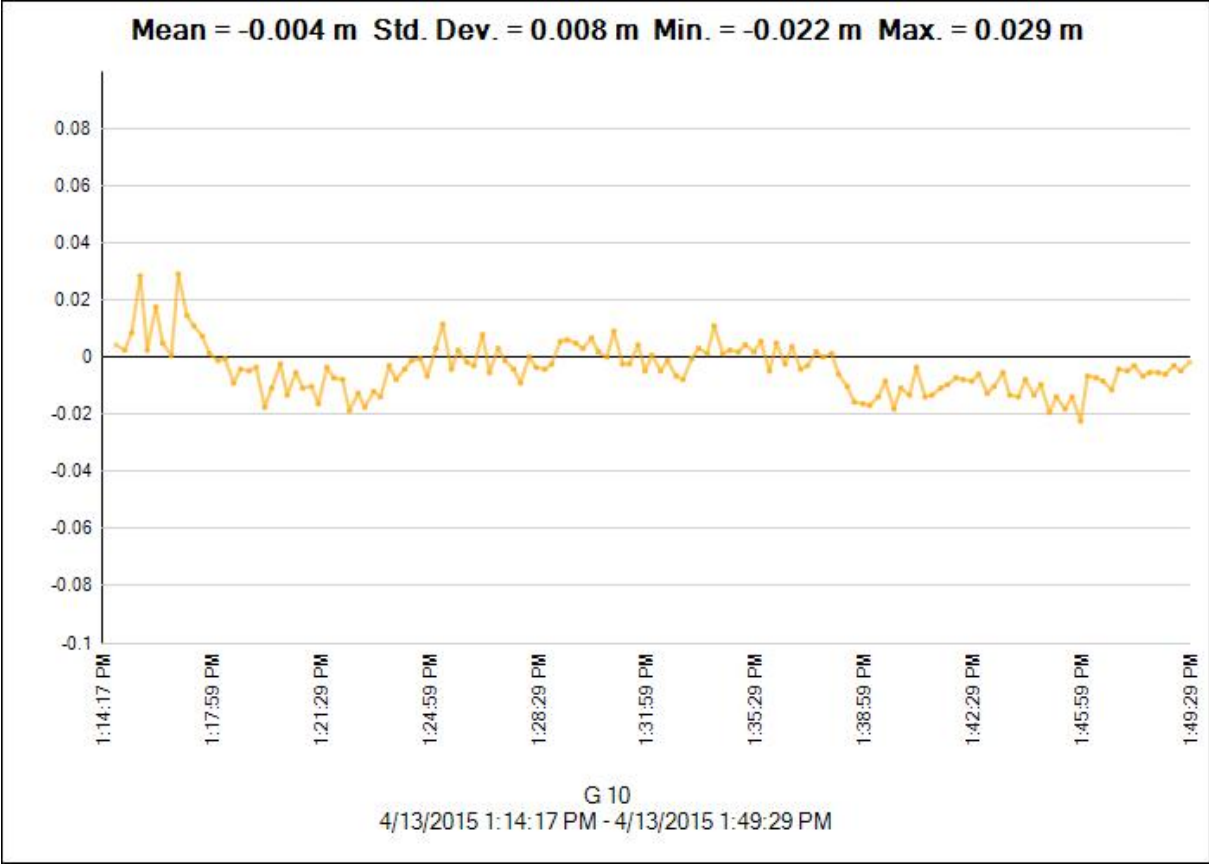
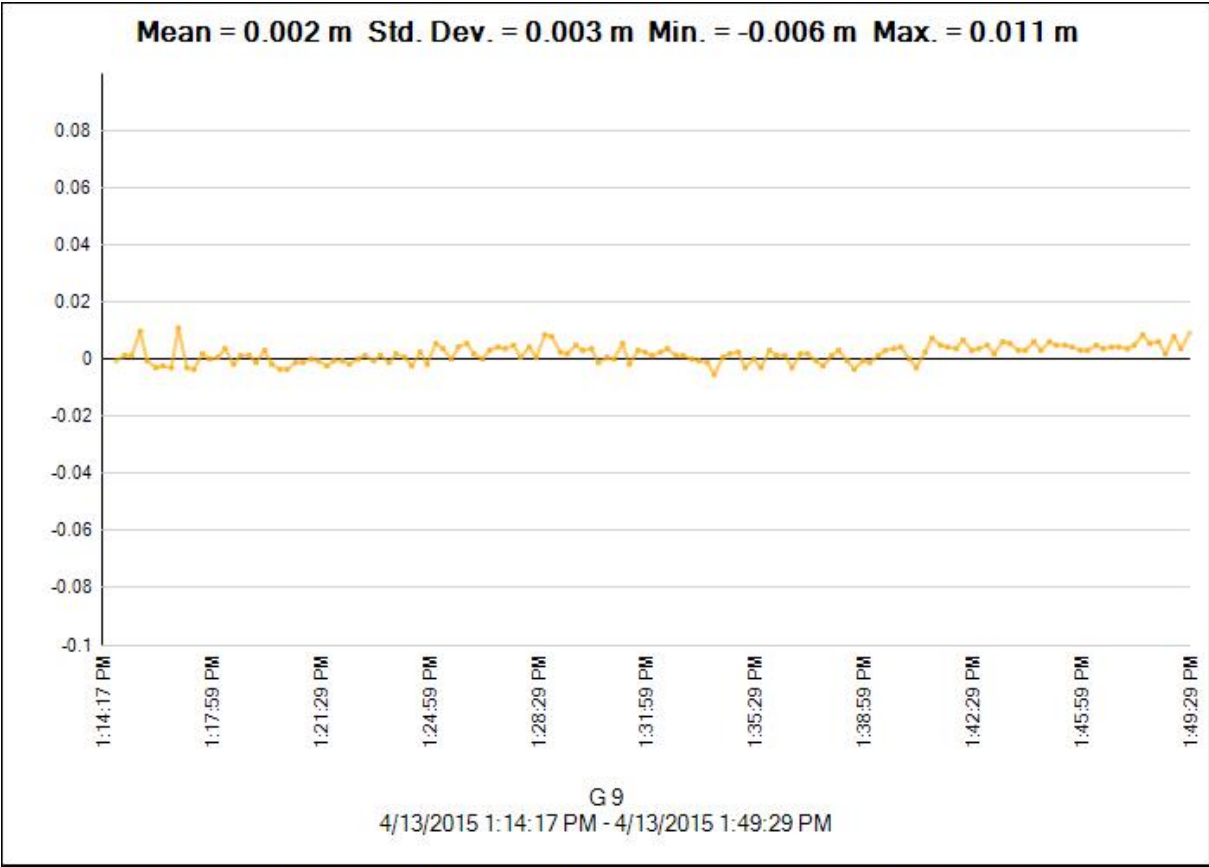
	From	To
Point ID:	NR0224	CAS620
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601030.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801034.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.766 m	1.561 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

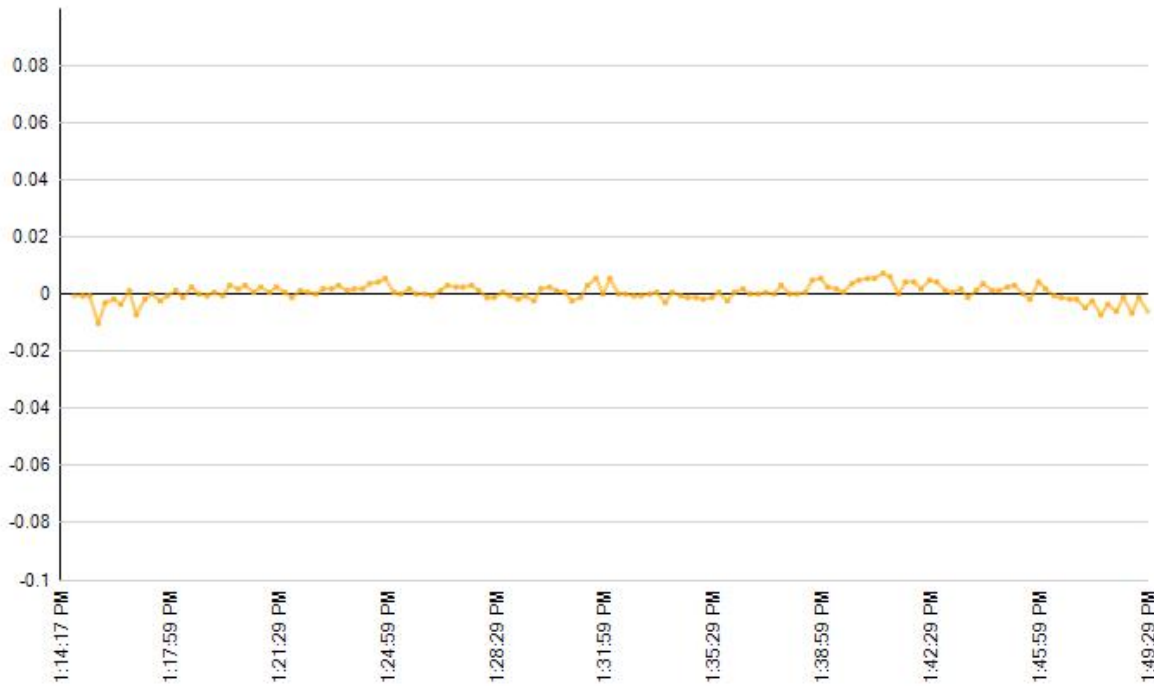
SV	4/13/2015 1:14:02 PM	Duration: 00:35:36	Major interval: 00:01:00	4/13/2015 1:49:38 PM
G 3	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 16	L1 L2			
G 19	L1 L2			
G 20	L1 L2			
G 23	L1 L2			
G 27	L1 L2			
G 30	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals



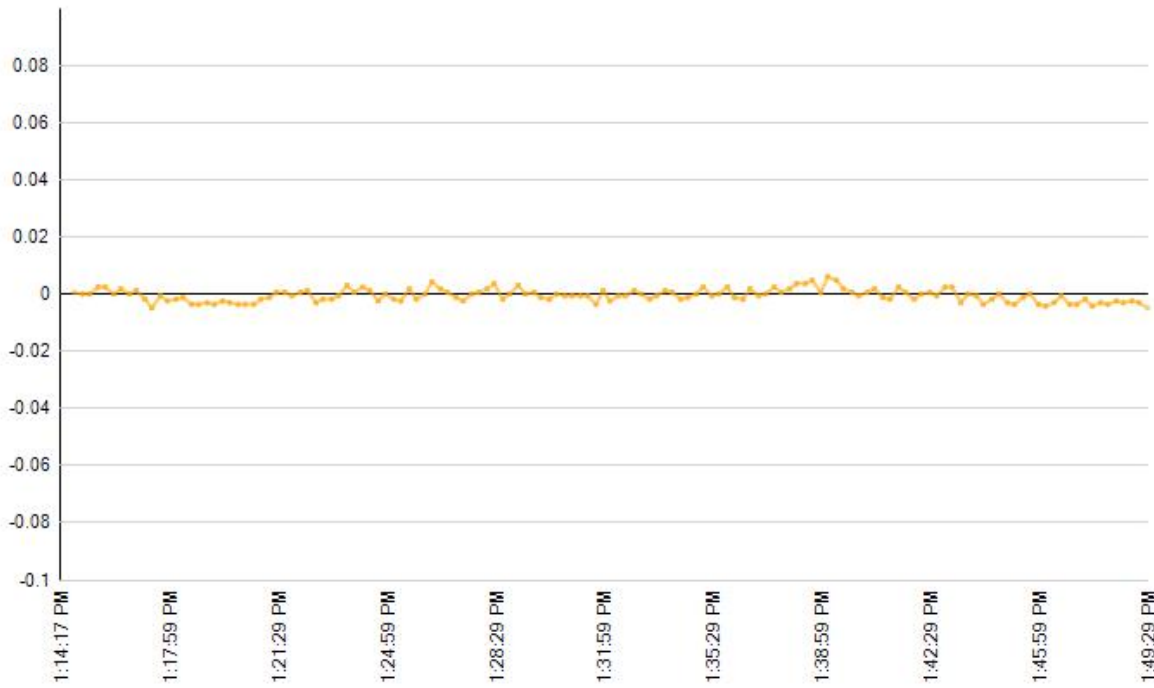


Mean = 0.001 m Std. Dev. = 0.003 m Min. = -0.011 m Max. = 0.007 m

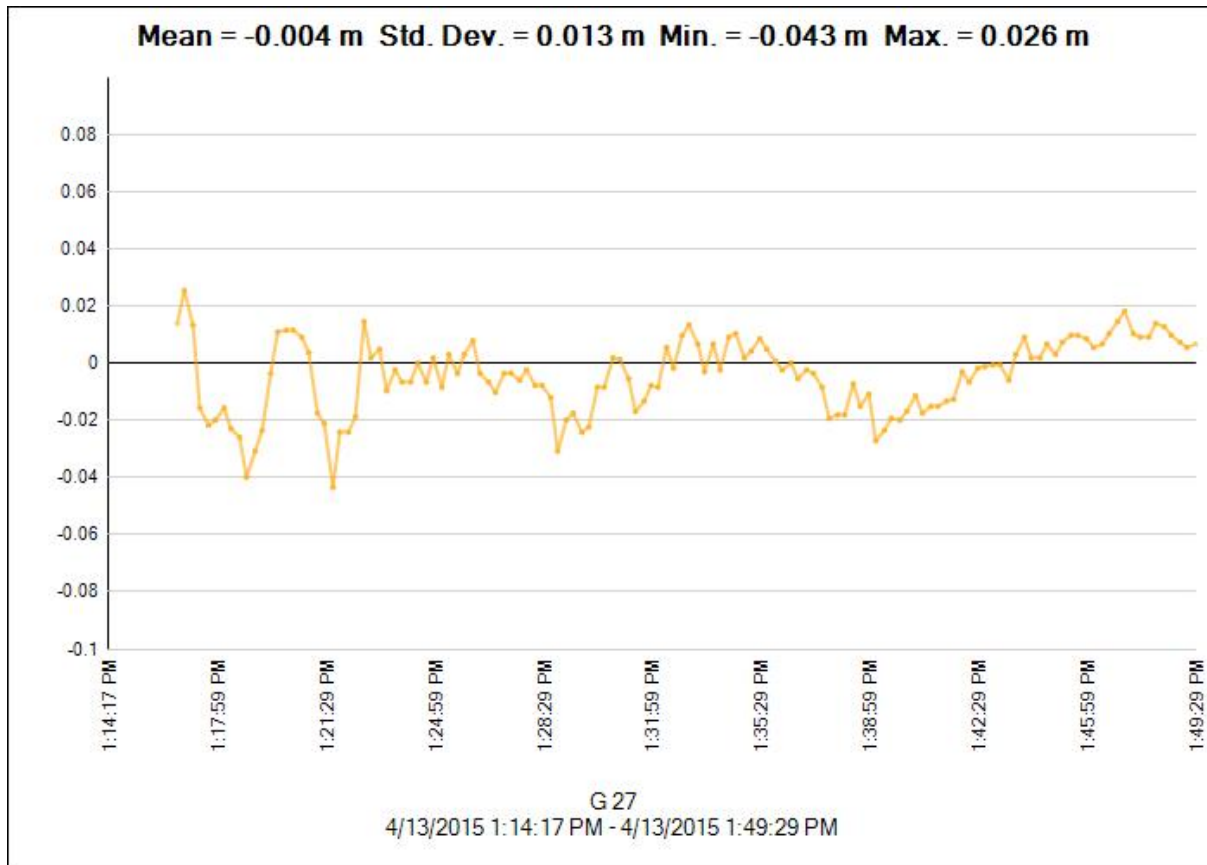


G 16
4/13/2015 1:14:17 PM - 4/13/2015 1:49:29 PM

Mean = -0.001 m Std. Dev. = 0.002 m Min. = -0.005 m Max. = 0.006 m





G 23
4/13/2015 1:14:17 PM - 4/13/2015 1:49:29 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS308 (11:37:05 AM-12:12:14 PM) (S6)

Baseline observation: NR0224 --- CAS308 (B6)
 Processed: 7/1/2015 8:42:29 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.009 m
 Vertical precision: 0.020 m
 RMS: 0.002 m
 Maximum PDOP: 4.457
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/13/2015 11:37:14 AM (Local: UTC-6hr)
 Processing stop time: 4/13/2015 12:12:14 PM (Local: UTC-6hr)
 Processing duration: 00:35:00
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470640.050 m	Latitude	N42°53'23.96348"	Latitude	N42°53'23.96348"
Northing	365796.185 m	Longitude	W106°28'06.63359"	Longitude	W106°28'06.63359"
Elevation	1616.606 m	Height	1603.437 m	Height	1603.437 m

To: CAS308					
Grid		Local		Global	
Easting	482606.569 m	Latitude	N42°45'10.32487"	Latitude	N42°45'10.32487"
Northing	350695.357 m	Longitude	W106°19'27.26635"	Longitude	W106°19'27.26635"
Elevation	2292.424 m	Height	2280.035 m	Height	2280.035 m

Vector					
ΔEasting	11966.519 m	NS Fwd Azimuth	142°11'35"	ΔX	8257.755 m
ΔNorthing	-15100.828 m	Ellipsoid Dist.	19267.207 m	ΔY	-13743.283 m
ΔElevation	675.818 m	ΔHeight	676.598 m	ΔZ	-10716.373 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.003 m
$\sigma \Delta$ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.008 m
$\sigma \Delta$ Elevation	0.010 m	$\sigma \Delta$ Height	0.010 m	$\sigma \Delta$ Z	0.008 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000101599		
Y	0.0000052358	0.0000585429	
Z	-0.0000027938	-0.0000508626	0.0000581422

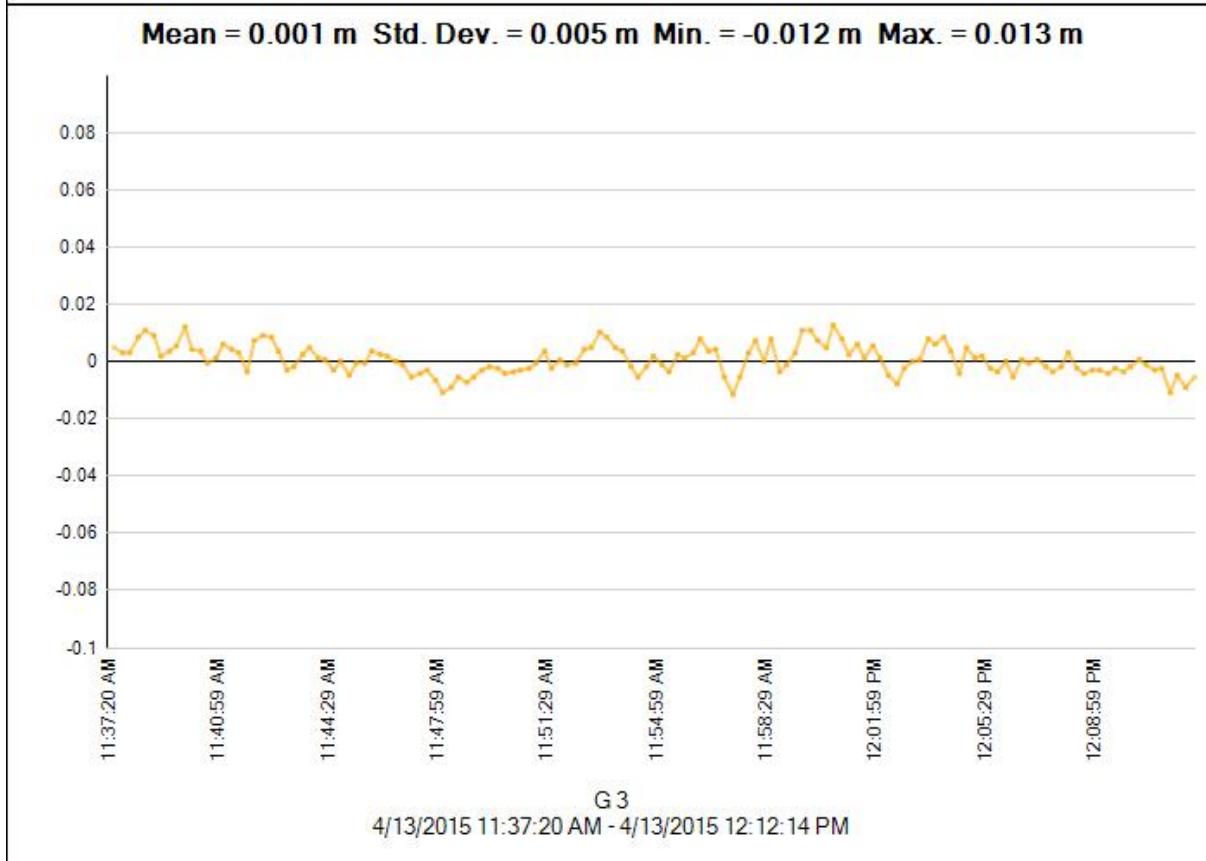
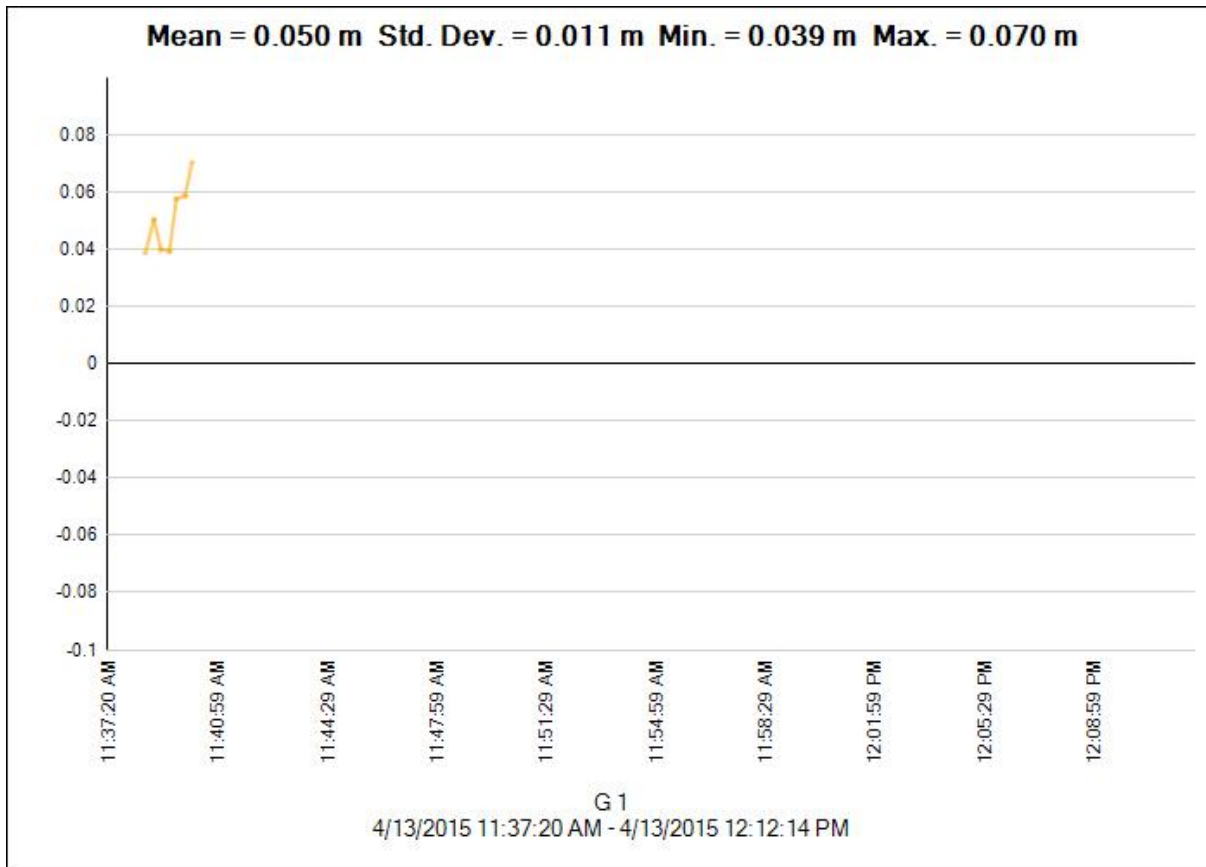
Occupations

	From	To
Point ID:	NR0224	CAS308
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601030.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801033.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.766 m	1.441 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

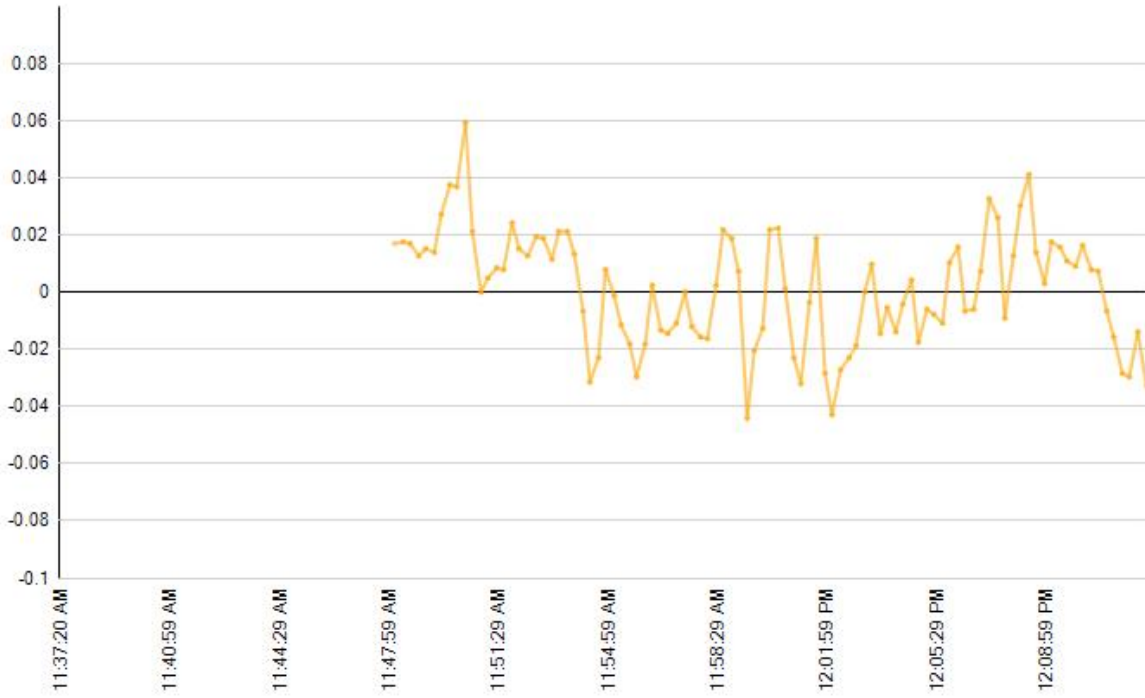
Tracking Summary

SV	4/13/2015 11:37:05 AM	Duration: 00:35:09	Major interval: 00:01:00	4/13/2015 12:12:14 PM
G 1	L1 L2			
G 3	L1 L2			
G 6	L1 L2			
G 9	L1 L2			
G 16	L1 L2			
G 23	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals



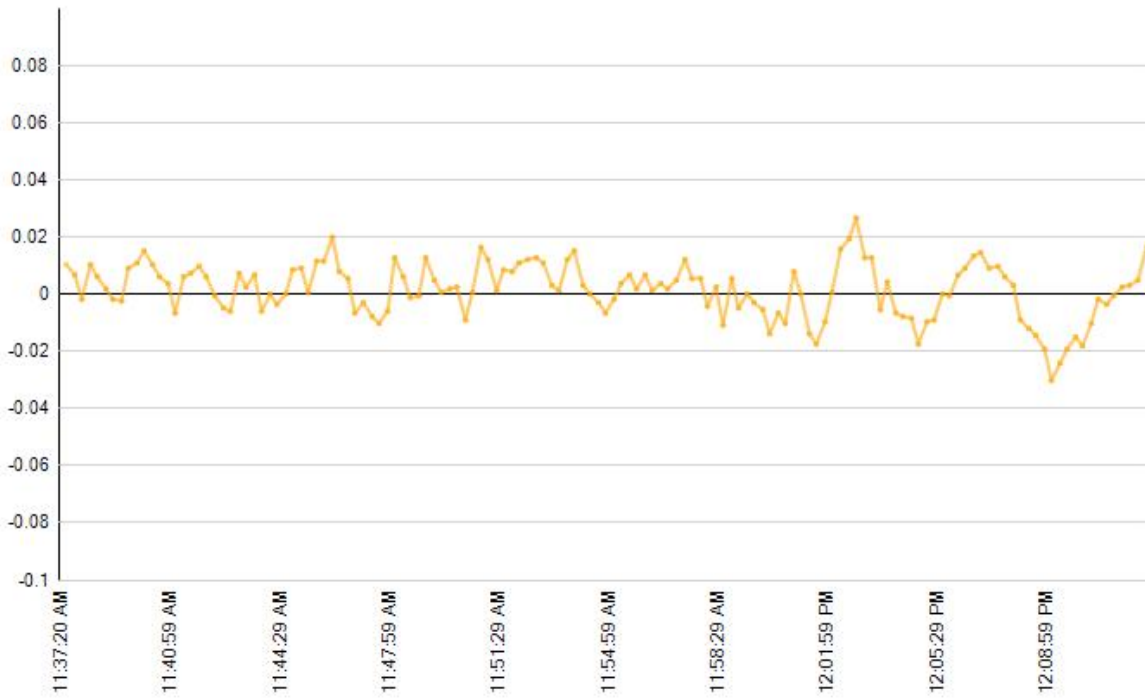
Mean = 0.001 m Std. Dev. = 0.020 m Min. = -0.044 m Max. = 0.059 m



G 9

4/13/2015 11:37:20 AM - 4/13/2015 12:12:14 PM

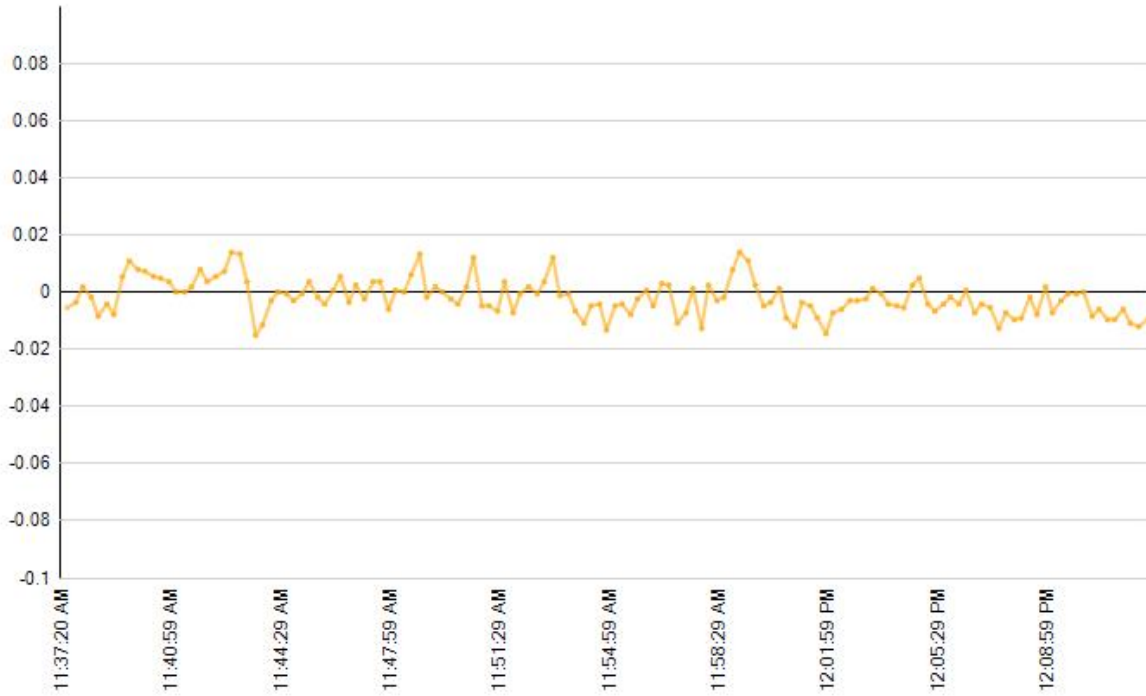
Mean = 0.001 m Std. Dev. = 0.010 m Min. = -0.030 m Max. = 0.027 m



G 16

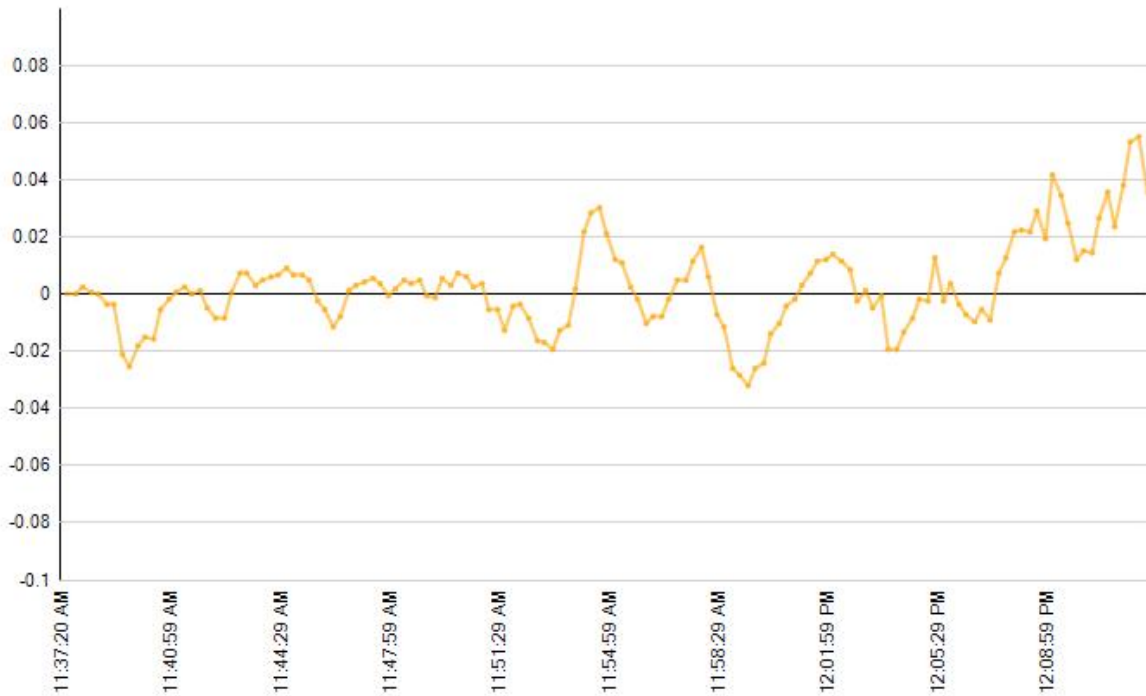
4/13/2015 11:37:20 AM - 4/13/2015 12:12:14 PM

Mean = -0.002 m Std. Dev. = 0.006 m Min. = -0.015 m Max. = 0.014 m

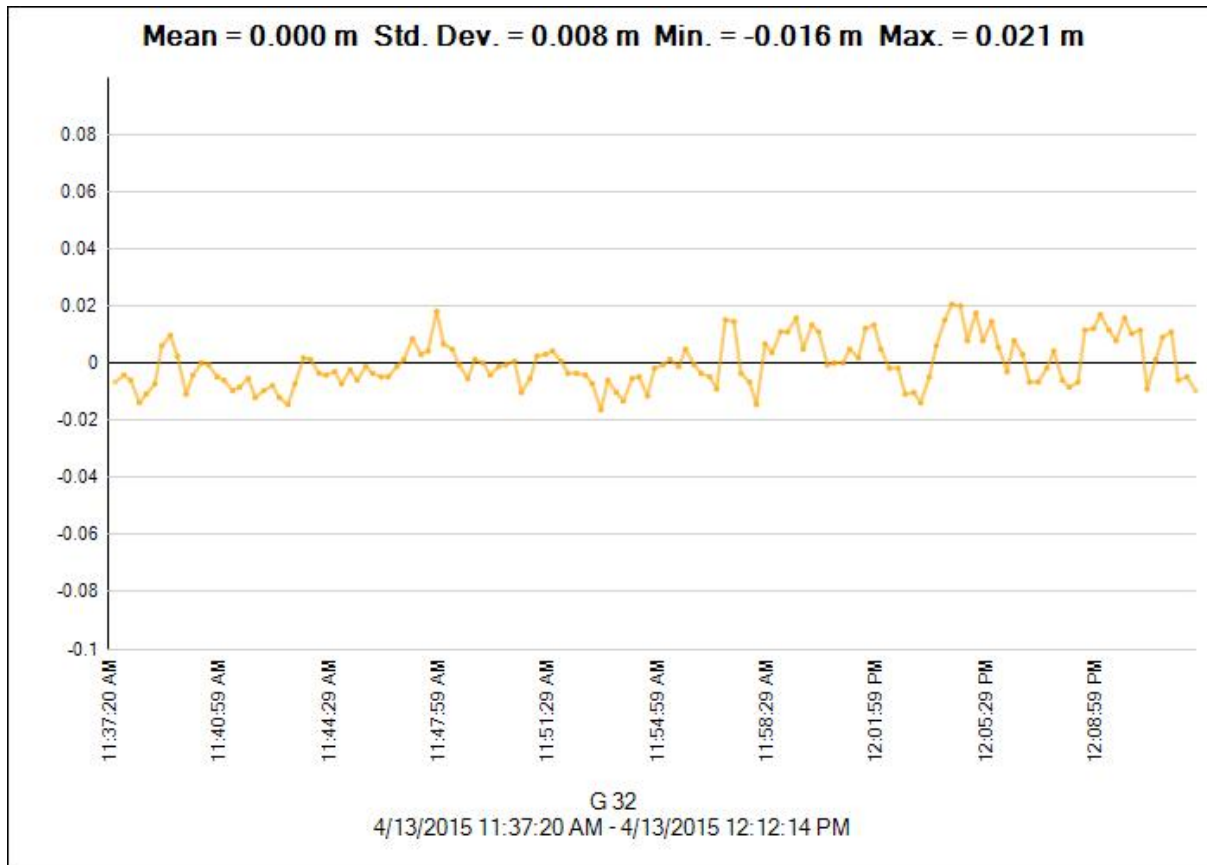


G 23
4/13/2015 11:37:20 AM - 4/13/2015 12:12:14 PM

Mean = 0.002 m Std. Dev. = 0.015 m Min. = -0.032 m Max. = 0.055 m





G 31
4/13/2015 11:37:20 AM - 4/13/2015 12:12:14 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS307 (10:39:16 AM-11:15:28 AM) (S7)

Baseline observation: NR0224 --- CAS307 (B7)
 Processed: 7/1/2015 8:42:29 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.008 m
 Vertical precision: 0.011 m
 RMS: 0.001 m
 Maximum PDOP: 1.992
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/13/2015 10:39:29 AM (Local: UTC-6hr)
 Processing stop time: 4/13/2015 11:15:14 AM (Local: UTC-6hr)
 Processing duration: 00:35:45
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470640.050 m	Latitude	N42°53'23.96348"	Latitude	N42°53'23.96348"
Northing	365796.185 m	Longitude	W106°28'06.63359"	Longitude	W106°28'06.63359"
Elevation	1616.606 m	Height	1603.437 m	Height	1603.437 m

To: CAS307					
Grid		Local		Global	
Easting	488769.653 m	Latitude	N42°44'50.00582"	Latitude	N42°44'50.00581"
Northing	350144.724 m	Longitude	W106°14'56.59326"	Longitude	W106°14'56.59326"
Elevation	2371.222 m	Height	2358.831 m	Height	2358.831 m

Vector					
ΔEasting	18129.603 m	NS Fwd Azimuth	131°23'32"	ΔX	14032.861 m
ΔNorthing	-15651.461 m	Ellipsoid Dist.	23950.624 m	ΔY	-15934.425 m
ΔElevation	754.616 m	ΔHeight	755.395 m	ΔZ	-11123.474 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.003 m
$\sigma \Delta$ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.004 m
$\sigma \Delta$ Elevation	0.005 m	$\sigma \Delta$ Height	0.005 m	$\sigma \Delta$ Z	0.004 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000085016		
Y	0.0000053694	0.0000188299	
Z	-0.0000055305	-0.0000073918	0.0000199664

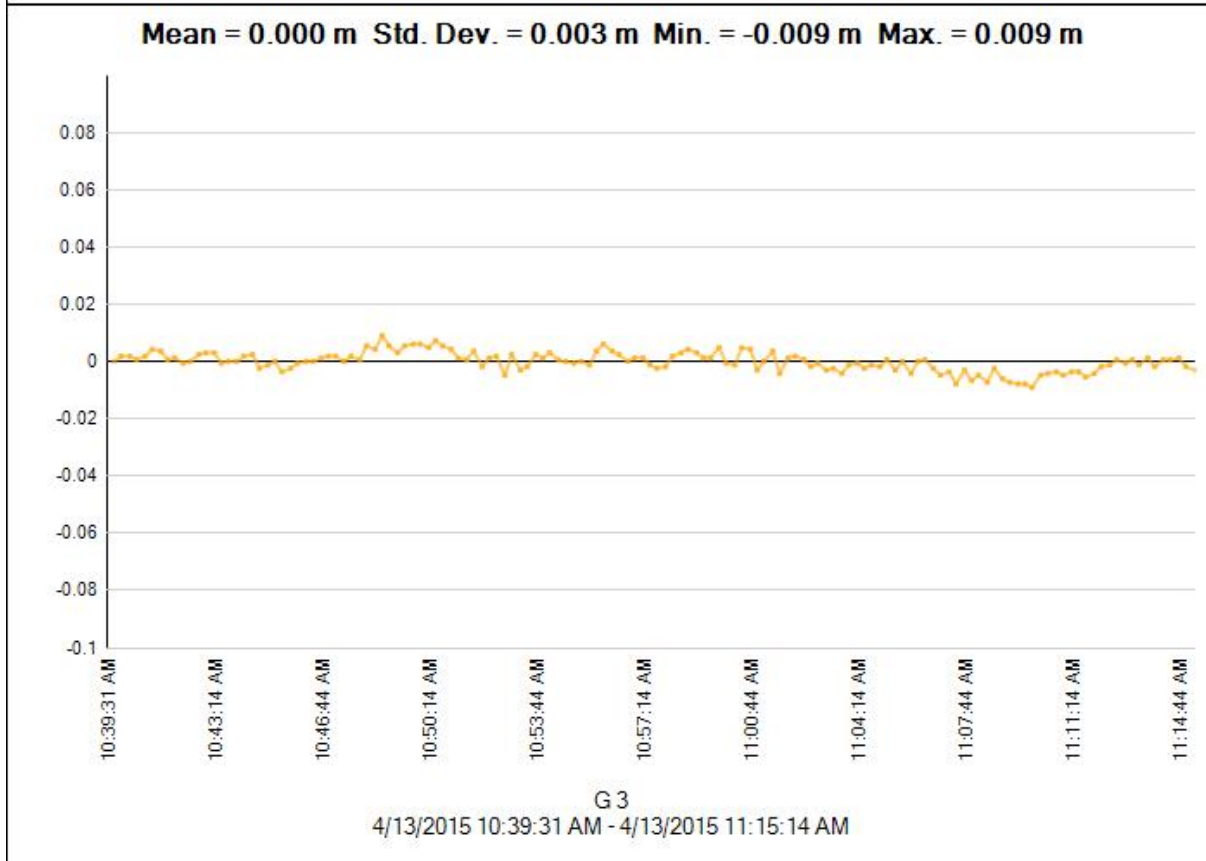
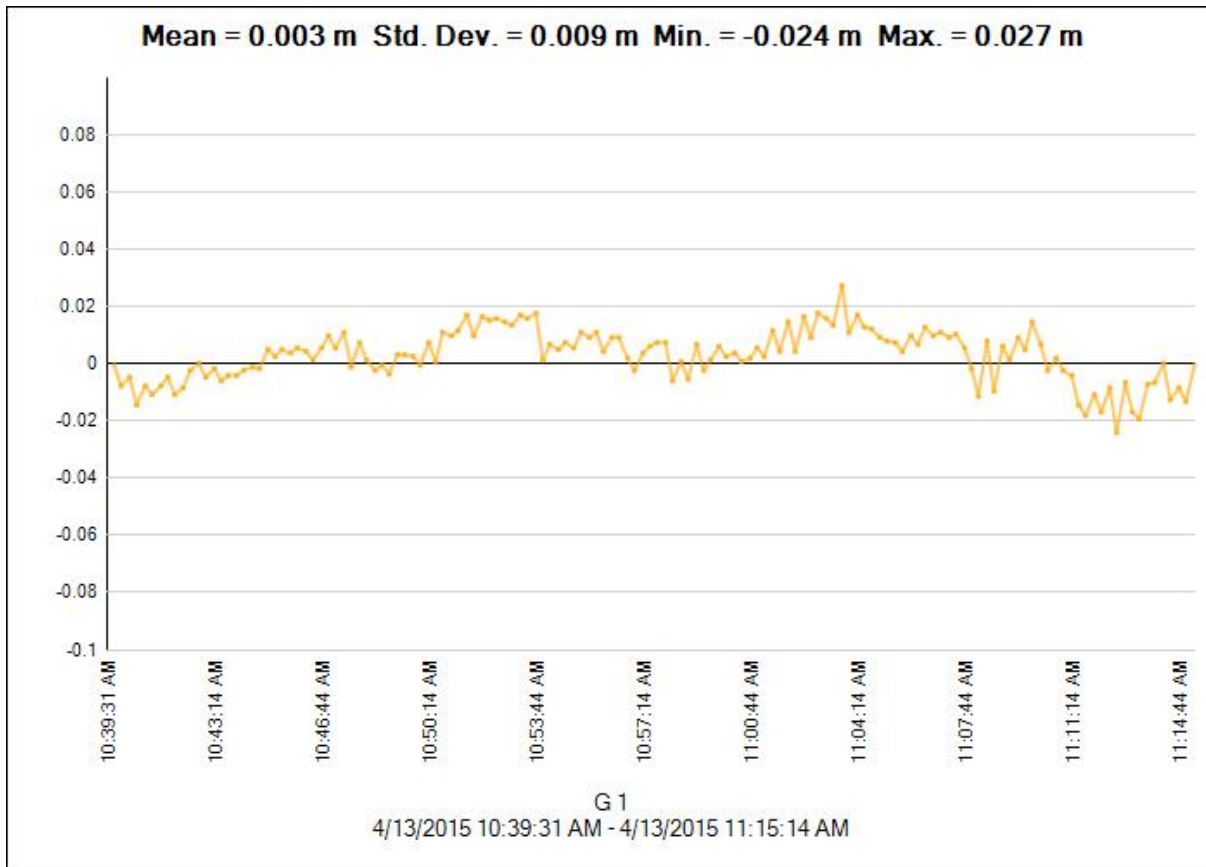
Occupations

	From	To
Point ID:	NR0224	CAS307
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601030.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801032.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.766 m	1.549 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

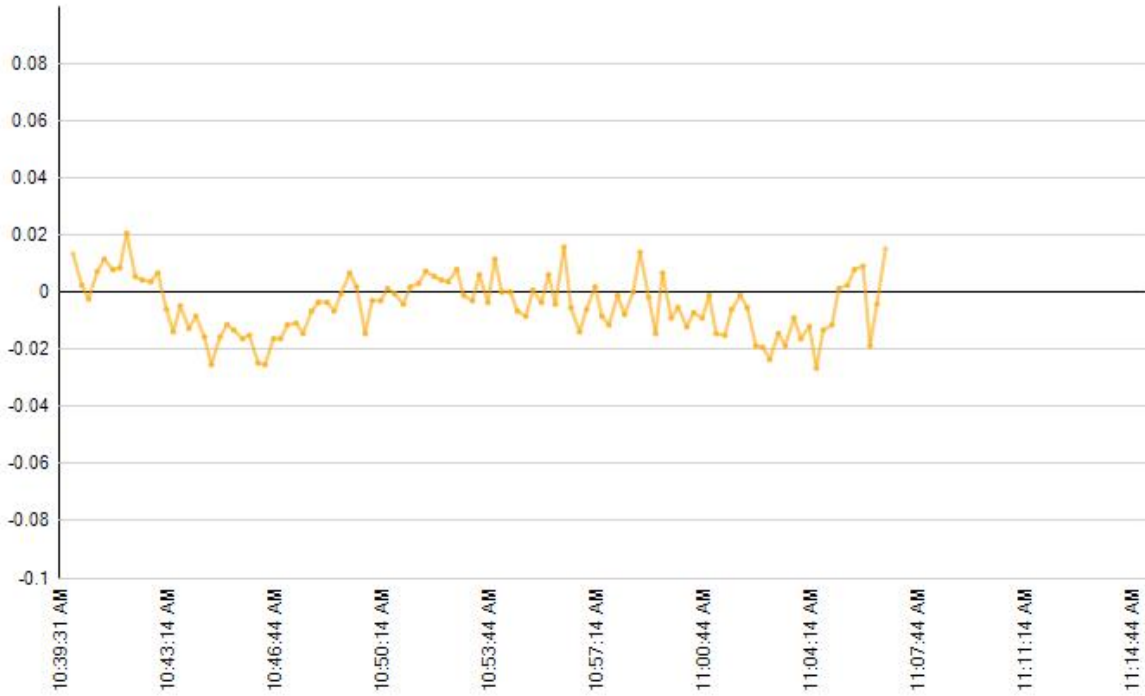
Tracking Summary

SV	4/13/2015 10:39:16 AM	Duration: 00:36:12	Major interval: 00:01:00	4/13/2015 11:15:28 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 11	L1 L2			
G 14	L1 L2			
G 16	L1 L2			
G 22	L1 L2			
G 23	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals

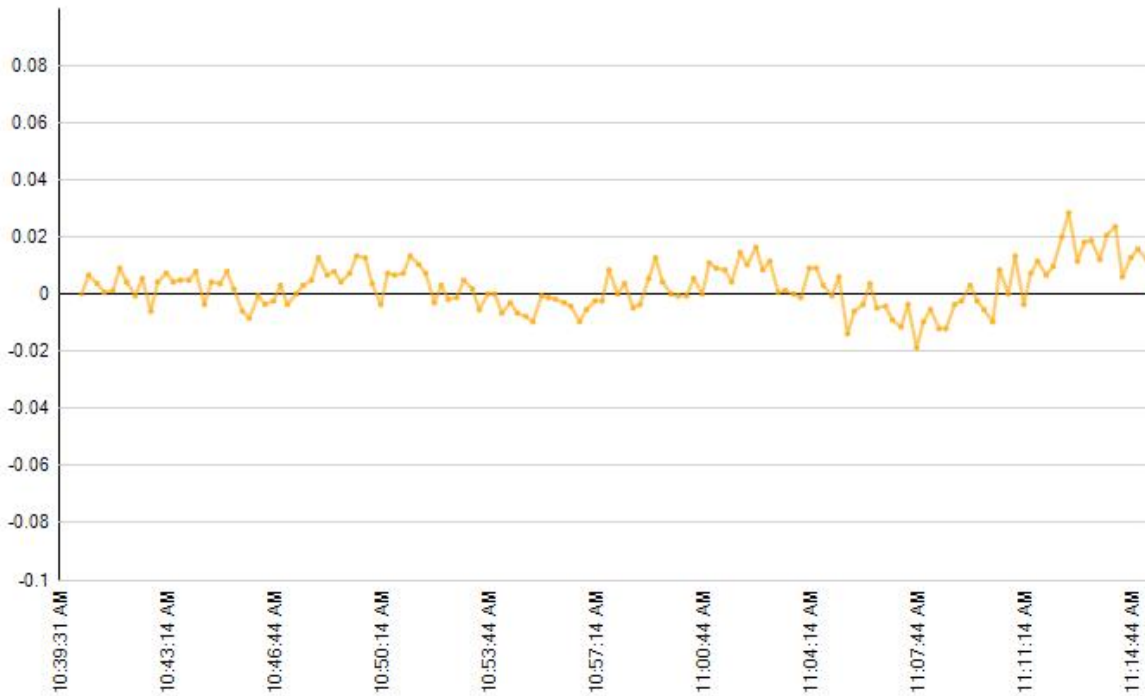


Mean = -0.005 m Std. Dev. = 0.010 m Min. = -0.027 m Max. = 0.021 m



G 4
4/13/2015 10:39:31 AM - 4/13/2015 11:15:14 AM

Mean = 0.003 m Std. Dev. = 0.008 m Min. = -0.019 m Max. = 0.028 m



G 14
4/13/2015 10:39:31 AM - 4/13/2015 11:15:14 AM

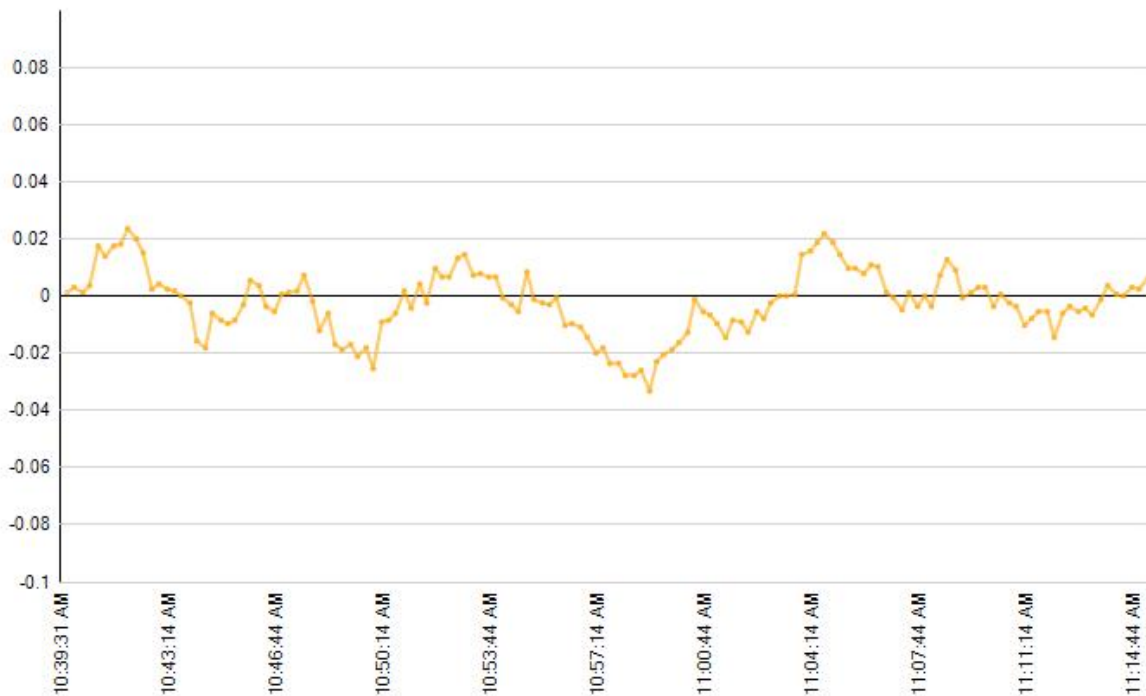
Mean = -0.009 m Std. Dev. = 0.022 m Min. = -0.050 m Max. = 0.024 m



G 16

4/13/2015 10:39:31 AM - 4/13/2015 11:15:14 AM

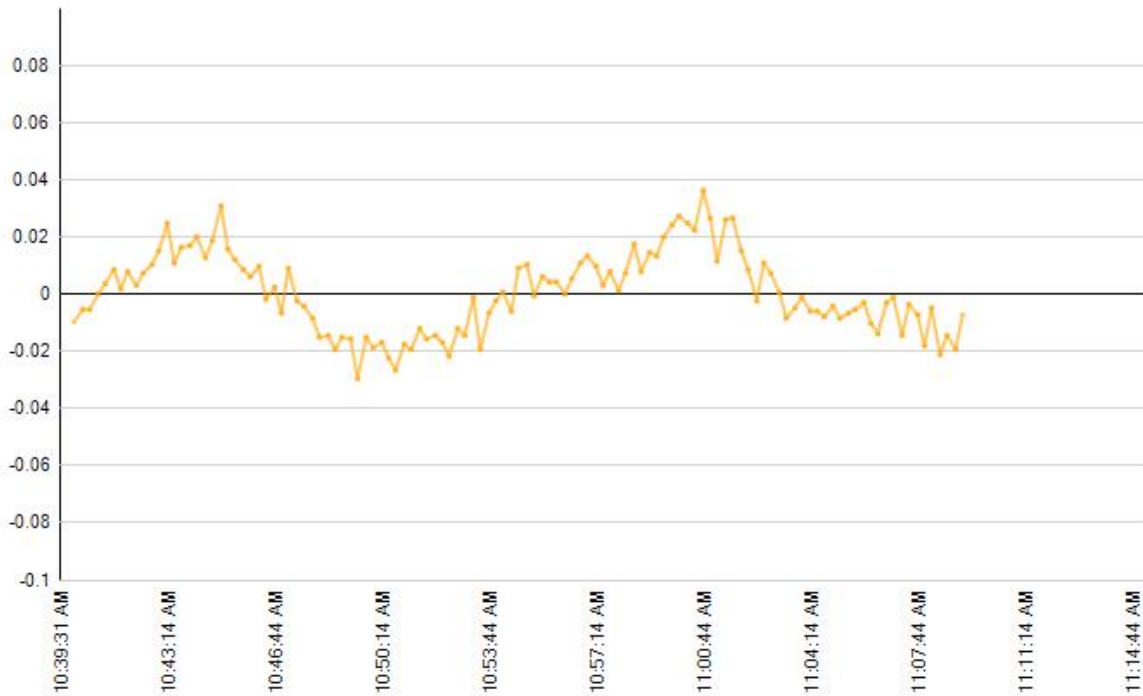
Mean = -0.002 m Std. Dev. = 0.011 m Min. = -0.033 m Max. = 0.024 m



G 23

4/13/2015 10:39:31 AM - 4/13/2015 11:15:14 AM

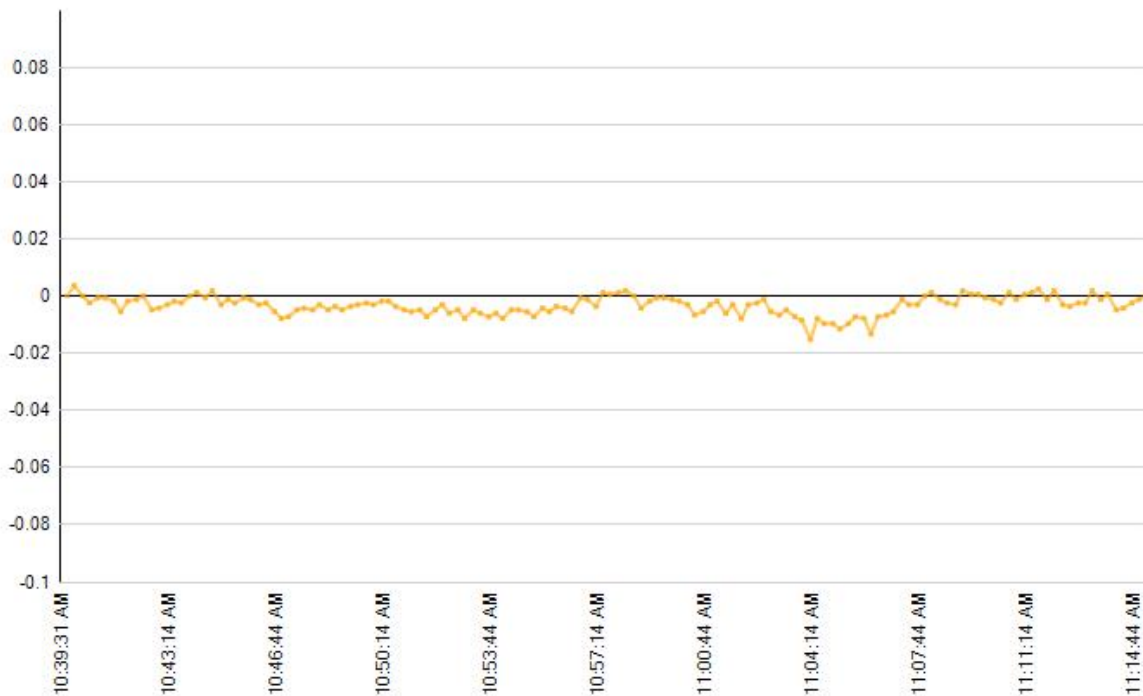
Mean = 0.001 m Std. Dev. = 0.014 m Min. = -0.030 m Max. = 0.037 m



G 25

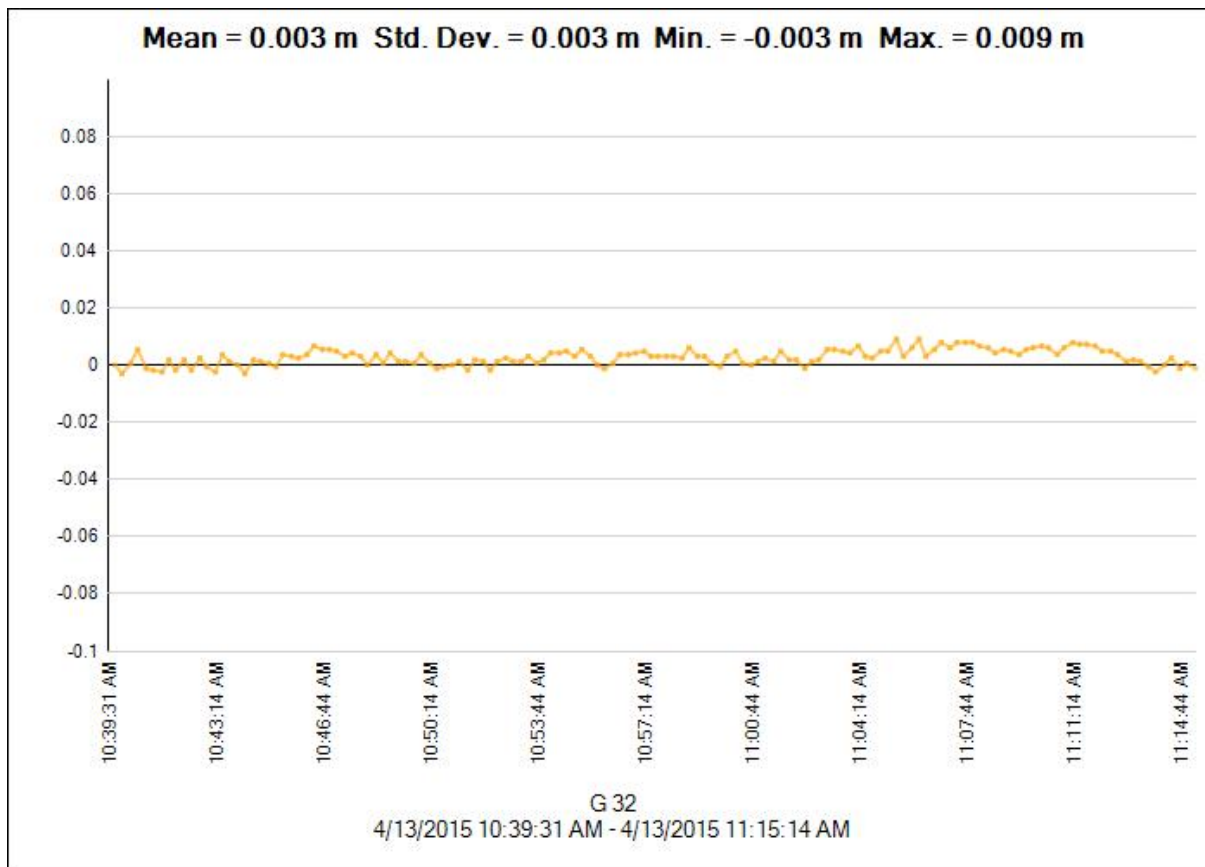
4/13/2015 10:39:31 AM - 4/13/2015 11:15:14 AM

Mean = -0.003 m Std. Dev. = 0.003 m Min. = -0.015 m Max. = 0.004 m



G 31



4/13/2015 10:39:31 AM - 4/13/2015 11:15:14 AM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS306 (9:27:34 AM-10:03:43 AM) (S8)

Baseline observation: NR0224 --- CAS306 (B8)
 Processed: 7/1/2015 8:42:29 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.008 m
 Vertical precision: 0.011 m
 RMS: 0.001 m
 Maximum PDOP: 2.077
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/13/2015 9:27:44 AM (Local: UTC-6hr)
 Processing stop time: 4/13/2015 10:03:29 AM (Local: UTC-6hr)
 Processing duration: 00:35:45
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470640.050 m	Latitude	N42°53'23.96348"	Latitude	N42°53'23.96348"
Northing	365796.185 m	Longitude	W106°28'06.63359"	Longitude	W106°28'06.63359"
Elevation	1616.606 m	Height	1603.437 m	Height	1603.437 m

To: CAS306					
Grid		Local		Global	
Easting	484338.357 m	Latitude	N42°47'34.65622"	Latitude	N42°47'34.65621"
Northing	355170.481 m	Longitude	W106°18'08.71603"	Longitude	W106°18'08.71603"
Elevation	1756.838 m	Height	1744.071 m	Height	1744.070 m

Vector					
ΔEasting	13698.307 m	NS Fwd Azimuth	128°23'19"	ΔX	10932.461 m
ΔNorthing	-10625.704 m	Ellipsoid Dist.	17336.155 m	ΔY	-10963.776 m
ΔElevation	140.231 m	ΔHeight	140.634 m	ΔZ	-7810.025 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.002 m
$\sigma \Delta$ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.004 m
$\sigma \Delta$ Elevation	0.006 m	$\sigma \Delta$ Height	0.006 m	$\sigma \Delta$ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000058547		
Y	0.0000050412	0.0000198418	
Z	-0.0000034899	-0.0000092215	0.0000207814

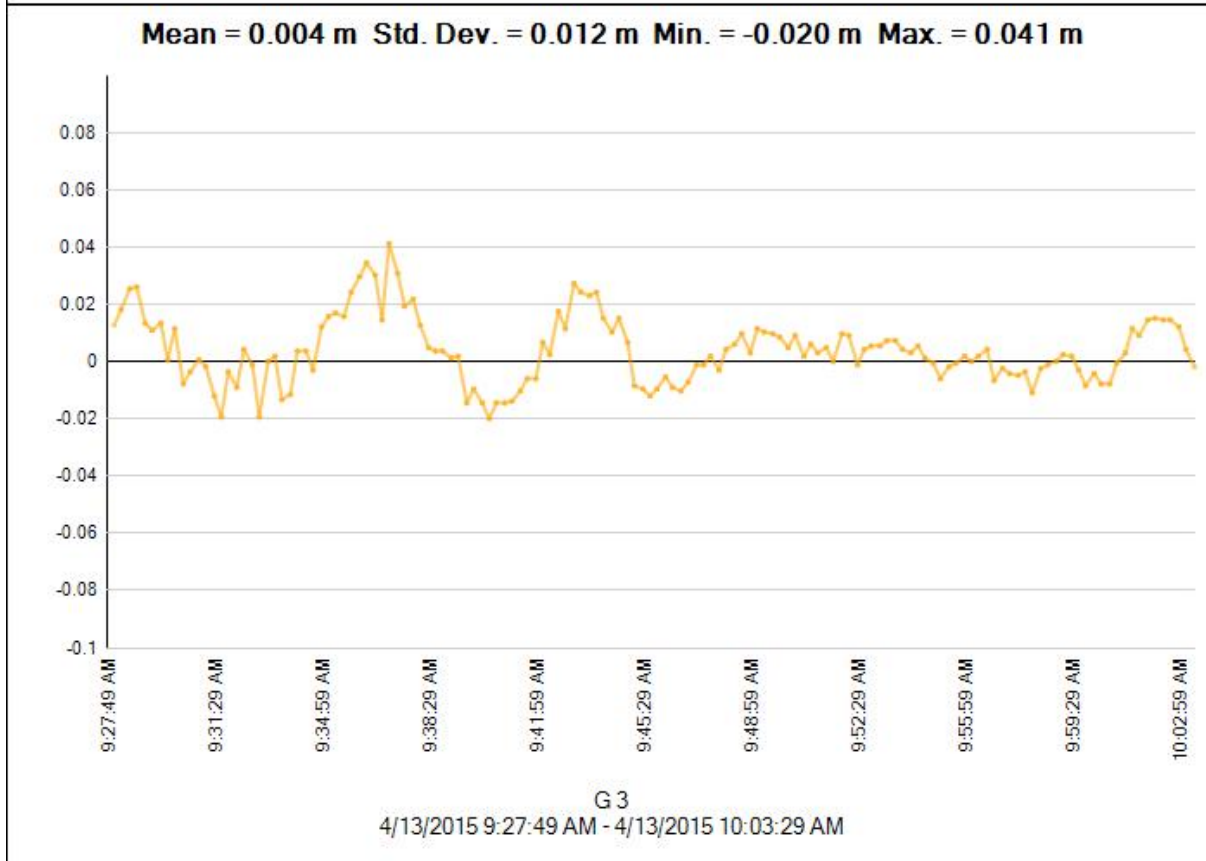
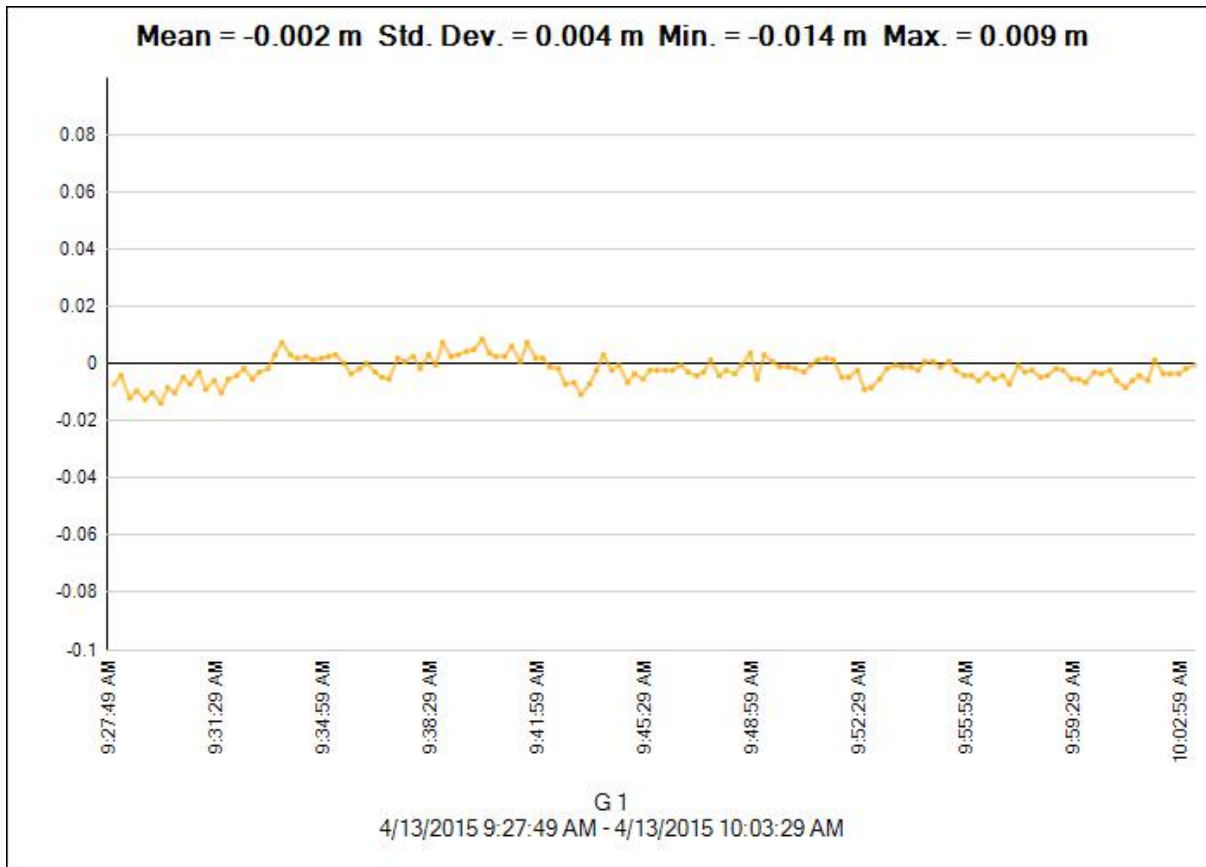
Occupations

	From	To
Point ID:	NR0224	CAS306
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601030.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801031.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.766 m	1.587 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

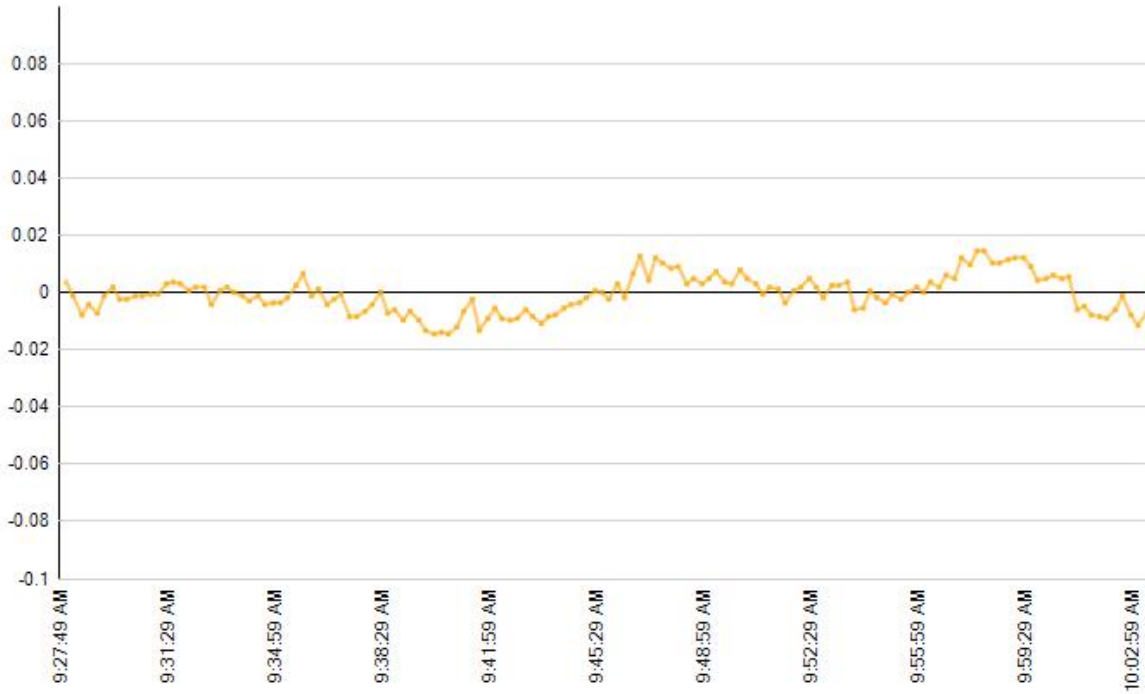
Tracking Summary

SV	4/13/2015 9:27:34 AM	Duration: 00:36:09	Major interval: 00:01:00	4/13/2015 10:03:43 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 11	L1 L2			
G 12	L1 L2			
G 14	L1 L2			
G 22	L1 L2			
G 23	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals



Mean = -0.001 m Std. Dev. = 0.006 m Min. = -0.015 m Max. = 0.015 m



G 4

4/13/2015 9:27:49 AM - 4/13/2015 10:03:29 AM

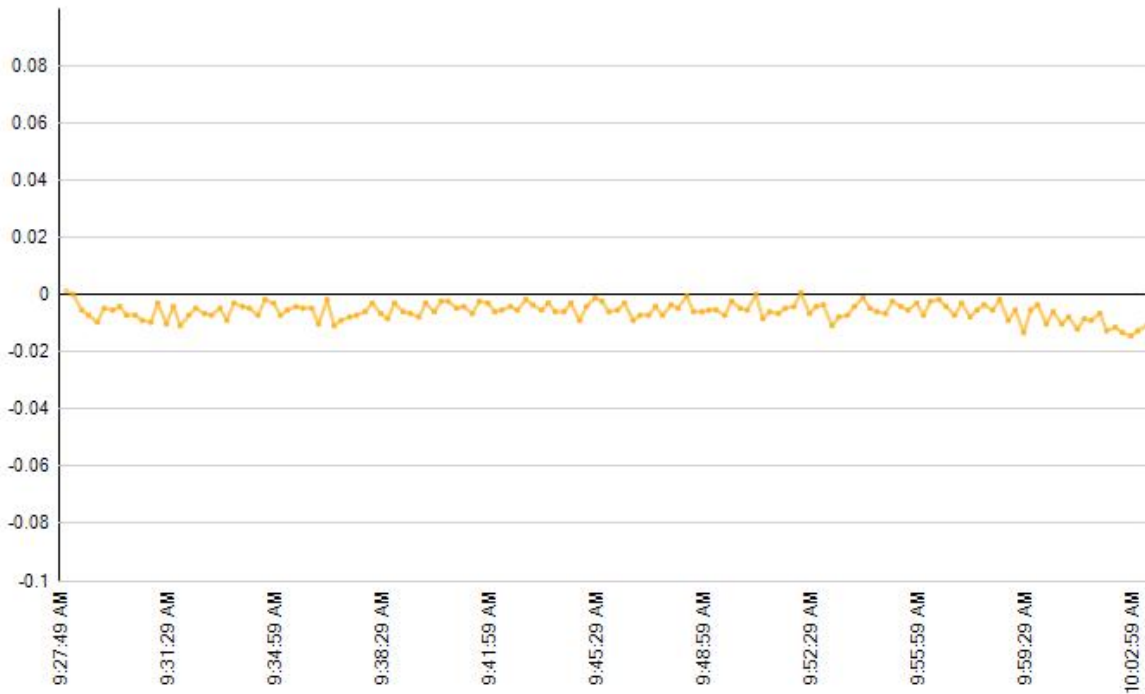
Mean = 0.001 m Std. Dev. = 0.012 m Min. = -0.040 m Max. = 0.024 m



G 11

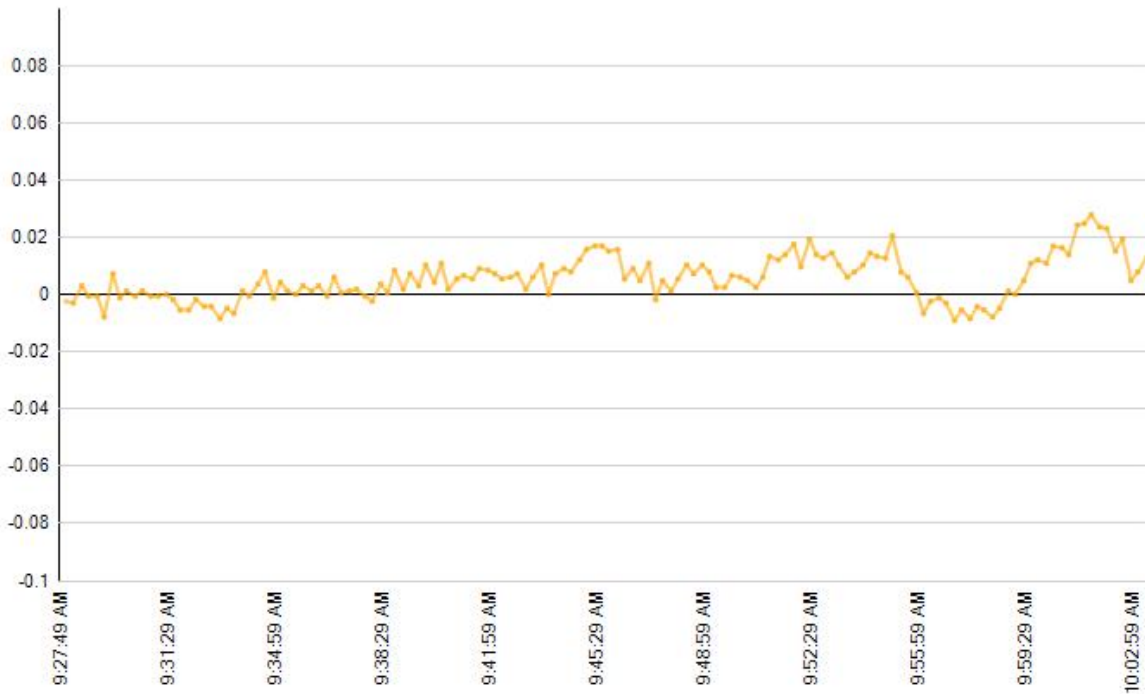
4/13/2015 9:27:49 AM - 4/13/2015 10:03:29 AM

Mean = -0.006 m Std. Dev. = 0.003 m Min. = -0.015 m Max. = 0.001 m



G 14
4/13/2015 9:27:49 AM - 4/13/2015 10:03:29 AM

Mean = 0.006 m Std. Dev. = 0.008 m Min. = -0.009 m Max. = 0.028 m



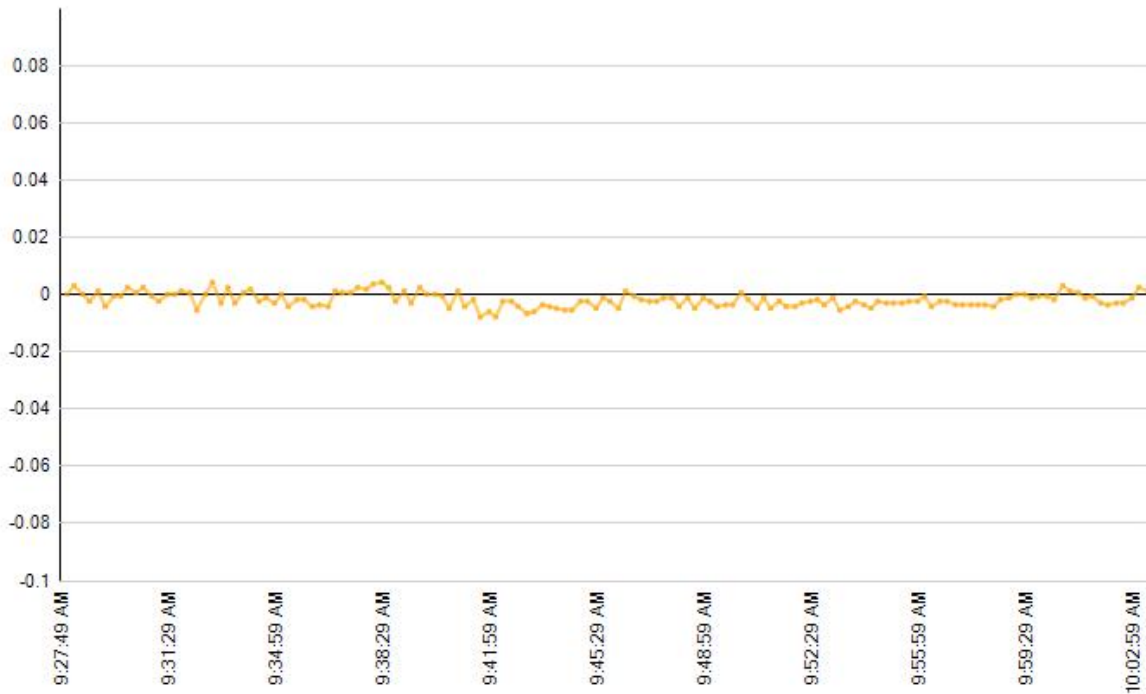
G 22
4/13/2015 9:27:49 AM - 4/13/2015 10:03:29 AM

Mean = 0.009 m Std. Dev. = 0.007 m Min. = -0.009 m Max. = 0.030 m

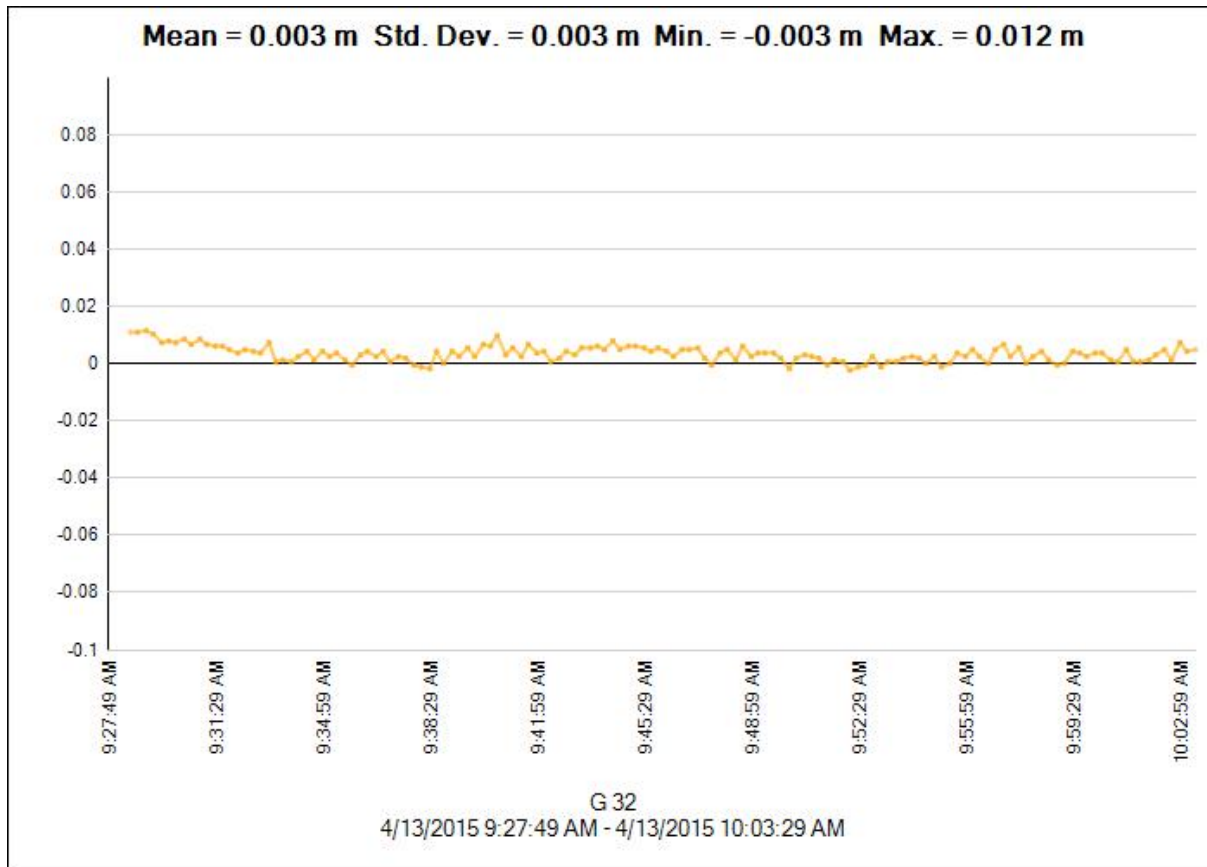


G 25
4/13/2015 9:27:49 AM - 4/13/2015 10:03:29 AM

Mean = -0.002 m Std. Dev. = 0.002 m Min. = -0.008 m Max. = 0.004 m





G 31
4/13/2015 9:27:49 AM - 4/13/2015 10:03:29 AM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS304 (8:23:08 AM-8:58:29 AM) (S9)

Baseline observation: NR0224 --- CAS304 (B9)
 Processed: 7/1/2015 8:42:29 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.010 m
 Vertical precision: 0.013 m
 RMS: 0.001 m
 Maximum PDOP: 2.450
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/13/2015 8:23:14 AM (Local: UTC-6hr)
 Processing stop time: 4/13/2015 8:58:29 AM (Local: UTC-6hr)
 Processing duration: 00:35:15
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470640.050 m	Latitude	N42°53'23.96348"	Latitude	N42°53'23.96348"
Northing	365796.185 m	Longitude	W106°28'06.63359"	Longitude	W106°28'06.63359"
Elevation	1616.606 m	Height	1603.437 m	Height	1603.437 m

To: CAS304					
Grid		Local		Global	
Easting	495737.785 m	Latitude	N42°52'41.28901"	Latitude	N42°52'41.28901"
Northing	364782.783 m	Longitude	W106°09'41.30226"	Longitude	W106°09'41.30226"
Elevation	1606.230 m	Height	1592.785 m	Height	1592.785 m

Vector					
ΔEasting	25097.735 m	NS Fwd Azimuth	92°54'03"	ΔX	23829.401 m
ΔNorthing	-1013.402 m	Ellipsoid Dist.	25117.602 m	ΔY	-7900.824 m
ΔElevation	-10.377 m	ΔHeight	-10.652 m	ΔZ	-972.403 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.004 m
$\sigma \Delta$ Northing	0.004 m	σ Ellipsoid Dist.	0.002 m	$\sigma \Delta$ Y	0.006 m
$\sigma \Delta$ Elevation	0.007 m	$\sigma \Delta$ Height	0.007 m	$\sigma \Delta$ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000141175		
Y	0.0000165499	0.0000319408	
Z	-0.0000060738	-0.0000157627	0.0000203744

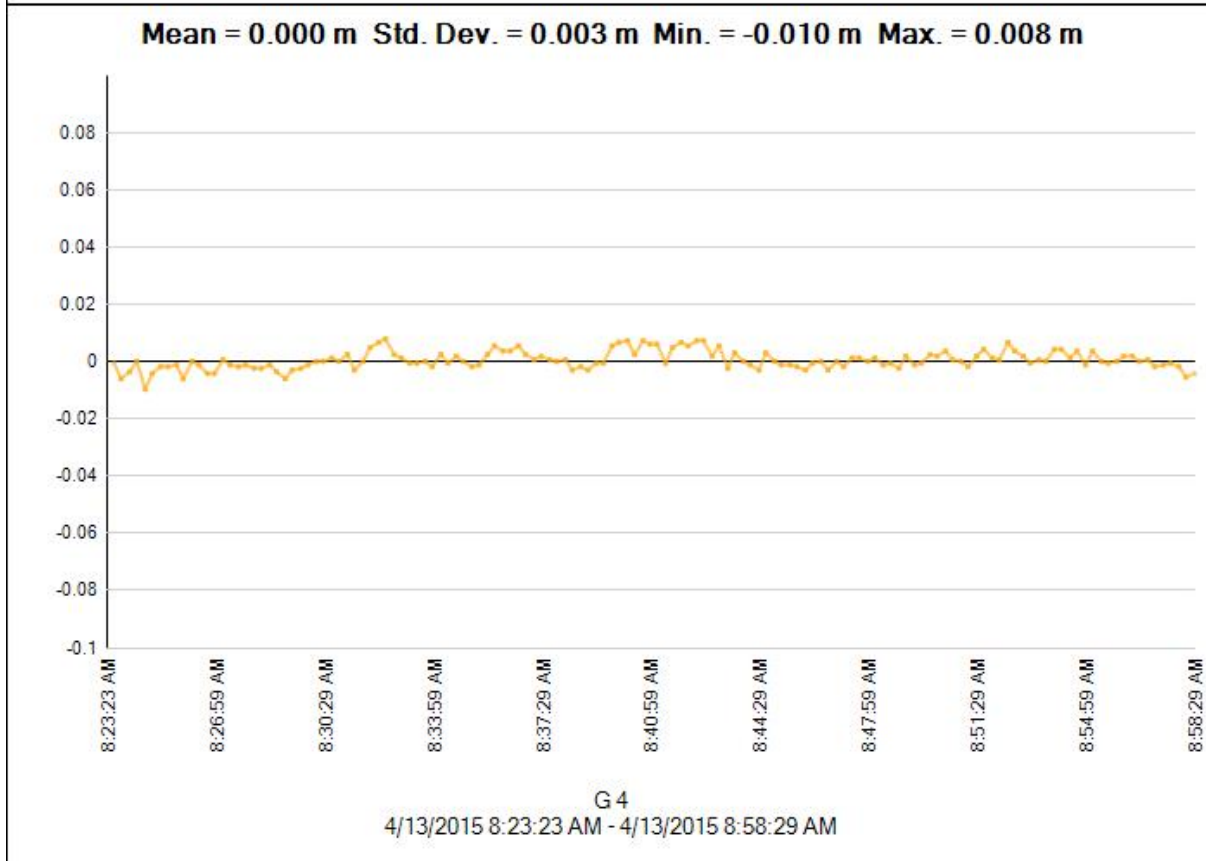
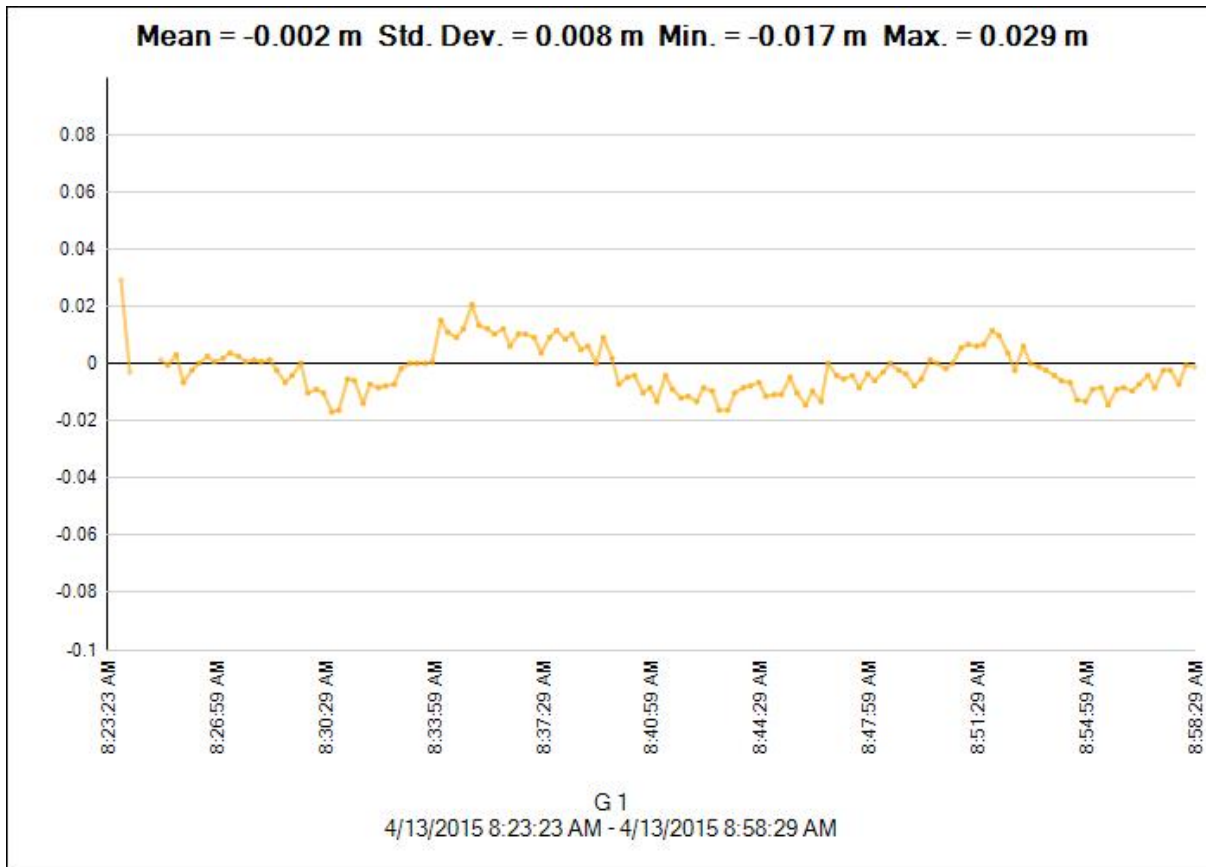
Occupations

	From	To
Point ID:	NR0224	CAS304
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601030.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801030.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.766 m	1.501 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

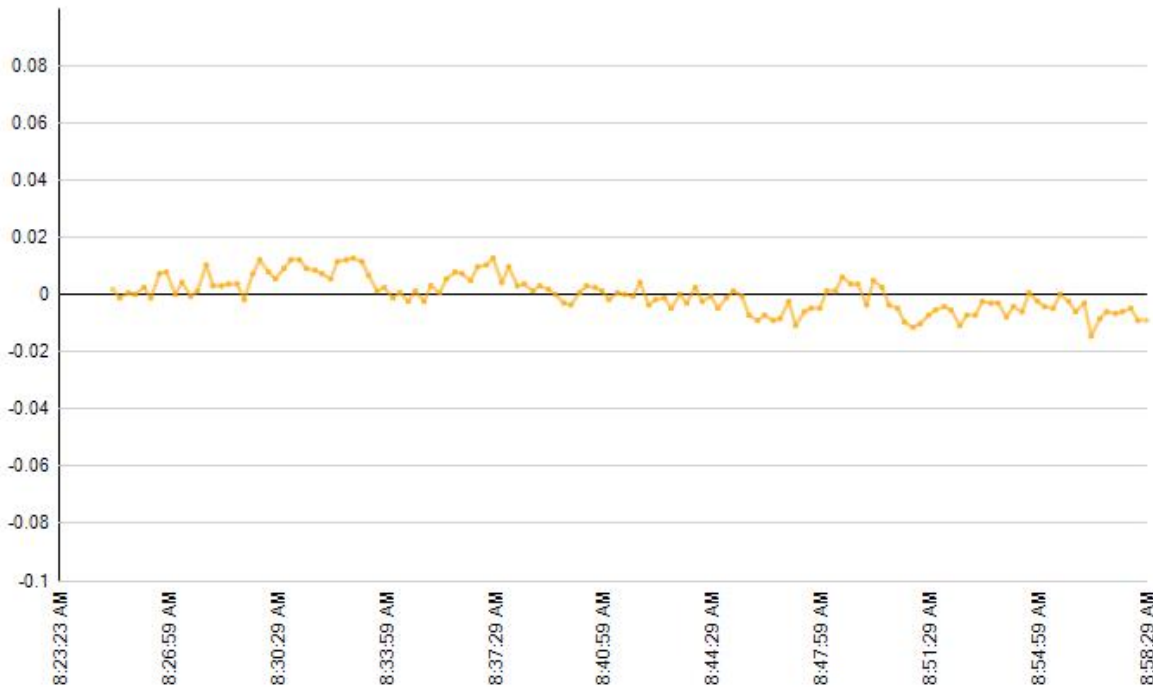
Tracking Summary

SV	4/13/2015 8:23:08 AM	Duration: 00:35:21	Major interval: 00:01:00	4/13/2015 8:58:29 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 11	L1 L2			
G 12	L1 L2			
G 14	L1 L2			
G 18	L1 L2			
G 19	L1 L2			
G 22	L1 L2			
G 24	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals

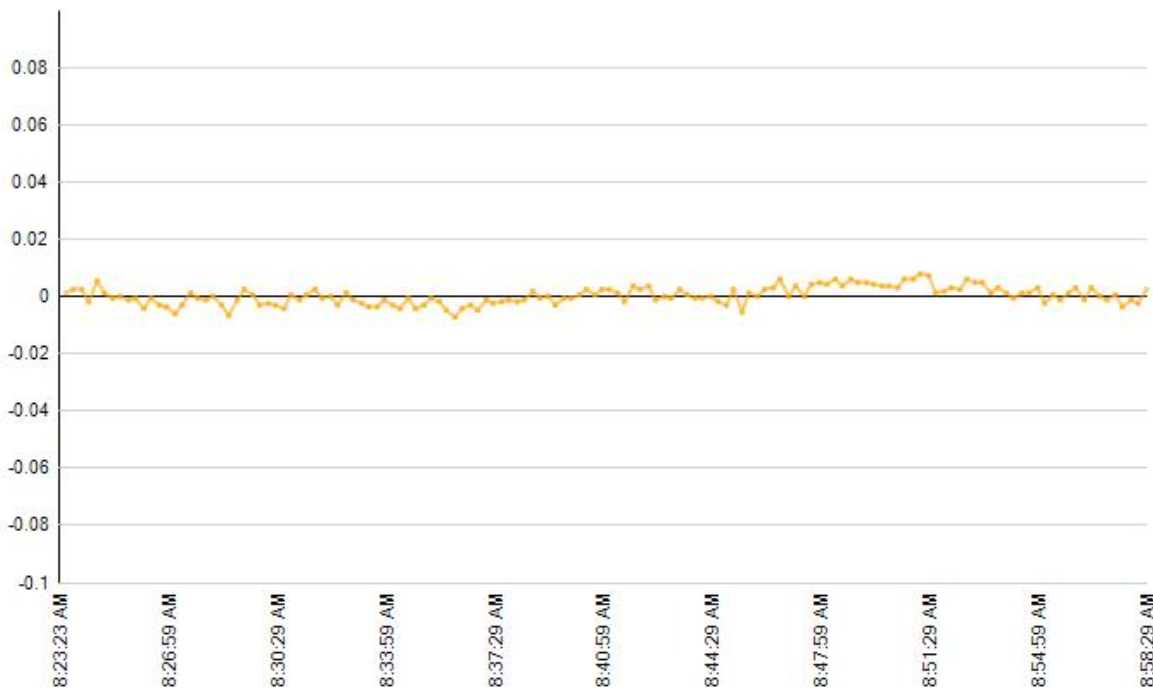


Mean = 0.000 m Std. Dev. = 0.006 m Min. = -0.015 m Max. = 0.013 m

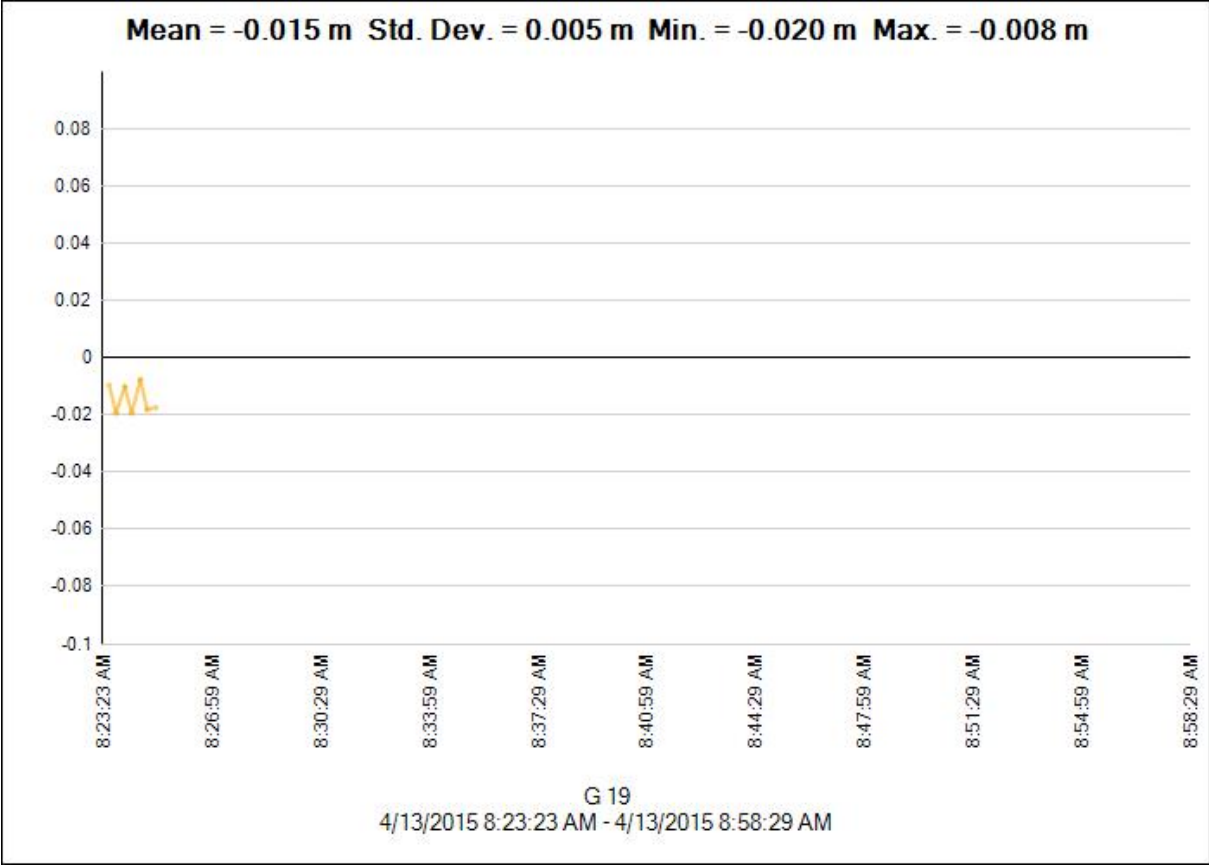
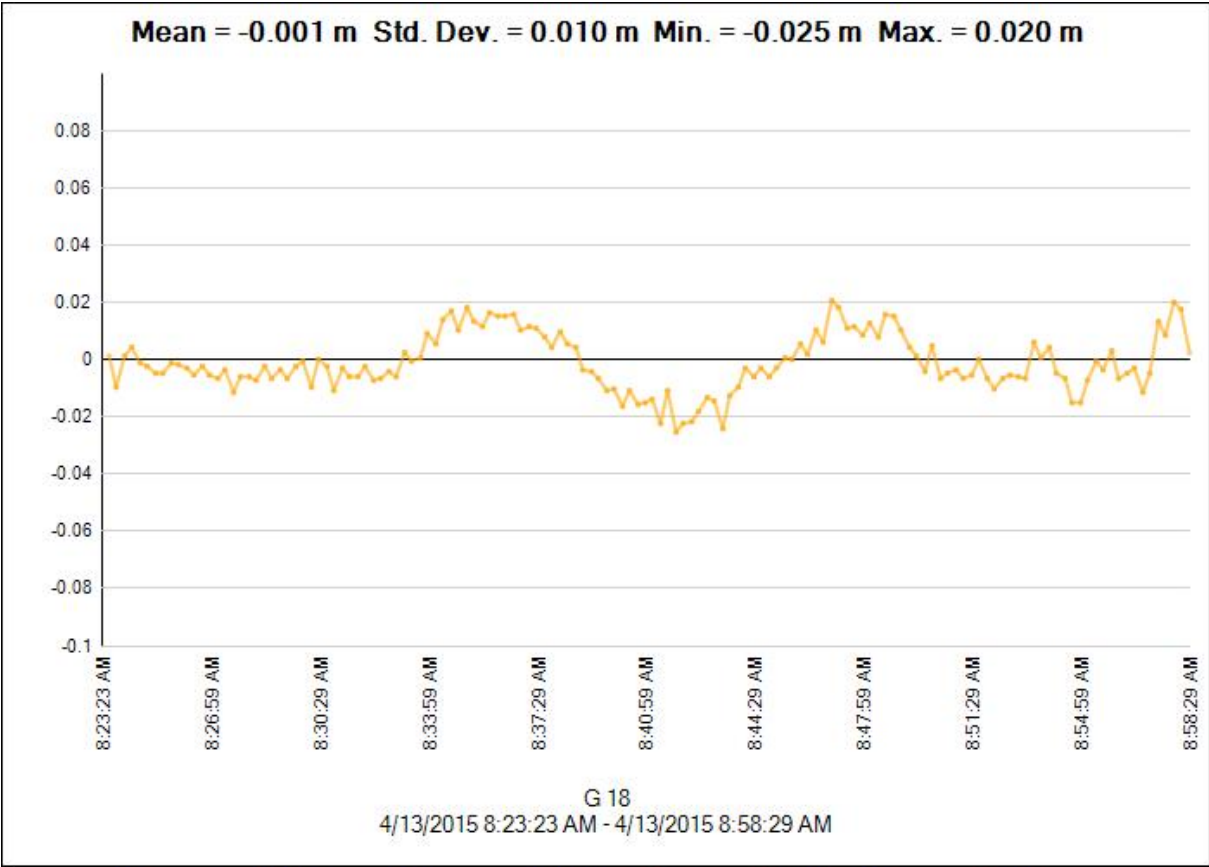


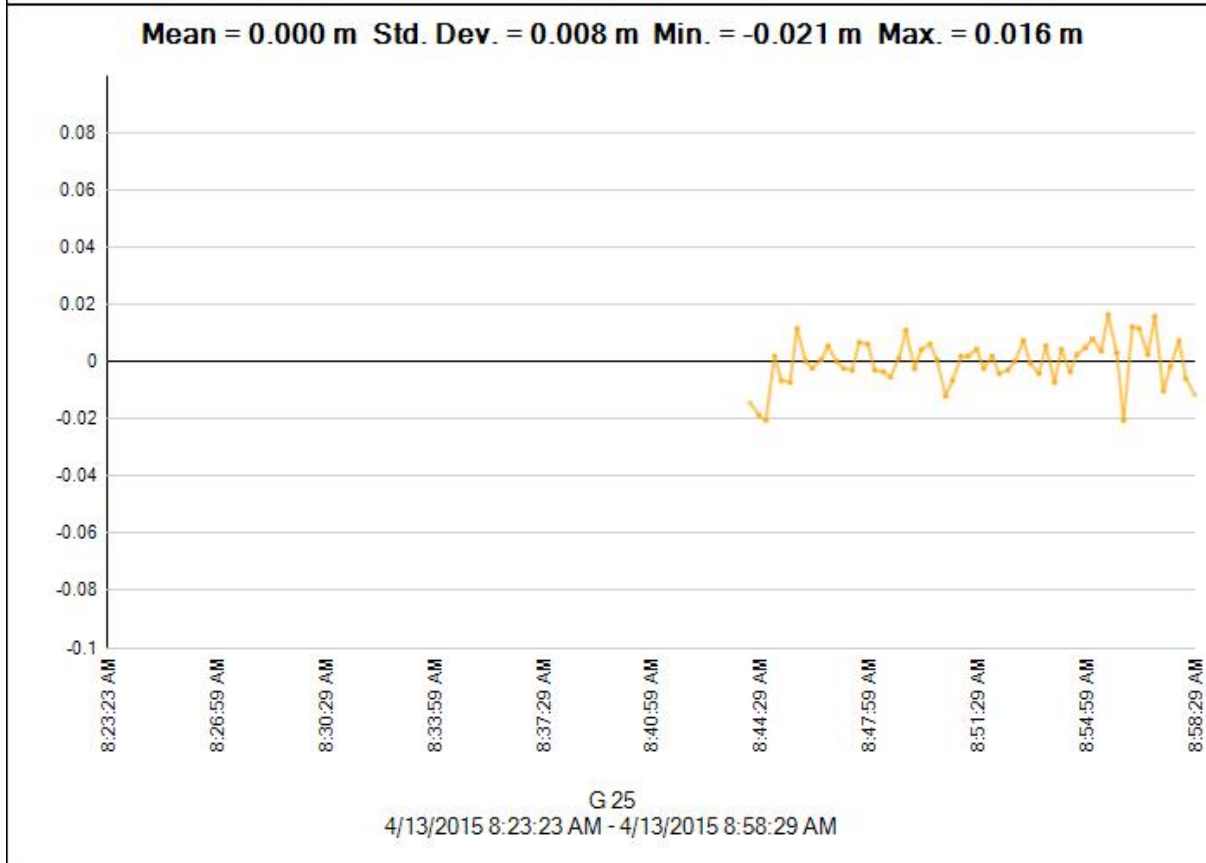
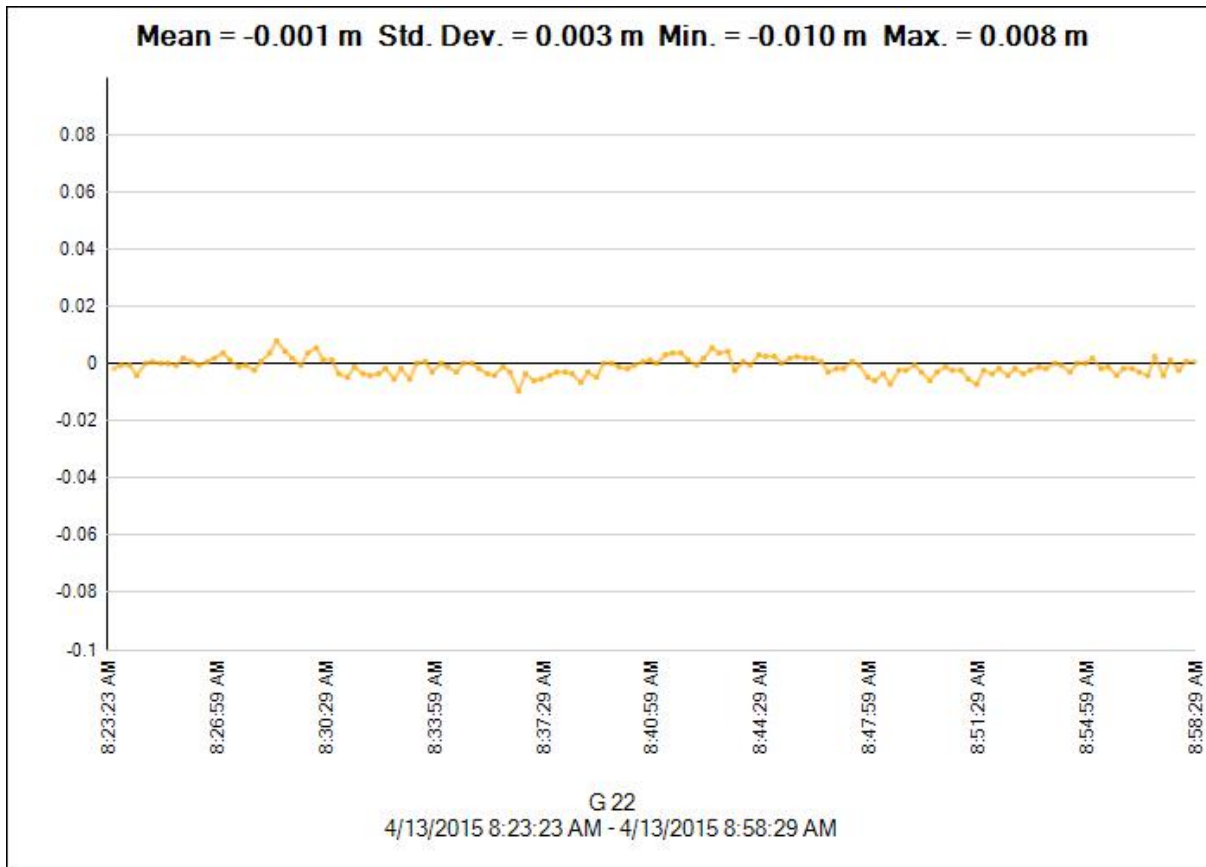
G 11
4/13/2015 8:23:23 AM - 4/13/2015 8:58:29 AM

Mean = 0.000 m Std. Dev. = 0.003 m Min. = -0.008 m Max. = 0.008 m

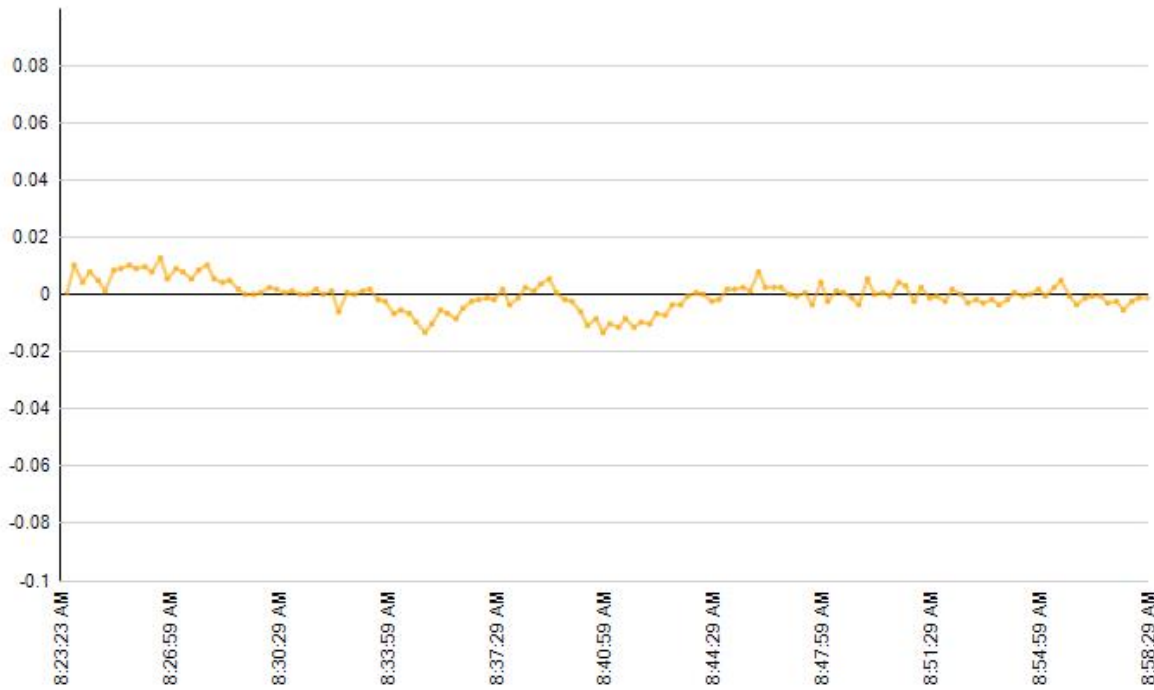


G 14
4/13/2015 8:23:23 AM - 4/13/2015 8:58:29 AM



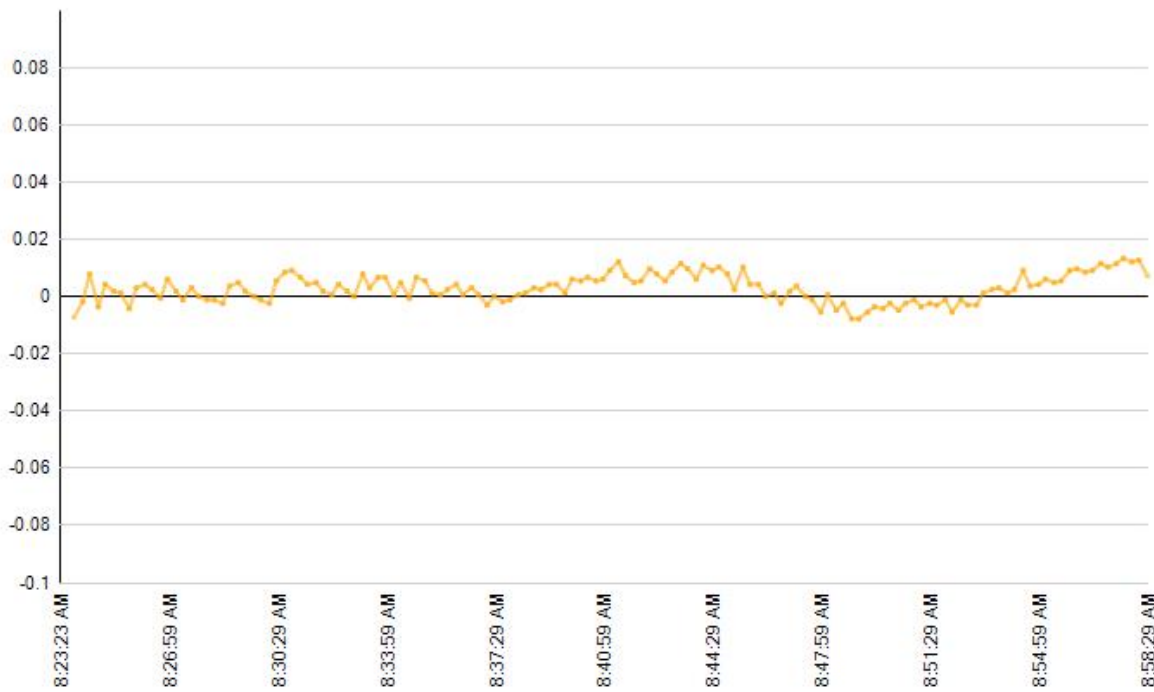


Mean = 0.000 m Std. Dev. = 0.005 m Min. = -0.014 m Max. = 0.013 m



G 31
4/13/2015 8:23:23 AM - 4/13/2015 8:58:29 AM

Mean = 0.003 m Std. Dev. = 0.005 m Min. = -0.008 m Max. = 0.013 m





G 32
4/13/2015 8:23:23 AM - 4/13/2015 8:58:29 AM

Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS636 (1:28:53 PM-2:01:02 PM) (S10)

Baseline observation: NR0224 --- CAS636 (B10)
Processed: 7/1/2015 8:47:10 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.013 m
Vertical precision: 0.014 m
RMS: 0.002 m
Maximum PDOP: 2.505
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 4/14/2015 1:28:59 PM (Local: UTC-6hr)
Processing stop time: 4/14/2015 2:00:59 PM (Local: UTC-6hr)
Processing duration: 00:32:00
Processing interval: 15 seconds

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470640.040 m	Latitude	N42°53'23.97518"	Latitude	N42°53'23.97518"
Northing	365796.546 m	Longitude	W106°28'06.63386"	Longitude	W106°28'06.63386"
Elevation	1618.713 m	Height	1605.543 m	Height	1605.543 m

To:		CAS636			
Grid		Local		Global	
Easting	449356.208 m	Latitude	N42°30'27.06358"	Latitude	N42°30'27.06357"
Northing	323123.131 m	Longitude	W106°43'57.99768"	Longitude	W106°43'57.99768"
Elevation	1727.971 m	Height	1715.444 m	Height	1715.444 m

Vector					
Δ Easting	-21283.833 m	NS Fwd Azimuth	207°05'42"	Δ X	-29013.368 m
Δ Northing	-42673.415 m	Ellipsoid Dist.	47687.553 m	Δ Y	-21508.521 m
Δ Elevation	109.258 m	Δ Height	109.901 m	Δ Z	-31159.236 m

Standard Errors

Vector errors:					
σ Δ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.005 m
σ Δ Northing	0.005 m	σ Ellipsoid Dist.	0.005 m	σ Δ Y	0.007 m
σ Δ Elevation	0.007 m	σ Δ Height	0.007 m	σ Δ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000219038		
Y	0.0000238577	0.0000468007	
Z	-0.0000057126	-0.0000127437	0.0000206517

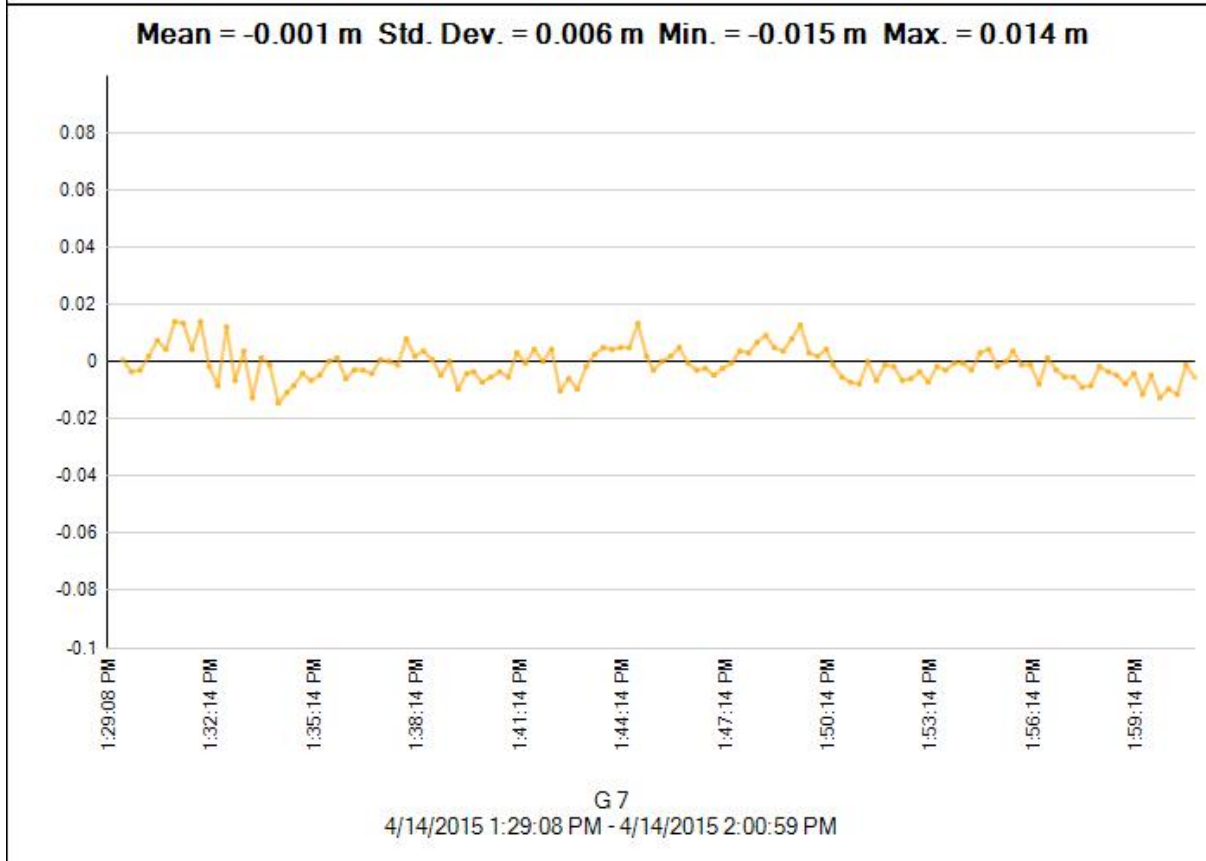
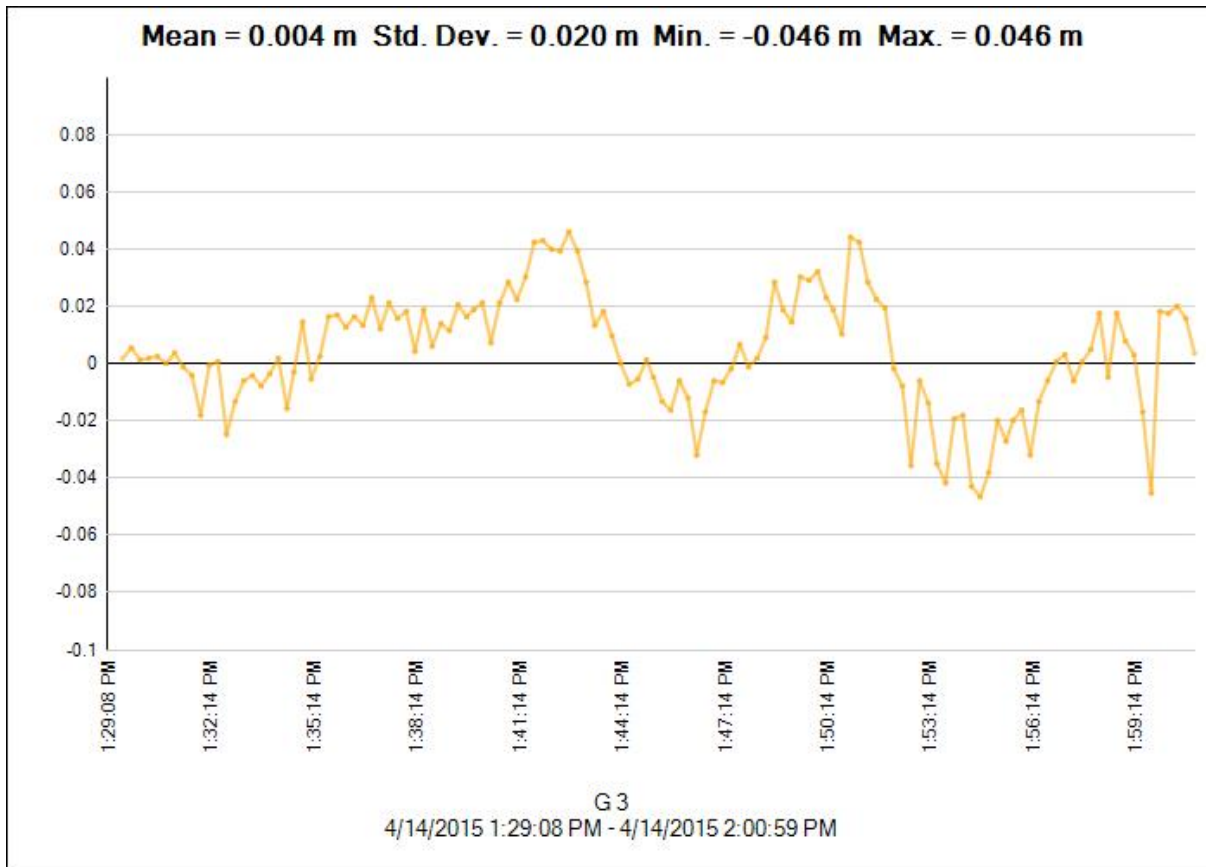
Occupations

	From	To
Point ID:	NR0224	CAS636
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601040.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801045.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.734 m	1.537 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

SV	4/14/2015 1:28:53 PM	Duration: 00:32:09	Major interval: 00:01:00	4/14/2015 2:01:02 PM
G 3	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 16	L1 L2			
G 19	L1 L2			
G 20	L1 L2			
G 23	L1 L2			
G 27	L1 L2			
G 30	L1 L2			

Residuals

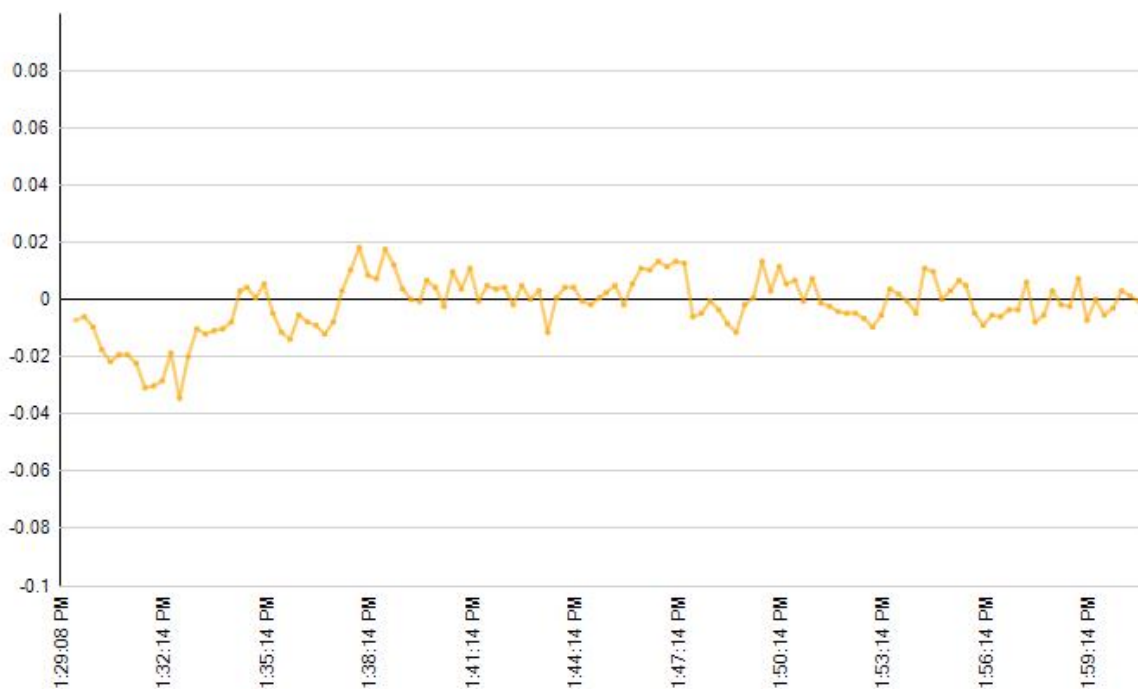


Mean = 0.002 m Std. Dev. = 0.004 m Min. = -0.006 m Max. = 0.020 m



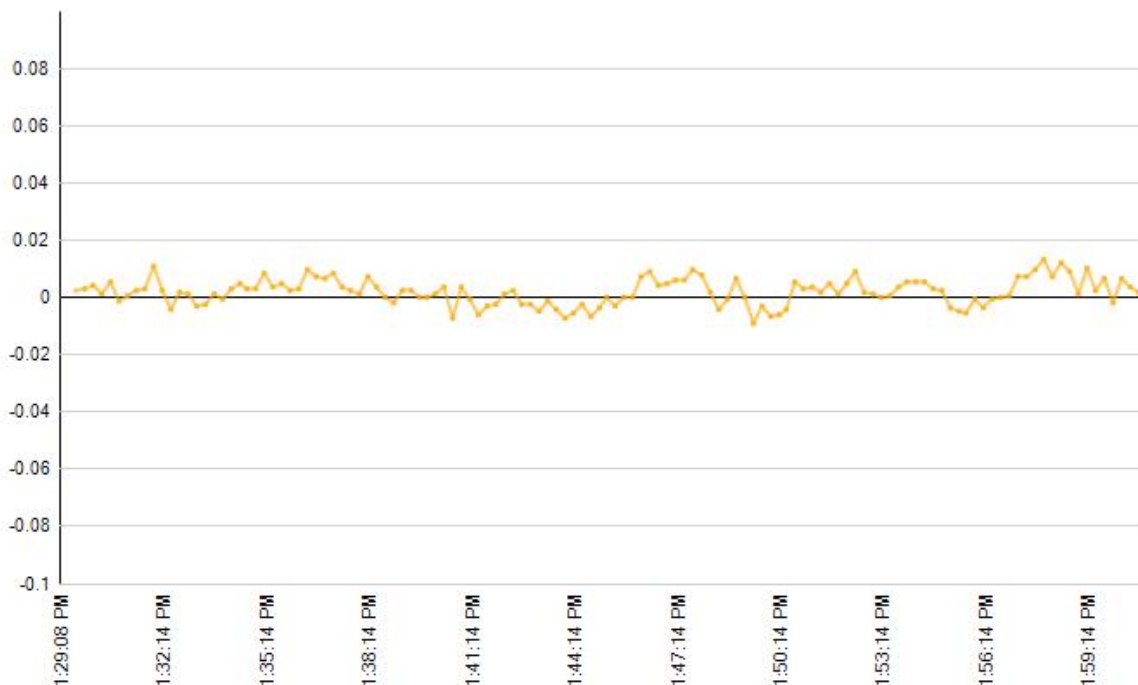
G 9
4/14/2015 1:29:08 PM - 4/14/2015 2:00:59 PM

Mean = -0.002 m Std. Dev. = 0.010 m Min. = -0.034 m Max. = 0.018 m



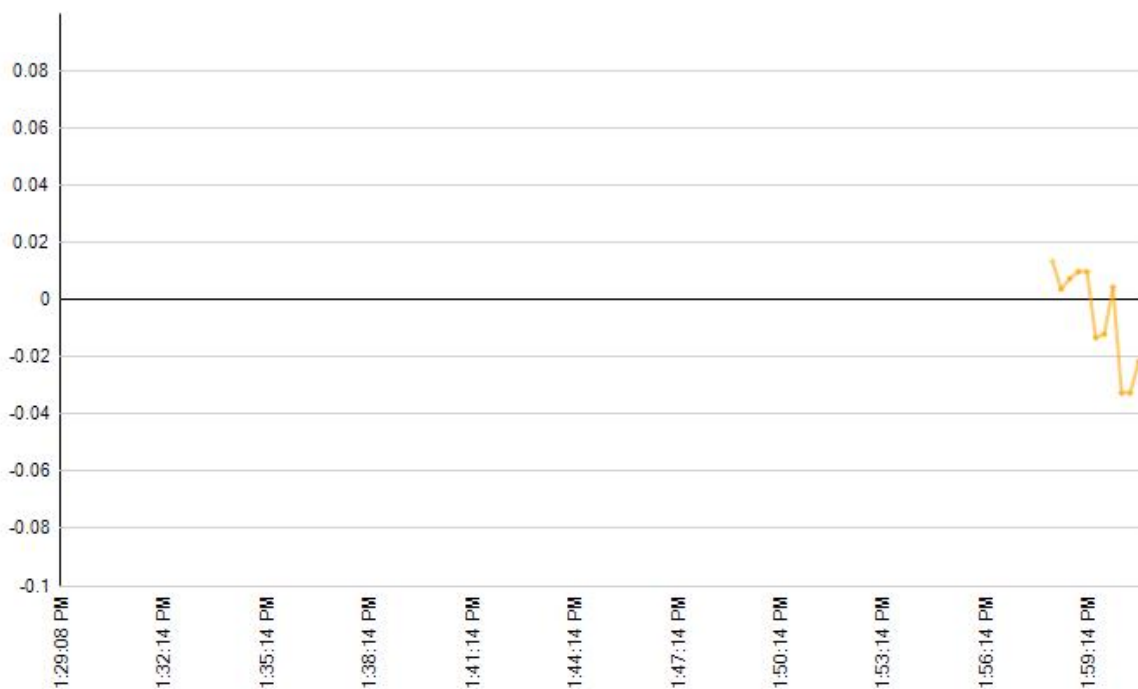
G 10
4/14/2015 1:29:08 PM - 4/14/2015 2:00:59 PM

Mean = 0.002 m Std. Dev. = 0.005 m Min. = -0.009 m Max. = 0.013 m

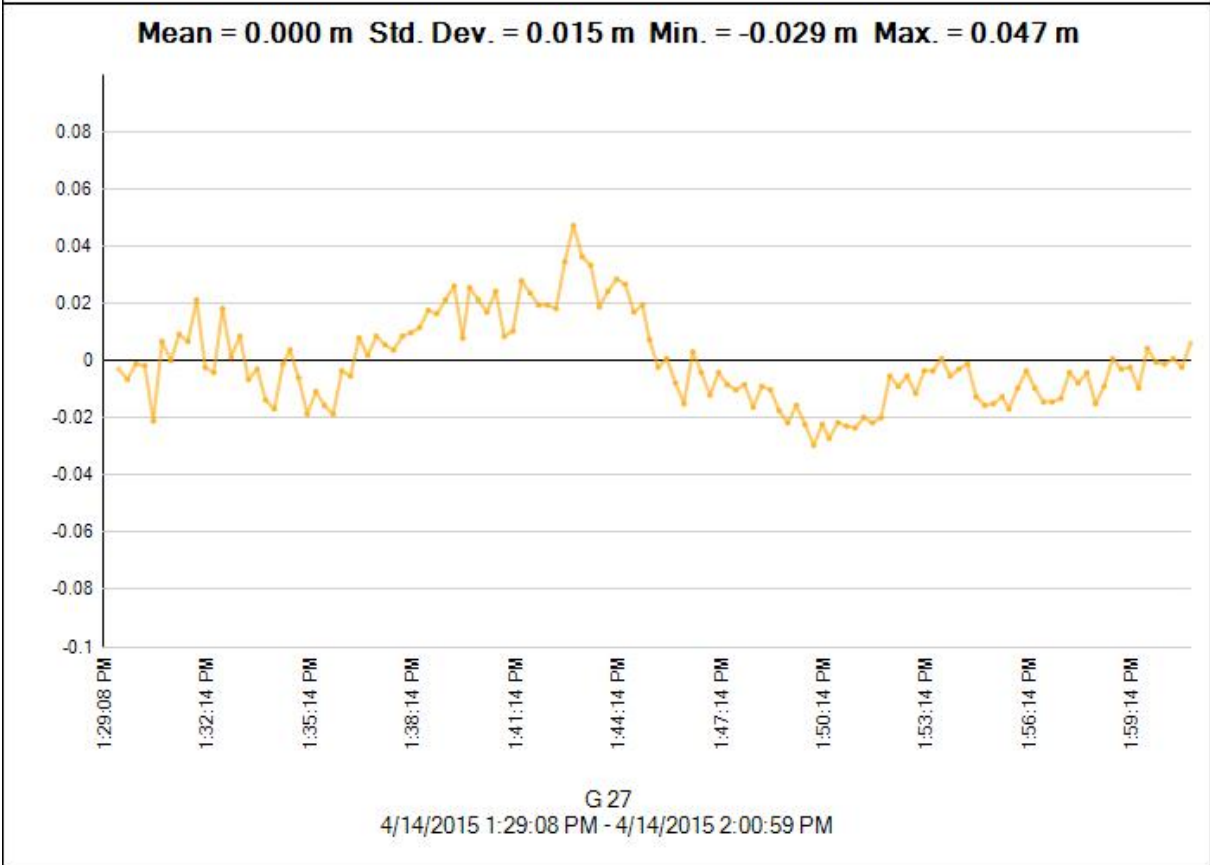
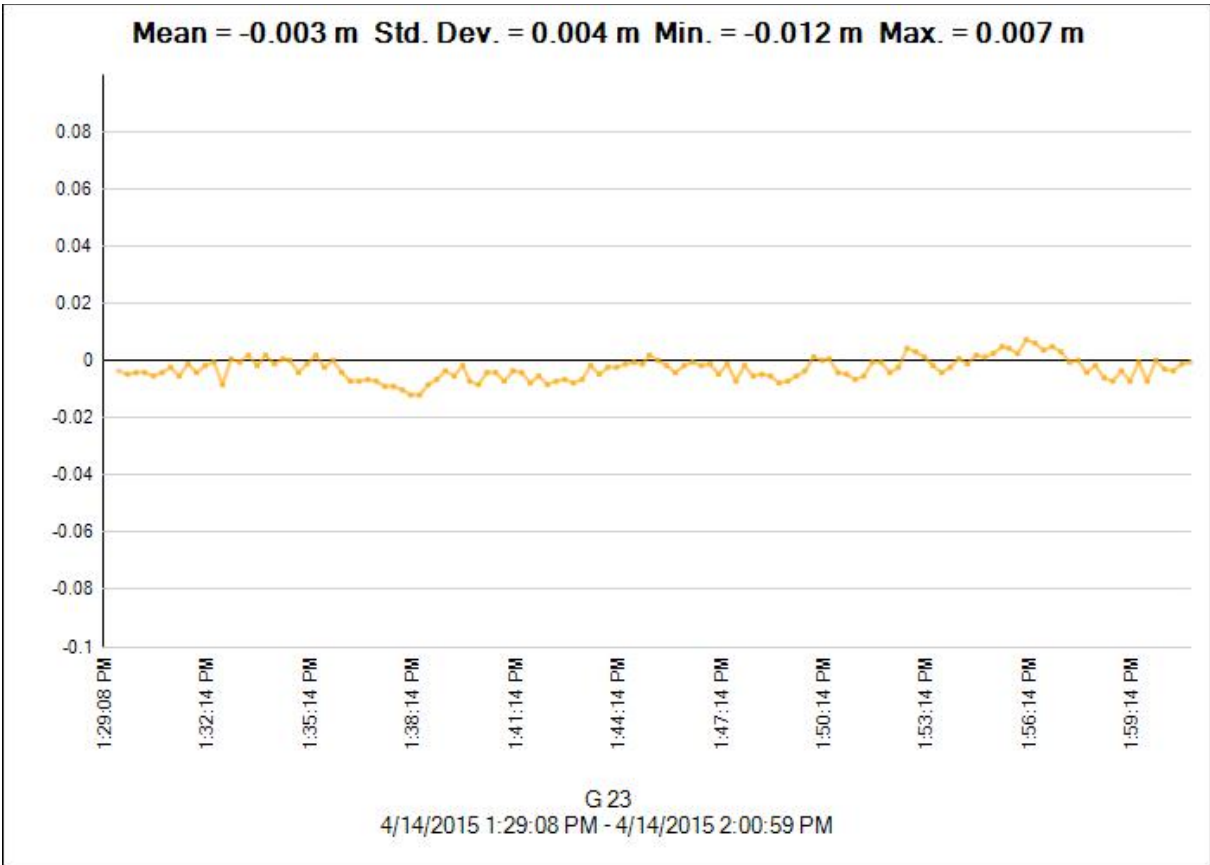


G 16
4/14/2015 1:29:08 PM - 4/14/2015 2:00:59 PM

Mean = -0.007 m Std. Dev. = 0.016 m Min. = -0.033 m Max. = 0.013 m





G 19
4/14/2015 1:29:08 PM - 4/14/2015 2:00:59 PM



Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS635 (12:15:41 PM-1:05:24 PM) (S11)

Baseline observation: NR0224 --- CAS635 (B11)
Processed: 7/1/2015 8:47:11 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.008 m
Vertical precision: 0.012 m
RMS: 0.001 m
Maximum PDOP: 3.636
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 4/14/2015 12:15:44 PM (Local: UTC-6hr)
Processing stop time: 4/14/2015 1:05:14 PM (Local: UTC-6hr)
Processing duration: 00:49:30
Processing interval: 15 seconds

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470640.040 m	Latitude	N42°53'23.97518"	Latitude	N42°53'23.97518"
Northing	365796.546 m	Longitude	W106°28'06.63386"	Longitude	W106°28'06.63386"
Elevation	1618.713 m	Height	1605.543 m	Height	1605.543 m

To:		CAS635			
Grid		Local		Global	
Easting	444737.204 m	Latitude	N42°32'10.47421"	Latitude	N42°32'10.47421"
Northing	326282.783 m	Longitude	W106°47'19.43031"	Longitude	W106°47'19.43031"
Elevation	1715.914 m	Height	1703.423 m	Height	1703.423 m

Vector					
ΔEasting	-25902.836 m	NS Fwd Azimuth	213°50'00"	ΔX	-32792.298 m
ΔNorthing	-39513.763 m	Ellipsoid Dist.	47248.150 m	ΔY	-18108.244 m
ΔElevation	97.202 m	ΔHeight	97.880 m	ΔZ	-28814.981 m

Standard Errors

Vector errors:					
σ ΔEasting	0.003 m	σ NS fwd Azimuth	0°00'00"	σ ΔX	0.003 m
σ ΔNorthing	0.003 m	σ Ellipsoid Dist.	0.003 m	σ ΔY	0.004 m
σ ΔElevation	0.006 m	σ ΔHeight	0.006 m	σ ΔZ	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000099482		
Y	0.0000045873	0.0000198423	
Z	-0.0000022974	-0.0000137669	0.0000205244

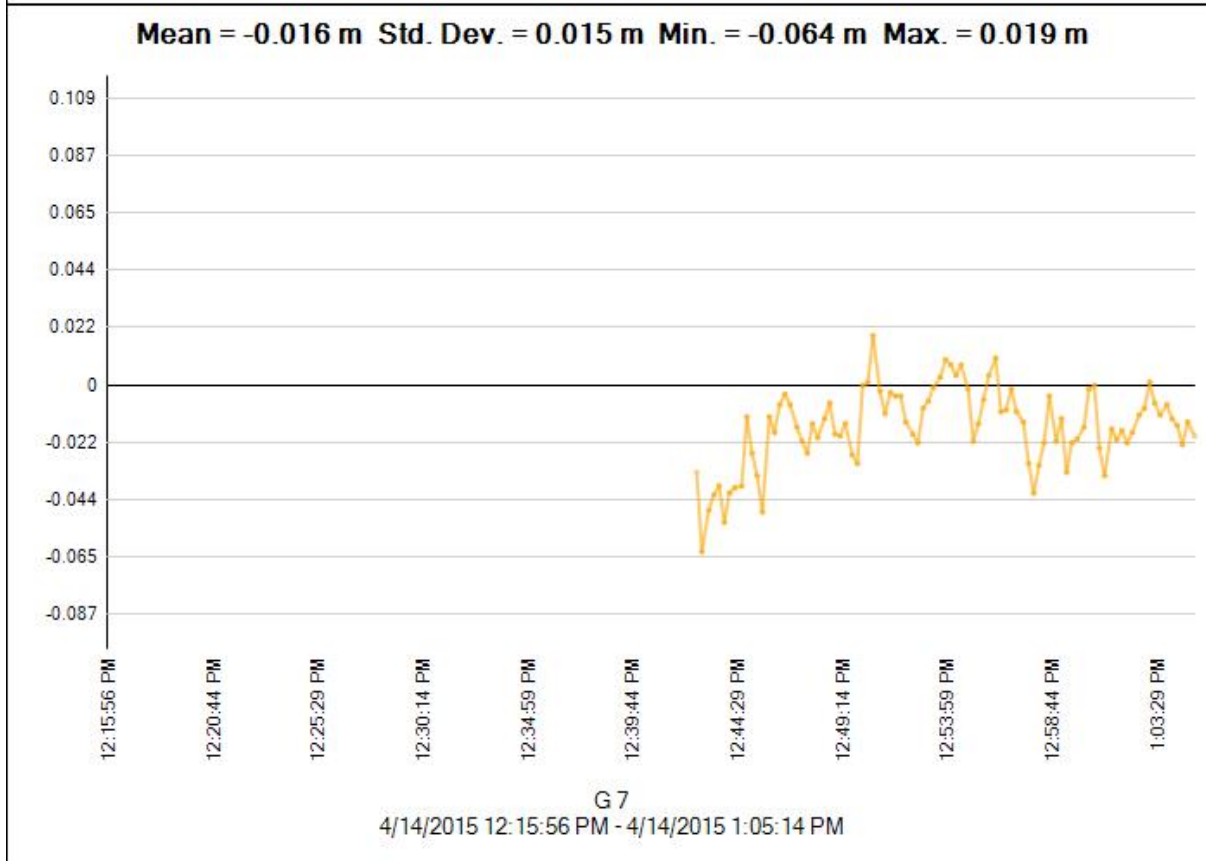
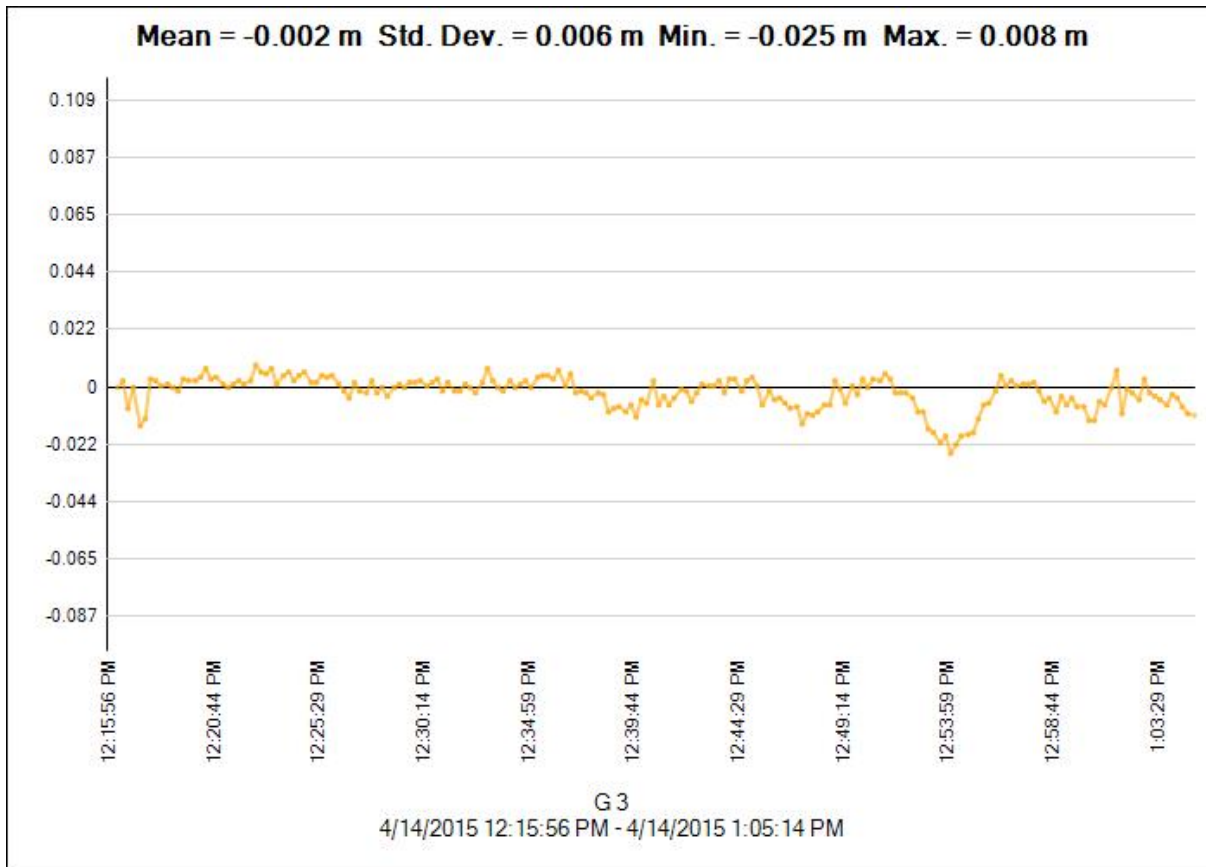
Occupations

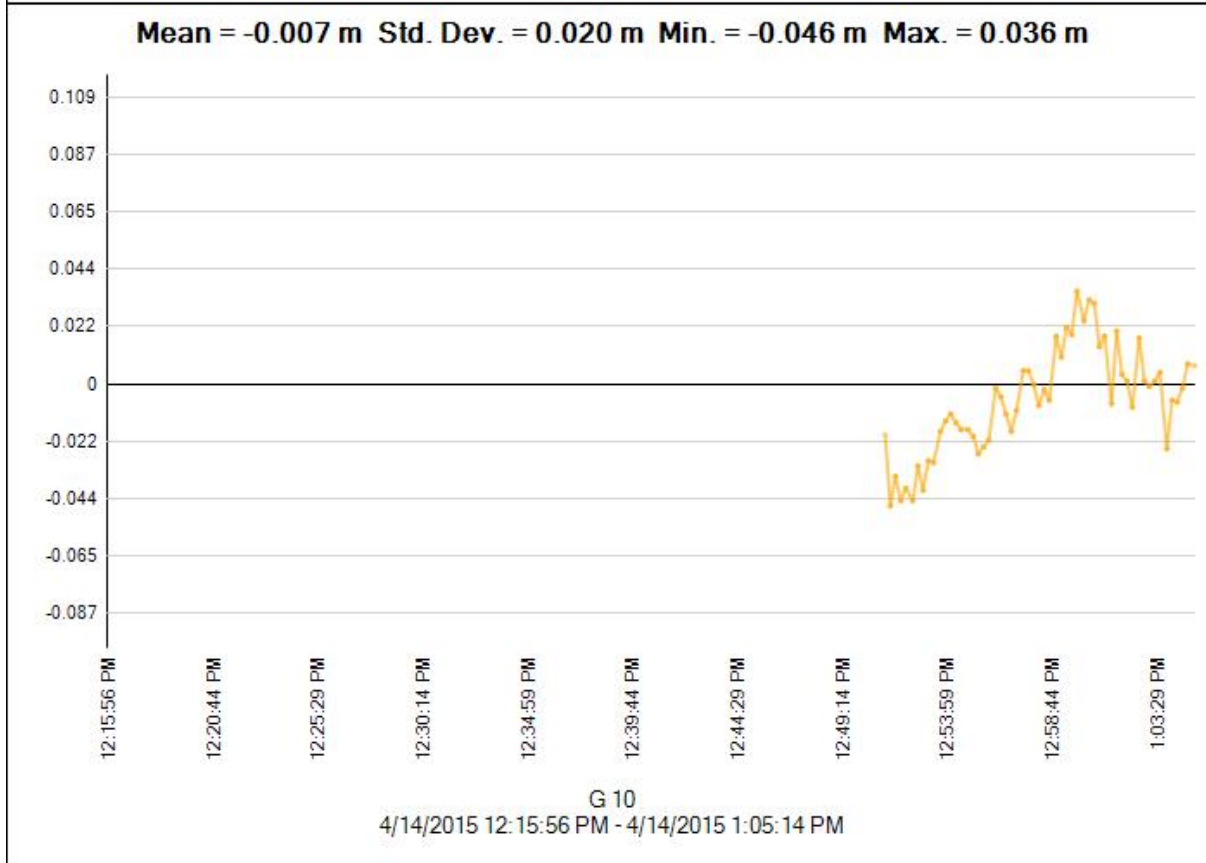
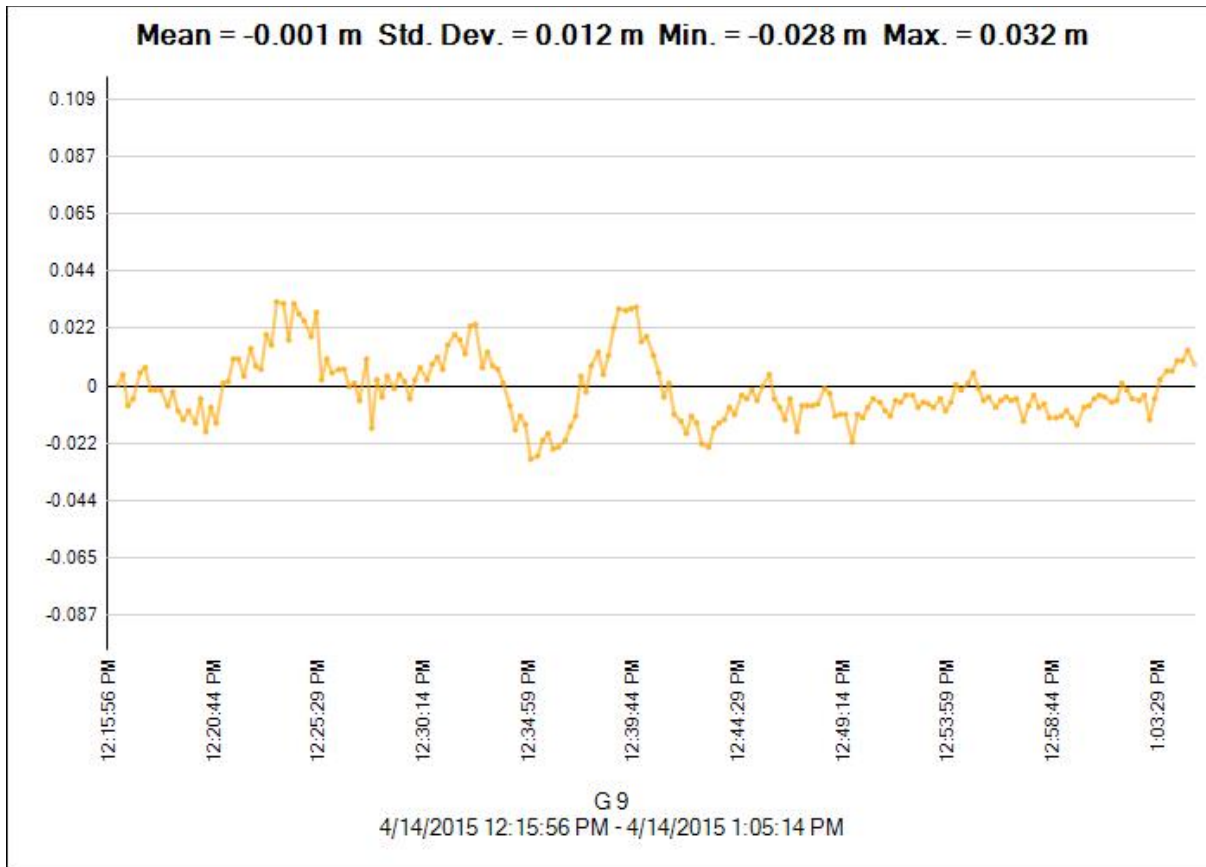
	From	To
Point ID:	NR0224	CAS635
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601040.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801044.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.734 m	1.526 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

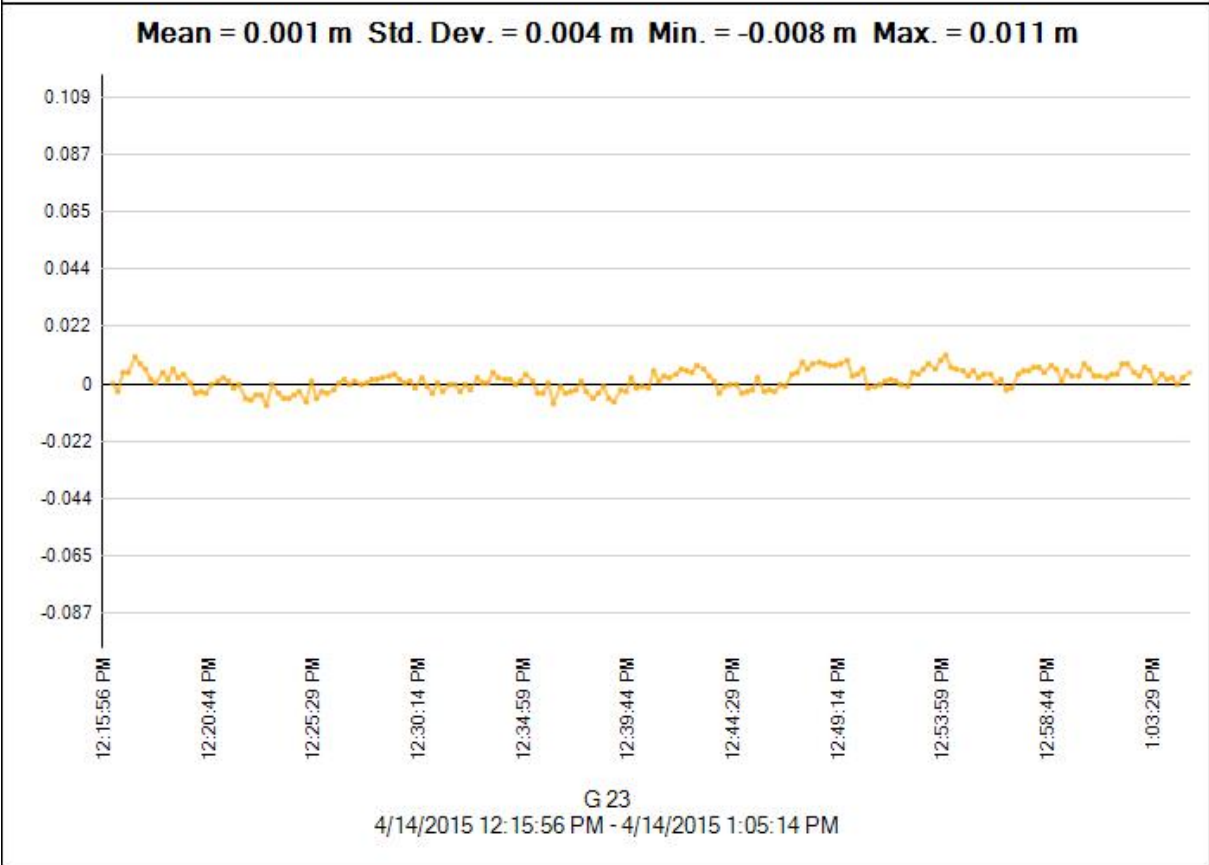
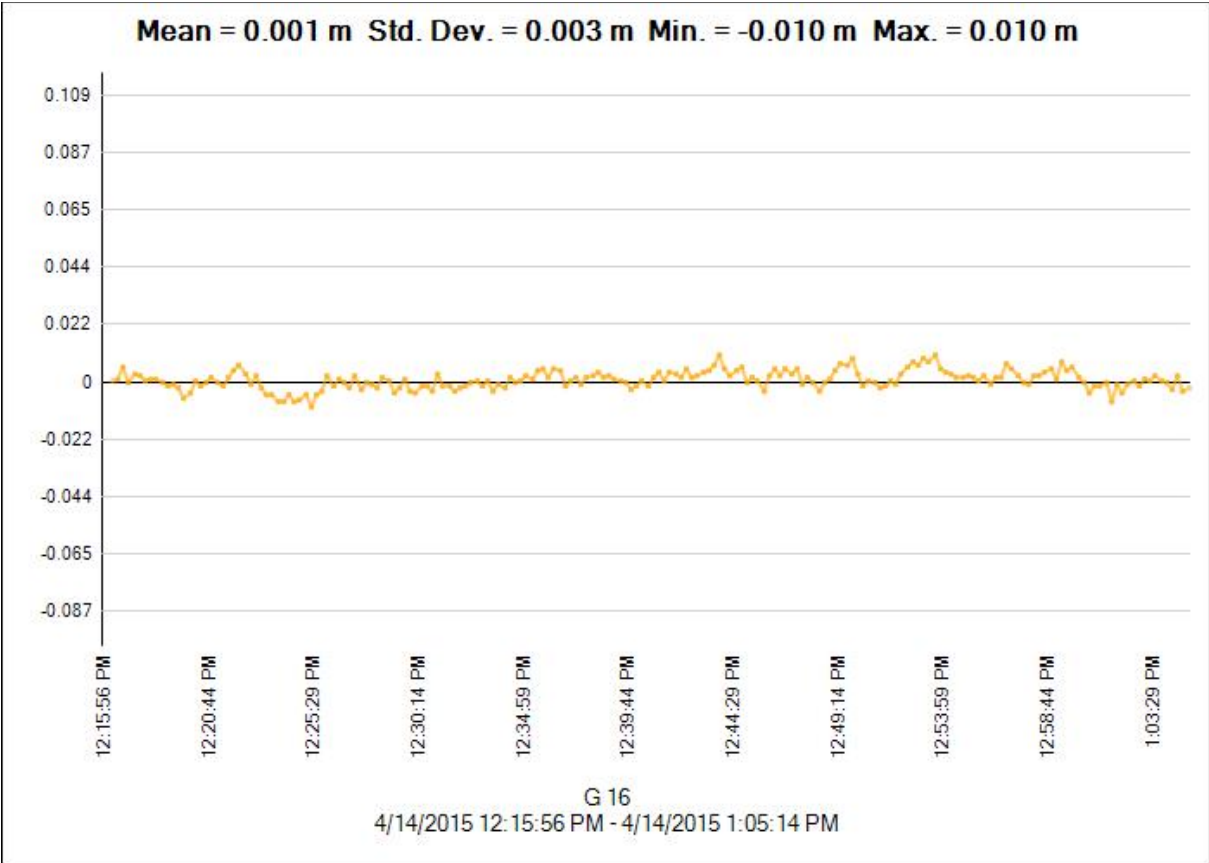
Tracking Summary

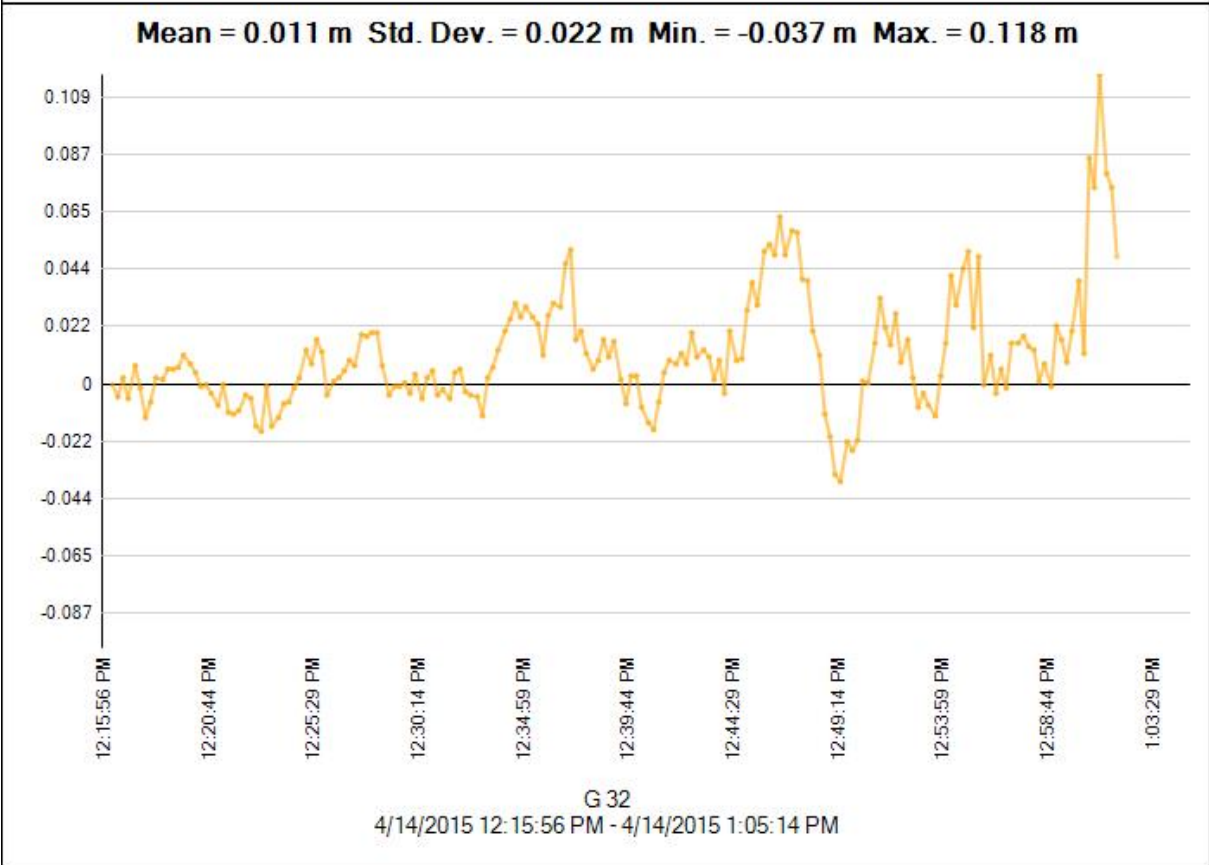
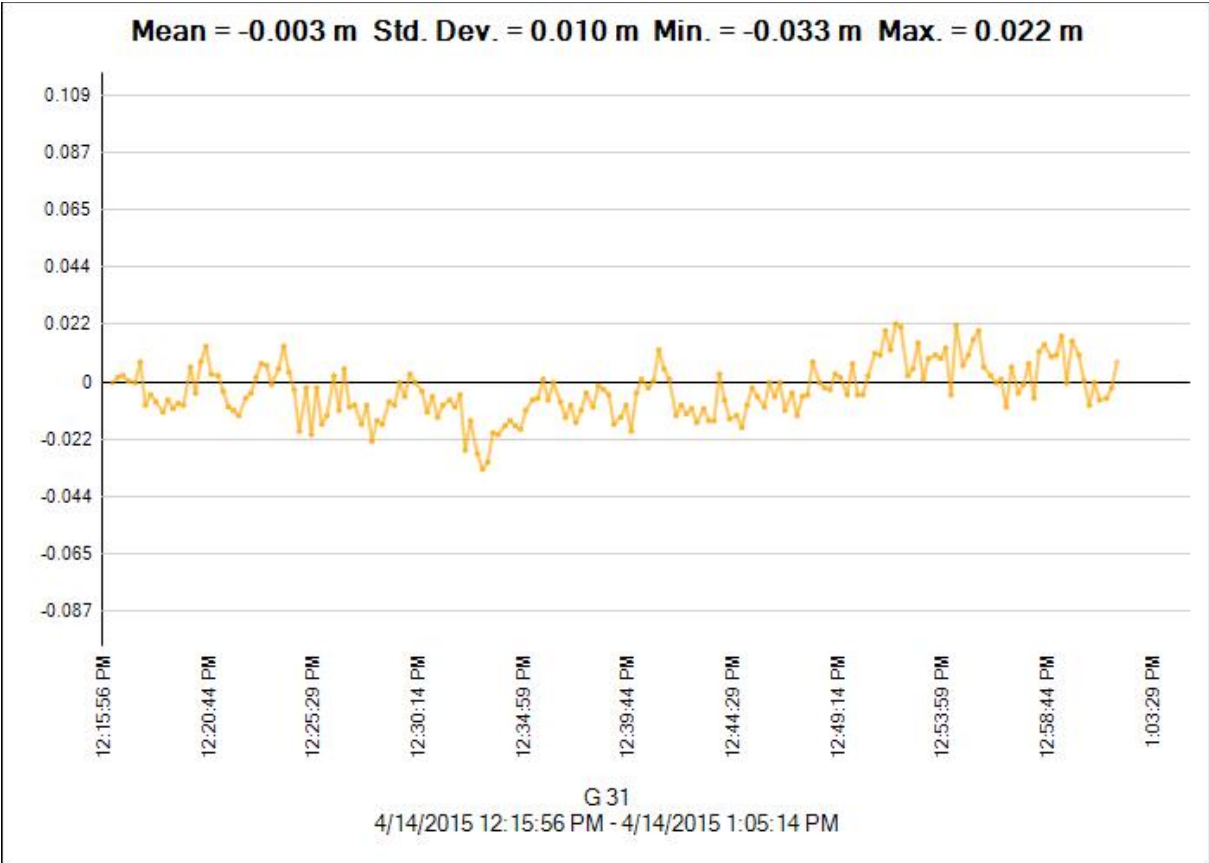
SV	4/14/2015 12:15:41 PM	Duration: 00:49:43	Major interval: 00:10:00	4/14/2015 1:05:24 PM
G 3	L1 L2			
G 6	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 16	L1 L2			
G 23	L1 L2			
G 27	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals











Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS637 (11:07:06 AM-11:57:33 AM) (S12)

Baseline observation: NR0224 --- CAS637 (B12)
Processed: 7/1/2015 8:47:11 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.007 m
Vertical precision: 0.015 m
RMS: 0.001 m
Maximum PDOP: 4.464
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 4/14/2015 11:07:14 AM (Local: UTC-6hr)
Processing stop time: 4/14/2015 11:57:29 AM (Local: UTC-6hr)
Processing duration: 00:50:15
Processing interval: 15 seconds

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470640.040 m	Latitude	N42°53'23.97518"	Latitude	N42°53'23.97518"
Northing	365796.546 m	Longitude	W106°28'06.63386"	Longitude	W106°28'06.63386"
Elevation	1618.713 m	Height	1605.543 m	Height	1605.543 m

To:		CAS637			
Grid		Local		Global	
Easting	451887.289 m	Latitude	N42°34'54.40480"	Latitude	N42°34'54.40480"
Northing	331390.753 m	Longitude	W106°42'04.43095"	Longitude	W106°42'04.43095"
Elevation	1661.582 m	Height	1648.897 m	Height	1648.897 m

Vector					
Δ Easting	-18752.752 m	NS Fwd Azimuth	209°10'46"	Δ X	-24912.031 m
Δ Northing	-34405.793 m	Ellipsoid Dist.	39185.116 m	Δ Y	-16863.589 m
Δ Elevation	42.869 m	Δ Height	43.354 m	Δ Z	-25124.987 m

Standard Errors

Vector errors:					
σ Δ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.003 m
σ Δ Northing	0.002 m	σ Ellipsoid Dist.	0.003 m	σ Δ Y	0.006 m
σ Δ Elevation	0.008 m	σ Δ Height	0.008 m	σ Δ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000081275		
Y	0.0000070798	0.0000319290	
Z	-0.0000050472	-0.0000247831	0.0000287345

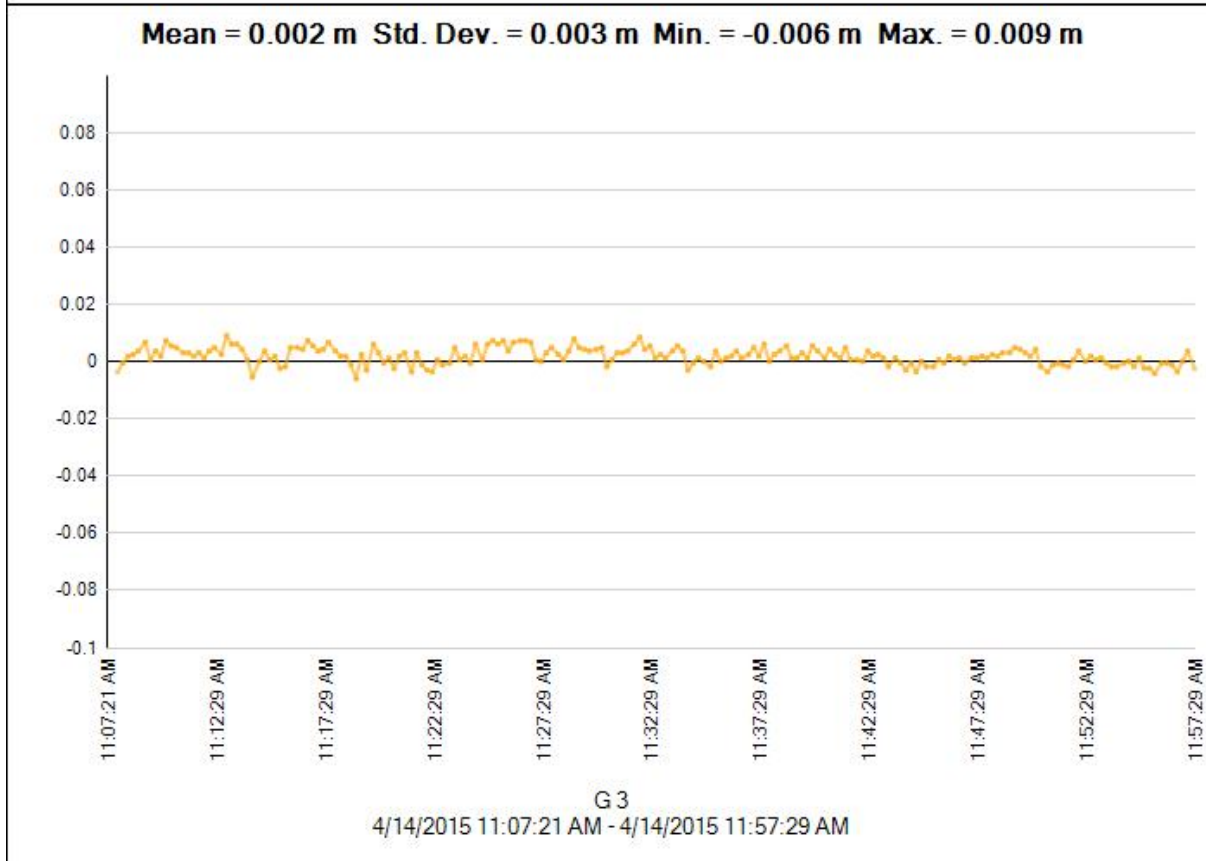
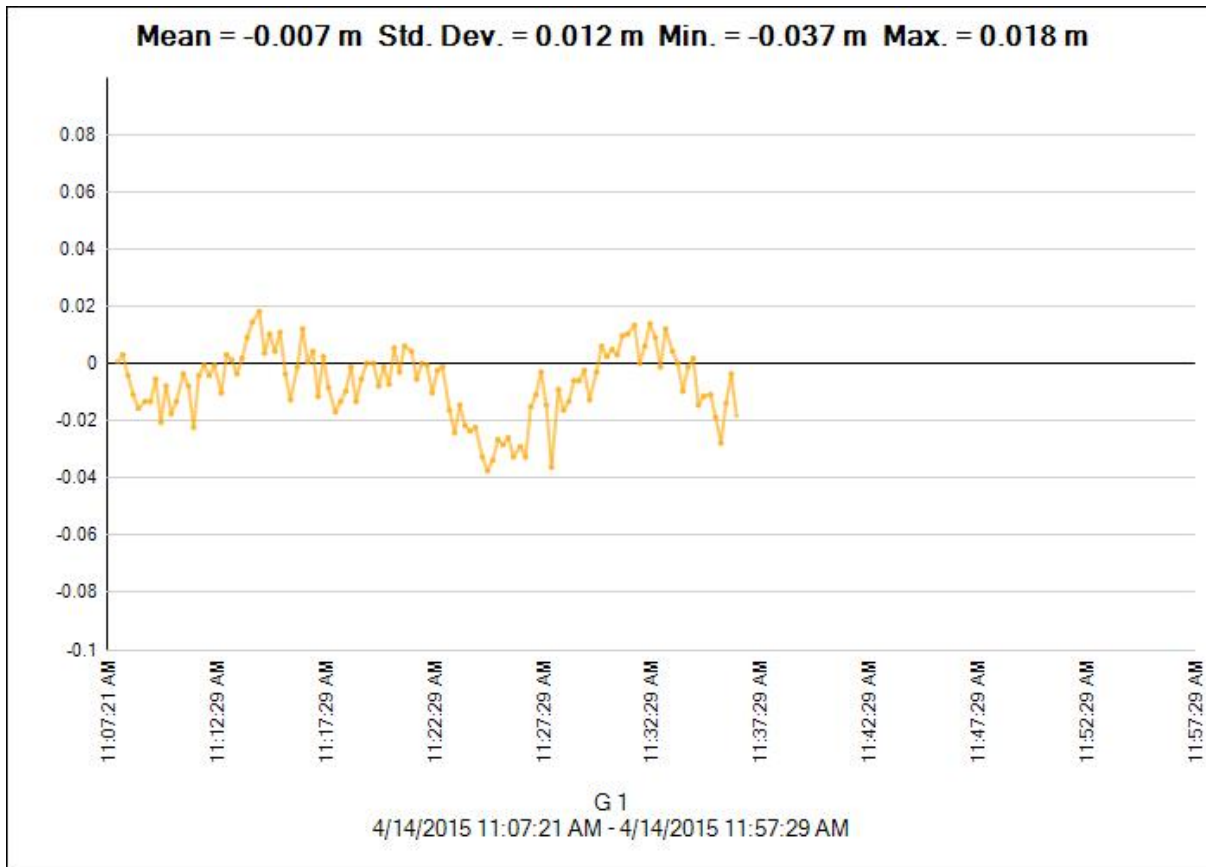
Occupations

	From	To
Point ID:	NR0224	CAS637
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601040.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801043.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.734 m	1.544 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

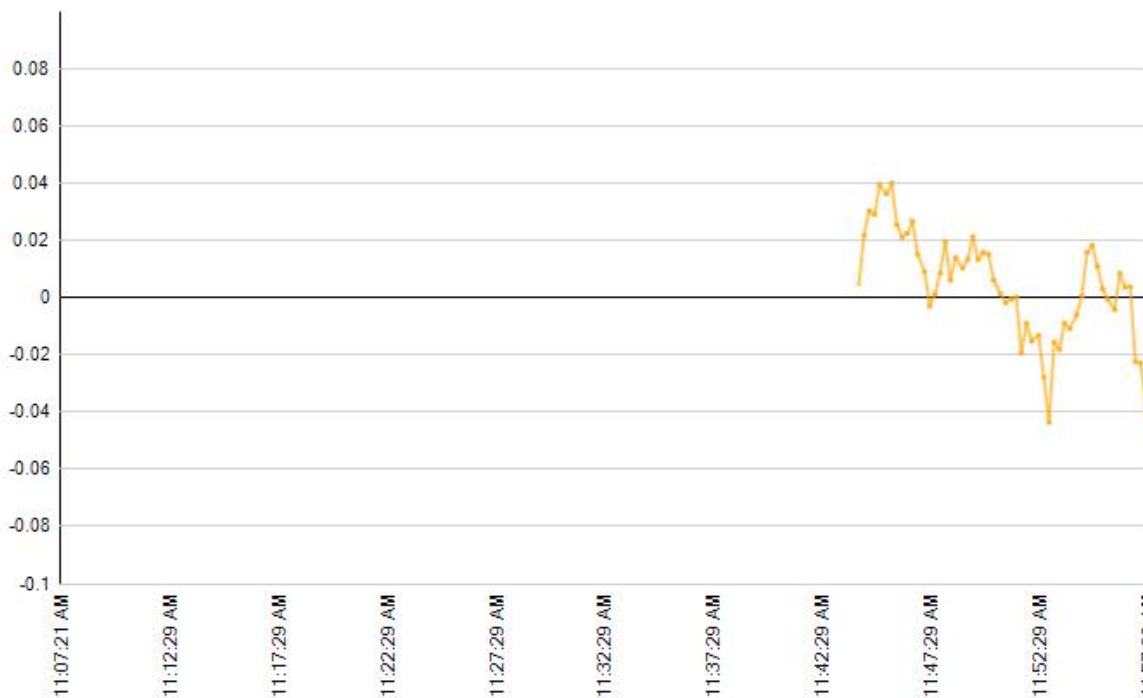
Tracking Summary

SV	4/14/2015 11:07:06 AM	Duration: 00:50:27	Major interval: 00:10:00	4/14/2015 11:57:33 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 6	L1 L2			
G 9	L1 L2			
G 14	L1 L2			
G 16	L1 L2			
G 23	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals



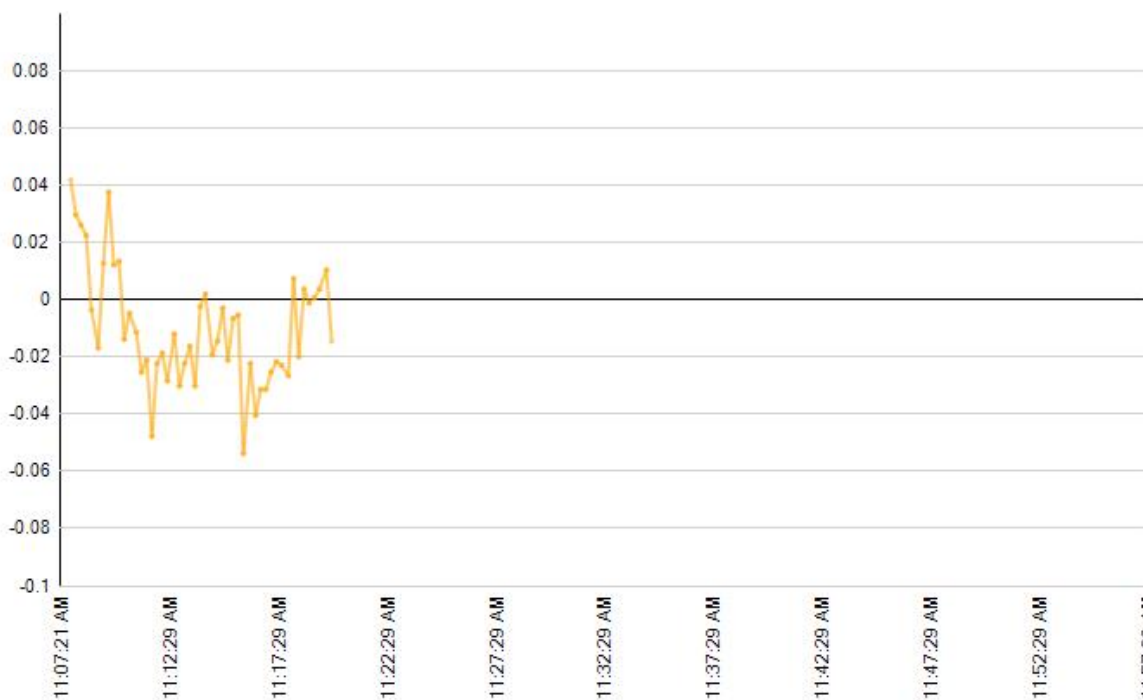
Mean = 0.005 m Std. Dev. = 0.018 m Min. = -0.044 m Max. = 0.040 m



G 9

4/14/2015 11:07:21 AM - 4/14/2015 11:57:29 AM

Mean = -0.010 m Std. Dev. = 0.020 m Min. = -0.054 m Max. = 0.042 m



G 14

4/14/2015 11:07:21 AM - 4/14/2015 11:57:29 AM

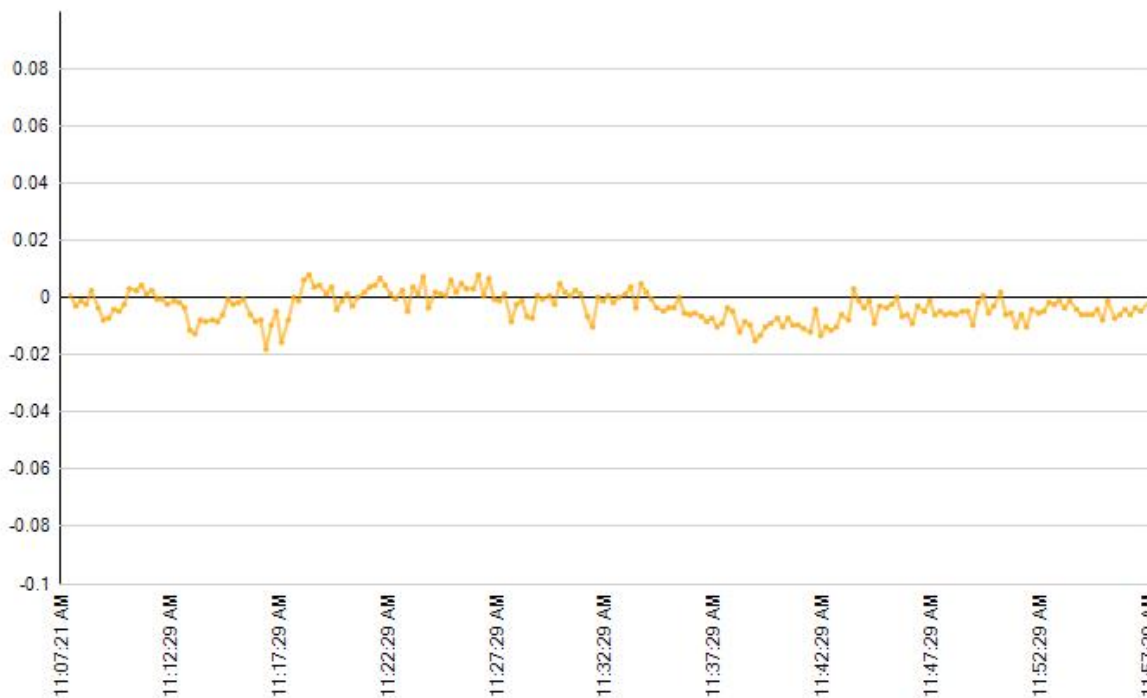
Mean = 0.003 m Std. Dev. = 0.011 m Min. = -0.030 m Max. = 0.039 m



G 16

4/14/2015 11:07:21 AM - 4/14/2015 11:57:29 AM

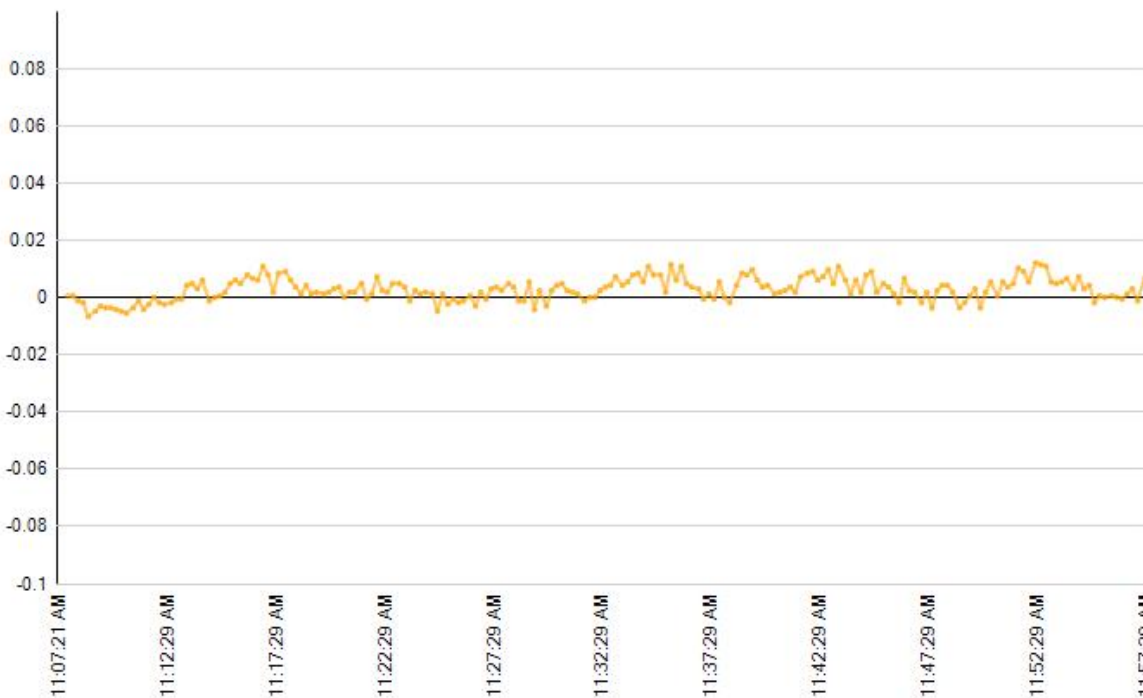
Mean = -0.003 m Std. Dev. = 0.005 m Min. = -0.018 m Max. = 0.008 m



G 23

4/14/2015 11:07:21 AM - 4/14/2015 11:57:29 AM

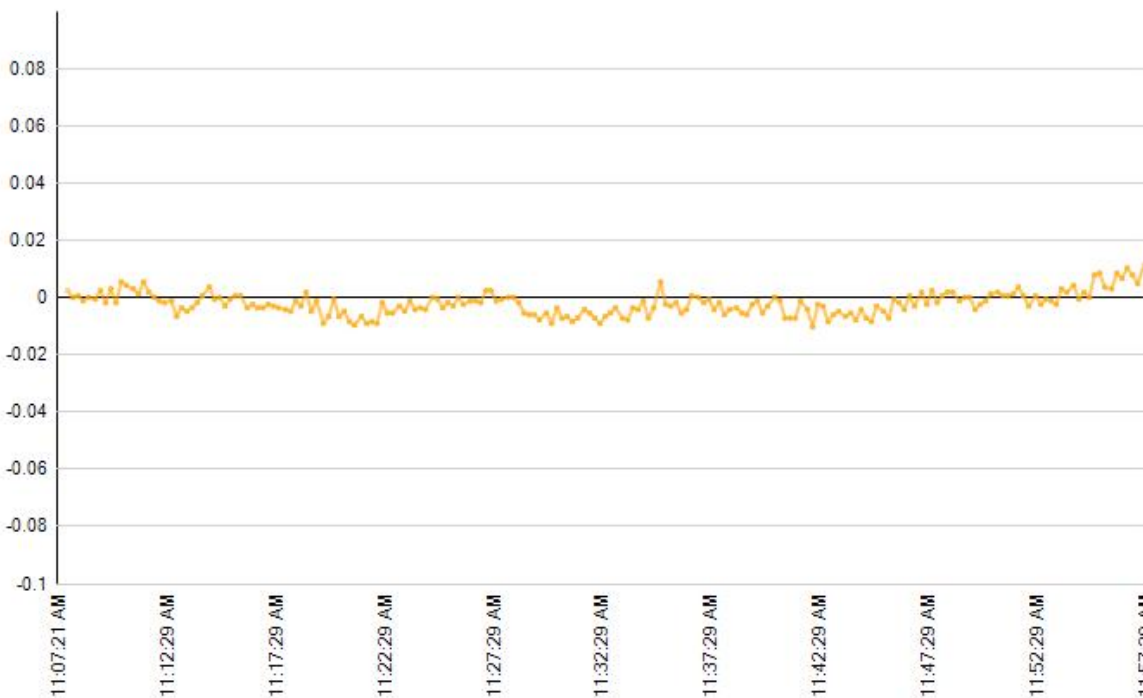
Mean = 0.003 m Std. Dev. = 0.004 m Min. = -0.007 m Max. = 0.012 m



G 31

4/14/2015 11:07:21 AM - 4/14/2015 11:57:29 AM

Mean = -0.002 m Std. Dev. = 0.004 m Min. = -0.010 m Max. = 0.012 m





G 32

4/14/2015 11:07:21 AM - 4/14/2015 11:57:29 AM

Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS634 (10:10:58 AM-10:46:31 AM) (S13)

Baseline observation: NR0224 --- CAS634 (B13)
Processed: 7/1/2015 8:47:11 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.010 m
Vertical precision: 0.011 m
RMS: 0.001 m
Maximum PDOP: 1.903
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 4/14/2015 10:10:59 AM (Local: UTC-6hr)
Processing stop time: 4/14/2015 10:46:29 AM (Local: UTC-6hr)
Processing duration: 00:35:30
Processing interval: 15 seconds

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470640.040 m	Latitude	N42°53'23.97518"	Latitude	N42°53'23.97518"
Northing	365796.546 m	Longitude	W106°28'06.63386"	Longitude	W106°28'06.63386"
Elevation	1618.713 m	Height	1605.543 m	Height	1605.543 m

To:		CAS634			
Grid		Local		Global	
Easting	460437.567 m	Latitude	N42°42'06.50119"	Latitude	N42°42'06.50119"
Northing	344793.380 m	Longitude	W106°35'44.35168"	Longitude	W106°35'44.35168"
Elevation	1600.100 m	Height	1587.205 m	Height	1587.205 m

Vector					
Δ Easting	-10202.473 m	NS Fwd Azimuth	206°29'46"	Δ X	-14012.819 m
Δ Northing	-21003.166 m	Ellipsoid Dist.	23350.244 m	Δ Y	-10645.755 m
Δ Elevation	-18.612 m	Δ Height	-18.338 m	Δ Z	-15356.294 m

Standard Errors

Vector errors:					
σ Δ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.003 m
σ Δ Northing	0.004 m	σ Ellipsoid Dist.	0.003 m	σ Δ Y	0.004 m
σ Δ Elevation	0.005 m	σ Δ Height	0.005 m	σ Δ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000096717		
Y	0.0000052985	0.0000185127	
Z	-0.0000079659	-0.0000048053	0.0000254003

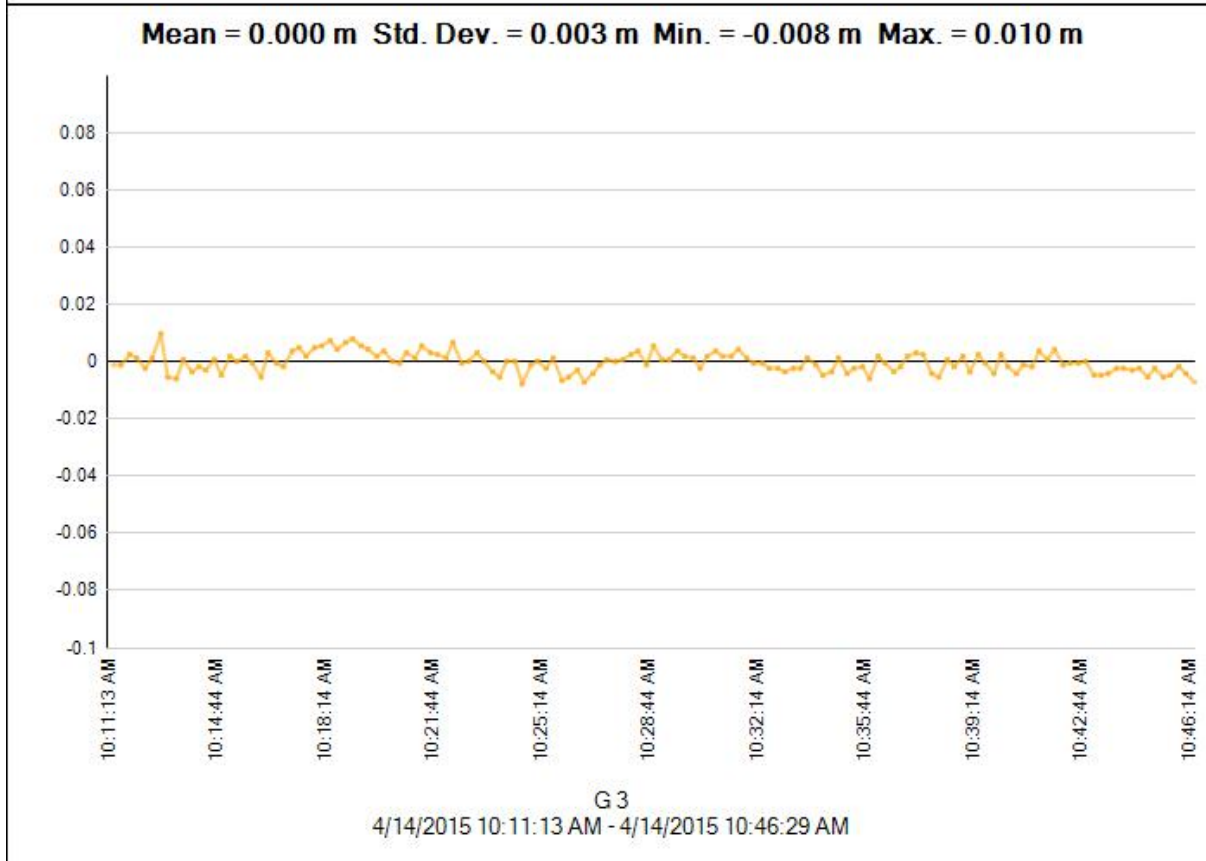
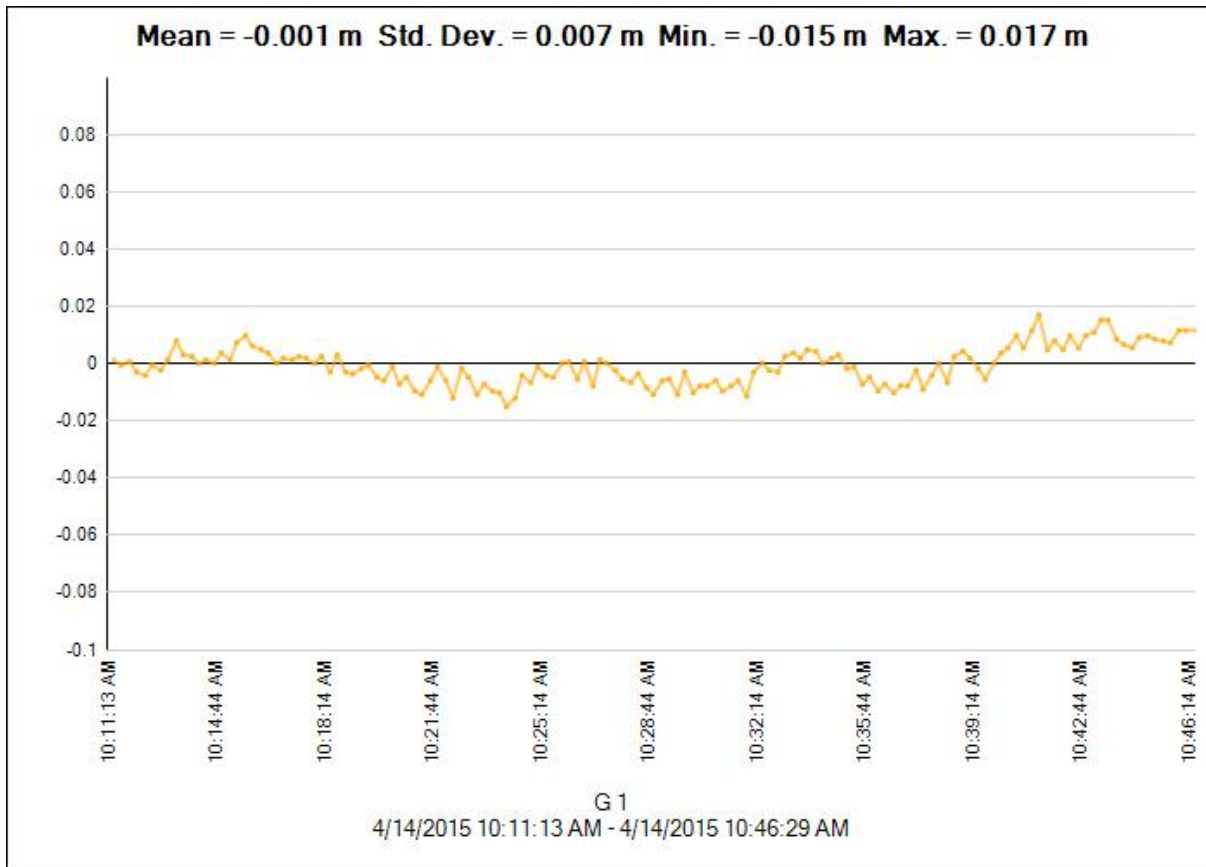
Occupations

	From	To
Point ID:	NR0224	CAS634
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601040.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801042.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.734 m	1.515 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

SV	4/14/2015 10:10:58 AM	Duration: 00:35:33	Major interval: 00:01:00	4/14/2015 10:46:31 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 11	L1 L2			
G 14	L1 L2			
G 16	L1 L2			
G 22	L1 L2			
G 23	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals



Mean = 0.007 m Std. Dev. = 0.013 m Min. = -0.016 m Max. = 0.043 m



G4
4/14/2015 10:11:13 AM - 4/14/2015 10:46:29 AM

Mean = -0.006 m Std. Dev. = 0.022 m Min. = -0.051 m Max. = 0.035 m



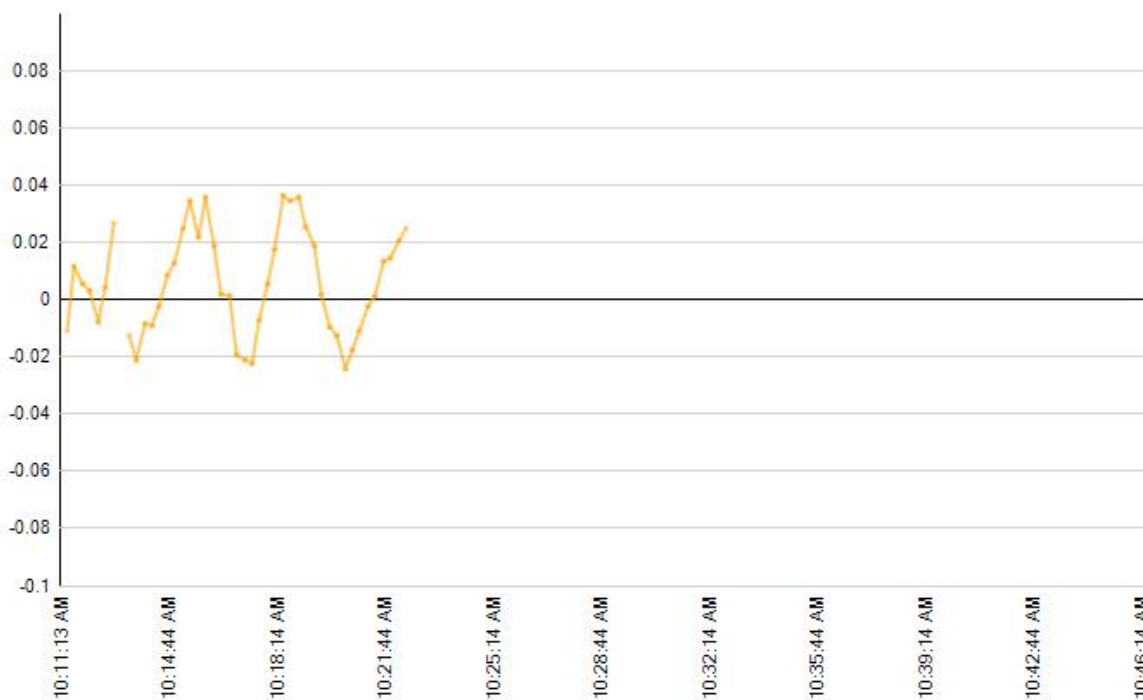
G11
4/14/2015 10:11:13 AM - 4/14/2015 10:46:29 AM

Mean = 0.003 m Std. Dev. = 0.008 m Min. = -0.013 m Max. = 0.029 m



G 14
4/14/2015 10:11:13 AM - 4/14/2015 10:46:29 AM

Mean = 0.005 m Std. Dev. = 0.018 m Min. = -0.024 m Max. = 0.036 m



G 22
4/14/2015 10:11:13 AM - 4/14/2015 10:46:29 AM

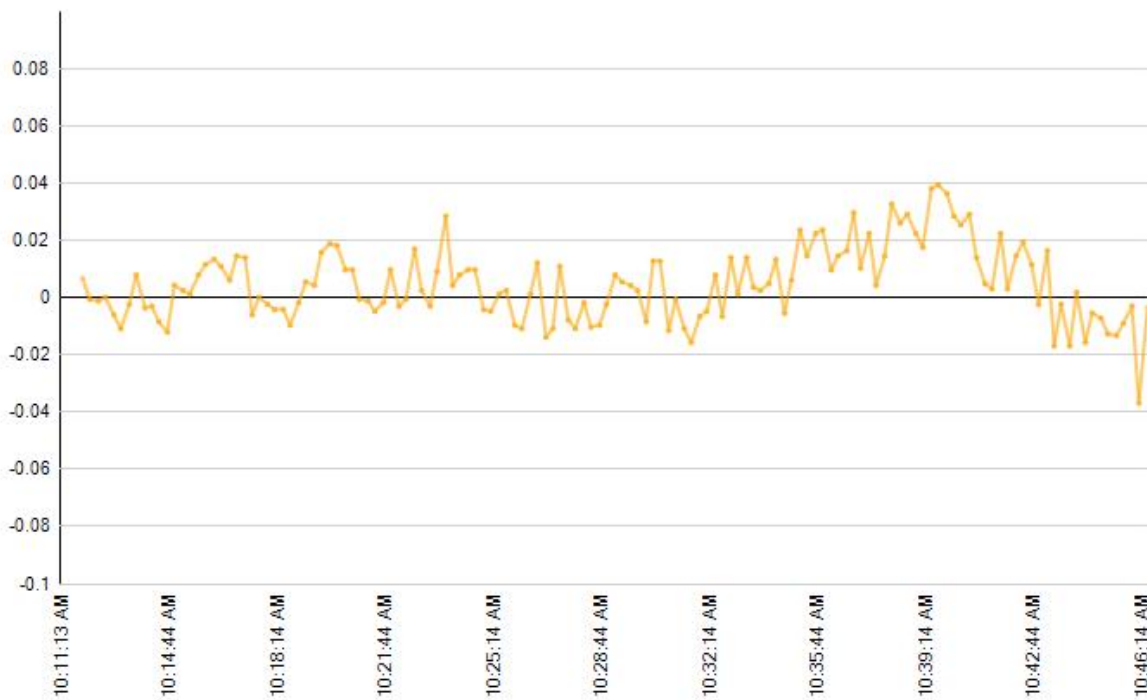
Mean = -0.017 m Std. Dev. = 0.014 m Min. = -0.056 m Max. = 0.014 m



G 23

4/14/2015 10:11:13 AM - 4/14/2015 10:46:29 AM

Mean = 0.005 m Std. Dev. = 0.013 m Min. = -0.037 m Max. = 0.039 m



G 25

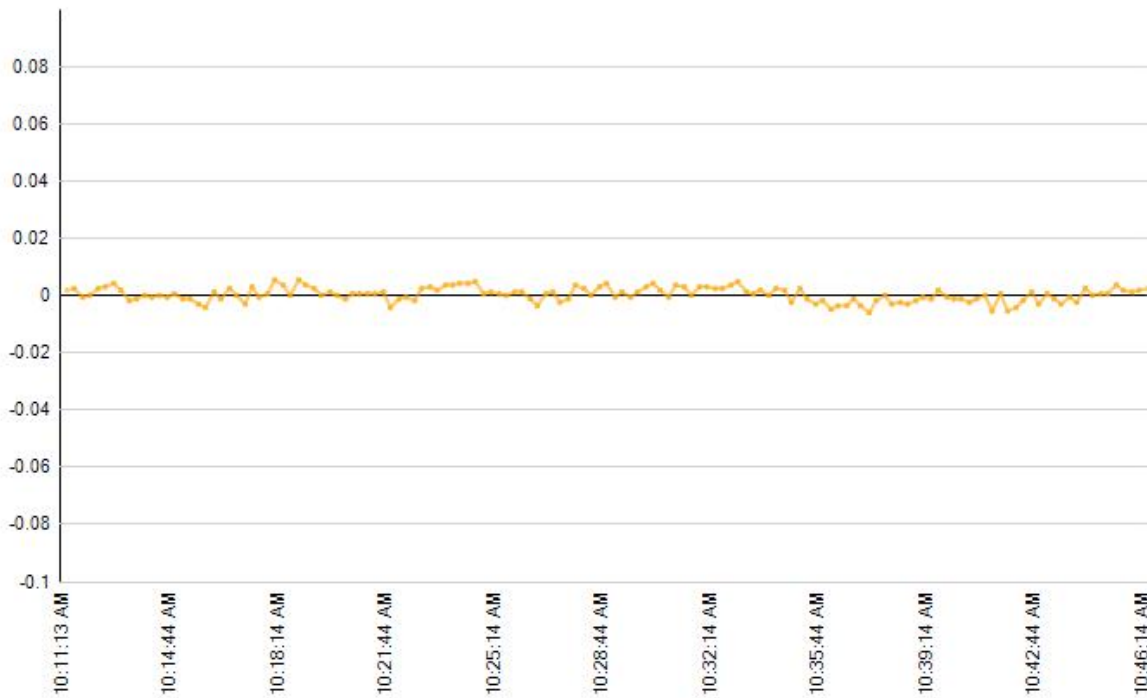
4/14/2015 10:11:13 AM - 4/14/2015 10:46:29 AM

Mean = -0.001 m Std. Dev. = 0.002 m Min. = -0.006 m Max. = 0.006 m



G 31
4/14/2015 10:11:13 AM - 4/14/2015 10:46:29 AM

Mean = 0.000 m Std. Dev. = 0.002 m Min. = -0.006 m Max. = 0.005 m





G 32
4/14/2015 10:11:13 AM - 4/14/2015 10:46:29 AM

Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS633 (9:15:22 AM-9:50:39 AM) (S14)

Baseline observation: NR0224 --- CAS633 (B14)
Processed: 7/1/2015 8:47:11 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.008 m
Vertical precision: 0.011 m
RMS: 0.001 m
Maximum PDOP: 2.086
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 4/14/2015 9:15:29 AM (Local: UTC-6hr)
Processing stop time: 4/14/2015 9:50:29 AM (Local: UTC-6hr)
Processing duration: 00:35:00
Processing interval: 15 seconds

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470640.040 m	Latitude	N42°53'23.97518"	Latitude	N42°53'23.97518"
Northing	365796.546 m	Longitude	W106°28'06.63386"	Longitude	W106°28'06.63386"
Elevation	1618.713 m	Height	1605.543 m	Height	1605.543 m

To:		CAS633			
Grid		Local		Global	
Easting	469060.687 m	Latitude	N42°41'55.84770"	Latitude	N42°41'55.84770"
Northing	344545.295 m	Longitude	W106°29'25.59494"	Longitude	W106°29'25.59494"
Elevation	1700.890 m	Height	1688.239 m	Height	1688.239 m

Vector					
Δ Easting	-1579.354 m	NS Fwd Azimuth	184°50'16"	Δ X	-5831.659 m
Δ Northing	-21251.251 m	Ellipsoid Dist.	21309.911 m	Δ Y	-13385.896 m
Δ Elevation	82.178 m	Δ Height	82.696 m	Δ Z	-15529.433 m

Standard Errors

Vector errors:					
σ Δ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.002 m
σ Δ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	σ Δ Y	0.005 m
σ Δ Elevation	0.006 m	σ Δ Height	0.006 m	σ Δ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000057927		
Y	0.0000056795	0.0000204637	
Z	-0.0000038245	-0.0000116235	0.0000218264

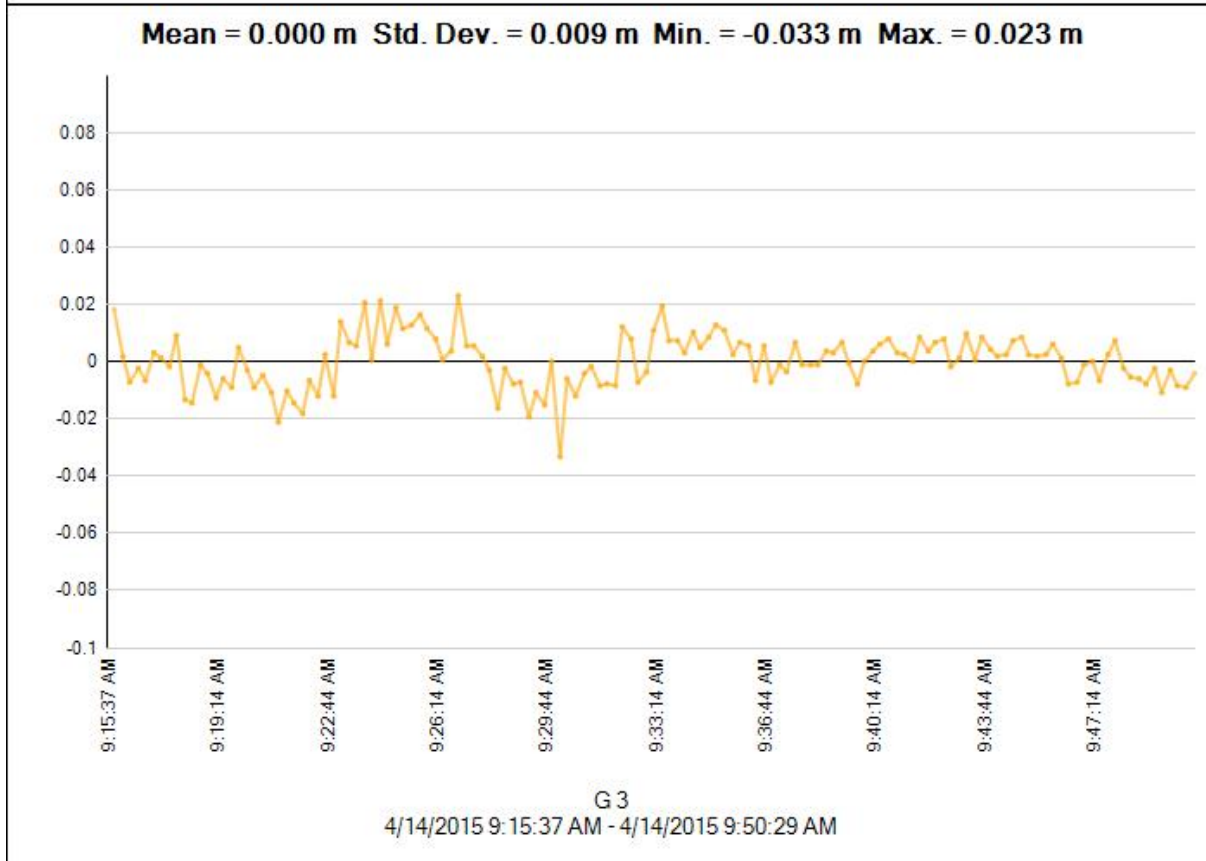
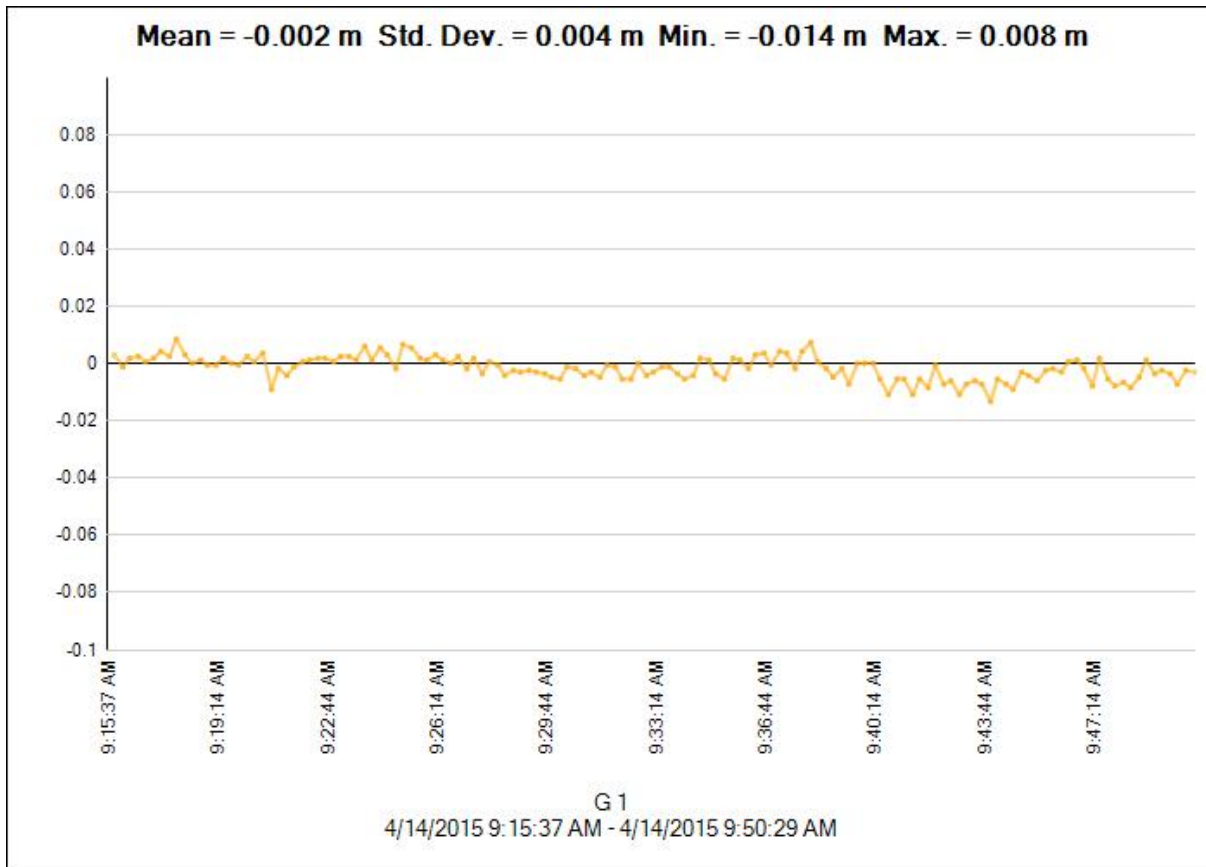
Occupations

	From	To
Point ID:	NR0224	CAS633
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601040.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801041.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.734 m	1.628 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

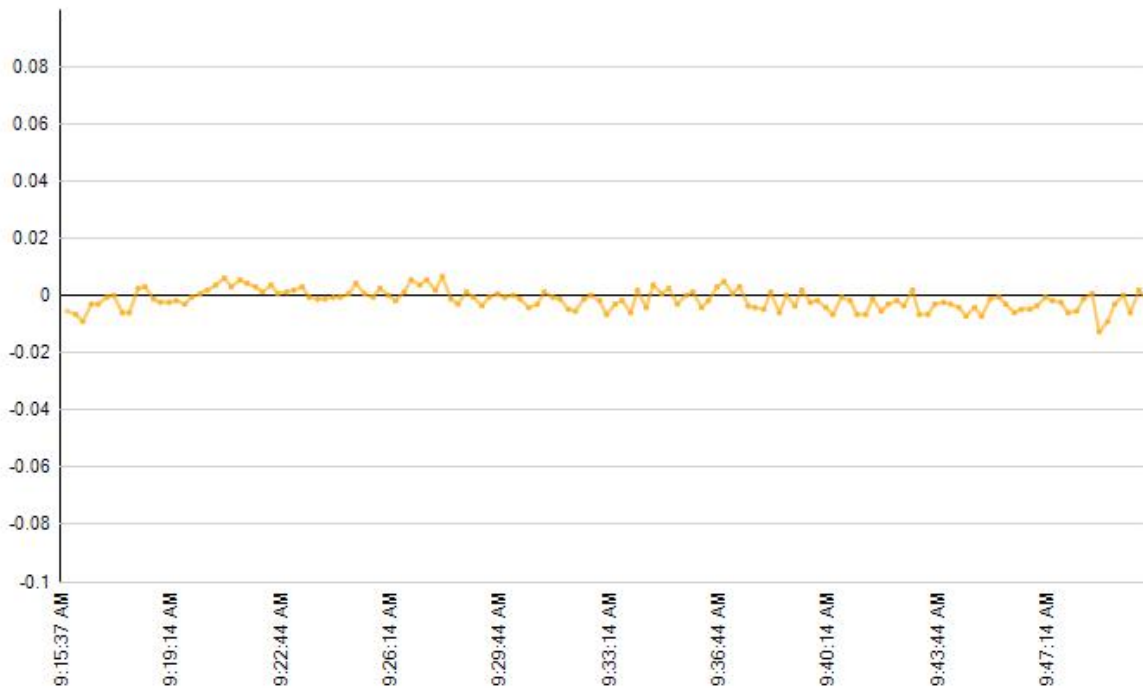
Tracking Summary

SV	4/14/2015 9:15:22 AM	Duration: 00:35:17	Major interval: 00:01:00	4/14/2015 9:50:39 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 11	L1 L2			
G 12	L1 L2			
G 14	L1 L2			
G 18	L1 L2			
G 22	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals

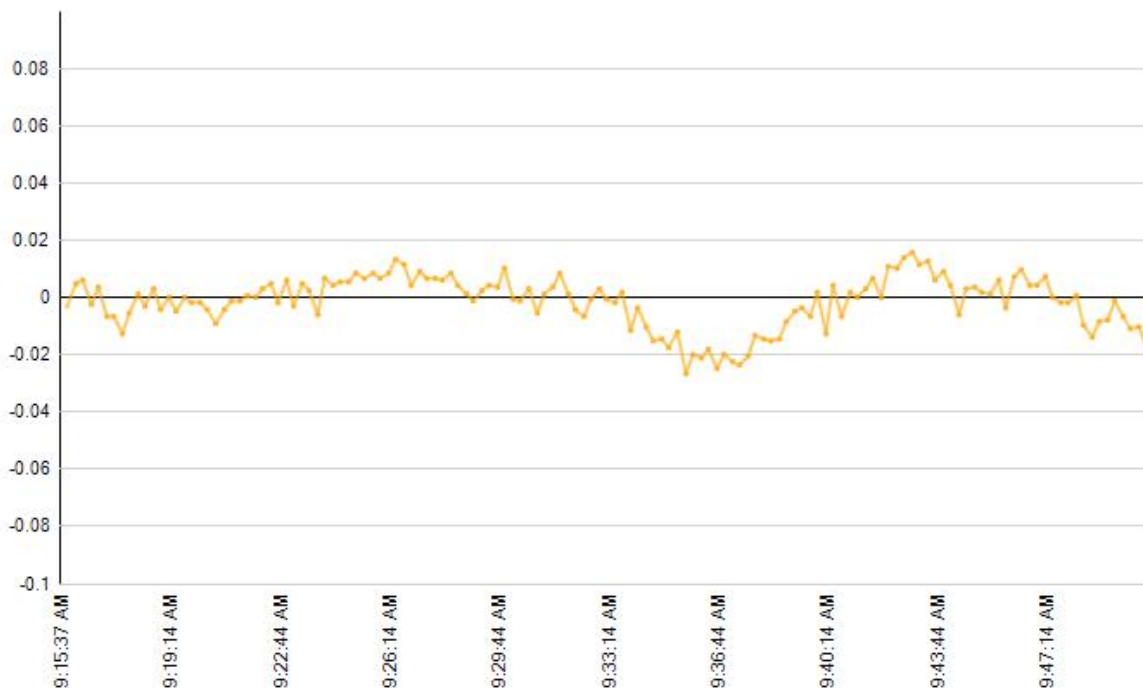


Mean = -0.001 m Std. Dev. = 0.004 m Min. = -0.012 m Max. = 0.006 m



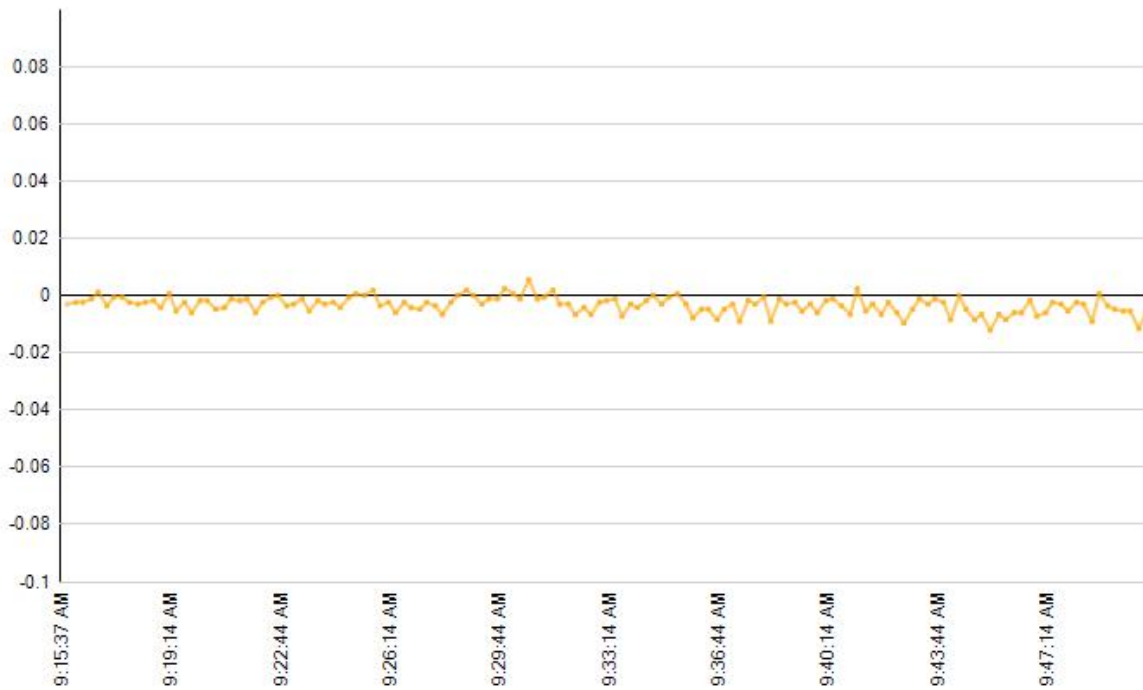
G 4
4/14/2015 9:15:37 AM - 4/14/2015 9:50:29 AM

Mean = -0.002 m Std. Dev. = 0.009 m Min. = -0.027 m Max. = 0.016 m



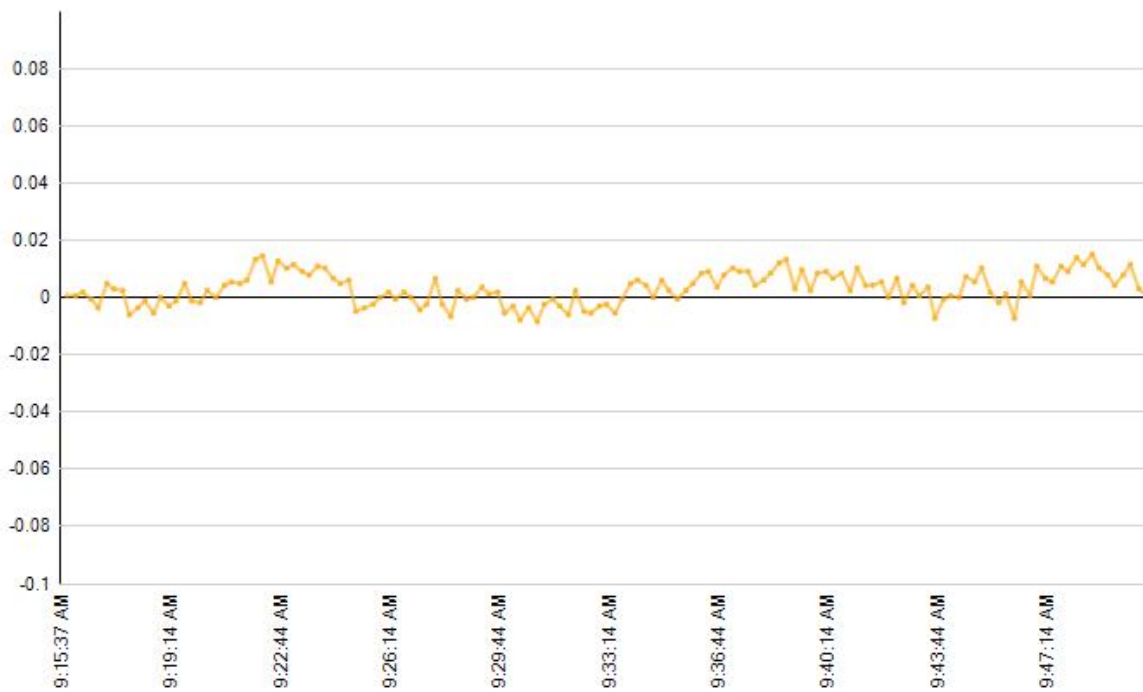
G 11
4/14/2015 9:15:37 AM - 4/14/2015 9:50:29 AM

Mean = -0.003 m Std. Dev. = 0.003 m Min. = -0.012 m Max. = 0.005 m



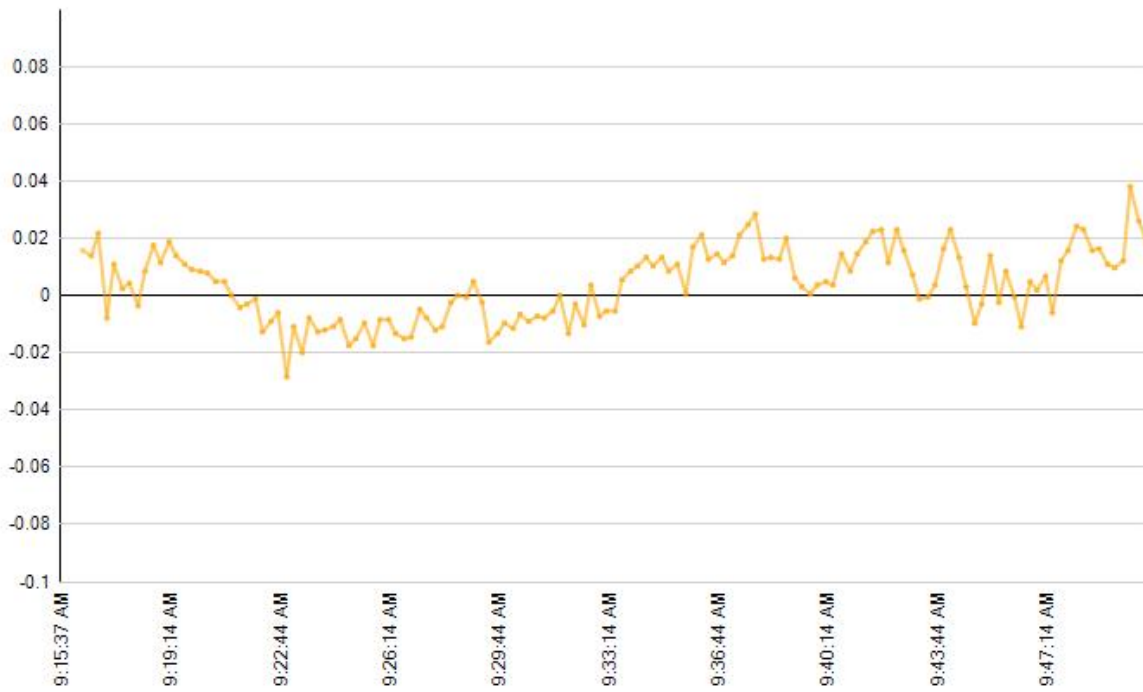
G 14
4/14/2015 9:15:37 AM - 4/14/2015 9:50:29 AM

Mean = 0.003 m Std. Dev. = 0.005 m Min. = -0.009 m Max. = 0.015 m



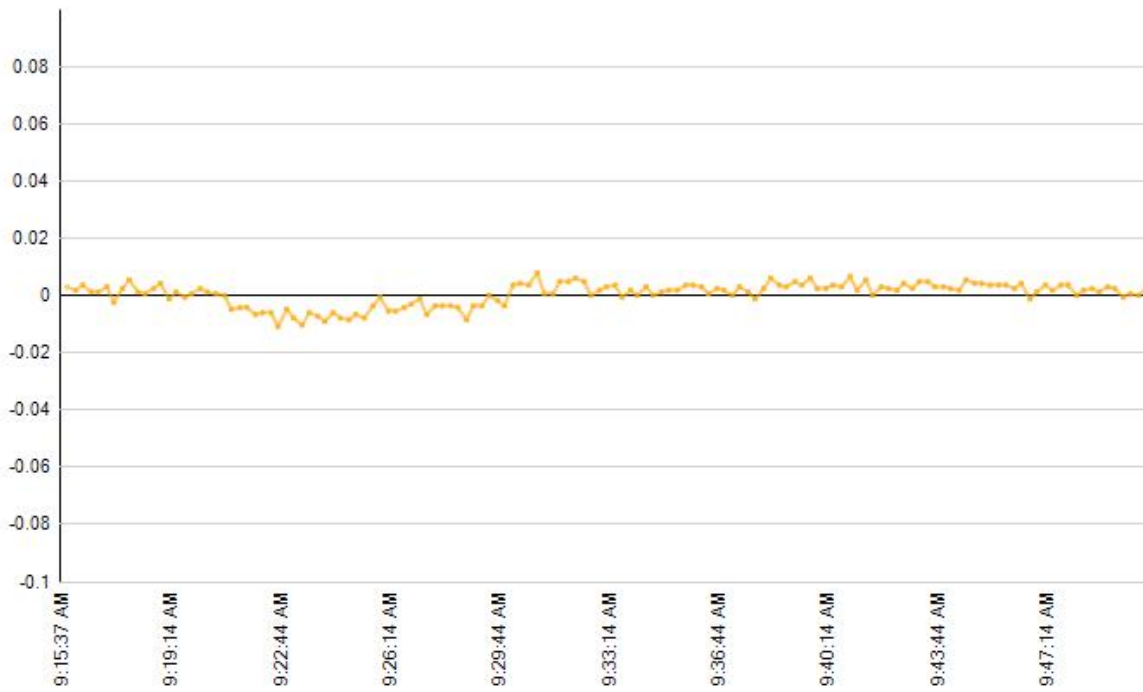
G 22
4/14/2015 9:15:37 AM - 4/14/2015 9:50:29 AM

Mean = 0.004 m Std. Dev. = 0.012 m Min. = -0.028 m Max. = 0.038 m

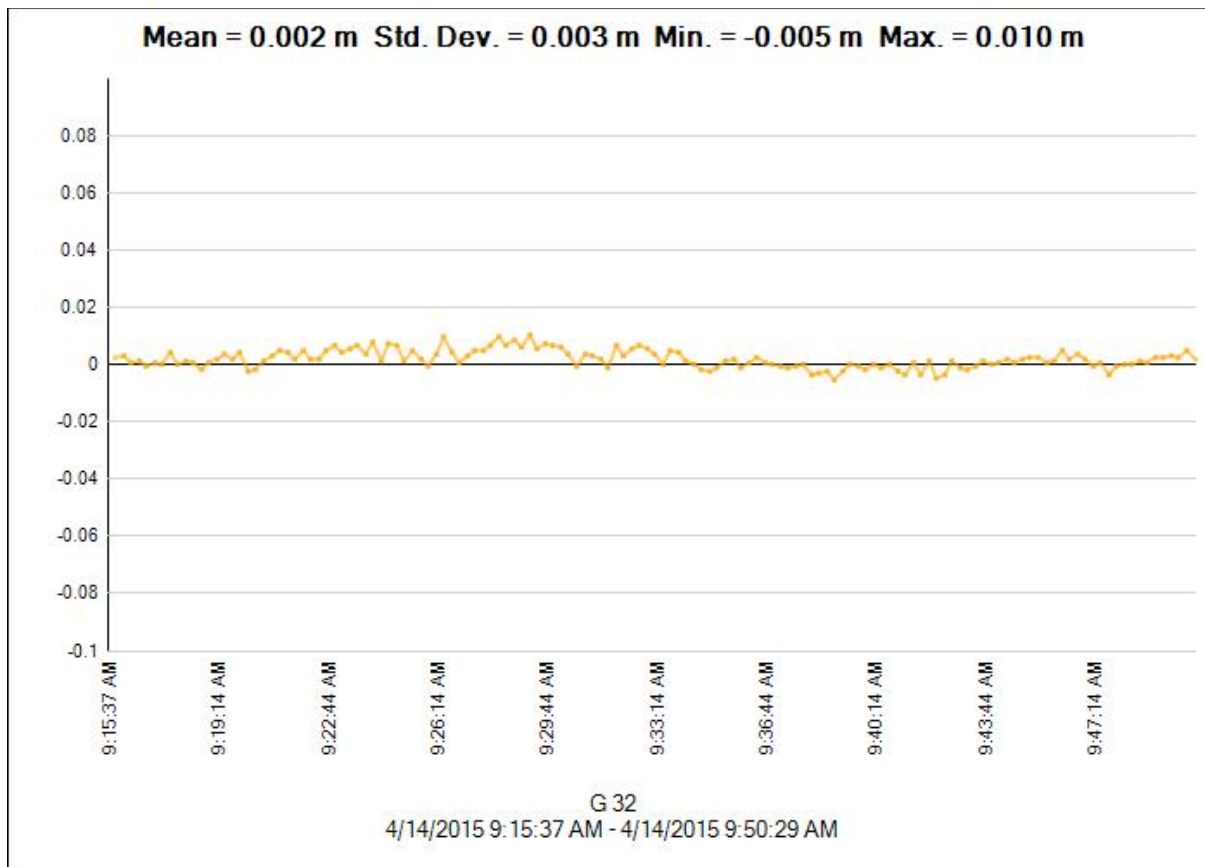


G 25
4/14/2015 9:15:37 AM - 4/14/2015 9:50:29 AM

Mean = 0.000 m Std. Dev. = 0.004 m Min. = -0.011 m Max. = 0.008 m





G 31
4/14/2015 9:15:37 AM - 4/14/2015 9:50:29 AM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS309 (8:21:39 AM-8:56:09 AM) (S15)

Baseline observation: NR0224 --- CAS309 (B15)
 Processed: 7/1/2015 8:47:11 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.011 m
 Vertical precision: 0.015 m
 RMS: 0.001 m
 Maximum PDOP: 2.452
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/14/2015 8:21:44 AM (Local: UTC-6hr)
 Processing stop time: 4/14/2015 8:55:59 AM (Local: UTC-6hr)
 Processing duration: 00:34:15
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470640.040 m	Latitude	N42°53'23.97518"	Latitude	N42°53'23.97518"
Northing	365796.546 m	Longitude	W106°28'06.63386"	Longitude	W106°28'06.63386"
Elevation	1618.713 m	Height	1605.543 m	Height	1605.543 m

To: CAS309					
Grid		Local		Global	
Easting	469414.310 m	Latitude	N42°45'47.82921"	Latitude	N42°45'47.82921"
Northing	351707.571 m	Longitude	W106°29'06.89832"	Longitude	W106°29'06.89832"
Elevation	1637.891 m	Height	1625.099 m	Height	1625.099 m

Vector					
ΔEasting	-1225.731 m	NS Fwd Azimuth	185°33'36"	ΔX	-4031.610 m
ΔNorthing	-14088.975 m	Ellipsoid Dist.	14142.224 m	ΔY	-8803.301 m
ΔElevation	19.179 m	ΔHeight	19.556 m	ΔZ	-10312.728 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.004 m
$\sigma \Delta$ Northing	0.004 m	σ Ellipsoid Dist.	0.004 m	$\sigma \Delta$ Y	0.006 m
$\sigma \Delta$ Elevation	0.008 m	$\sigma \Delta$ Height	0.008 m	$\sigma \Delta$ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000173149		
Y	0.0000205548	0.0000405486	
Z	-0.0000080620	-0.0000208335	0.0000265384

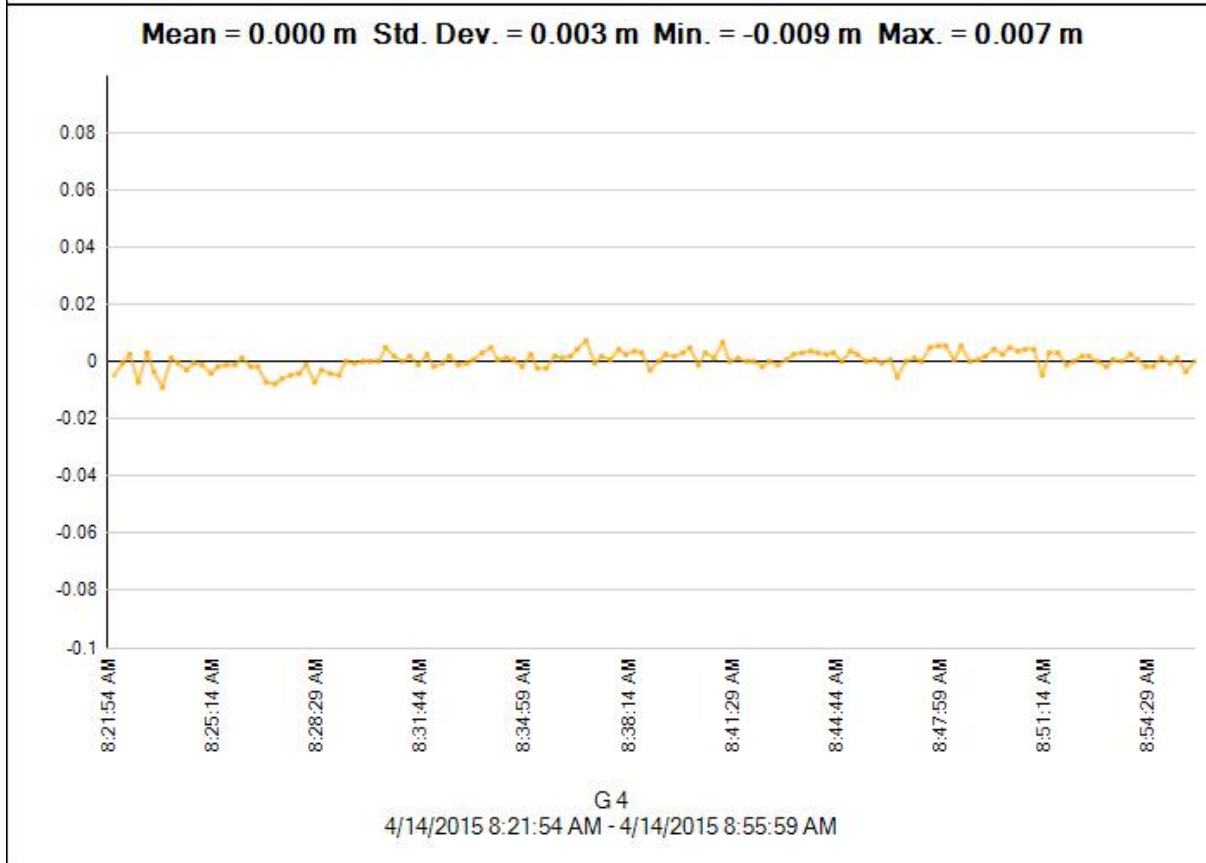
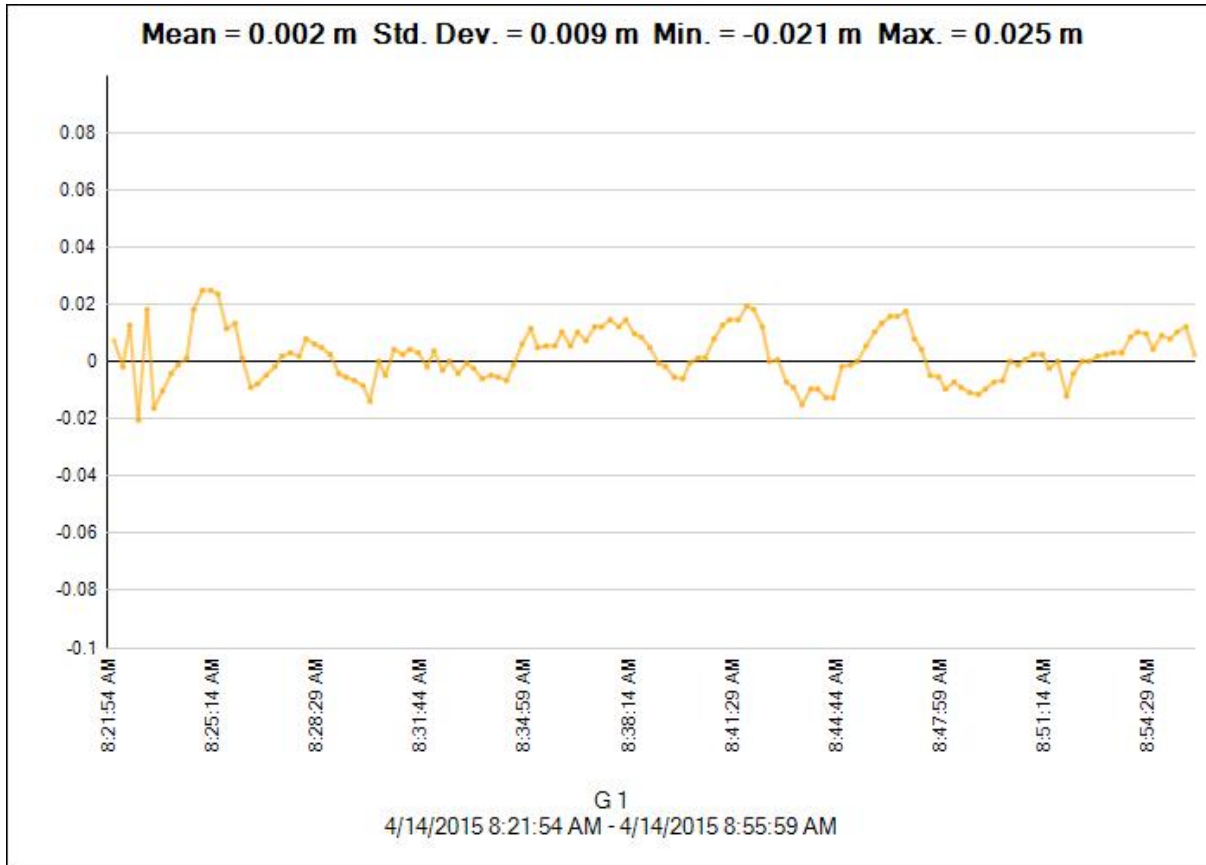
Occupations

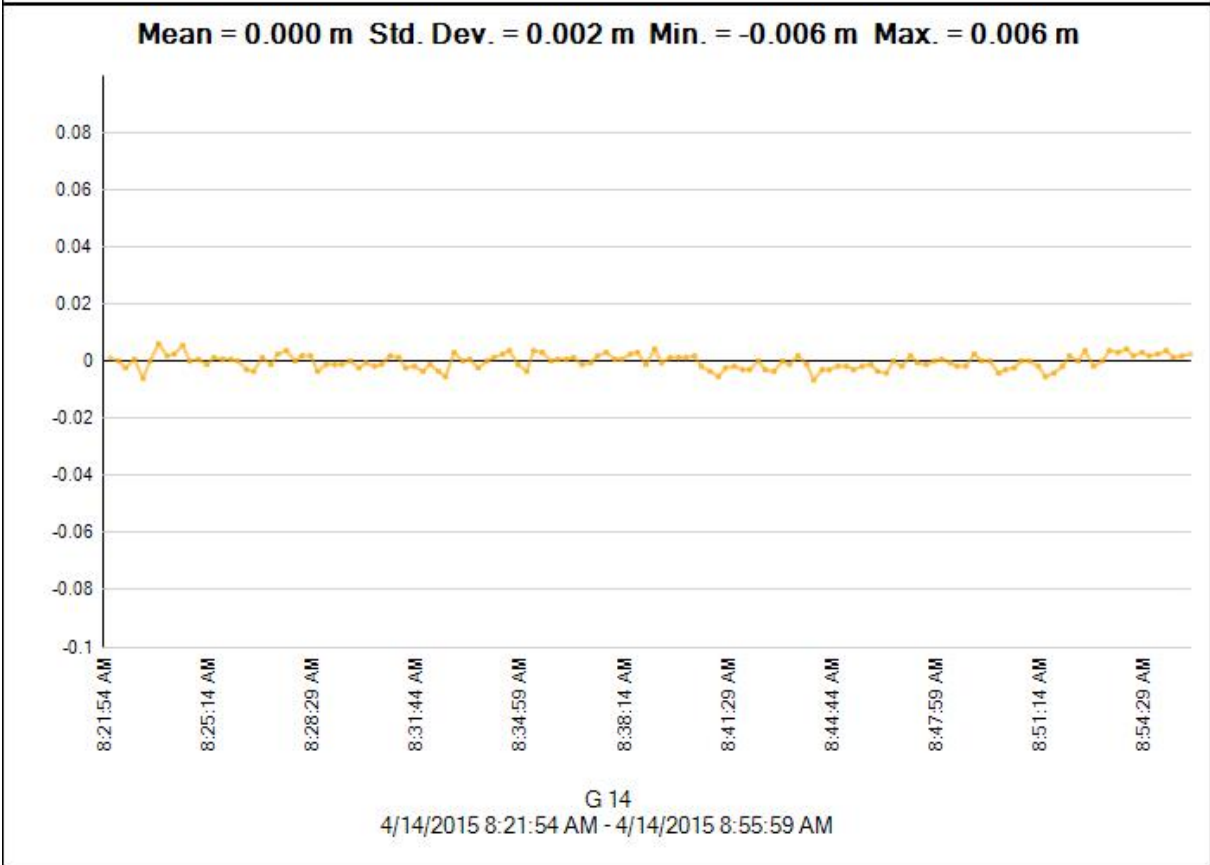
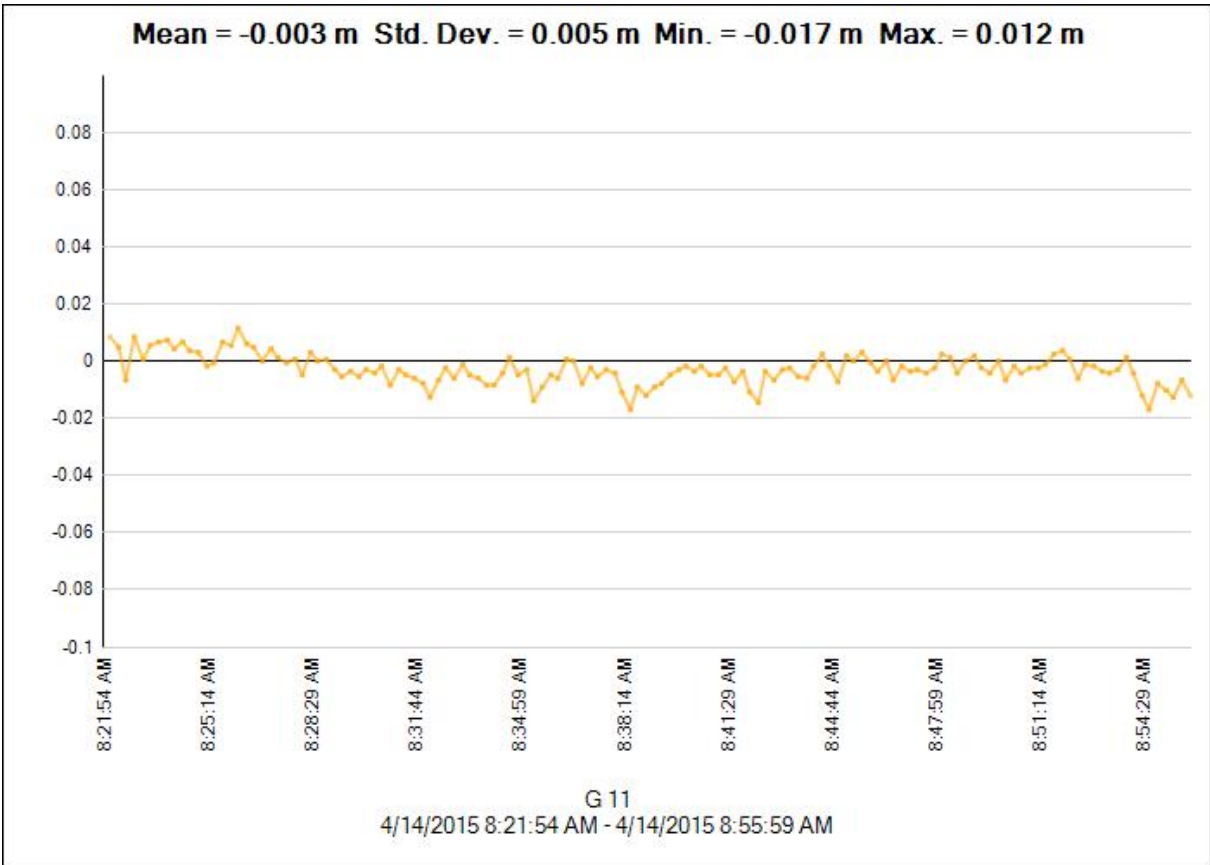
	From	To
Point ID:	NR0224	CAS309
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601040.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801040.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.734 m	1.558 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

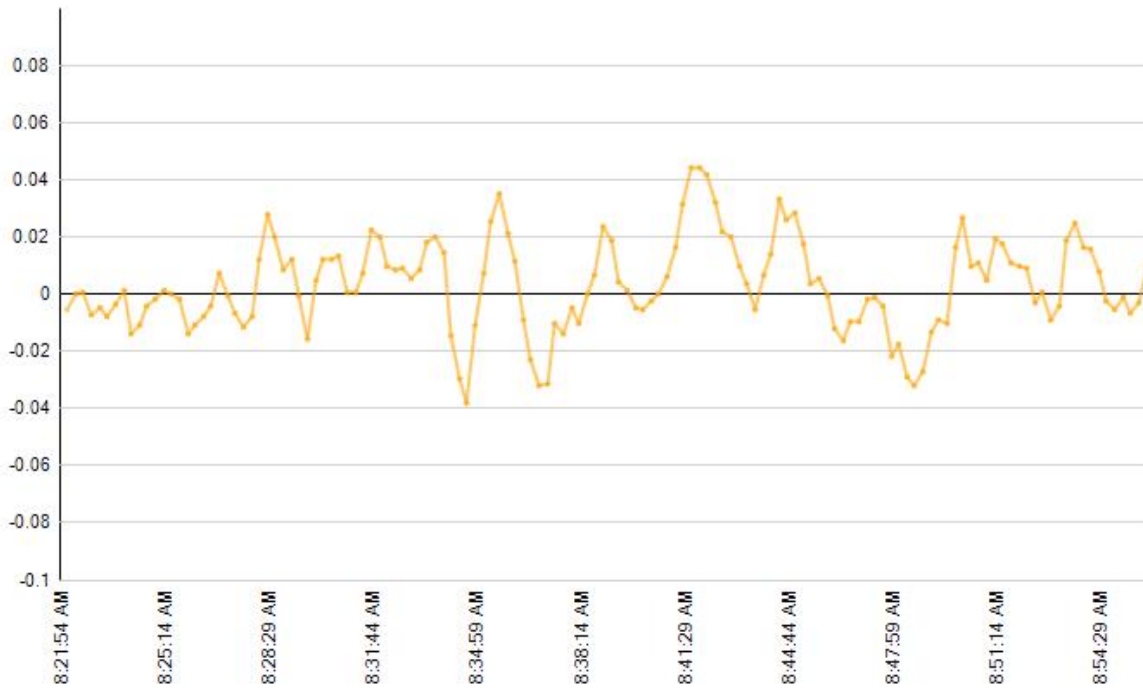
SV	4/14/2015 8:21:39 AM	Duration: 00:34:30	Major interval: 00:01:00	4/14/2015 8:56:09 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 11	L1 L2			
G 12	L1 L2			
G 14	L1 L2			
G 18	L1 L2			
G 19	L1 L2			
G 22	L1 L2			
G 24	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals





Mean = 0.003 m Std. Dev. = 0.016 m Min. = -0.038 m Max. = 0.044 m

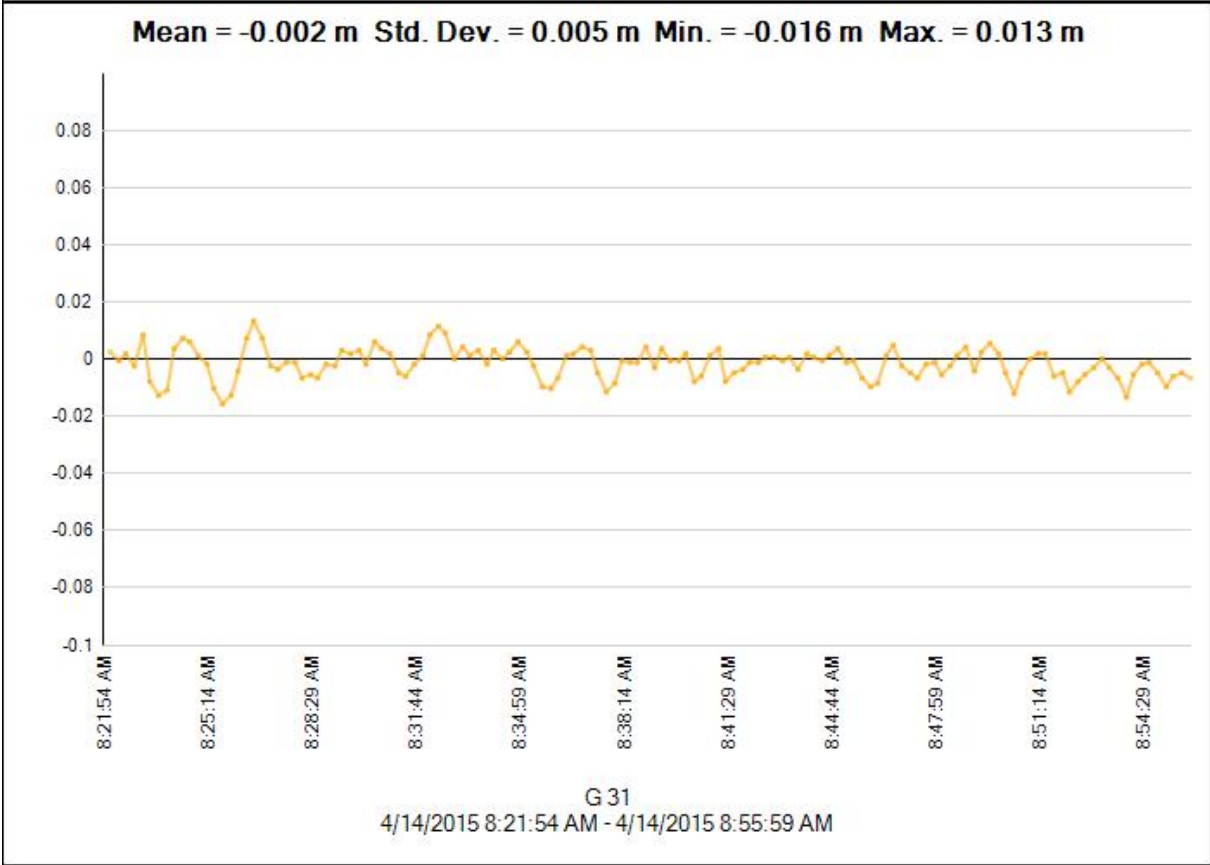
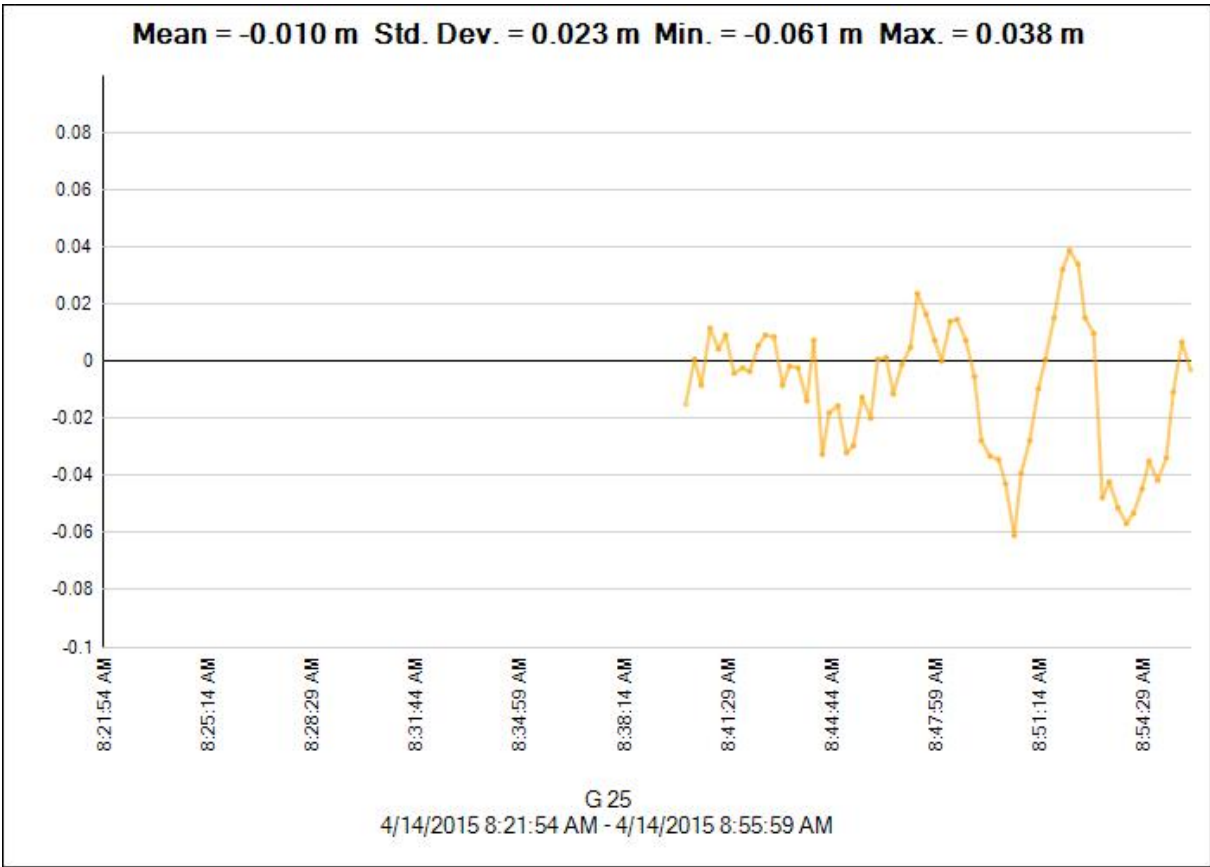


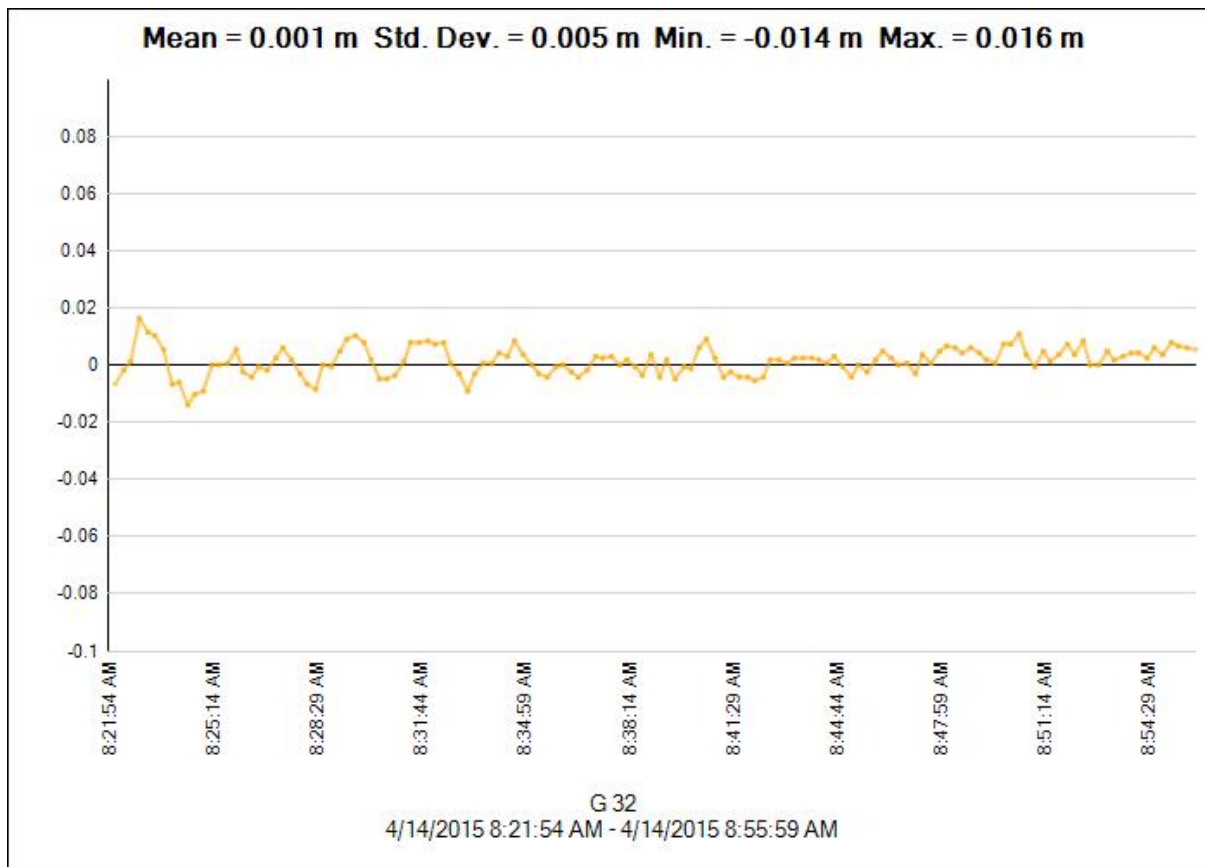
G 18
4/14/2015 8:21:54 AM - 4/14/2015 8:55:59 AM

Mean = 0.001 m Std. Dev. = 0.003 m Min. = -0.006 m Max. = 0.009 m



G 22
4/14/2015 8:21:54 AM - 4/14/2015 8:55:59 AM







Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS629 (2:15:10 PM-3:05:09 PM) (S16)

Baseline observation: NR0224 --- CAS629 (B16)
 Processed: 7/1/2015 8:49:50 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.014 m
 Vertical precision: 0.013 m
 RMS: 0.001 m
 Maximum PDOP: 3.801
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/15/2015 2:15:14 PM (Local: UTC-6hr)
 Processing stop time: 4/15/2015 3:04:59 PM (Local: UTC-6hr)
 Processing duration: 00:49:45
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470639.791 m	Latitude	N42°53'23.99943"	Latitude	N42°53'23.99943"
Northing	365797.292 m	Longitude	W106°28'06.64452"	Longitude	W106°28'06.64452"
Elevation	1617.934 m	Height	1604.764 m	Height	1604.764 m

To: CAS629					
Grid		Local		Global	
Easting	410897.650 m	Latitude	N43°04'30.42787"	Latitude	N43°04'30.42787"
Northing	386007.162 m	Longitude	W107°11'58.25592"	Longitude	W107°11'58.25592"
Elevation	1844.713 m	Height	1831.226 m	Height	1831.226 m

Vector					
ΔEasting	-59742.140 m	NS Fwd Azimuth	289°16'45"	ΔX	-53069.945 m
ΔNorthing	20209.870 m	Ellipsoid Dist.	63070.339 m	ΔY	30536.369 m
ΔElevation	226.780 m	ΔHeight	226.462 m	ΔZ	15203.238 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.004 m
$\sigma \Delta$ Northing	0.006 m	σ Ellipsoid Dist.	0.002 m	$\sigma \Delta$ Y	0.005 m
$\sigma \Delta$ Elevation	0.007 m	$\sigma \Delta$ Height	0.007 m	$\sigma \Delta$ Z	0.006 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000158453		
Y	0.0000142624	0.0000293463	
Z	0.0000037804	-0.0000101827	0.0000415727

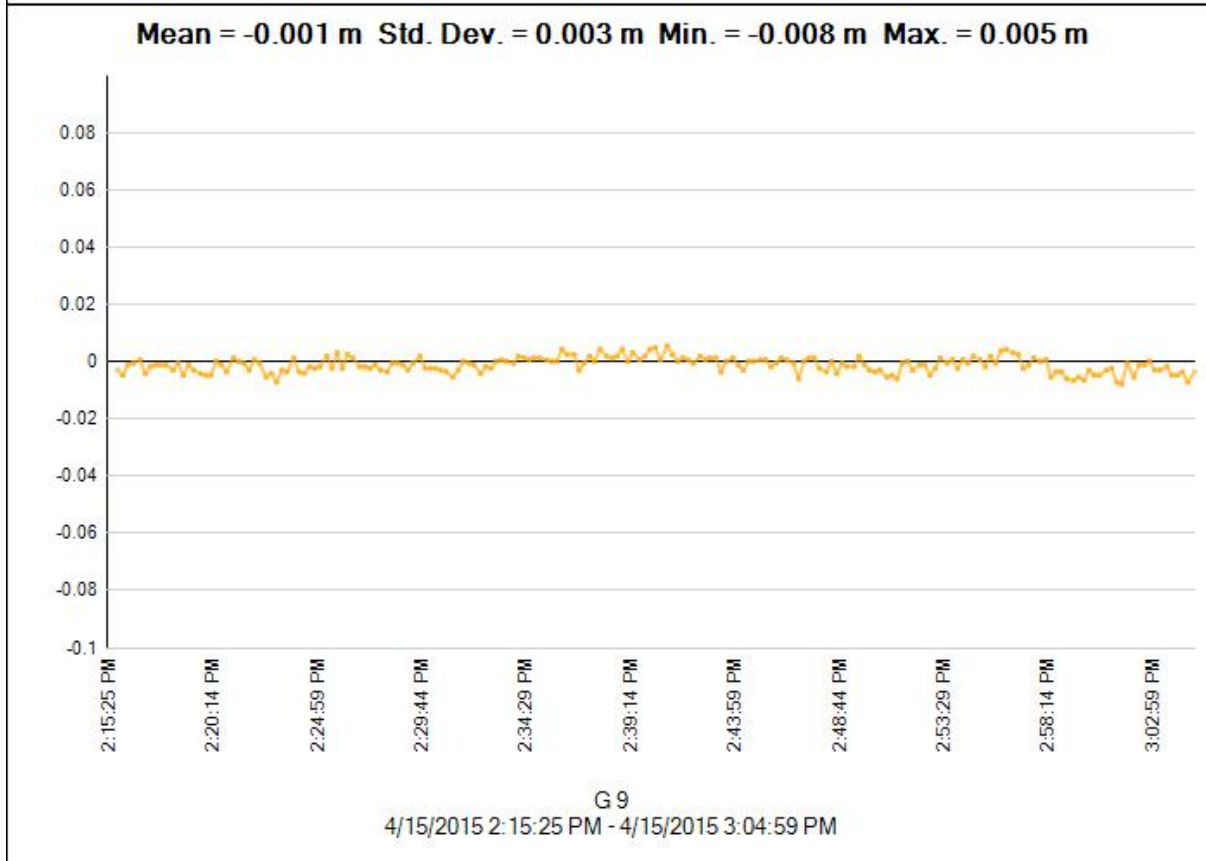
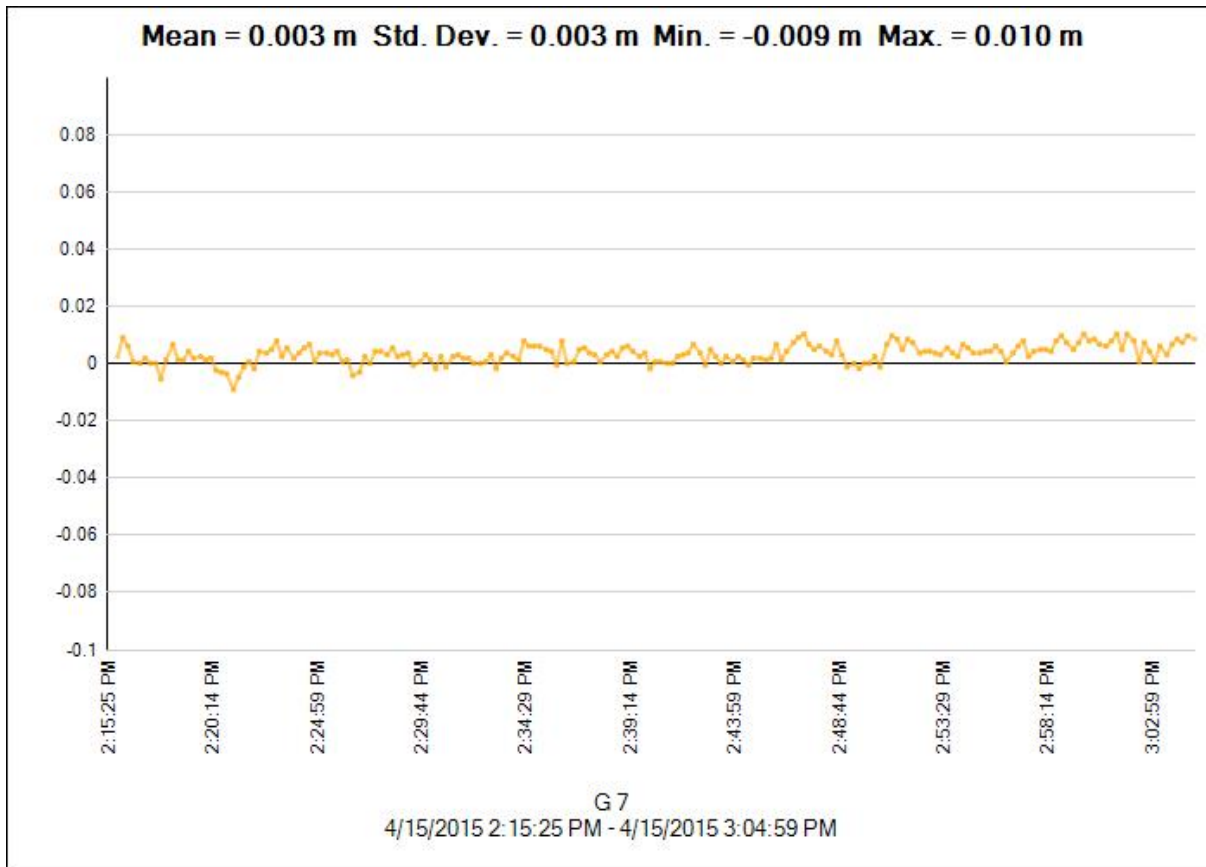
Occupations

	From	To
Point ID:	NR0224	CAS629
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601050.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801055.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.704 m	1.551 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

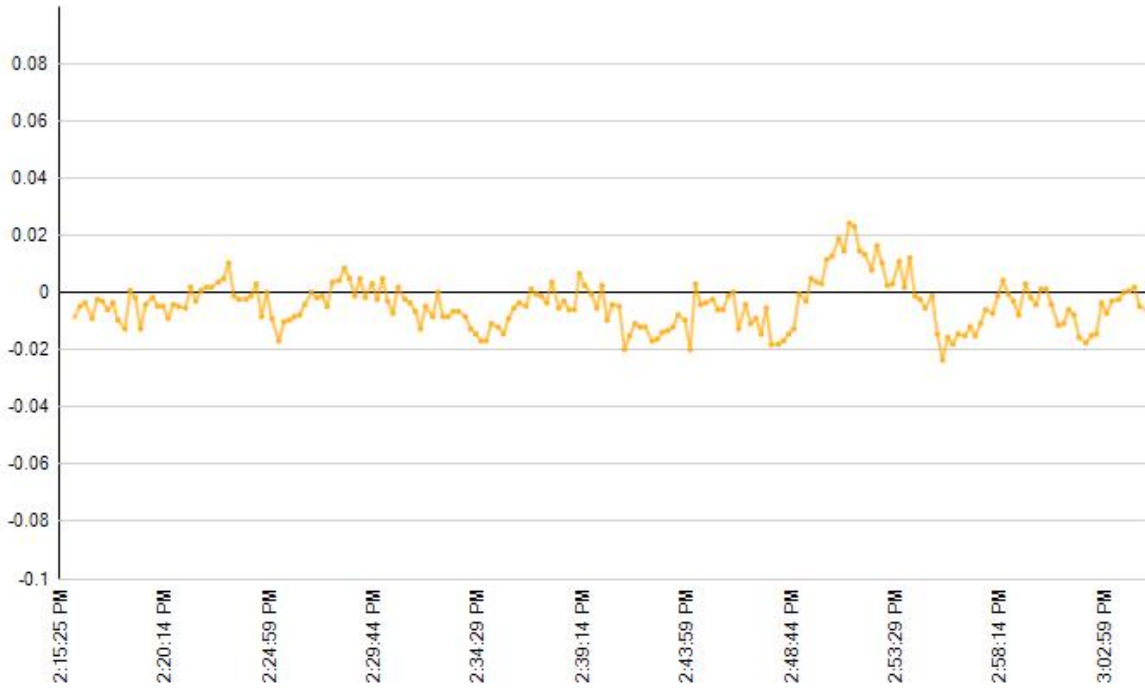
Tracking Summary

SV	4/15/2015 2:15:10 PM	Duration: 00:49:59	Major interval: 00:10:00	4/15/2015 3:05:09 PM
G 3	L1 L2			
G 5	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 19	L1 L2			
G 20	L1 L2			
G 23	L1 L2			
G 27	L1 L2			
G 28	L1 L2			
G 30	L1 L2			

Residuals



Mean = -0.004 m Std. Dev. = 0.008 m Min. = -0.024 m Max. = 0.024 m

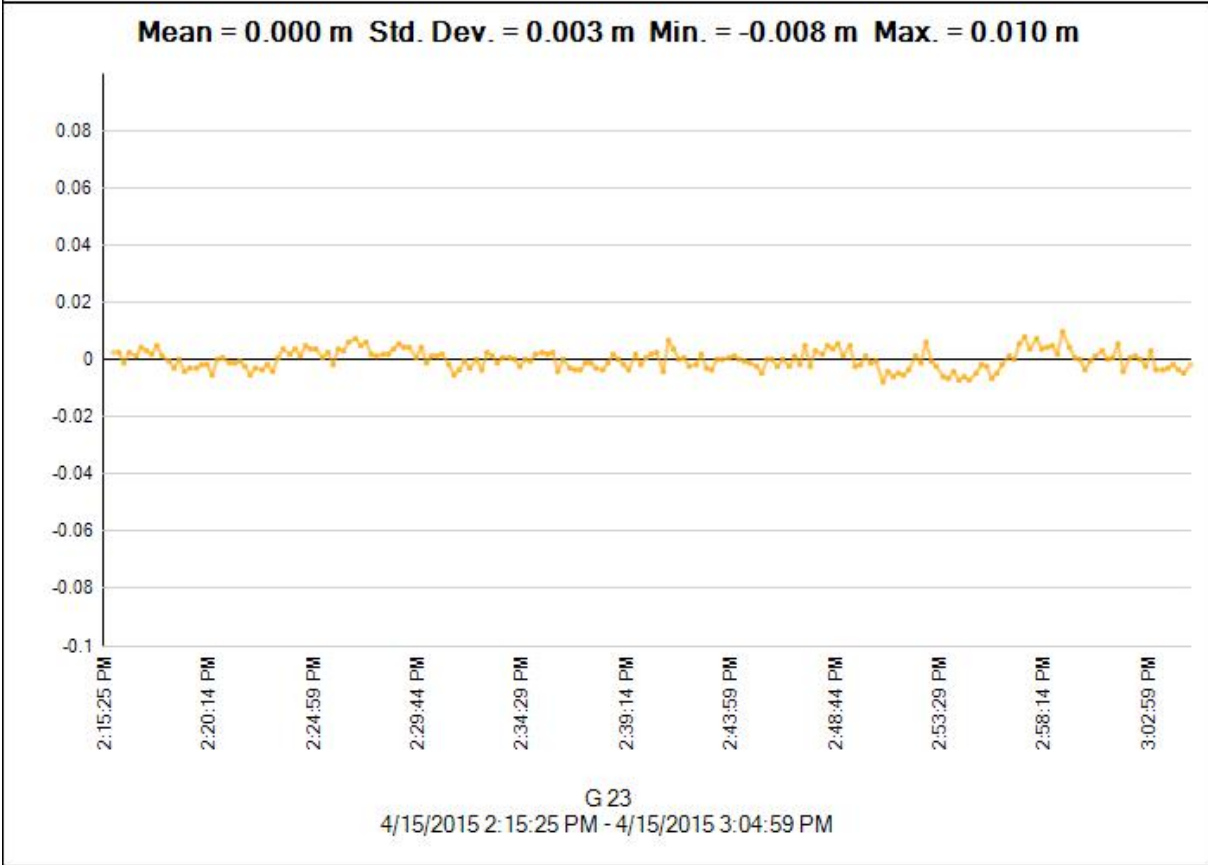
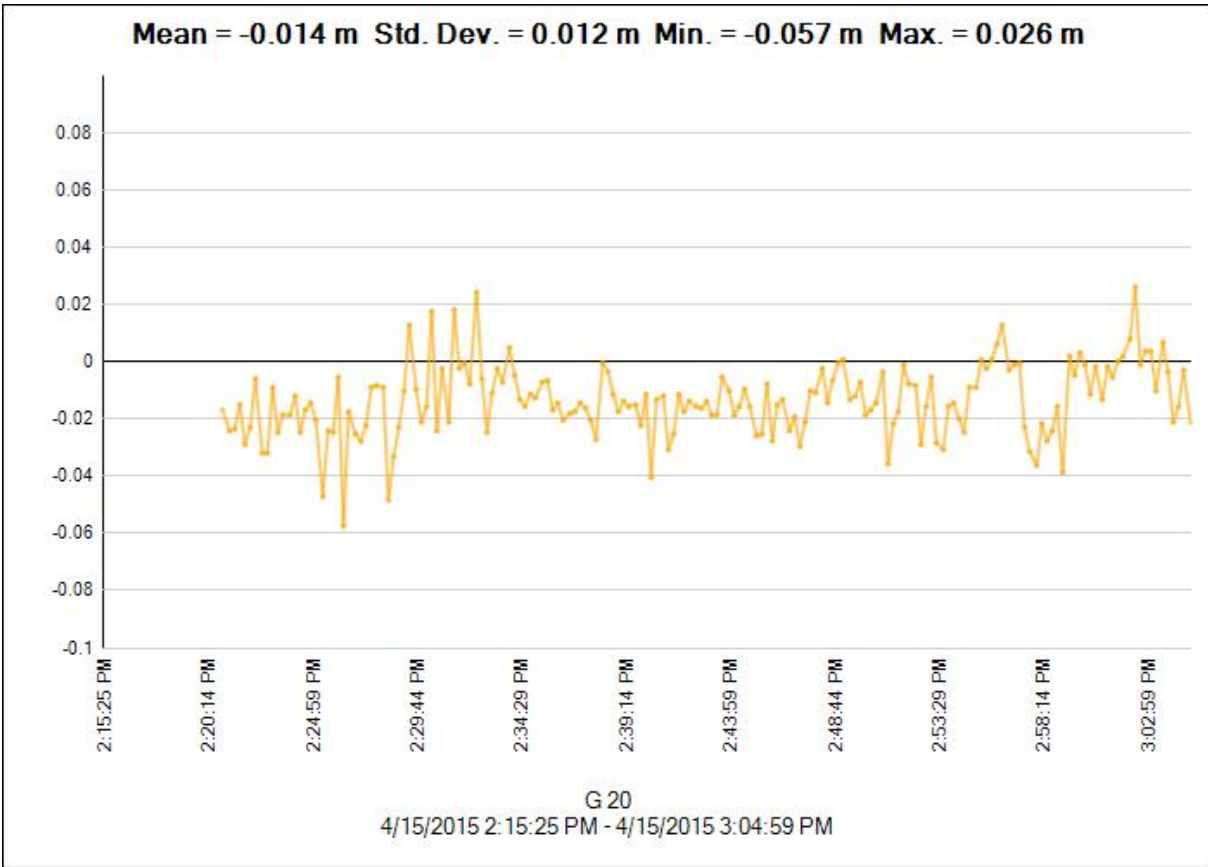


G 10
4/15/2015 2:15:25 PM - 4/15/2015 3:04:59 PM

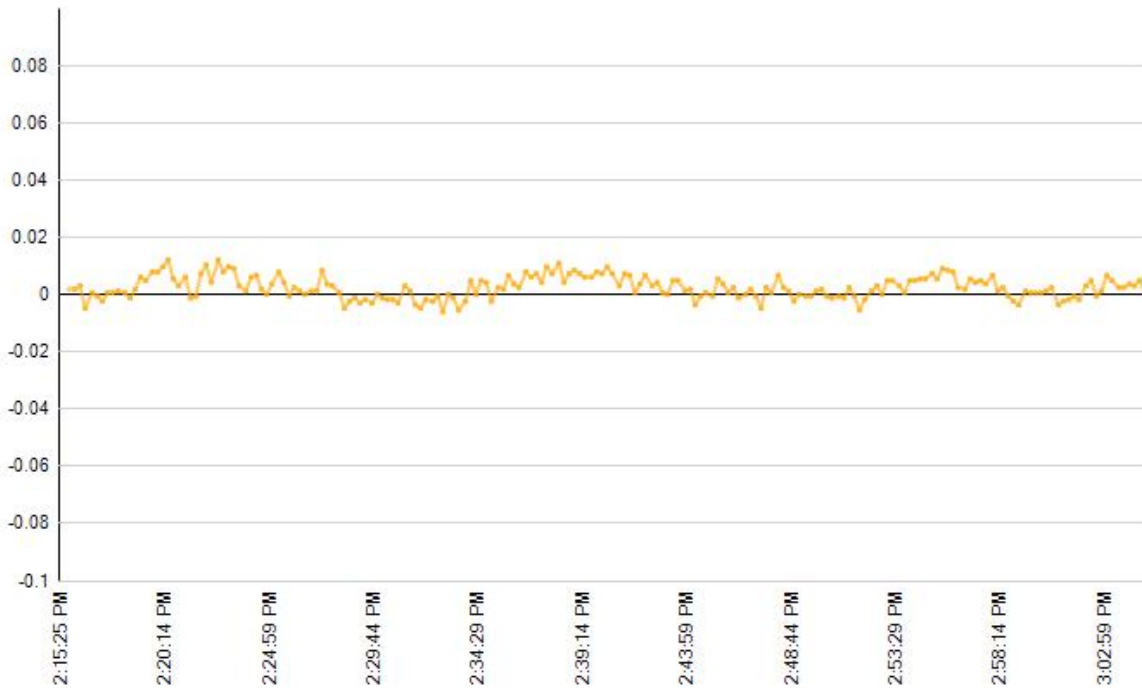
Mean = -0.001 m Std. Dev. = 0.009 m Min. = -0.028 m Max. = 0.023 m



G 19
4/15/2015 2:15:25 PM - 4/15/2015 3:04:59 PM



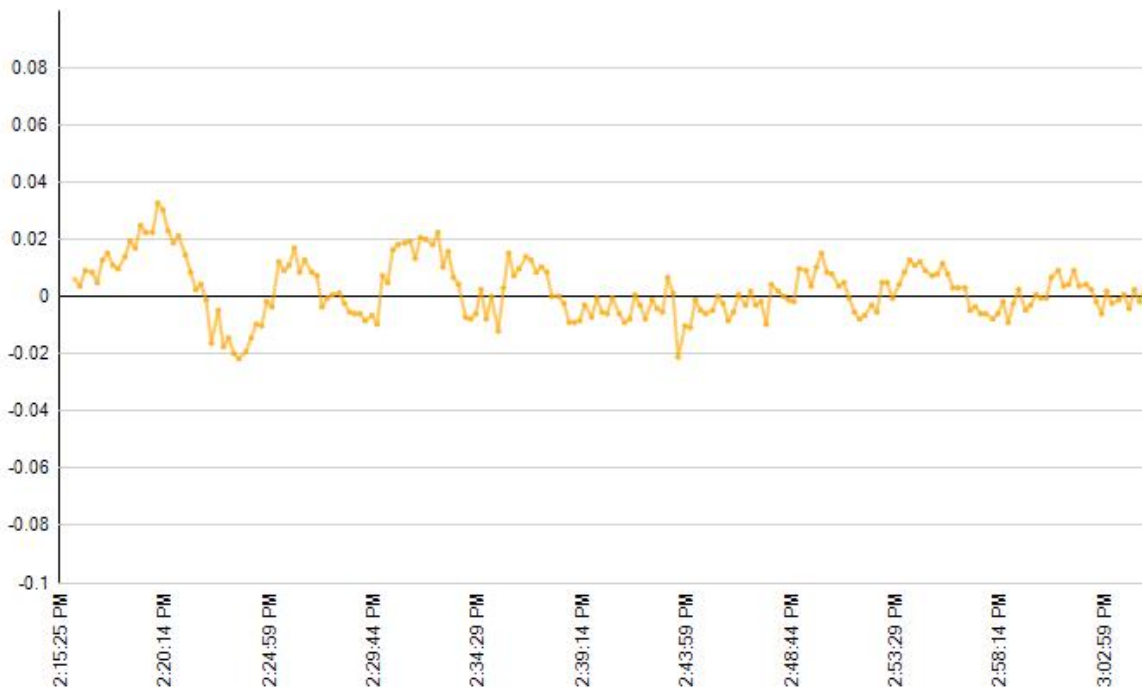
Mean = 0.002 m Std. Dev. = 0.004 m Min. = -0.006 m Max. = 0.012 m



G 27

4/15/2015 2:15:25 PM - 4/15/2015 3:04:59 PM

Mean = 0.002 m Std. Dev. = 0.010 m Min. = -0.022 m Max. = 0.033 m





G 30

4/15/2015 2:15:25 PM - 4/15/2015 3:04:59 PM

Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS630 (1:02:10 PM-1:52:45 PM) (S17)

Baseline observation: NR0224 --- CAS630 (B17)
Processed: 7/1/2015 8:49:50 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.016 m
Vertical precision: 0.018 m
RMS: 0.001 m
Maximum PDOP: 4.995
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 4/15/2015 1:02:44 PM (Local: UTC-6hr)
Processing stop time: 4/15/2015 1:52:44 PM (Local: UTC-6hr)
Processing duration: 00:50:00
Processing interval: 15 seconds

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470639.791 m	Latitude	N42°53'23.99943"	Latitude	N42°53'23.99943"
Northing	365797.292 m	Longitude	W106°28'06.64452"	Longitude	W106°28'06.64452"
Elevation	1617.934 m	Height	1604.764 m	Height	1604.764 m

To:		CAS630			
Grid		Local		Global	
Easting	398850.902 m	Latitude	N43°06'49.80910"	Latitude	N43°06'49.80910"
Northing	390299.548 m	Longitude	W107°20'50.82932"	Longitude	W107°20'50.82932"
Elevation	1827.615 m	Height	1813.971 m	Height	1813.971 m

Vector					
ΔEasting	-71788.889 m	NS Fwd Azimuth	289°26'05"	ΔX	-63697.864 m
ΔNorthing	24502.256 m	Ellipsoid Dist.	75858.373 m	ΔY	36932.702 m
ΔElevation	209.681 m	ΔHeight	209.207 m	ΔZ	18333.242 m

Standard Errors

Vector errors:					
σ ΔEasting	0.005 m	σ NS fwd Azimuth	0°00'00"	σ ΔX	0.006 m
σ ΔNorthing	0.006 m	σ Ellipsoid Dist.	0.004 m	σ ΔY	0.008 m
σ ΔElevation	0.009 m	σ ΔHeight	0.009 m	σ ΔZ	0.006 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000394070		
Y	0.0000305067	0.0000618334	
Z	-0.0000040155	-0.0000222582	0.0000349370

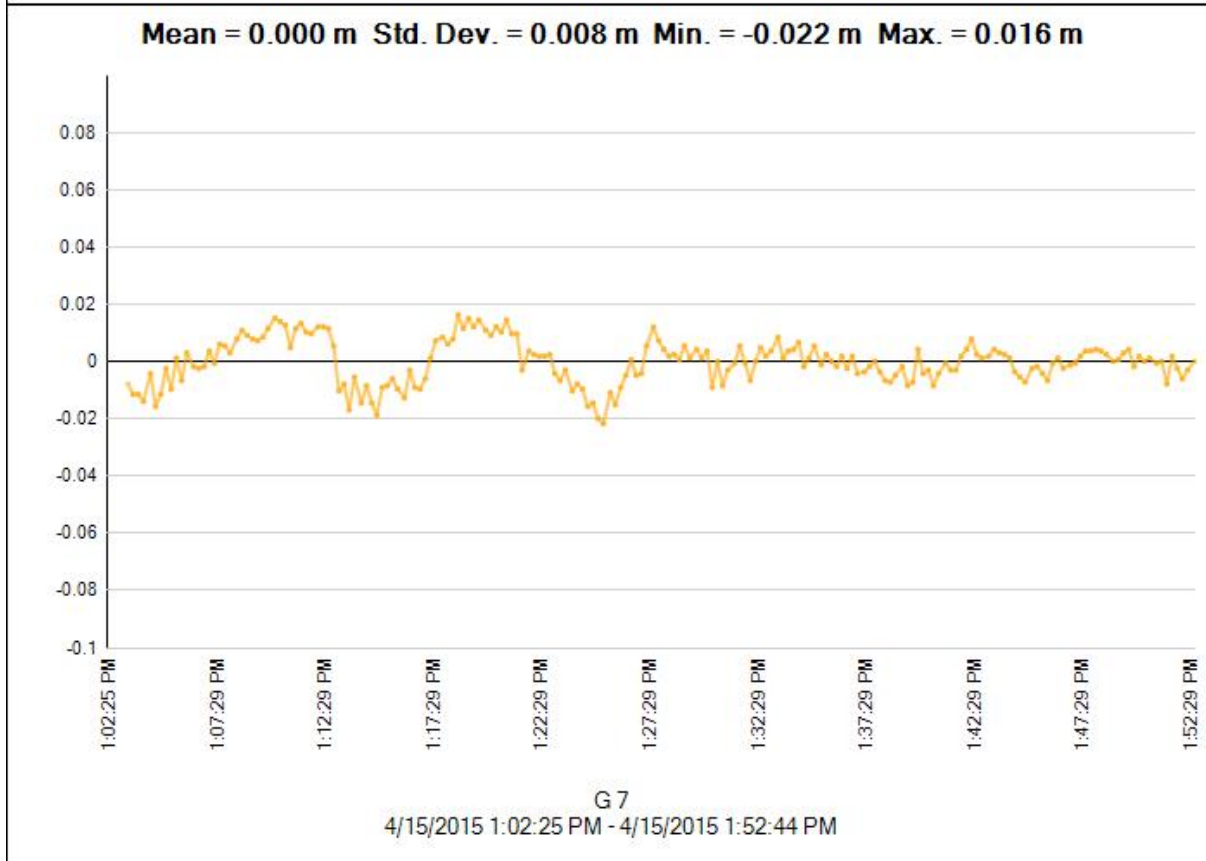
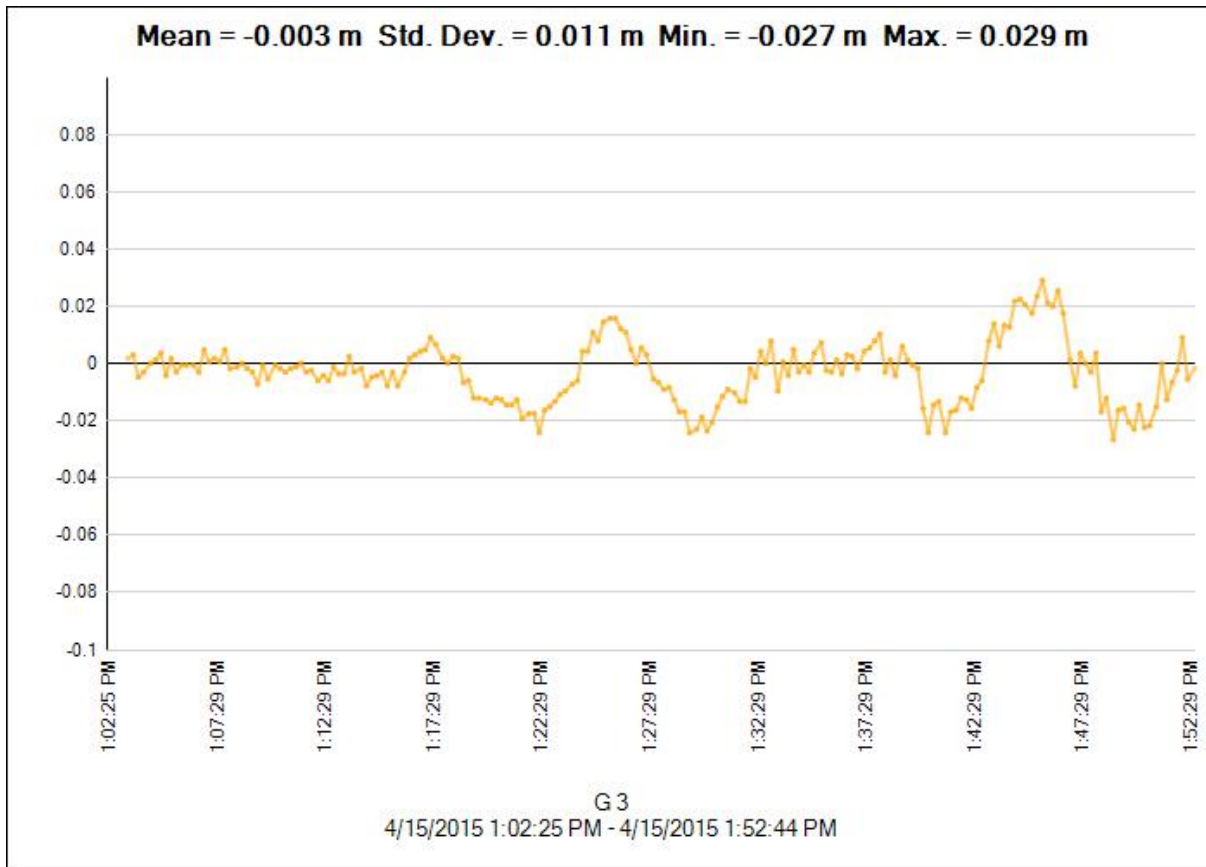
Occupations

	From	To
Point ID:	NR0224	CAS630
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601050.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801054.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.704 m	1.544 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

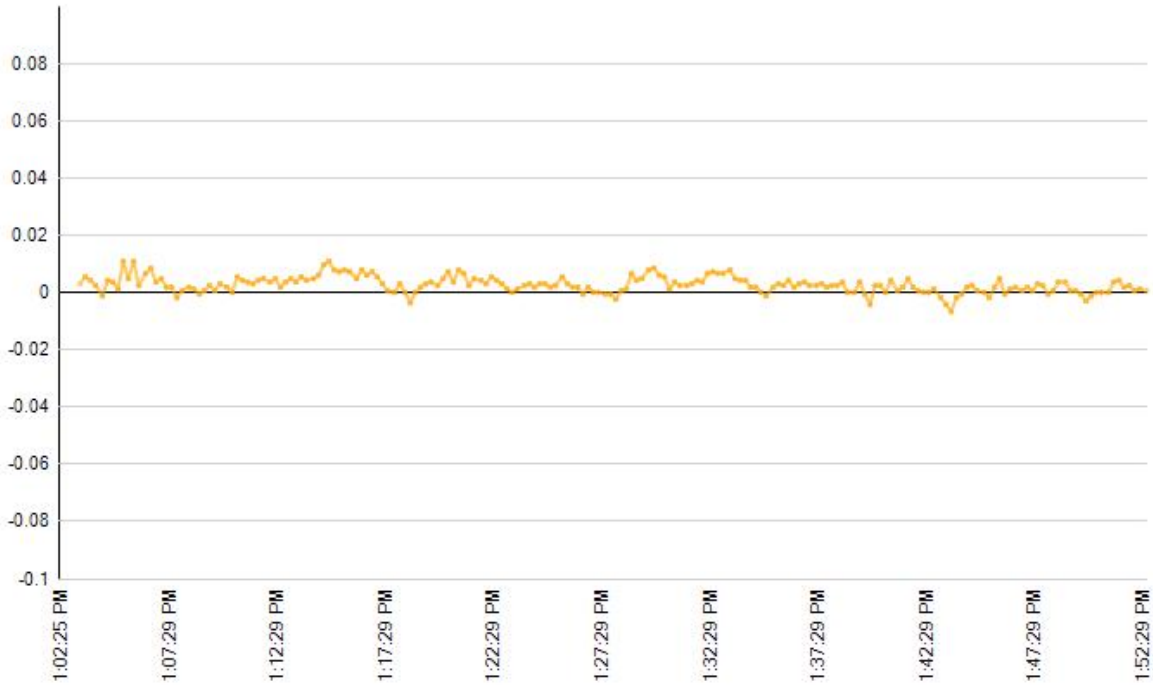
Tracking Summary

SV	4/15/2015 1:02:10 PM	Duration: 00:50:35	Major interval: 00:10:00	4/15/2015 1:52:45 PM
G 3	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 19	L1 L2			
G 20	L1 L2			
G 23	L1 L2			
G 27	L1 L2			
G 30	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals



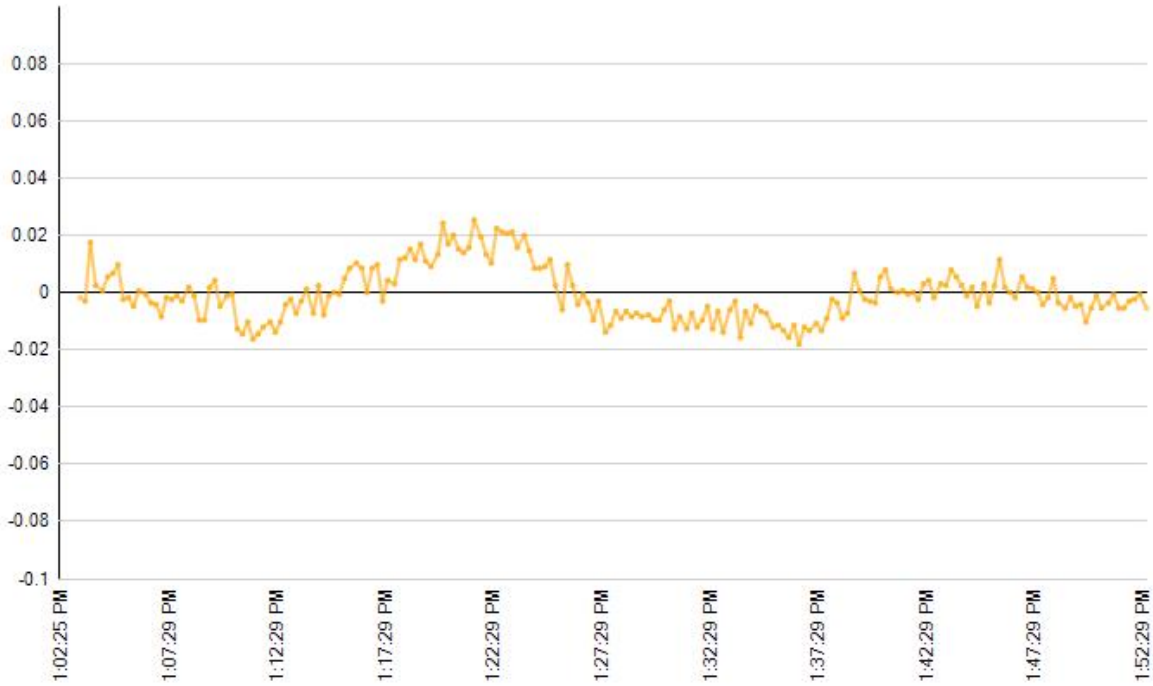
Mean = 0.003 m Std. Dev. = 0.003 m Min. = -0.007 m Max. = 0.011 m



G 9

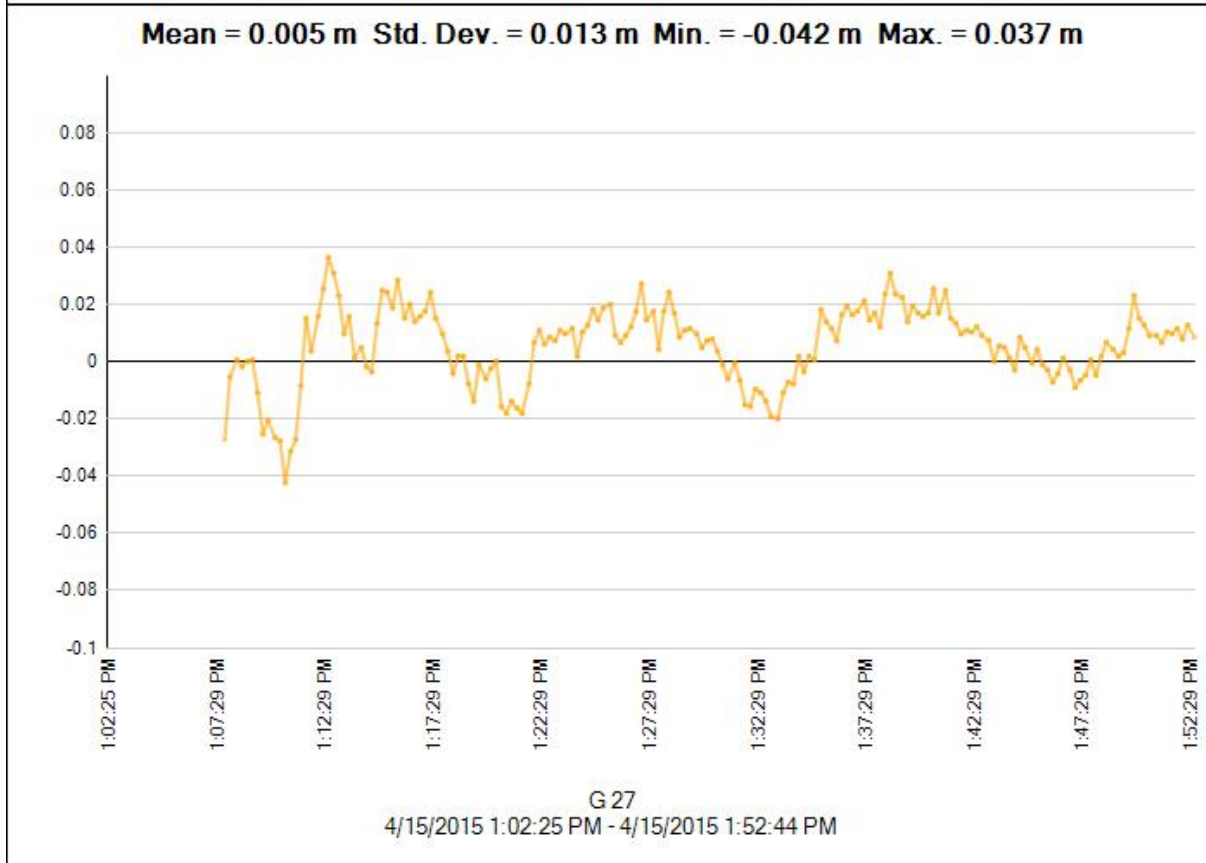
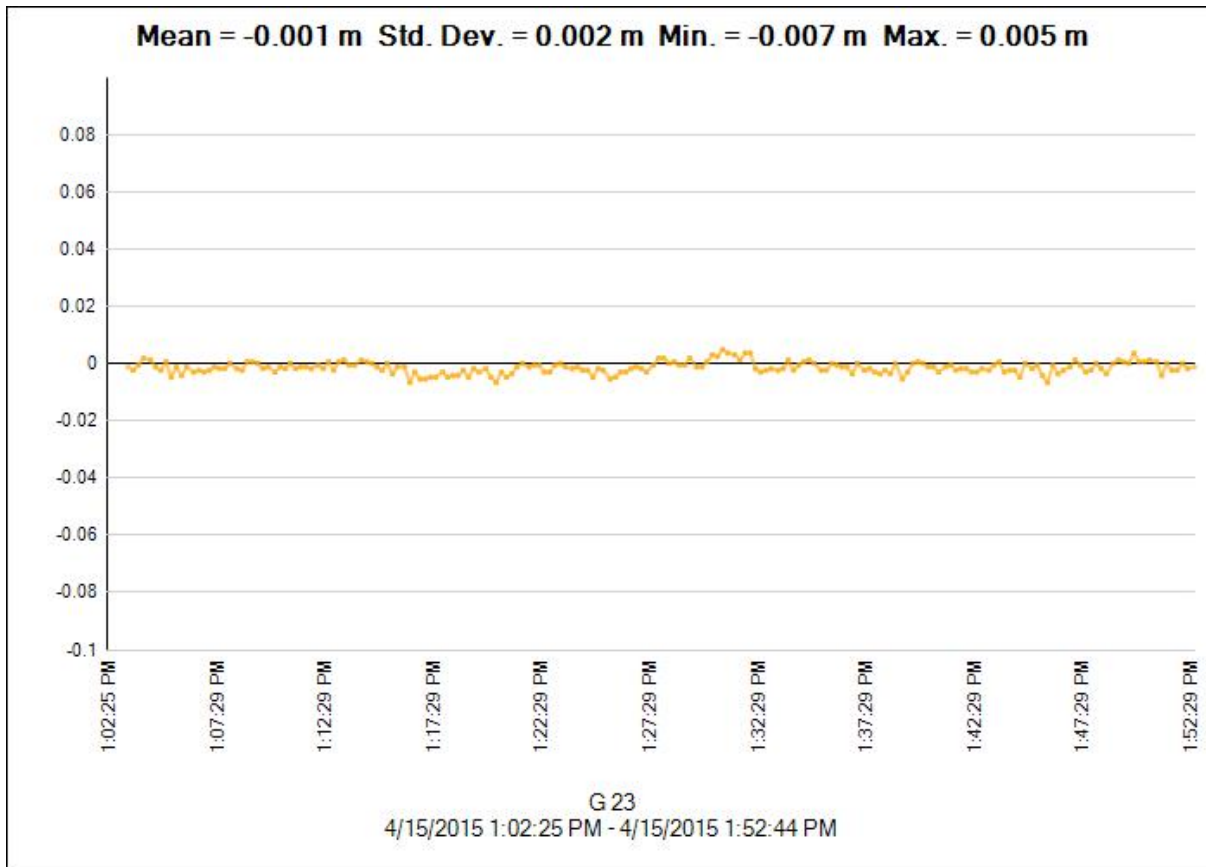
4/15/2015 1:02:25 PM - 4/15/2015 1:52:44 PM

Mean = -0.001 m Std. Dev. = 0.009 m Min. = -0.018 m Max. = 0.025 m



G 10



4/15/2015 1:02:25 PM - 4/15/2015 1:52:44 PM



Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS626 (11:12:15 AM-11:48:12 AM) (S18)

Baseline observation: NR0224 --- CAS626 (B18)
Processed: 7/1/2015 8:49:48 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.010 m
Vertical precision: 0.028 m
RMS: 0.001 m
Maximum PDOP: 6.308
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 4/15/2015 11:12:29 AM (Local: UTC-6hr)
Processing stop time: 4/15/2015 11:47:59 AM (Local: UTC-6hr)
Processing duration: 00:35:30
Processing interval: 15 seconds

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470639.791 m	Latitude	N42°53'23.99943"	Latitude	N42°53'23.99943"
Northing	365797.292 m	Longitude	W106°28'06.64452"	Longitude	W106°28'06.64452"
Elevation	1617.934 m	Height	1604.764 m	Height	1604.764 m

To:		CAS626			
Grid		Local		Global	
Easting	461693.231 m	Latitude	N42°49'38.33245"	Latitude	N42°49'38.33245"
Northing	358747.323 m	Longitude	W106°34'43.69967"	Longitude	W106°34'43.69967"
Elevation	1632.885 m	Height	1619.826 m	Height	1619.826 m

Vector					
ΔEasting	-8946.560 m	NS Fwd Azimuth	232°20'59"	ΔX	-9994.554 m
ΔNorthing	-7049.969 m	Ellipsoid Dist.	11390.576 m	ΔY	-1988.451 m
ΔElevation	14.952 m	ΔHeight	15.062 m	ΔZ	-5095.680 m

Standard Errors

Vector errors:					
σ ΔEasting	0.003 m	σ NS fwd Azimuth	0°00'00"	σ ΔX	0.004 m
σ ΔNorthing	0.004 m	σ Ellipsoid Dist.	0.004 m	σ ΔY	0.009 m
σ ΔElevation	0.014 m	σ ΔHeight	0.014 m	σ ΔZ	0.011 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000164174		
Y	0.0000199599	0.0000884386	
Z	-0.0000219542	-0.0000911644	0.0001240722

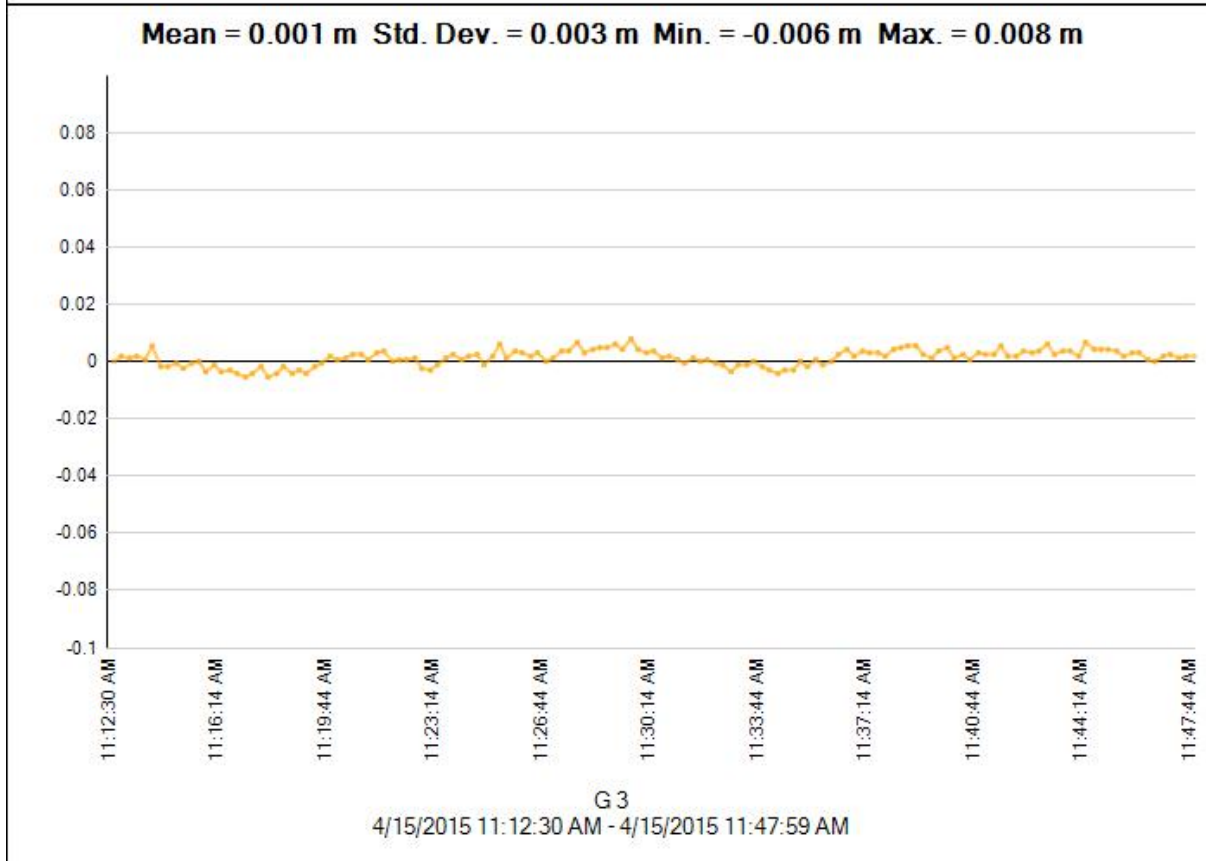
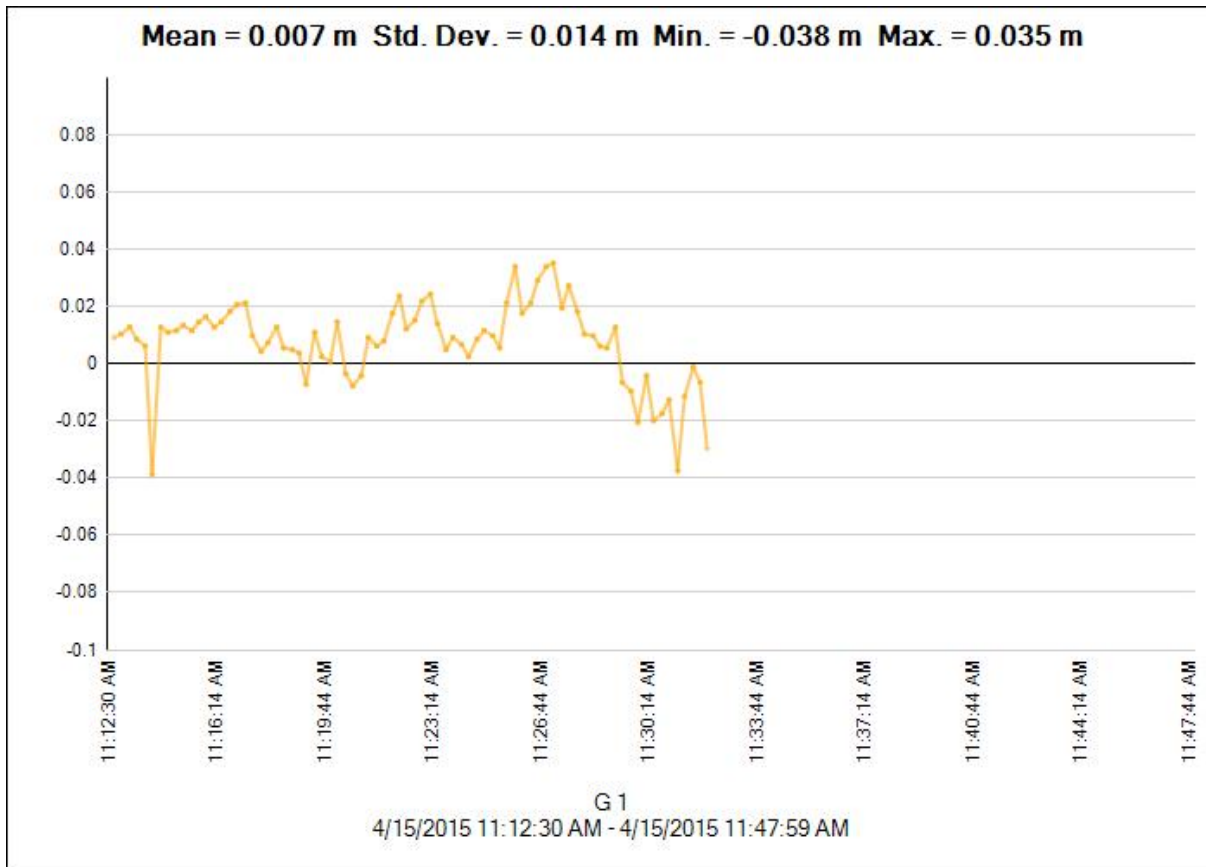
Occupations

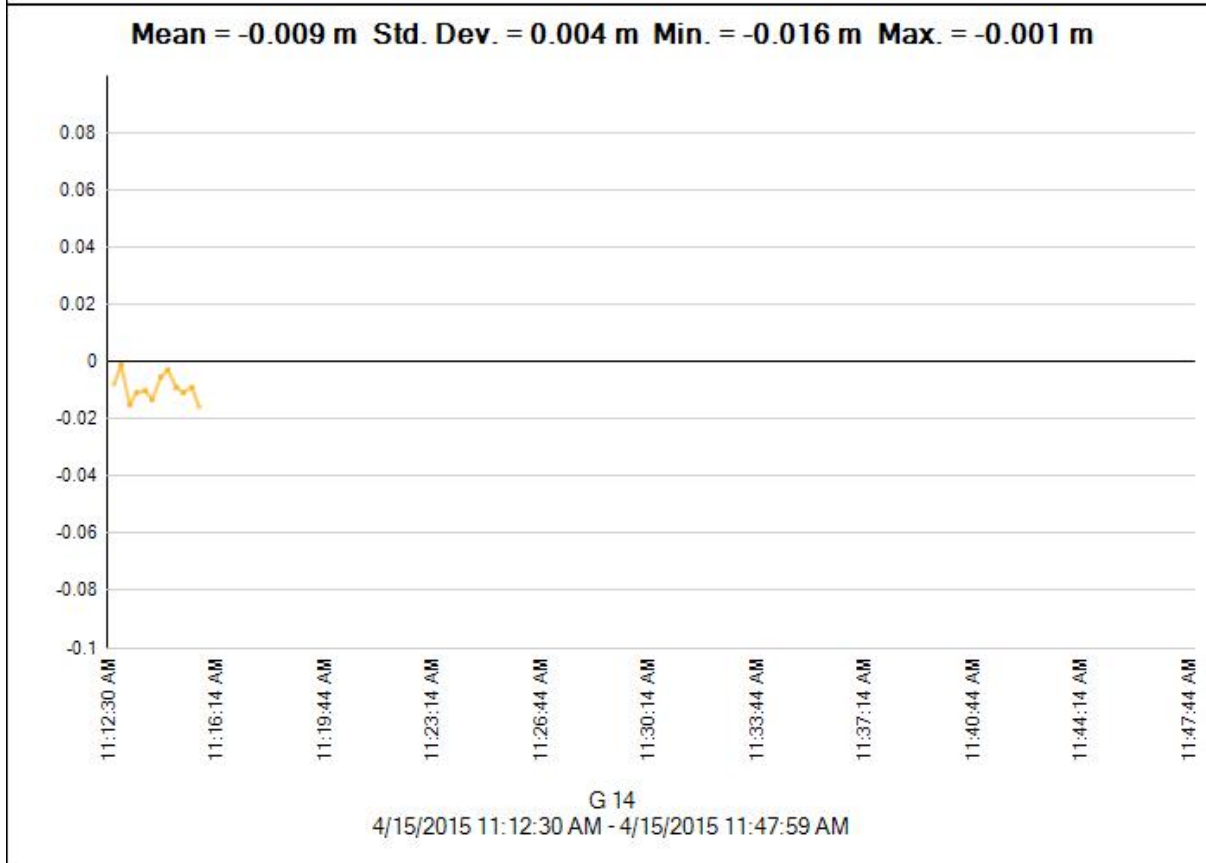
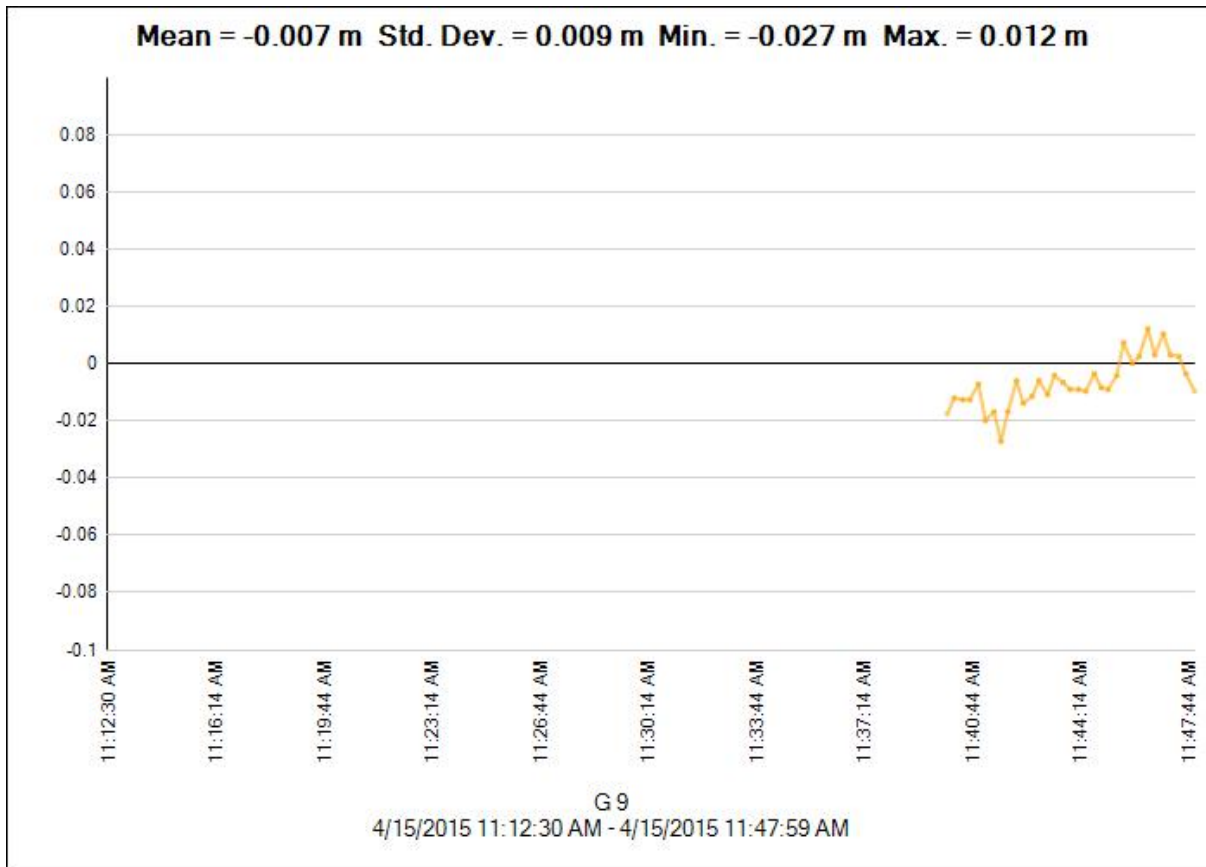
	From	To
Point ID:	NR0224	CAS626
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601050.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801053.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.704 m	1.631 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

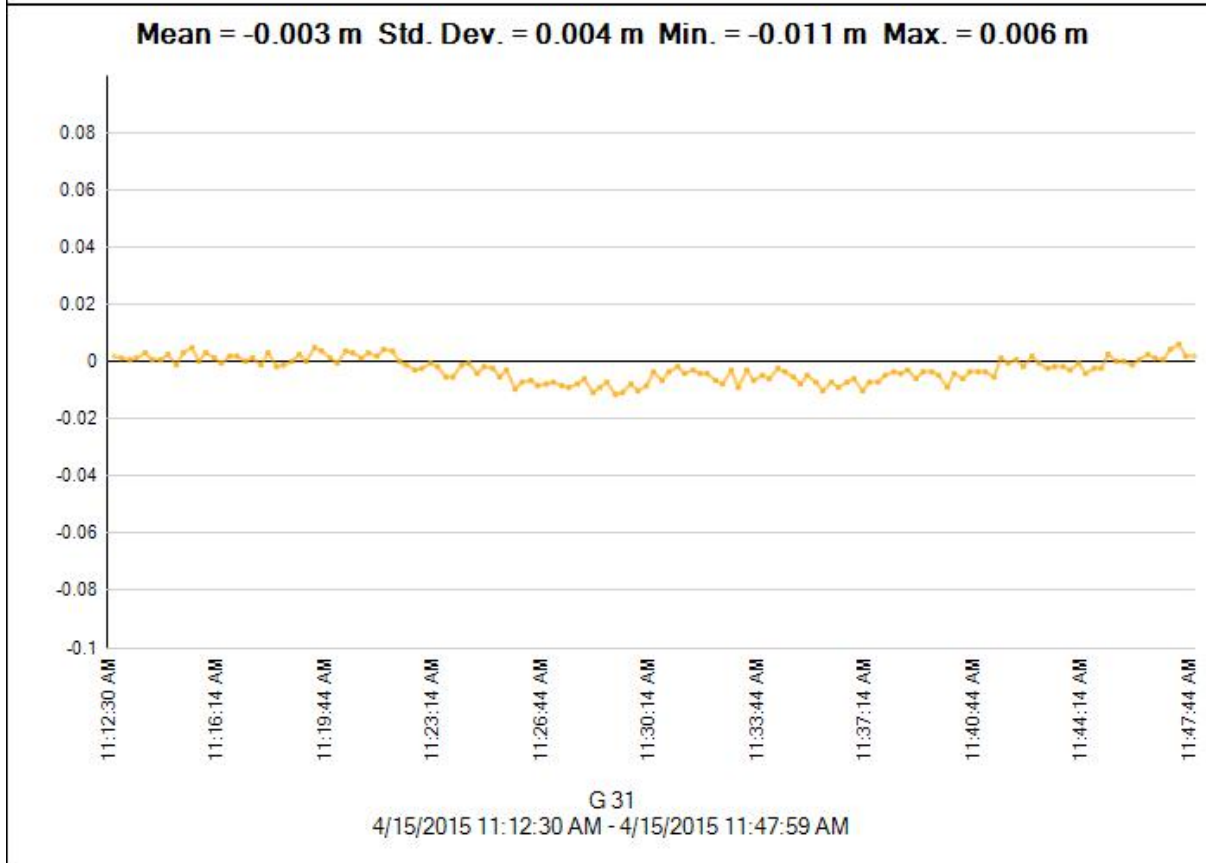
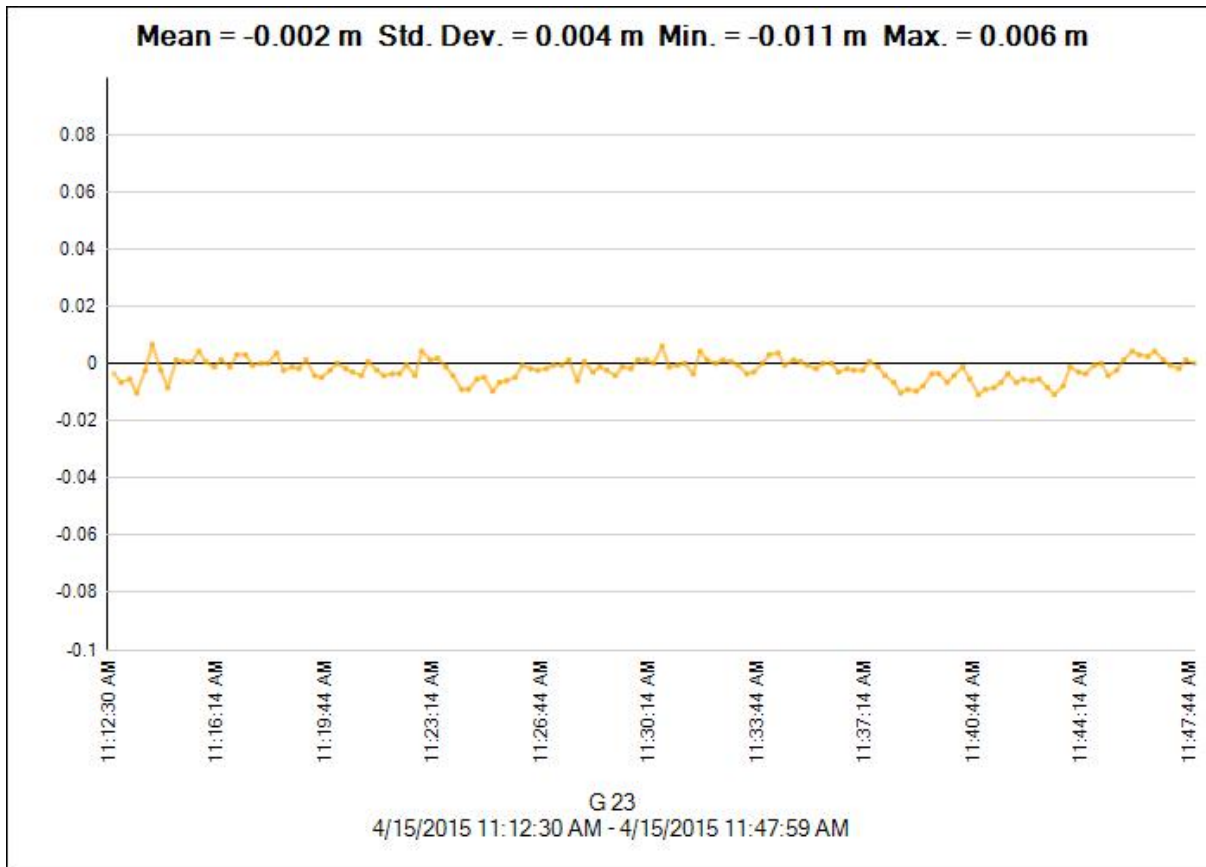
Tracking Summary

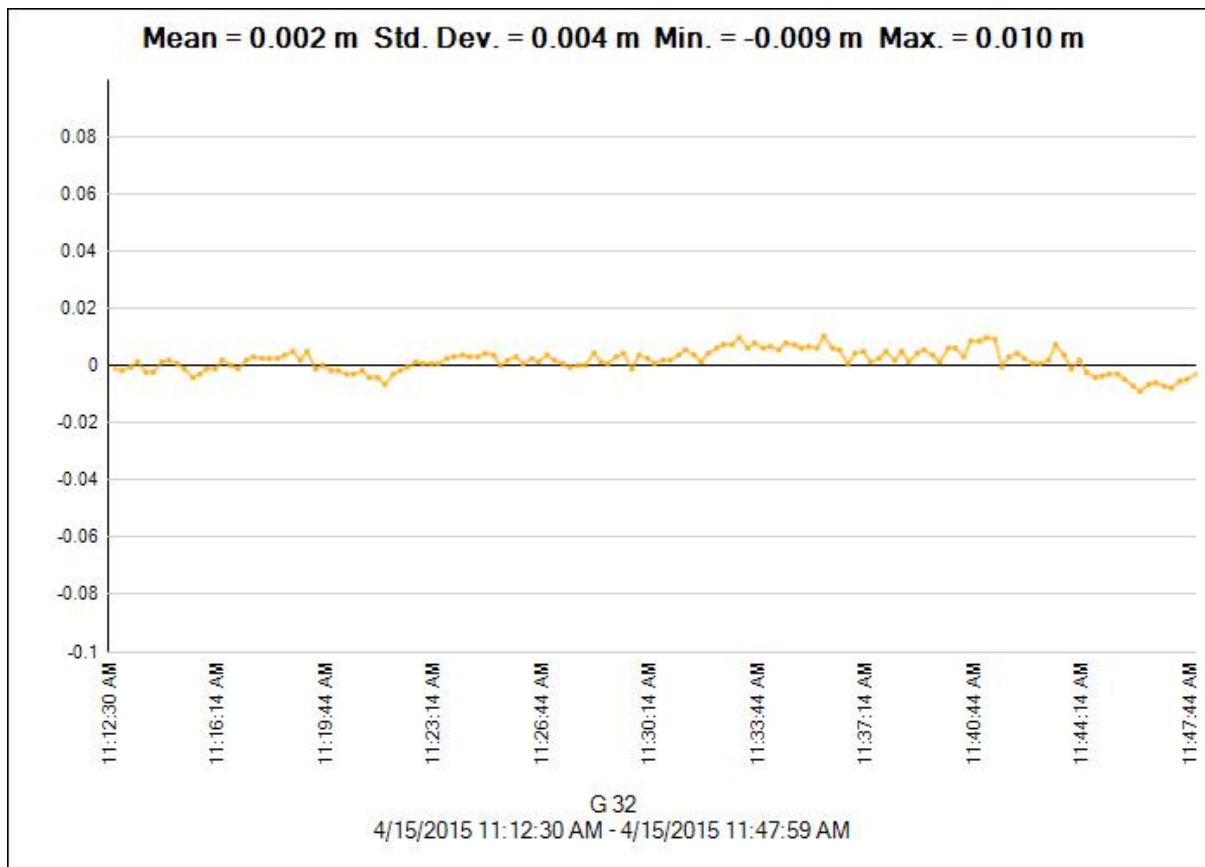
SV	4/15/2015 11:12:15 AM	Duration: 00:35:57	Major interval: 00:01:00	4/15/2015 11:48:12 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 6	L1 L2			
G 9	L1 L2			
G 14	L1 L2			
G 23	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals











Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS301 (10:15:10 AM-10:50:29 AM) (S19)

Baseline observation: NR0224 --- CAS301 (B19)
 Processed: 7/1/2015 8:49:49 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.009 m
 Vertical precision: 0.009 m
 RMS: 0.001 m
 Maximum PDOP: 1.905
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/15/2015 10:15:14 AM (Local: UTC-6hr)
 Processing stop time: 4/15/2015 10:50:29 AM (Local: UTC-6hr)
 Processing duration: 00:35:15
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470639.791 m	Latitude	N42°53'23.99943"	Latitude	N42°53'23.99943"
Northing	365797.292 m	Longitude	W106°28'06.64452"	Longitude	W106°28'06.64452"
Elevation	1617.934 m	Height	1604.764 m	Height	1604.764 m

To: CAS301					
Grid		Local		Global	
Easting	470081.935 m	Latitude	N42°55'56.39406"	Latitude	N42°55'56.39405"
Northing	370494.505 m	Longitude	W106°28'29.11642"	Longitude	W106°28'29.11642"
Elevation	1636.340 m	Height	1623.090 m	Height	1623.090 m

Vector					
ΔEasting	-557.856 m	NS Fwd Azimuth	353°48'57"	ΔX	415.358 m
ΔNorthing	4697.213 m	Ellipsoid Dist.	4730.231 m	ΔY	3202.956 m
ΔElevation	18.406 m	ΔHeight	18.326 m	ΔZ	3457.647 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.003 m
$\sigma \Delta$ Northing	0.004 m	σ Ellipsoid Dist.	0.004 m	$\sigma \Delta$ Y	0.004 m
$\sigma \Delta$ Elevation	0.005 m	$\sigma \Delta$ Height	0.005 m	$\sigma \Delta$ Z	0.004 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000066489		
Y	0.0000032504	0.0000145950	
Z	-0.0000051452	-0.0000034953	0.0000193438

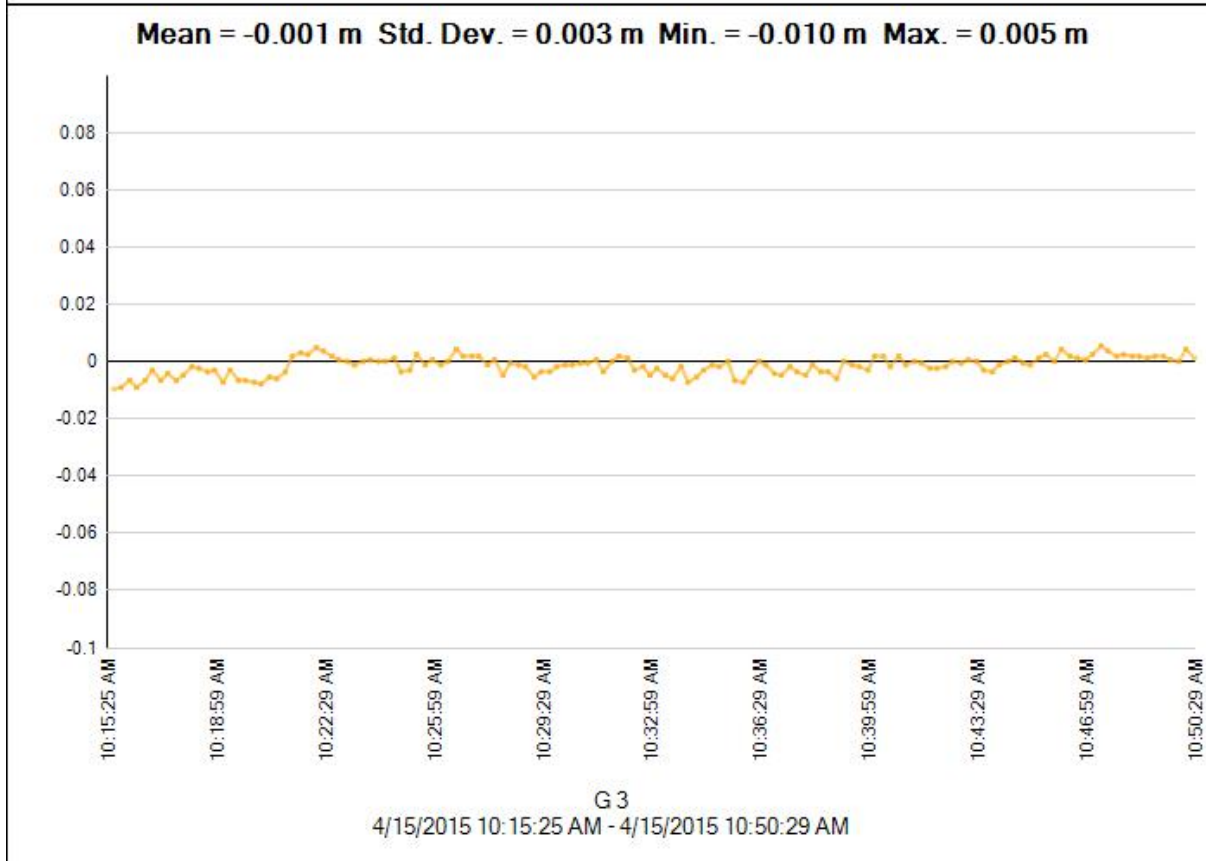
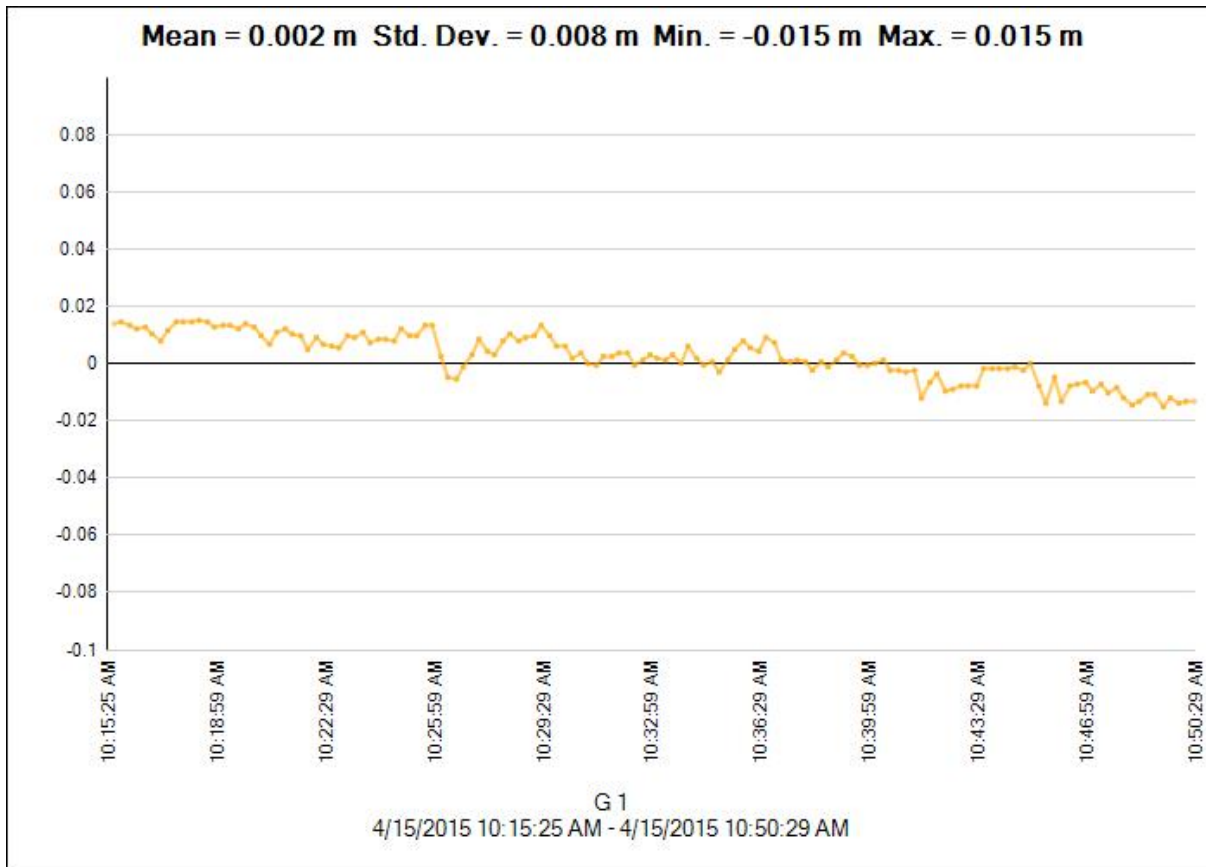
Occupations

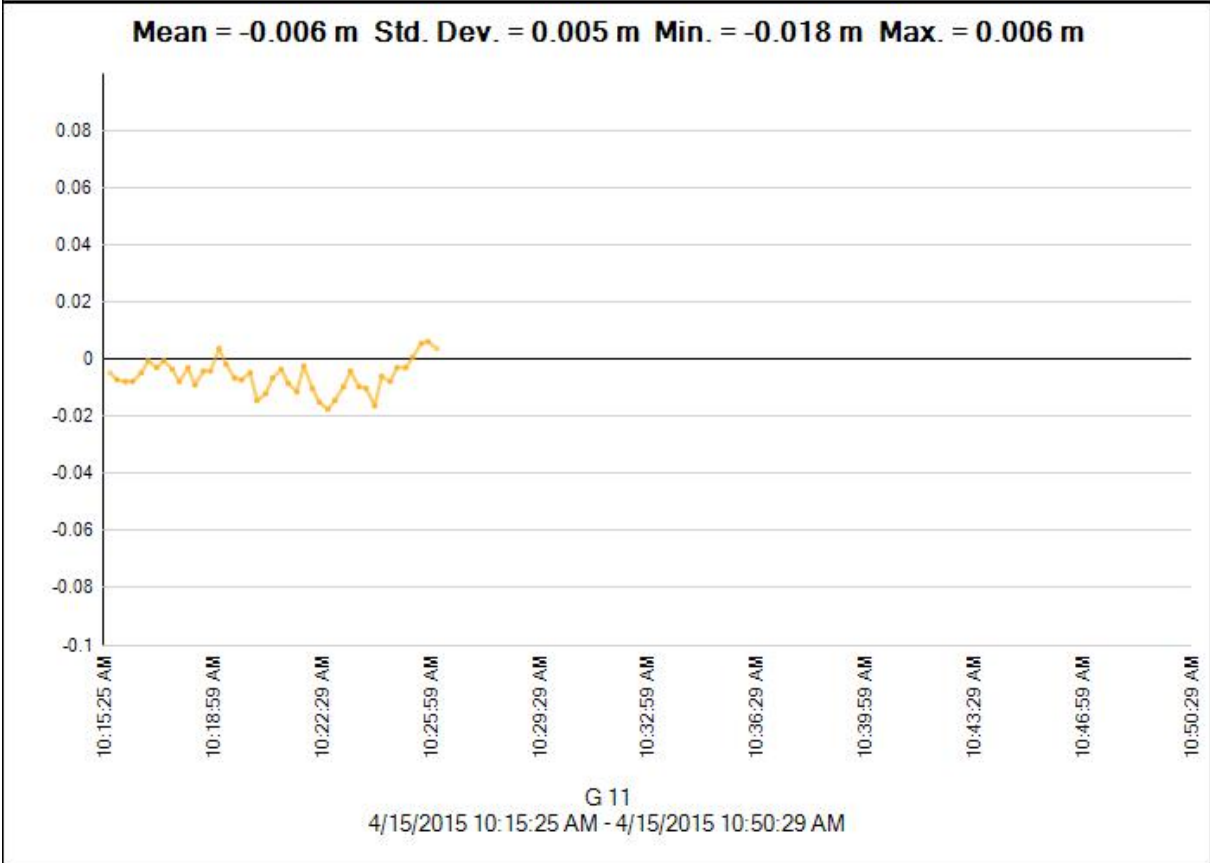
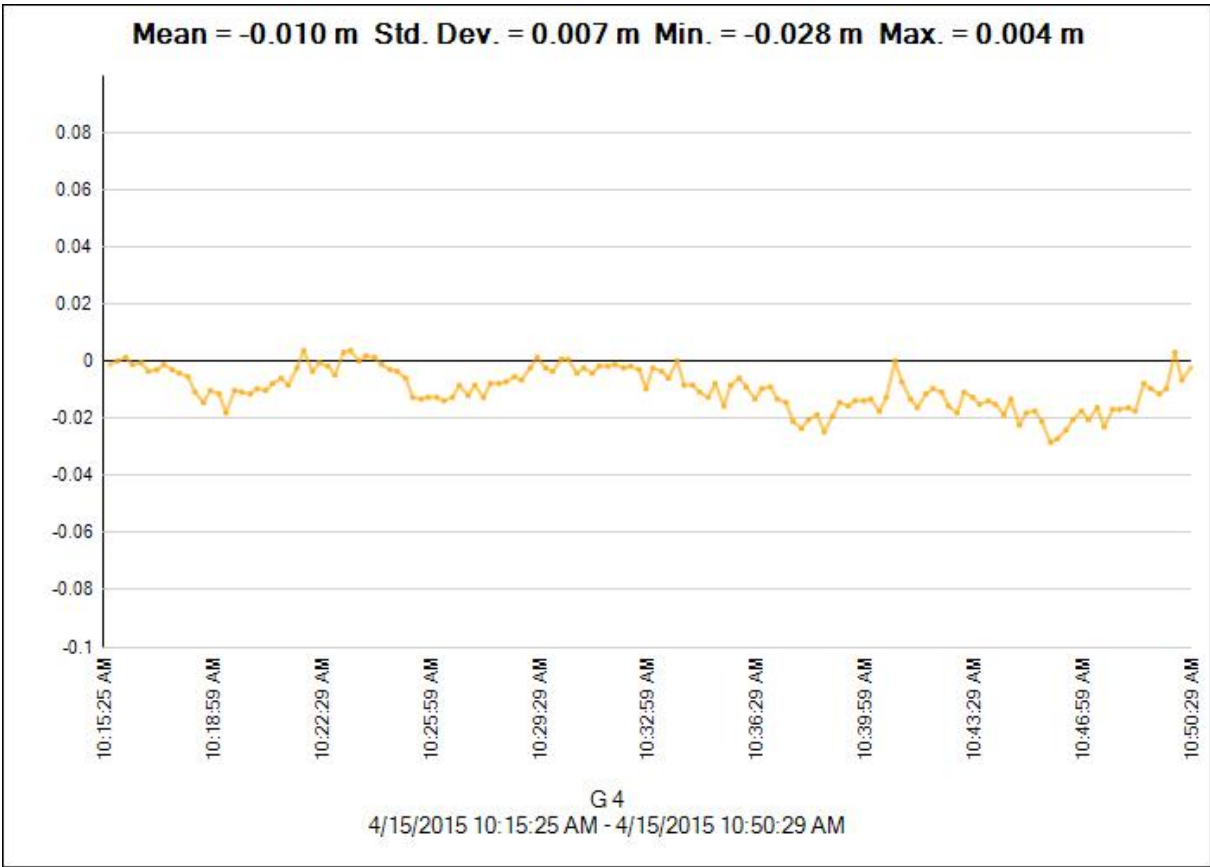
	From	To
Point ID:	NR0224	CAS301
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601050.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801052.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.704 m	1.650 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

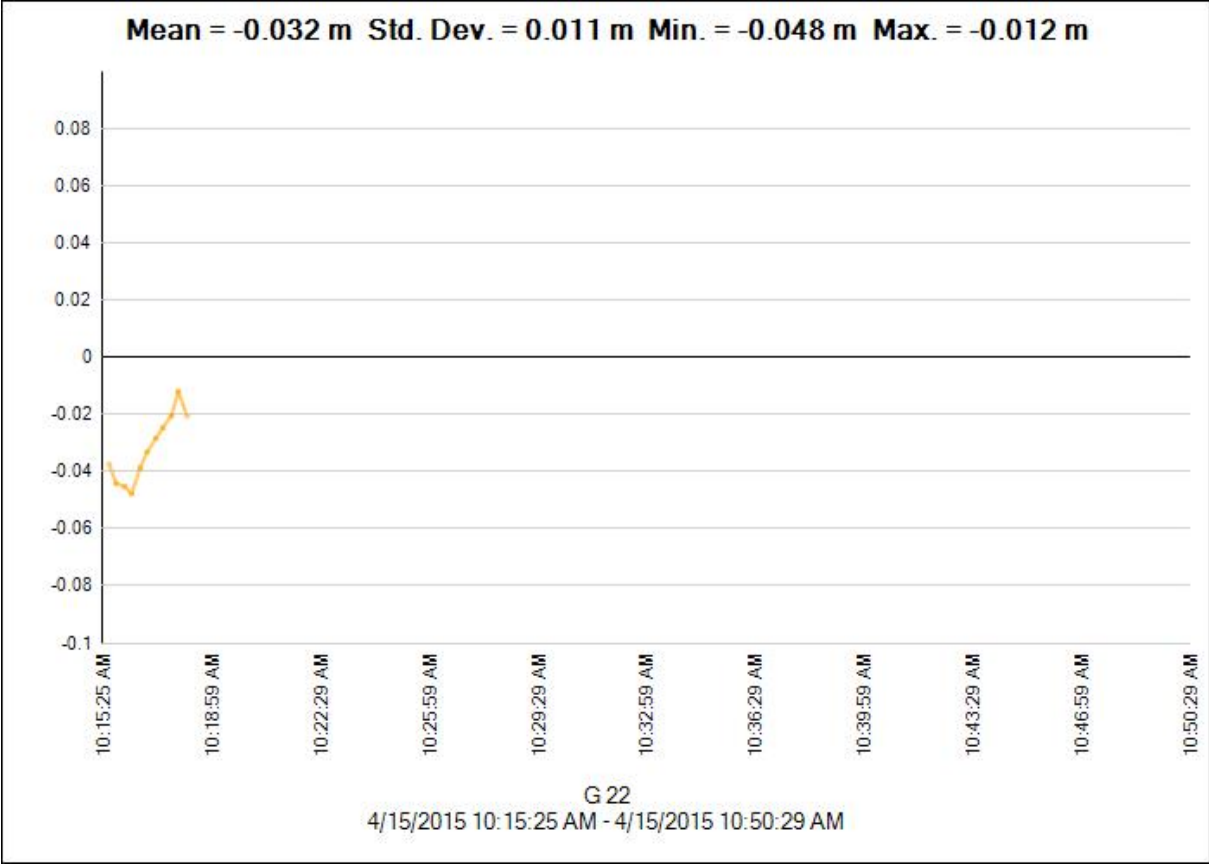
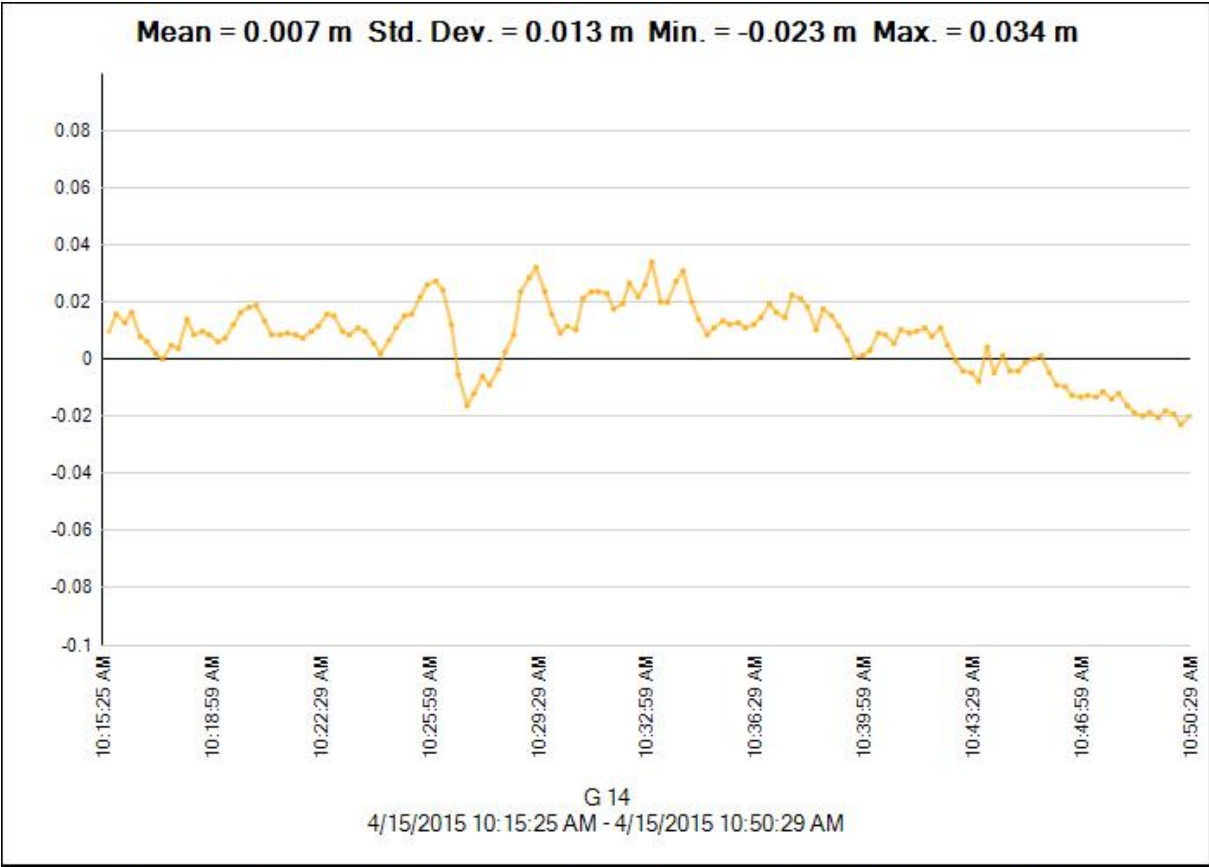
Tracking Summary

SV	4/15/2015 10:15:10 AM	Duration: 00:35:19	Major interval: 00:01:00	4/15/2015 10:50:29 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 11	L1 L2			
G 14	L1 L2			
G 22	L1 L2			
G 23	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

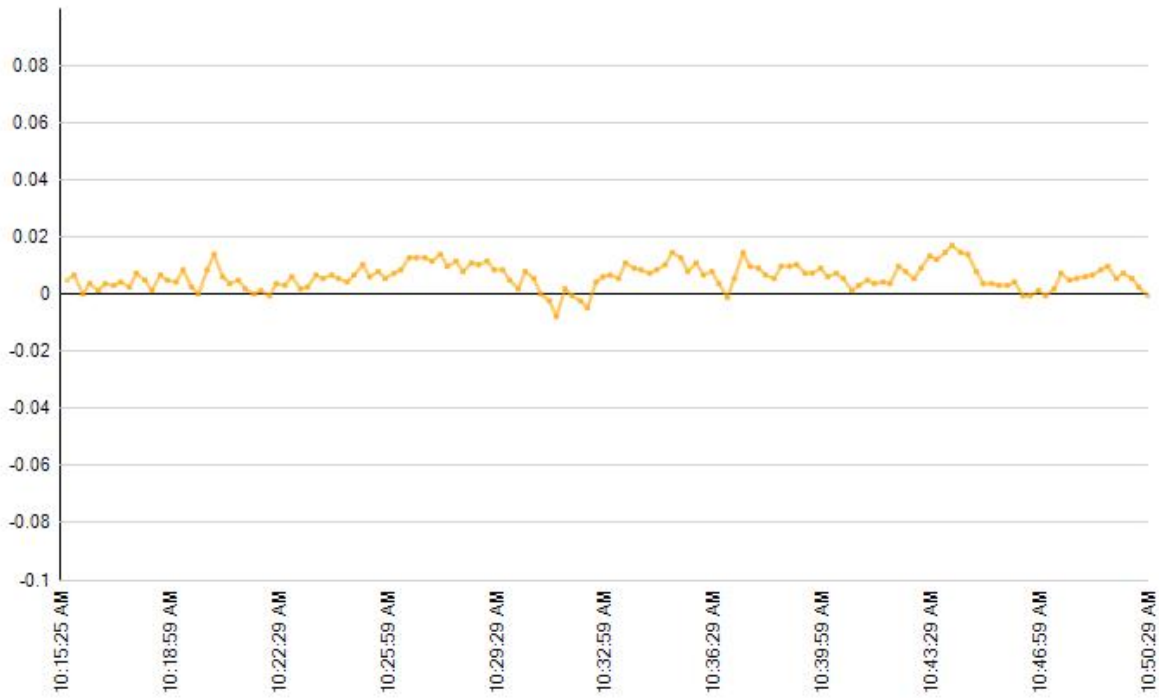
Residuals





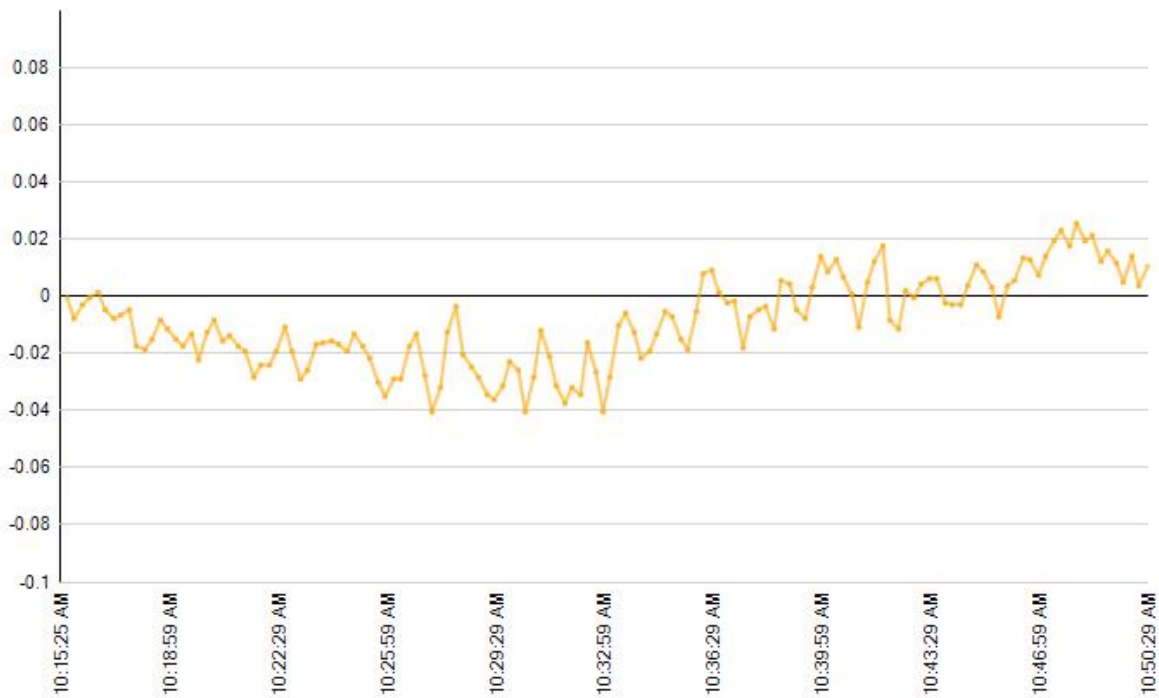


Mean = 0.006 m Std. Dev. = 0.004 m Min. = -0.008 m Max. = 0.017 m



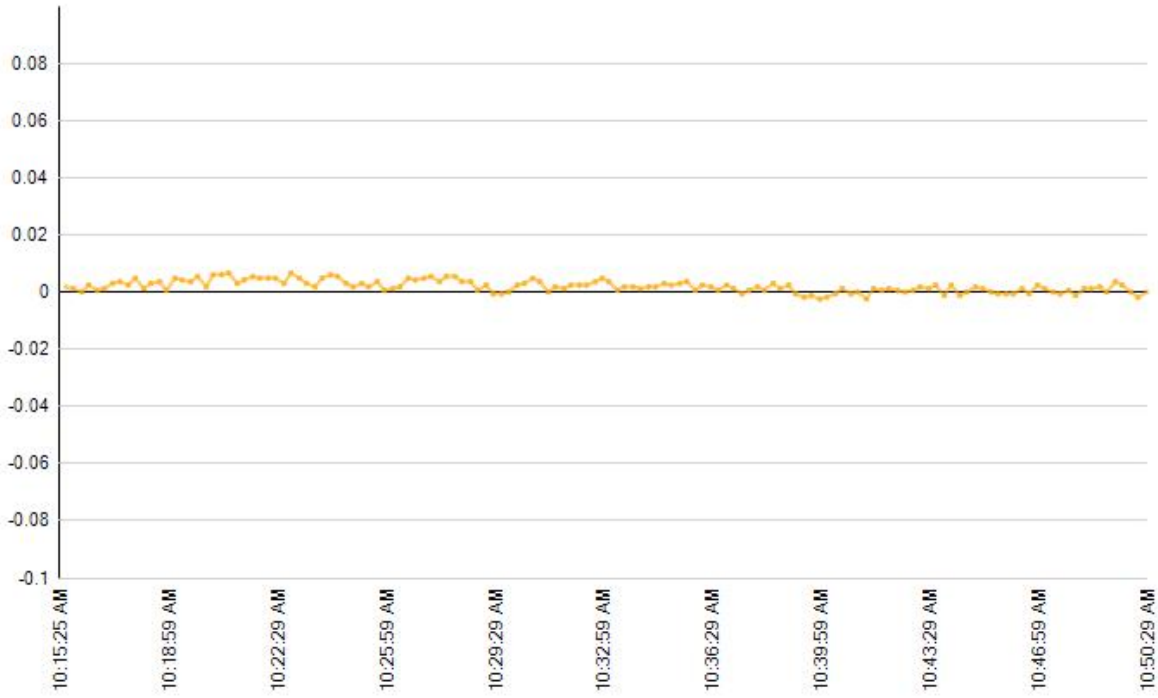
G 23
4/15/2015 10:15:25 AM - 4/15/2015 10:50:29 AM

Mean = -0.009 m Std. Dev. = 0.015 m Min. = -0.040 m Max. = 0.026 m



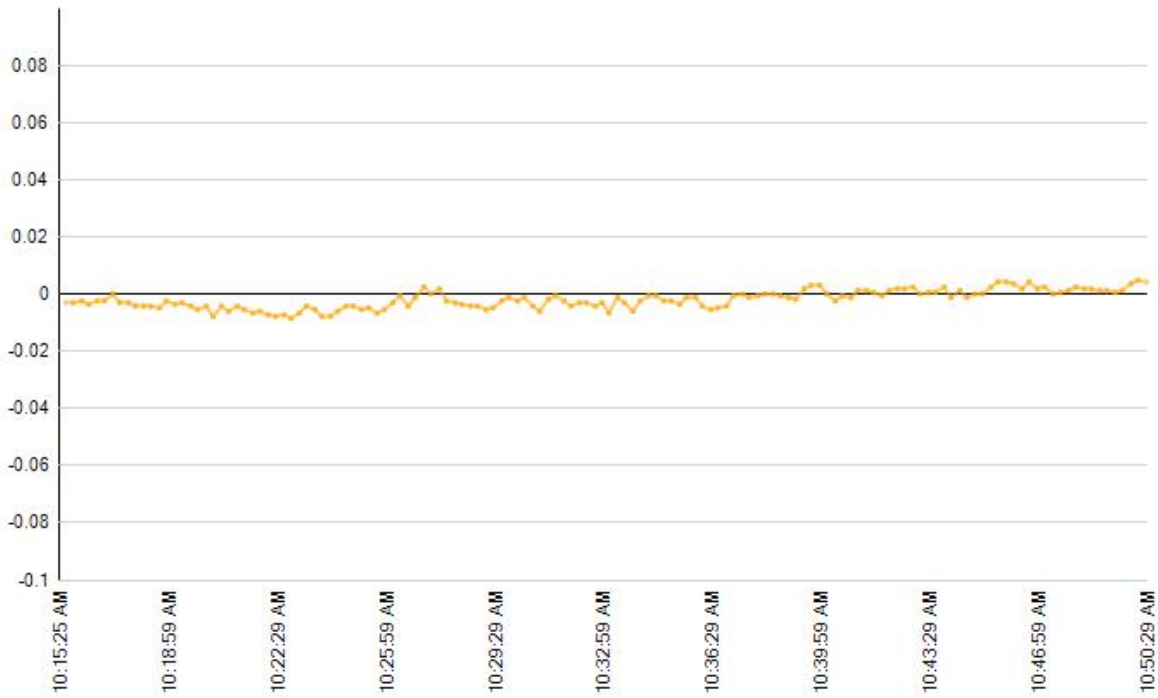
G 25
4/15/2015 10:15:25 AM - 4/15/2015 10:50:29 AM

Mean = 0.002 m Std. Dev. = 0.002 m Min. = -0.002 m Max. = 0.007 m



G 31
4/15/2015 10:15:25 AM - 4/15/2015 10:50:29 AM

Mean = -0.002 m Std. Dev. = 0.003 m Min. = -0.009 m Max. = 0.005 m





G 32
4/15/2015 10:15:25 AM - 4/15/2015 10:50:29 AM

Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS311 (9:24:05 AM-9:59:22 AM) (S20)

Baseline observation: NR0224 --- CAS311 (B20)
Processed: 7/1/2015 8:49:49 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.005 m
Vertical precision: 0.007 m
RMS: 0.000 m
Maximum PDOP: 2.058
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 4/15/2015 9:24:14 AM (Local: UTC-6hr)
Processing stop time: 4/15/2015 9:59:14 AM (Local: UTC-6hr)
Processing duration: 00:35:00
Processing interval: 15 seconds

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470639.791 m	Latitude	N42°53'23.99943"	Latitude	N42°53'23.99943"
Northing	365797.292 m	Longitude	W106°28'06.64452"	Longitude	W106°28'06.64452"
Elevation	1617.934 m	Height	1604.764 m	Height	1604.764 m

To:		CAS311			
Grid		Local		Global	
Easting	468644.827 m	Latitude	N42°54'06.22965"	Latitude	N42°54'06.22965"
Northing	367080.307 m	Longitude	W106°29'33.99587"	Longitude	W106°29'33.99587"
Elevation	1618.741 m	Height	1605.556 m	Height	1605.556 m

Vector					
Δ Easting	-1994.963 m	NS Fwd Azimuth	303°20'05"	Δ X	-1649.384 m
Δ Northing	1283.015 m	Ellipsoid Dist.	2371.927 m	Δ Y	1412.617 m
Δ Elevation	0.807 m	Δ Height	0.792 m	Δ Z	955.466 m

Standard Errors

Vector errors:					
σ Δ Easting	0.001 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.002 m
σ Δ Northing	0.002 m	σ Ellipsoid Dist.	0.002 m	σ Δ Y	0.003 m
σ Δ Elevation	0.004 m	σ Δ Height	0.004 m	σ Δ Z	0.003 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000024653		
Y	0.0000020201	0.0000082697	
Z	-0.0000014274	-0.0000034707	0.0000084669

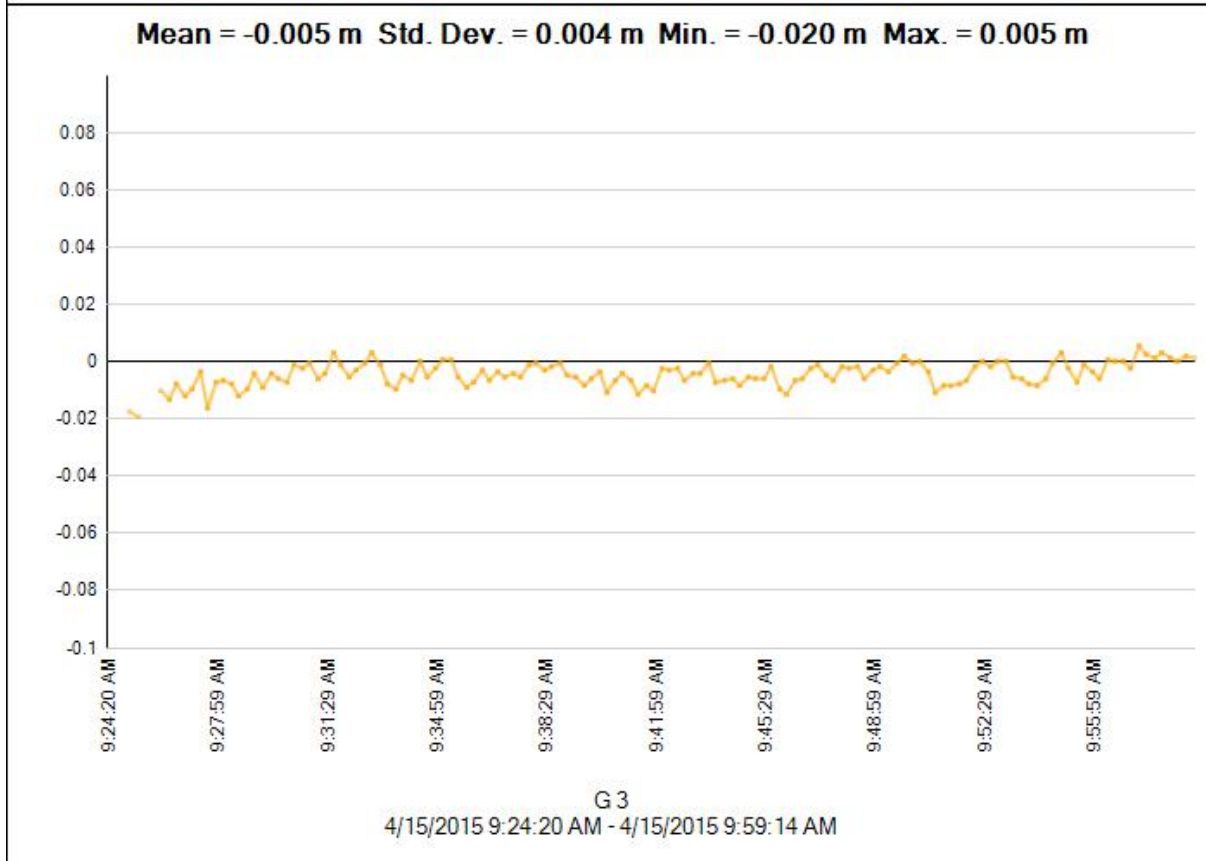
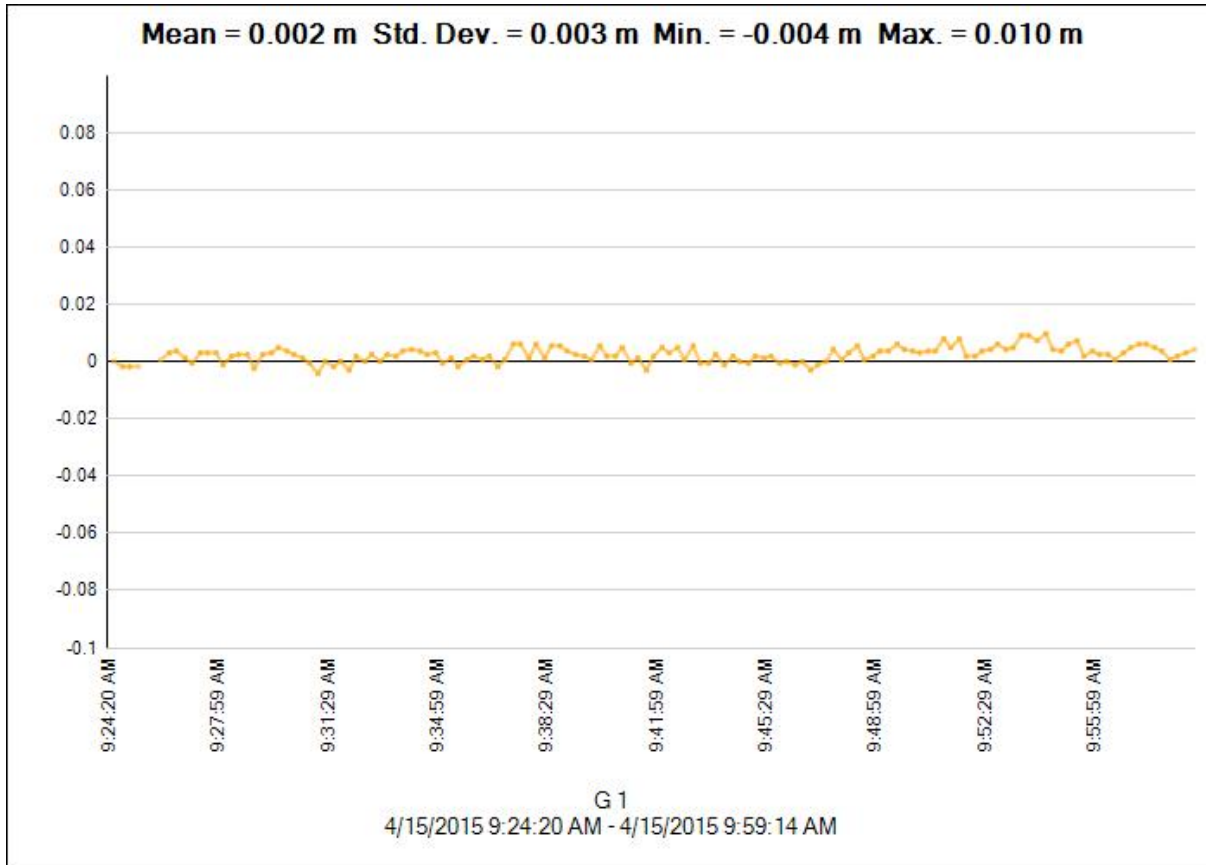
Occupations

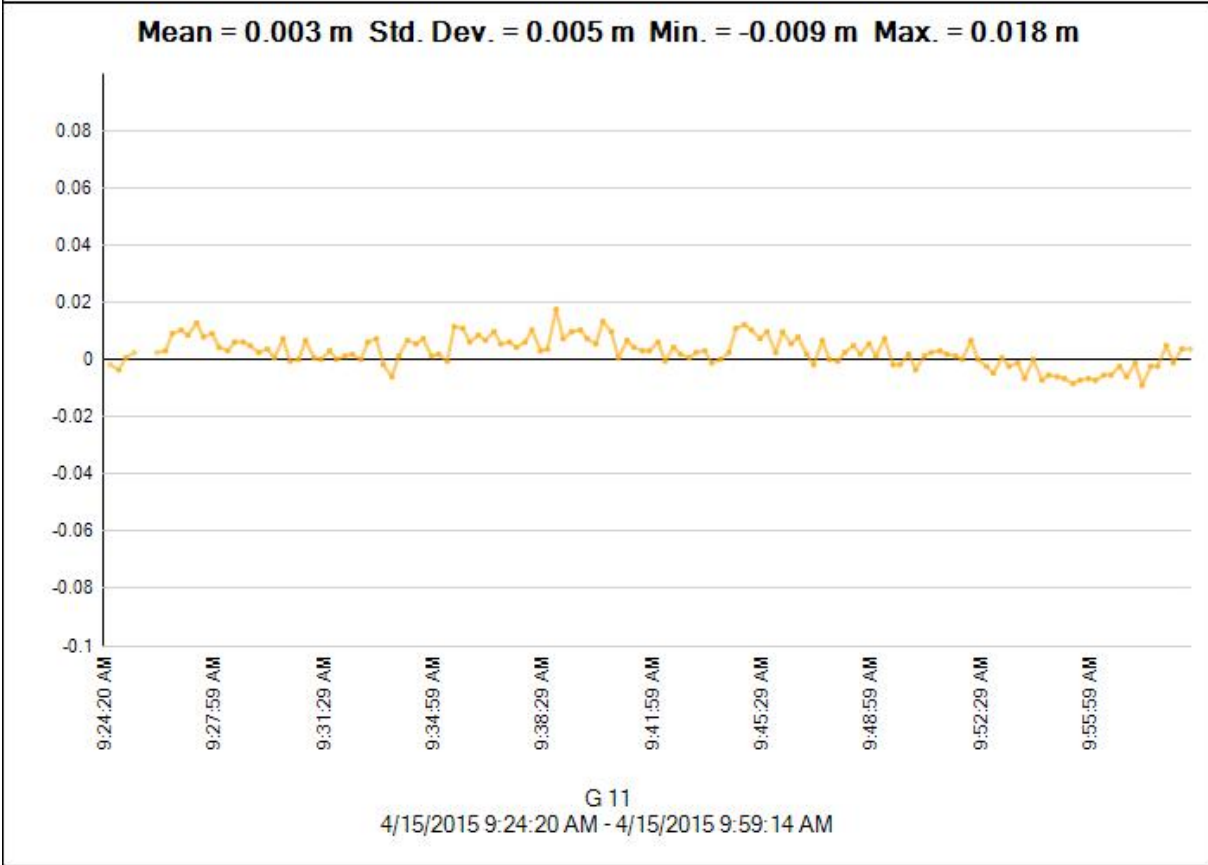
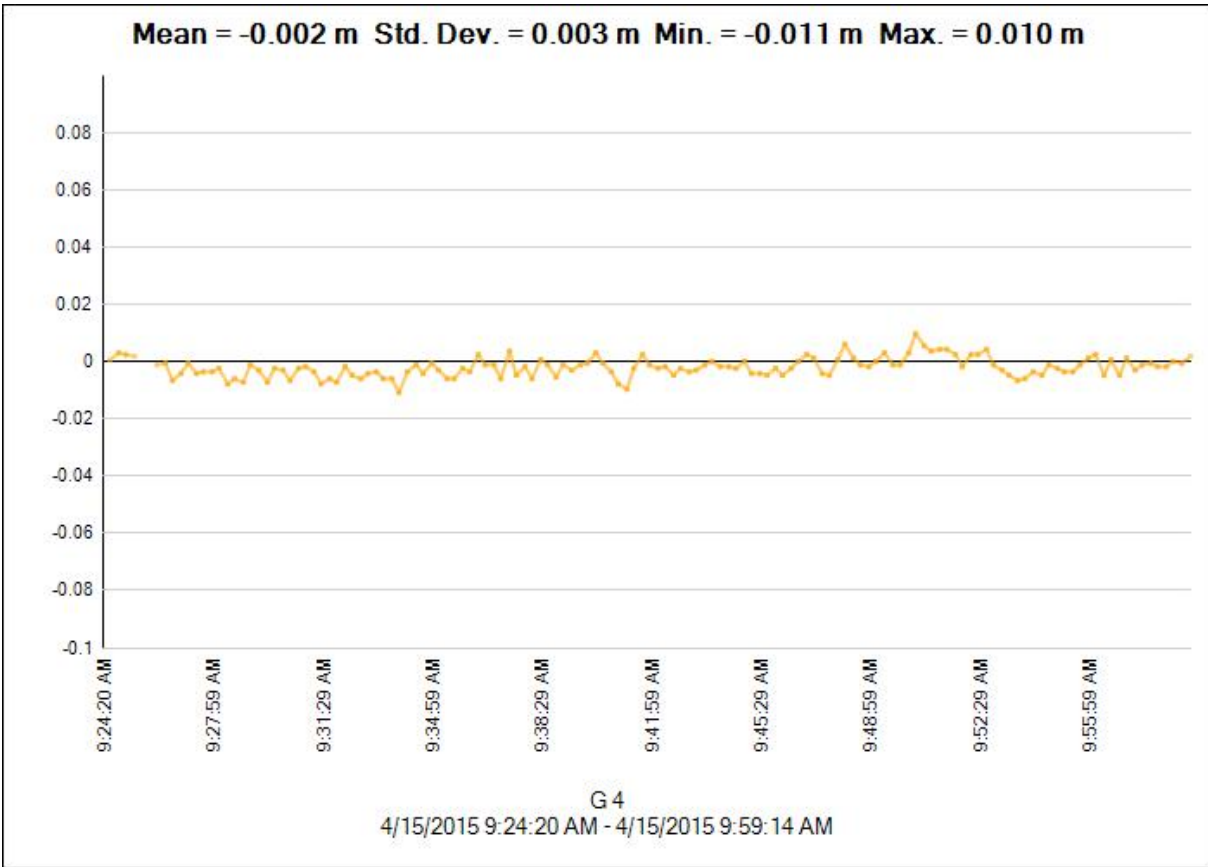
	From	To
Point ID:	NR0224	CAS311
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601050.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801051.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.704 m	1.495 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

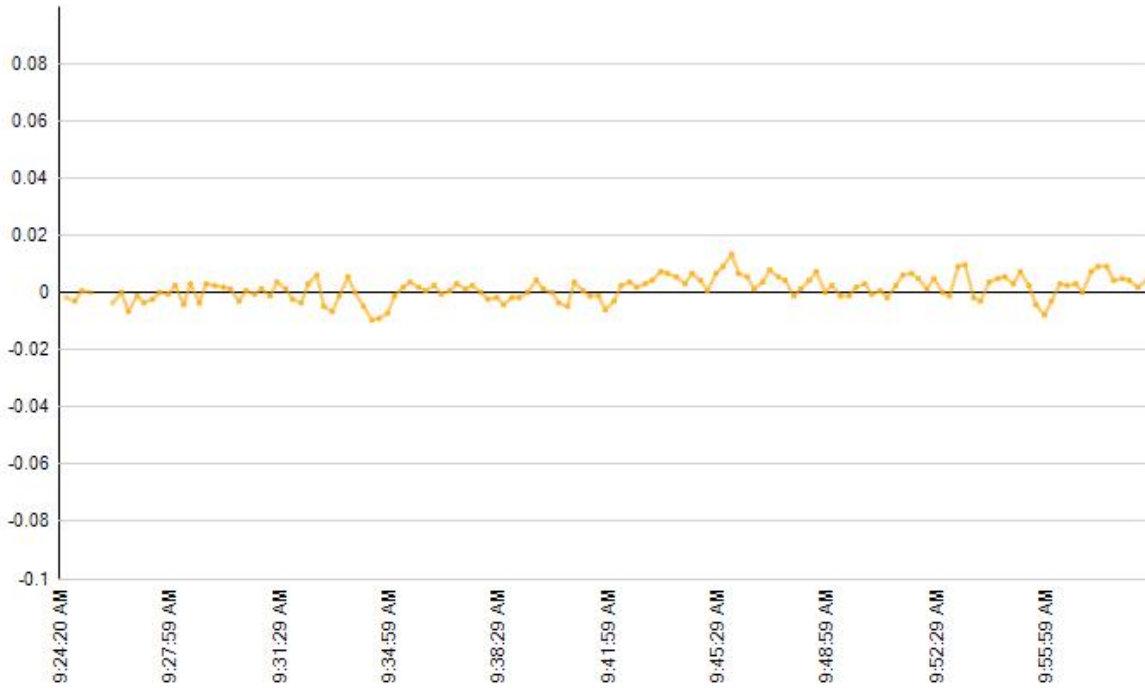
SV	4/15/2015 9:24:05 AM	Duration: 00:35:17	Major interval: 00:01:00	4/15/2015 9:59:22 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 11	L1 L2			
G 12	L1 L2			
G 14	L1 L2			
G 22	L1 L2			
G 23	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals



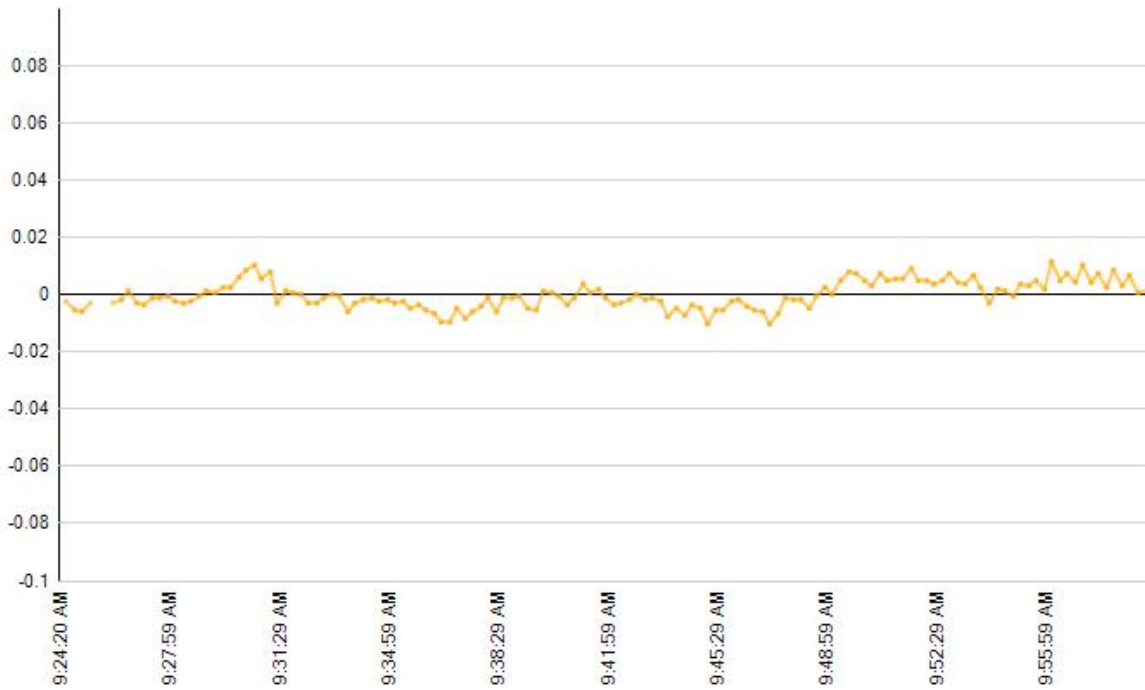


Mean = 0.001 m Std. Dev. = 0.004 m Min. = -0.010 m Max. = 0.013 m

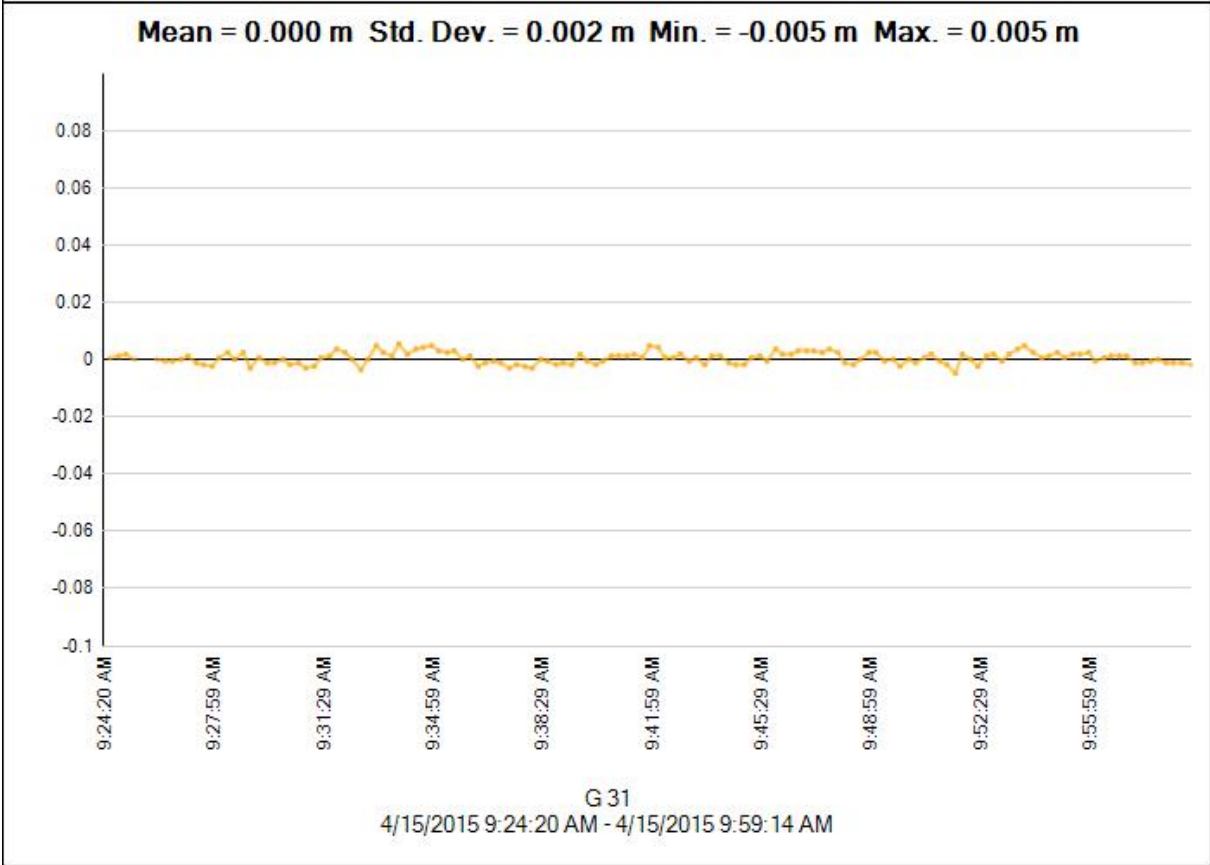
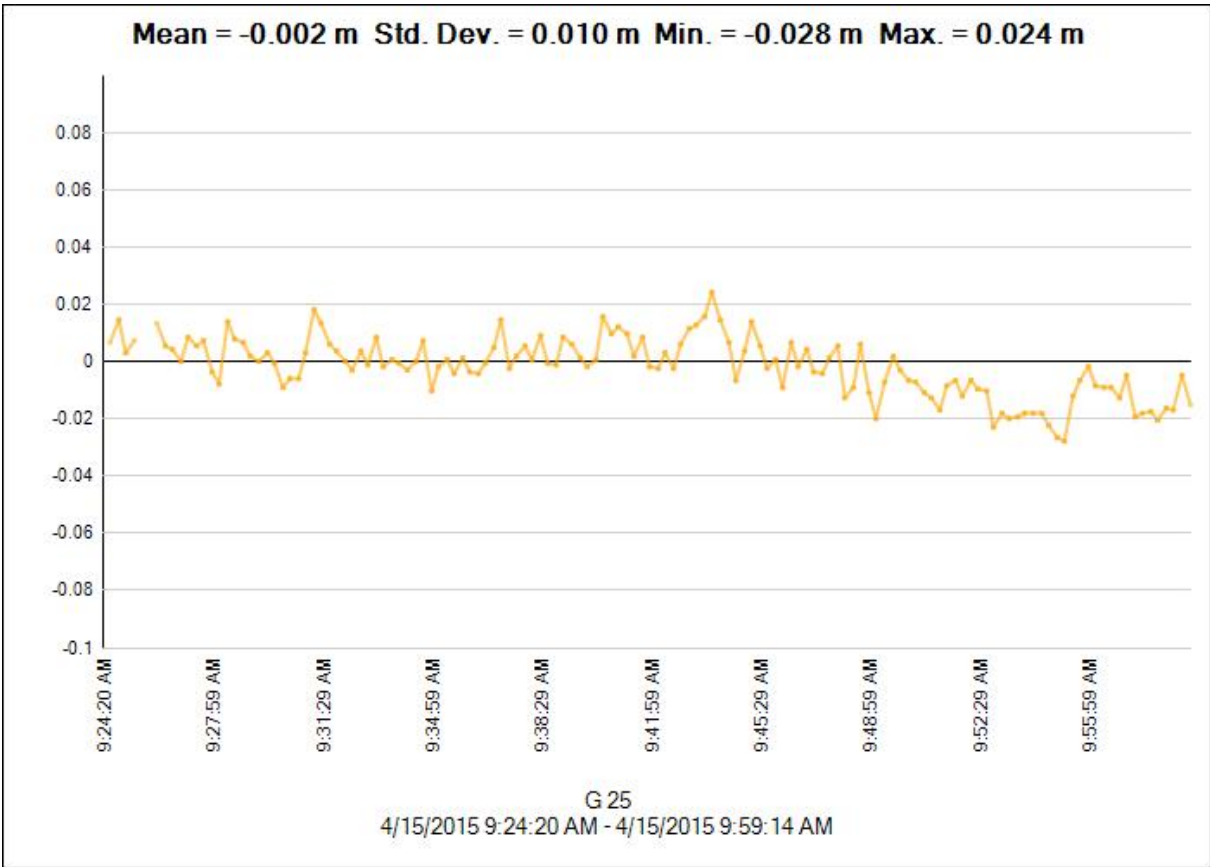


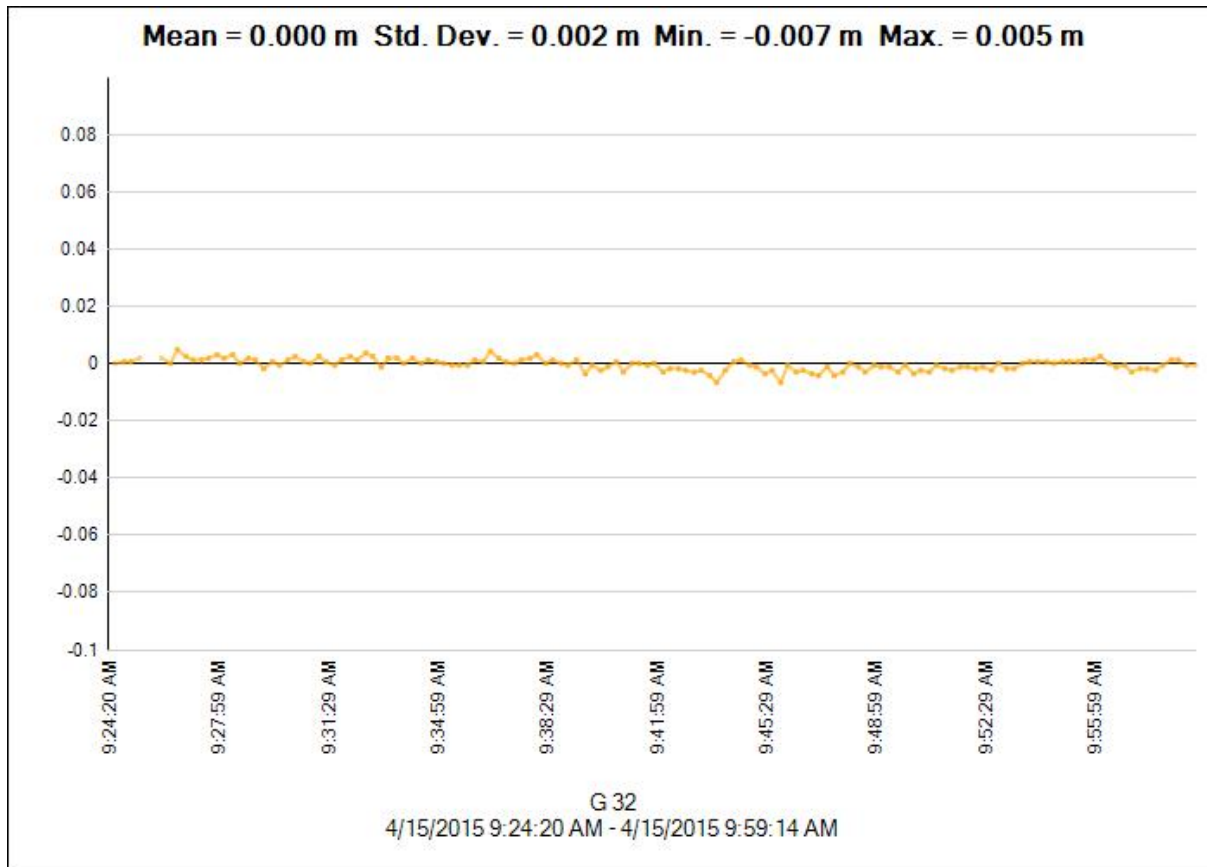
G 14
4/15/2015 9:24:20 AM - 4/15/2015 9:59:14 AM

Mean = 0.000 m Std. Dev. = 0.005 m Min. = -0.010 m Max. = 0.011 m



G 22
4/15/2015 9:24:20 AM - 4/15/2015 9:59:14 AM







Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS310 (8:32:38 AM-9:07:25 AM) (S21)

Baseline observation: NR0224 --- CAS310 (B21)
 Processed: 7/1/2015 8:49:49 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.008 m
 Vertical precision: 0.015 m
 RMS: 0.001 m
 Maximum PDOP: 2.502
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/15/2015 8:32:44 AM (Local: UTC-6hr)
 Processing stop time: 4/15/2015 9:07:14 AM (Local: UTC-6hr)
 Processing duration: 00:34:30
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470639.791 m	Latitude	N42°53'23.99943"	Latitude	N42°53'23.99943"
Northing	365797.292 m	Longitude	W106°28'06.64452"	Longitude	W106°28'06.64452"
Elevation	1617.934 m	Height	1604.764 m	Height	1604.764 m

To: CAS310					
Grid		Local		Global	
Easting	470254.446 m	Latitude	N42°50'20.14322"	Latitude	N42°50'20.14321"
Northing	360119.557 m	Longitude	W106°28'26.17942"	Longitude	W106°28'26.17942"
Elevation	1635.724 m	Height	1622.686 m	Height	1622.686 m

Vector					
ΔEasting	-385.345 m	NS Fwd Azimuth	184°28'16"	ΔX	-1523.650 m
ΔNorthing	-5677.735 m	Ellipsoid Dist.	5690.805 m	ΔY	-3588.880 m
ΔElevation	17.790 m	ΔHeight	17.922 m	ΔZ	-4147.340 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.003 m
$\sigma \Delta$ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.006 m
$\sigma \Delta$ Elevation	0.008 m	$\sigma \Delta$ Height	0.008 m	$\sigma \Delta$ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000105813		
Y	0.0000140083	0.0000349449	
Z	-0.0000074506	-0.0000221562	0.0000271005

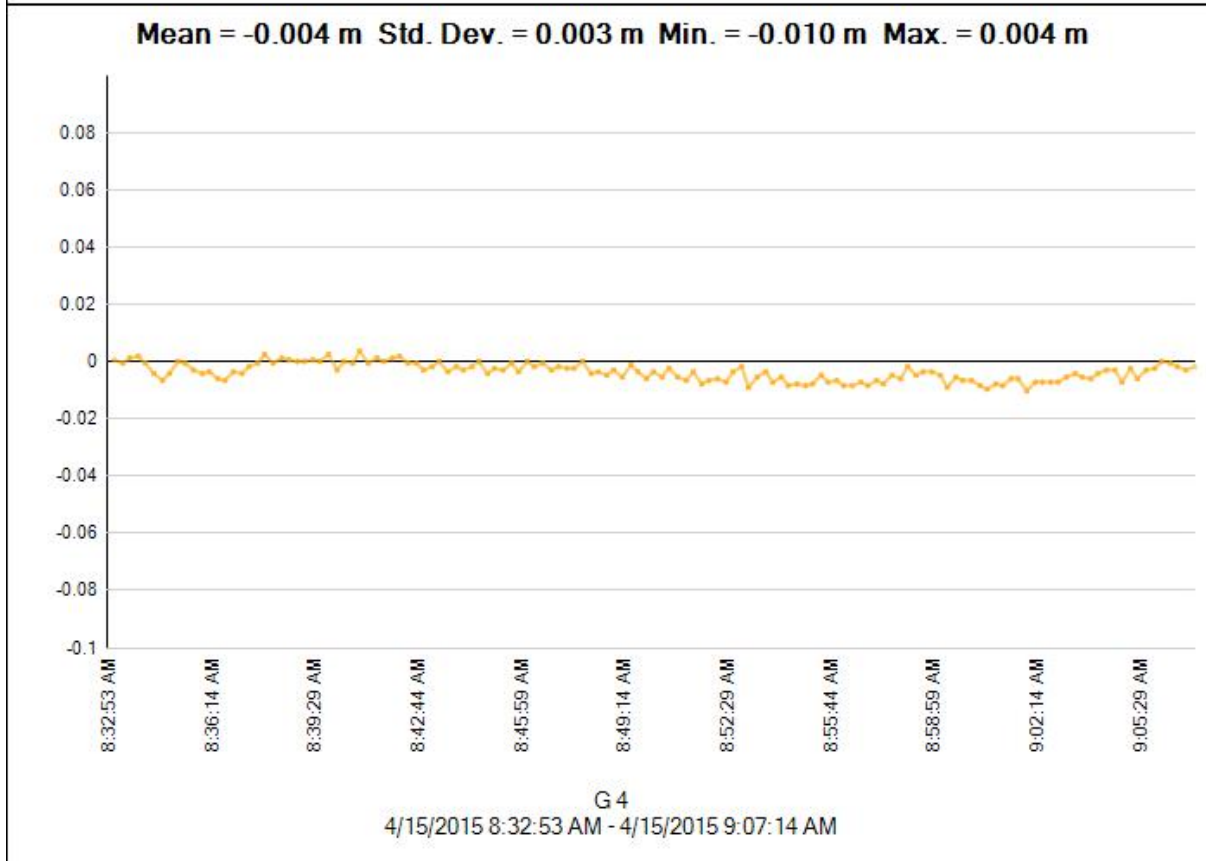
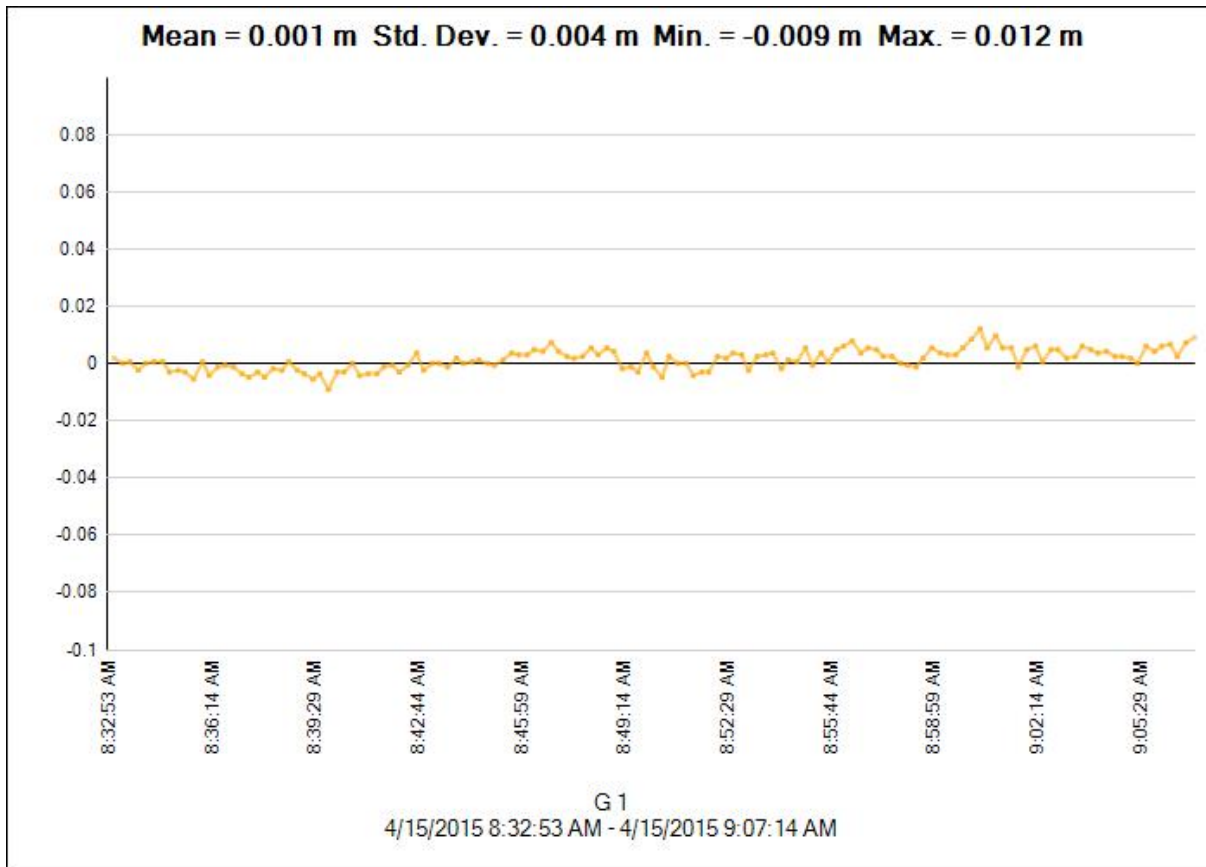
Occupations

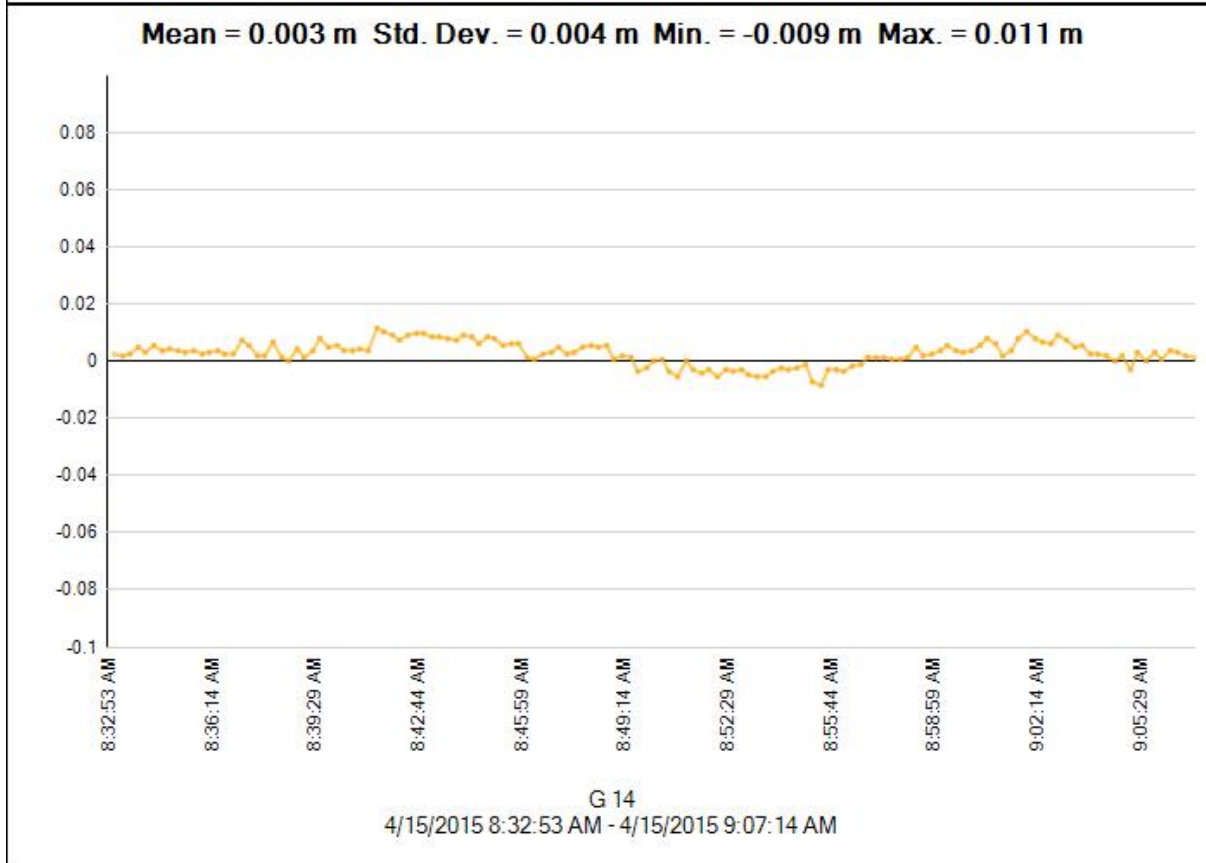
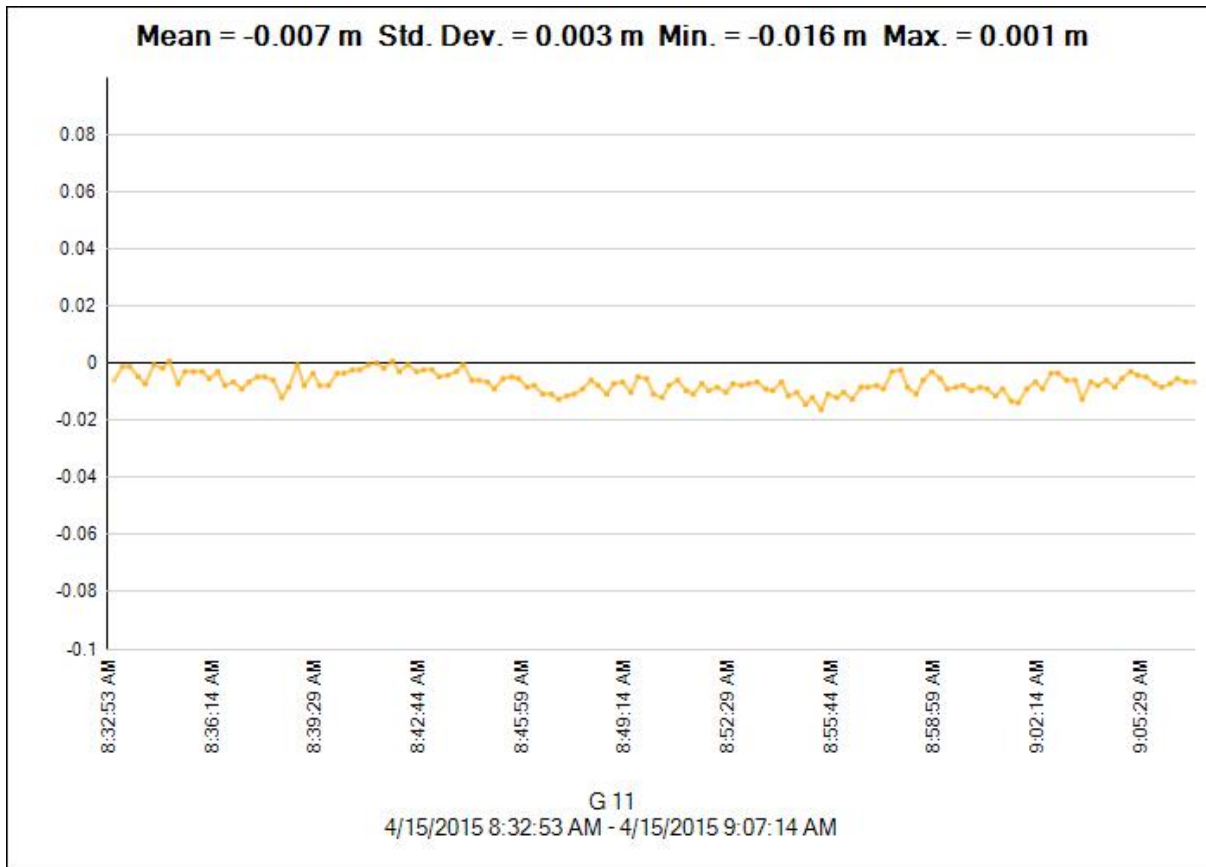
	From	To
Point ID:	NR0224	CAS310
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601050.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801050.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.704 m	1.567 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

SV	4/15/2015 8:32:38 AM	Duration: 00:34:47	Major interval: 00:01:00	4/15/2015 9:07:25 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 11	L1 L2			
G 12	L1 L2			
G 14	L1 L2			
G 18	L1 L2			
G 19	L1 L2			
G 22	L1 L2			
G 24	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals





Mean = 0.012 m Std. Dev. = 0.011 m Min. = -0.005 m Max. = 0.045 m



G 18

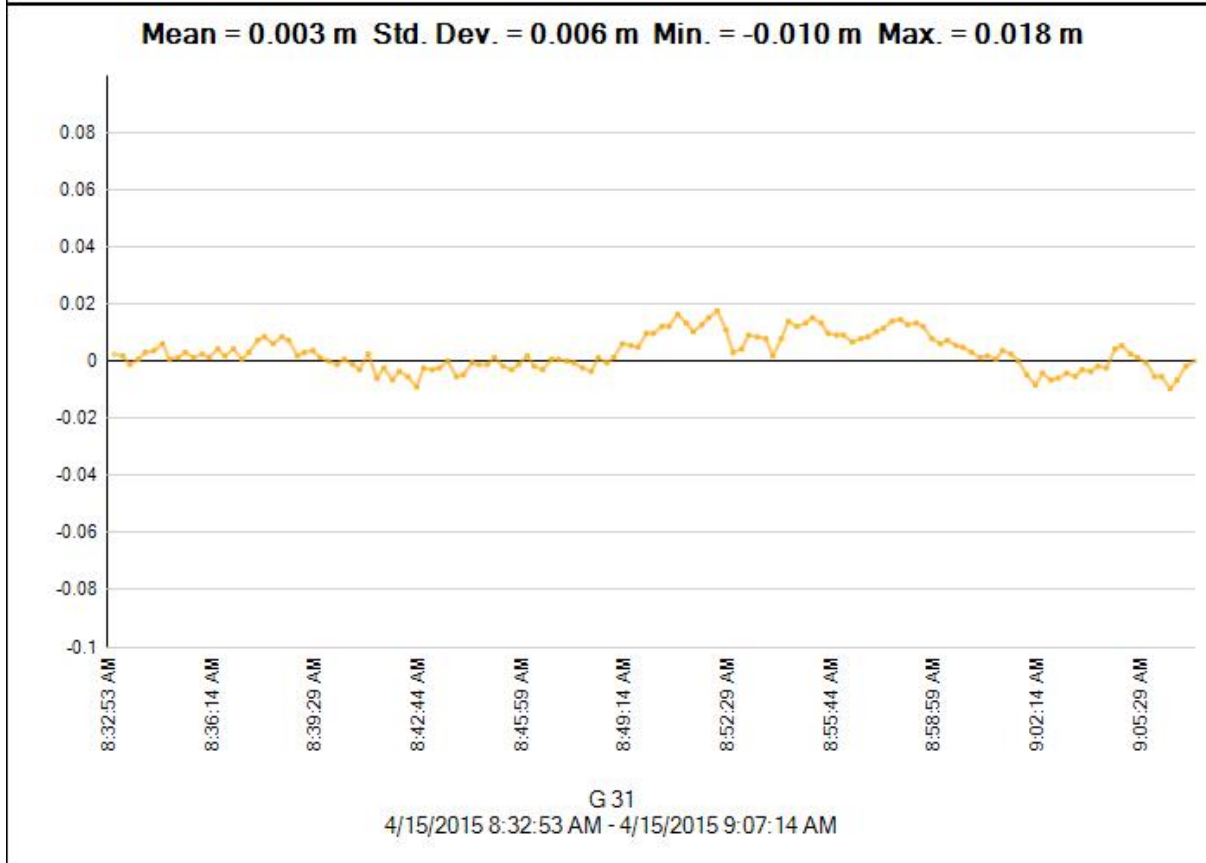
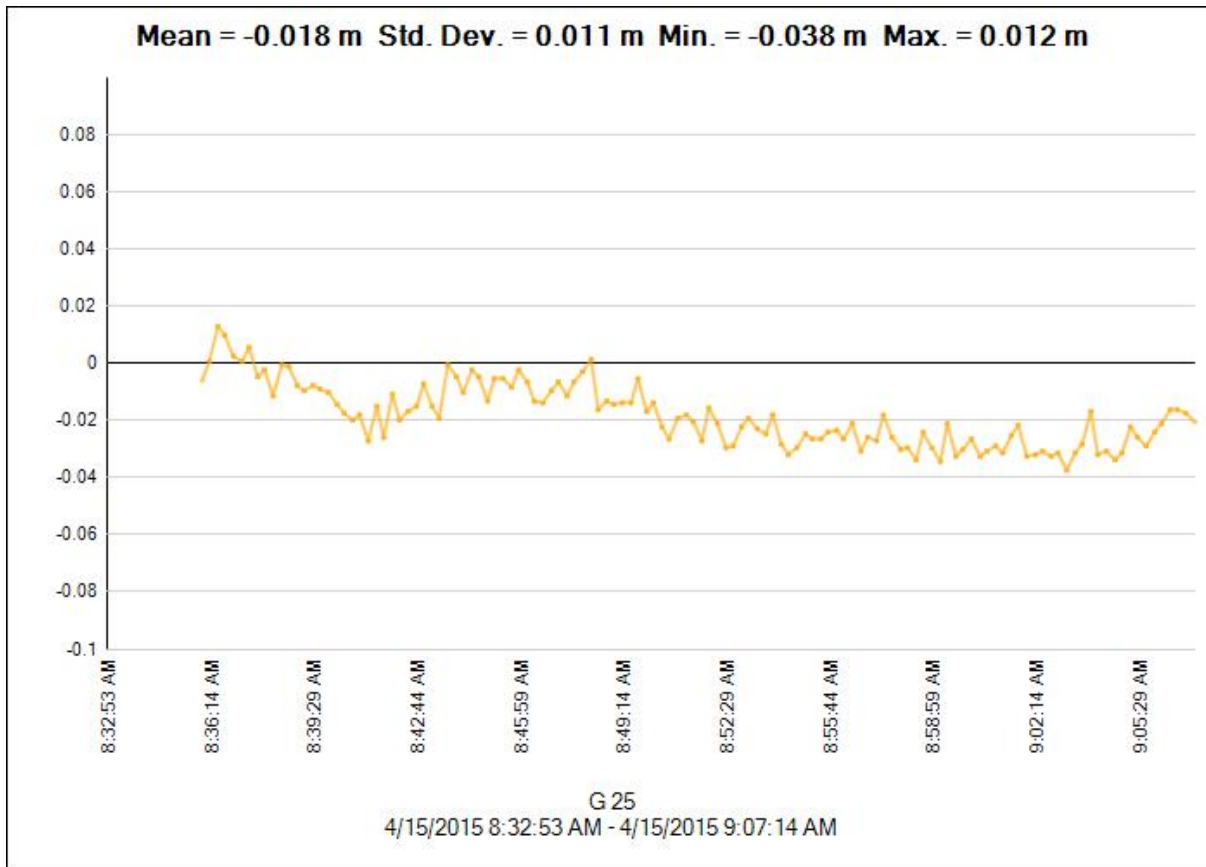
4/15/2015 8:32:53 AM - 4/15/2015 9:07:14 AM

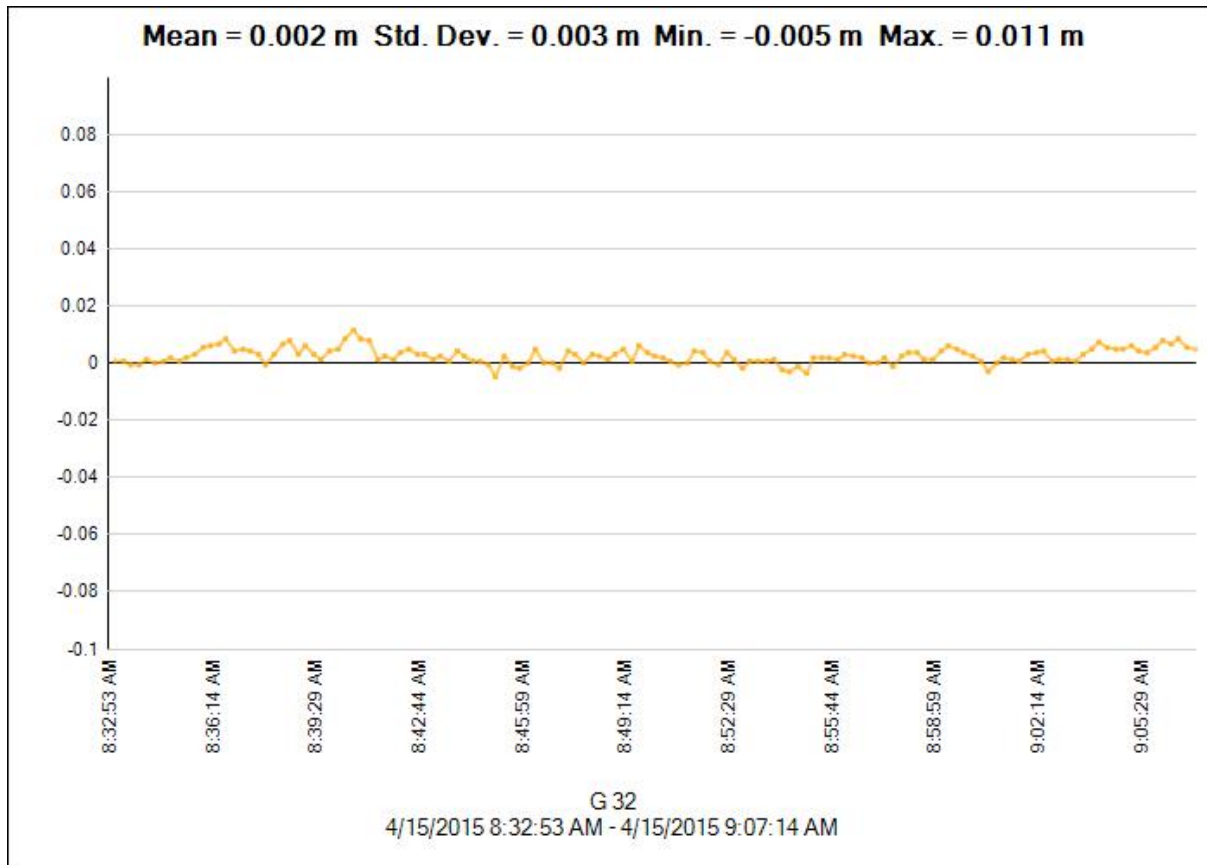
Mean = -0.001 m Std. Dev. = 0.006 m Min. = -0.012 m Max. = 0.014 m



G 22

4/15/2015 8:32:53 AM - 4/15/2015 9:07:14 AM







Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS303 (5:48:22 PM-6:23:24 PM) (S22)

Baseline observation: NR0224 --- CAS303 (B22)
 Processed: 7/1/2015 8:55:30 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.055 m
 Vertical precision: 0.037 m
 RMS: 0.001 m
 Maximum PDOP: 2.113
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/16/2015 6:04:59 PM (Local: UTC-6hr)
 Processing stop time: 4/16/2015 6:23:14 PM (Local: UTC-6hr)
 Processing duration: 00:18:15
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470639.792 m	Latitude	N42°53'23.96463"	Latitude	N42°53'23.96462"
Northing	365796.218 m	Longitude	W106°28'06.64497"	Longitude	W106°28'06.64497"
Elevation	1613.879 m	Height	1600.710 m	Height	1600.710 m

To: CAS303					
Grid		Local		Global	
Easting	495658.837 m	Latitude	N42°56'47.72068"	Latitude	N42°56'47.72067"
Northing	372387.343 m	Longitude	W106°09'40.11286"	Longitude	W106°09'40.11286"
Elevation	1667.719 m	Height	1654.063 m	Height	1654.063 m

Vector					
ΔEasting	25019.046 m	NS Fwd Azimuth	75°49'48"	ΔX	25284.064 m
ΔNorthing	6591.125 m	Ellipsoid Dist.	25872.081 m	ΔY	-2979.030 m
ΔElevation	53.840 m	ΔHeight	53.353 m	ΔZ	4642.106 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.006 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.008 m
$\sigma \Delta$ Northing	0.022 m	σ Ellipsoid Dist.	0.007 m	$\sigma \Delta$ Y	0.026 m
$\sigma \Delta$ Elevation	0.019 m	$\sigma \Delta$ Height	0.019 m	$\sigma \Delta$ Z	0.012 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000652043		
Y	0.0001322875	0.0006705107	
Z	0.0000245214	0.0000924502	0.0001526475

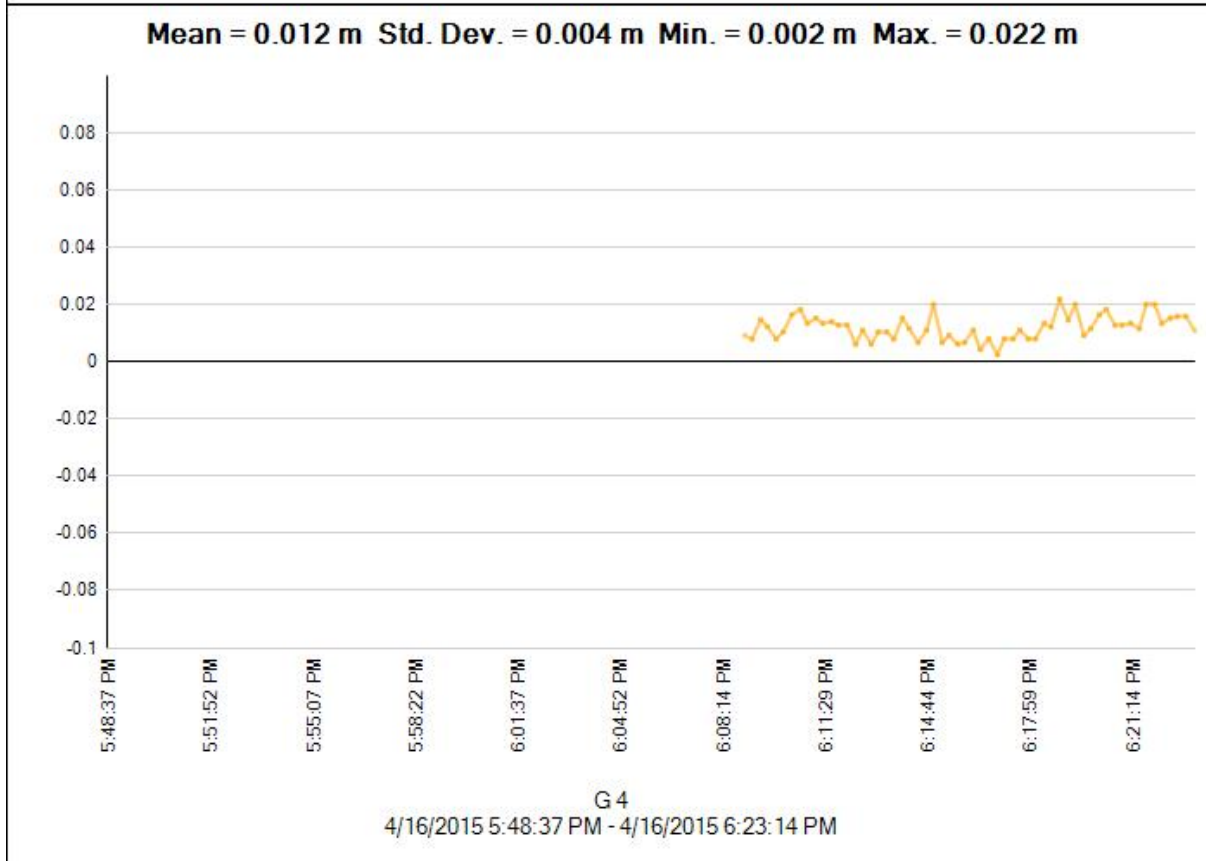
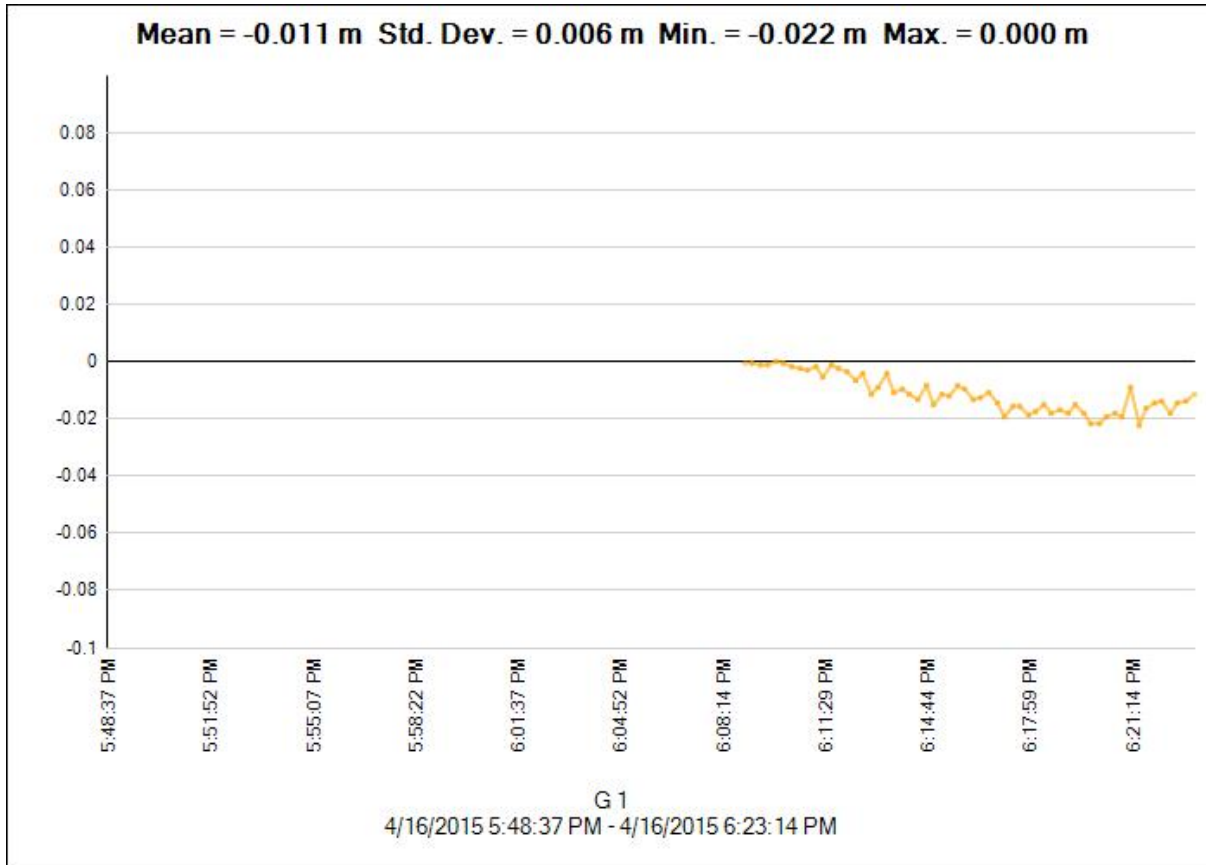
Occupations

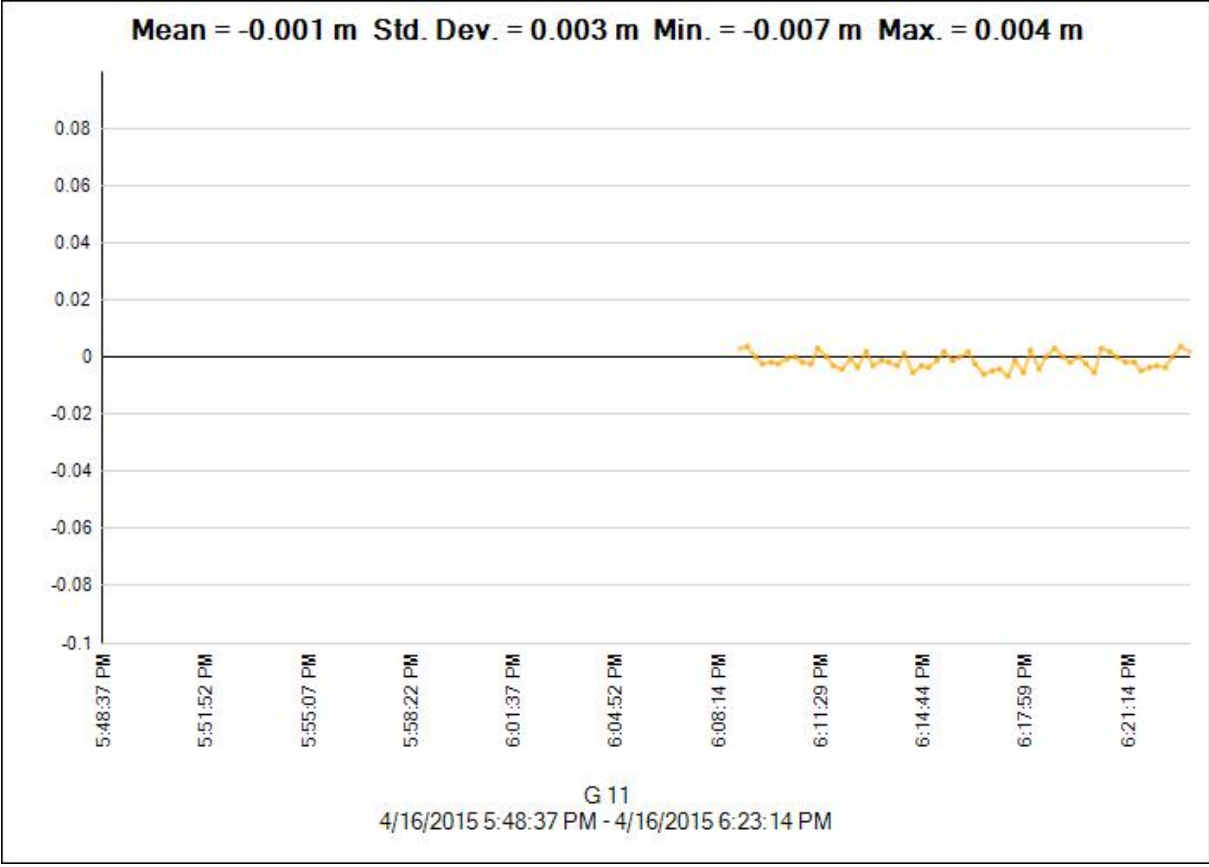
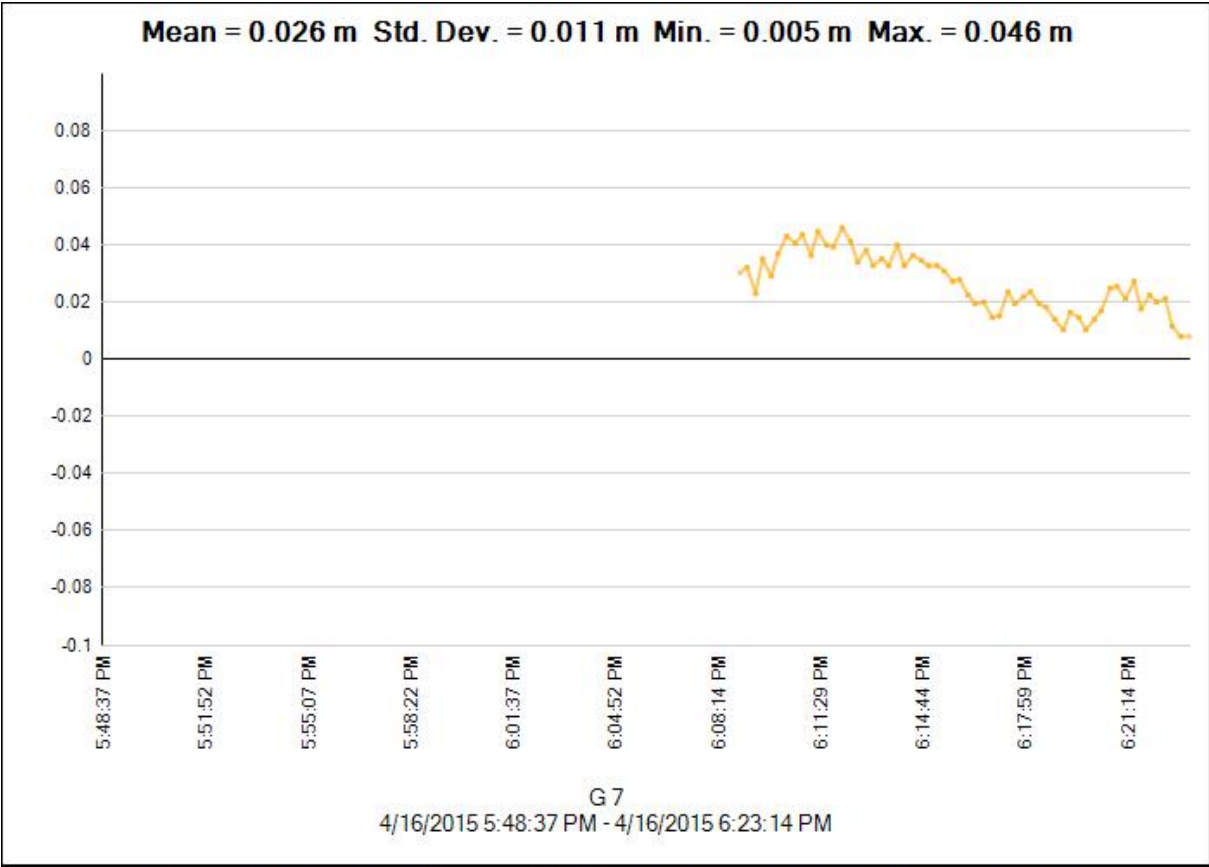
	From	To
Point ID:	NR0224	CAS303
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801069.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.681 m	1.477 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

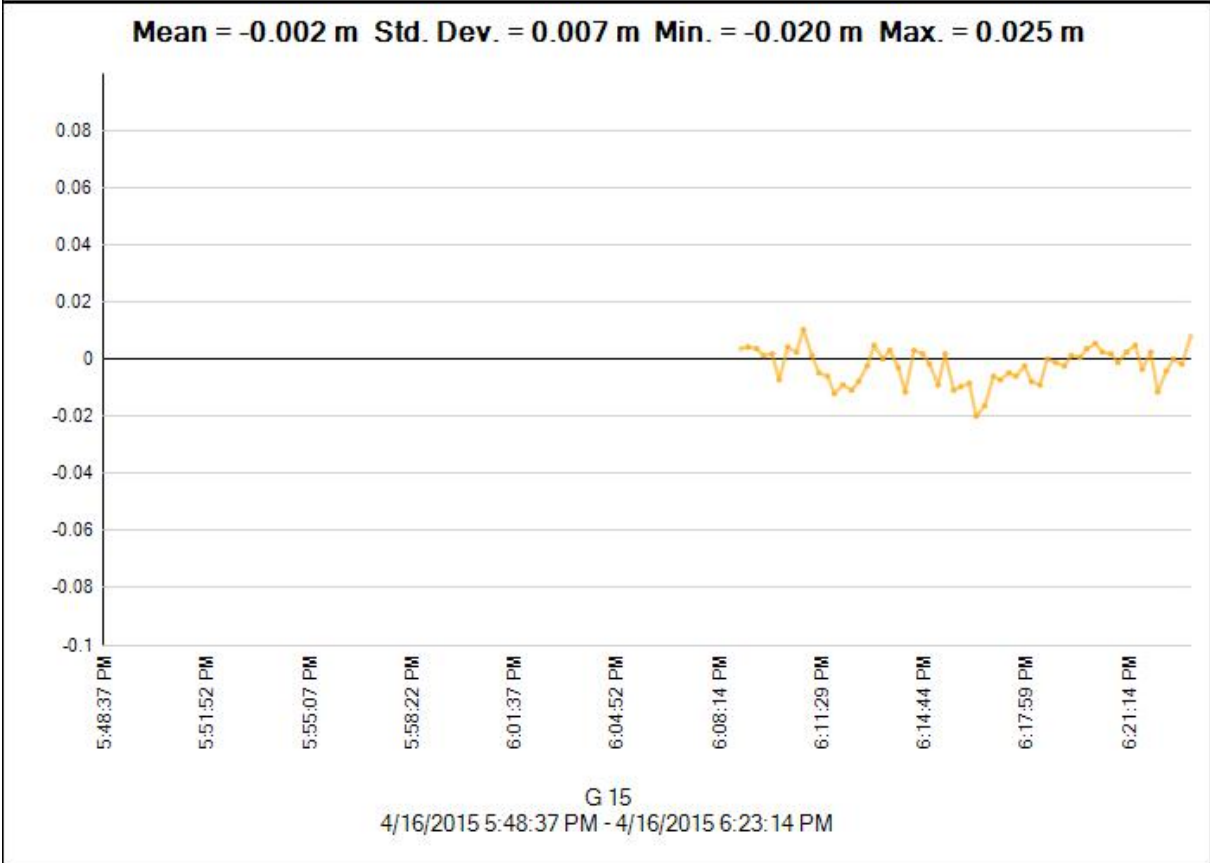
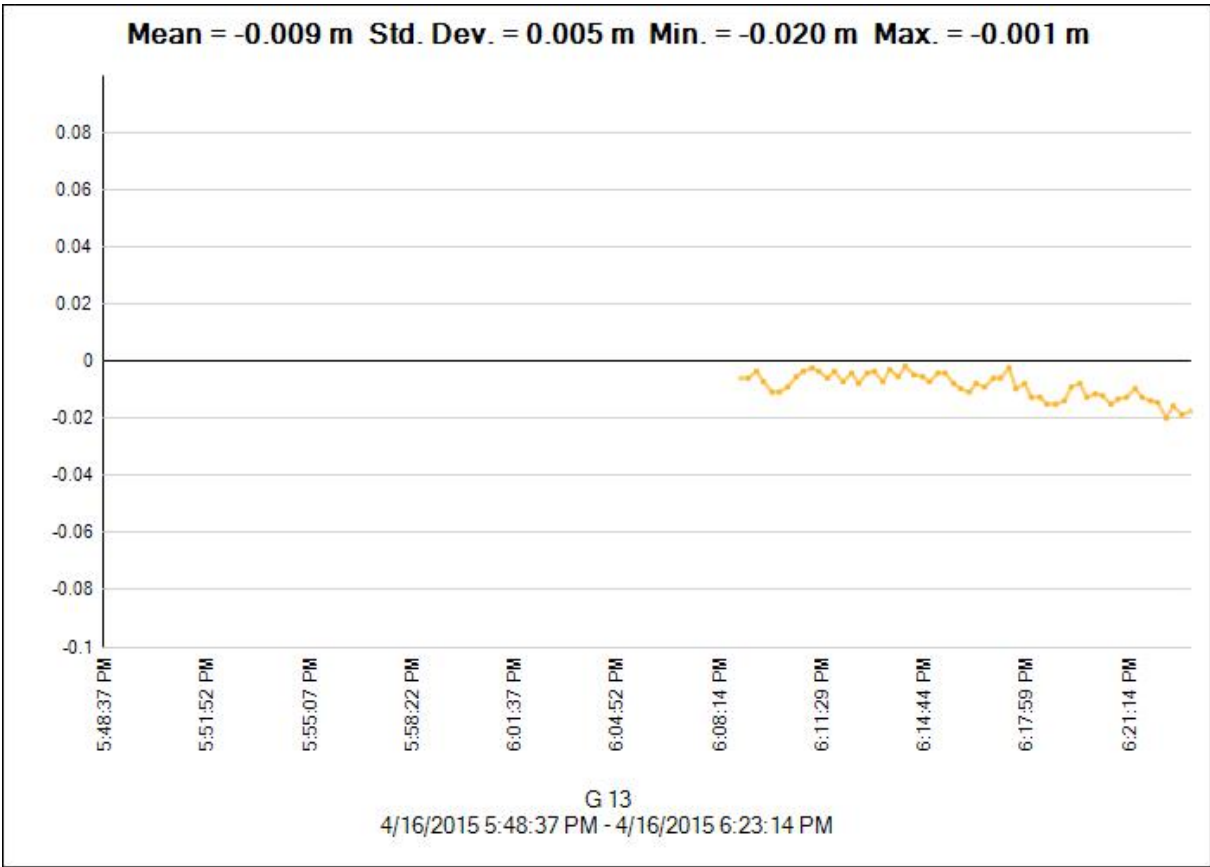
Tracking Summary

SV	4/16/2015 5:48:22 PM	Duration: 00:35:02	Major interval: 00:01:00	4/16/2015 6:23:24 PM
G 1	L1 L2			
G 4	L1 L2			
G 7	L1 L2			
G 11	L1 L2			
G 13	L1 L2			
G 15	L1 L2			
G 17	L1 L2			
G 19	L1 L2			
G 28	L1 L2			
G 30	L1 L2			

Residuals





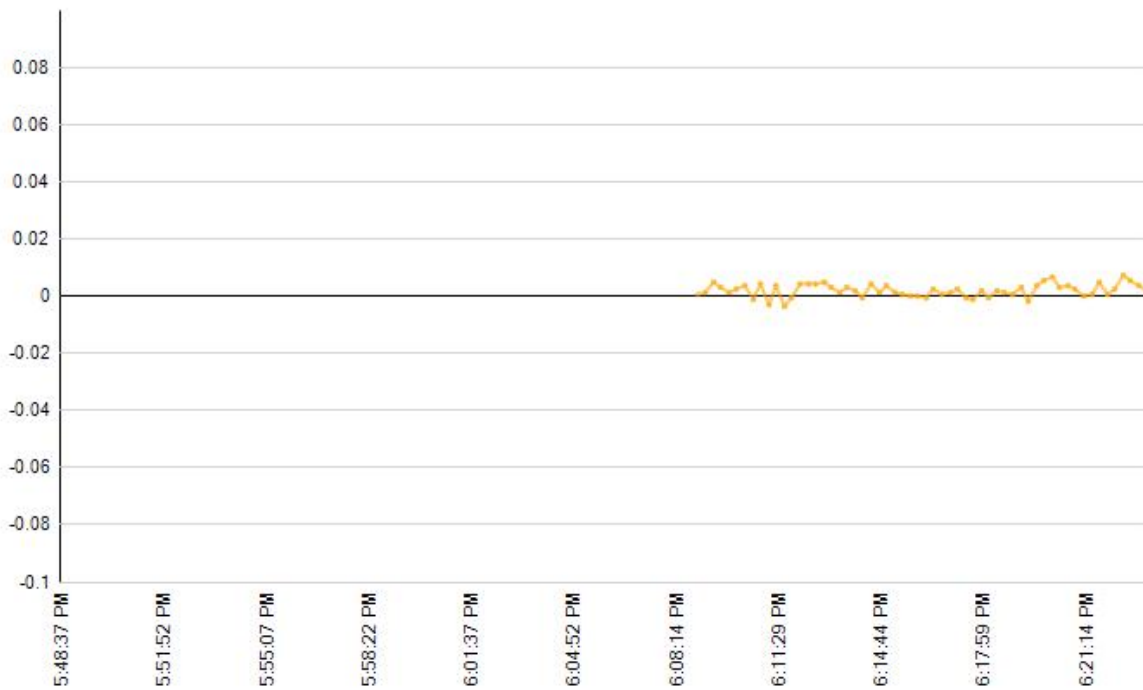


Mean = 0.023 m Std. Dev. = 0.009 m Min. = -0.002 m Max. = 0.039 m

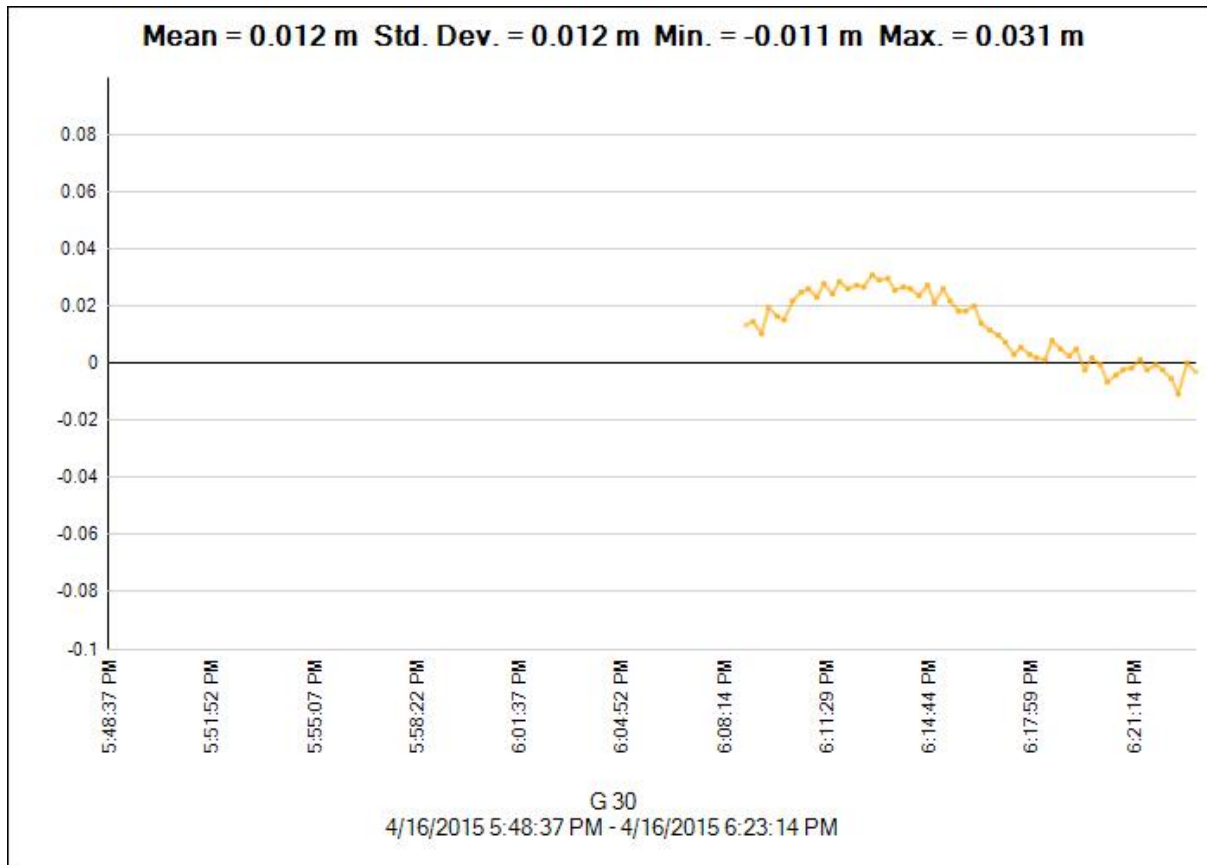


G 17
4/16/2015 5:48:37 PM - 4/16/2015 6:23:14 PM

Mean = 0.002 m Std. Dev. = 0.002 m Min. = -0.004 m Max. = 0.007 m





G 28
4/16/2015 5:48:37 PM - 4/16/2015 6:23:14 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS302 (4:40:22 PM-5:15:20 PM) (S23)

Baseline observation: NR0224 --- CAS302 (B23)
 Processed: 7/1/2015 8:54:06 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.010 m
 Vertical precision: 0.012 m
 RMS: 0.002 m
 Maximum PDOP: 1.933
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/16/2015 4:40:29 PM (Local: UTC-6hr)
 Processing stop time: 4/16/2015 5:15:14 PM (Local: UTC-6hr)
 Processing duration: 00:34:45
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470639.792 m	Latitude	N42°53'23.96463"	Latitude	N42°53'23.96462"
Northing	365796.218 m	Longitude	W106°28'06.64497"	Longitude	W106°28'06.64497"
Elevation	1613.879 m	Height	1600.710 m	Height	1600.710 m

To: CAS302					
Grid		Local		Global	
Easting	481756.437 m	Latitude	N42°56'50.45139"	Latitude	N42°56'50.45138"
Northing	372291.894 m	Longitude	W106°19'53.35309"	Longitude	W106°19'53.35309"
Elevation	1612.281 m	Height	1598.866 m	Height	1598.866 m

Vector					
ΔEasting	11116.645 m	NS Fwd Azimuth	60°17'25"	ΔX	11961.181 m
ΔNorthing	6495.677 m	Ellipsoid Dist.	12875.194 m	ΔY	1005.206 m
ΔElevation	-1.598 m	ΔHeight	-1.844 m	ΔZ	4666.196 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.003 m
$\sigma \Delta$ Northing	0.004 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.005 m
$\sigma \Delta$ Elevation	0.006 m	$\sigma \Delta$ Height	0.006 m	$\sigma \Delta$ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000082964		
Y	0.0000053242	0.0000274664	
Z	0.0000014954	-0.0000102157	0.0000236859

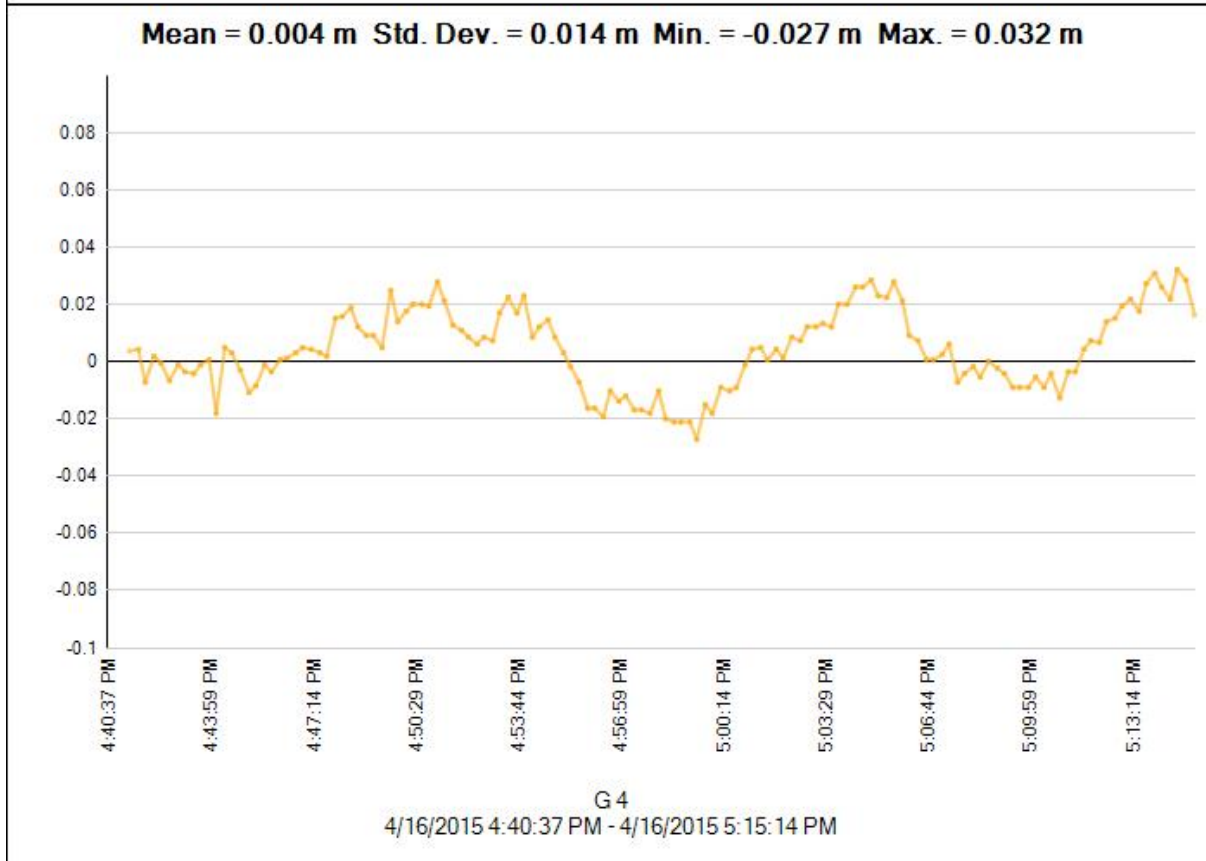
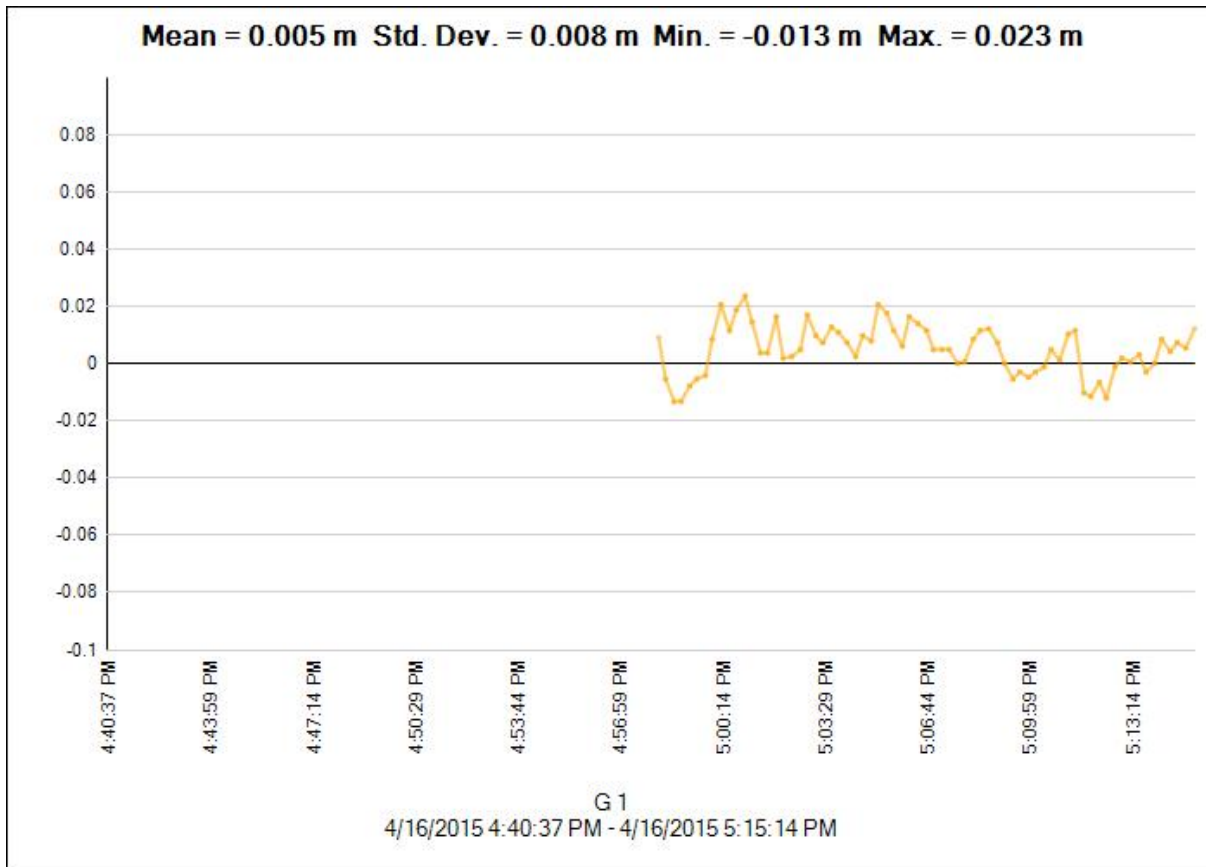
Occupations

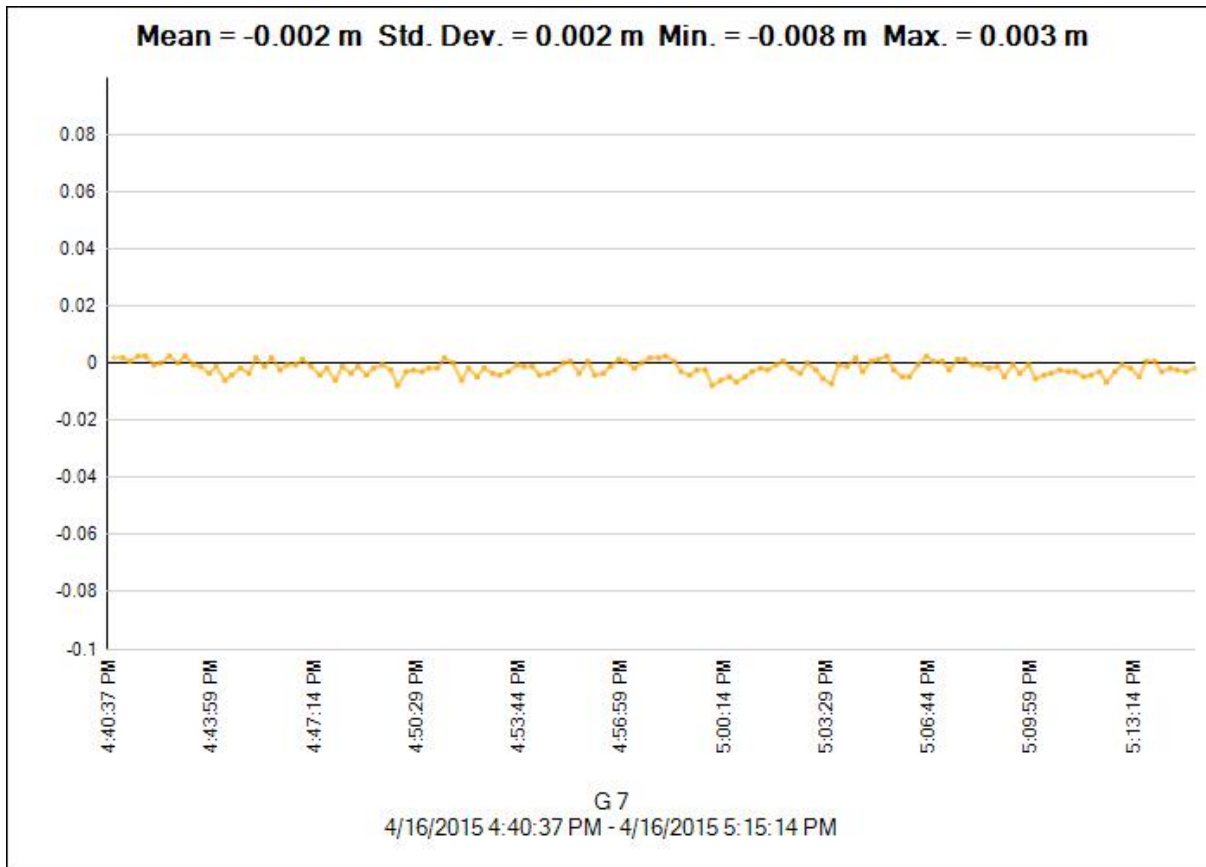
	From	To
Point ID:	NR0224	CAS302
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801068.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.681 m	1.539 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

SV	4/16/2015 4:40:22 PM	Duration: 00:34:58	Major interval: 00:01:00	4/16/2015 5:15:20 PM
G 1	L1 L2			
G 4	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 11	L1 L2			
G 13	L1 L2			
G 17	L1 L2			
G 19	L1 L2			
G 27	L1 L2			
G 28	L1 L2			
G 30	L1 L2			

Residuals



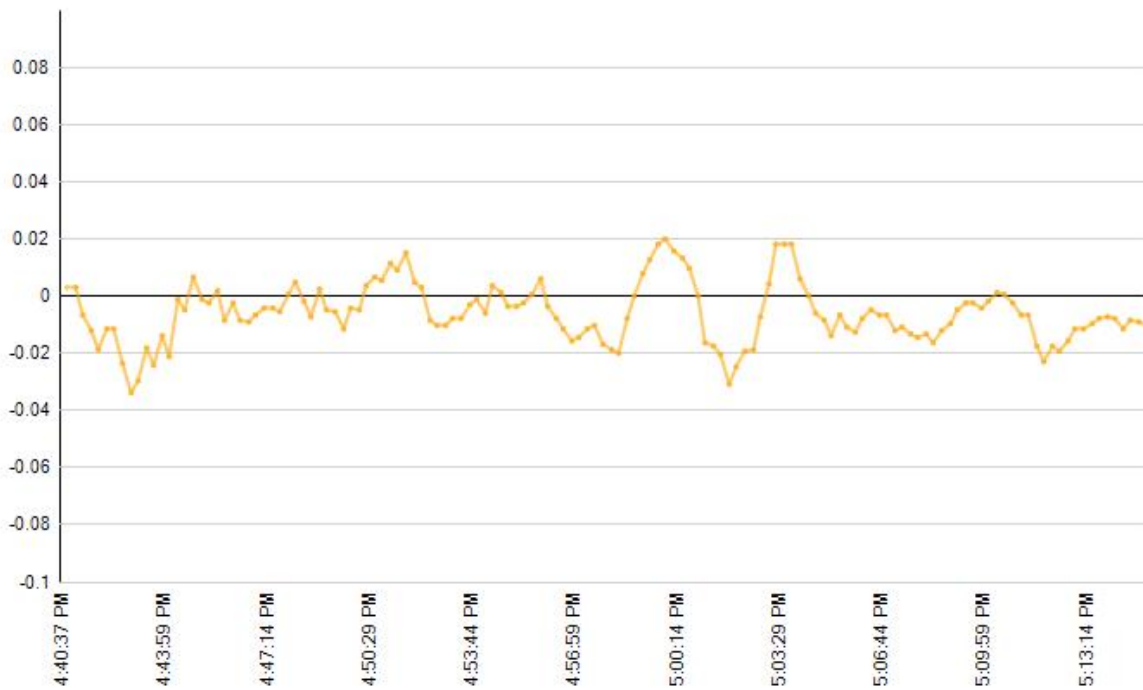


Mean = -0.004 m Std. Dev. = 0.007 m Min. = -0.019 m Max. = 0.011 m



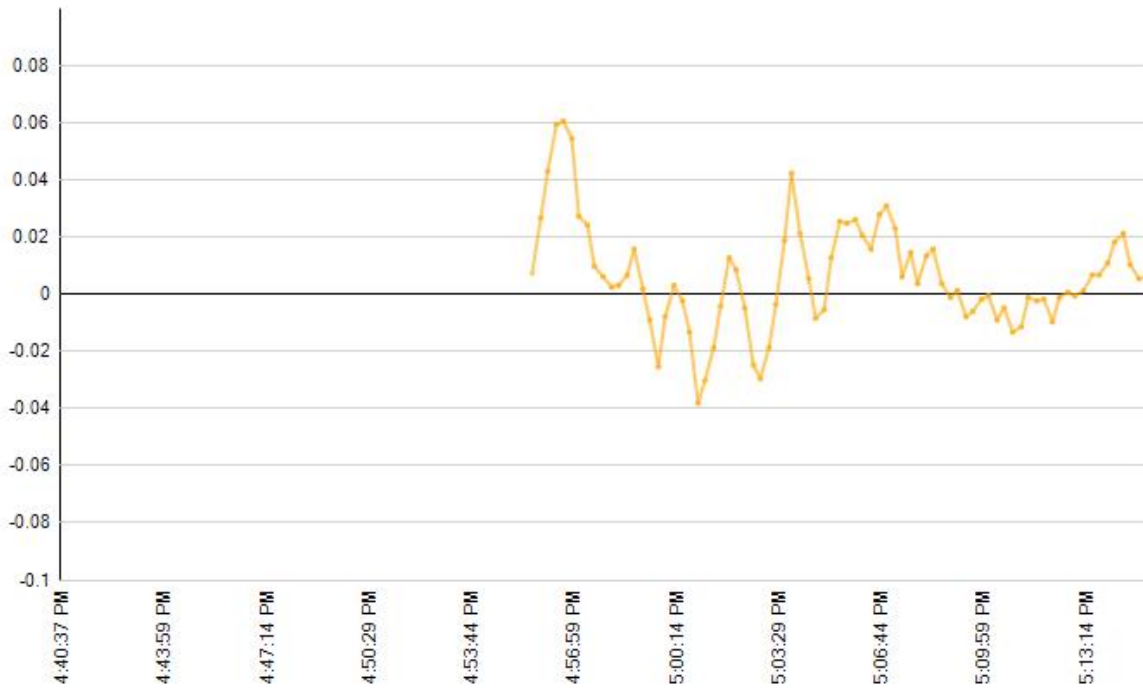
G 11
4/16/2015 4:40:37 PM - 4/16/2015 5:15:14 PM

Mean = -0.006 m Std. Dev. = 0.010 m Min. = -0.034 m Max. = 0.020 m



G 13
4/16/2015 4:40:37 PM - 4/16/2015 5:15:14 PM

Mean = 0.006 m Std. Dev. = 0.019 m Min. = -0.038 m Max. = 0.060 m

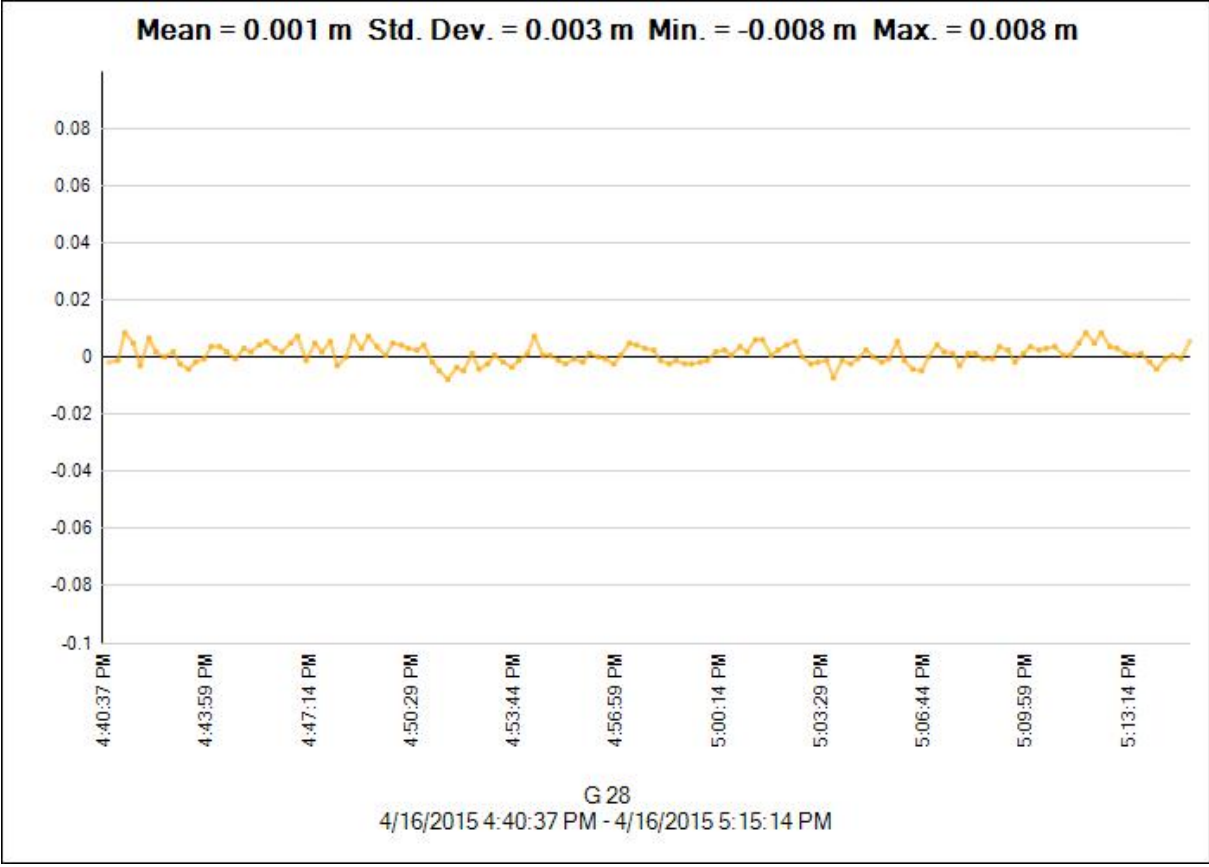
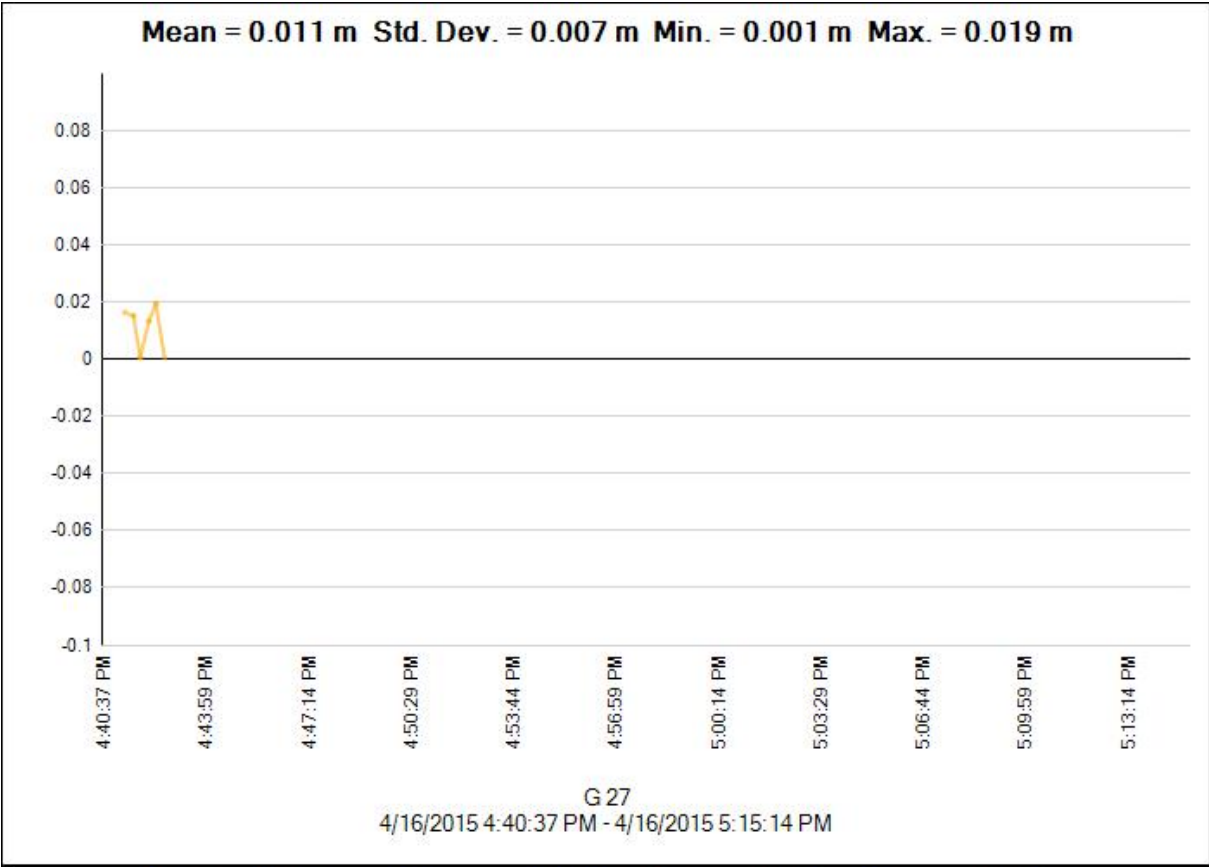


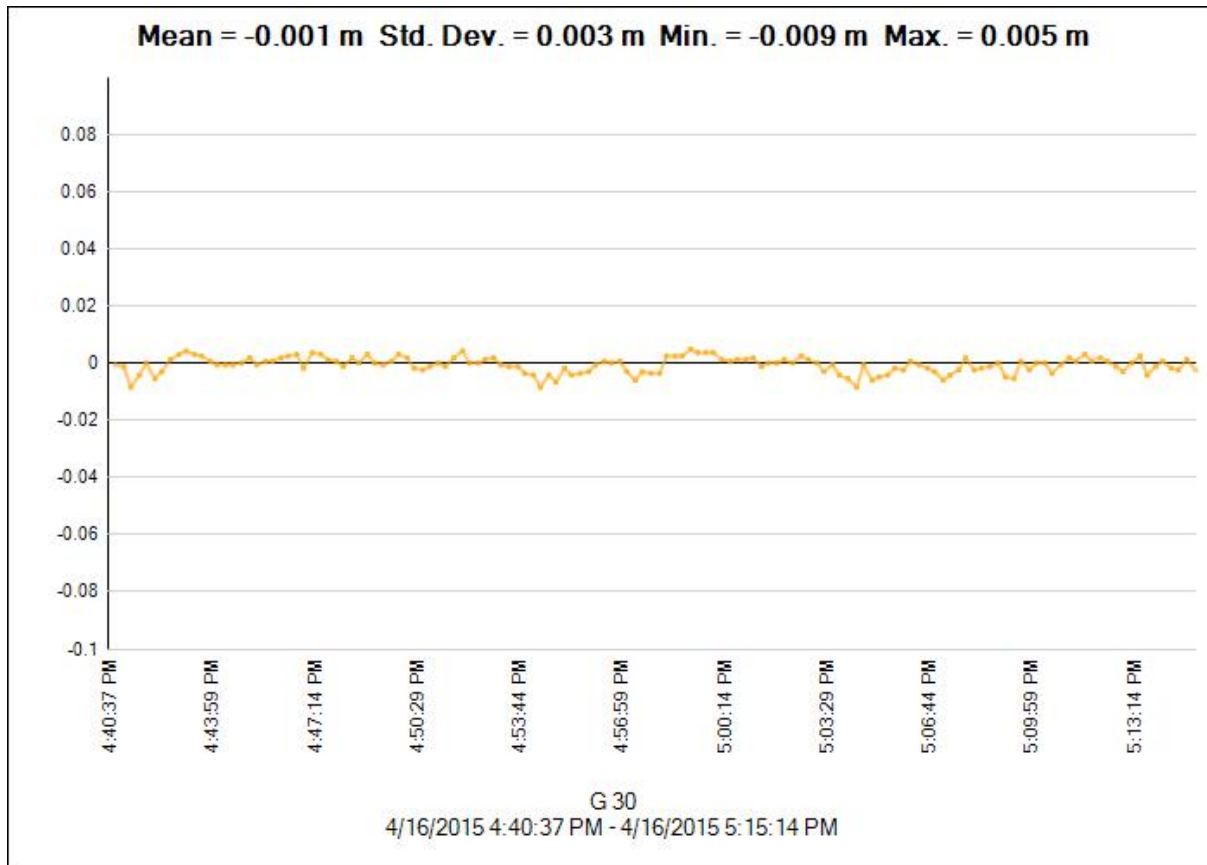
G 17
4/16/2015 4:40:37 PM - 4/16/2015 5:15:14 PM

Mean = 0.011 m Std. Dev. = 0.007 m Min. = -0.009 m Max. = 0.027 m



G 19
4/16/2015 4:40:37 PM - 4/16/2015 5:15:14 PM







Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS623 (3:53:22 PM-4:30:01 PM) (S24)

Baseline observation: NR0224 --- CAS623 (B24)
 Processed: 7/1/2015 8:54:06 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.009 m
 Vertical precision: 0.014 m
 RMS: 0.001 m
 Maximum PDOP: 2.482
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/16/2015 3:53:29 PM (Local: UTC-6hr)
 Processing stop time: 4/16/2015 4:29:59 PM (Local: UTC-6hr)
 Processing duration: 00:36:30
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470639.792 m	Latitude	N42°53'23.96463"	Latitude	N42°53'23.96462"
Northing	365796.218 m	Longitude	W106°28'06.64497"	Longitude	W106°28'06.64497"
Elevation	1613.879 m	Height	1600.710 m	Height	1600.710 m

To: CAS623					
Grid		Local		Global	
Easting	481635.098 m	Latitude	N42°59'22.11732"	Latitude	N42°59'22.11732"
Northing	376971.120 m	Longitude	W106°19'56.24703"	Longitude	W106°19'56.24703"
Elevation	1621.120 m	Height	1607.614 m	Height	1607.614 m

Vector					
ΔEasting	10995.307 m	NS Fwd Azimuth	45°07'30"	ΔX	12793.696 m
ΔNorthing	11174.902 m	Ellipsoid Dist.	15677.080 m	ΔY	4079.593 m
ΔElevation	7.241 m	ΔHeight	6.904 m	ΔZ	8097.696 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.003 m
$\sigma \Delta$ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.006 m
$\sigma \Delta$ Elevation	0.007 m	$\sigma \Delta$ Height	0.007 m	$\sigma \Delta$ Z	0.004 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000077271		
Y	0.0000058629	0.0000399511	
Z	-0.0000039209	-0.0000172521	0.0000193683

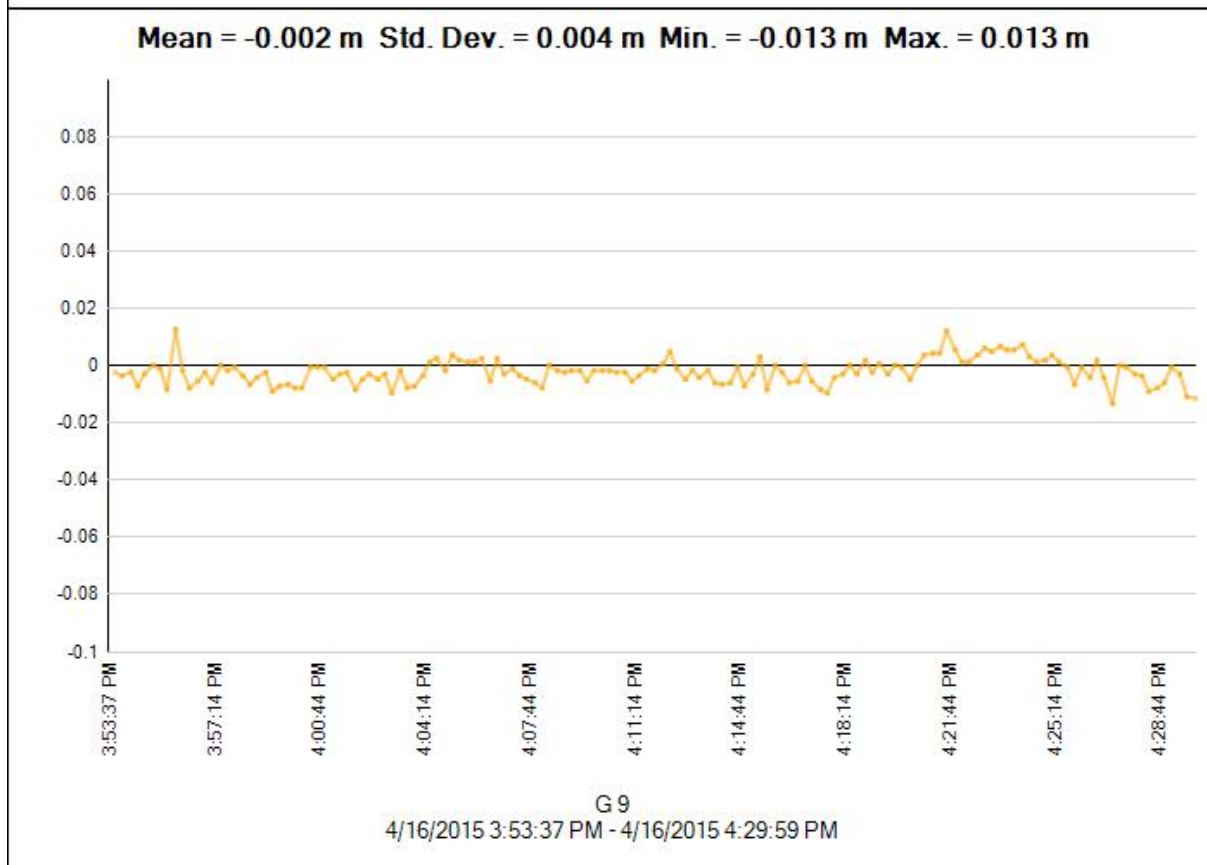
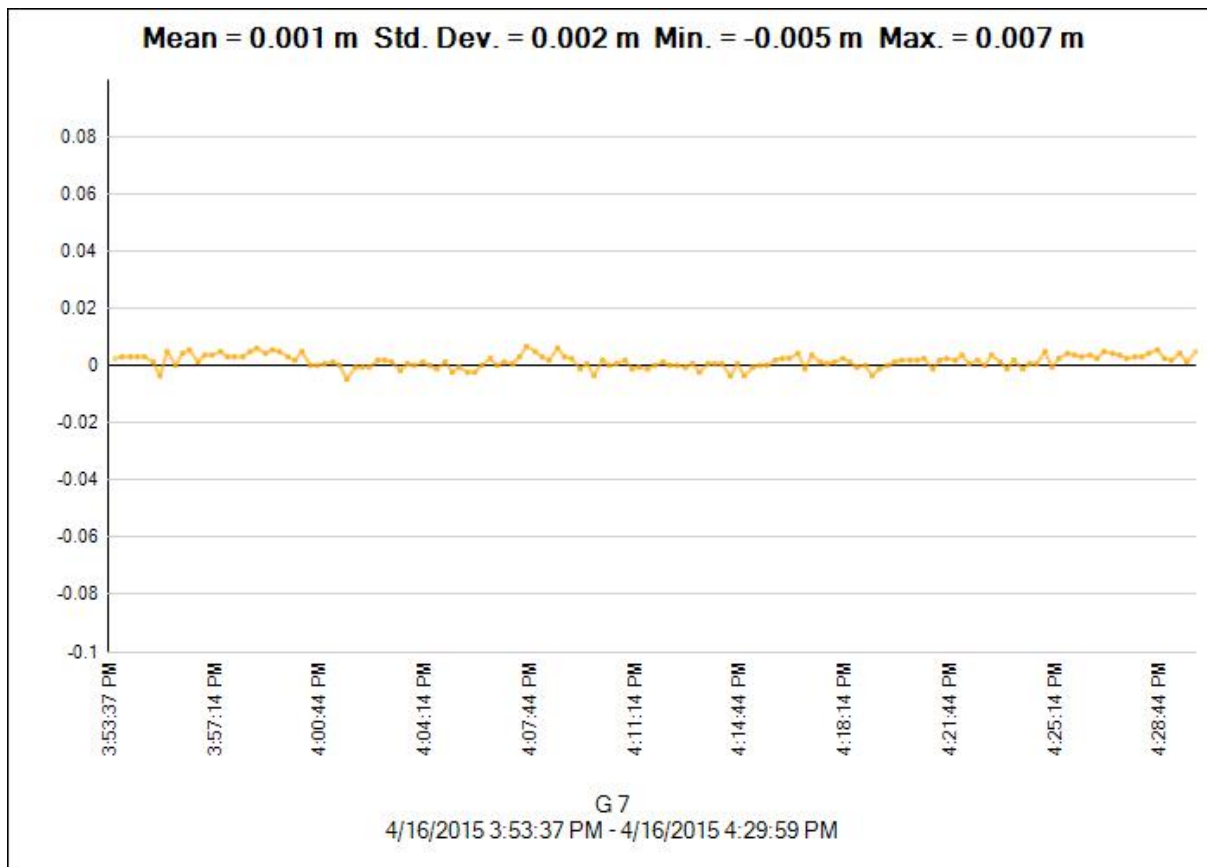
Occupations

	From	To
Point ID:	NR0224	CAS623
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801067.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.681 m	1.547 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

SV	4/16/2015 3:53:22 PM	Duration: 00:36:39	Major interval: 00:01:00	4/16/2015 4:30:01 PM
G 4	L1 L2			
G 5	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 11	L1 L2			
G 13	L1 L2			
G 16	L1 L2			
G 19	L1 L2			
G 20	L1 L2			
G 23	L1 L2			
G 27	L1 L2			
G 28	L1 L2			
G 30	L1 L2			

Residuals



Mean = 0.001 m Std. Dev. = 0.012 m Min. = -0.024 m Max. = 0.026 m

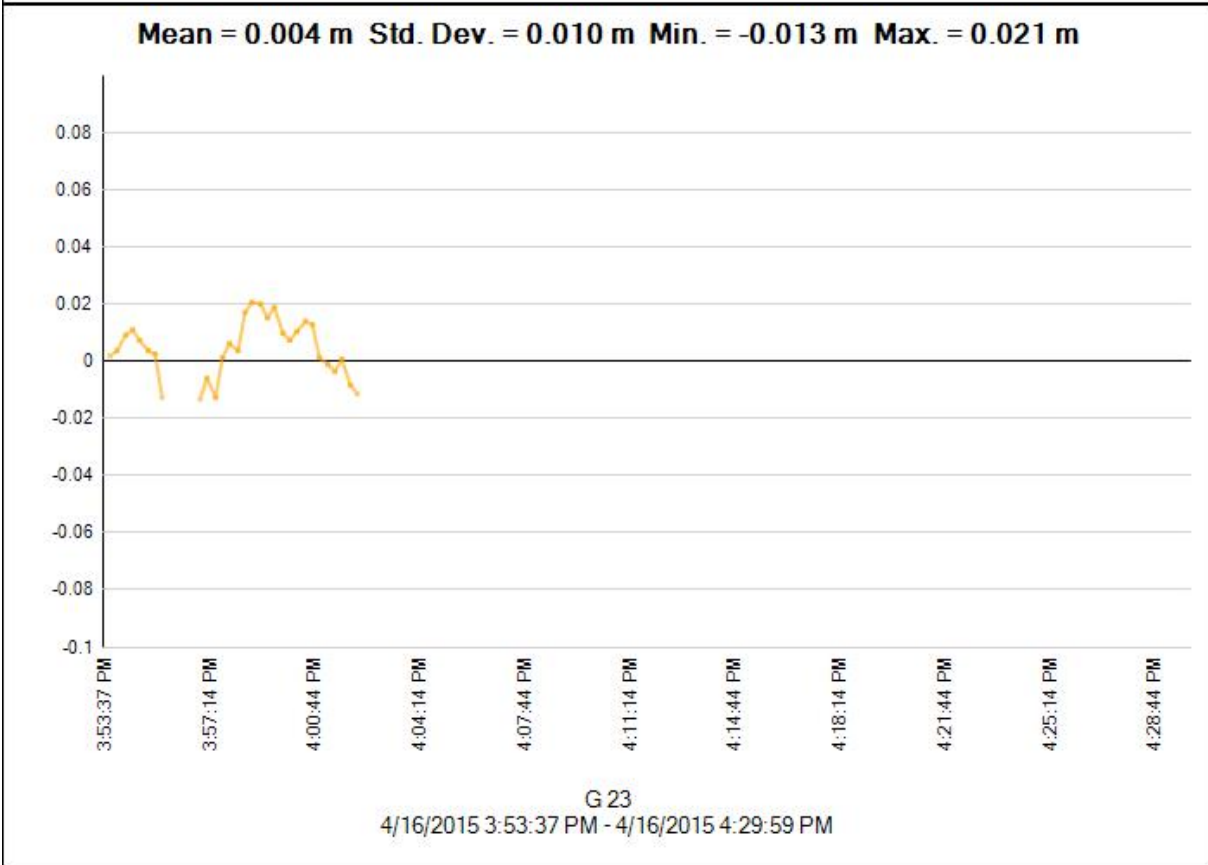
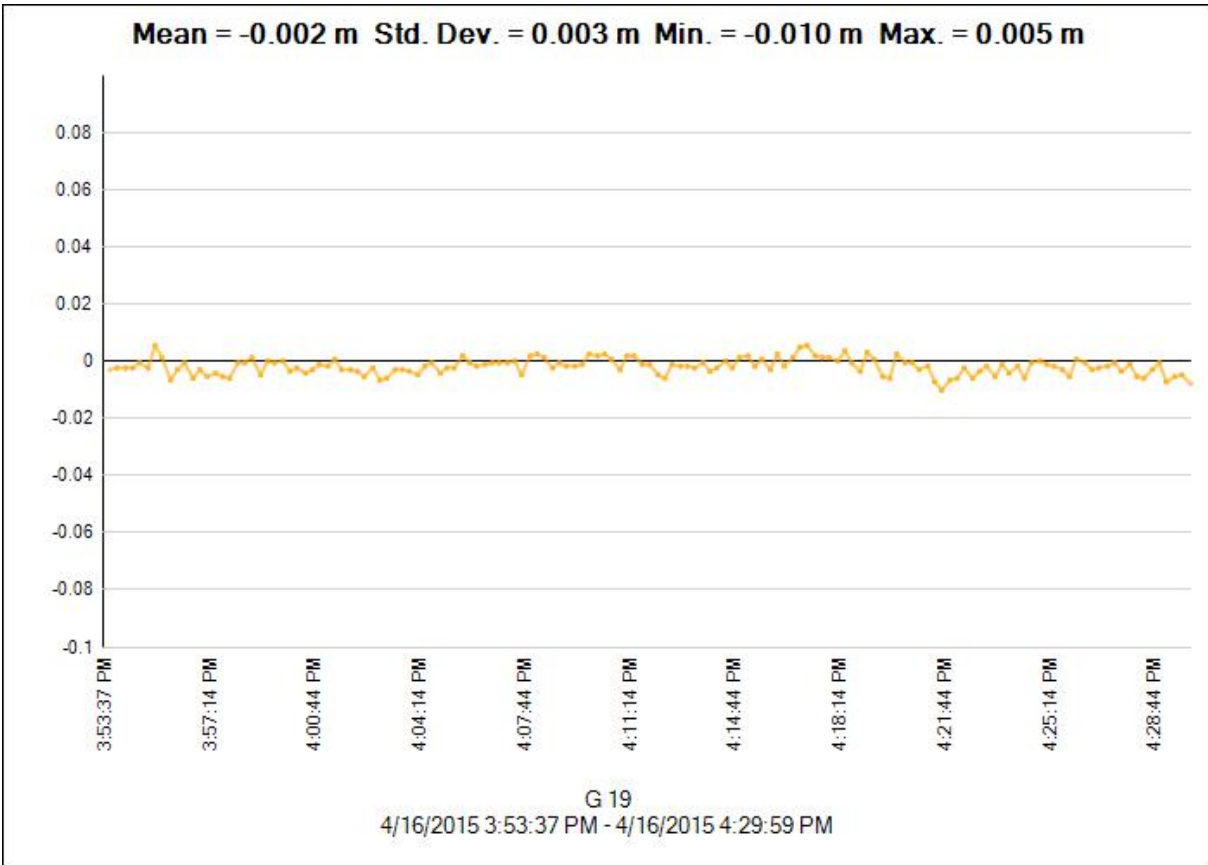


G 11
4/16/2015 3:53:37 PM - 4/16/2015 4:29:59 PM

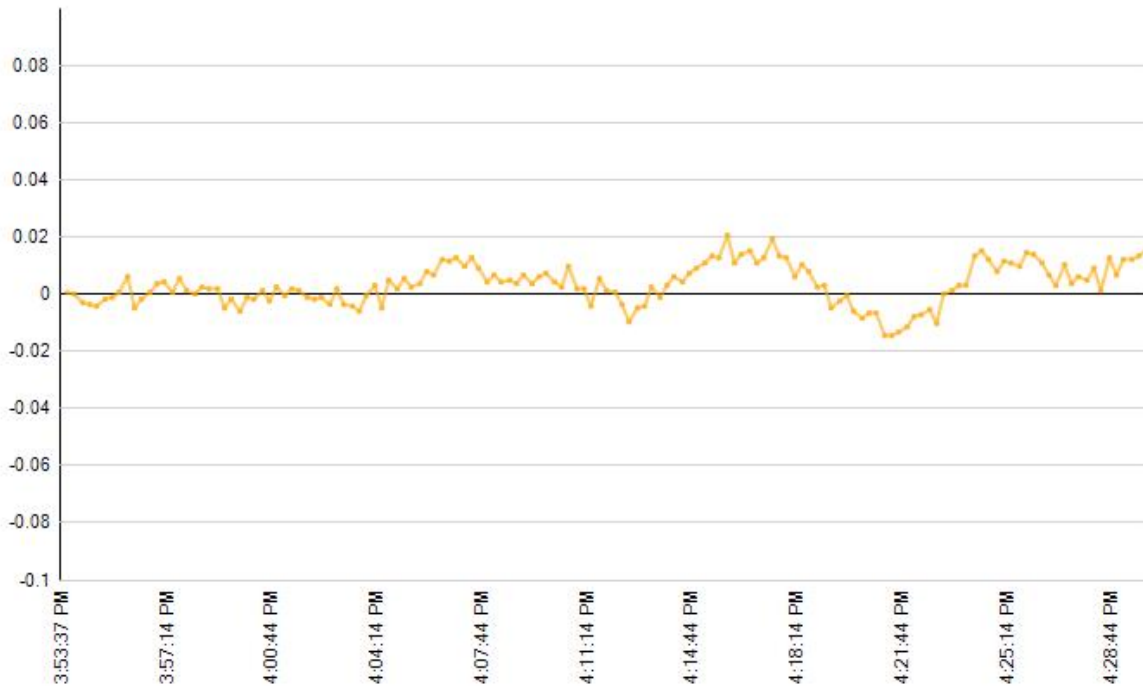
Mean = 0.008 m Std. Dev. = 0.030 m Min. = -0.031 m Max. = 0.089 m



G 13
4/16/2015 3:53:37 PM - 4/16/2015 4:29:59 PM

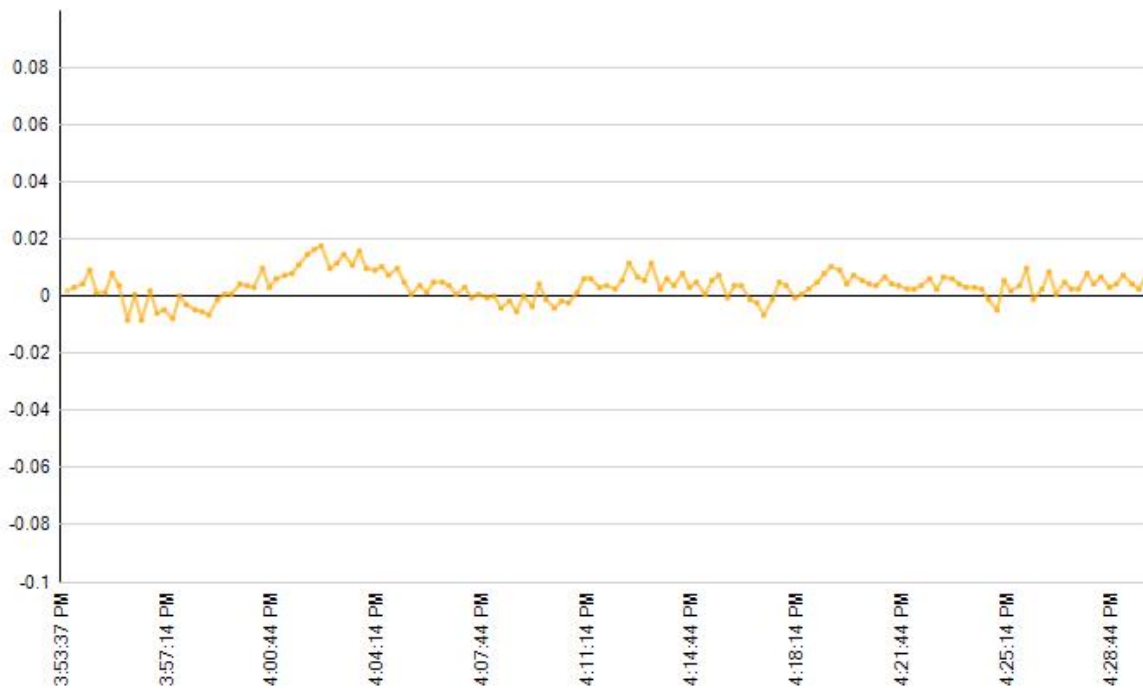


Mean = 0.003 m Std. Dev. = 0.007 m Min. = -0.014 m Max. = 0.021 m

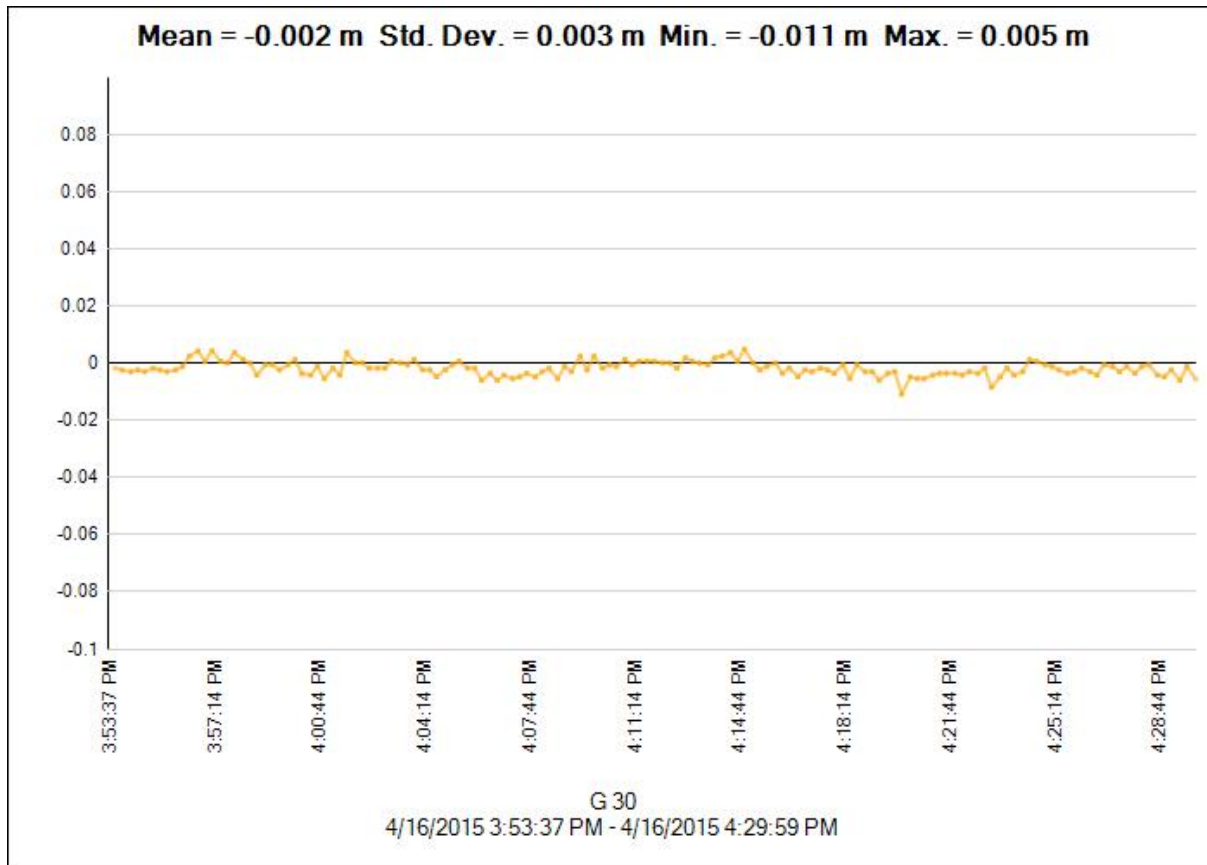


G 27
4/16/2015 3:53:37 PM - 4/16/2015 4:29:59 PM

Mean = 0.003 m Std. Dev. = 0.005 m Min. = -0.008 m Max. = 0.018 m





G 28
4/16/2015 3:53:37 PM - 4/16/2015 4:29:59 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS621 (3:02:21 PM-3:38:03 PM) (S25)

Baseline observation: NR0224 --- CAS621 (B25)
 Processed: 7/1/2015 8:54:04 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.006 m
 Vertical precision: 0.011 m
 RMS: 0.001 m
 Maximum PDOP: 2.129
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/16/2015 3:02:29 PM (Local: UTC-6hr)
 Processing stop time: 4/16/2015 3:37:59 PM (Local: UTC-6hr)
 Processing duration: 00:35:30
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470639.792 m	Latitude	N42°53'23.96463"	Latitude	N42°53'23.96462"
Northing	365796.218 m	Longitude	W106°28'06.64497"	Longitude	W106°28'06.64497"
Elevation	1613.879 m	Height	1600.710 m	Height	1600.710 m

To: CAS621					
Grid		Local		Global	
Easting	481130.298 m	Latitude	N43°06'01.38516"	Latitude	N43°06'01.38516"
Northing	389287.359 m	Longitude	W106°20'12.07285"	Longitude	W106°20'12.07285"
Elevation	1704.950 m	Height	1691.370 m	Height	1691.370 m

Vector					
ΔEasting	10490.507 m	NS Fwd Azimuth	24°39'15"	ΔX	14798.548 m
ΔNorthing	23491.141 m	Ellipsoid Dist.	25726.898 m	ΔY	12194.309 m
ΔElevation	91.071 m	ΔHeight	90.661 m	ΔZ	17161.718 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.002 m
$\sigma \Delta$ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.004 m
$\sigma \Delta$ Elevation	0.005 m	$\sigma \Delta$ Height	0.005 m	$\sigma \Delta$ Z	0.004 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000054527		
Y	0.0000043009	0.0000180805	
Z	-0.0000028726	-0.0000109282	0.0000160947

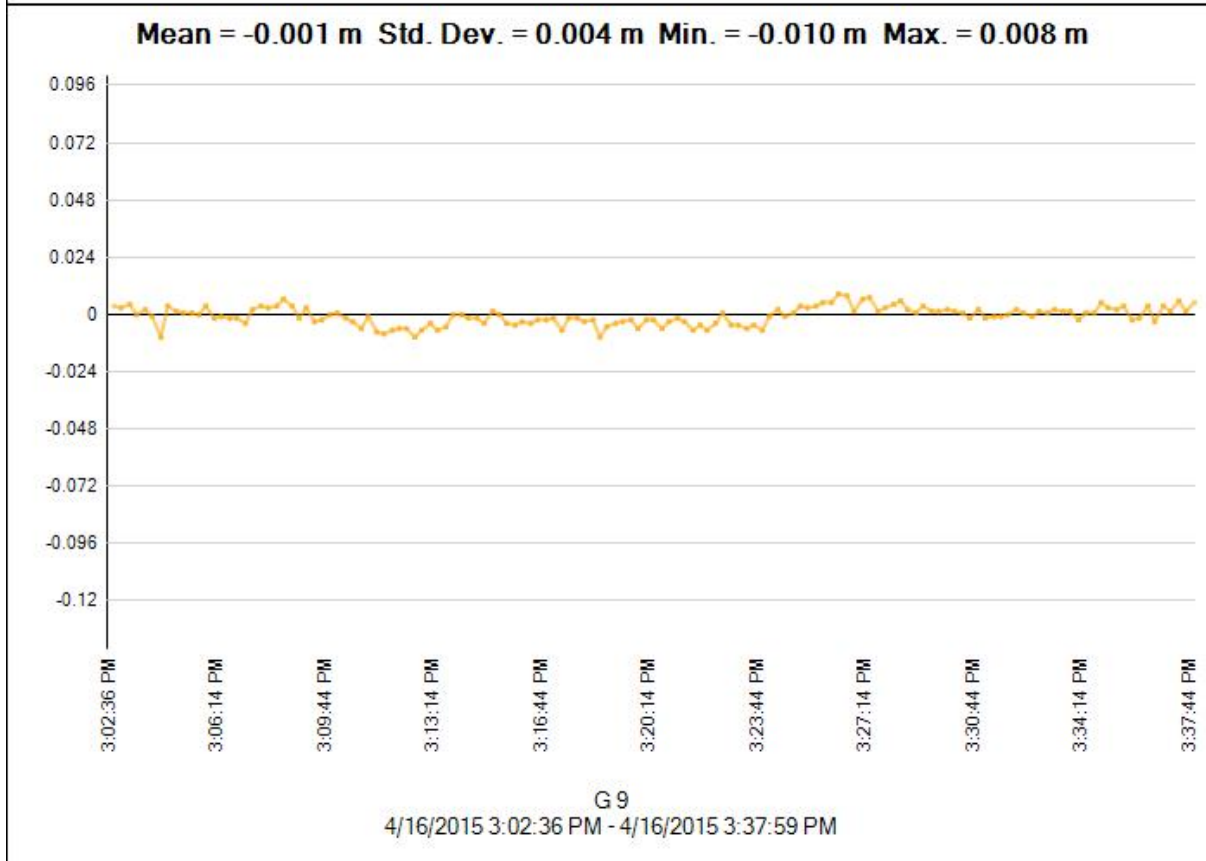
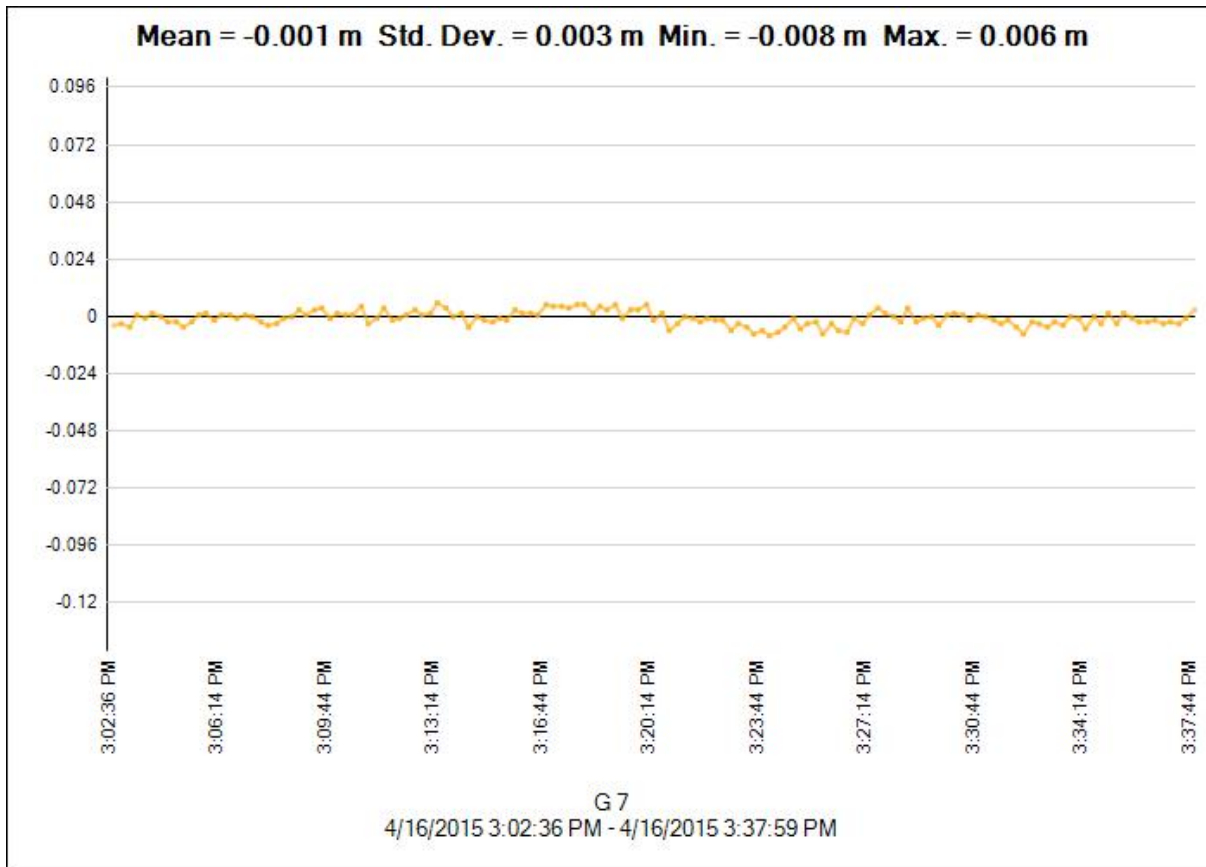
Occupations

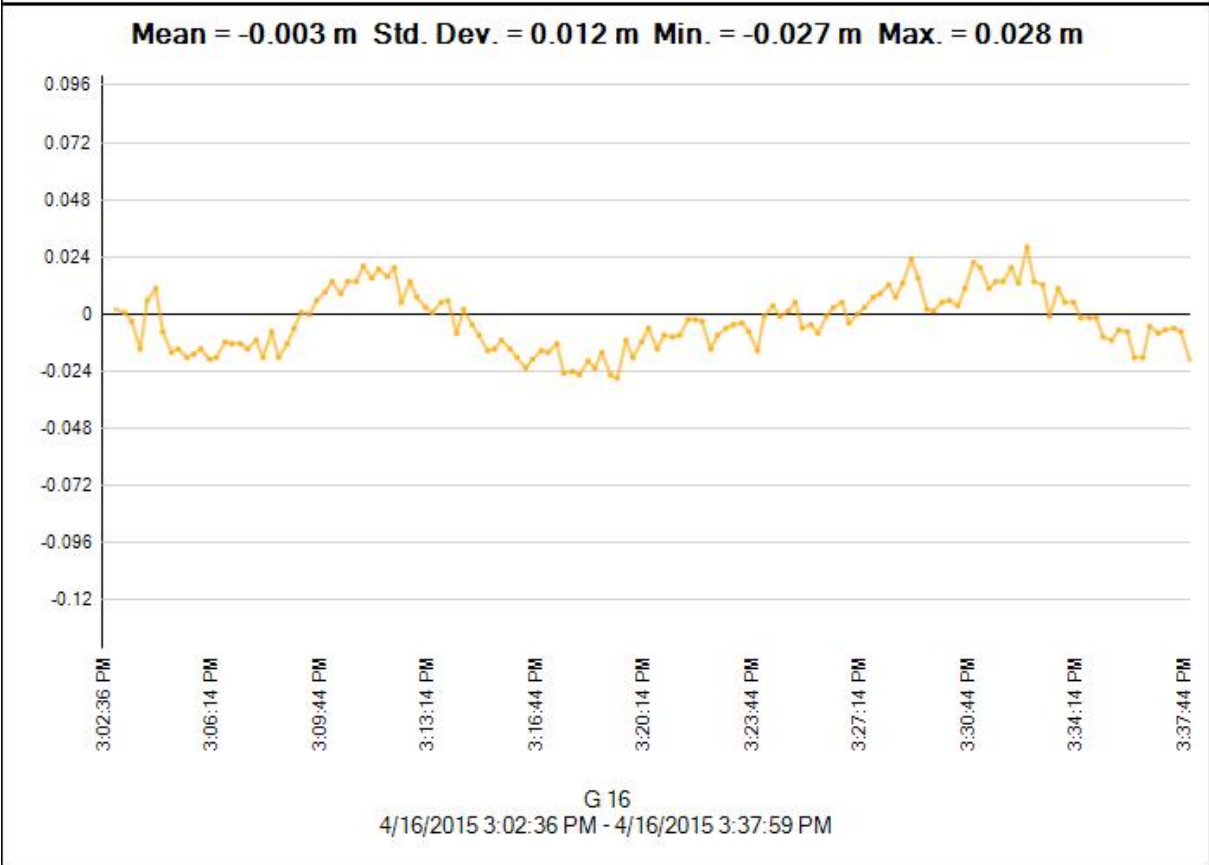
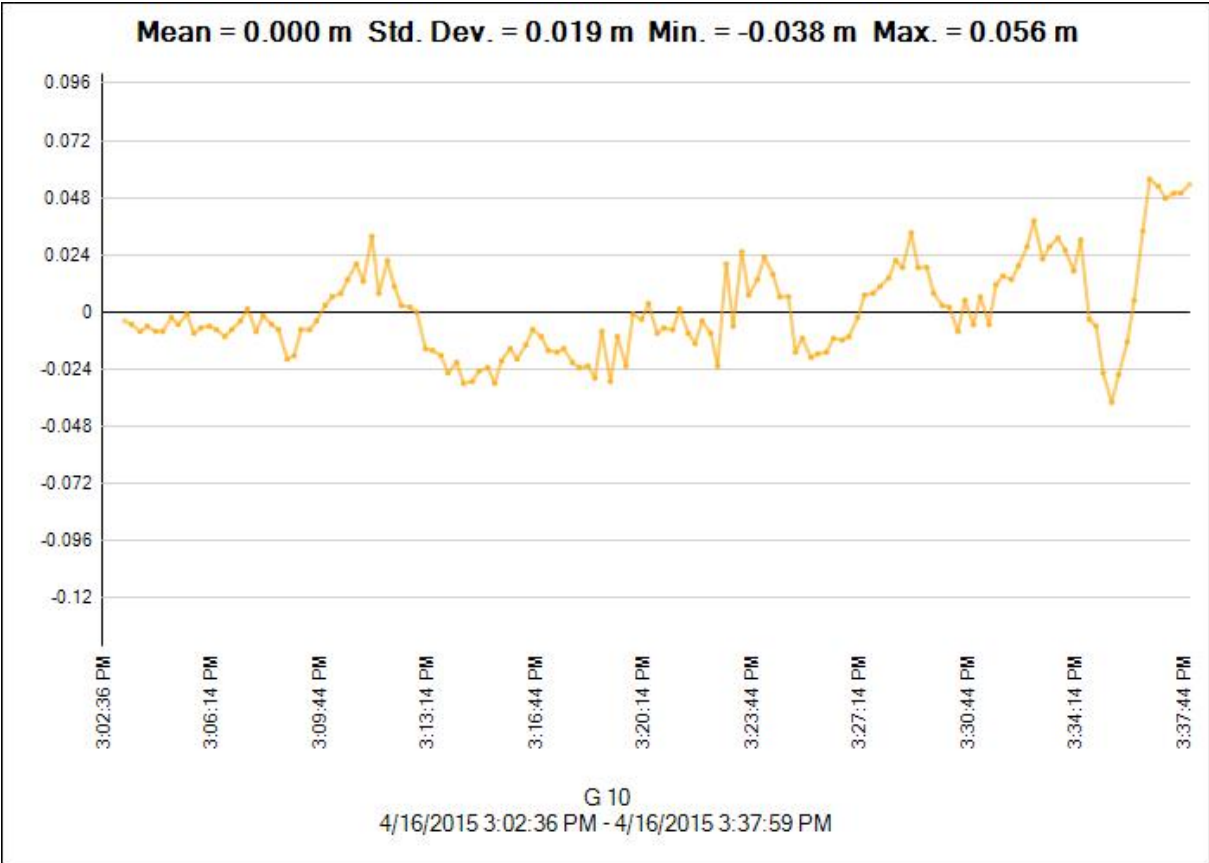
	From	To
Point ID:	NR0224	CAS621
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801066.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.681 m	1.481 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

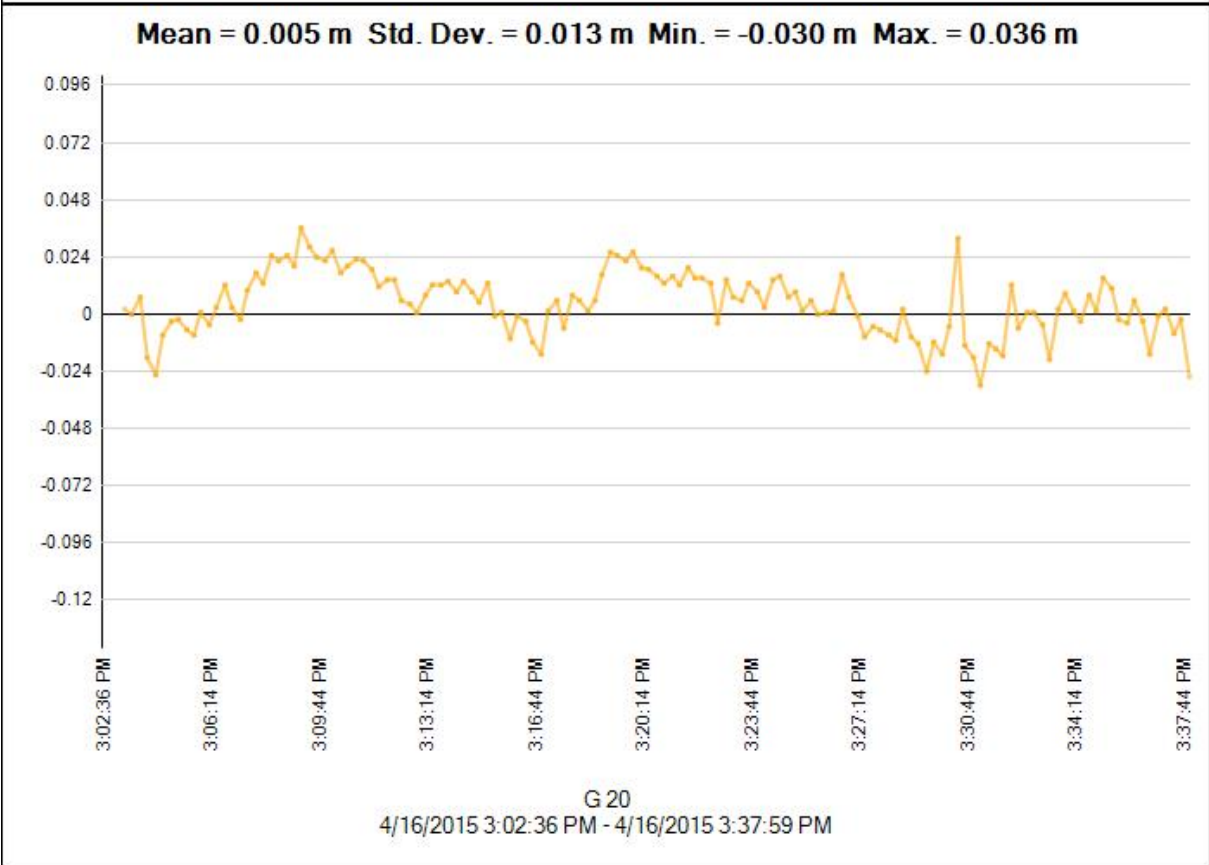
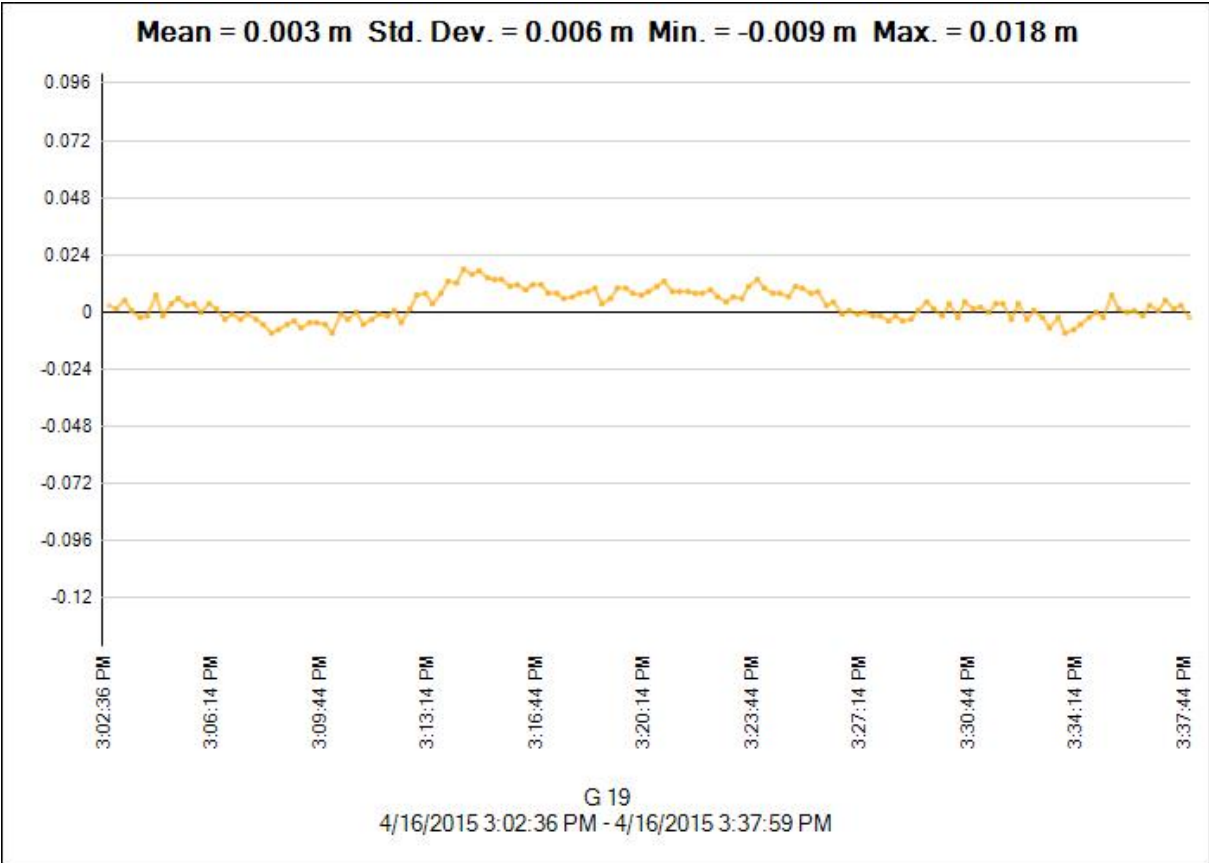
Tracking Summary

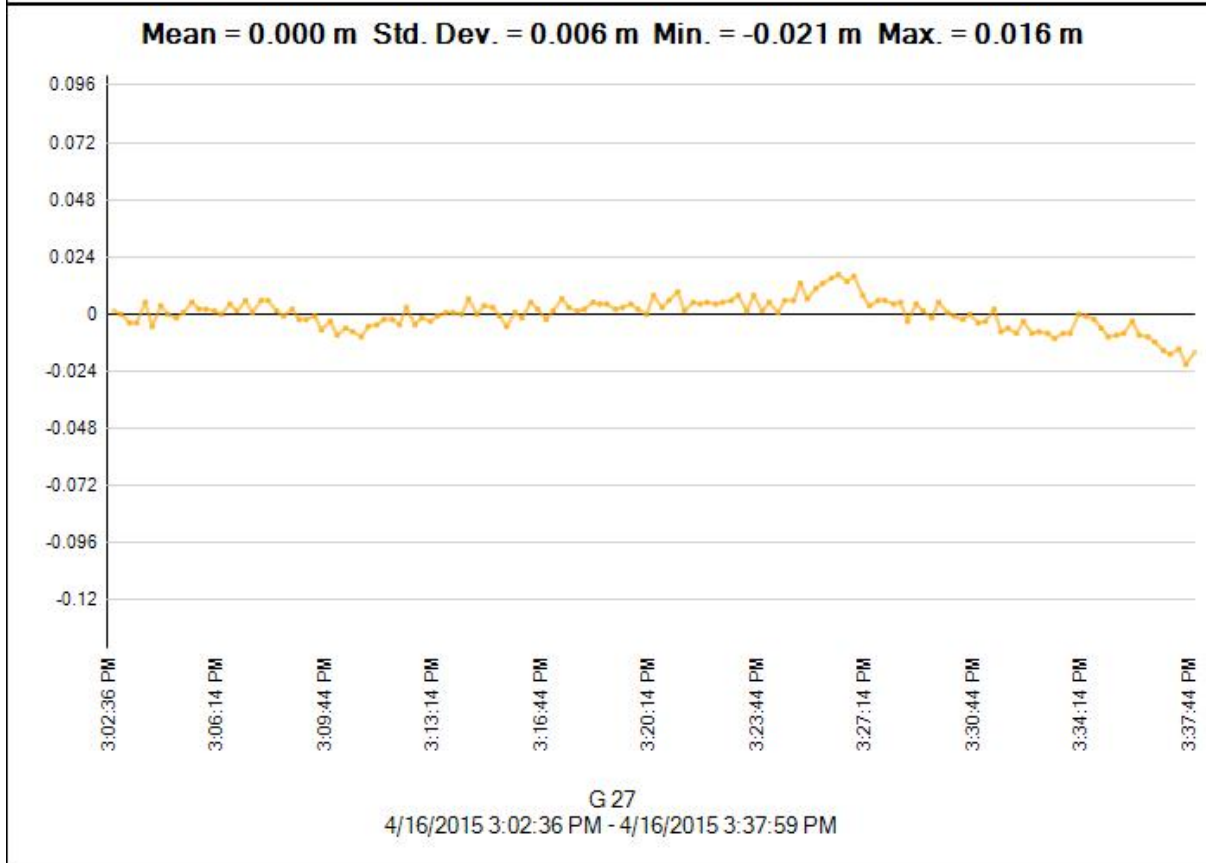
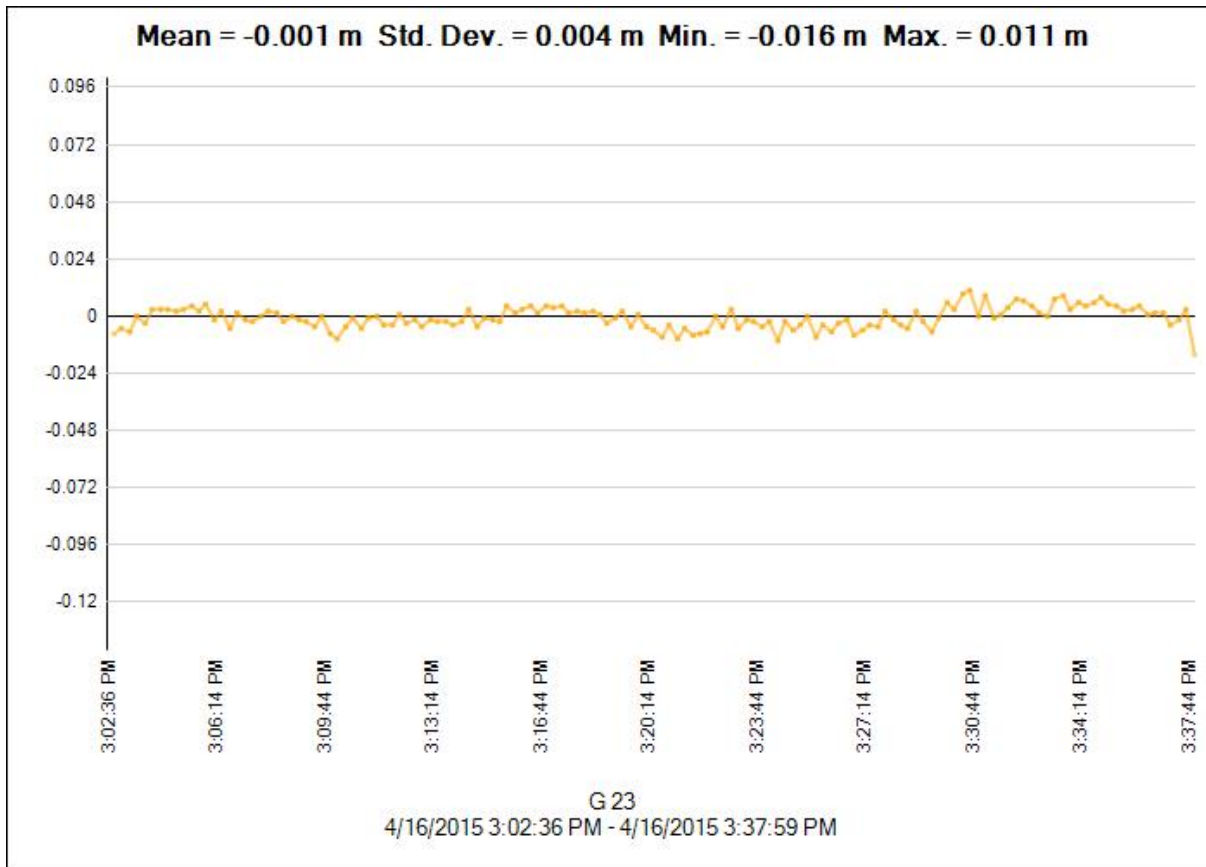
SV	4/16/2015 3:02:21 PM	Duration: 00:35:42	Major interval: 00:01:00	4/16/2015 3:38:03 PM
G 5	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 11	L1 L2			
G 16	L1 L2			
G 19	L1 L2			
G 20	L1 L2			
G 23	L1 L2			
G 27	L1 L2			
G 28	L1 L2			
G 30	L1 L2			

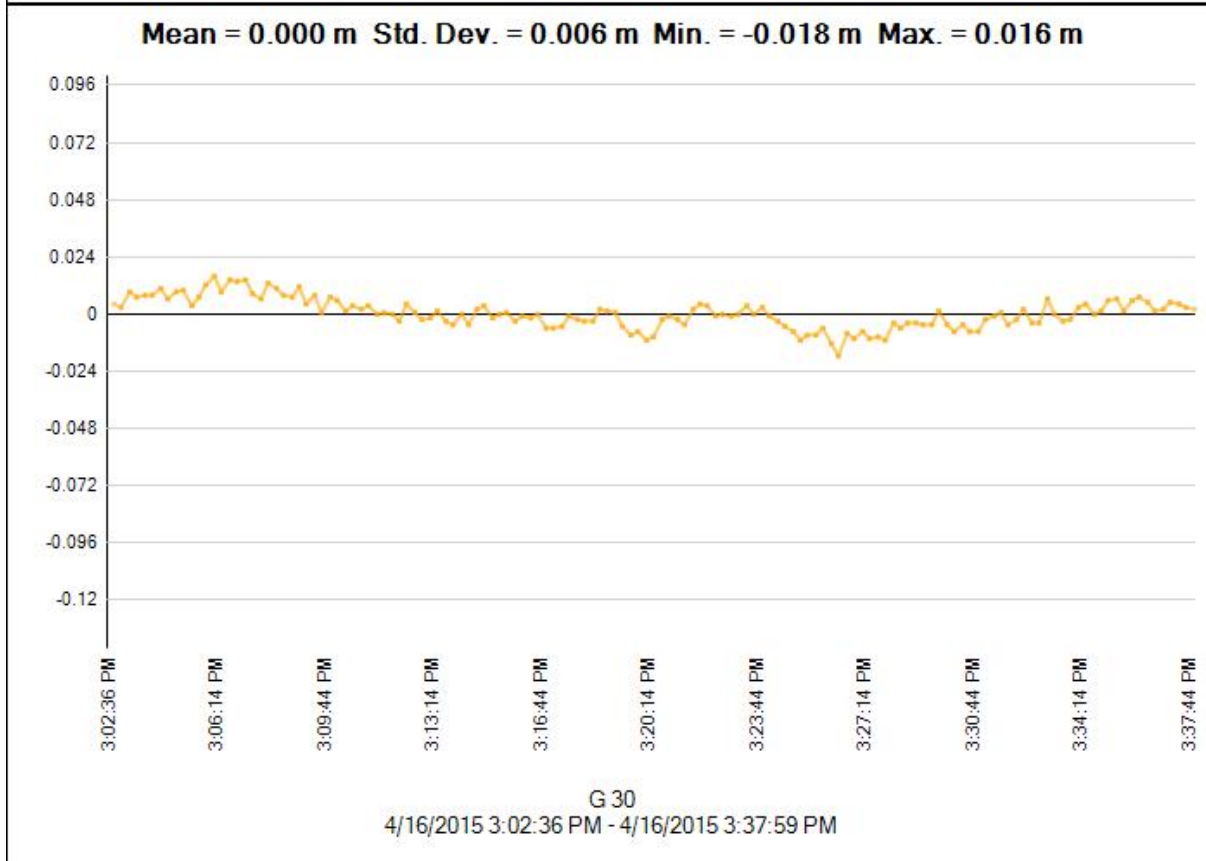
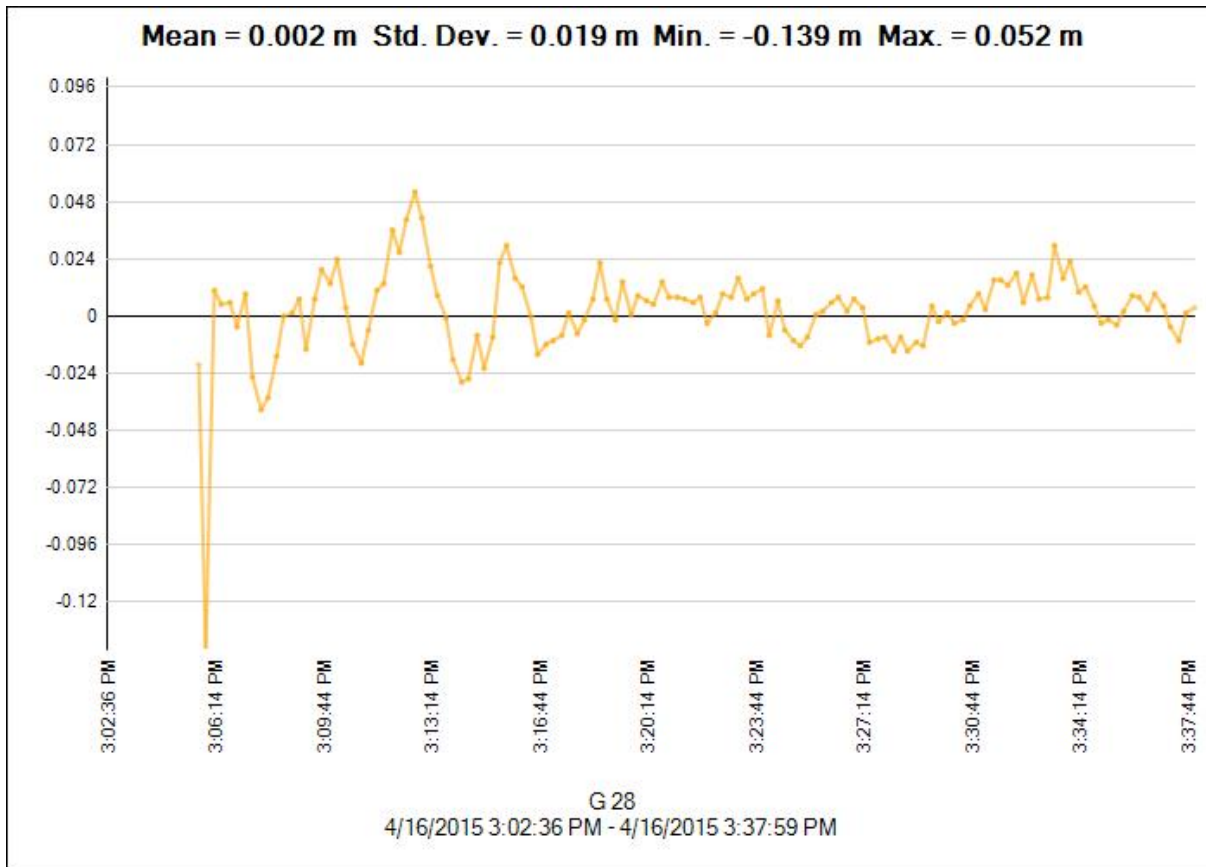
Residuals













Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS617 (2:02:58 PM-2:38:34 PM) (S26)

Baseline observation: NR0224 --- CAS617 (B26)
Processed: 7/1/2015 8:54:04 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.008 m
Vertical precision: 0.011 m
RMS: 0.001 m
Maximum PDOP: 2.339
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 4/16/2015 2:02:59 PM (Local: UTC-6hr)
Processing stop time: 4/16/2015 2:38:29 PM (Local: UTC-6hr)
Processing duration: 00:35:30
Processing interval: 15 seconds

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470639.792 m	Latitude	N42°53'23.96463"	Latitude	N42°53'23.96462"
Northing	365796.218 m	Longitude	W106°28'06.64497"	Longitude	W106°28'06.64497"
Elevation	1613.879 m	Height	1600.710 m	Height	1600.710 m

To:		CAS617			
Grid		Local		Global	
Easting	481407.009 m	Latitude	N43°09'32.64200"	Latitude	N43°09'32.64200"
Northing	395810.585 m	Longitude	W106°19'56.39185"	Longitude	W106°19'56.39185"
Elevation	1646.235 m	Height	1632.616 m	Height	1632.616 m

Vector					
ΔEasting	10767.218 m	NS Fwd Azimuth	20°19'30"	ΔX	16404.646 m
ΔNorthing	30014.367 m	Ellipsoid Dist.	31886.950 m	ΔY	16413.931 m
ΔElevation	32.356 m	ΔHeight	31.906 m	ΔZ	21880.659 m

Standard Errors

Vector errors:					
σ ΔEasting	0.002 m	σ NS fwd Azimuth	0°00'00"	σ ΔX	0.002 m
σ ΔNorthing	0.003 m	σ Ellipsoid Dist.	0.003 m	σ ΔY	0.004 m
σ ΔElevation	0.005 m	σ ΔHeight	0.005 m	σ ΔZ	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000059032		
Y	0.0000049589	0.0000167224	
Z	-0.0000008376	-0.0000092461	0.0000222093

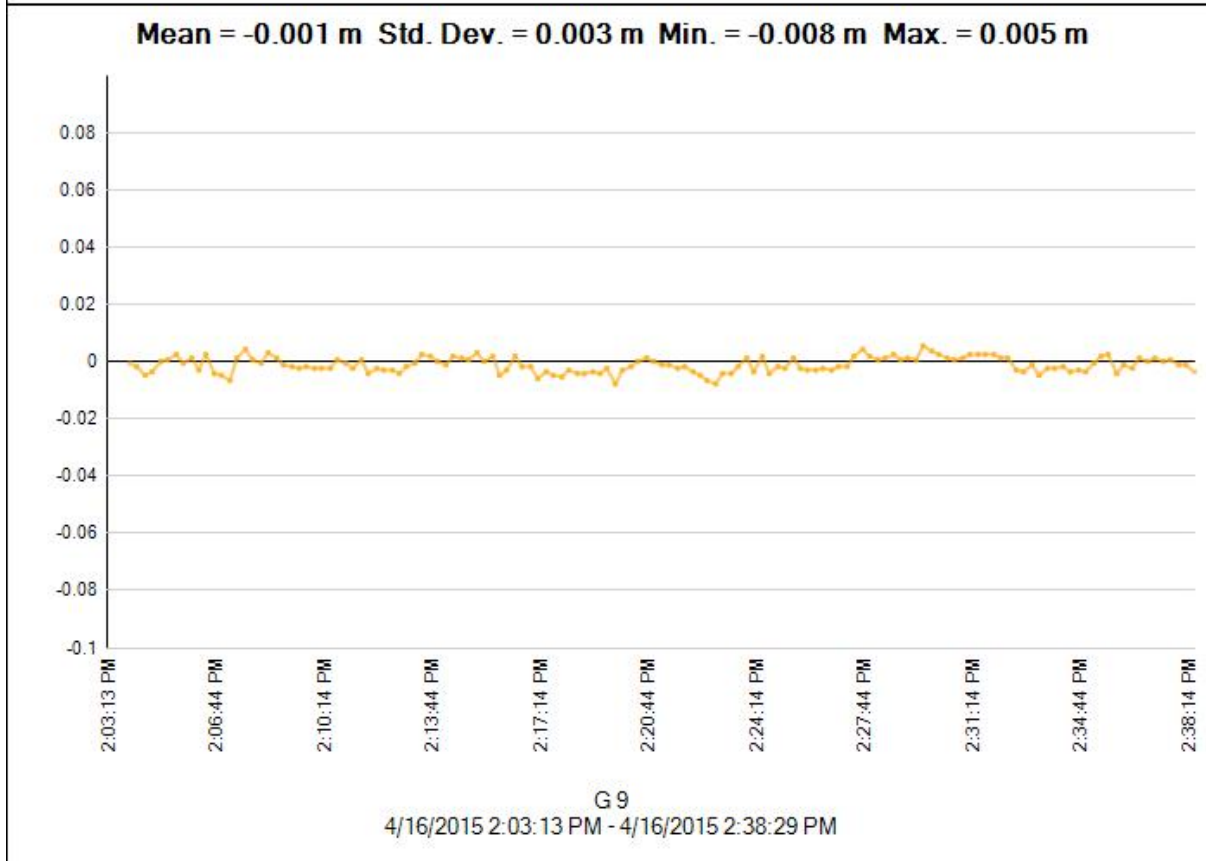
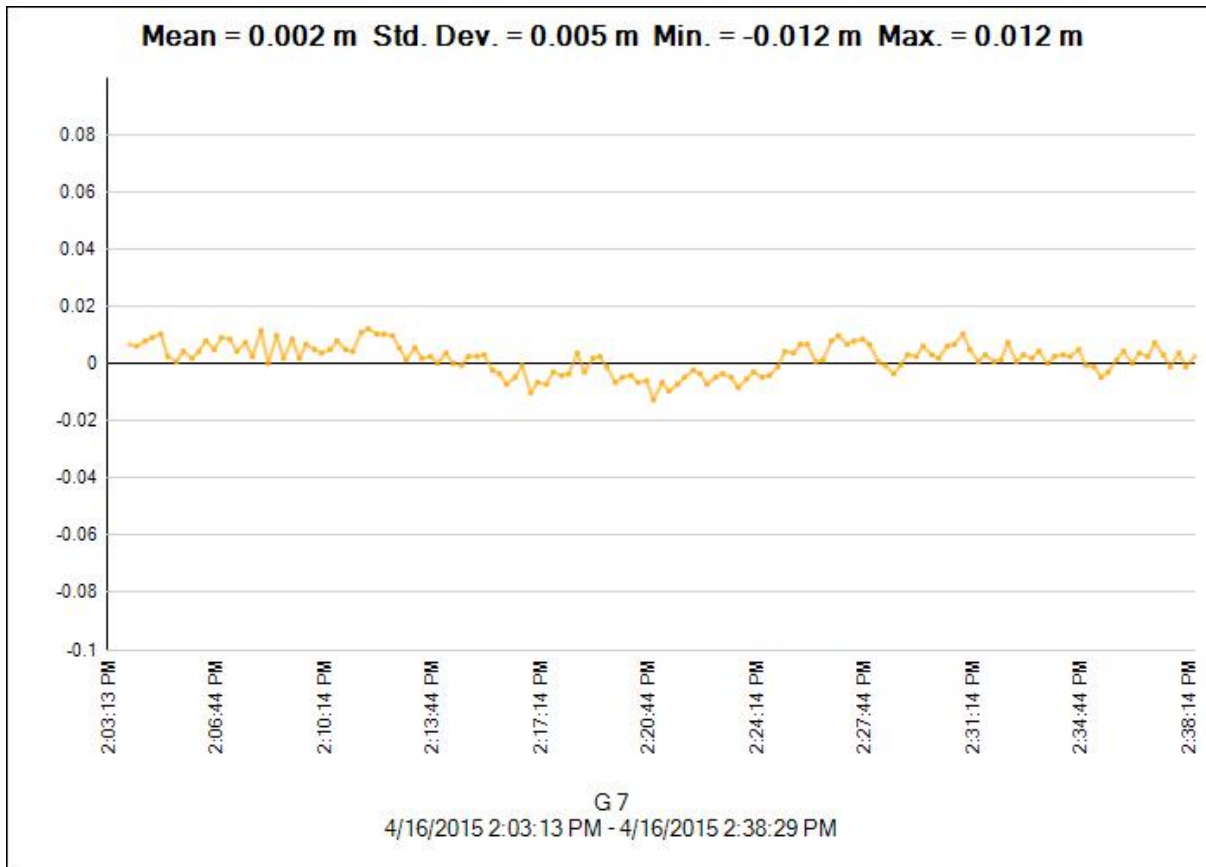
Occupations

	From	To
Point ID:	NR0224	CAS617
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801065.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.681 m	1.497 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

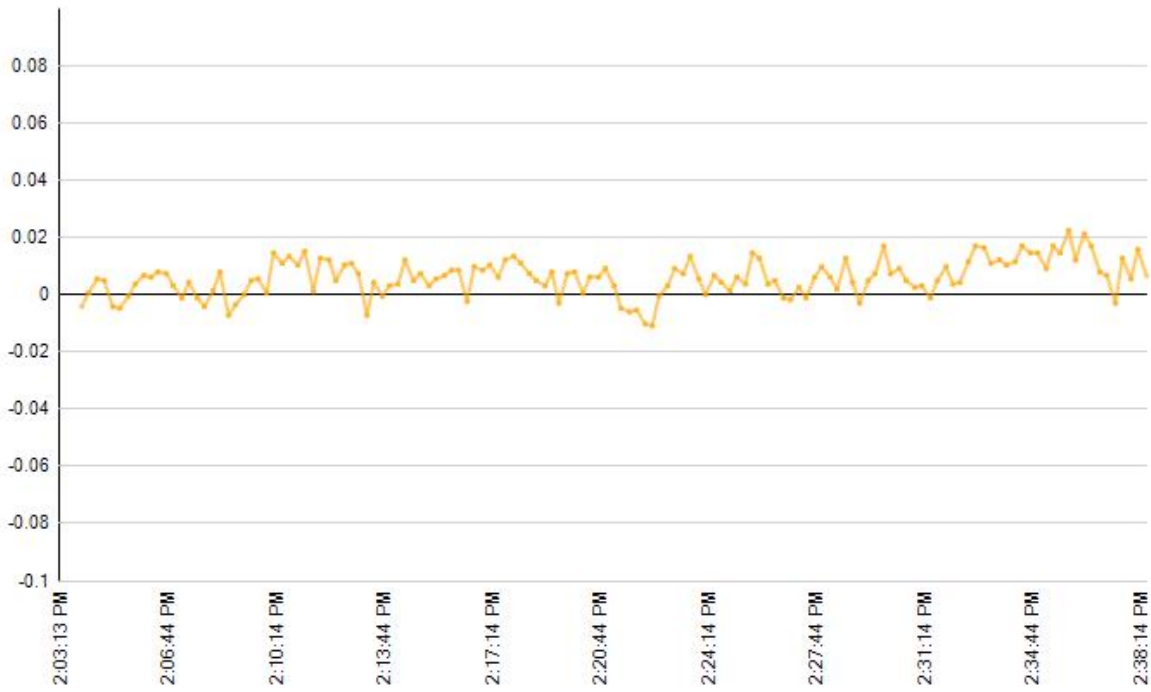
Tracking Summary

SV	4/16/2015 2:02:58 PM	Duration: 00:35:36	Major interval: 00:01:00	4/16/2015 2:38:34 PM
G 3	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 16	L1 L2			
G 19	L1 L2			
G 20	L1 L2			
G 23	L1 L2			
G 27	L1 L2			
G 30	L1 L2			

Residuals

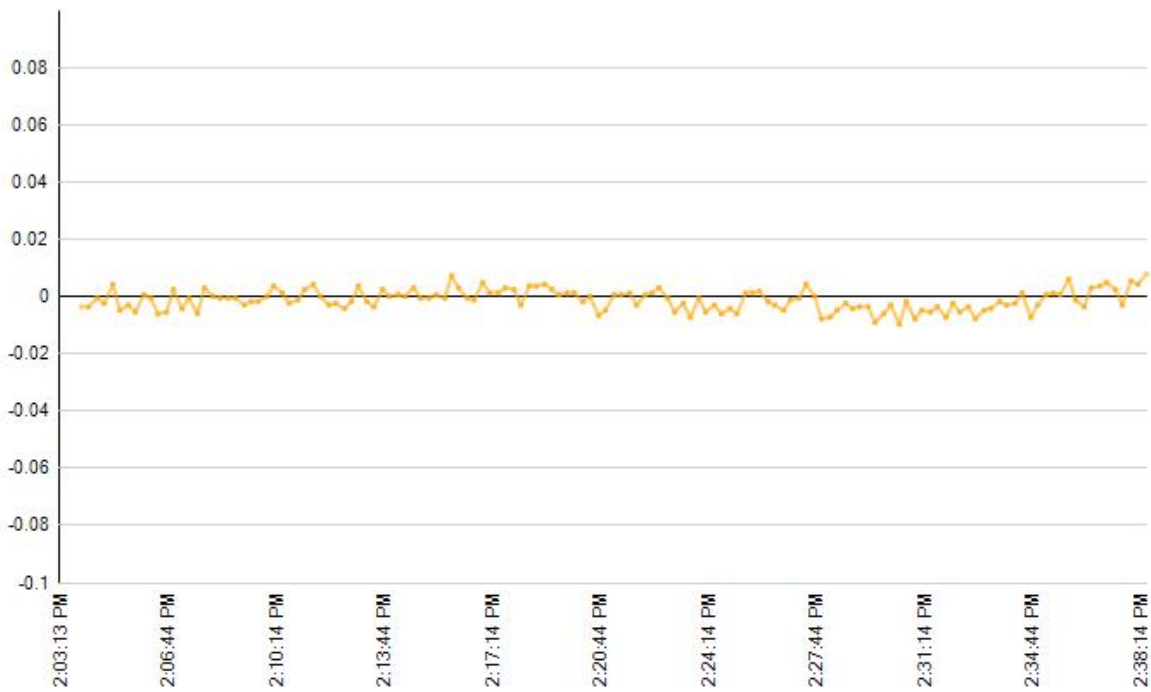


Mean = 0.006 m Std. Dev. = 0.006 m Min. = -0.011 m Max. = 0.022 m

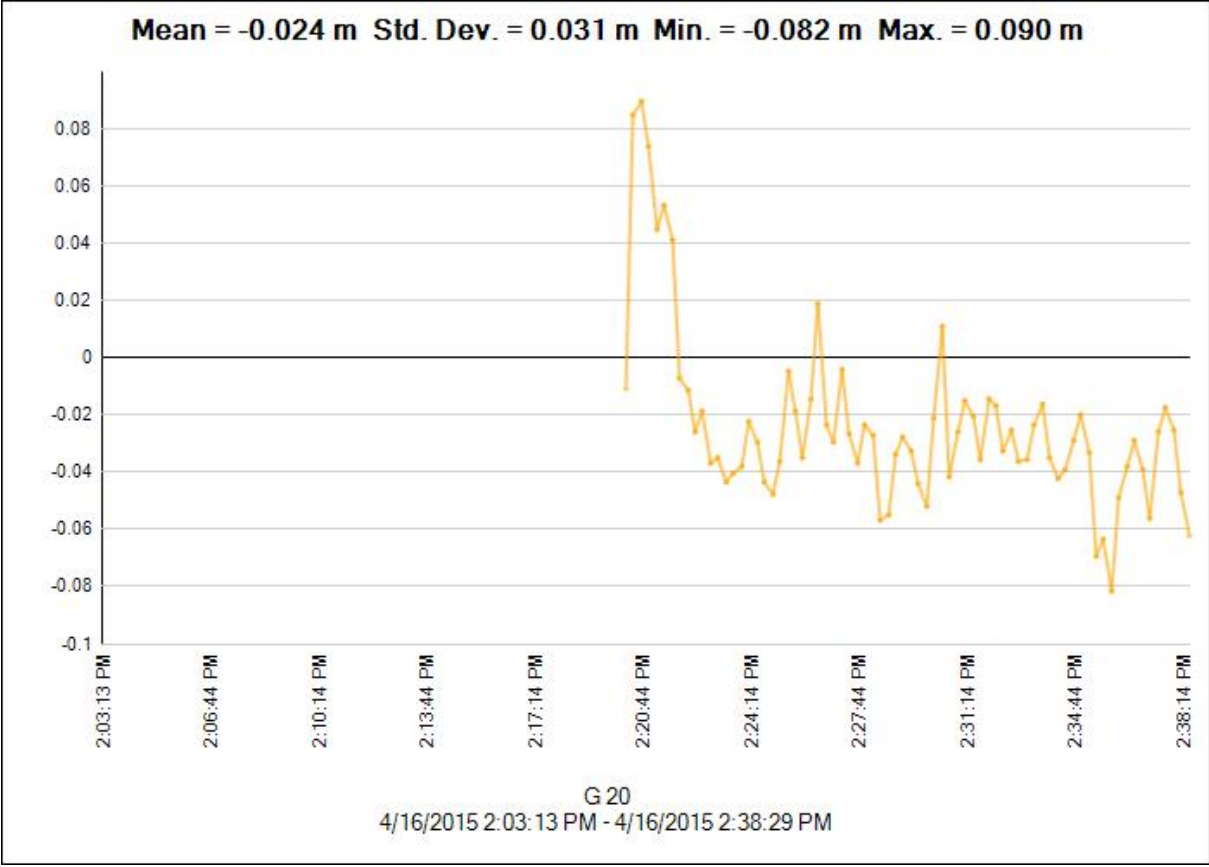
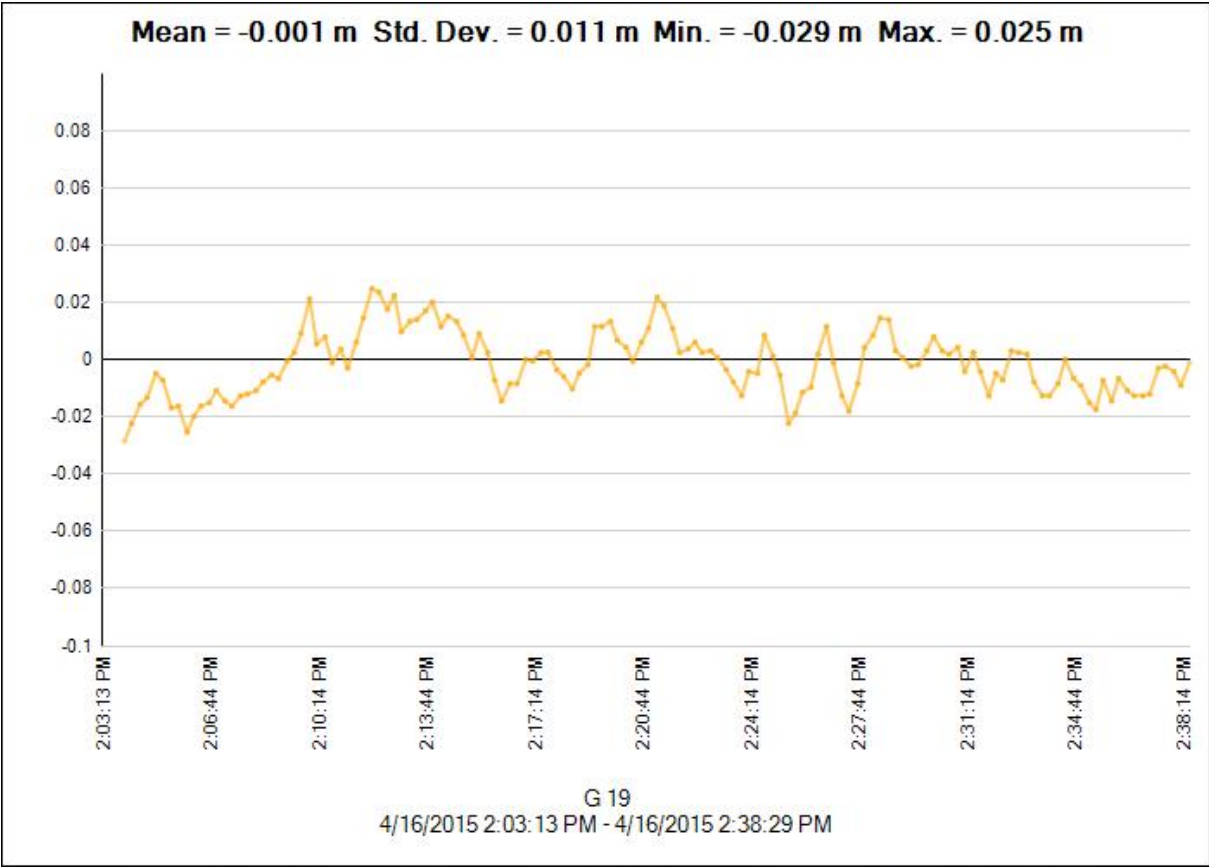


G 10
4/16/2015 2:03:13 PM - 4/16/2015 2:38:29 PM

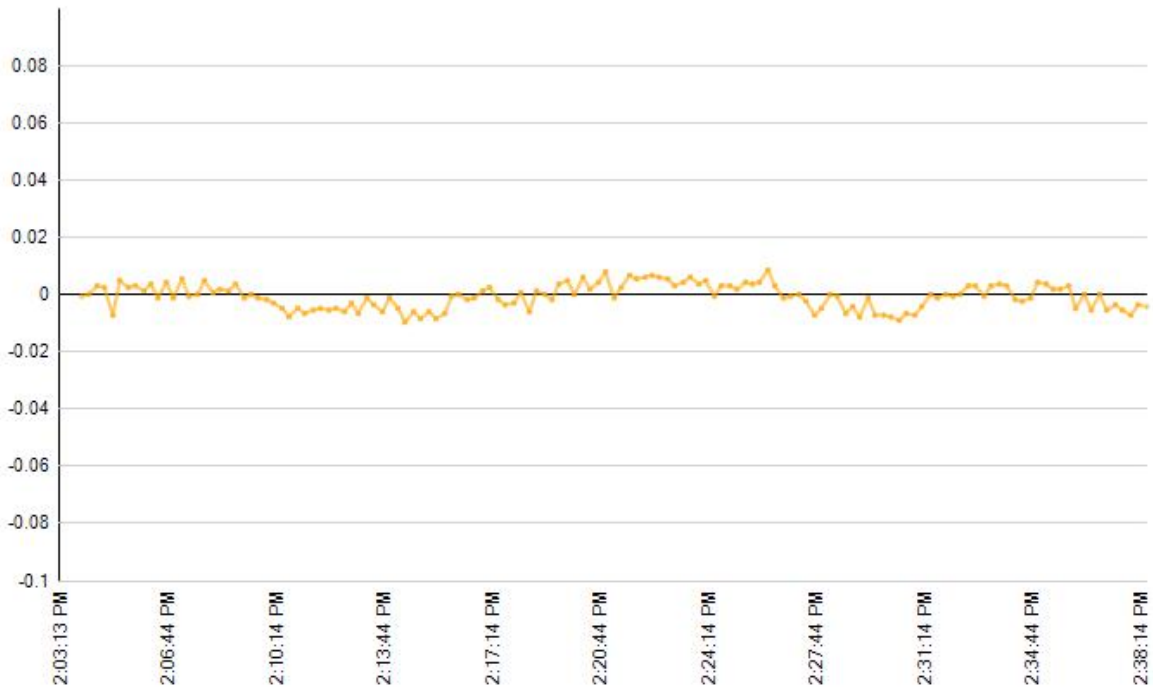
Mean = -0.001 m Std. Dev. = 0.004 m Min. = -0.009 m Max. = 0.008 m



G 16
4/16/2015 2:03:13 PM - 4/16/2015 2:38:29 PM

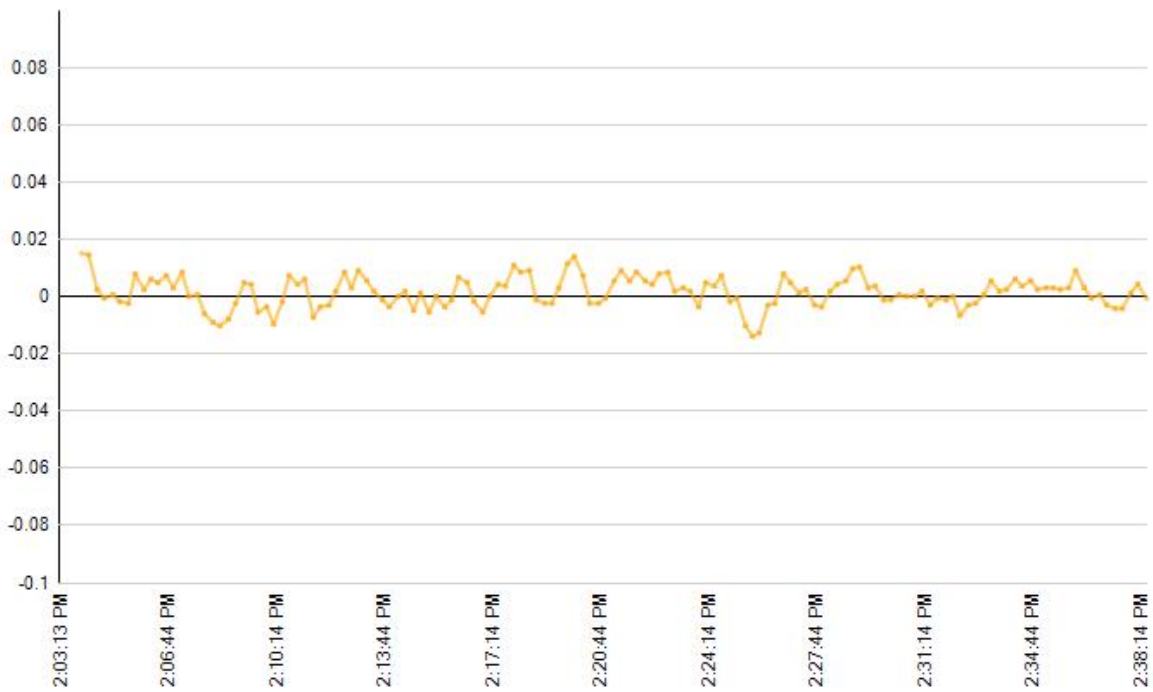


Mean = -0.001 m Std. Dev. = 0.004 m Min. = -0.010 m Max. = 0.008 m

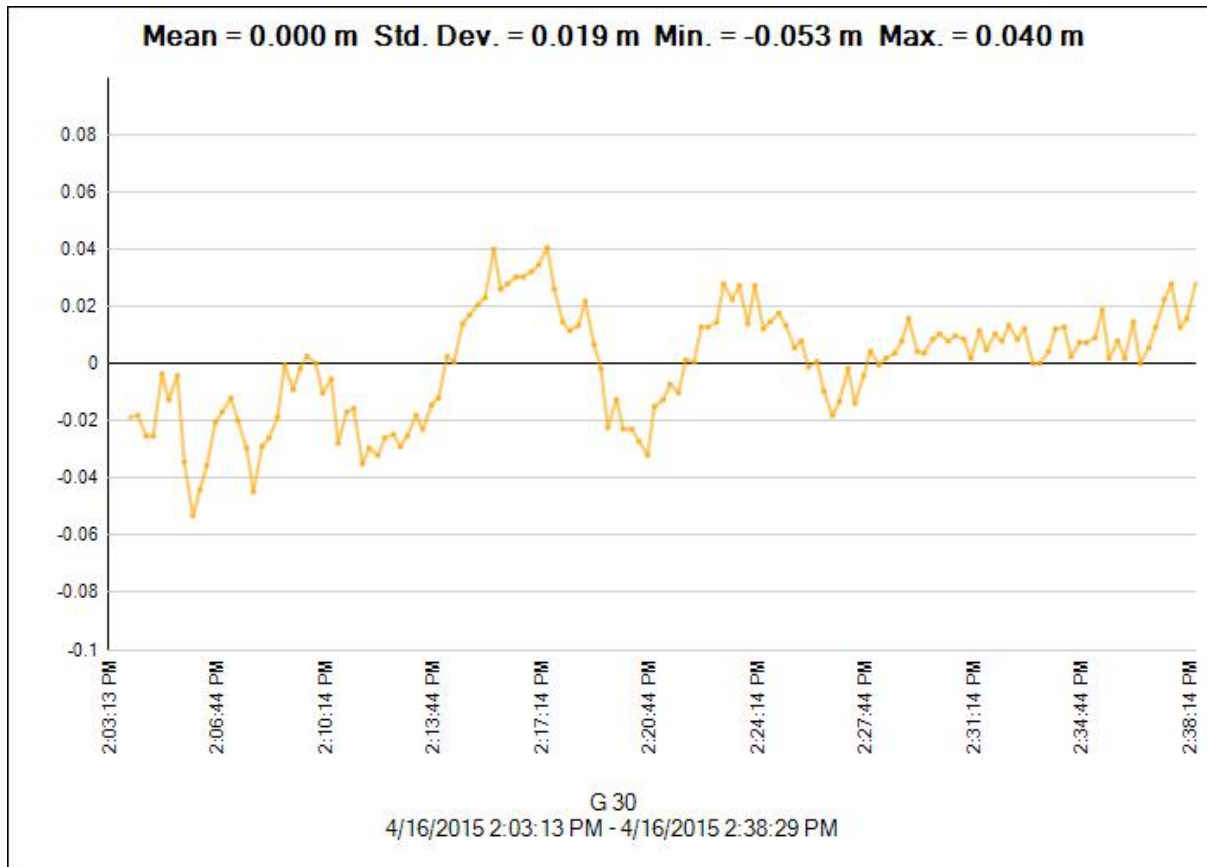


G 23
4/16/2015 2:03:13 PM - 4/16/2015 2:38:29 PM

Mean = 0.001 m Std. Dev. = 0.005 m Min. = -0.014 m Max. = 0.015 m





G 27
4/16/2015 2:03:13 PM - 4/16/2015 2:38:29 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS616 (12:52:28 PM-1:43:44 PM) (S27)

Baseline observation: NR0224 --- CAS616 (B27)
 Processed: 7/1/2015 8:54:05 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.010 m
 Vertical precision: 0.012 m
 RMS: 0.001 m
 Maximum PDOP: 3.779
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/16/2015 12:52:29 PM (Local: UTC-6hr)
 Processing stop time: 4/16/2015 1:43:44 PM (Local: UTC-6hr)
 Processing duration: 00:51:15
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470639.792 m	Latitude	N42°53'23.96463"	Latitude	N42°53'23.96462"
Northing	365796.218 m	Longitude	W106°28'06.64497"	Longitude	W106°28'06.64497"
Elevation	1613.879 m	Height	1600.710 m	Height	1600.710 m

To: CAS616					
Grid		Local		Global	
Easting	487594.488 m	Latitude	N43°19'00.80101"	Latitude	N43°19'00.80100"
Northing	413422.967 m	Longitude	W106°15'12.47408"	Longitude	W106°15'12.47408"
Elevation	1538.966 m	Height	1525.146 m	Height	1525.146 m

Vector					
ΔEasting	16954.696 m	NS Fwd Azimuth	20°11'11"	ΔX	25947.308 m
ΔNorthing	47626.750 m	Ellipsoid Dist.	50553.867 m	ΔY	26223.004 m
ΔElevation	-74.913 m	ΔHeight	-75.563 m	ΔZ	34583.692 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.004 m
$\sigma \Delta$ Northing	0.004 m	σ Ellipsoid Dist.	0.004 m	$\sigma \Delta$ Y	0.005 m
$\sigma \Delta$ Elevation	0.006 m	$\sigma \Delta$ Height	0.006 m	$\sigma \Delta$ Z	0.004 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000185429		
Y	0.0000167362	0.0000284398	
Z	-0.0000063939	-0.0000107536	0.0000156025

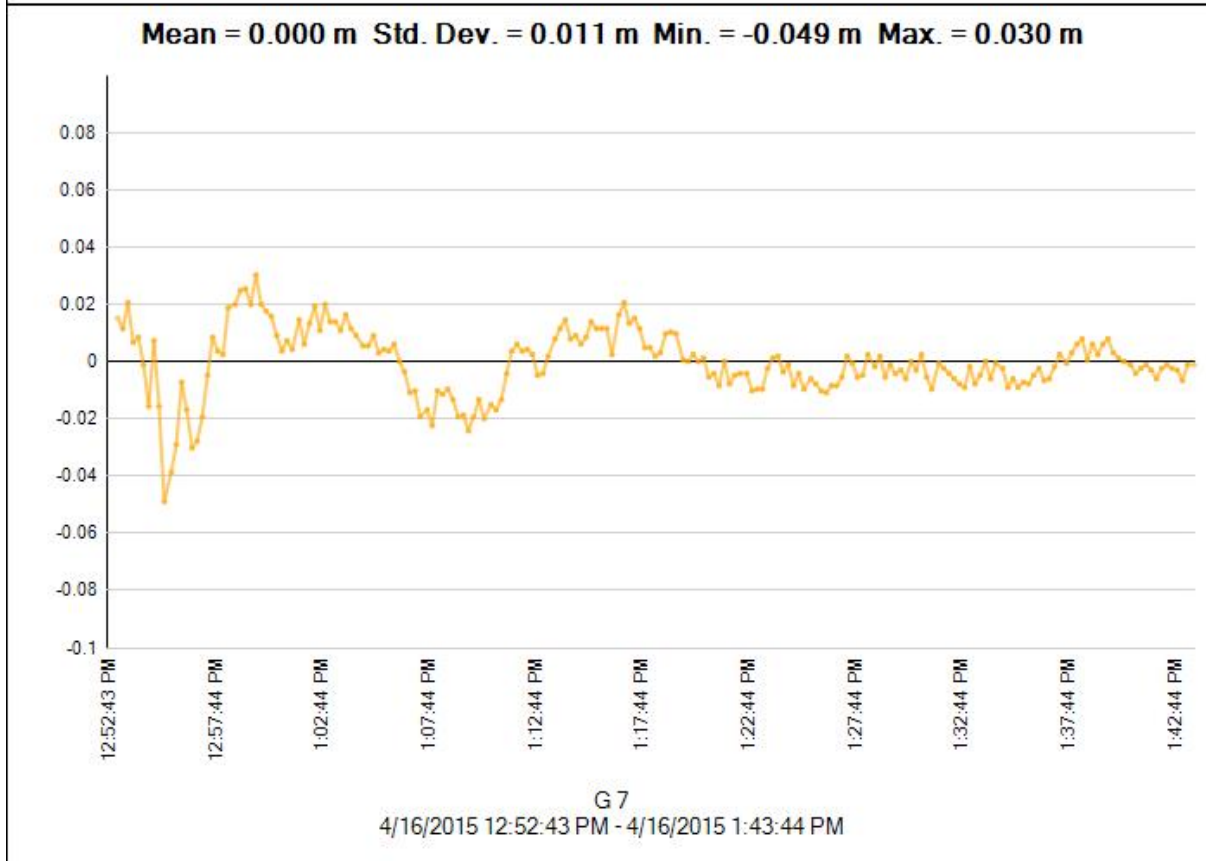
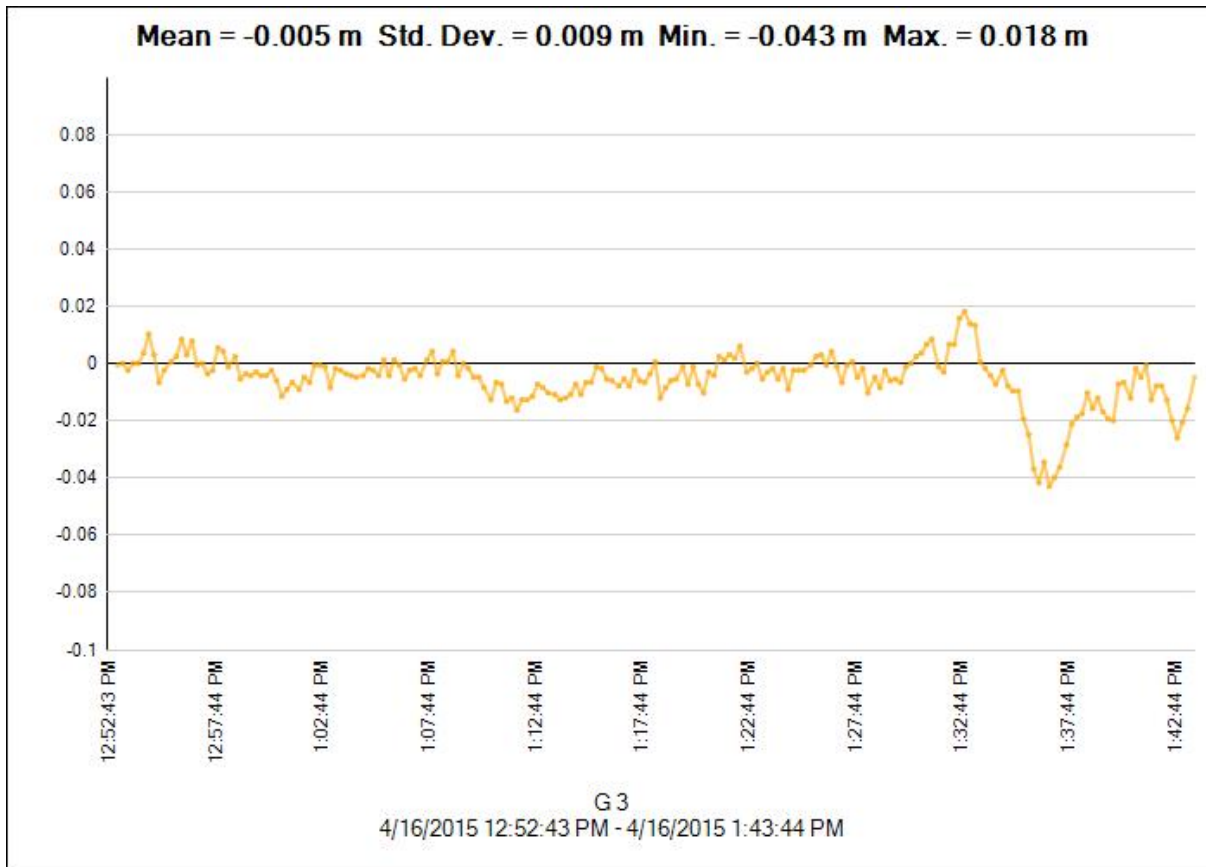
Occupations

	From	To
Point ID:	NR0224	CAS616
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801064.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.681 m	1.493 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

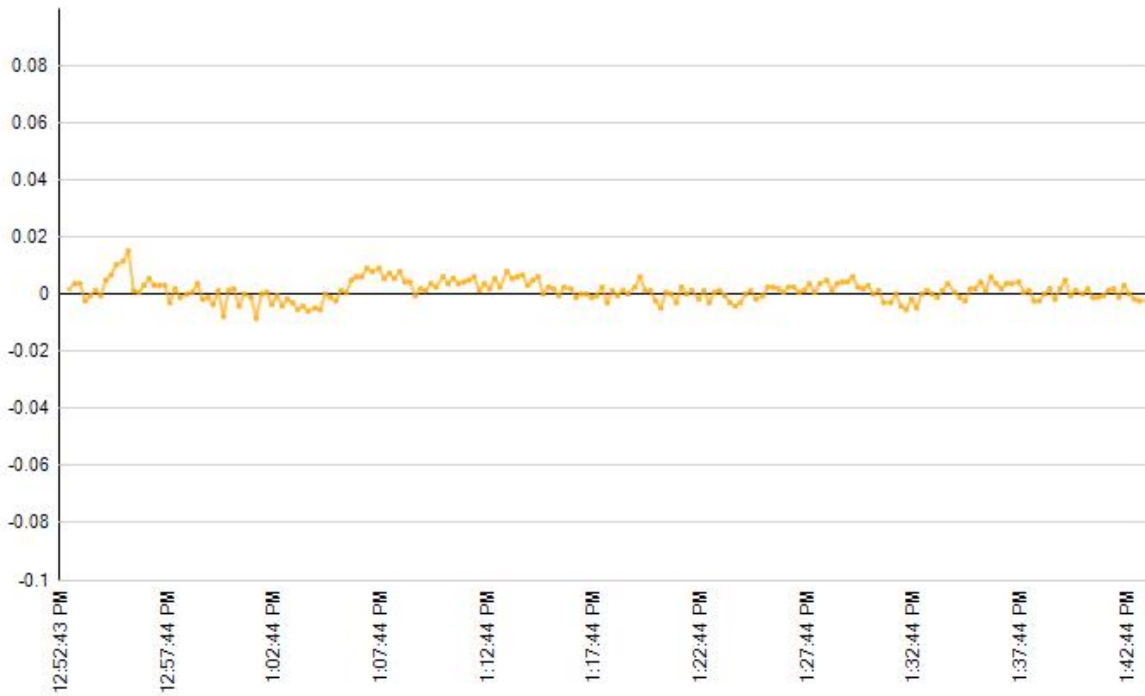
Tracking Summary

SV	4/16/2015 12:52:28 PM	Duration: 00:51:16	Major interval: 00:10:00	4/16/2015 1:43:44 PM
G 3	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 16	L1 L2			
G 19	L1 L2			
G 23	L1 L2			
G 27	L1 L2			
G 30	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals



Mean = 0.001 m Std. Dev. = 0.003 m Min. = -0.009 m Max. = 0.015 m



G 9

4/16/2015 12:52:43 PM - 4/16/2015 1:43:44 PM

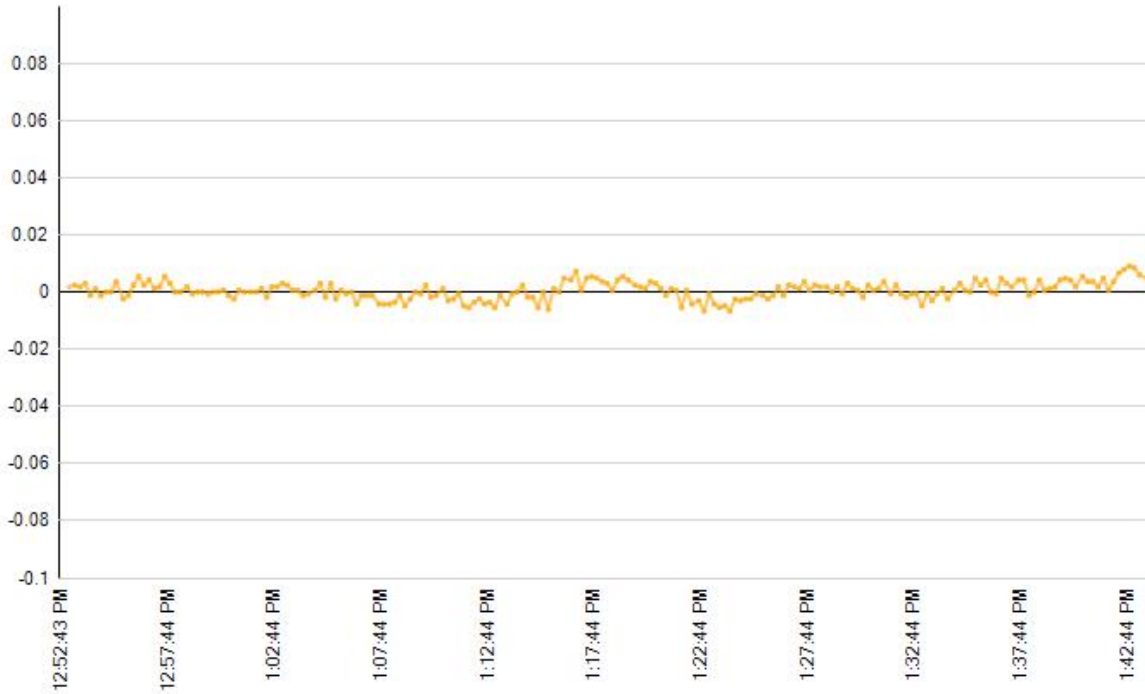
Mean = 0.000 m Std. Dev. = 0.015 m Min. = -0.037 m Max. = 0.035 m



G 10

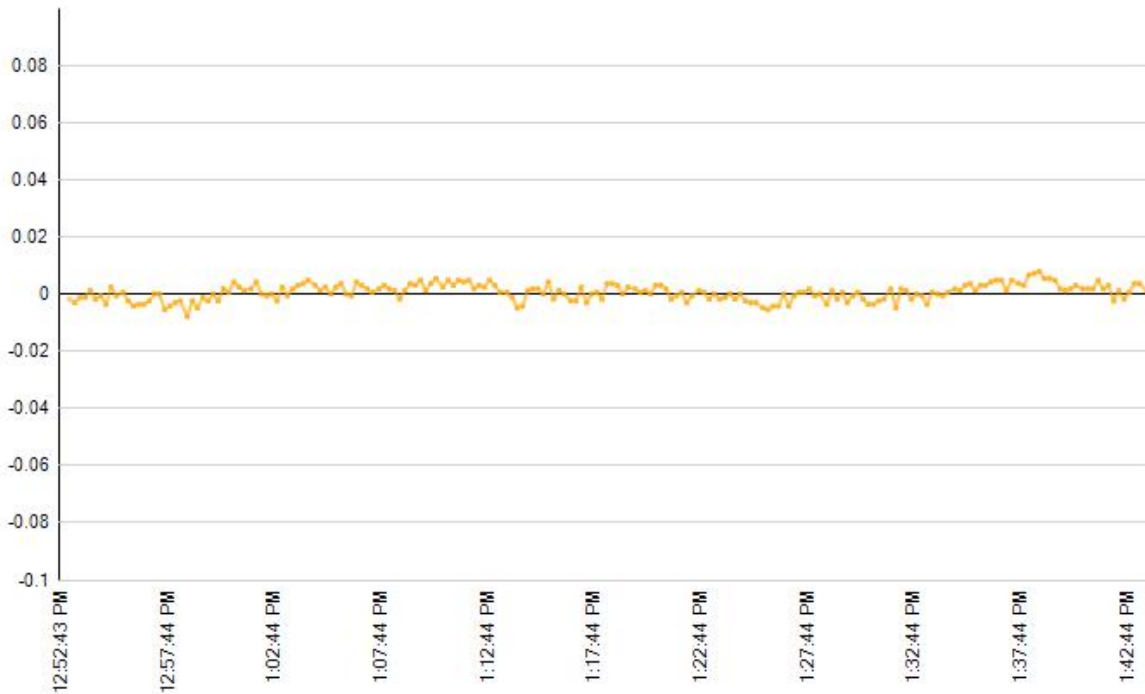
4/16/2015 12:52:43 PM - 4/16/2015 1:43:44 PM

Mean = 0.001 m Std. Dev. = 0.003 m Min. = -0.007 m Max. = 0.009 m



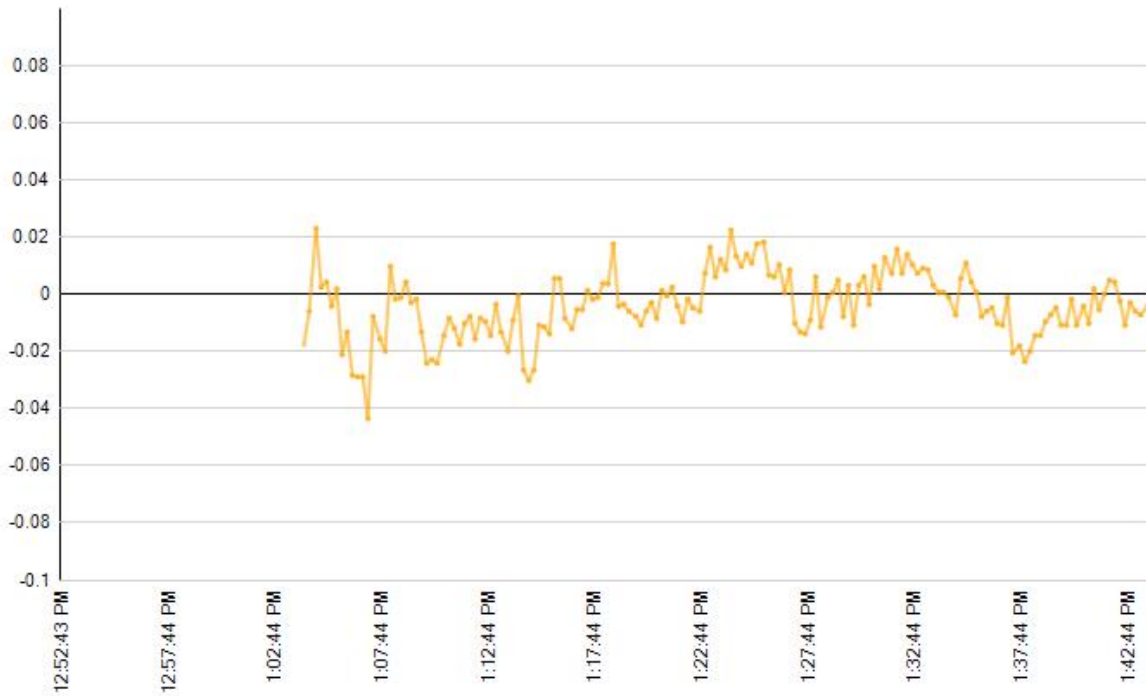
G 16
4/16/2015 12:52:43 PM - 4/16/2015 1:43:44 PM

Mean = 0.001 m Std. Dev. = 0.003 m Min. = -0.008 m Max. = 0.008 m



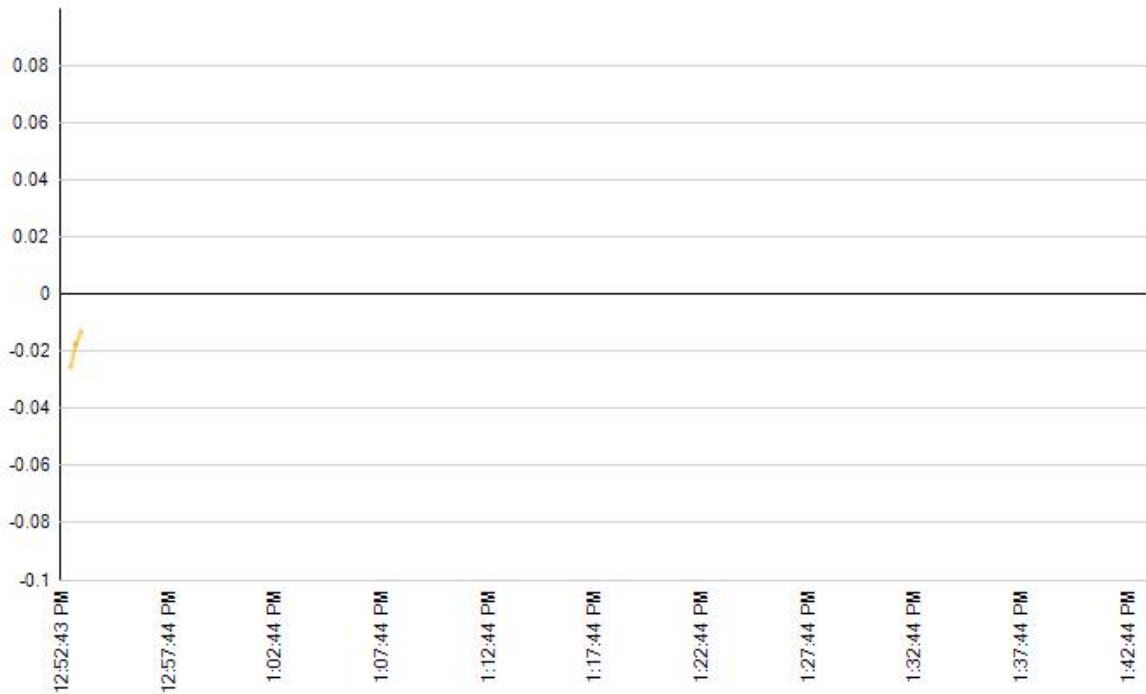
G 23
4/16/2015 12:52:43 PM - 4/16/2015 1:43:44 PM

Mean = -0.004 m Std. Dev. = 0.011 m Min. = -0.043 m Max. = 0.023 m

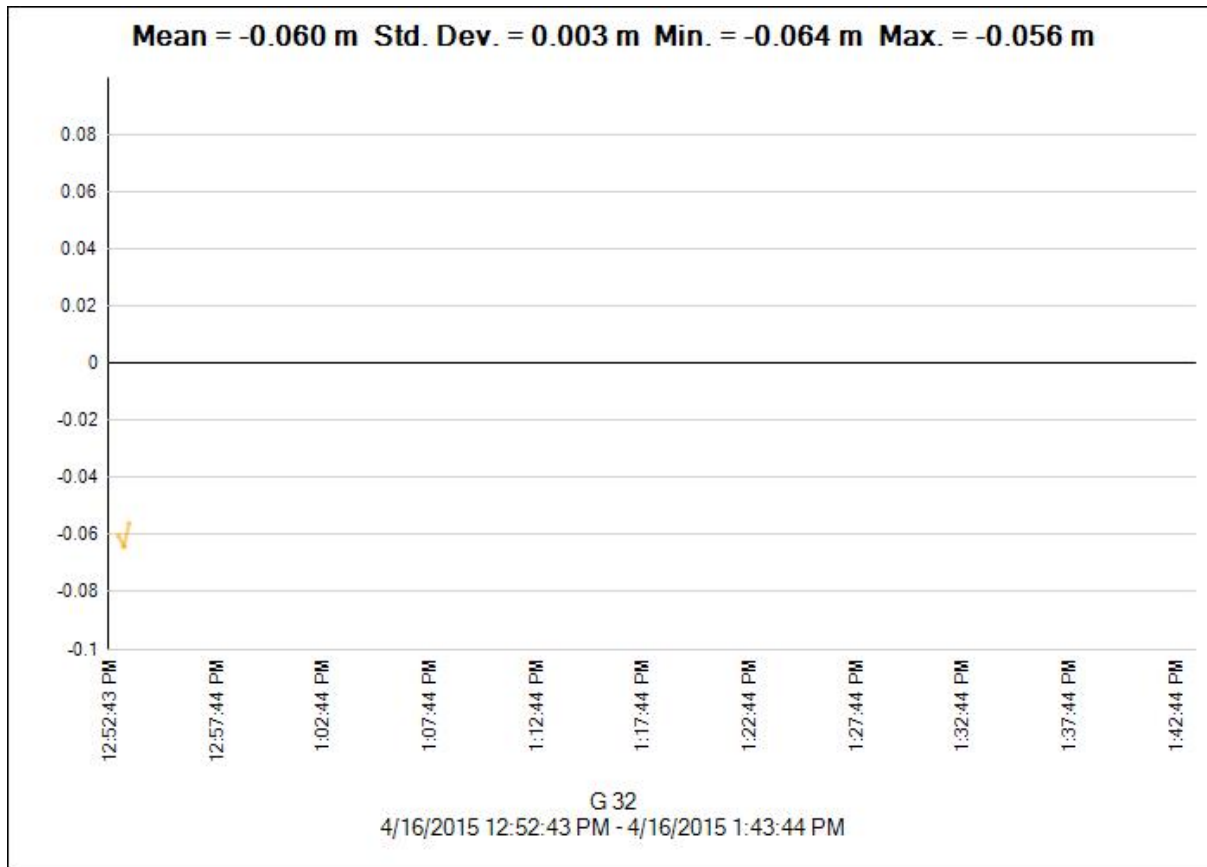


G 27
4/16/2015 12:52:43 PM - 4/16/2015 1:43:44 PM

Mean = -0.019 m Std. Dev. = 0.005 m Min. = -0.026 m Max. = -0.013 m





G 31
4/16/2015 12:52:43 PM - 4/16/2015 1:43:44 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS615 (11:49:25 AM-12:39:38 PM) (S28)

Baseline observation: NR0224 --- CAS615 (B28)
 Processed: 7/1/2015 8:54:05 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.009 m
 Vertical precision: 0.017 m
 RMS: 0.001 m
 Maximum PDOP: 7.245
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/16/2015 11:49:29 AM (Local: UTC-6hr)
 Processing stop time: 4/16/2015 12:39:29 PM (Local: UTC-6hr)
 Processing duration: 00:50:00
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470639.792 m	Latitude	N42°53'23.96463"	Latitude	N42°53'23.96462"
Northing	365796.218 m	Longitude	W106°28'06.64497"	Longitude	W106°28'06.64497"
Elevation	1613.879 m	Height	1600.710 m	Height	1600.710 m

To: CAS615					
Grid		Local		Global	
Easting	486120.435 m	Latitude	N43°24'34.12317"	Latitude	N43°24'34.12317"
Northing	423691.871 m	Longitude	W106°16'12.07580"	Longitude	W106°16'12.07580"
Elevation	1479.809 m	Height	1465.962 m	Height	1465.962 m

Vector					
ΔEasting	15480.643 m	NS Fwd Azimuth	15°33'42"	ΔX	26649.028 m
ΔNorthing	57895.653 m	Ellipsoid Dist.	59928.803 m	ΔY	33422.257 m
ΔElevation	-134.070 m	ΔHeight	-134.747 m	ΔZ	42023.389 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.004 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.004 m
$\sigma \Delta$ Northing	0.003 m	σ Ellipsoid Dist.	0.004 m	$\sigma \Delta$ Y	0.006 m
$\sigma \Delta$ Elevation	0.009 m	$\sigma \Delta$ Height	0.009 m	$\sigma \Delta$ Z	0.007 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000122847		
Y	0.0000041491	0.0000407418	
Z	-0.0000013035	-0.0000354231	0.0000480451

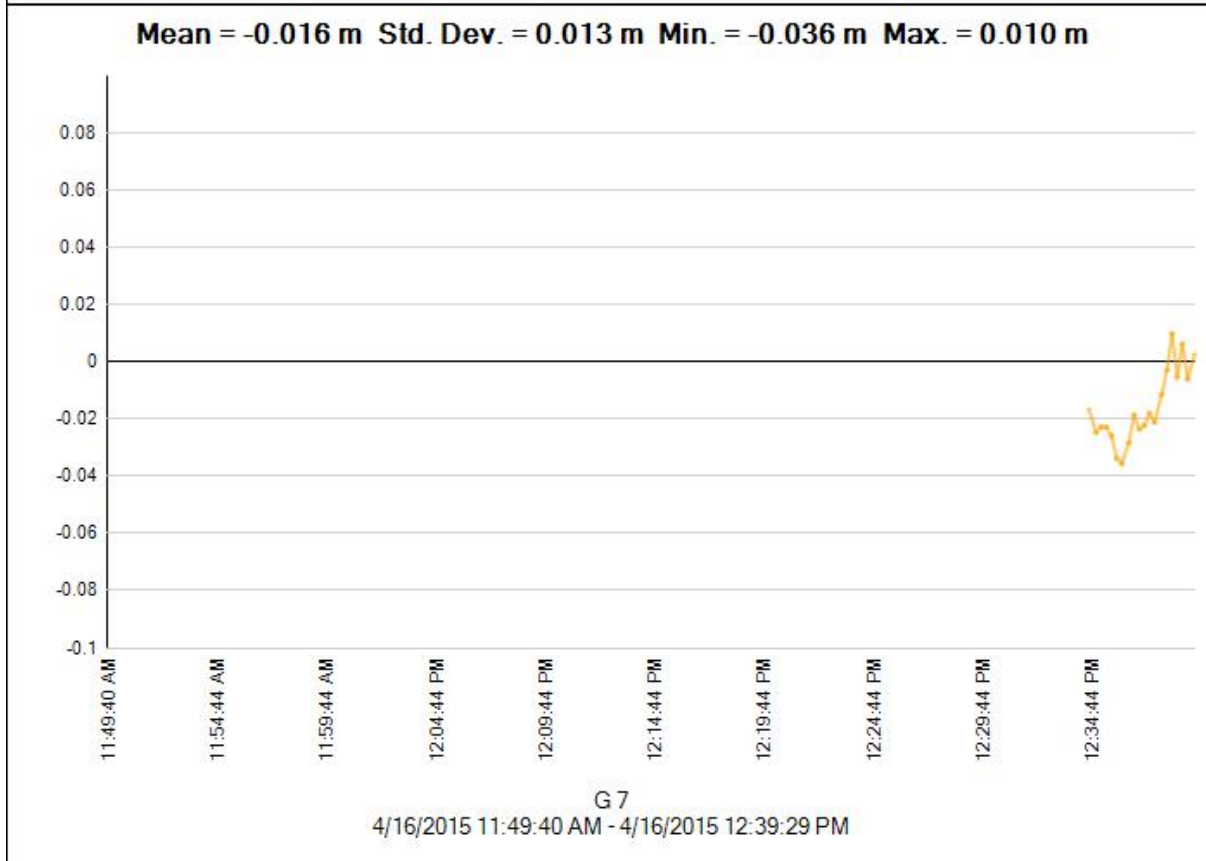
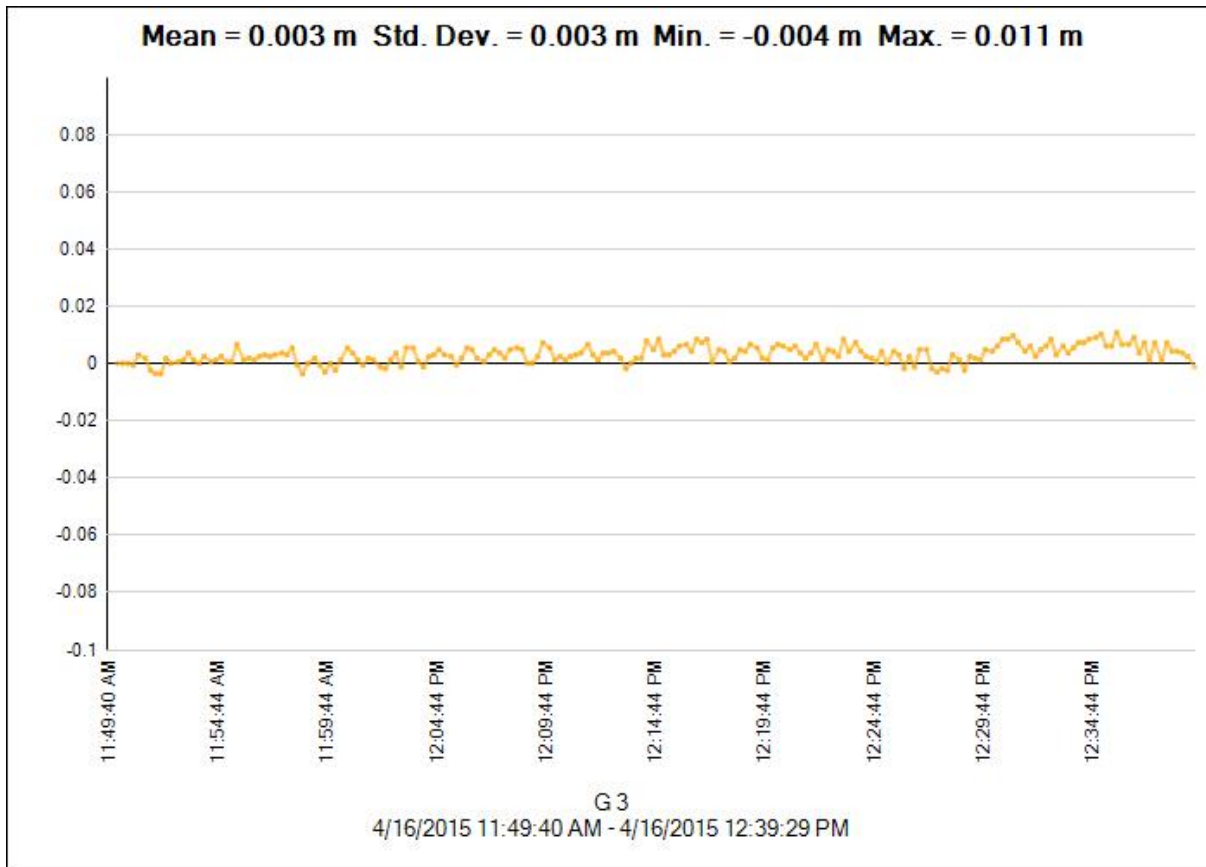
Occupations

	From	To
Point ID:	NR0224	CAS615
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801063.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.681 m	1.447 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

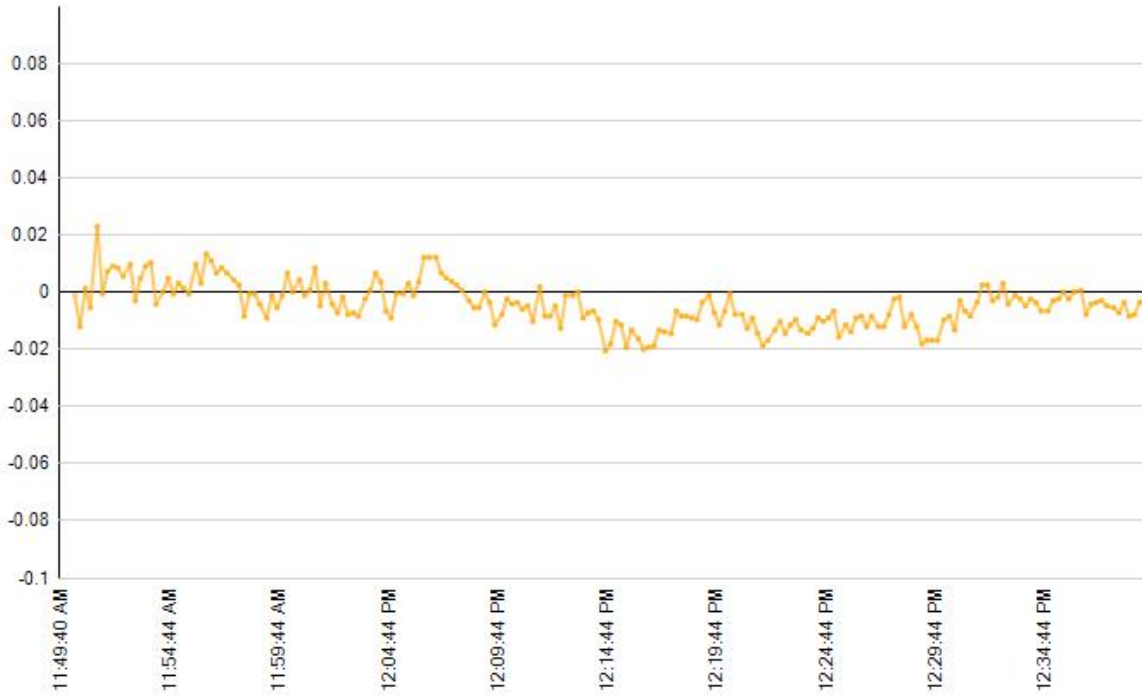
Tracking Summary

SV	4/16/2015 11:49:25 AM	Duration: 00:50:13	Major interval: 00:10:00	4/16/2015 12:39:38 PM
G 1	L1 L2			
G 3	L1 L2			
G 6	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 16	L1 L2			
G 23	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals



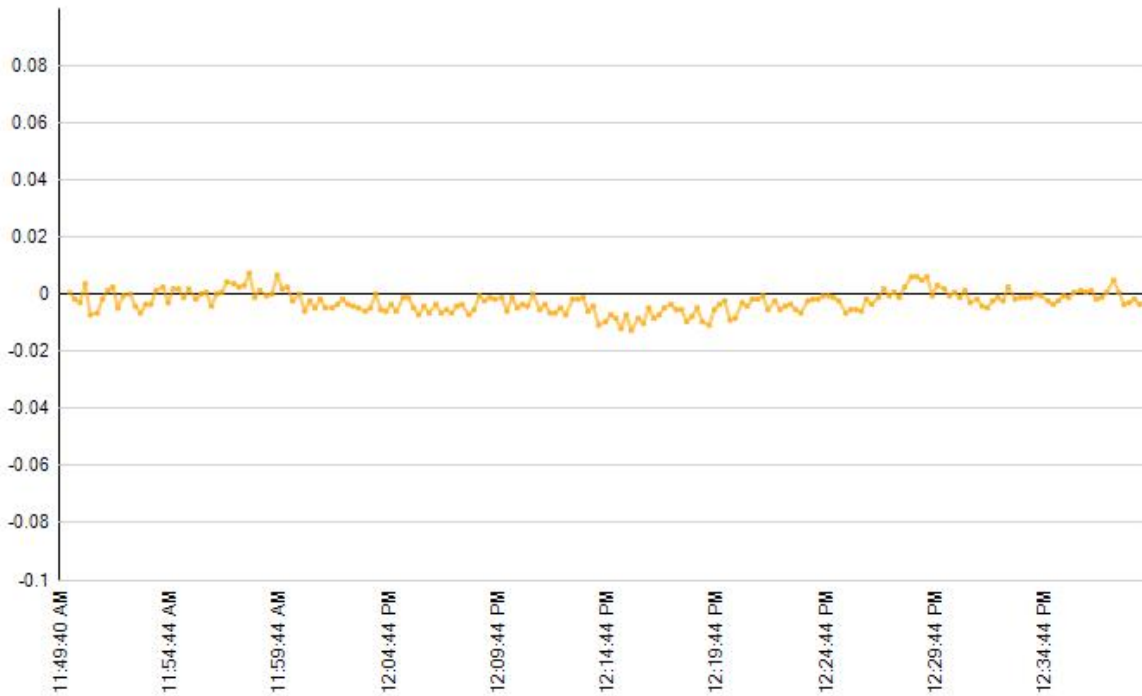
Mean = -0.004 m Std. Dev. = 0.008 m Min. = -0.020 m Max. = 0.023 m



G 9

4/16/2015 11:49:40 AM - 4/16/2015 12:39:29 PM

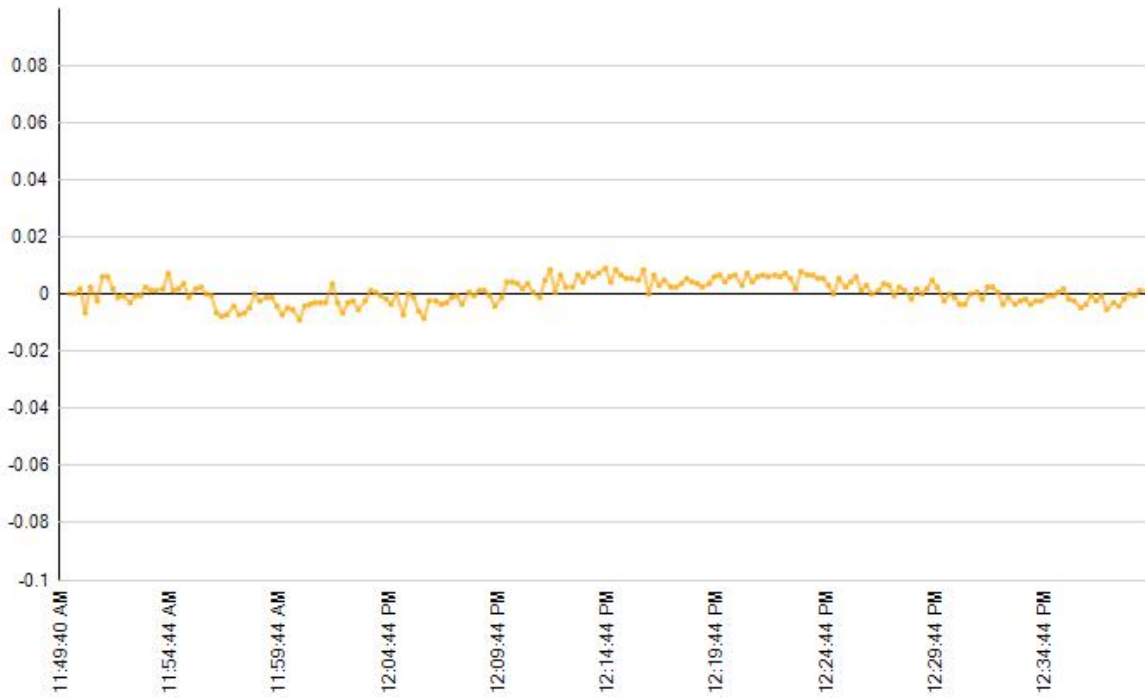
Mean = -0.003 m Std. Dev. = 0.004 m Min. = -0.013 m Max. = 0.007 m



G 16

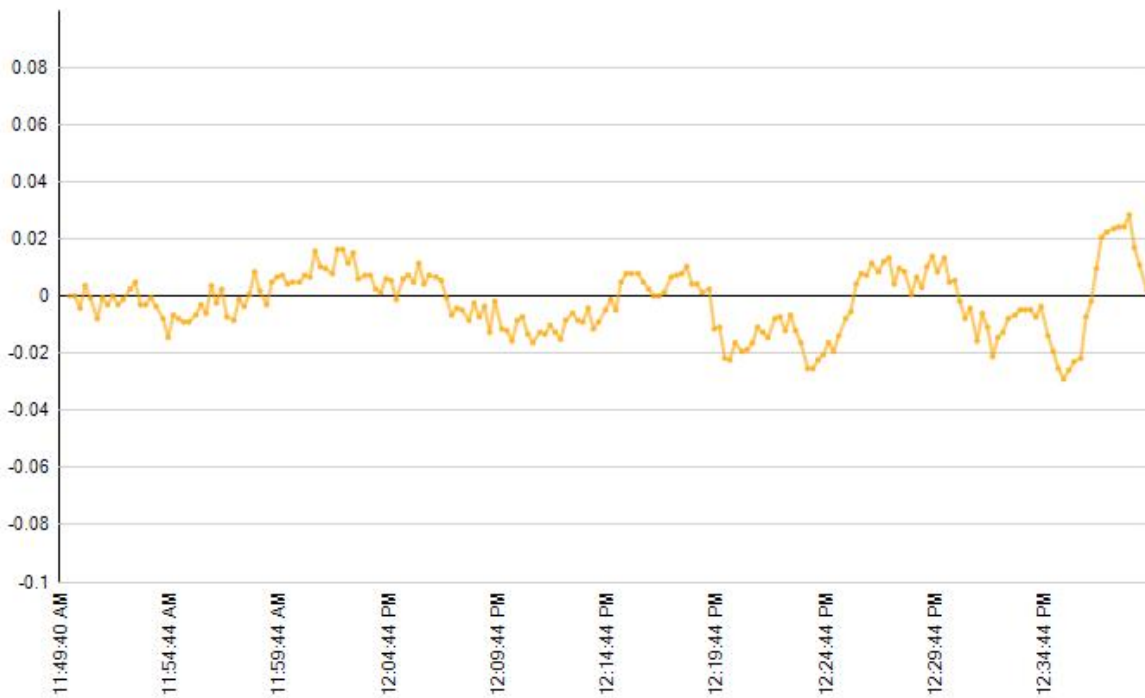
4/16/2015 11:49:40 AM - 4/16/2015 12:39:29 PM

Mean = 0.001 m Std. Dev. = 0.004 m Min. = -0.009 m Max. = 0.009 m

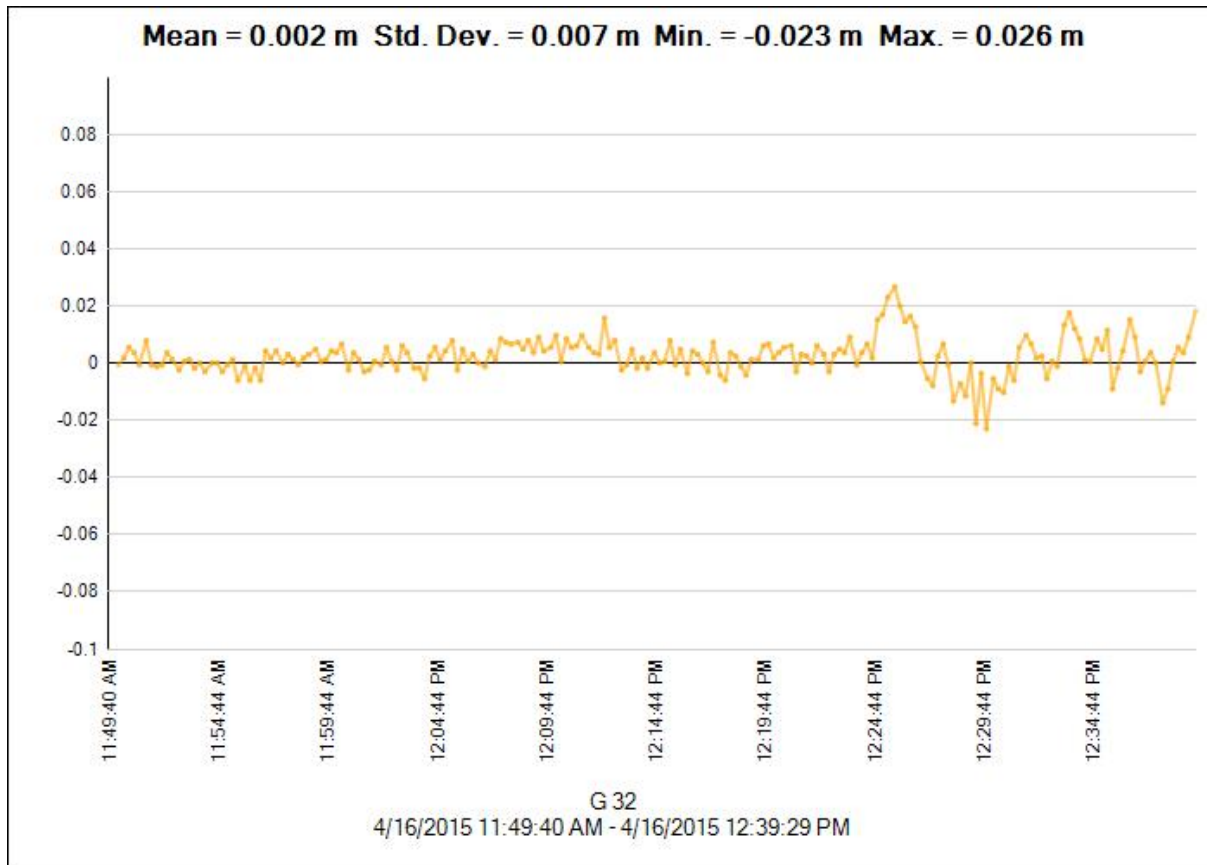


G 23
4/16/2015 11:49:40 AM - 4/16/2015 12:39:29 PM

Mean = -0.002 m Std. Dev. = 0.011 m Min. = -0.029 m Max. = 0.028 m





G 31
4/16/2015 11:49:40 AM - 4/16/2015 12:39:29 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS314 (10:30:23 AM-11:05:29 AM) (S29)

Baseline observation: NR0224 --- CAS314 (B29)
 Processed: 7/1/2015 8:54:04 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.010 m
 Vertical precision: 0.012 m
 RMS: 0.003 m
 Maximum PDOP: 1.989
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/16/2015 10:30:29 AM (Local: UTC-6hr)
 Processing stop time: 4/16/2015 11:05:29 AM (Local: UTC-6hr)
 Processing duration: 00:35:00
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470639.792 m	Latitude	N42°53'23.96463"	Latitude	N42°53'23.96462"
Northing	365796.218 m	Longitude	W106°28'06.64497"	Longitude	W106°28'06.64497"
Elevation	1613.879 m	Height	1600.710 m	Height	1600.710 m

To: CAS314					
Grid		Local		Global	
Easting	480224.743 m	Latitude	N42°55'00.14377"	Latitude	N42°55'00.14376"
Northing	368869.574 m	Longitude	W106°21'02.67670"	Longitude	W106°21'02.67670"
Elevation	1612.229 m	Height	1598.915 m	Height	1598.915 m

Vector					
ΔEasting	9584.951 m	NS Fwd Azimuth	72°48'38"	ΔX	9799.870 m
ΔNorthing	3073.357 m	Ellipsoid Dist.	10065.549 m	ΔY	-777.880 m
ΔElevation	-1.650 m	ΔHeight	-1.795 m	ΔZ	2173.358 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.003 m
$\sigma \Delta$ Northing	0.004 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.005 m
$\sigma \Delta$ Elevation	0.006 m	$\sigma \Delta$ Height	0.006 m	$\sigma \Delta$ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000113929		
Y	0.0000073757	0.0000256466	
Z	-0.0000072903	-0.0000107032	0.0000263717

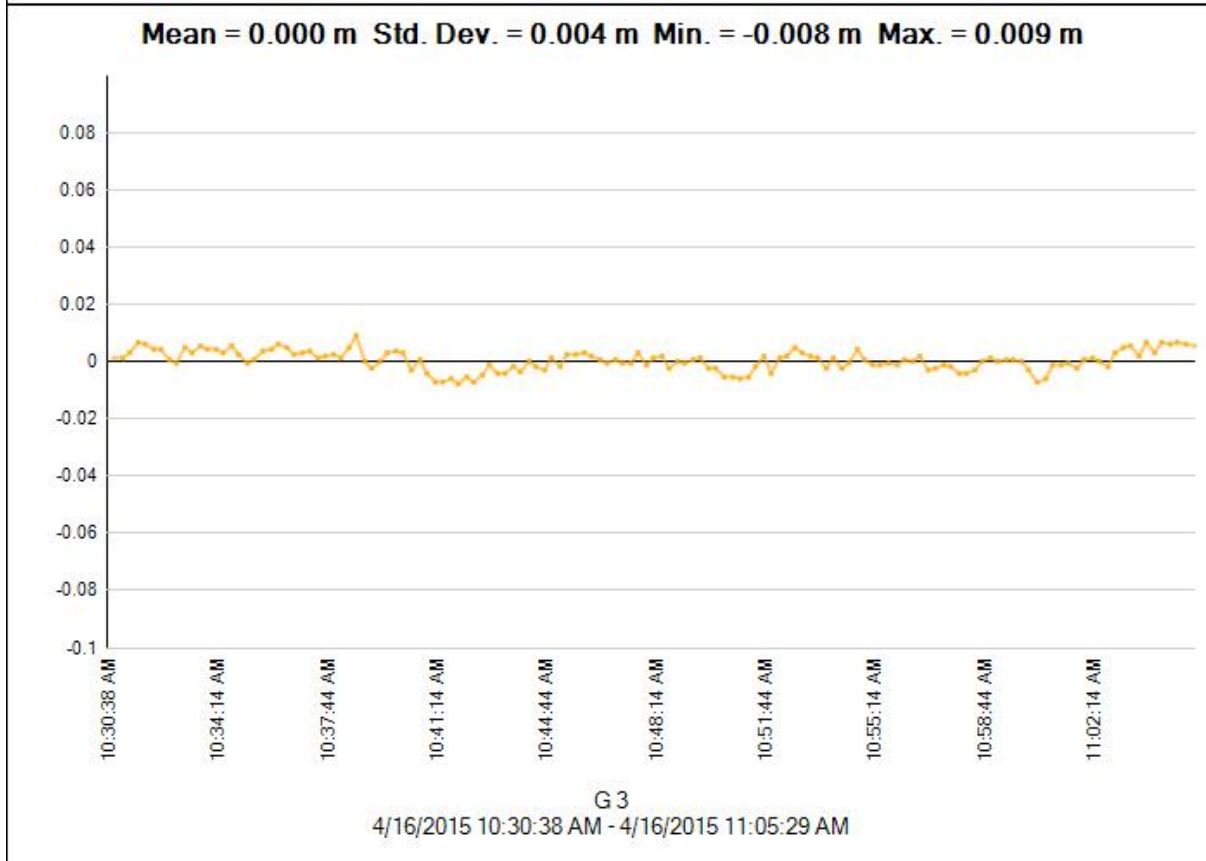
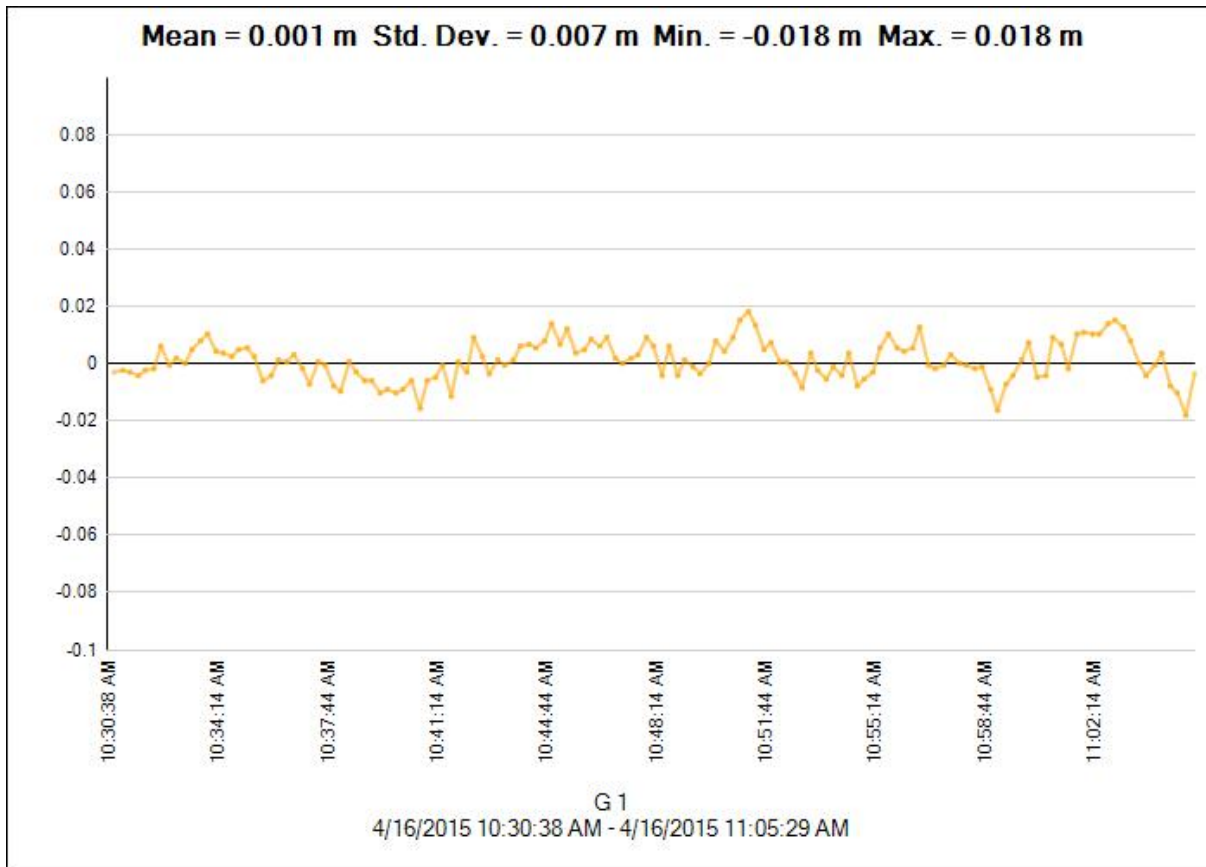
Occupations

	From	To
Point ID:	NR0224	CAS314
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801062.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.681 m	1.618 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

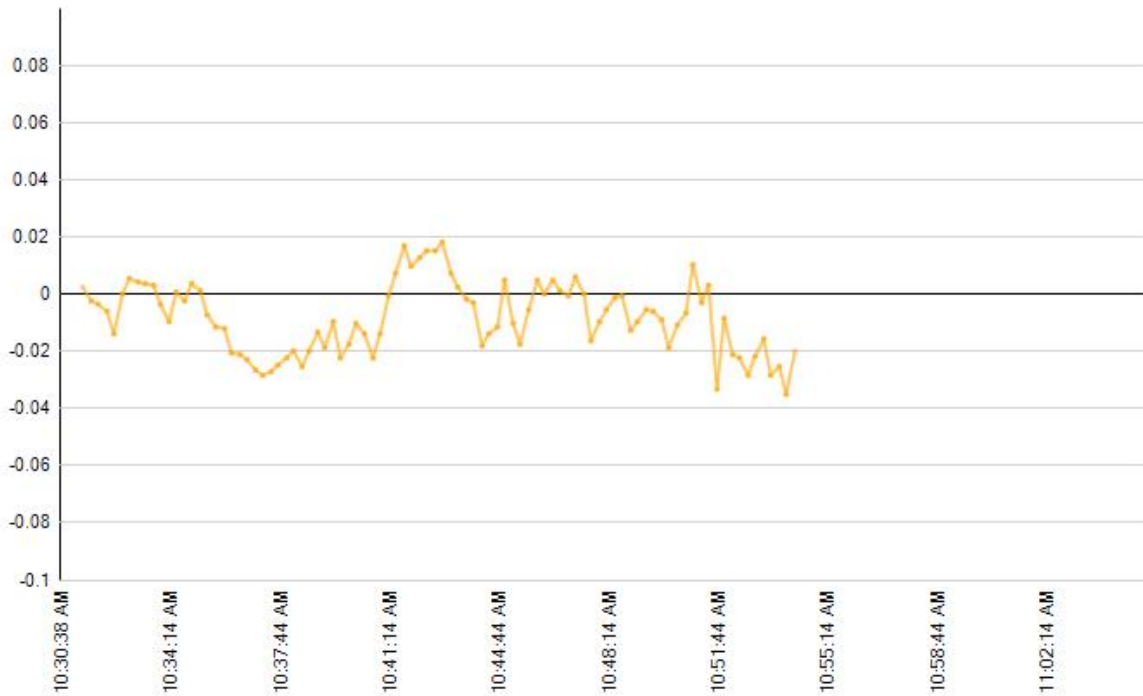
Tracking Summary

SV	4/16/2015 10:30:23 AM	Duration: 00:35:06	Major interval: 00:01:00	4/16/2015 11:05:29 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 11	L1 L2			
G 14	L1 L2			
G 16	L1 L2			
G 22	L1 L2			
G 23	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals



Mean = -0.008 m Std. Dev. = 0.012 m Min. = -0.035 m Max. = 0.018 m



G 4
4/16/2015 10:30:38 AM - 4/16/2015 11:05:29 AM

Mean = 0.000 m Std. Dev. = 0.012 m Min. = -0.033 m Max. = 0.026 m



G 14
4/16/2015 10:30:38 AM - 4/16/2015 11:05:29 AM

Mean = 0.007 m Std. Dev. = 0.013 m Min. = -0.019 m Max. = 0.035 m



G 16
4/16/2015 10:30:38 AM - 4/16/2015 11:05:29 AM

Mean = -0.002 m Std. Dev. = 0.009 m Min. = -0.022 m Max. = 0.020 m



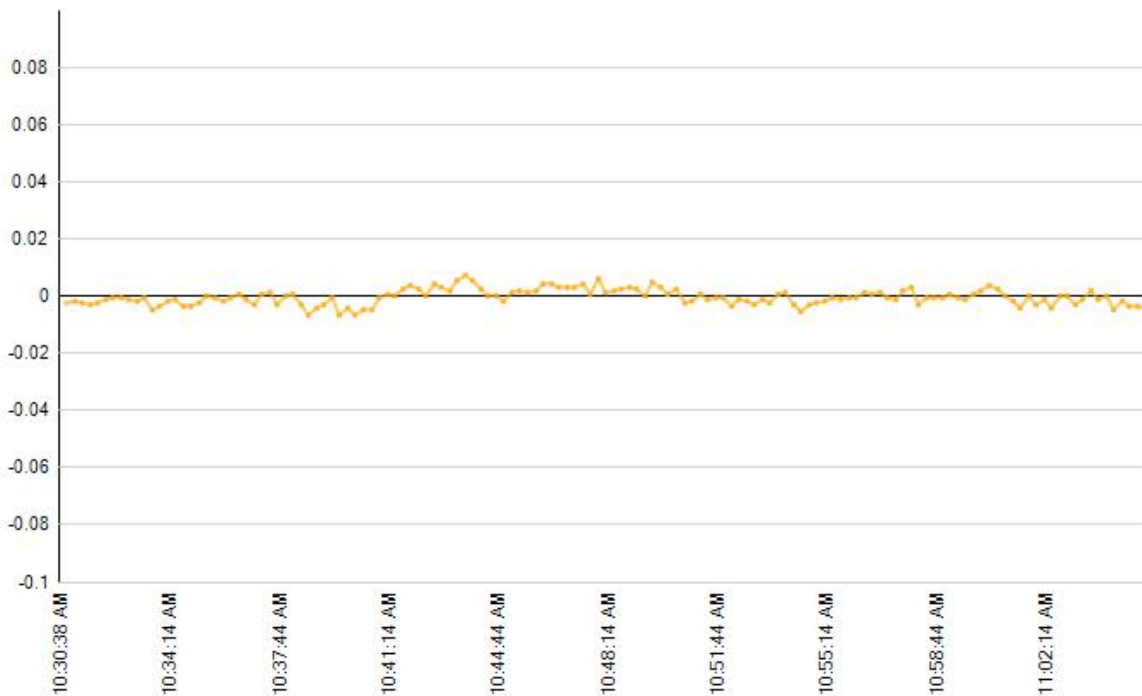
G 23
4/16/2015 10:30:38 AM - 4/16/2015 11:05:29 AM

Mean = 0.004 m Std. Dev. = 0.011 m Min. = -0.023 m Max. = 0.025 m

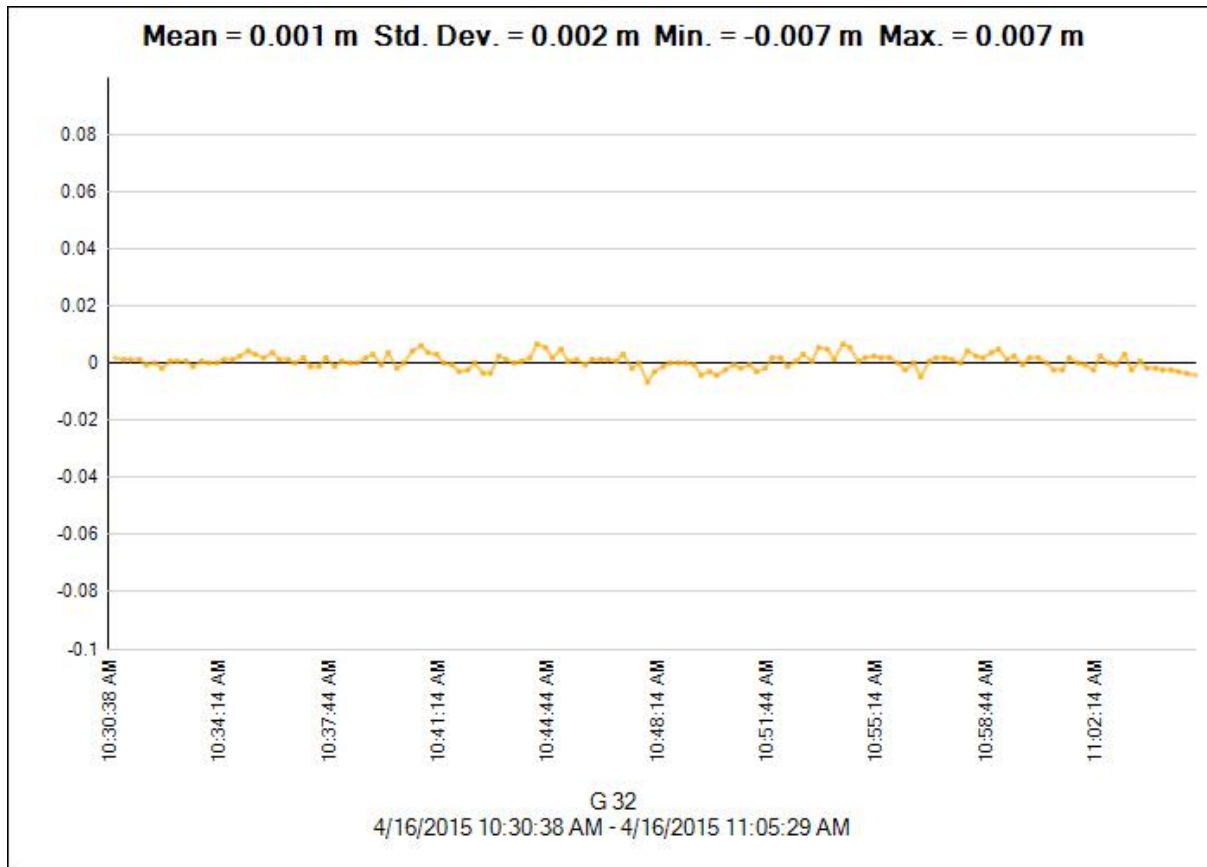


G 25
4/16/2015 10:30:38 AM - 4/16/2015 11:05:29 AM

Mean = 0.000 m Std. Dev. = 0.003 m Min. = -0.007 m Max. = 0.007 m



G 31
4/16/2015 10:30:38 AM - 4/16/2015 11:05:29 AM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag	Fail
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS312 (9:33:49 AM-10:06:44 AM) (S30)

Baseline observation: NR0224 --- CAS312 (B30)
 Processed: 7/1/2015 8:54:04 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.010 m
 Vertical precision: 0.010 m
 RMS: 0.002 m
 Maximum PDOP: 1.955
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/16/2015 9:33:59 AM (Local: UTC-6hr)
 Processing stop time: 4/16/2015 10:06:44 AM (Local: UTC-6hr)
 Processing duration: 00:32:45
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470639.792 m	Latitude	N42°53'23.96463"	Latitude	N42°53'23.96462"
Northing	365796.218 m	Longitude	W106°28'06.64497"	Longitude	W106°28'06.64497"
Elevation	1613.879 m	Height	1600.710 m	Height	1600.710 m

To: CAS312					
Grid		Local		Global	
Easting	486591.499 m	Latitude	N42°52'11.21725"	Latitude	N42°52'11.21725"
Northing	363733.491 m	Longitude	W106°16'24.84545"	Longitude	W106°16'24.84545"
Elevation	1551.217 m	Height	1537.953 m	Height	1537.953 m

Vector					
ΔEasting	15951.708 m	NS Fwd Azimuth	97°57'24"	ΔX	14867.197 m
ΔNorthing	-2062.726 m	Ellipsoid Dist.	16084.300 m	ΔY	-5912.052 m
ΔElevation	-62.662 m	ΔHeight	-62.757 m	ΔZ	-1688.110 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.003 m
$\sigma \Delta$ Northing	0.004 m	σ Ellipsoid Dist.	0.002 m	$\sigma \Delta$ Y	0.005 m
$\sigma \Delta$ Elevation	0.005 m	$\sigma \Delta$ Height	0.005 m	$\sigma \Delta$ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000064900		
Y	0.0000042719	0.0000207251	
Z	-0.0000036073	-0.0000055166	0.0000204510

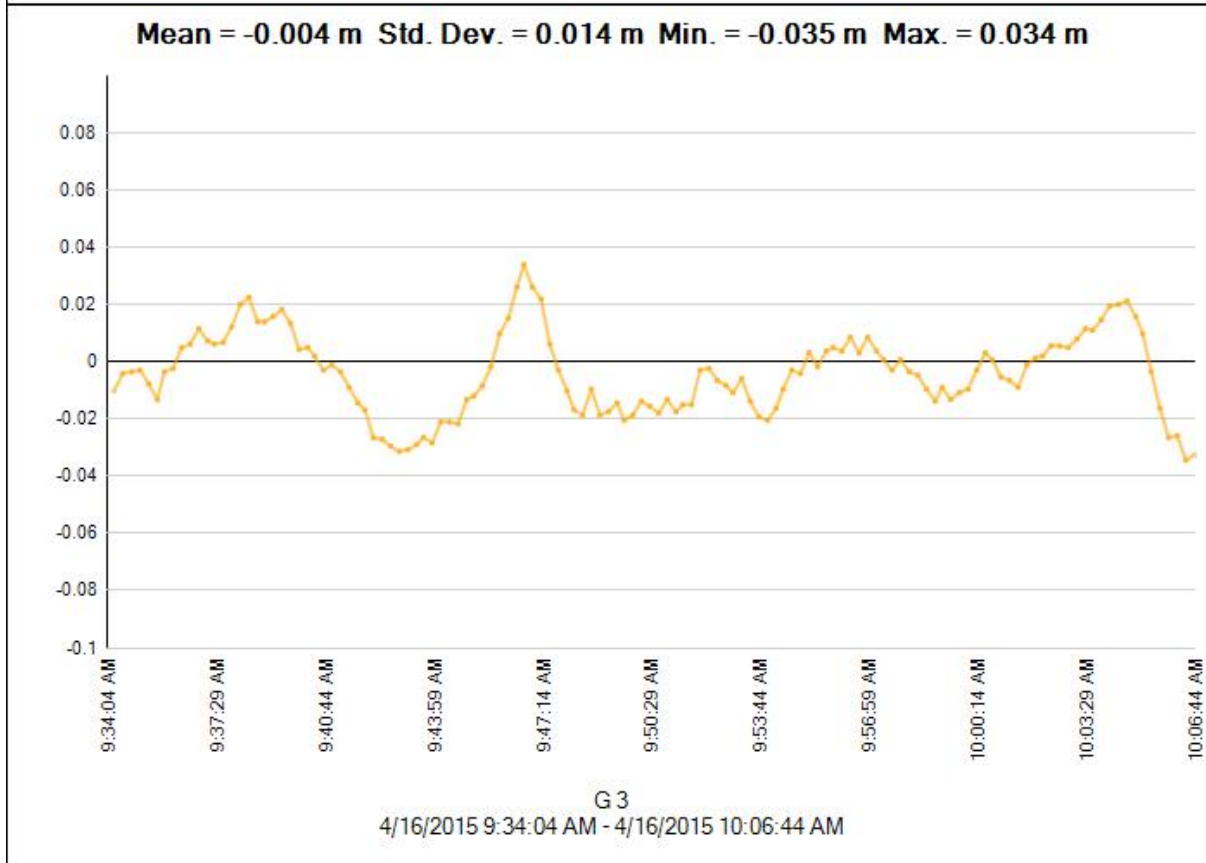
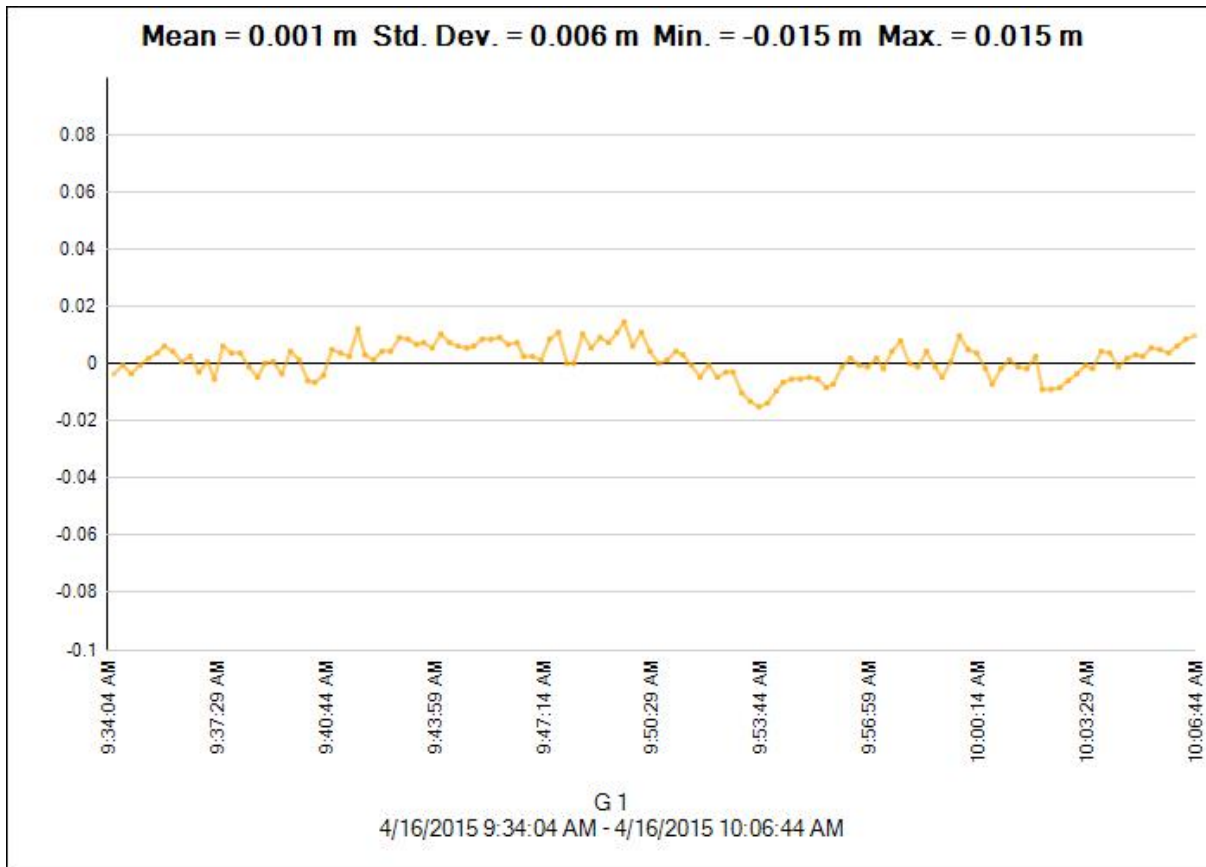
Occupations

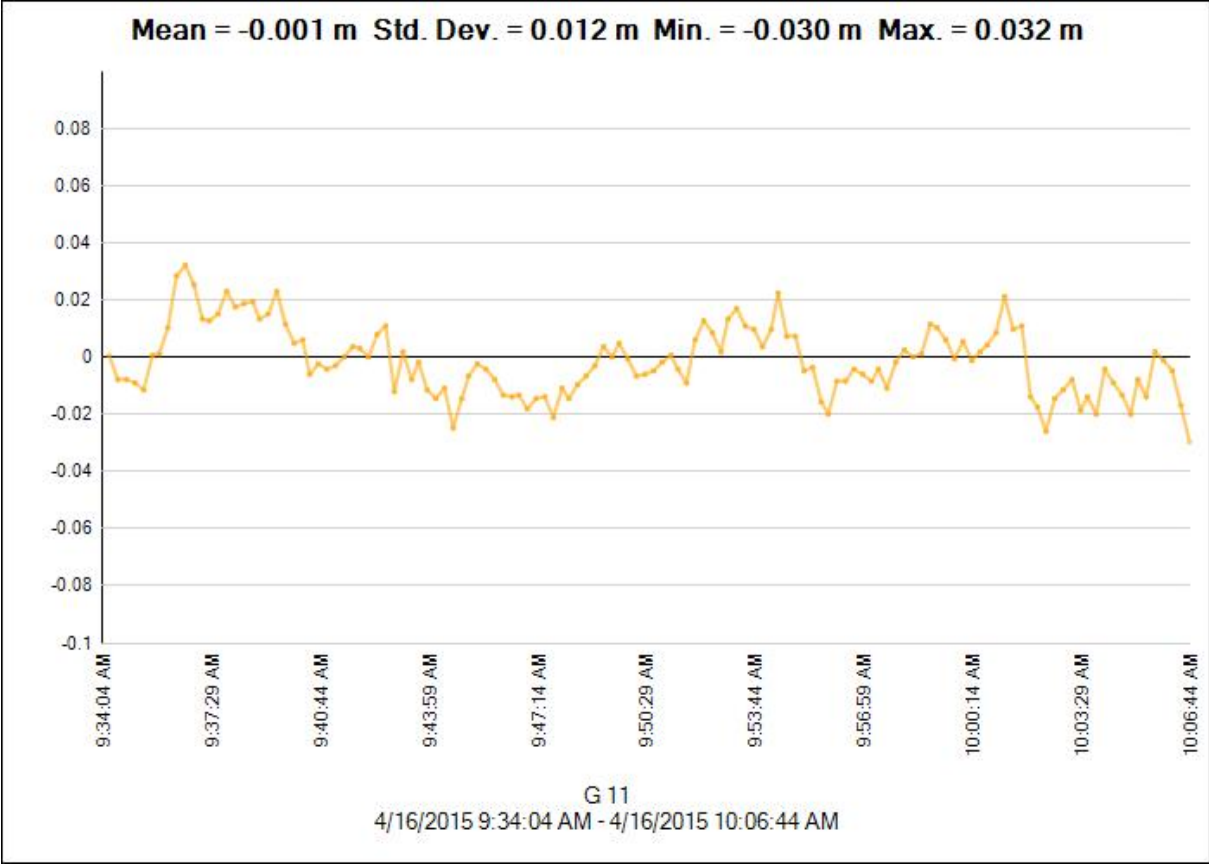
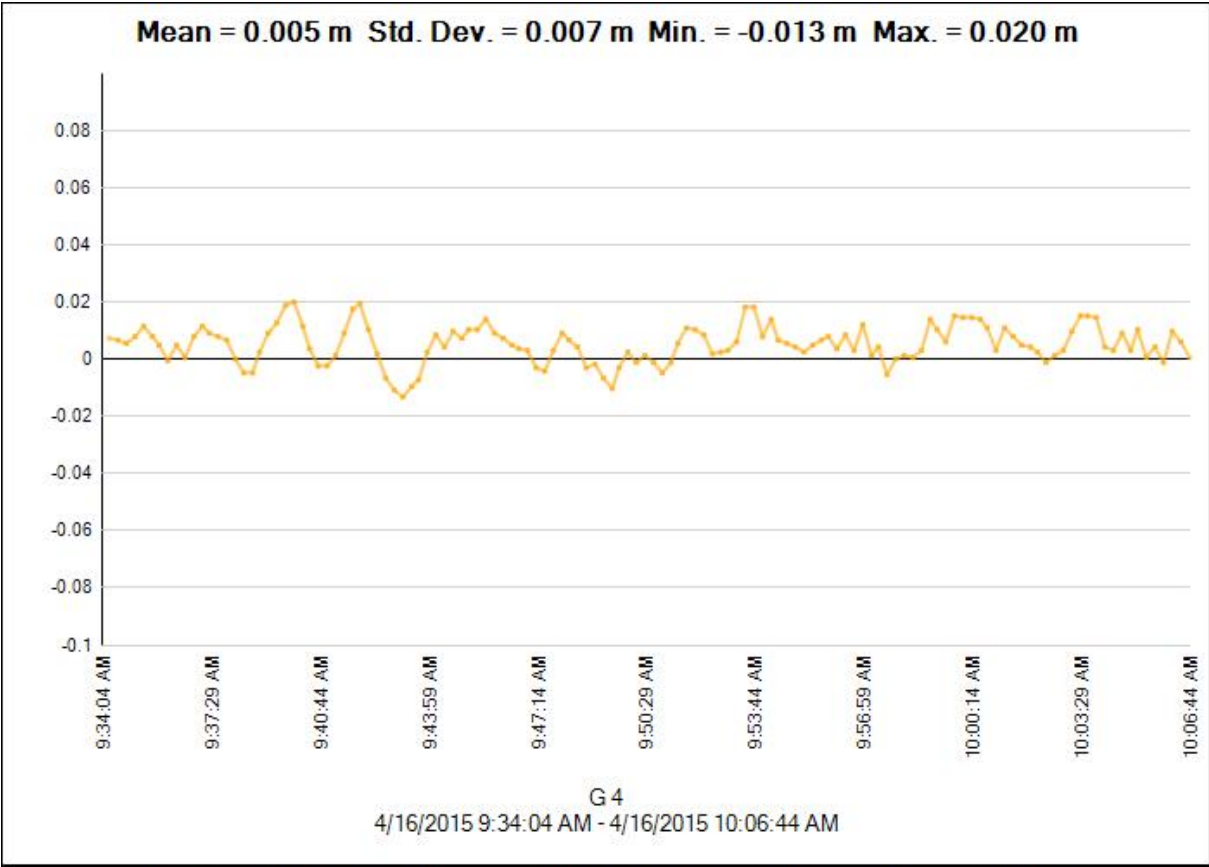
	From	To
Point ID:	NR0224	CAS312
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801061.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.681 m	1.647 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

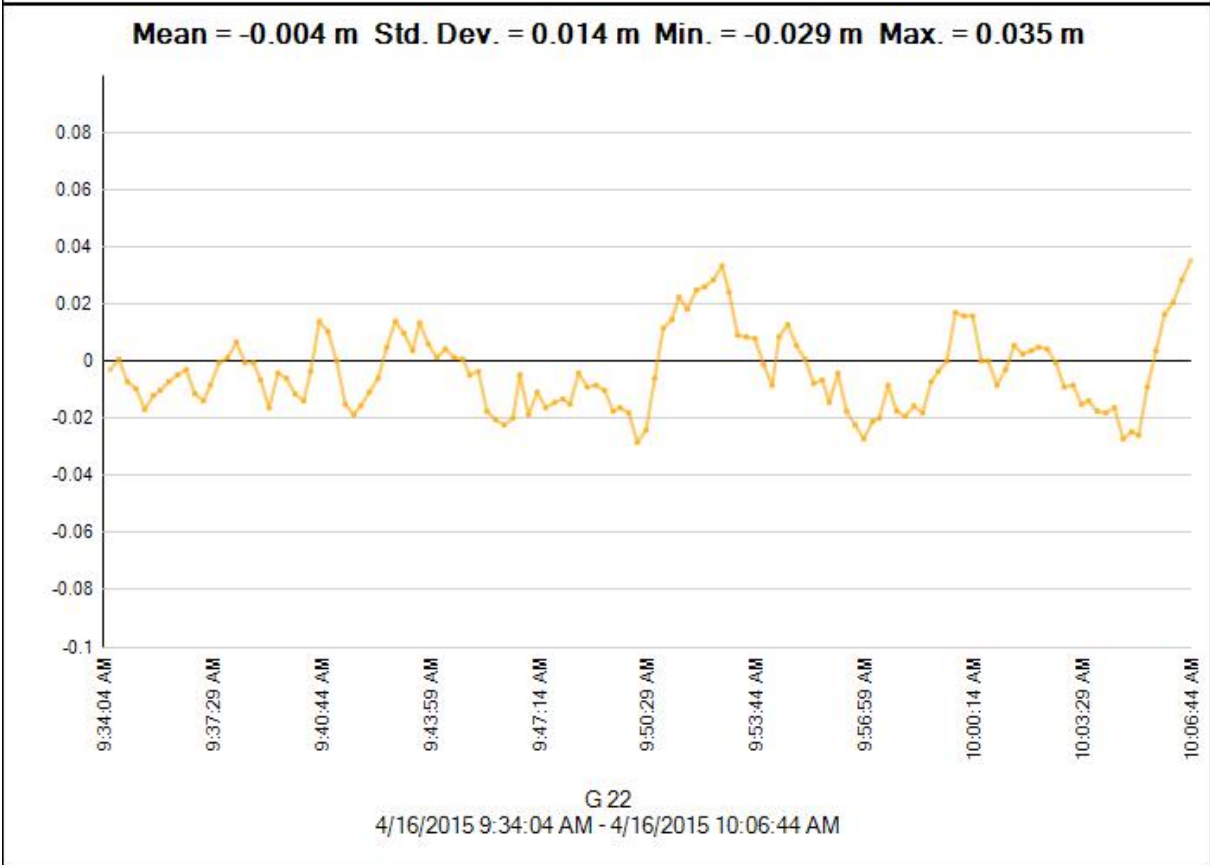
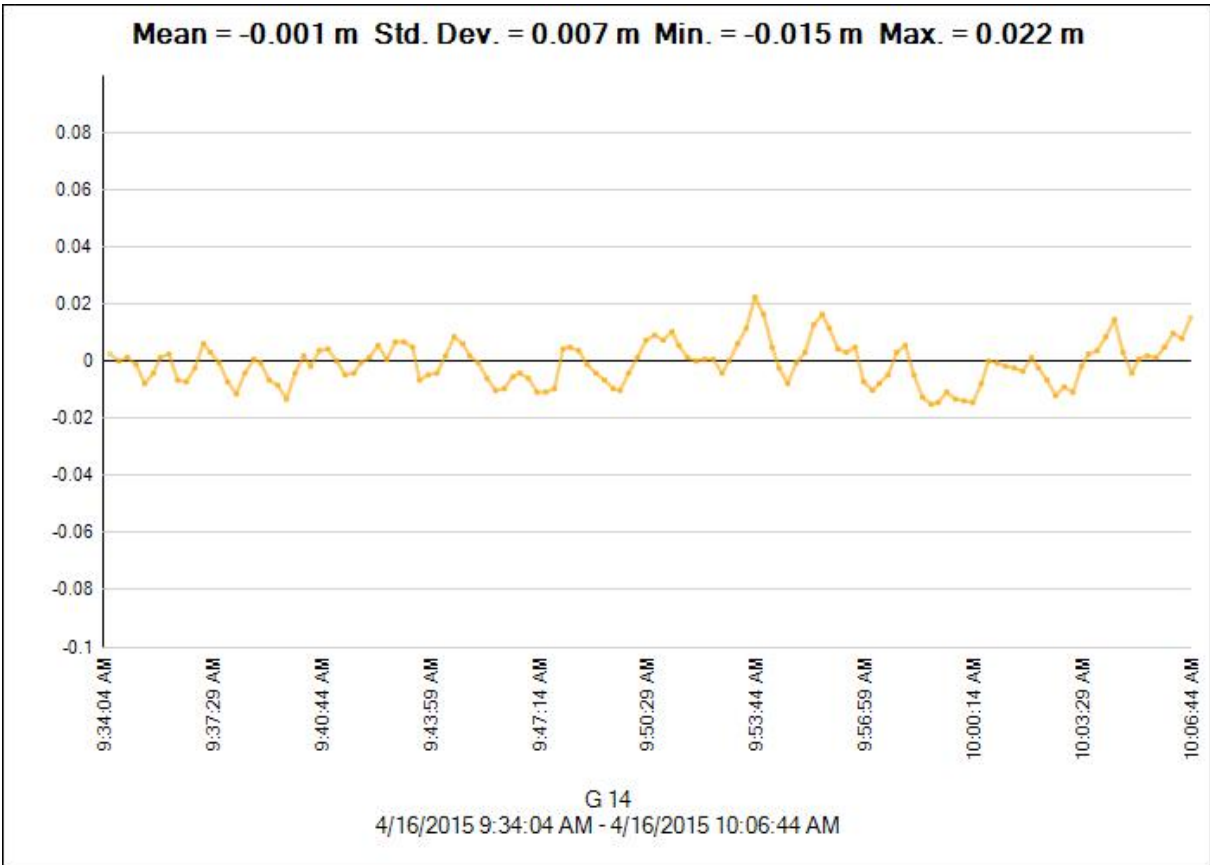
Tracking Summary

SV	4/16/2015 9:33:49 AM	Duration: 00:32:55	Major interval: 00:01:00	4/16/2015 10:06:44 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 11	L1 L2			
G 12	L1 L2			
G 14	L1 L2			
G 22	L1 L2			
G 23	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

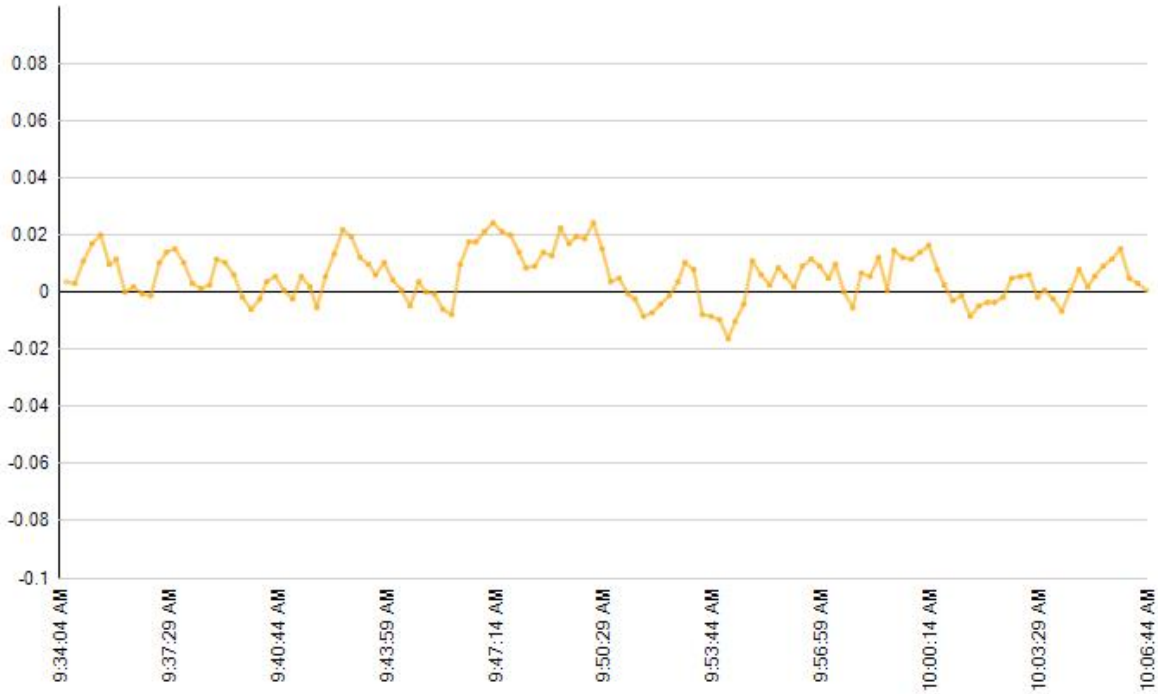
Residuals







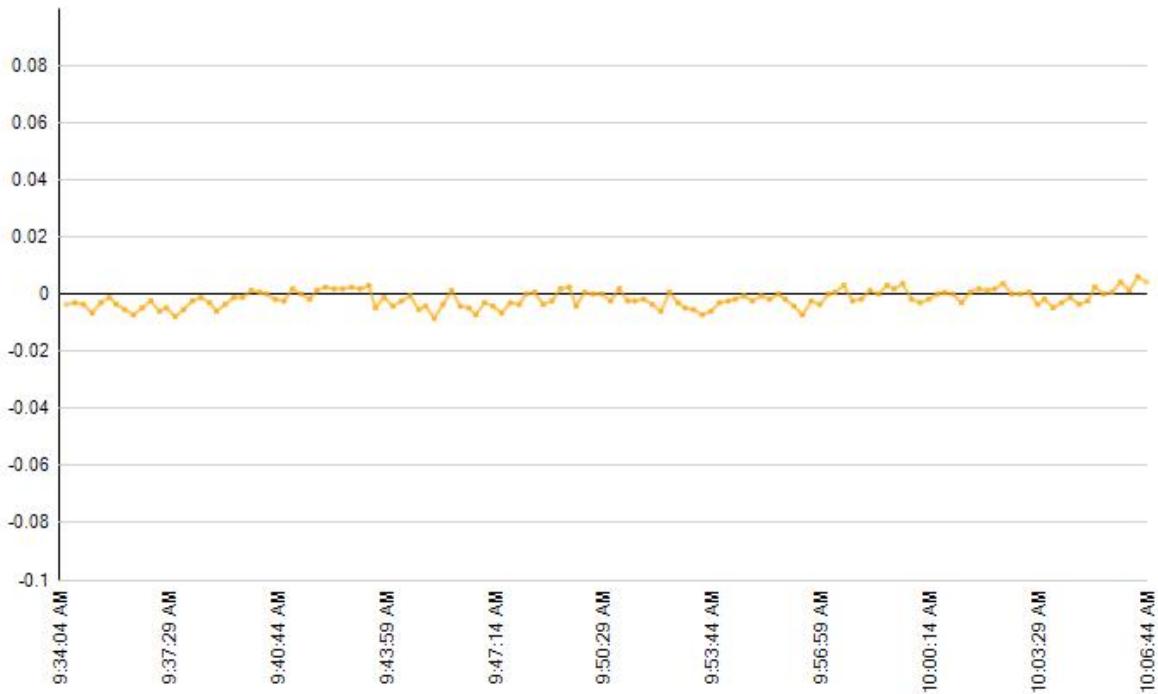
Mean = 0.006 m Std. Dev. = 0.008 m Min. = -0.016 m Max. = 0.024 m



G 25

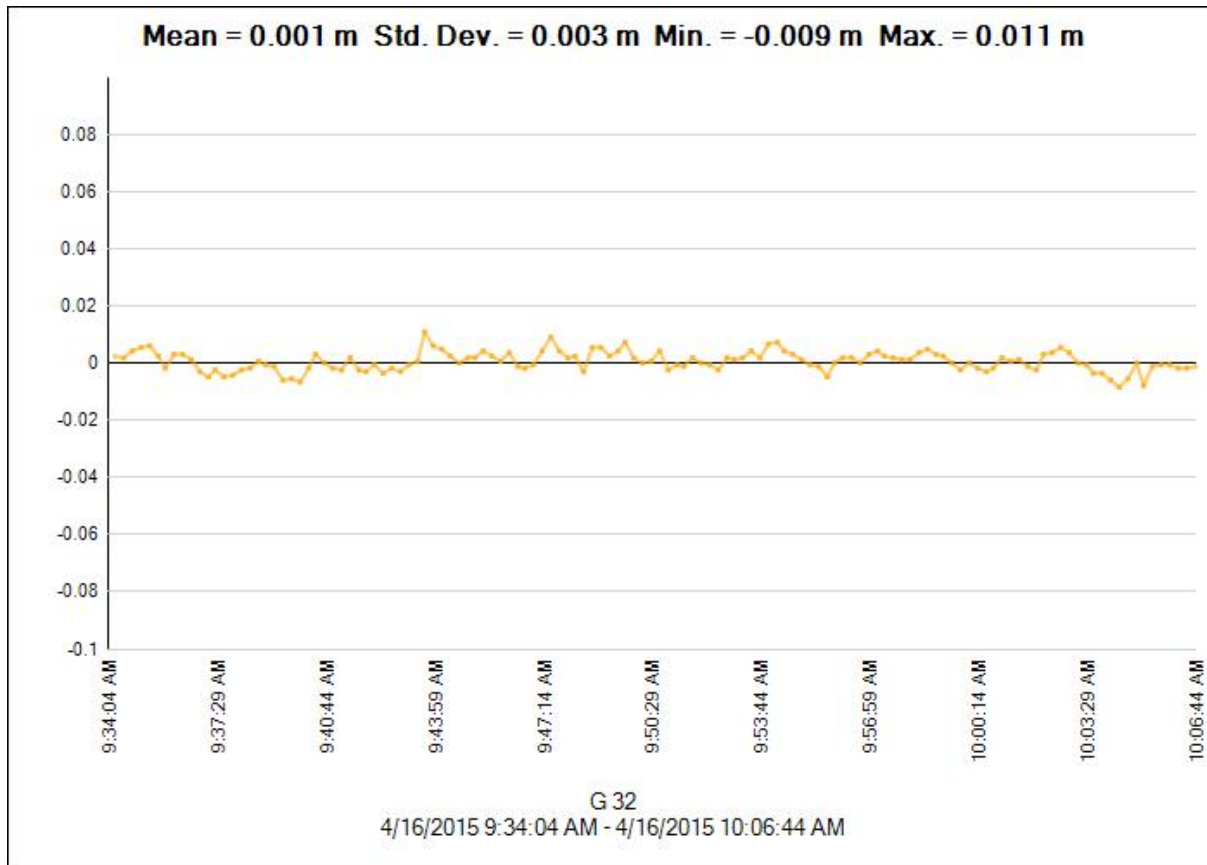
4/16/2015 9:34:04 AM - 4/16/2015 10:06:44 AM

Mean = -0.002 m Std. Dev. = 0.003 m Min. = -0.008 m Max. = 0.006 m



G 31



4/16/2015 9:34:04 AM - 4/16/2015 10:06:44 AM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS313 (8:31:08 AM-9:06:29 AM) (S31)

Baseline observation: NR0224 --- CAS313 (B31)
 Processed: 7/1/2015 8:54:04 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.009 m
 Vertical precision: 0.017 m
 RMS: 0.001 m
 Maximum PDOP: 2.504
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/16/2015 8:31:14 AM (Local: UTC-6hr)
 Processing stop time: 4/16/2015 9:06:29 AM (Local: UTC-6hr)
 Processing duration: 00:35:15
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470639.792 m	Latitude	N42°53'23.96463"	Latitude	N42°53'23.96462"
Northing	365796.218 m	Longitude	W106°28'06.64497"	Longitude	W106°28'06.64497"
Elevation	1613.879 m	Height	1600.710 m	Height	1600.710 m

To: CAS313					
Grid		Local		Global	
Easting	478959.570 m	Latitude	N42°49'17.06831"	Latitude	N42°49'17.06830"
Northing	358267.313 m	Longitude	W106°22'03.81344"	Longitude	W106°22'03.81344"
Elevation	1577.052 m	Height	1564.083 m	Height	1564.083 m

Vector					
ΔEasting	8319.778 m	NS Fwd Azimuth	132°43'53"	ΔX	6446.078 m
ΔNorthing	-7528.904 m	Ellipsoid Dist.	11220.584 m	ΔY	-7274.989 m
ΔElevation	-36.828 m	ΔHeight	-36.627 m	ΔZ	-5611.409 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.004 m
$\sigma \Delta$ Northing	0.003 m	σ Ellipsoid Dist.	0.002 m	$\sigma \Delta$ Y	0.007 m
$\sigma \Delta$ Elevation	0.009 m	$\sigma \Delta$ Height	0.009 m	$\sigma \Delta$ Z	0.006 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000127645		
Y	0.0000173471	0.0000445091	
Z	-0.0000099438	-0.0000294741	0.0000356884

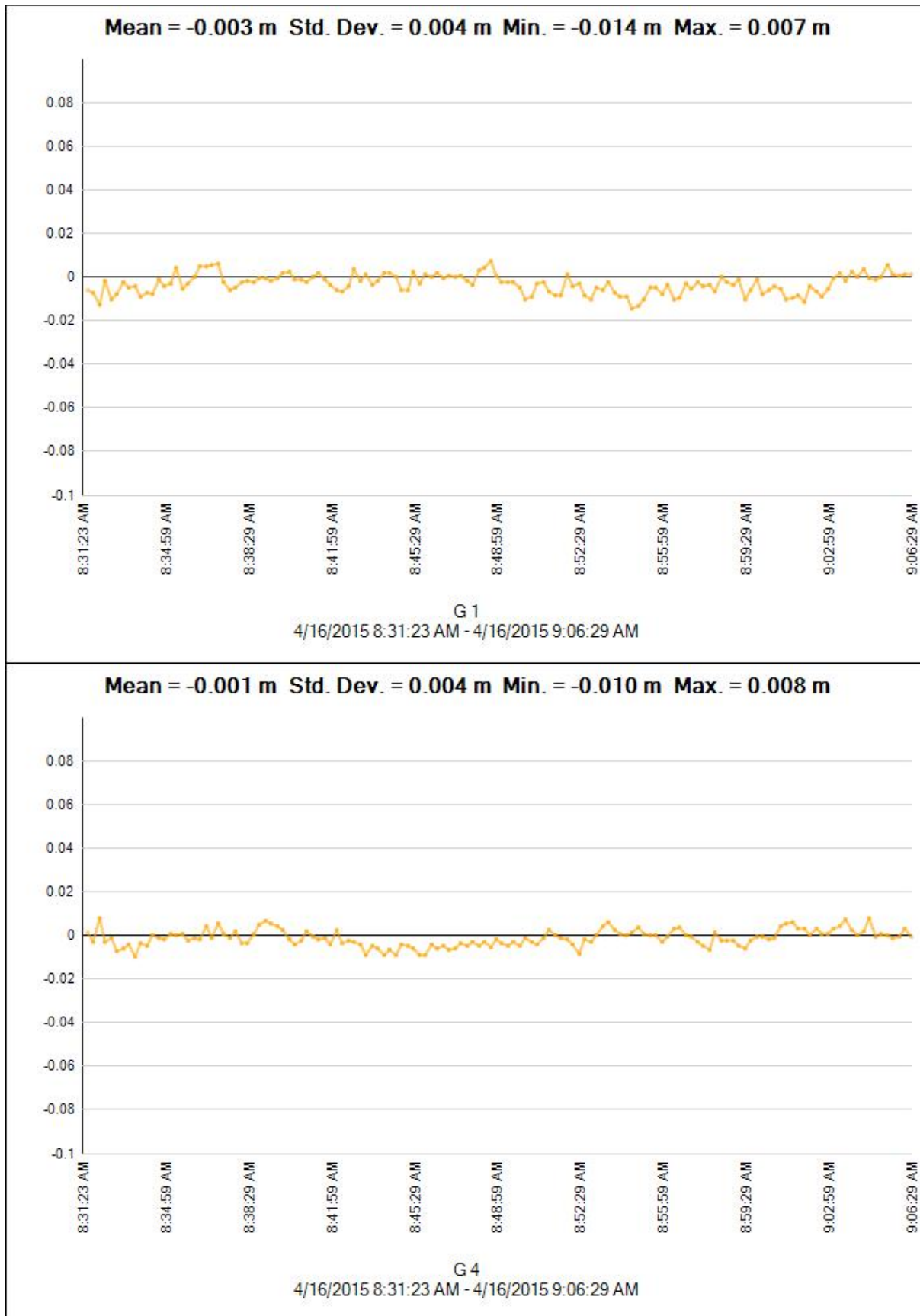
Occupations

	From	To
Point ID:	NR0224	CAS313
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801060.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.681 m	1.621 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

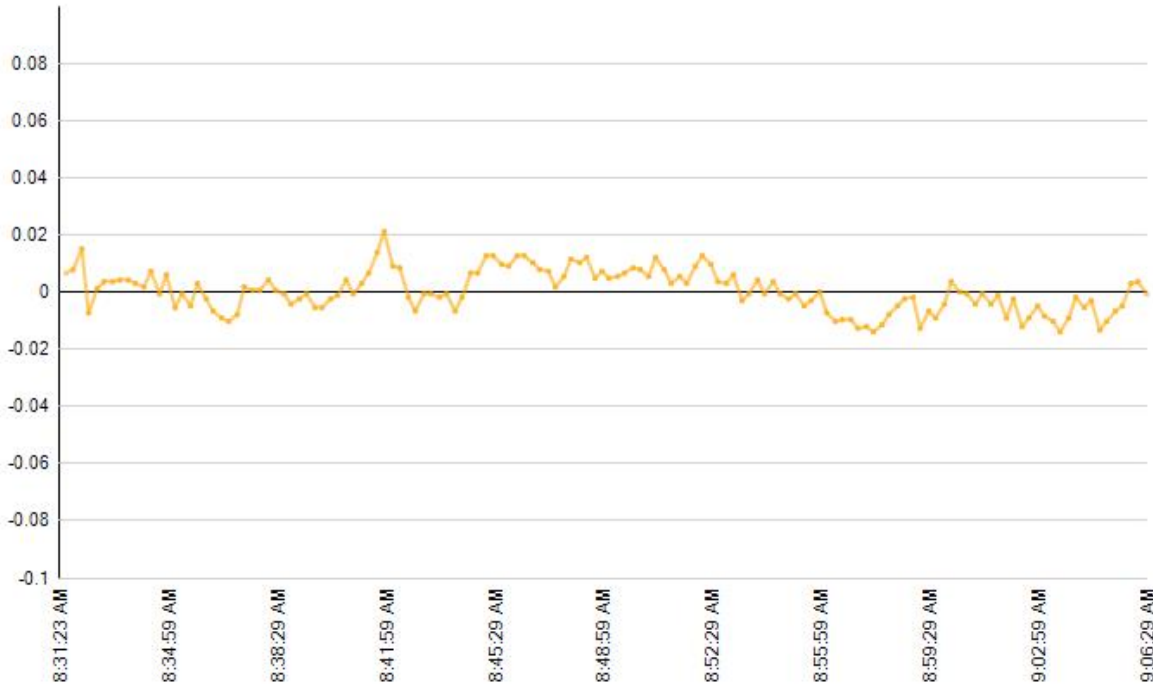
Tracking Summary

SV	4/16/2015 8:31:08 AM	Duration: 00:35:21	Major interval: 00:01:00	4/16/2015 9:06:29 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 11	L1 L2			
G 12	L1 L2			
G 14	L1 L2			
G 18	L1 L2			
G 19	L1 L2			
G 22	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals

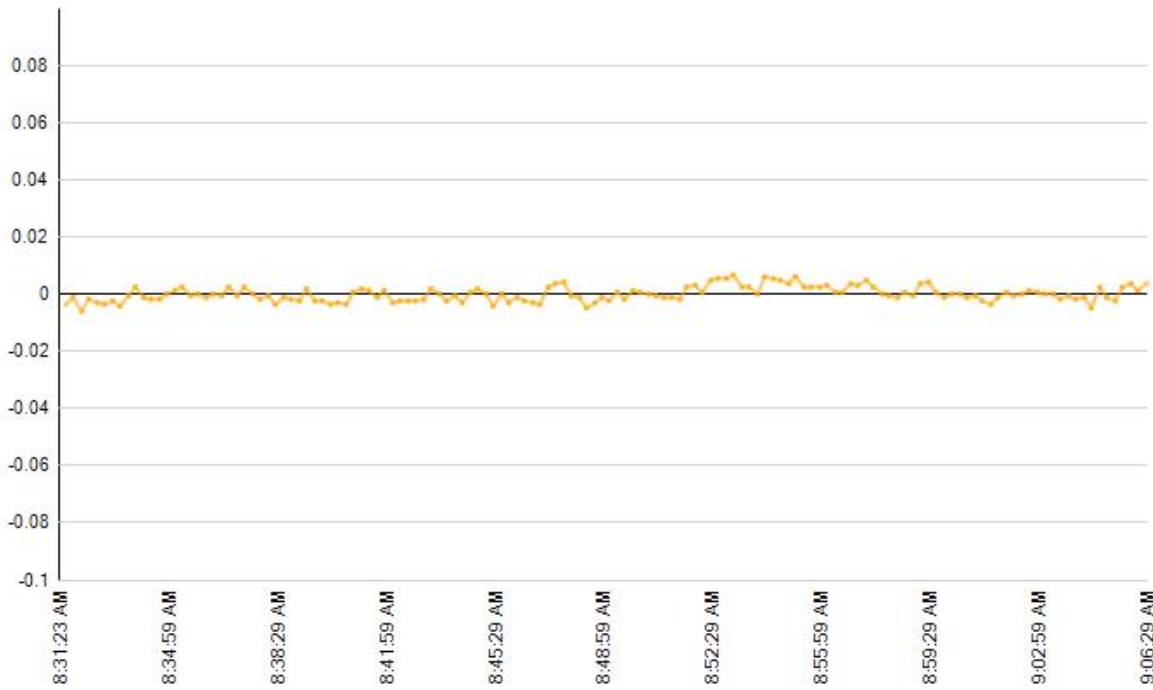


Mean = 0.000 m Std. Dev. = 0.007 m Min. = -0.014 m Max. = 0.021 m



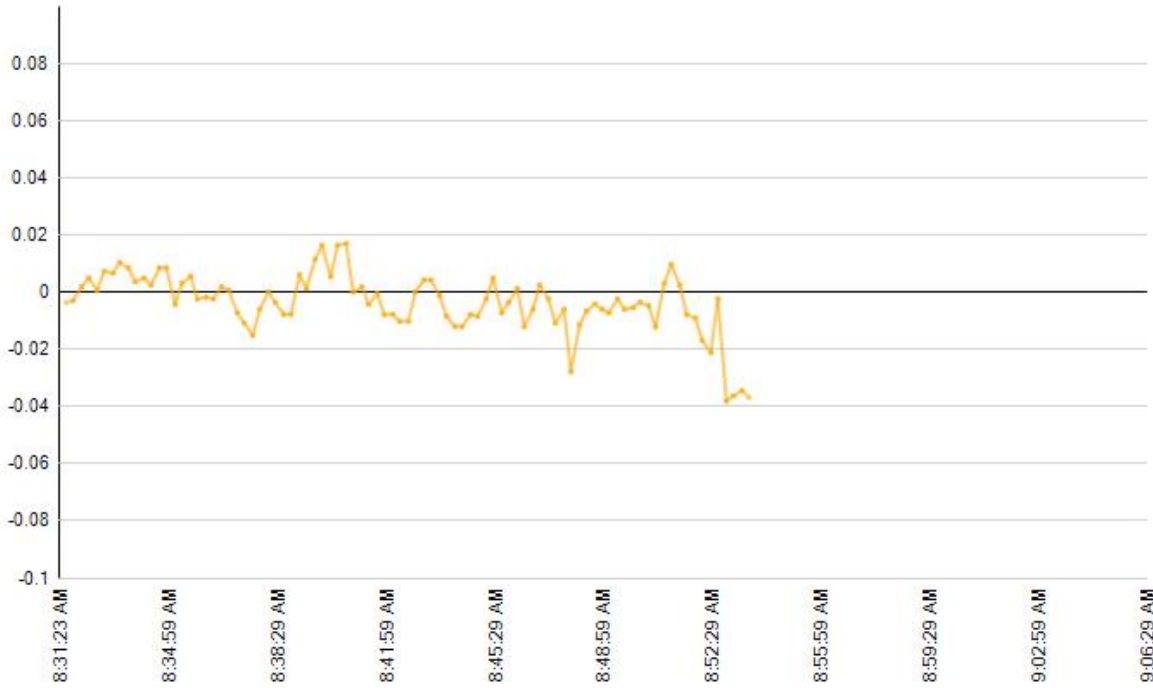
G 11
4/16/2015 8:31:23 AM - 4/16/2015 9:06:29 AM

Mean = 0.000 m Std. Dev. = 0.003 m Min. = -0.006 m Max. = 0.007 m



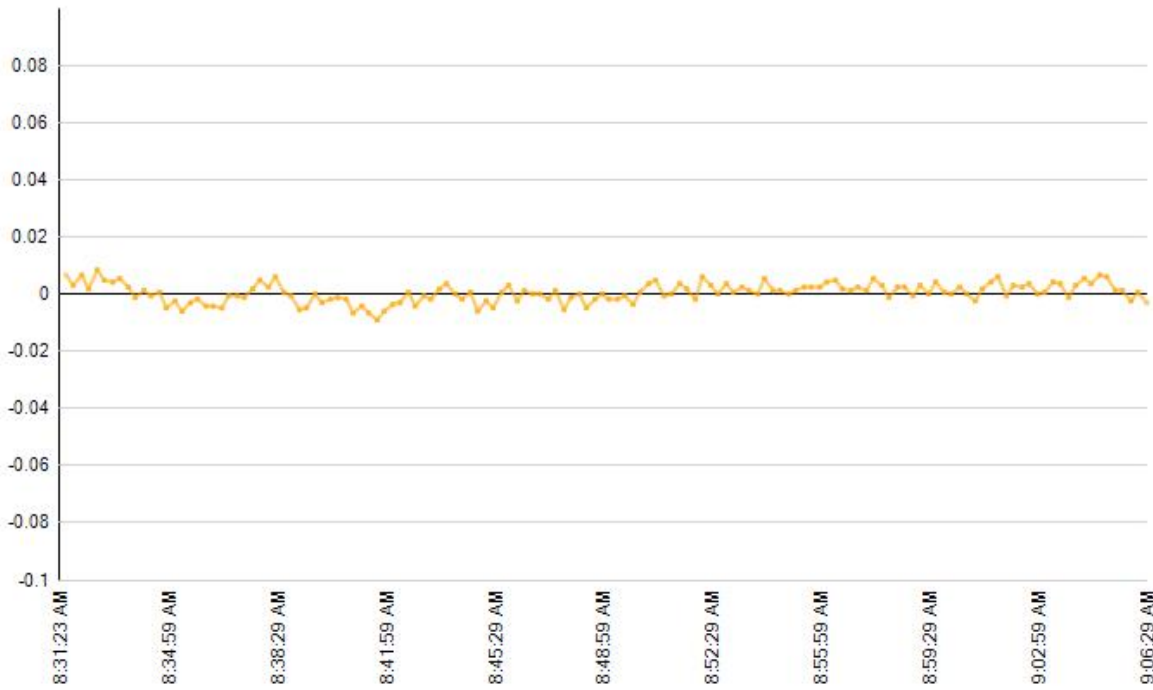
G 14
4/16/2015 8:31:23 AM - 4/16/2015 9:06:29 AM

Mean = -0.004 m Std. Dev. = 0.011 m Min. = -0.038 m Max. = 0.017 m

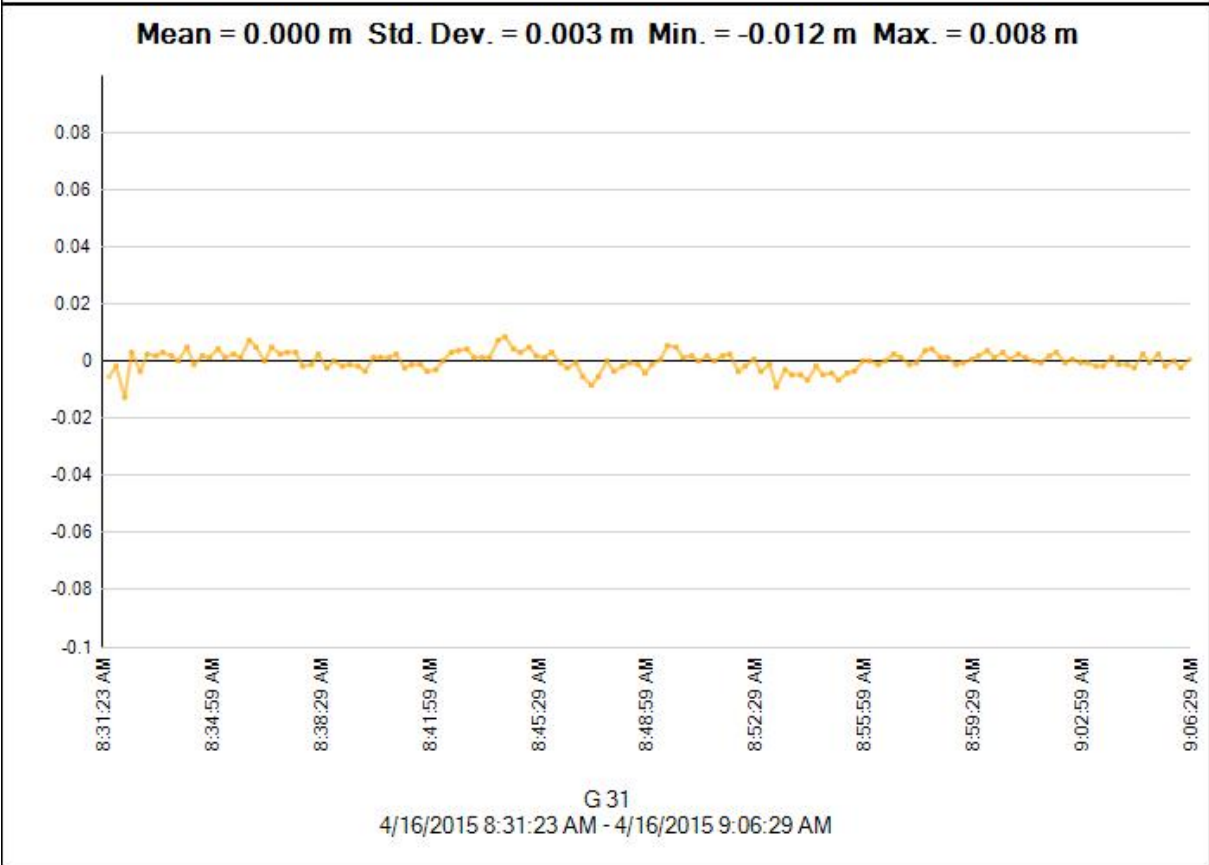
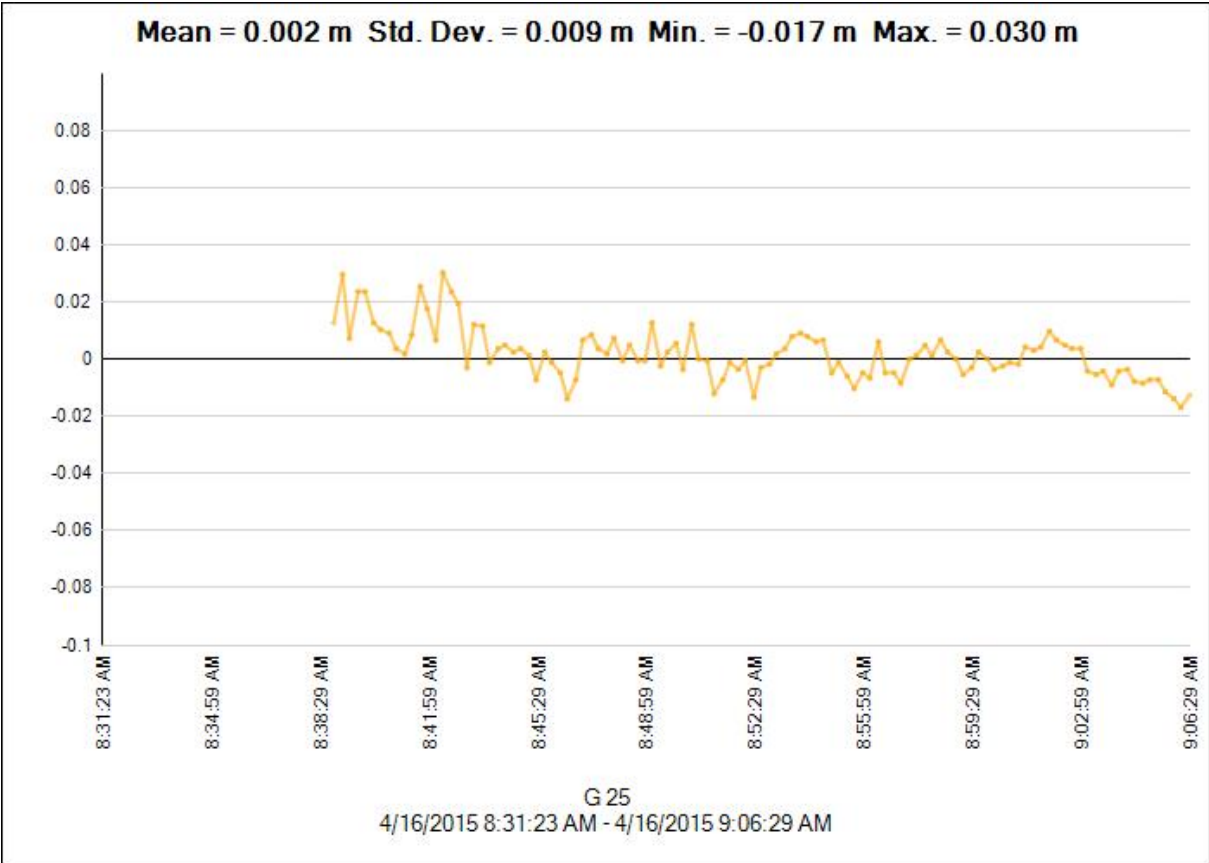


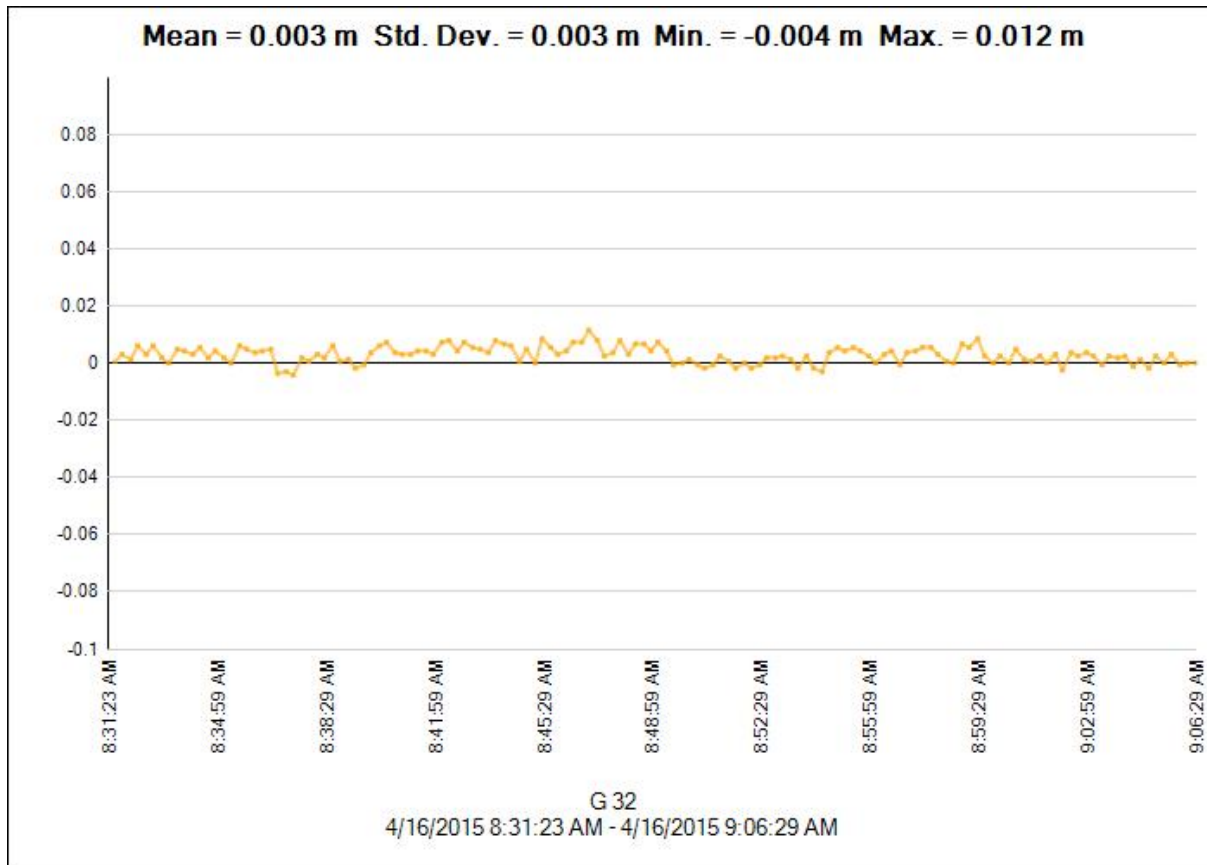
G 18
4/16/2015 8:31:23 AM - 4/16/2015 9:06:29 AM

Mean = 0.000 m Std. Dev. = 0.003 m Min. = -0.009 m Max. = 0.009 m



G 22
4/16/2015 8:31:23 AM - 4/16/2015 9:06:29 AM







Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - NR0223 (4:36:17 PM-5:18:44 PM) (S32)

Baseline observation: NR0224 --- NR0223 (B32)
Processed: 7/1/2015 9:04:09 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.005 m
Vertical precision: 0.005 m
RMS: 0.000 m
Maximum PDOP: 1.922
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 4/17/2015 4:36:29 PM (Local: UTC-6hr)
Processing stop time: 4/17/2015 5:18:44 PM (Local: UTC-6hr)
Processing duration: 00:42:15
Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470640.650 m	Latitude	N42°53'23.99045"	Latitude	N42°53'23.99044"
Northing	365797.023 m	Longitude	W106°28'06.60679"	Longitude	W106°28'06.60679"
Elevation	1615.395 m	Height	1602.225 m	Height	1602.225 m

To: NR0223					
Grid		Local		Global	
Easting	468876.240 m	Latitude	N42°54'00.82735"	Latitude	N42°54'00.82734"
Northing	366915.907 m	Longitude	W106°29'23.86842"	Longitude	W106°29'23.86842"
Elevation	1613.729 m	Height	1600.546 m	Height	1600.546 m

Vector					
ΔEasting	-1764.410 m	NS Fwd Azimuth	302°58'09"	ΔX	-1461.499 m
ΔNorthing	1118.884 m	Ellipsoid Dist.	2089.274 m	ΔY	1240.696 m
ΔElevation	-1.665 m	ΔHeight	-1.679 m	ΔZ	831.838 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.001 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.001 m
$\sigma \Delta$ Northing	0.002 m	σ Ellipsoid Dist.	0.001 m	$\sigma \Delta$ Y	0.002 m
$\sigma \Delta$ Elevation	0.003 m	$\sigma \Delta$ Height	0.003 m	$\sigma \Delta$ Z	0.002 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000016044		
Y	0.0000009645	0.0000051874	
Z	0.0000005139	-0.0000020668	0.0000055732

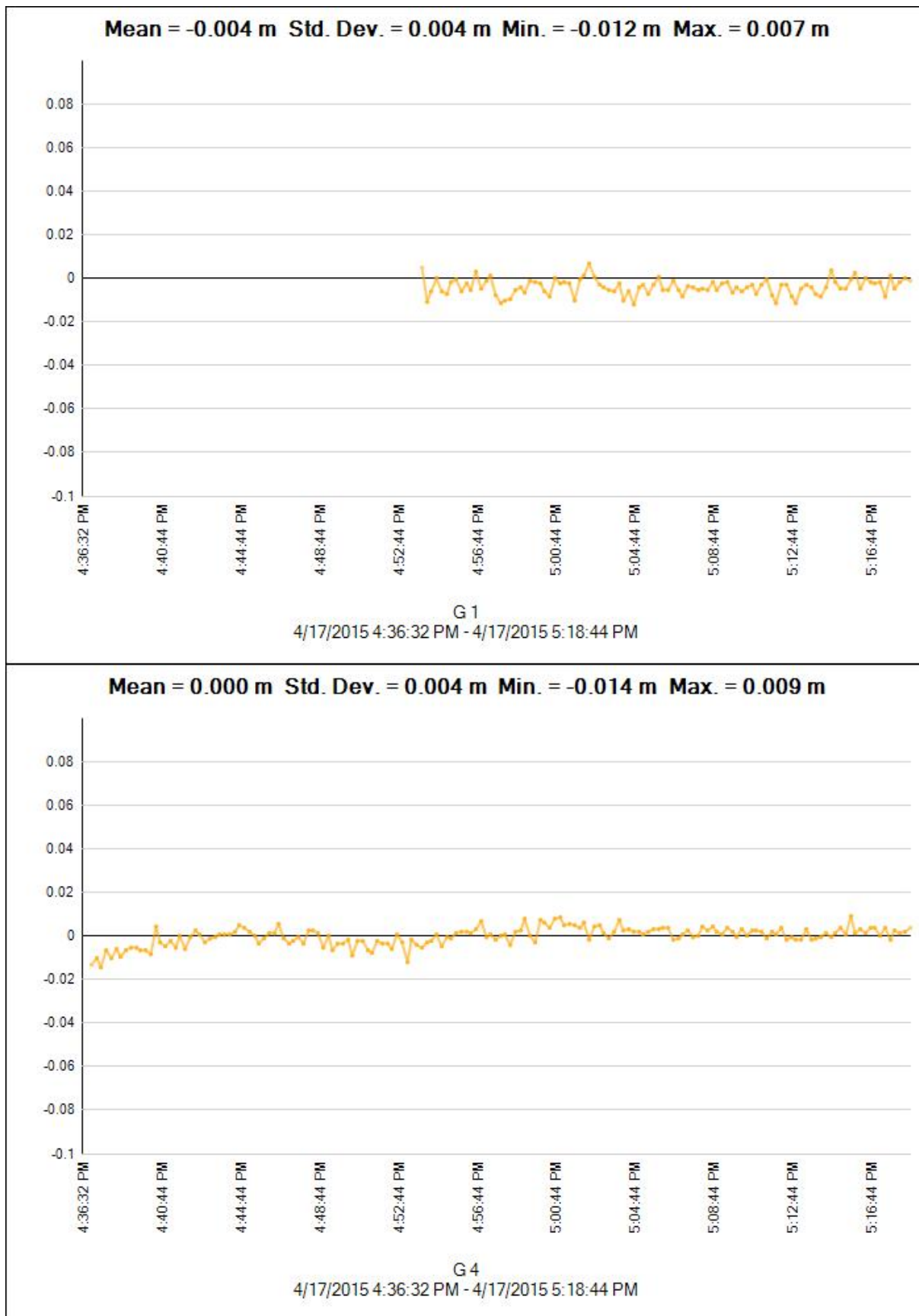
Occupations

	From	To
Point ID:	NR0224	NR0223
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601070.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801077.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.684 m	1.779 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

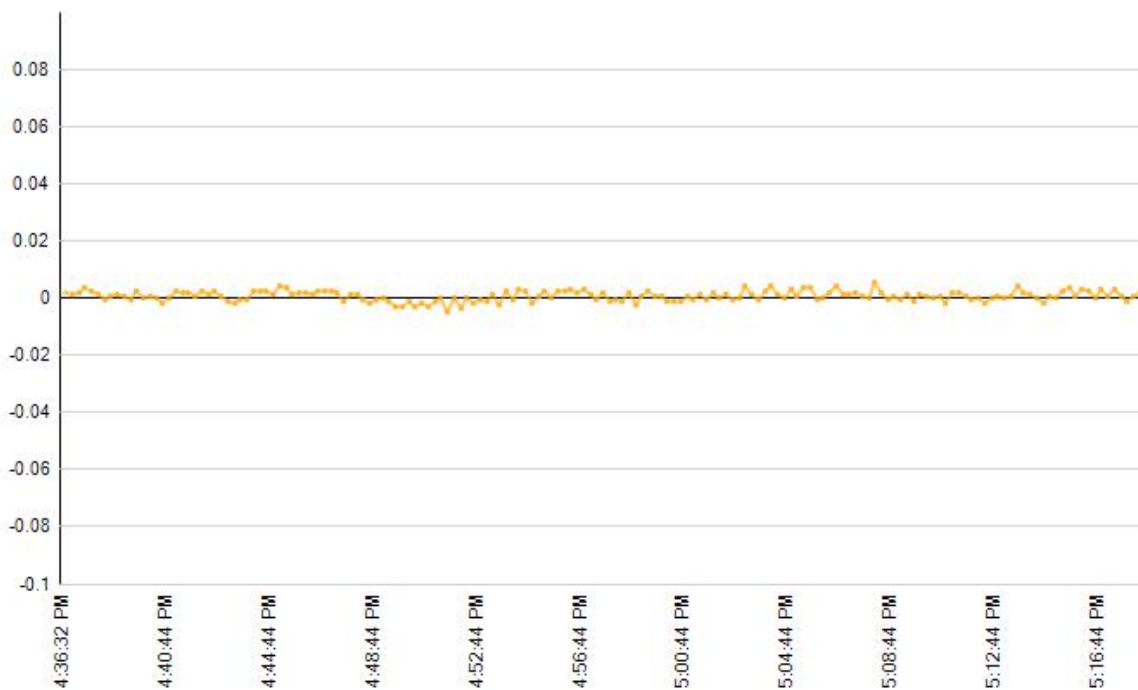
Tracking Summary

SV	4/17/2015 4:36:17 PM	Duration: 00:42:27	Major interval: 00:10:00	4/17/2015 5:18:44 PM
G 1	L1 L2			
G 4	L1 L2			
G 5	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 11	L1 L2			
G 13	L1 L2			
G 15	L1 L2			
G 17	L1 L2			
G 19	L1 L2			
G 27	L1 L2			
G 28	L1 L2			
G 30	L1 L2			

Residuals



Mean = 0.001 m Std. Dev. = 0.002 m Min. = -0.005 m Max. = 0.005 m



G 7

4/17/2015 4:36:32 PM - 4/17/2015 5:18:44 PM

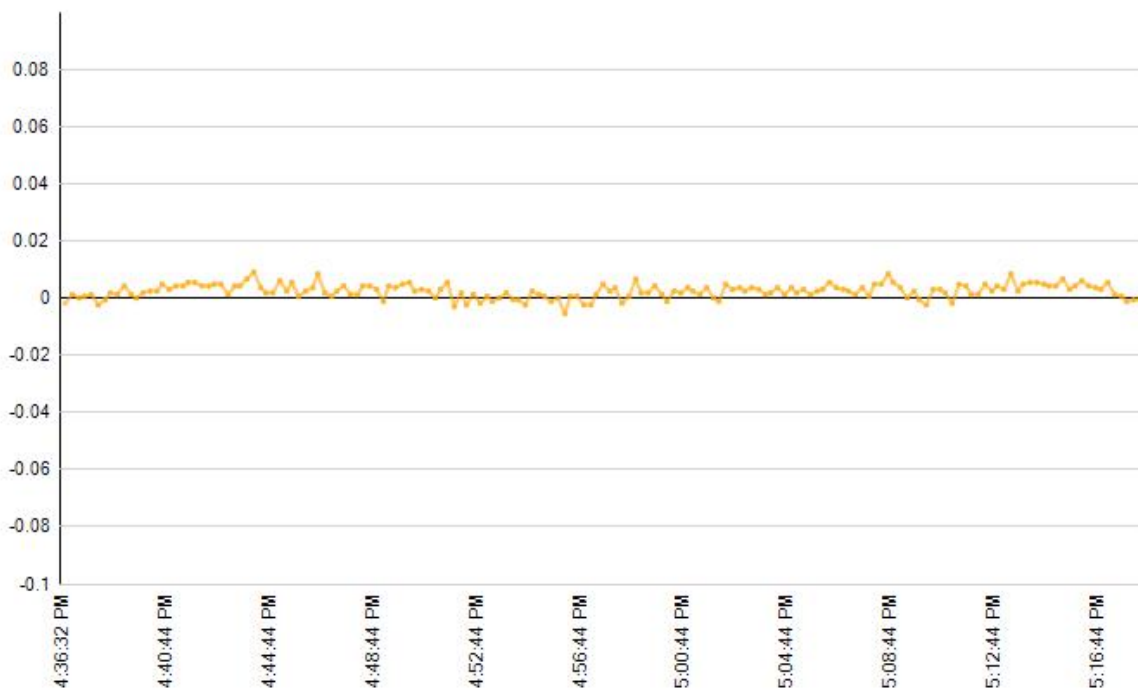
Mean = -0.004 m Std. Dev. = 0.005 m Min. = -0.021 m Max. = 0.009 m



G 9

4/17/2015 4:36:32 PM - 4/17/2015 5:18:44 PM

Mean = 0.002 m Std. Dev. = 0.002 m Min. = -0.005 m Max. = 0.009 m



G 11
4/17/2015 4:36:32 PM - 4/17/2015 5:18:44 PM

Mean = 0.000 m Std. Dev. = 0.004 m Min. = -0.013 m Max. = 0.010 m



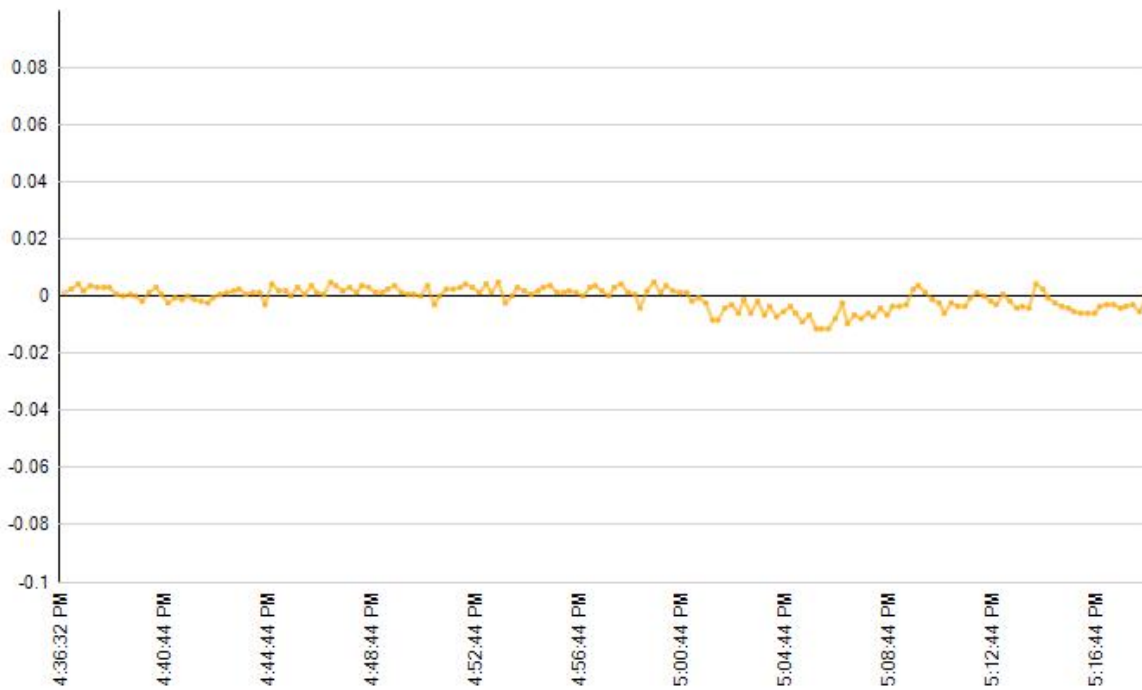
G 13
4/17/2015 4:36:32 PM - 4/17/2015 5:18:44 PM

Mean = 0.001 m Std. Dev. = 0.006 m Min. = -0.016 m Max. = 0.014 m

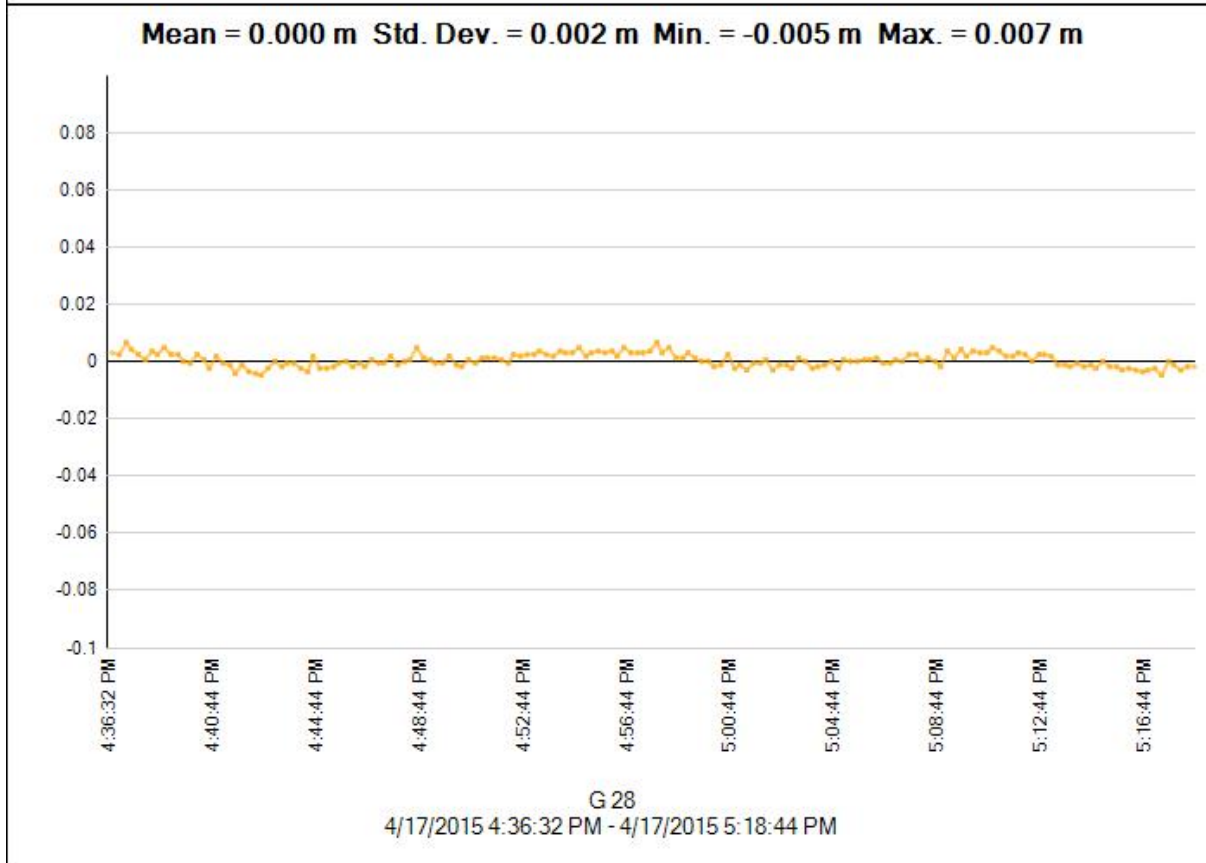
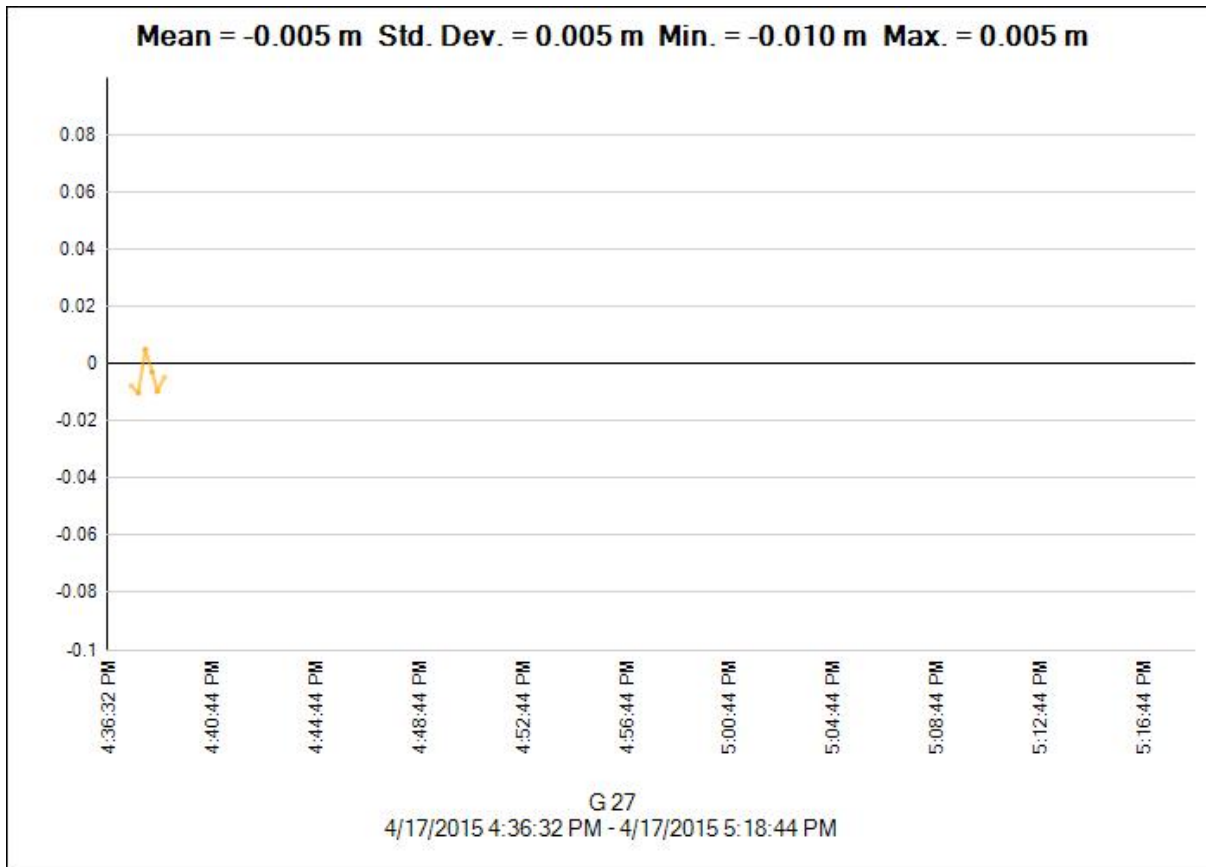


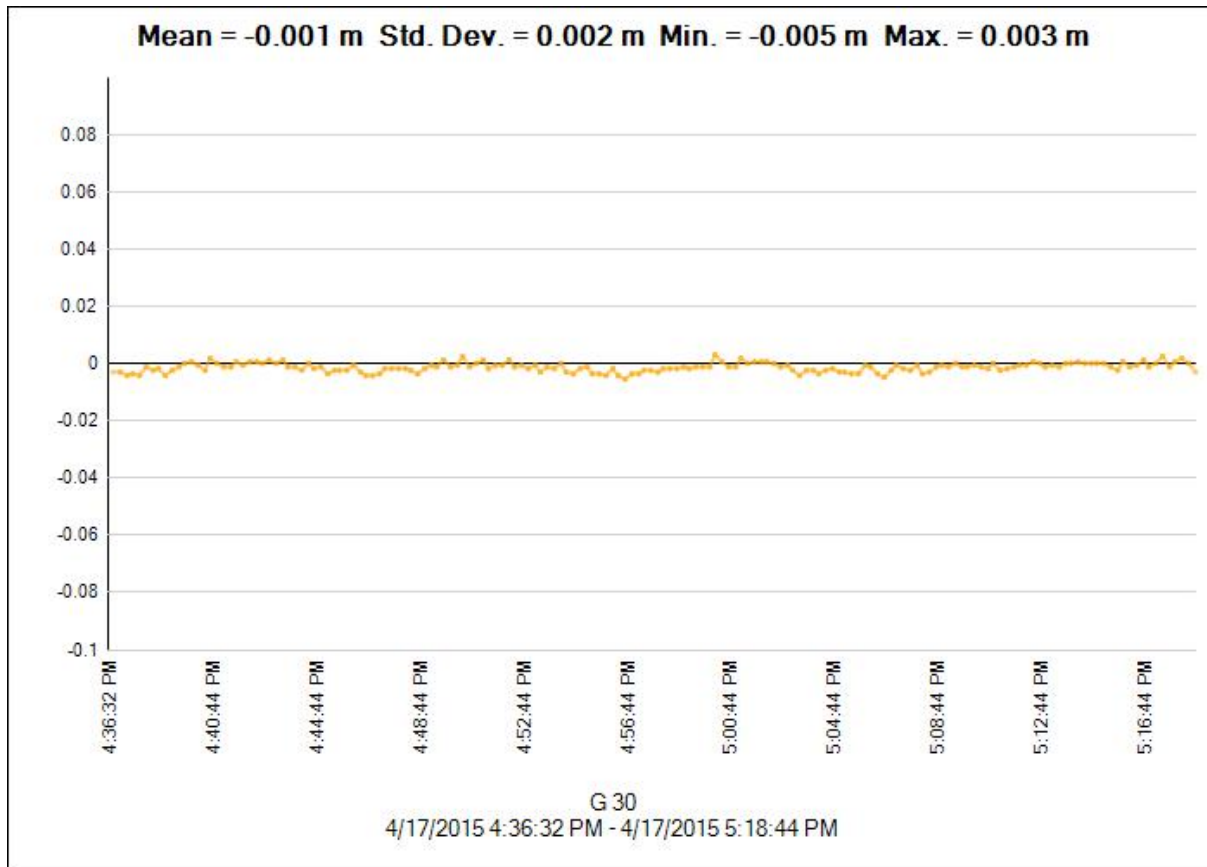
G 17
4/17/2015 4:36:32 PM - 4/17/2015 5:18:44 PM

Mean = -0.001 m Std. Dev. = 0.004 m Min. = -0.012 m Max. = 0.005 m



G 19
4/17/2015 4:36:32 PM - 4/17/2015 5:18:44 PM







Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - AA2138 (3:17:23 PM-3:59:06 PM) (S33)

Baseline observation: NR0224 --- AA2138 (B33)
 Processed: 7/1/2015 9:04:09 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.007 m
 Vertical precision: 0.013 m
 RMS: 0.001 m
 Maximum PDOP: 2.539
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/17/2015 3:17:29 PM (Local: UTC-6hr)
 Processing stop time: 4/17/2015 3:58:59 PM (Local: UTC-6hr)
 Processing duration: 00:41:30
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From:		NR0224					
		Grid		Local		Global	
Easting	470640.650 m	Latitude	N42°53'23.99045"	Latitude	N42°53'23.99044"		
Northing	365797.023 m	Longitude	W106°28'06.60679"	Longitude	W106°28'06.60679"		
Elevation	1615.395 m	Height	1602.225 m	Height	1602.225 m		

To:		AA2138					
		Grid		Local		Global	
Easting	485199.390 m	Latitude	N42°48'52.26309"	Latitude	N42°48'52.26309"		
Northing	357576.103 m	Longitude	W106°17'29.52479"	Longitude	W106°17'29.52479"		
Elevation	1707.866 m	Height	1694.921 m	Height	1694.921 m		

Vector							
ΔEasting	14558.740 m	NS Fwd Azimuth	120°02'25"	ΔX	12253.299 m		
ΔNorthing	-8220.920 m	Ellipsoid Dist.	16719.256 m	ΔY	-9618.069 m		
ΔElevation	92.472 m	ΔHeight	92.696 m	ΔZ	-6085.706 m		

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.003 m
$\sigma \Delta$ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.006 m
$\sigma \Delta$ Elevation	0.007 m	$\sigma \Delta$ Height	0.007 m	$\sigma \Delta$ Z	0.004 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000074139		
Y	0.0000075069	0.0000330182	
Z	-0.0000046822	-0.0000167237	0.0000171700

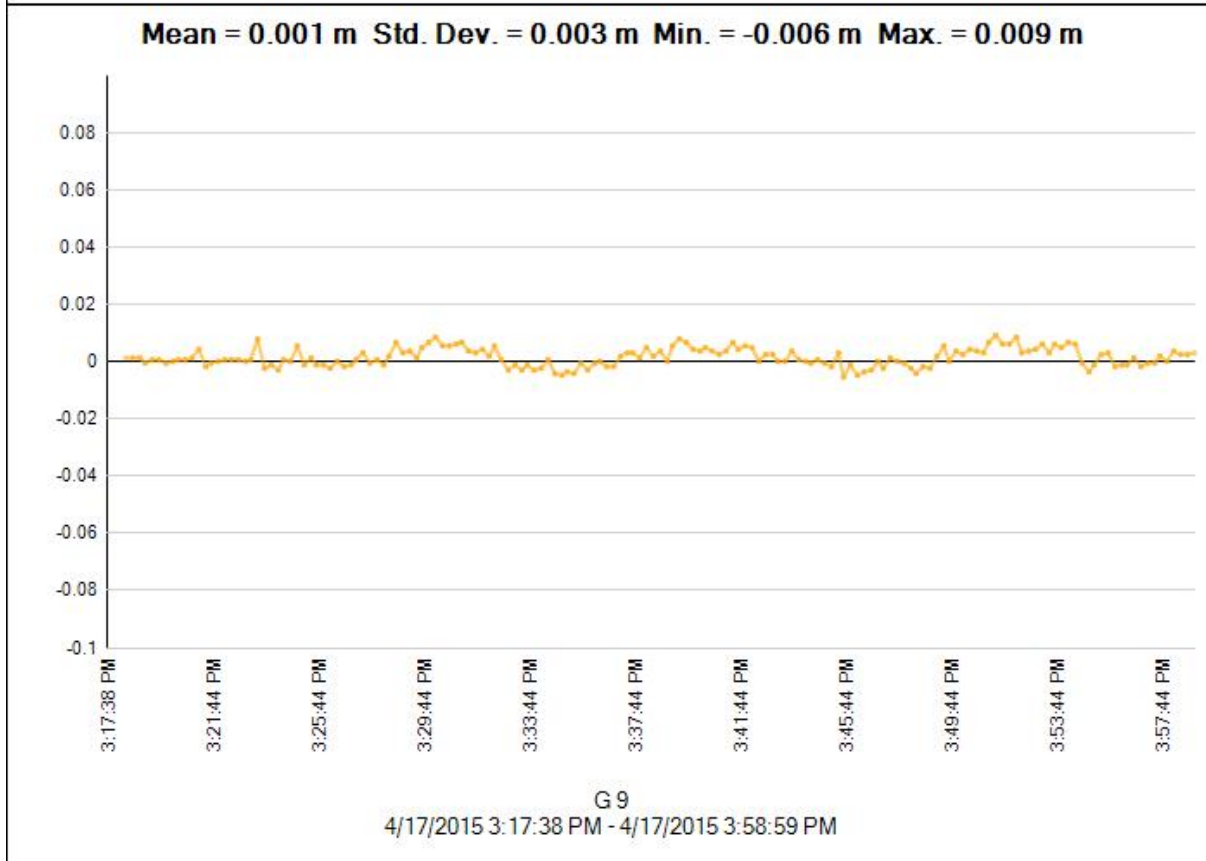
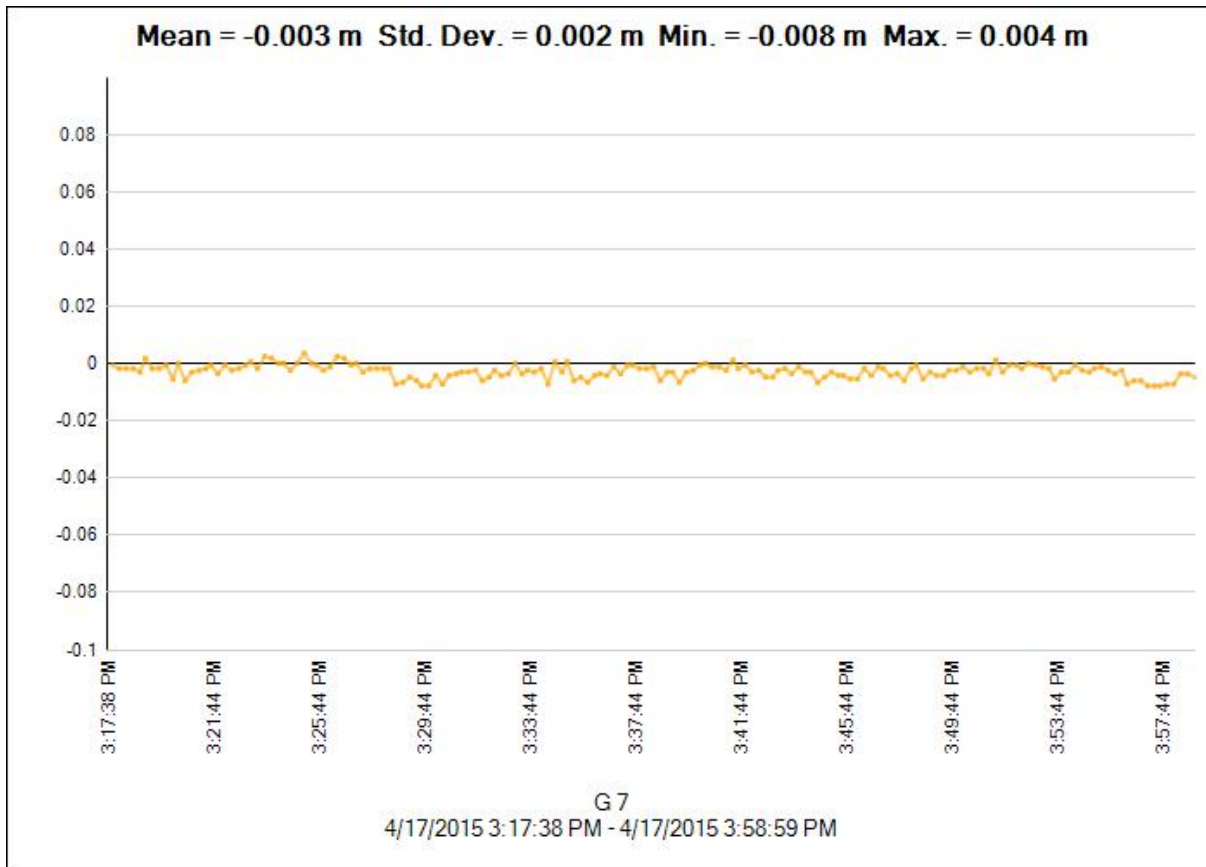
Occupations

	From	To
Point ID:	NR0224	AA2138
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601070.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801076.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.684 m	1.638 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

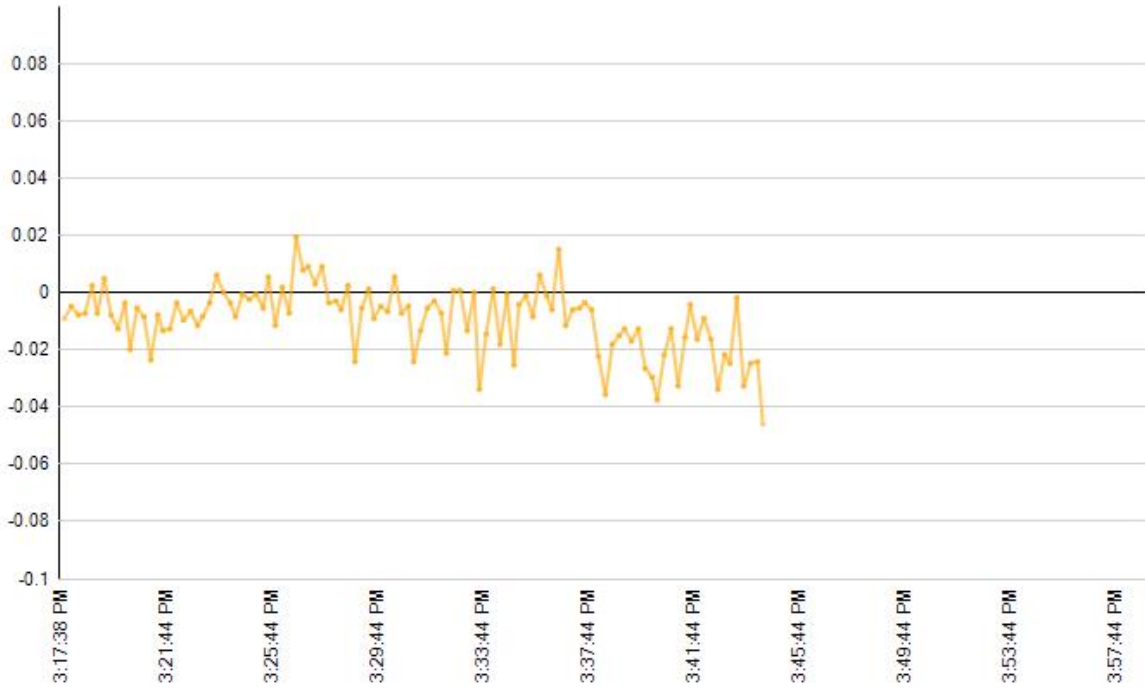
Tracking Summary

SV	4/17/2015 3:17:23 PM	Duration: 00:41:43	Major interval: 00:10:00	4/17/2015 3:59:06 PM
G 5	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 11	L1 L2			
G 13	L1 L2			
G 16	L1 L2			
G 19	L1 L2			
G 20	L1 L2			
G 23	L1 L2			
G 27	L1 L2			
G 28	L1 L2			
G 30	L1 L2			

Residuals

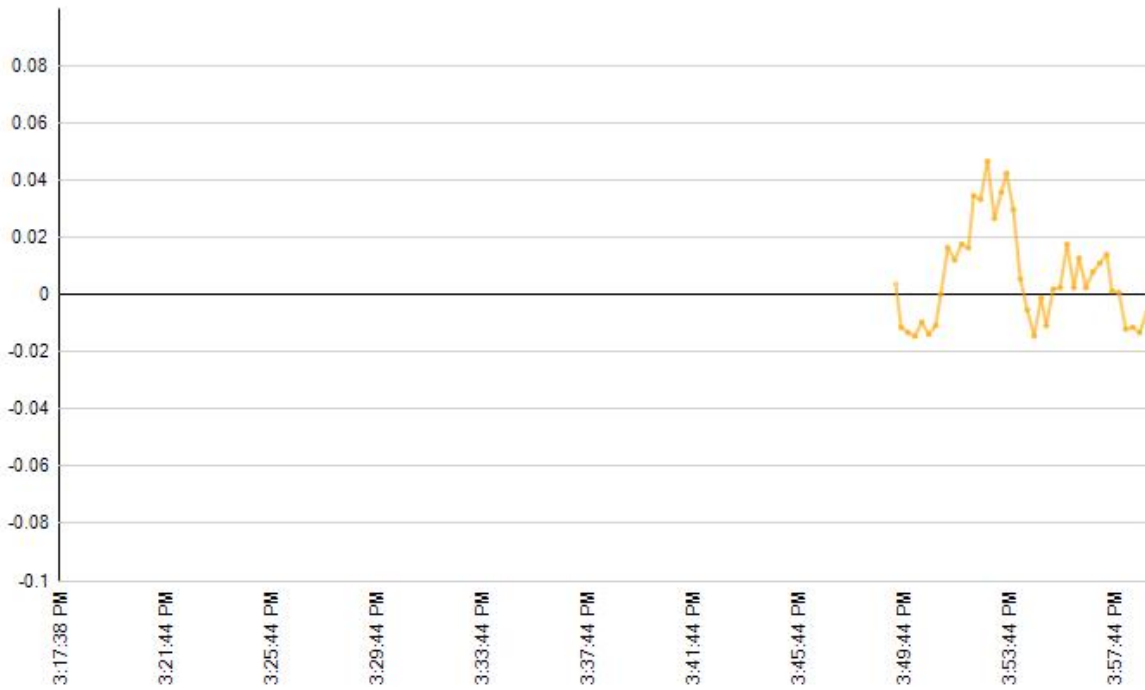


Mean = -0.009 m Std. Dev. = 0.012 m Min. = -0.046 m Max. = 0.020 m



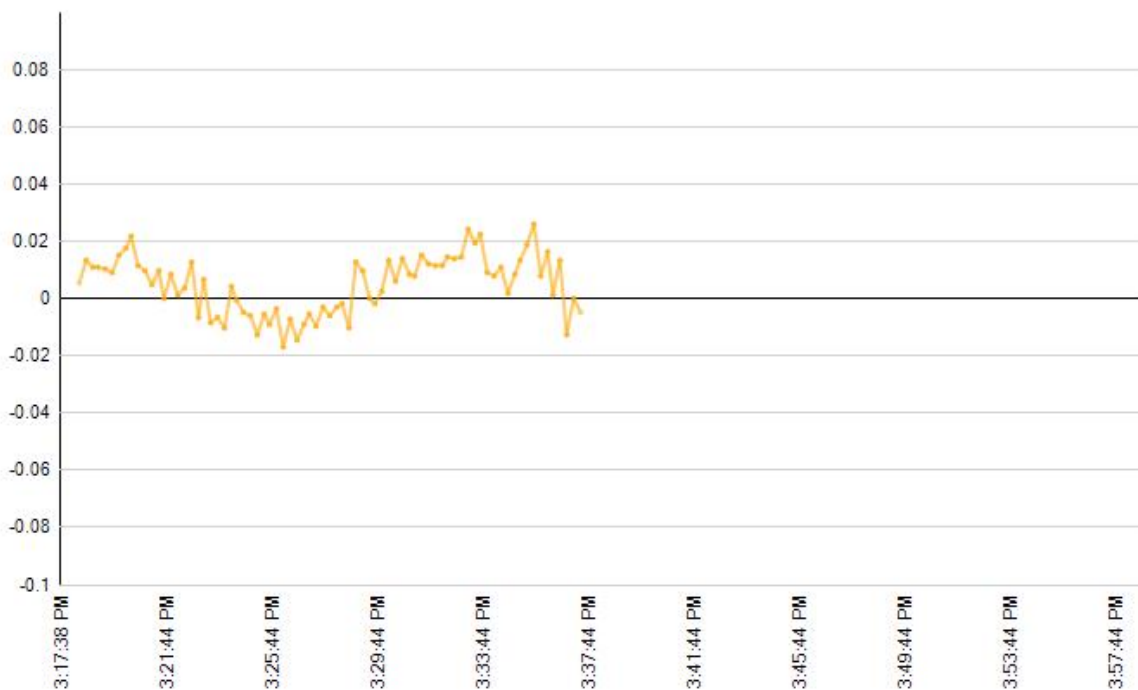
G 10
4/17/2015 3:17:38 PM - 4/17/2015 3:58:59 PM

Mean = 0.006 m Std. Dev. = 0.017 m Min. = -0.015 m Max. = 0.047 m



G 11
4/17/2015 3:17:38 PM - 4/17/2015 3:58:59 PM

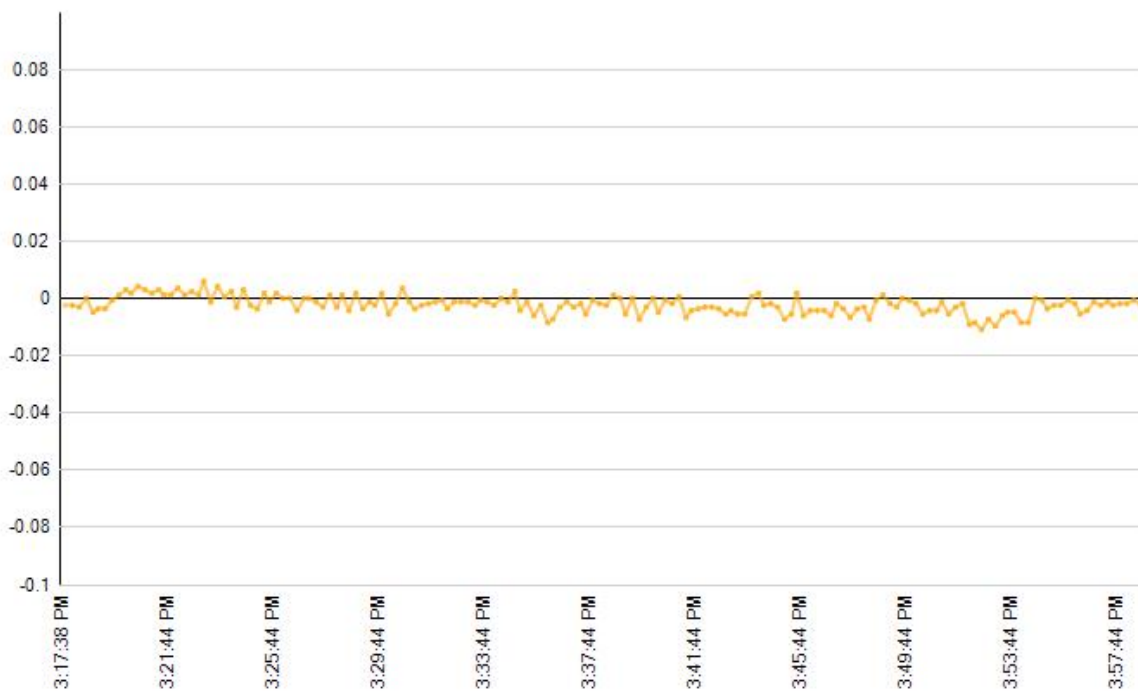
Mean = 0.005 m Std. Dev. = 0.010 m Min. = -0.017 m Max. = 0.026 m



G 16

4/17/2015 3:17:38 PM - 4/17/2015 3:58:59 PM

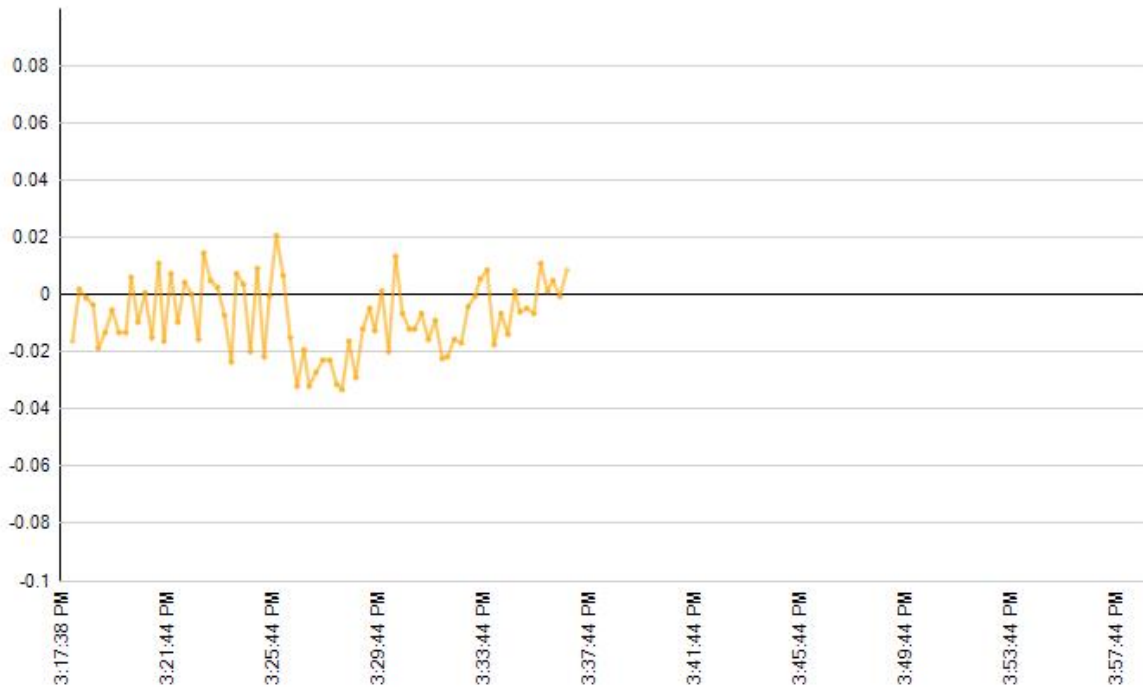
Mean = -0.002 m Std. Dev. = 0.003 m Min. = -0.011 m Max. = 0.006 m



G 19

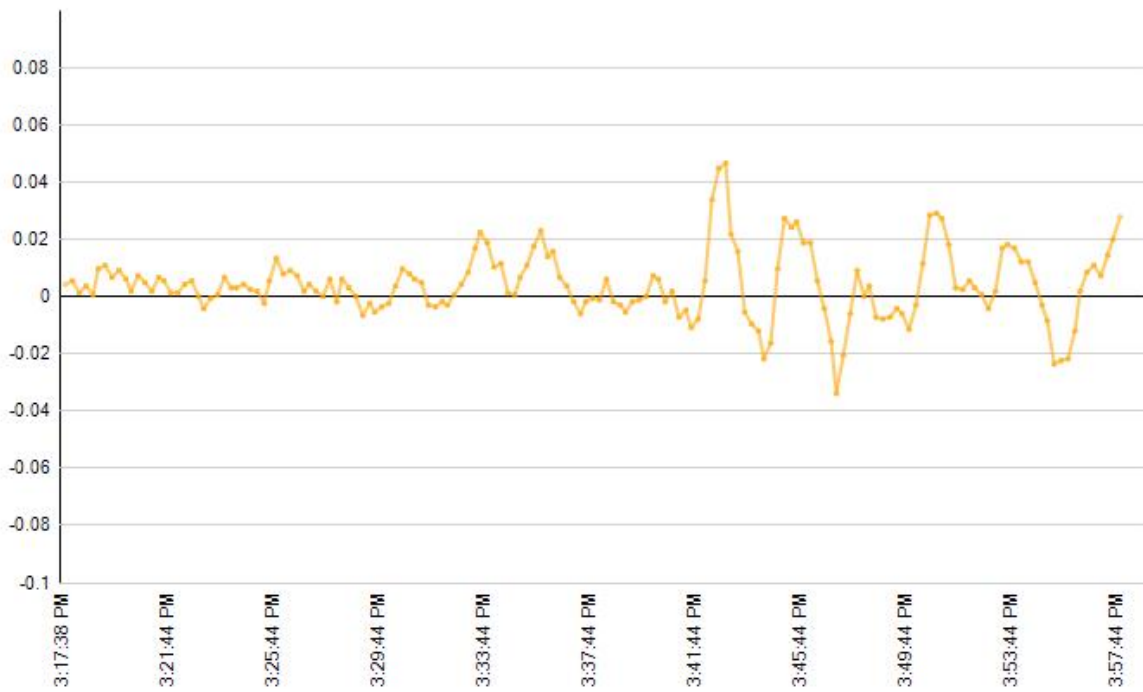
4/17/2015 3:17:38 PM - 4/17/2015 3:58:59 PM

Mean = -0.008 m Std. Dev. = 0.012 m Min. = -0.034 m Max. = 0.021 m



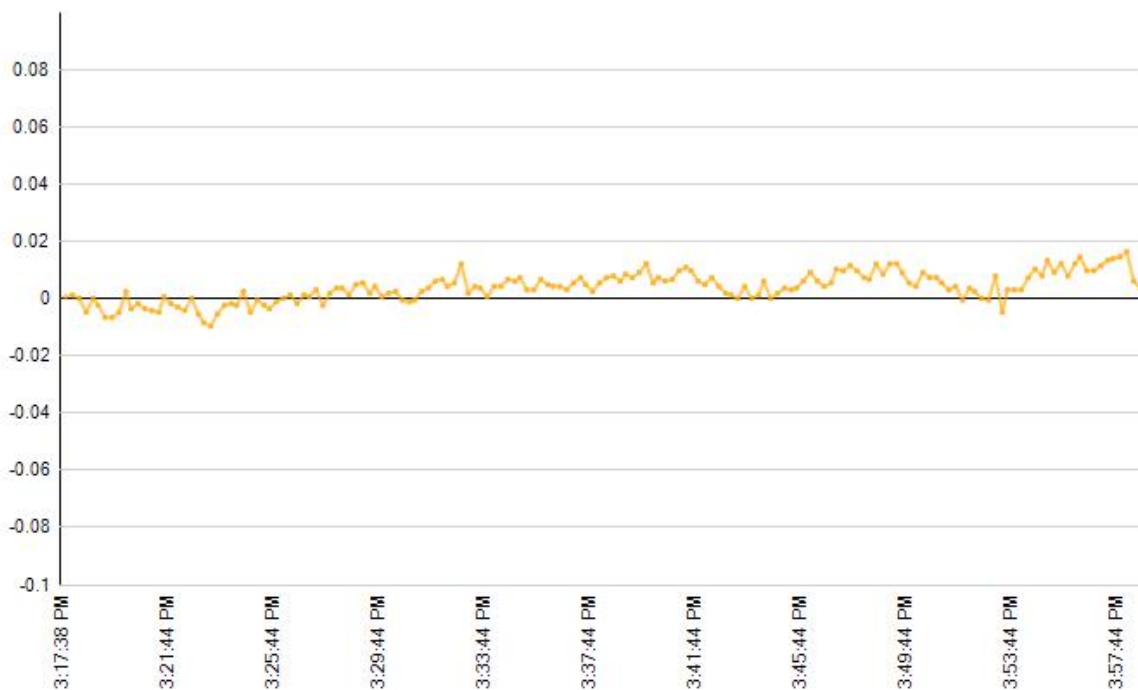
G 20
4/17/2015 3:17:38 PM - 4/17/2015 3:58:59 PM

Mean = 0.004 m Std. Dev. = 0.012 m Min. = -0.034 m Max. = 0.047 m



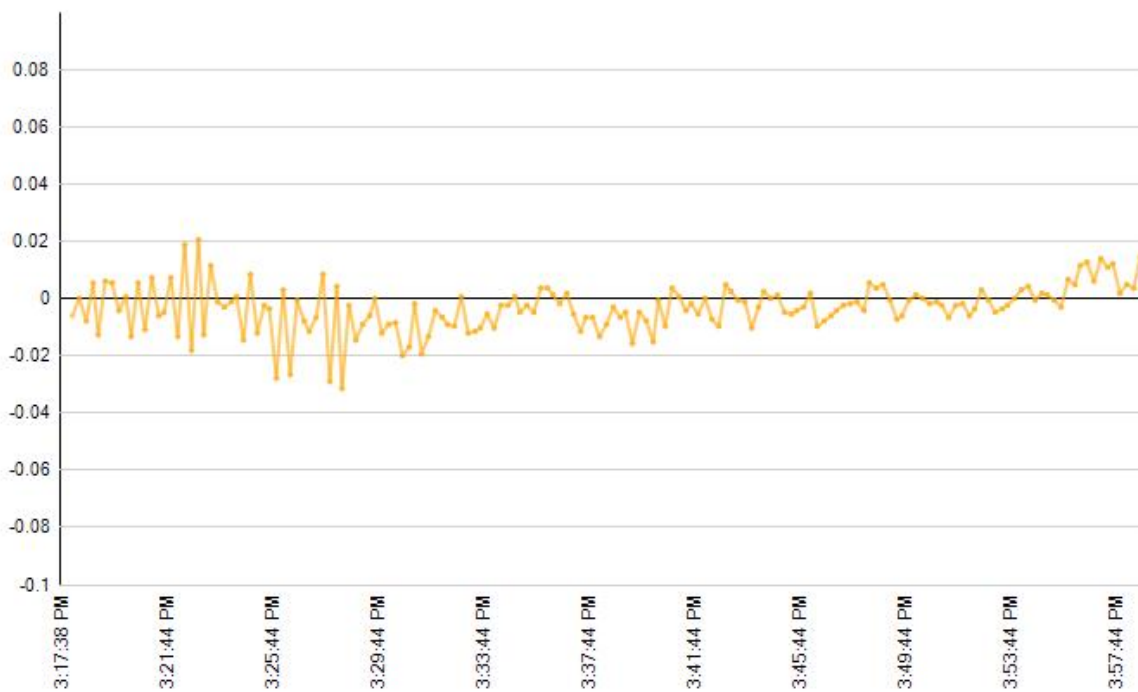
G 23
4/17/2015 3:17:38 PM - 4/17/2015 3:58:59 PM

Mean = 0.004 m Std. Dev. = 0.005 m Min. = -0.010 m Max. = 0.016 m

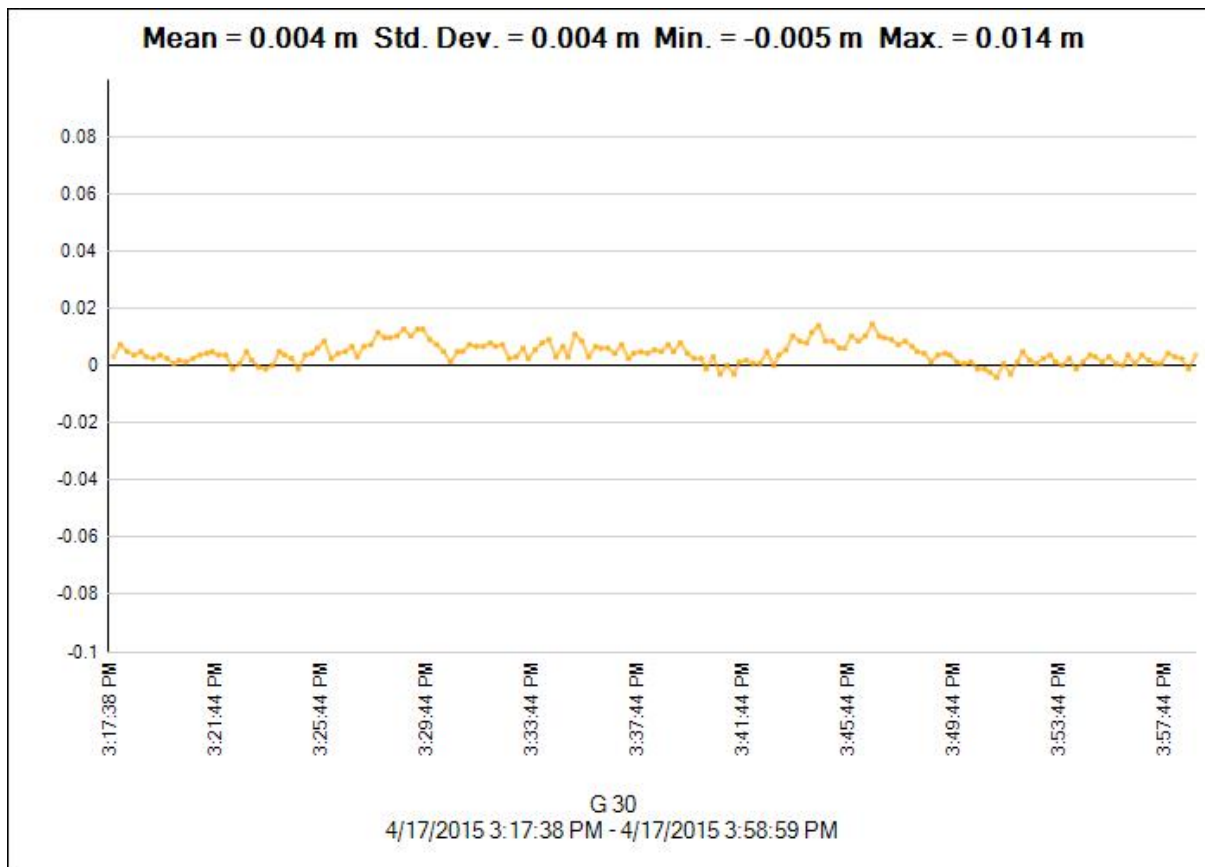


G 27
4/17/2015 3:17:38 PM - 4/17/2015 3:58:59 PM

Mean = -0.003 m Std. Dev. = 0.008 m Min. = -0.032 m Max. = 0.021 m



G 28
4/17/2015 3:17:38 PM - 4/17/2015 3:58:59 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag	Fail
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS624 (12:56:34 PM-1:31:36 PM) (S34)

Baseline observation: NR0224 --- CAS624 (B34)
 Processed: 7/1/2015 9:04:09 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.013 m
 Vertical precision: 0.015 m
 RMS: 0.001 m
 Maximum PDOP: 3.779
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/17/2015 12:56:44 PM (Local: UTC-6hr)
 Processing stop time: 4/17/2015 1:31:29 PM (Local: UTC-6hr)
 Processing duration: 00:34:45
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470640.650 m	Latitude	N42°53'23.99045"	Latitude	N42°53'23.99044"
Northing	365797.023 m	Longitude	W106°28'06.60679"	Longitude	W106°28'06.60679"
Elevation	1615.395 m	Height	1602.225 m	Height	1602.225 m

To: CAS624					
Grid		Local		Global	
Easting	466955.454 m	Latitude	N43°01'32.65043"	Latitude	N43°01'32.65043"
Northing	380840.250 m	Longitude	W106°30'42.53215"	Longitude	W106°30'42.53215"
Elevation	1621.669 m	Height	1608.333 m	Height	1608.333 m

Vector					
ΔEasting	-3685.196 m	NS Fwd Azimuth	346°49'28"	ΔX	-473.310 m
ΔNorthing	15043.227 m	Ellipsoid Dist.	15488.105 m	ΔY	10855.028 m
ΔElevation	6.274 m	ΔHeight	6.108 m	ΔZ	11042.945 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.004 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.005 m
$\sigma \Delta$ Northing	0.004 m	σ Ellipsoid Dist.	0.004 m	$\sigma \Delta$ Y	0.007 m
$\sigma \Delta$ Elevation	0.008 m	$\sigma \Delta$ Height	0.008 m	$\sigma \Delta$ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000286176		
Y	0.0000272645	0.0000437157	
Z	-0.0000108272	-0.0000160181	0.0000217673

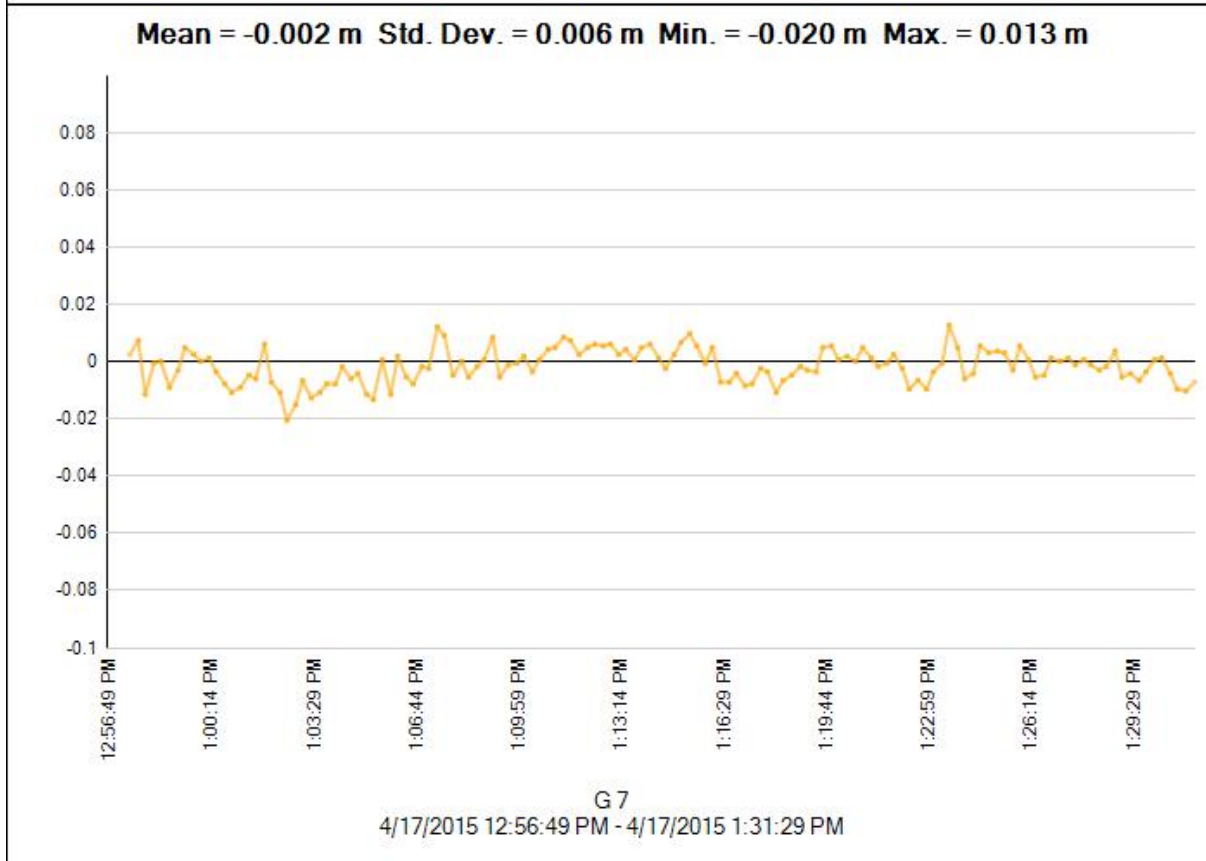
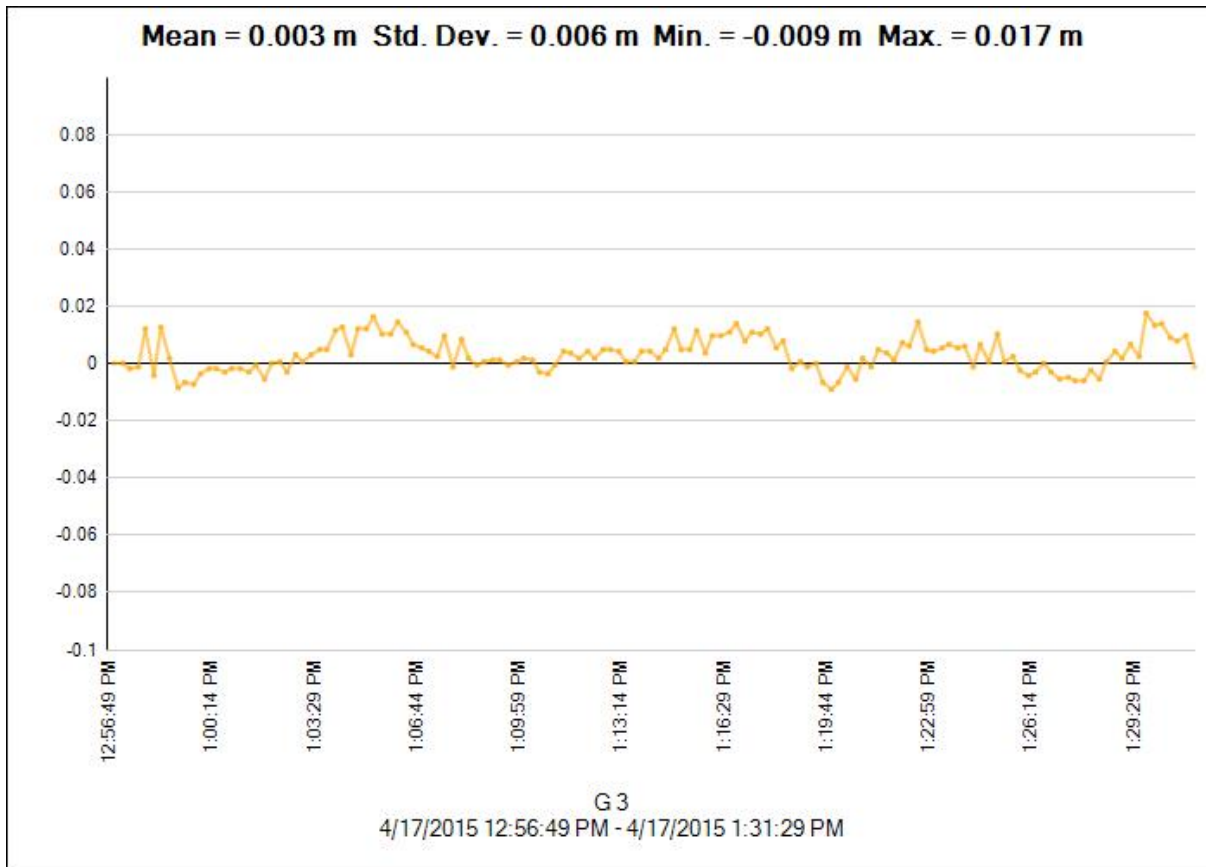
Occupations

	From	To
Point ID:	NR0224	CAS624
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601070.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801075.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.684 m	1.515 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

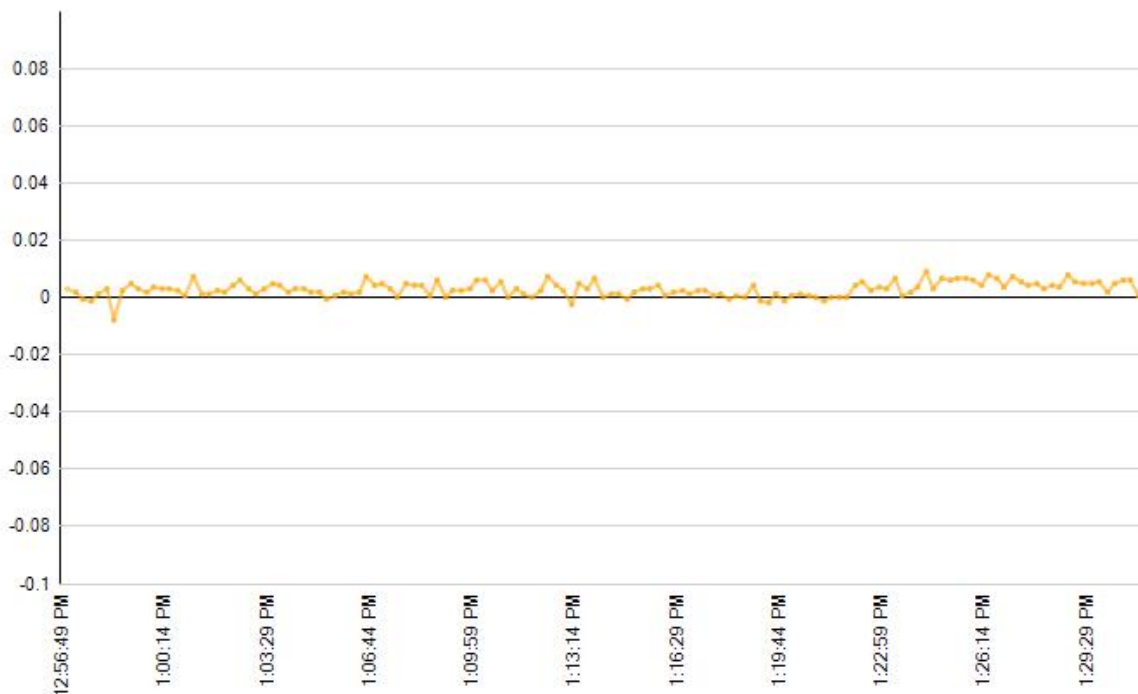
Tracking Summary

SV	4/17/2015 12:56:34 PM	Duration: 00:35:02	Major interval: 00:01:00	4/17/2015 1:31:36 PM
G 3	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 16	L1 L2			
G 19	L1 L2			
G 23	L1 L2			
G 27	L1 L2			
G 30	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals



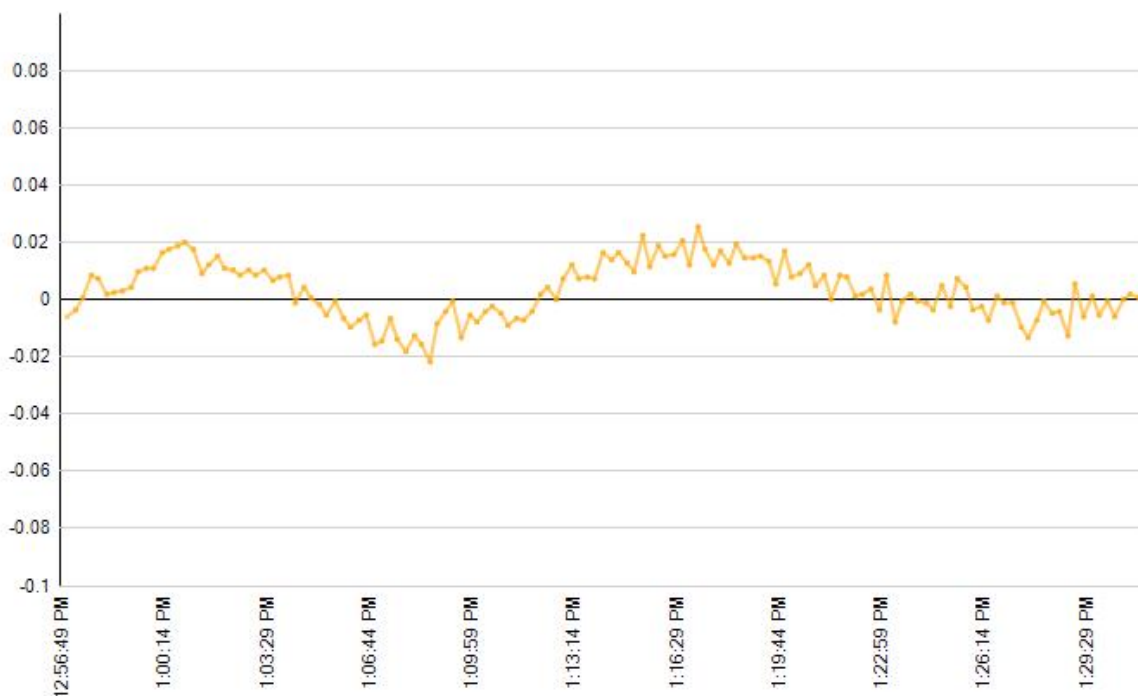
Mean = 0.003 m Std. Dev. = 0.003 m Min. = -0.008 m Max. = 0.009 m



G 9

4/17/2015 12:56:49 PM - 4/17/2015 1:31:29 PM

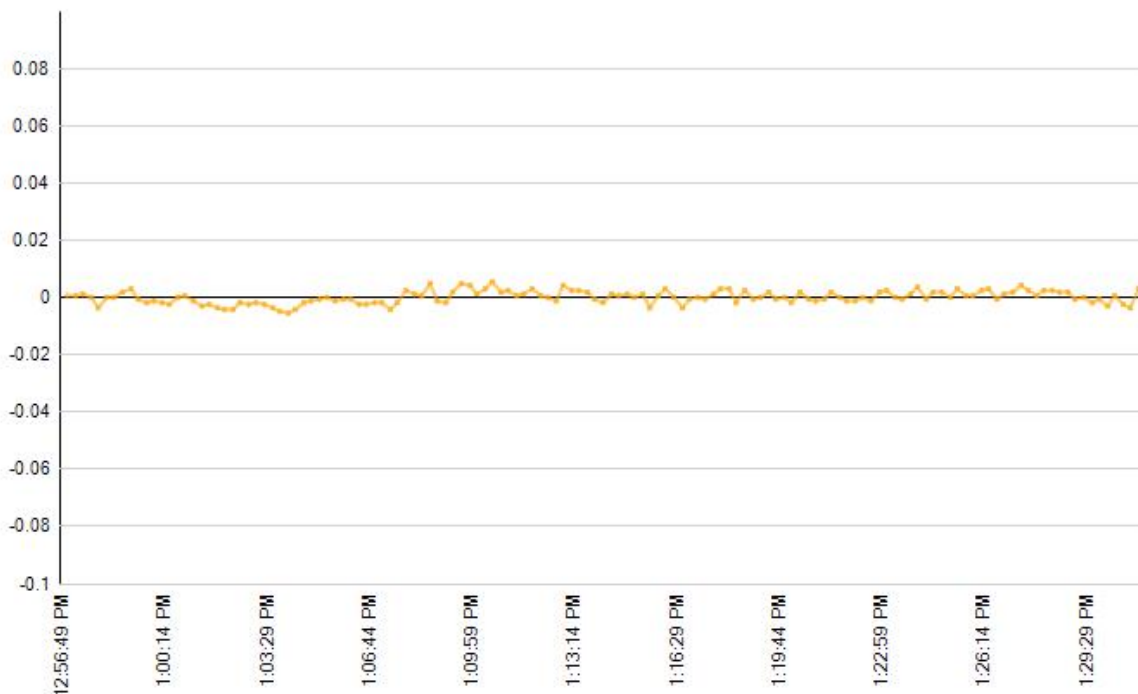
Mean = 0.003 m Std. Dev. = 0.010 m Min. = -0.022 m Max. = 0.025 m



G 10

4/17/2015 12:56:49 PM - 4/17/2015 1:31:29 PM

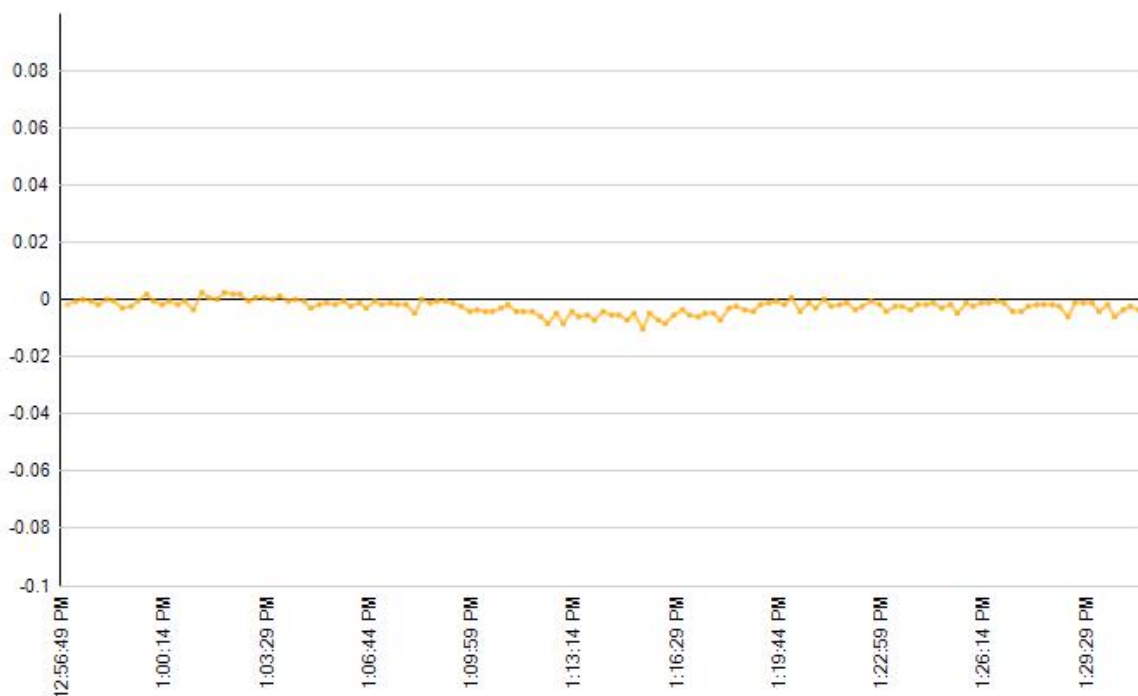
Mean = 0.000 m Std. Dev. = 0.002 m Min. = -0.005 m Max. = 0.005 m



G 16

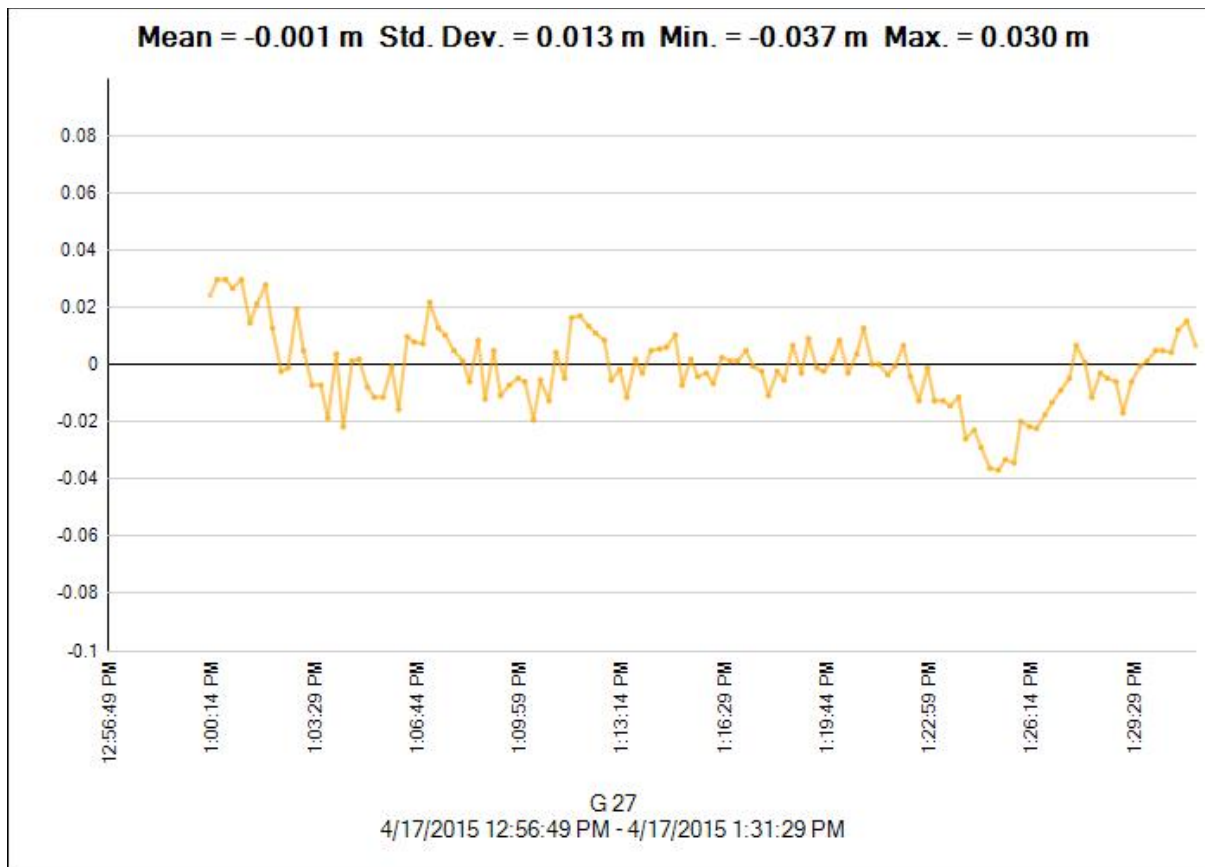
4/17/2015 12:56:49 PM - 4/17/2015 1:31:29 PM

Mean = -0.003 m Std. Dev. = 0.002 m Min. = -0.010 m Max. = 0.003 m



G 23



4/17/2015 12:56:49 PM - 4/17/2015 1:31:29 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS627 (11:54:52 AM-12:27:47 PM) (S35)

Baseline observation: NR0224 --- CAS627 (B35)
 Processed: 7/1/2015 9:04:09 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.029 m
 Vertical precision: 0.023 m
 RMS: 0.001 m
 Maximum PDOP: 8.828
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/17/2015 11:54:59 AM (Local: UTC-6hr)
 Processing stop time: 4/17/2015 12:27:44 PM (Local: UTC-6hr)
 Processing duration: 00:32:45
 Processing interval: 15 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470640.650 m	Latitude	N42°53'23.99045"	Latitude	N42°53'23.99044"
Northing	365797.023 m	Longitude	W106°28'06.60679"	Longitude	W106°28'06.60679"
Elevation	1615.395 m	Height	1602.225 m	Height	1602.225 m

To: CAS627					
Grid		Local		Global	
Easting	453556.026 m	Latitude	N42°58'11.40287"	Latitude	N42°58'11.40287"
Northing	374511.934 m	Longitude	W106°40'36.53546"	Longitude	W106°40'36.53546"
Elevation	1690.336 m	Height	1677.125 m	Height	1677.125 m

Vector					
ΔEasting	-17084.624 m	NS Fwd Azimuth	297°36'55"	ΔX	-14595.296 m
ΔNorthing	8714.911 m	Ellipsoid Dist.	19179.283 m	ΔY	10590.504 m
ΔElevation	74.941 m	ΔHeight	74.900 m	ΔZ	6546.587 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.010 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.012 m
$\sigma \Delta$ Northing	0.007 m	σ Ellipsoid Dist.	0.006 m	$\sigma \Delta$ Y	0.010 m
$\sigma \Delta$ Elevation	0.012 m	$\sigma \Delta$ Height	0.012 m	$\sigma \Delta$ Z	0.007 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0001425359		
Y	0.0000849189	0.0000932190	
Z	-0.0000014652	-0.0000384629	0.0000489319

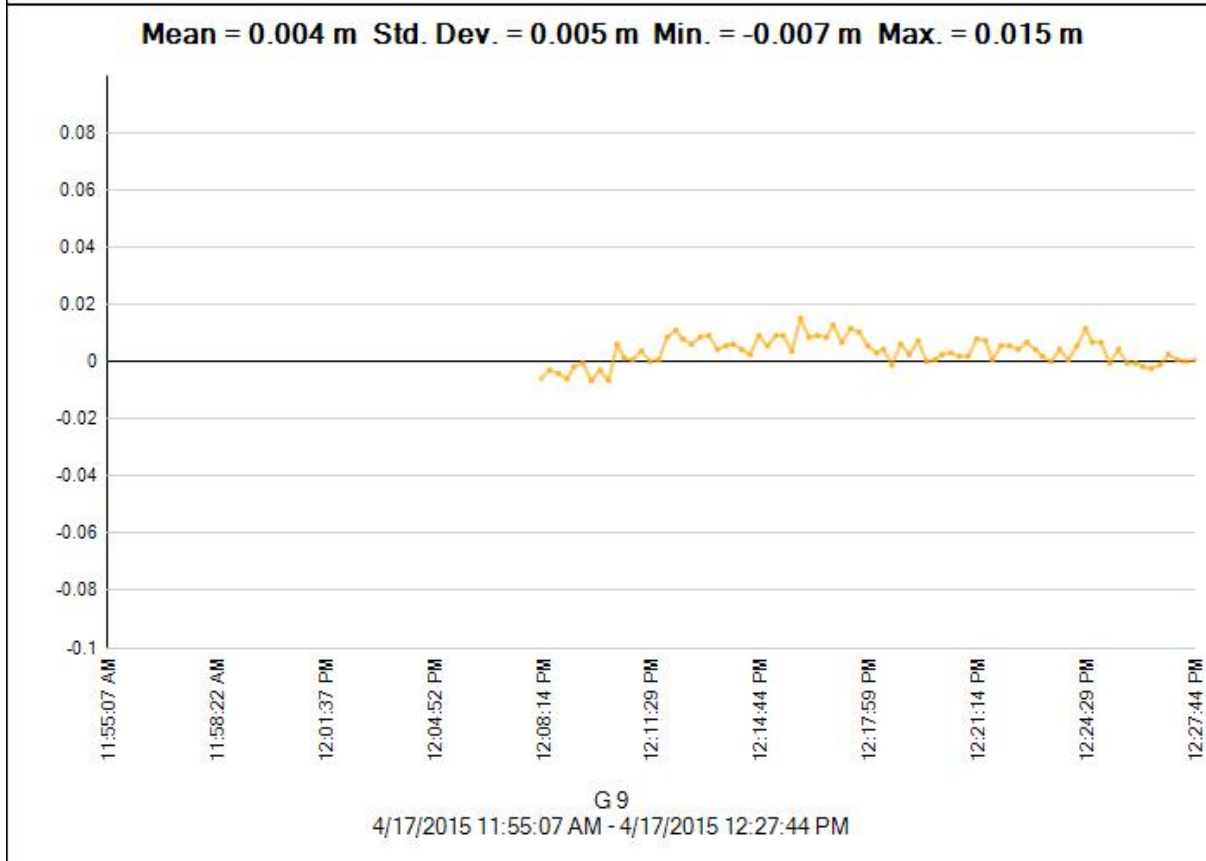
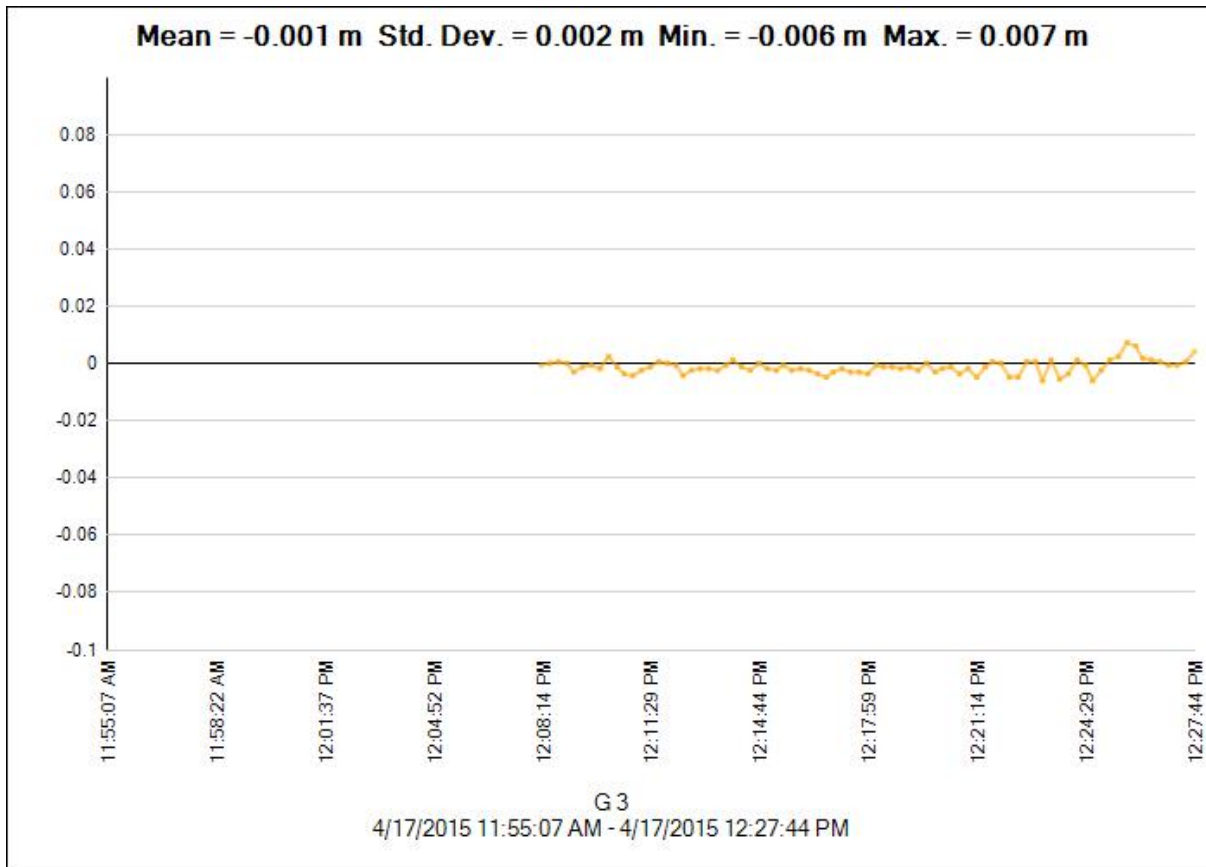
Occupations

	From	To
Point ID:	NR0224	CAS627
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601070.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801074.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.684 m	1.519 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

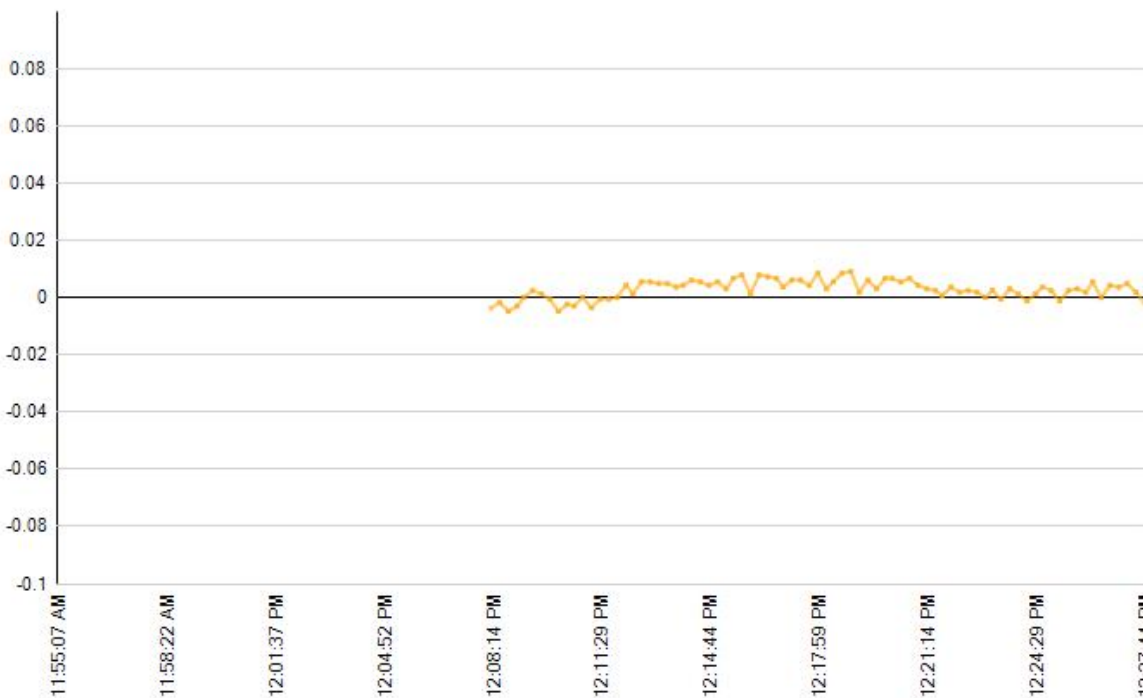
Tracking Summary

SV	4/17/2015 11:54:52 AM	Duration: 00:32:55	Major interval: 00:01:00	4/17/2015 12:27:47 PM
G 3	L1 L2			
G 6	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 16	L1 L2			
G 23	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals

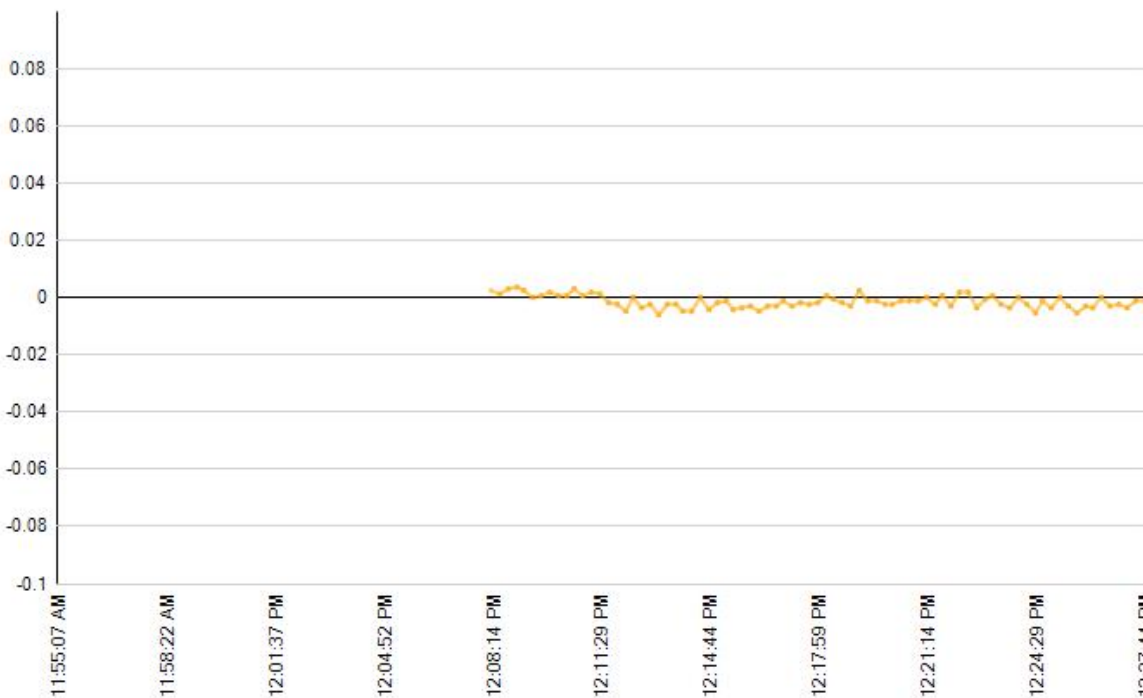


Mean = 0.003 m Std. Dev. = 0.003 m Min. = -0.005 m Max. = 0.009 m

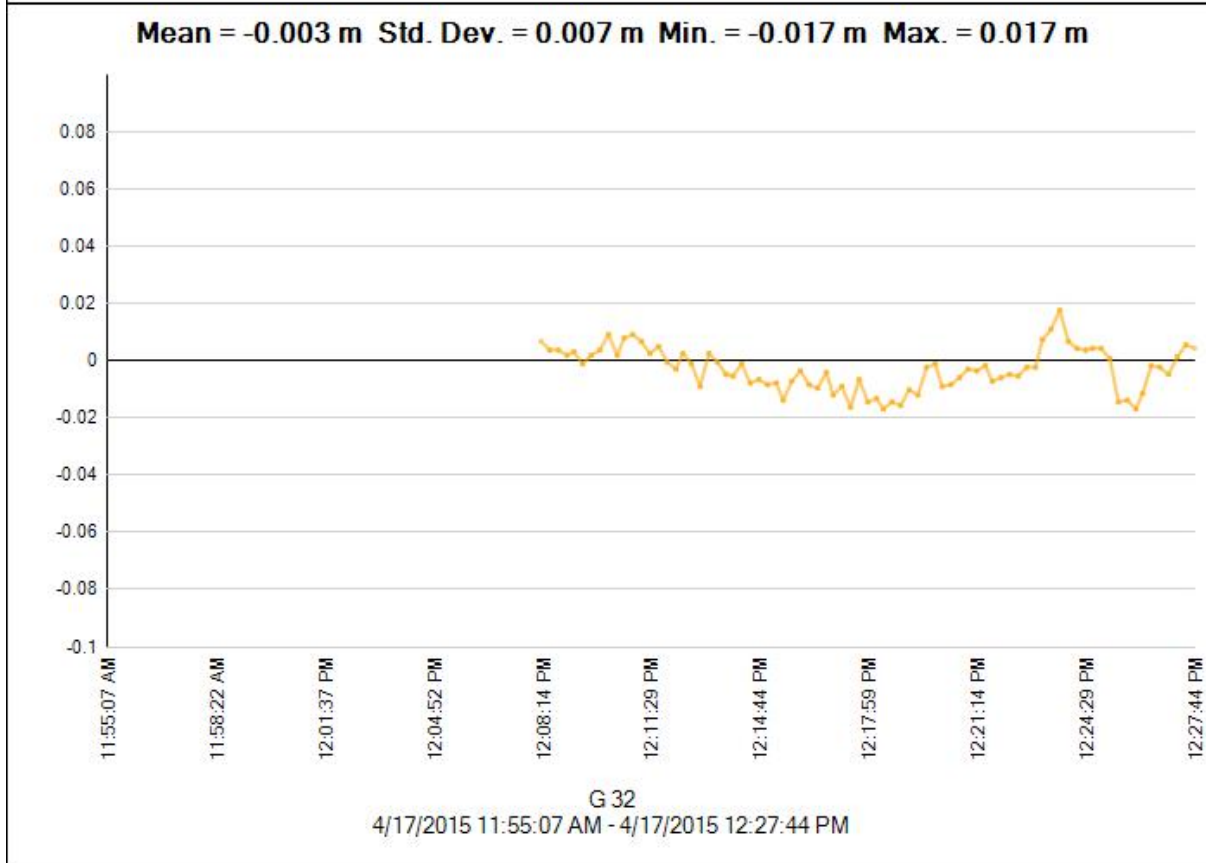
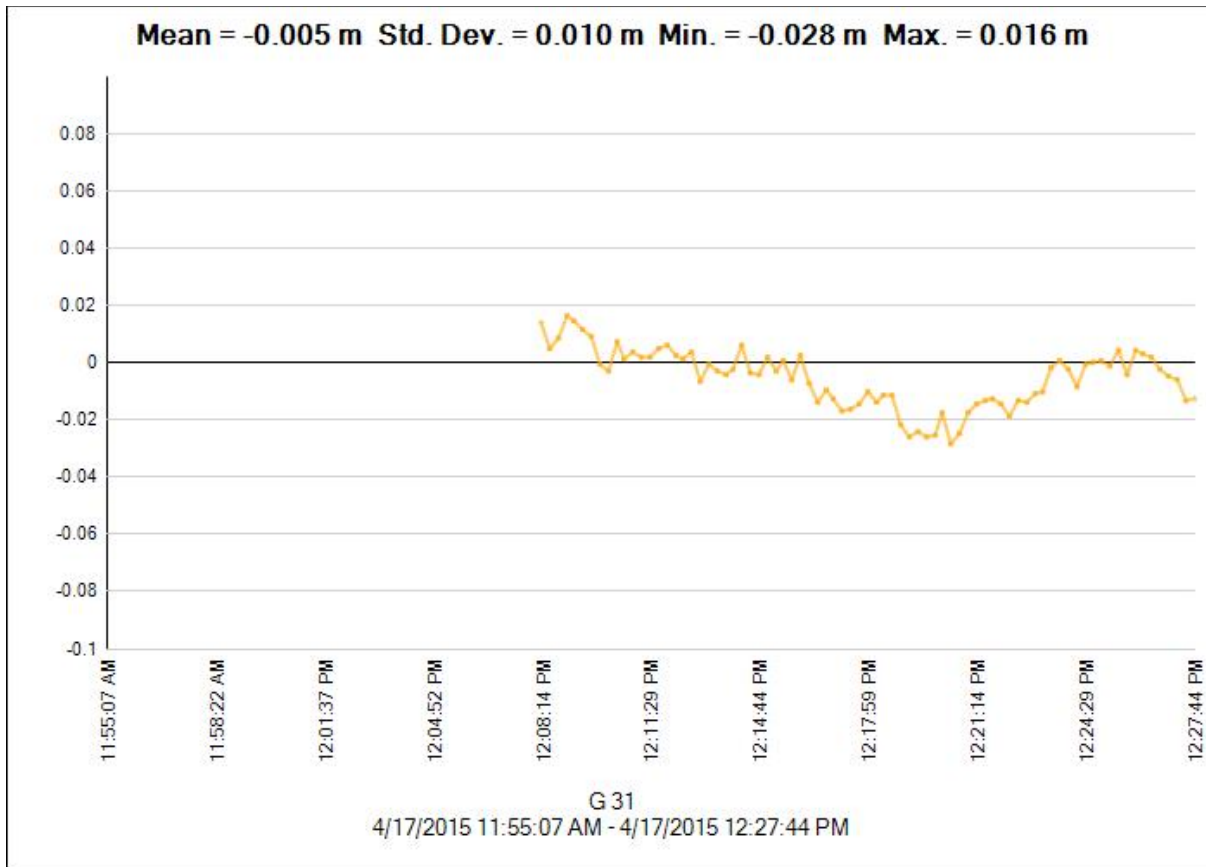


G 16
4/17/2015 11:55:07 AM - 4/17/2015 12:27:44 PM

Mean = -0.001 m Std. Dev. = 0.002 m Min. = -0.006 m Max. = 0.003 m





G 23
4/17/2015 11:55:07 AM - 4/17/2015 12:27:44 PM



Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS625 (11:03:34 AM-11:39:41 AM) (S36)

Baseline observation: NR0224 --- CAS625 (B36)
Processed: 7/1/2015 9:04:09 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.009 m
Vertical precision: 0.018 m
RMS: 0.001 m
Maximum PDOP: 4.381
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 4/17/2015 11:03:44 AM (Local: UTC-6hr)
Processing stop time: 4/17/2015 11:39:29 AM (Local: UTC-6hr)
Processing duration: 00:35:45
Processing interval: 15 seconds

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470640.650 m	Latitude	N42°53'23.99045"	Latitude	N42°53'23.99044"
Northing	365797.023 m	Longitude	W106°28'06.60679"	Longitude	W106°28'06.60679"
Elevation	1615.395 m	Height	1602.225 m	Height	1602.225 m

To:		CAS625			
Grid		Local		Global	
Easting	449117.032 m	Latitude	N43°00'32.90827"	Latitude	N43°00'32.90827"
Northing	378845.389 m	Longitude	W106°43'51.04913"	Longitude	W106°43'51.04913"
Elevation	1688.470 m	Height	1675.239 m	Height	1675.239 m

Vector					
Δ Easting	-21523.618 m	NS Fwd Azimuth	301°48'54"	Δ X	-17960.568 m
Δ Northing	13048.366 m	Ellipsoid Dist.	25170.393 m	Δ Y	14711.325 m
Δ Elevation	73.076 m	Δ Height	73.014 m	Δ Z	9740.305 m

Standard Errors

Vector errors:					
σ Δ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.004 m
σ Δ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	σ Δ Y	0.007 m
σ Δ Elevation	0.009 m	σ Δ Height	0.009 m	σ Δ Z	0.007 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000125126		
Y	0.0000099442	0.0000476904	
Z	-0.0000057482	-0.0000372767	0.0000431501

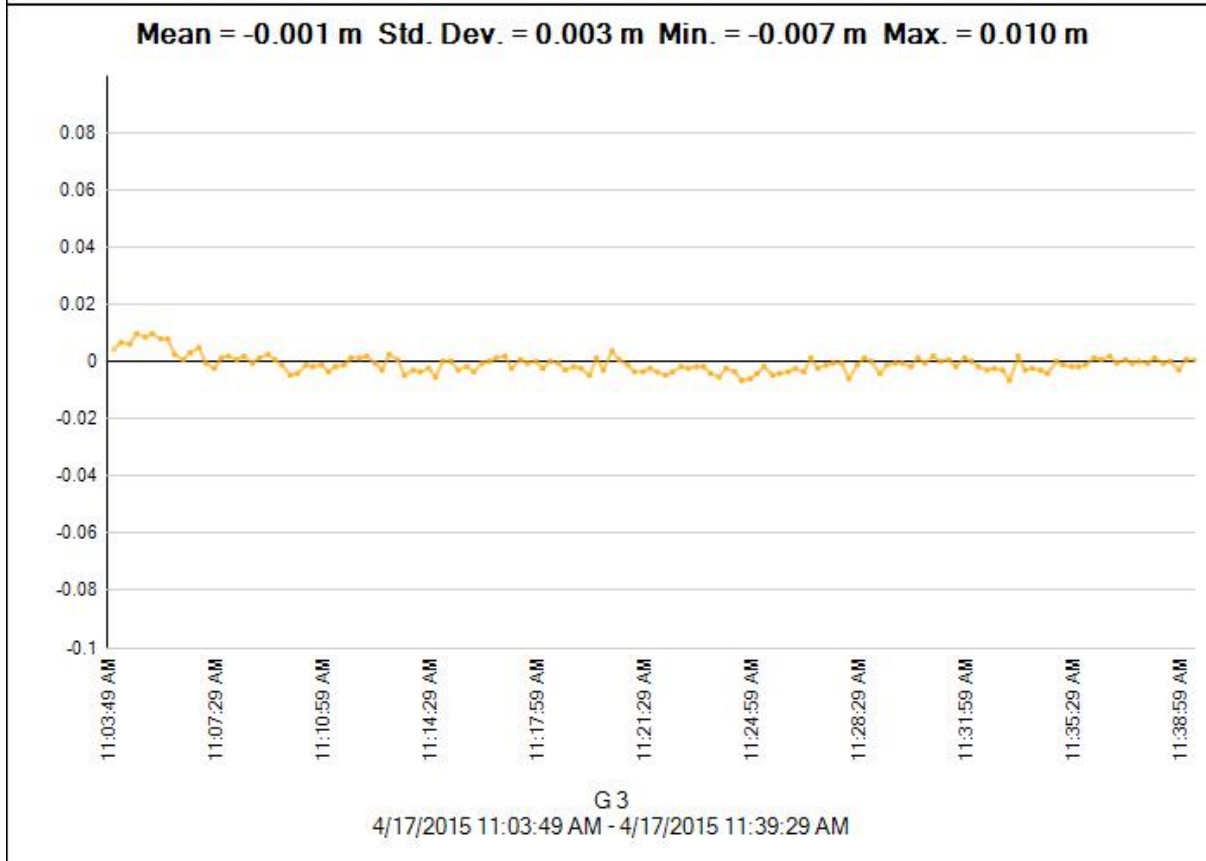
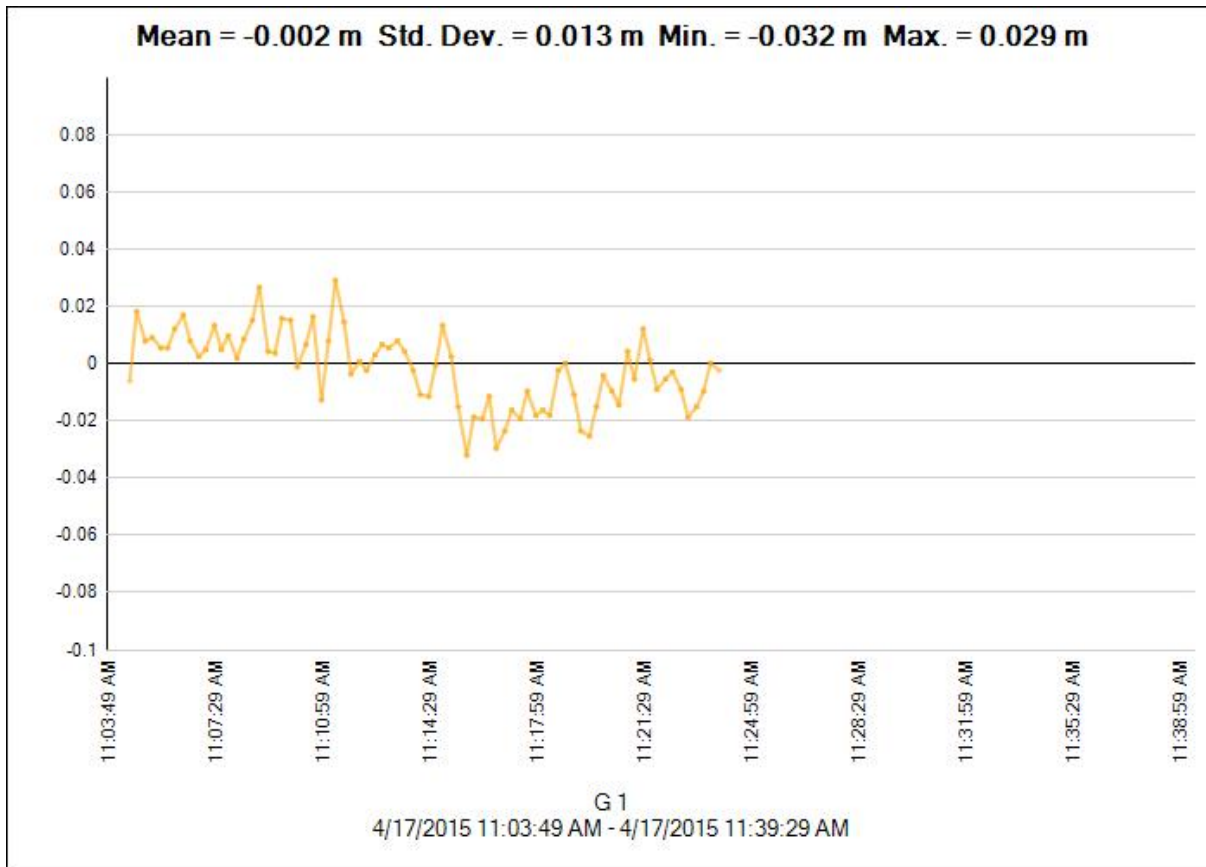
Occupations

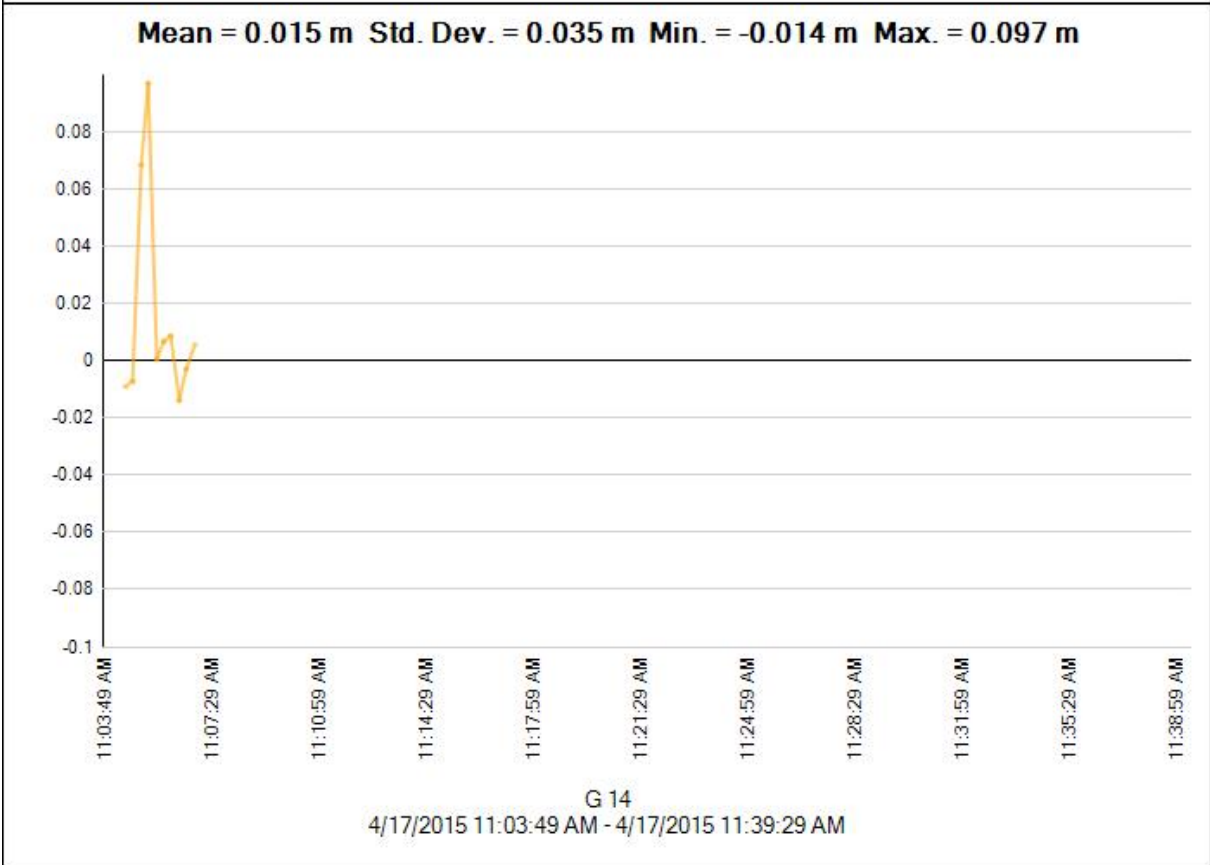
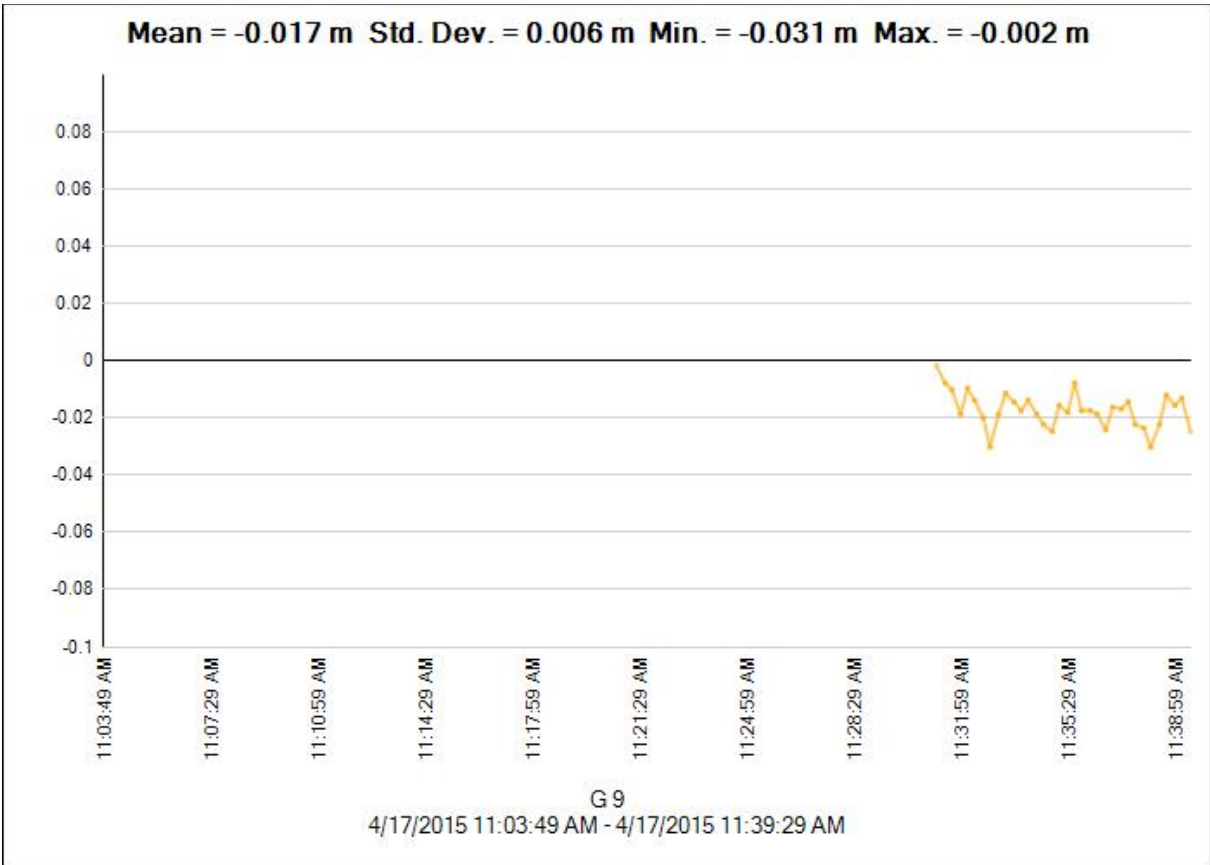
	From	To
Point ID:	NR0224	CAS625
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601070.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801072.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.684 m	1.532 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

SV	4/17/2015 11:03:34 AM	Duration: 00:36:07	Major interval: 00:01:00	4/17/2015 11:39:41 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 6	L1 L2			
G 9	L1 L2			
G 14	L1 L2			
G 16	L1 L2			
G 23	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals





Mean = 0.002 m Std. Dev. = 0.012 m Min. = -0.037 m Max. = 0.025 m



G 16

4/17/2015 11:03:49 AM - 4/17/2015 11:39:29 AM

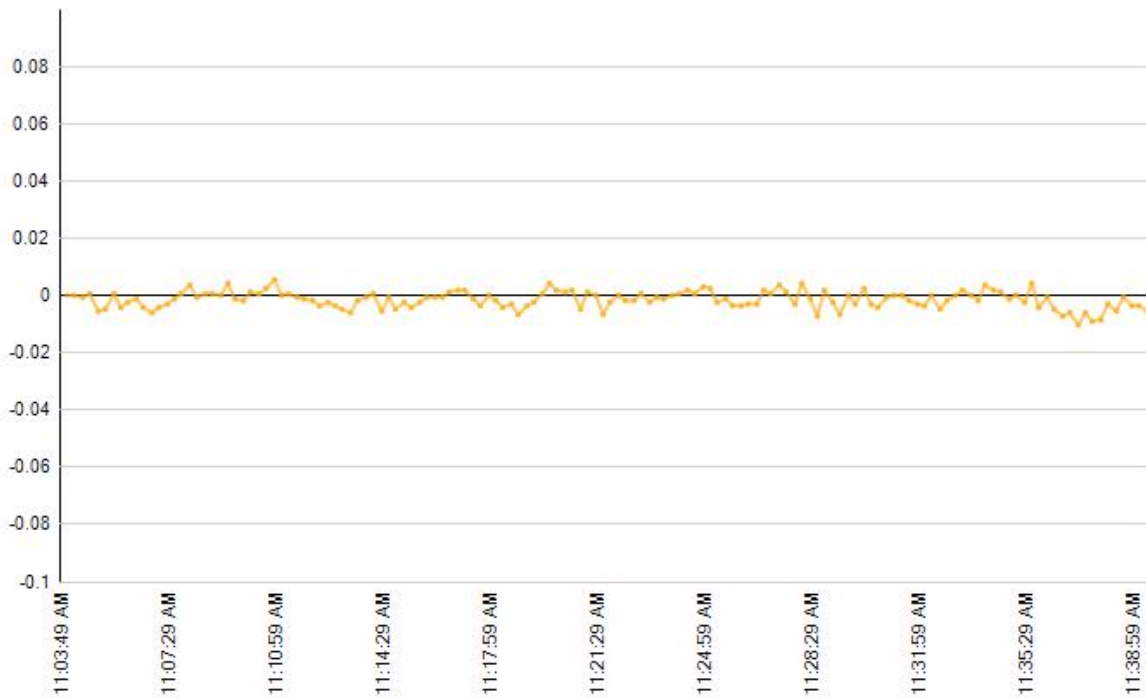
Mean = 0.002 m Std. Dev. = 0.006 m Min. = -0.013 m Max. = 0.015 m



G 23

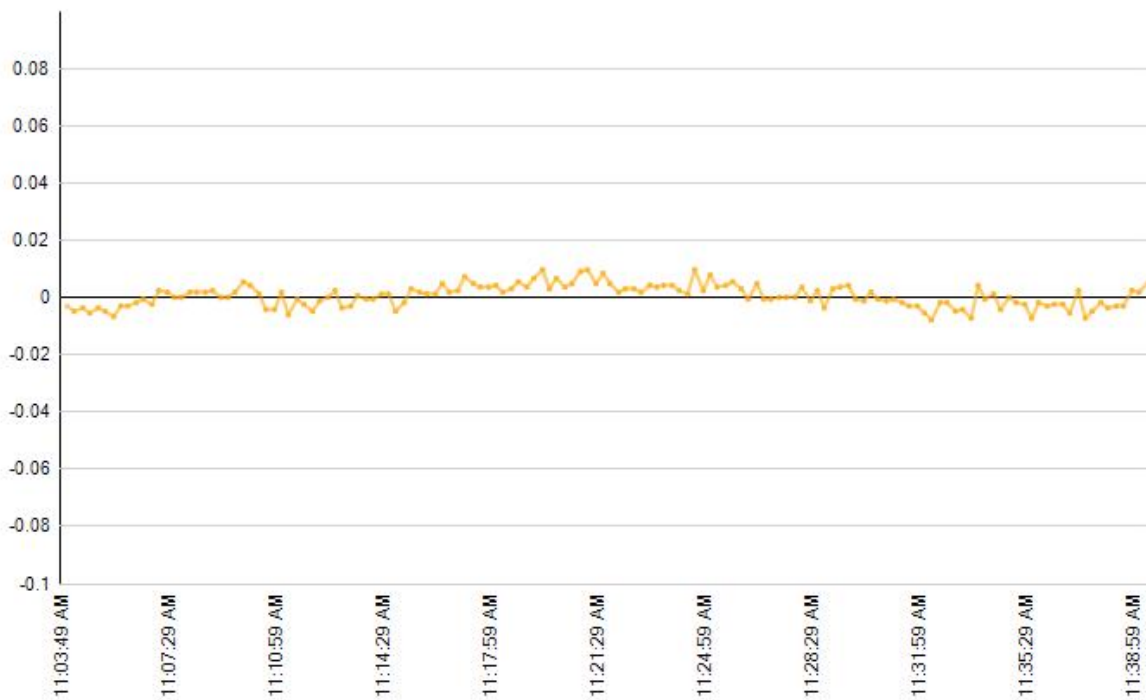
4/17/2015 11:03:49 AM - 4/17/2015 11:39:29 AM

Mean = -0.001 m Std. Dev. = 0.003 m Min. = -0.010 m Max. = 0.006 m



G 31
4/17/2015 11:03:49 AM - 4/17/2015 11:39:29 AM

Mean = 0.001 m Std. Dev. = 0.004 m Min. = -0.008 m Max. = 0.010 m





G 32
4/17/2015 11:03:49 AM - 4/17/2015 11:39:29 AM

Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS631 (10:13:34 AM-10:50:18 AM) (S37)

Baseline observation: NR0224 --- CAS631 (B37)
Processed: 7/1/2015 9:04:09 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.009 m
Vertical precision: 0.010 m
RMS: 0.001 m
Maximum PDOP: 1.900
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 4/17/2015 10:13:44 AM (Local: UTC-6hr)
Processing stop time: 4/17/2015 10:50:14 AM (Local: UTC-6hr)
Processing duration: 00:36:30
Processing interval: 15 seconds

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470640.650 m	Latitude	N42°53'23.99045"	Latitude	N42°53'23.99044"
Northing	365797.023 m	Longitude	W106°28'06.60679"	Longitude	W106°28'06.60679"
Elevation	1615.395 m	Height	1602.225 m	Height	1602.225 m

To:		CAS631			
Grid		Local		Global	
Easting	442702.114 m	Latitude	N43°01'47.39120"	Latitude	N43°01'47.39120"
Northing	381100.816 m	Longitude	W106°48'33.69054"	Longitude	W106°48'33.69054"
Elevation	1705.835 m	Height	1692.614 m	Height	1692.614 m

Vector					
Δ Easting	-27938.535 m	NS Fwd Azimuth	299°18'06"	Δ X	-23640.966 m
Δ Northing	15303.793 m	Ellipsoid Dist.	31856.128 m	Δ Y	18048.059 m
Δ Elevation	90.440 m	Δ Height	90.388 m	Δ Z	11433.075 m

Standard Errors

Vector errors:					
σ Δ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.003 m
σ Δ Northing	0.004 m	σ Ellipsoid Dist.	0.003 m	σ Δ Y	0.004 m
σ Δ Elevation	0.005 m	σ Δ Height	0.005 m	σ Δ Z	0.004 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000072100		
Y	0.0000040128	0.0000156678	
Z	-0.0000053469	-0.0000048130	0.0000196046

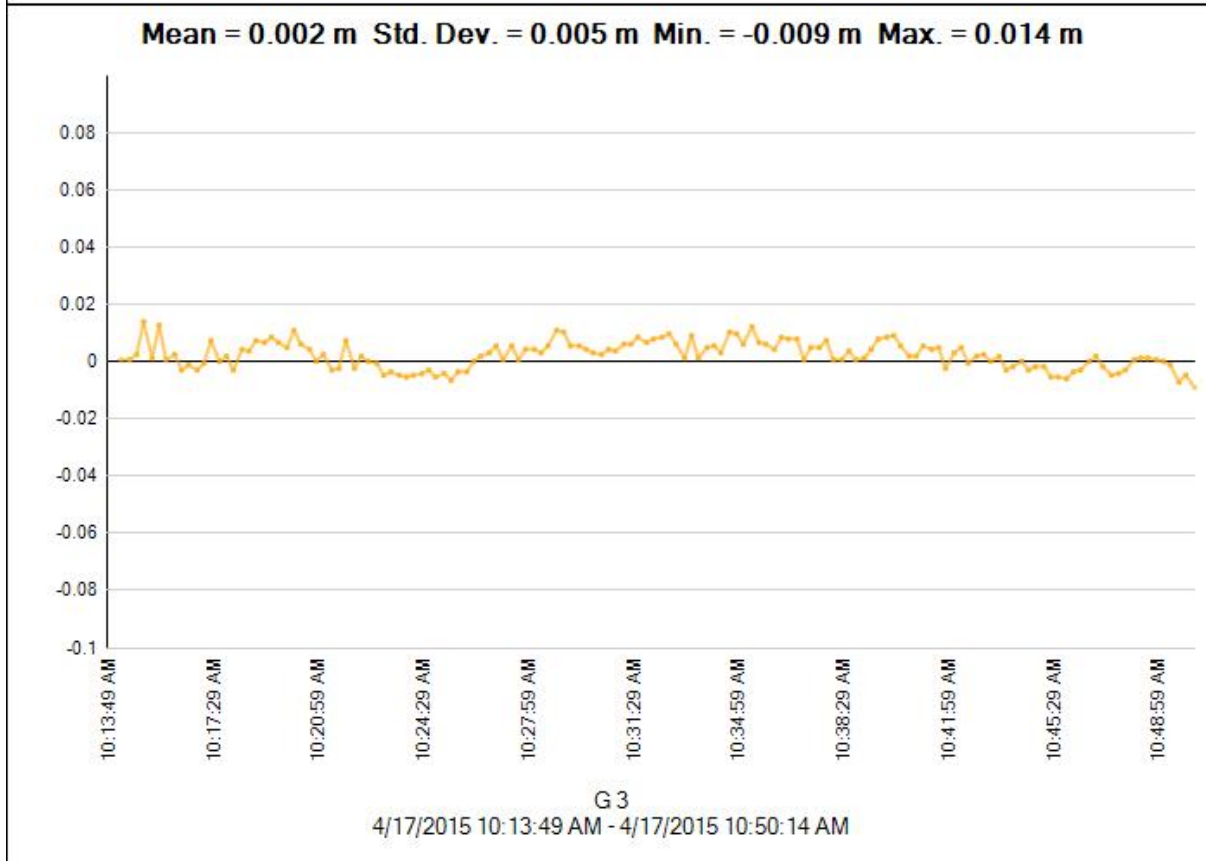
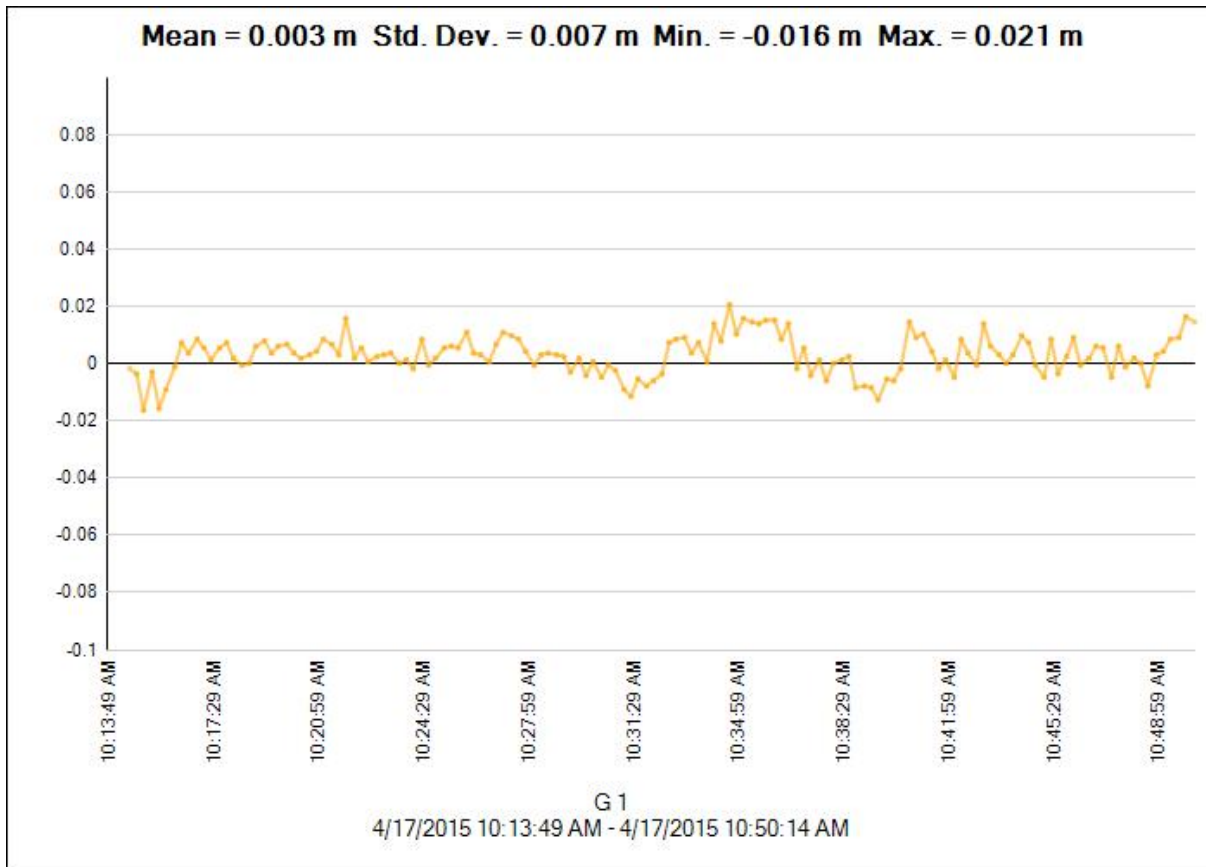
Occupations

	From	To
Point ID:	NR0224	CAS631
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601070.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801071.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.684 m	1.538 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

SV	4/17/2015 10:13:34 AM	Duration: 00:36:44	Major interval: 00:01:00	4/17/2015 10:50:18 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 11	L1 L2			
G 14	L1 L2			
G 16	L1 L2			
G 22	L1 L2			
G 23	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals

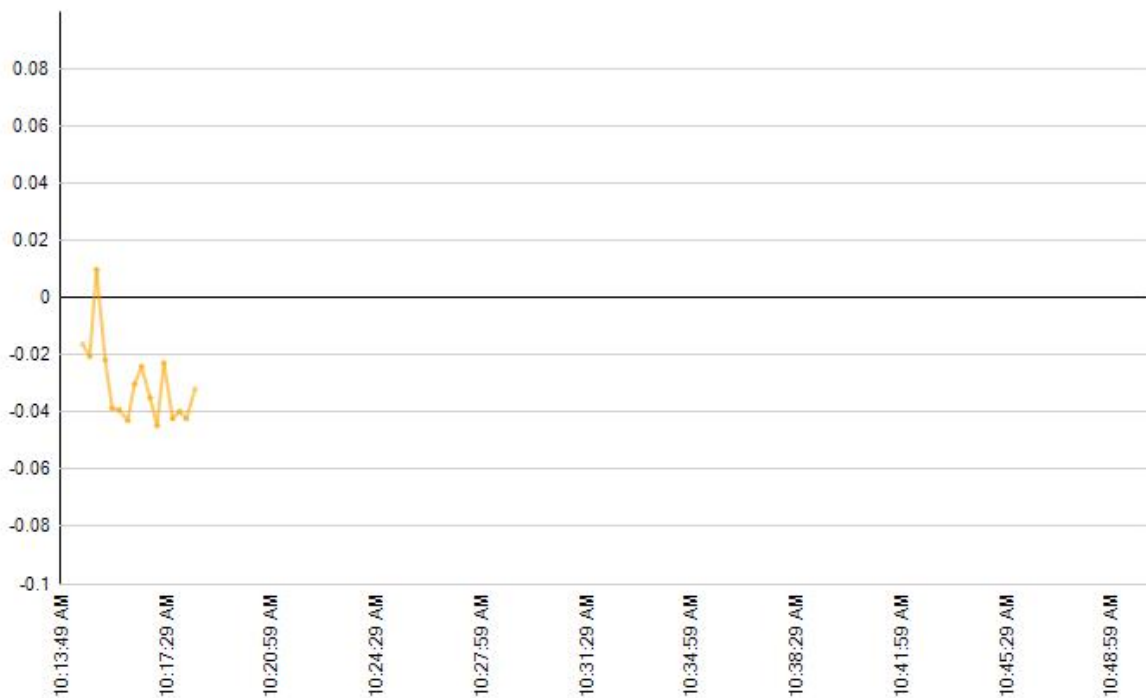


Mean = -0.006 m Std. Dev. = 0.016 m Min. = -0.040 m Max. = 0.026 m



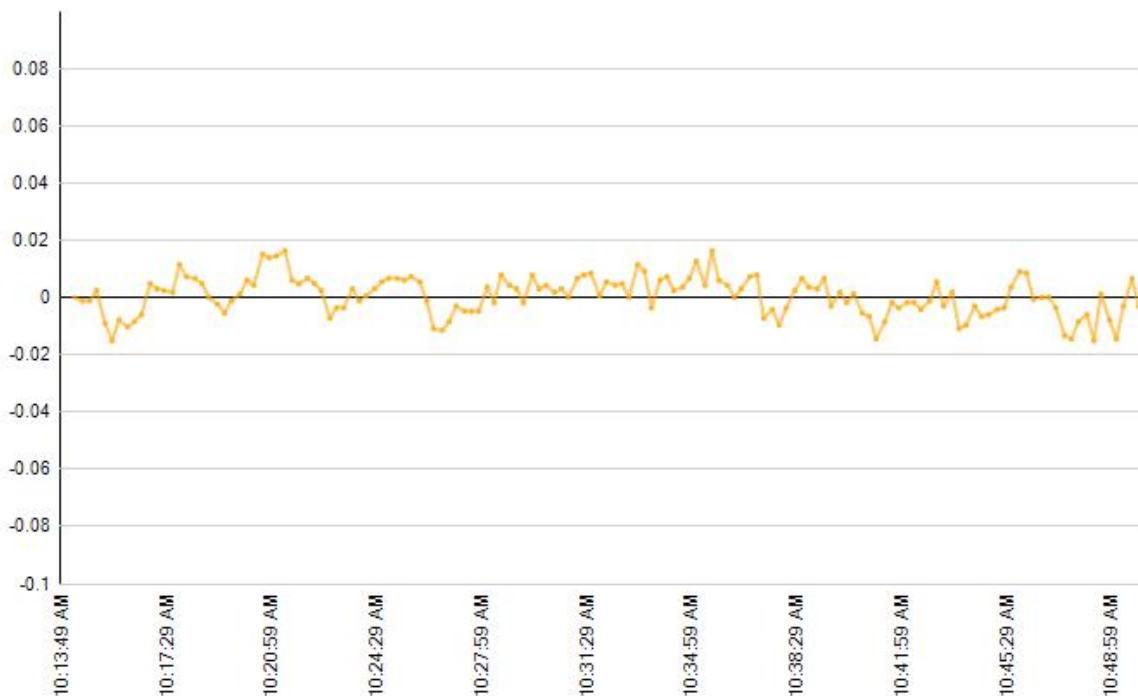
G 4
4/17/2015 10:13:49 AM - 4/17/2015 10:50:14 AM

Mean = -0.030 m Std. Dev. = 0.014 m Min. = -0.045 m Max. = 0.009 m



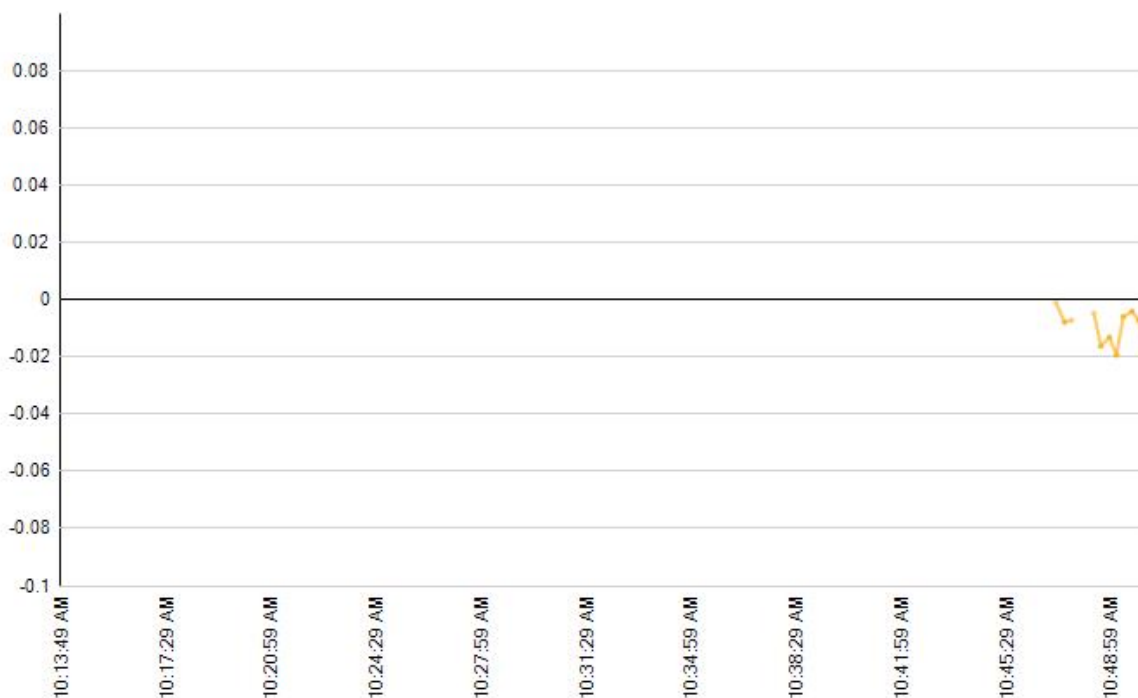
G 11
4/17/2015 10:13:49 AM - 4/17/2015 10:50:14 AM

Mean = 0.000 m Std. Dev. = 0.007 m Min. = -0.015 m Max. = 0.017 m

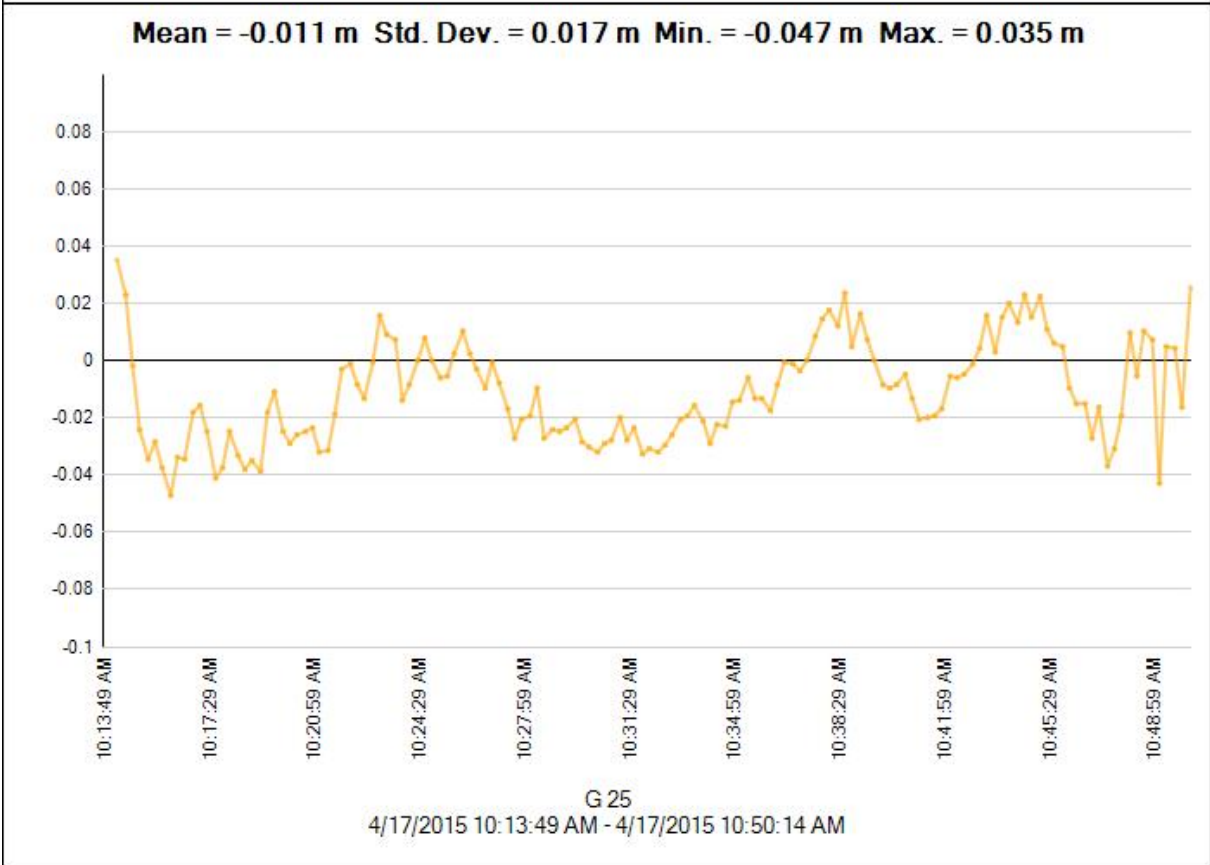
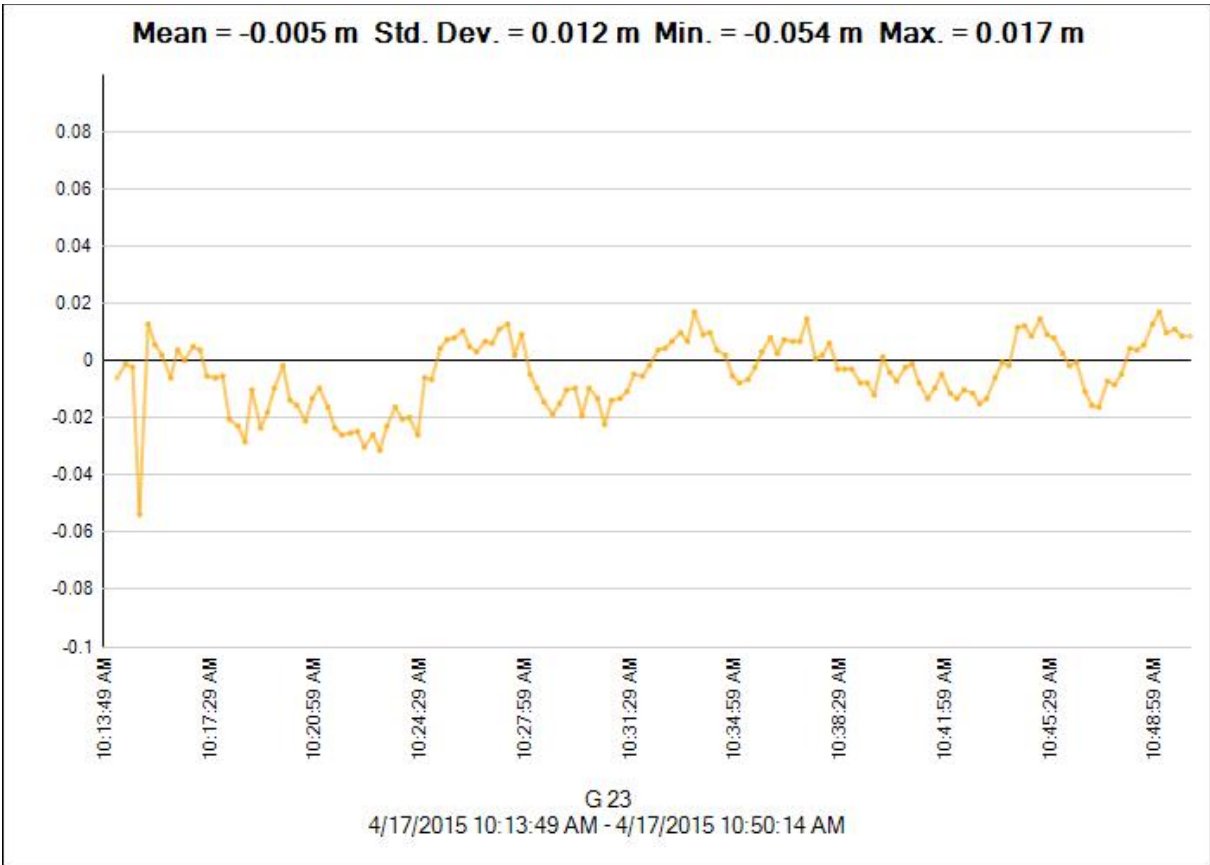


G 14
4/17/2015 10:13:49 AM - 4/17/2015 10:50:14 AM

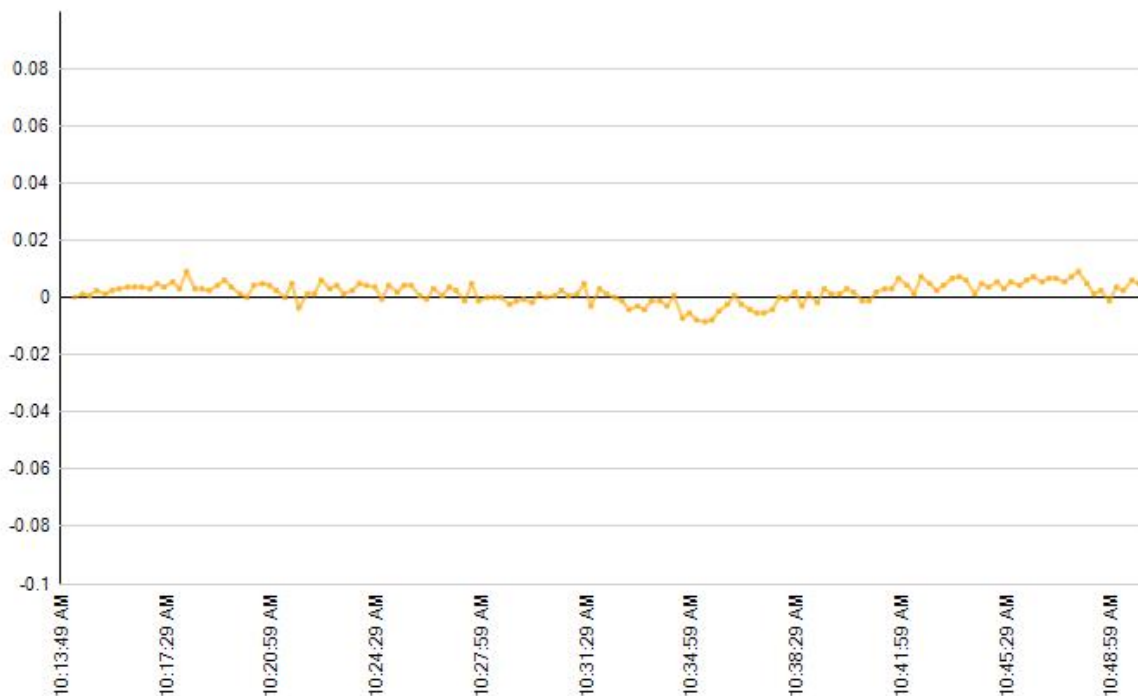
Mean = -0.009 m Std. Dev. = 0.006 m Min. = -0.019 m Max. = -0.001 m



G 16
4/17/2015 10:13:49 AM - 4/17/2015 10:50:14 AM



Mean = 0.002 m Std. Dev. = 0.004 m Min. = -0.009 m Max. = 0.009 m



G 31

4/17/2015 10:13:49 AM - 4/17/2015 10:50:14 AM

Mean = -0.002 m Std. Dev. = 0.002 m Min. = -0.007 m Max. = 0.007 m





G 32

4/17/2015 10:13:49 AM - 4/17/2015 10:50:14 AM

Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CAS628 (9:05:38 AM-9:56:53 AM) (S38)

Baseline observation: NR0224 --- CAS628 (B38)
Processed: 7/1/2015 9:04:09 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.007 m
Vertical precision: 0.010 m
RMS: 0.001 m
Maximum PDOP: 2.088
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 4/17/2015 9:05:44 AM (Local: UTC-6hr)
Processing stop time: 4/17/2015 9:56:44 AM (Local: UTC-6hr)
Processing duration: 00:51:00
Processing interval: 15 seconds

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470640.650 m	Latitude	N42°53'23.99045"	Latitude	N42°53'23.99044"
Northing	365797.023 m	Longitude	W106°28'06.60679"	Longitude	W106°28'06.60679"
Elevation	1615.395 m	Height	1602.225 m	Height	1602.225 m

To:		CAS628			
Grid		Local		Global	
Easting	425476.334 m	Latitude	N43°02'03.80139"	Latitude	N43°02'03.80138"
Northing	381521.383 m	Longitude	W107°01'14.53260"	Longitude	W107°01'14.53260"
Elevation	1724.298 m	Height	1710.911 m	Height	1710.911 m

Vector					
Δ Easting	-45164.315 m	NS Fwd Azimuth	289°47'07"	Δ X	-40027.796 m
Δ Northing	15724.359 m	Ellipsoid Dist.	47824.860 m	Δ Y	23378.773 m
Δ Elevation	108.904 m	Δ Height	108.686 m	Δ Z	11815.829 m

Standard Errors

Vector errors:					
σ Δ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.002 m
σ Δ Northing	0.003 m	σ Ellipsoid Dist.	0.002 m	σ Δ Y	0.004 m
σ Δ Elevation	0.005 m	σ Δ Height	0.005 m	σ Δ Z	0.004 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000042555		
Y	0.0000039117	0.0000154982	
Z	-0.0000026780	-0.0000072547	0.0000158882

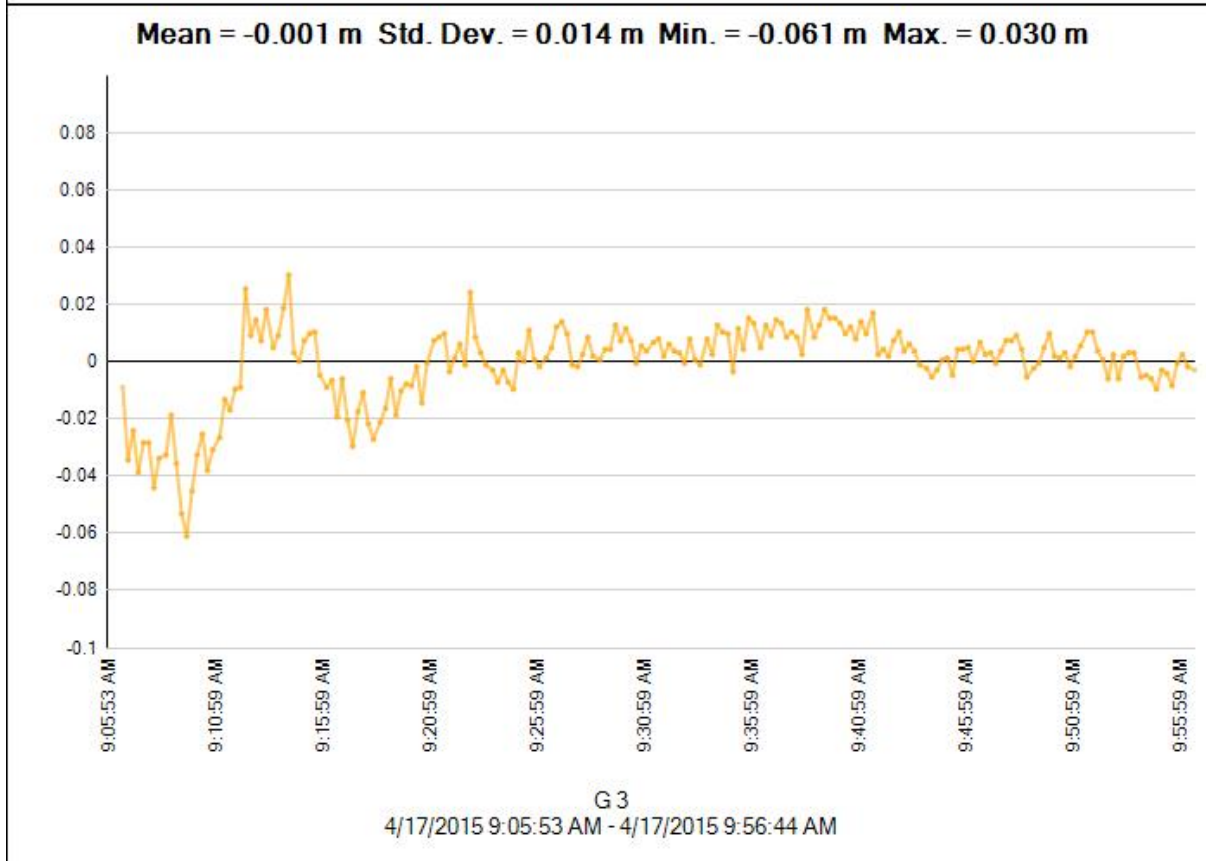
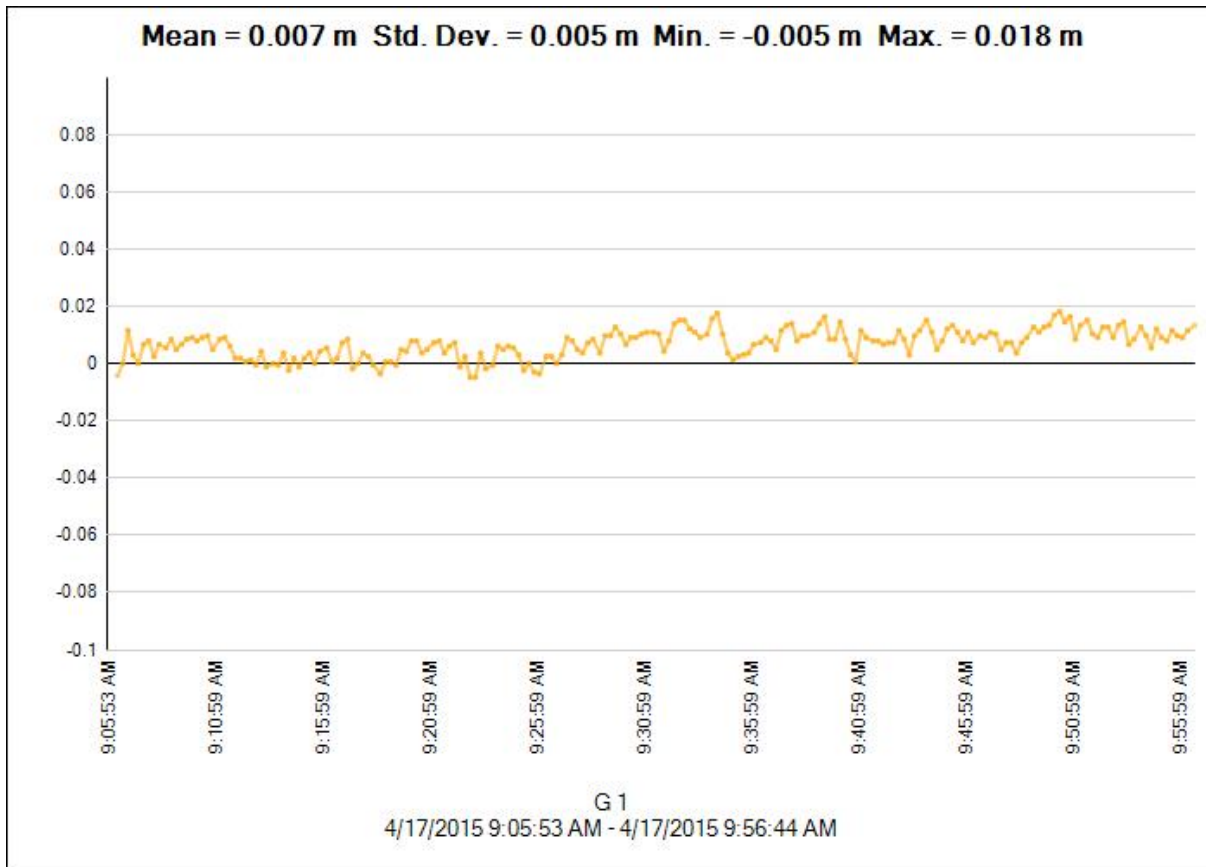
Occupations

	From	To
Point ID:	NR0224	CAS628
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601070.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\52801070.t01
Receiver type:	5700	5700
Receiver serial number:	0220348460	0220285280
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	0	-----
Antenna height (measured):	1.684 m	1.479 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

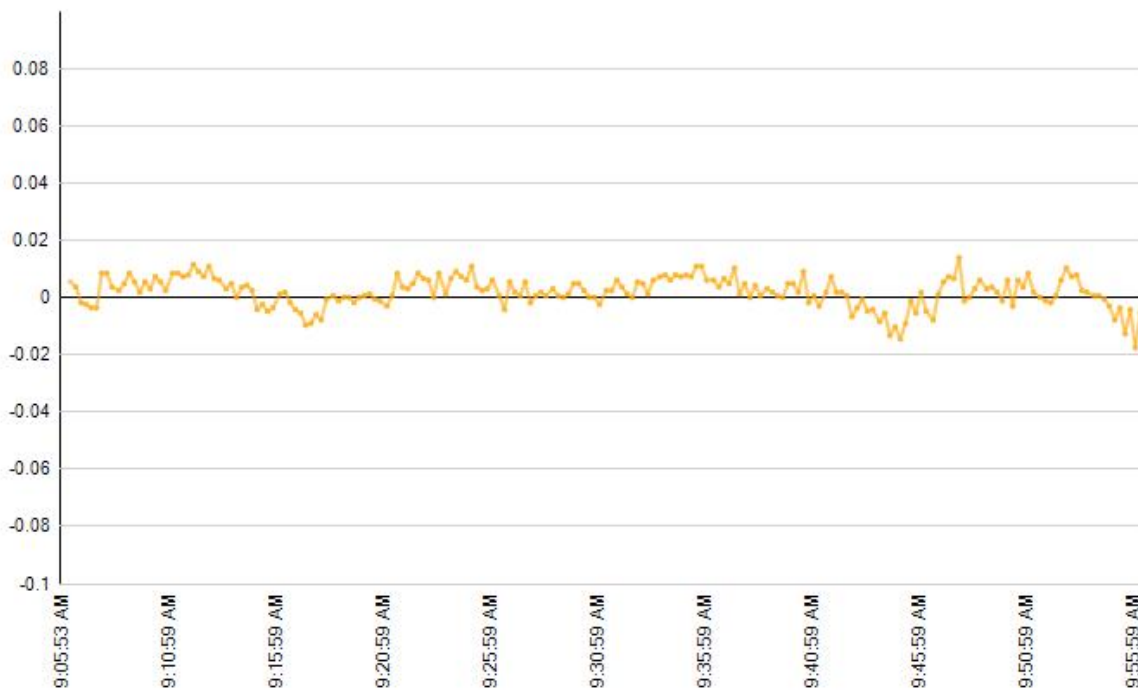
Tracking Summary

SV	4/17/2015 9:05:38 AM	Duration: 00:51:15	Major interval: 00:10:00	4/17/2015 9:56:53 AM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 11	L1 L2			
G 12	L1 L2			
G 14	L1 L2			
G 18	L1			
G 22	L1 L2			
G 23	L1 L2			
G 25	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals

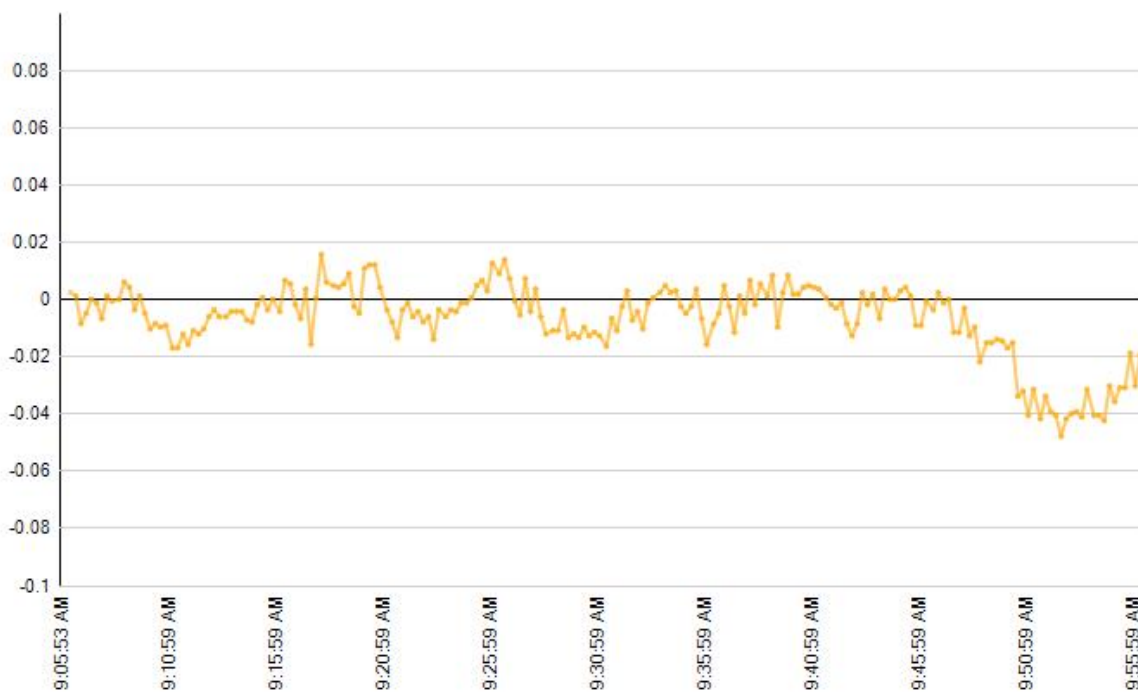


Mean = 0.002 m Std. Dev. = 0.005 m Min. = -0.017 m Max. = 0.014 m



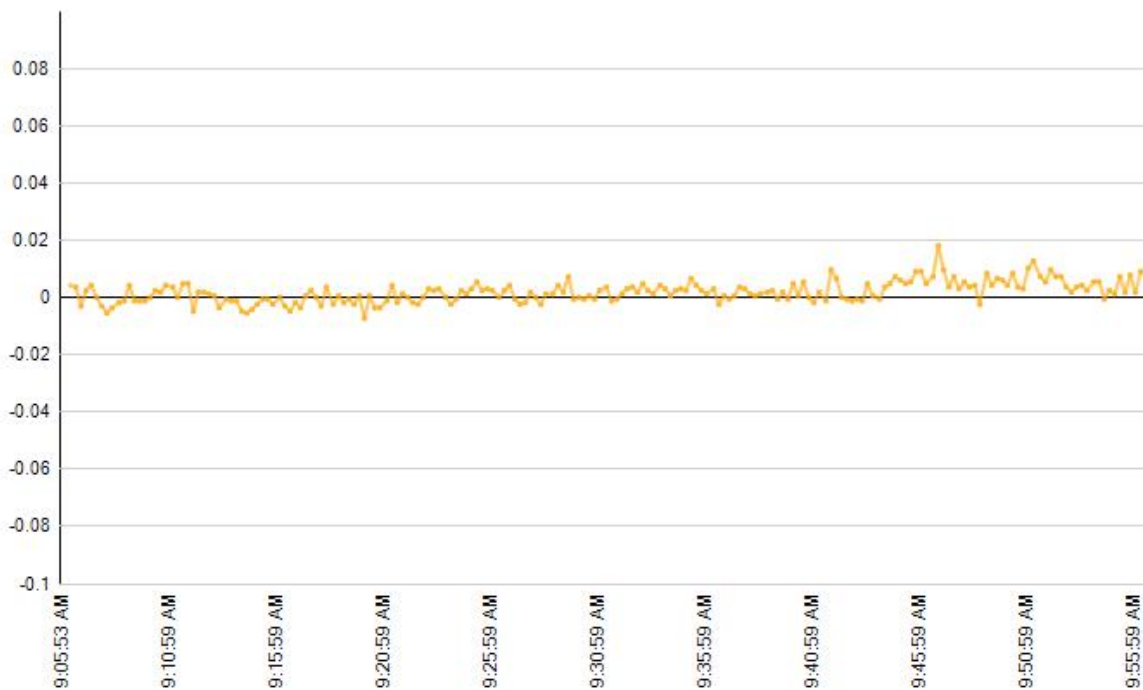
G 4
4/17/2015 9:05:53 AM - 4/17/2015 9:56:44 AM

Mean = -0.007 m Std. Dev. = 0.013 m Min. = -0.048 m Max. = 0.016 m



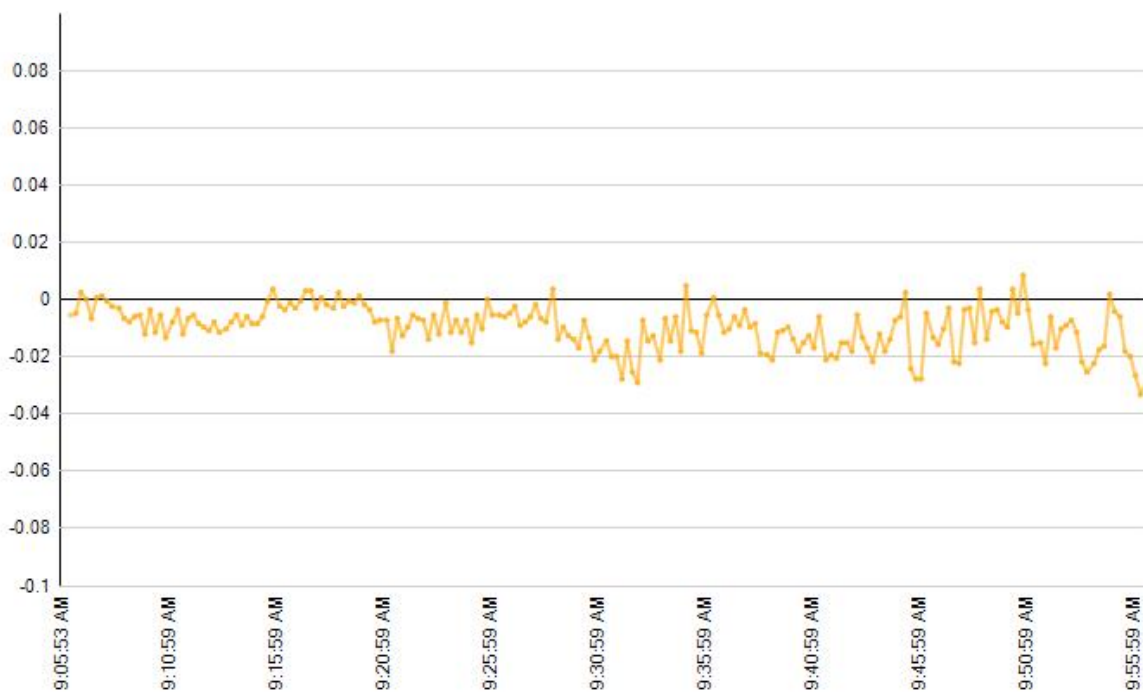
G 11
4/17/2015 9:05:53 AM - 4/17/2015 9:56:44 AM

Mean = 0.002 m Std. Dev. = 0.004 m Min. = -0.007 m Max. = 0.018 m



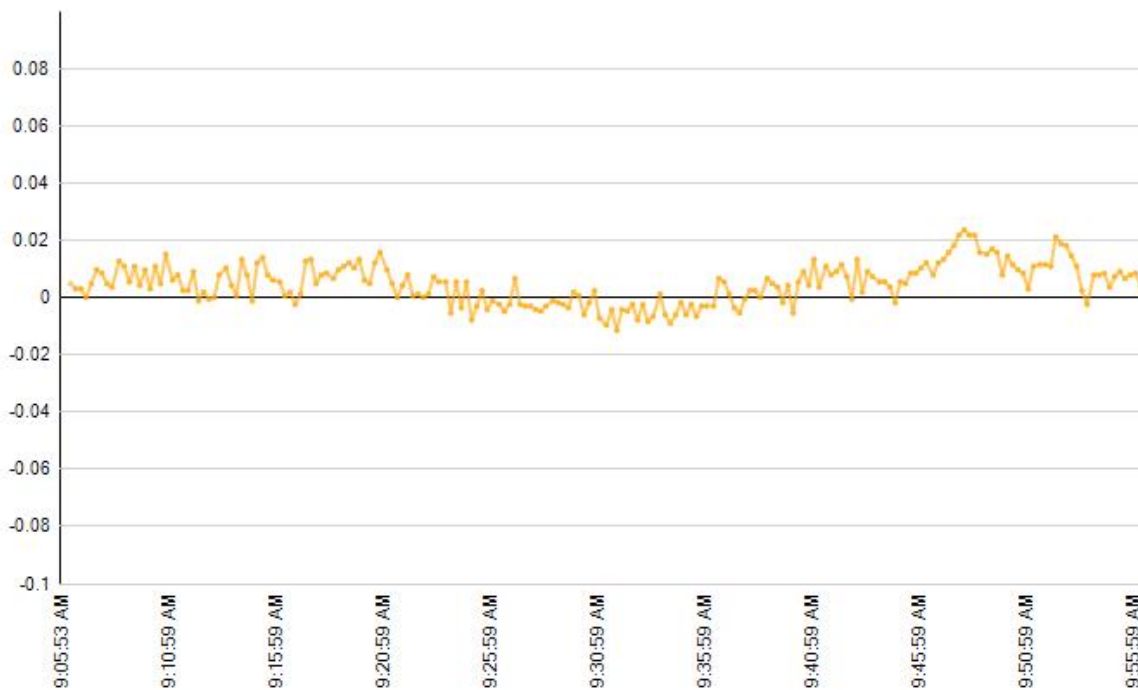
G 14
4/17/2015 9:05:53 AM - 4/17/2015 9:56:44 AM

Mean = -0.010 m Std. Dev. = 0.008 m Min. = -0.033 m Max. = 0.008 m



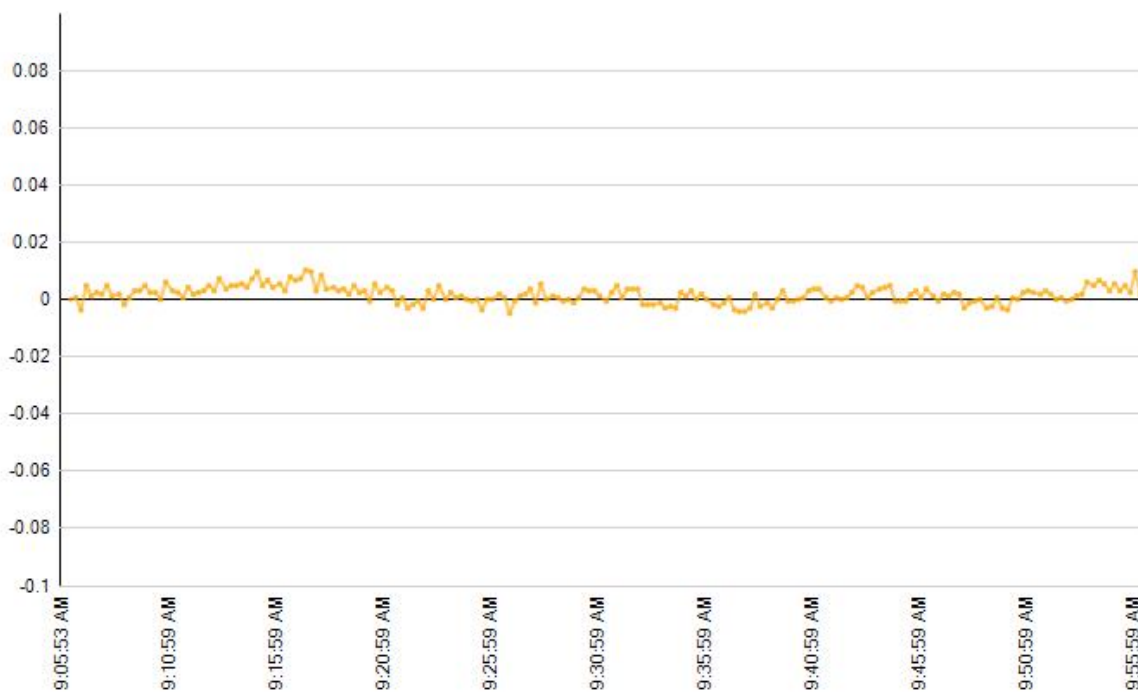
G 22
4/17/2015 9:05:53 AM - 4/17/2015 9:56:44 AM

Mean = 0.005 m Std. Dev. = 0.007 m Min. = -0.011 m Max. = 0.023 m

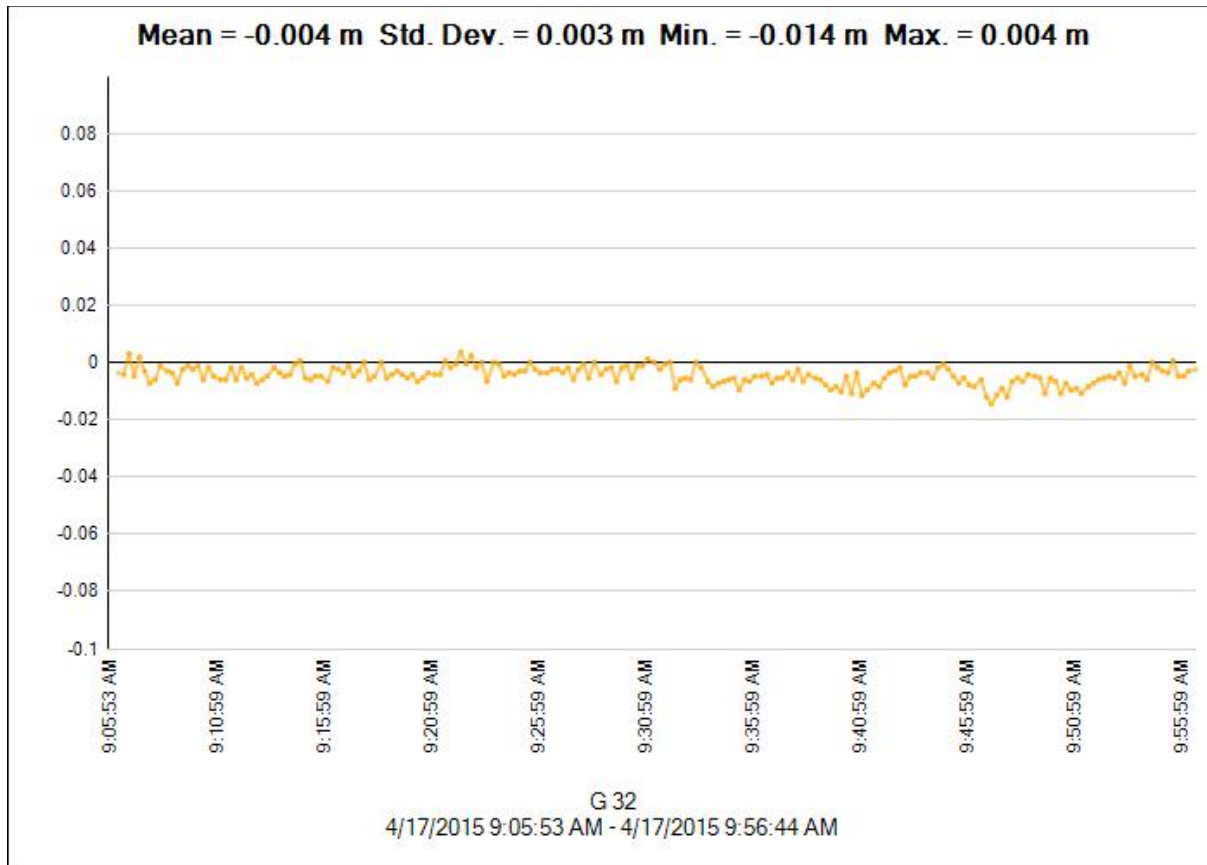


G 25
4/17/2015 9:05:53 AM - 4/17/2015 9:56:44 AM

Mean = 0.002 m Std. Dev. = 0.003 m Min. = -0.005 m Max. = 0.010 m





G 31
4/17/2015 9:05:53 AM - 4/17/2015 9:56:44 AM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

WYRF - NR0224 (7:52:14 AM-5:30:44 PM) (S39)

Baseline observation: WYRF --- NR0224 (B39)
 Processed: 9/22/2015 7:56:02 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.003 m
 Vertical precision: 0.010 m
 RMS: 0.002 m
 Maximum PDOP: 4.425
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 4/13/2015 7:52:14 AM (Local: UTC-6hr)
 Processing stop time: 4/13/2015 5:30:44 PM (Local: UTC-6hr)
 Processing duration: 09:38:30
 Processing interval: 30 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To: WYRF					
Grid		Local		Global	
Easting	482248.090 m	Latitude	N42°49'50.36498"	Latitude	N42°49'50.36498"
Northing	359333.341 m	Longitude	W106°19'38.49794"	Longitude	W106°19'38.49794"
Elevation	1647.403 m	Height	1634.375 m	Height	1634.375 m

Vector					
ΔEasting	11606.426 m	NS Fwd Azimuth	119°41'45"	ΔX	9795.671 m
ΔNorthing	-6462.022 m	Ellipsoid Dist.	13283.956 m	ΔY	-7578.763 m
ΔElevation	28.581 m	ΔHeight	28.722 m	ΔZ	-4812.590 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.001 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.002 m
$\sigma \Delta$ Northing	0.001 m	σ Ellipsoid Dist.	0.001 m	$\sigma \Delta$ Y	0.004 m
$\sigma \Delta$ Elevation	0.005 m	$\sigma \Delta$ Height	0.005 m	$\sigma \Delta$ Z	0.004 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000029165		
Y	0.0000038178	0.0000145998	
Z	-0.0000035547	-0.0000129497	0.0000138403

Occupations

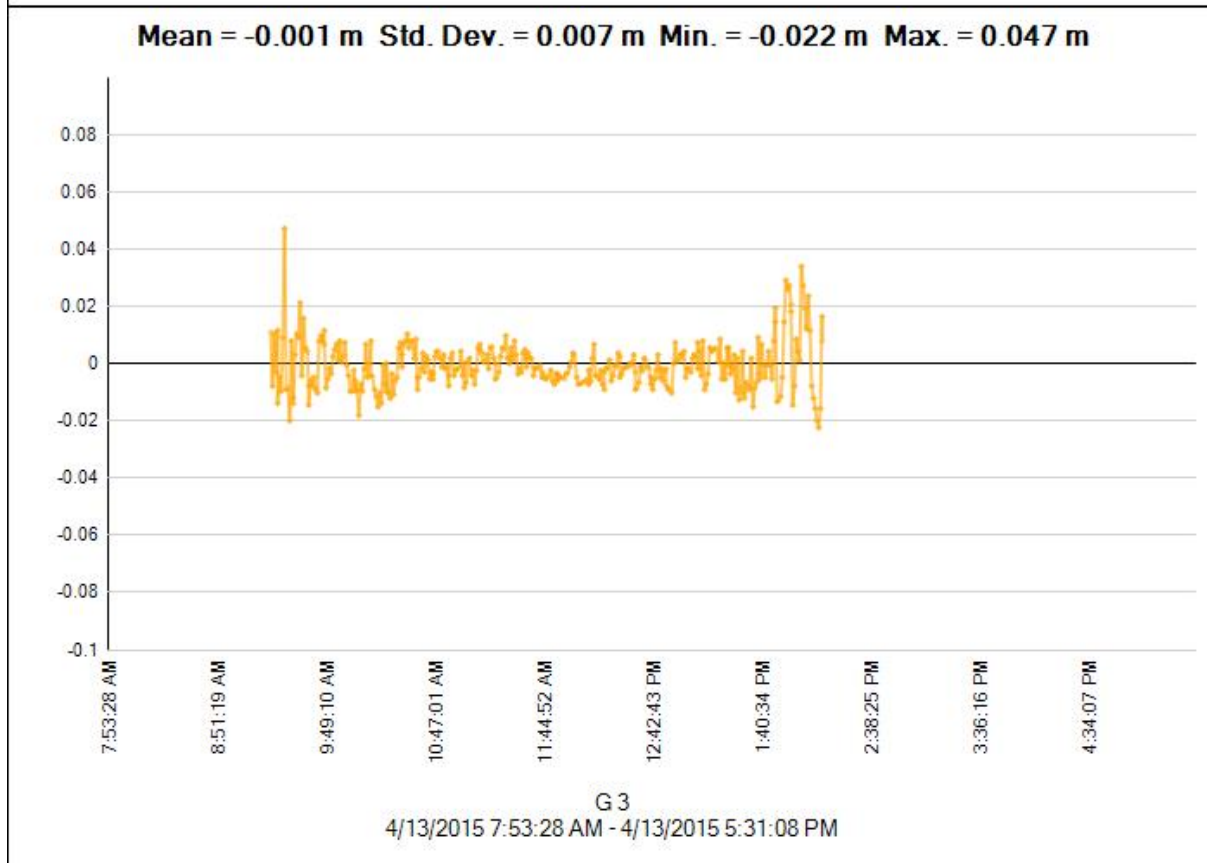
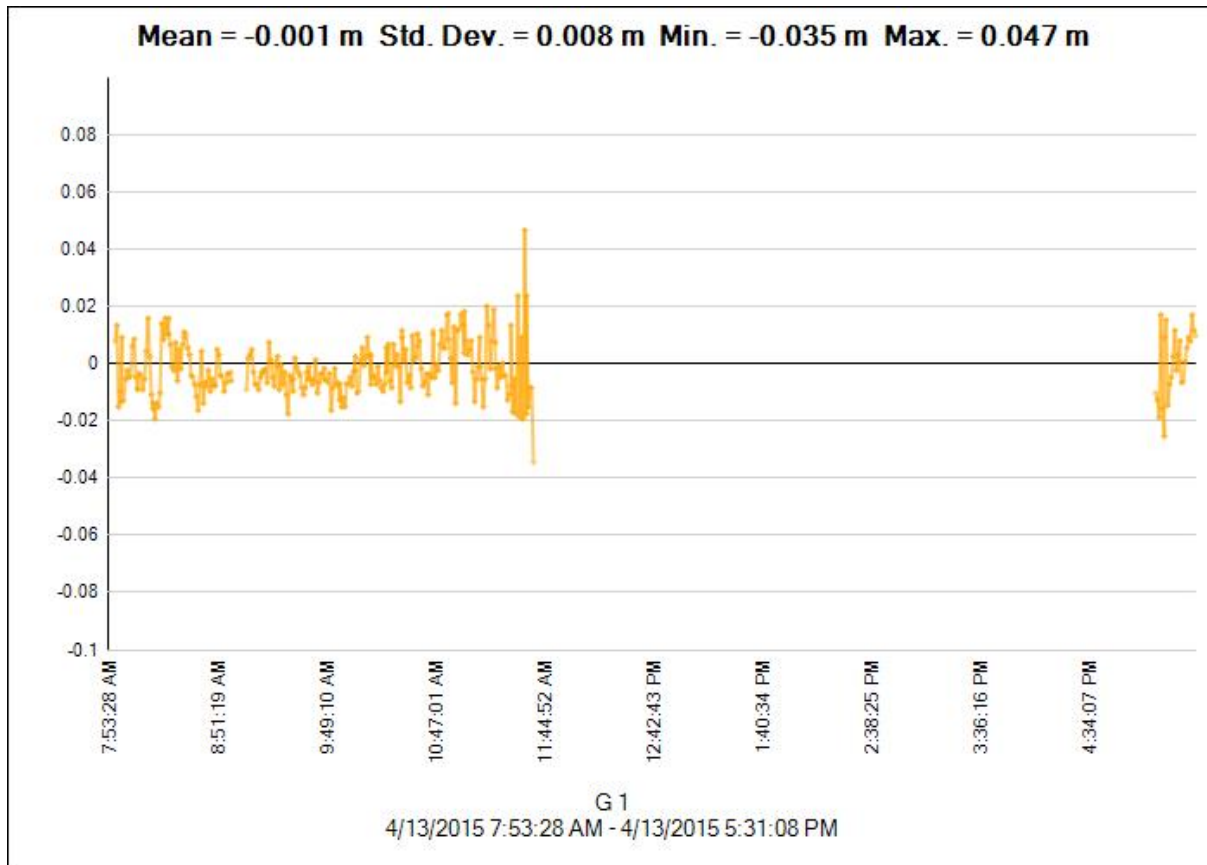
	From	To
Point ID:	NR0224	WYRF
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\84601030.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\wyrf1030.15o
Receiver type:	5700	NetR5
Receiver serial number:	0220348460	4644K02944
Antenna type:	Zephyr Geodetic	Zephyr Geodetic 2
Antenna serial number:	0	30278431
Antenna height (measured):	1.766 m	0.000 m
Antenna method:	Antenna Phase Center	Bottom of antenna mount

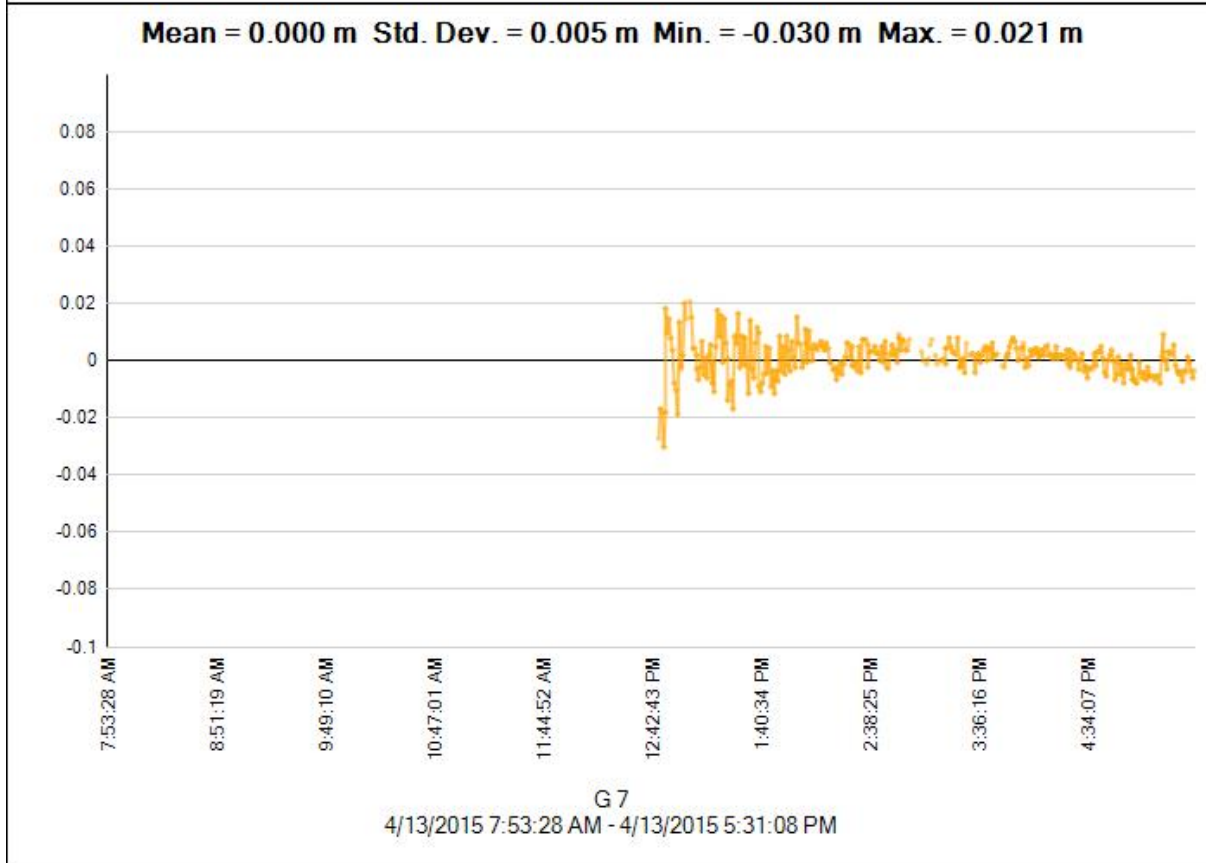
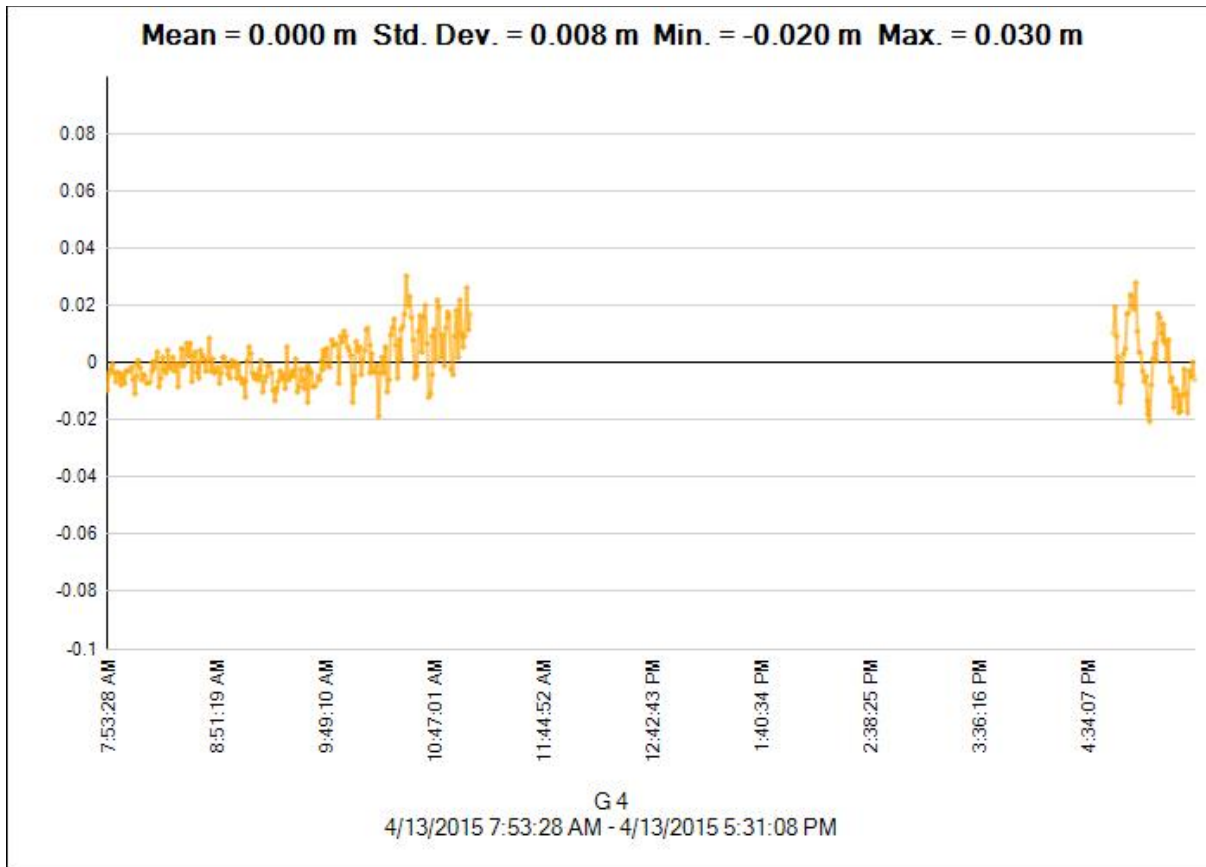
Tracking Summary

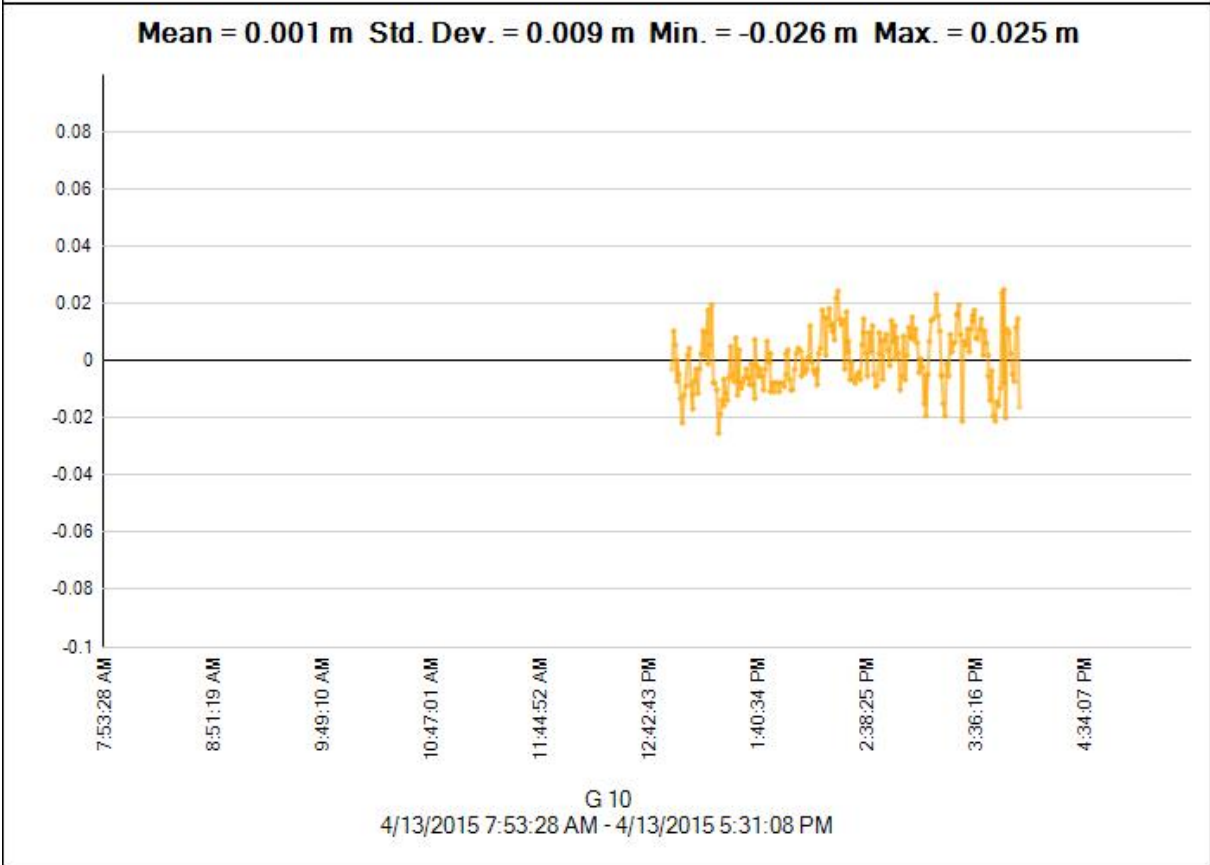
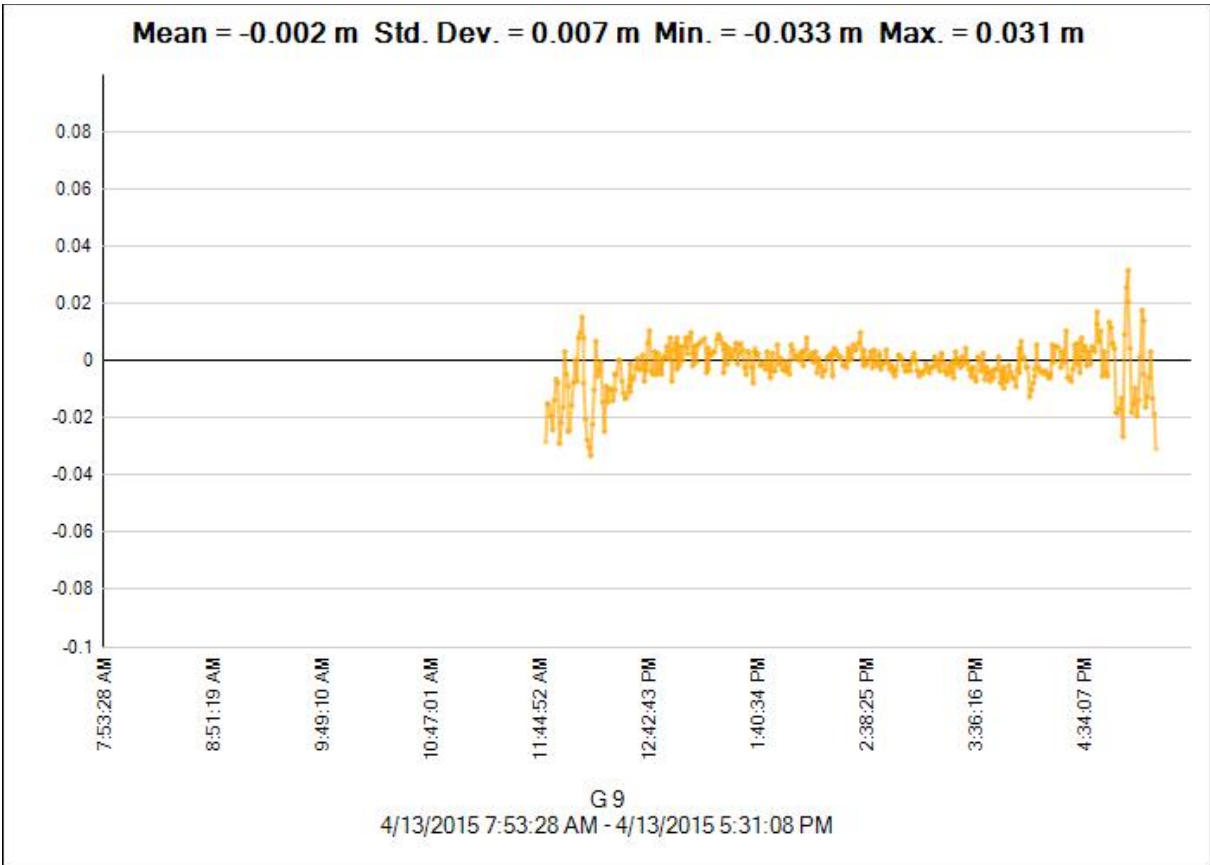
SV	4/13/2015 7:52:14 AM	Duration: 09:38:30	Major interval: 01:00:00	4/13/2015 5:30:44 PM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 11	L1 L2			
G 13	L1 L2			
G 14	L1 L2			
G 16	L1 L2			
G 17	L1 L2			
G 18	L1 L2			
G 19	L1 L2			
G 20	L1 L2			
G 22	L1 L2			
G 23	L1 L2			
G 24	L1 L2			
G 25	L1 L2			
G 27	L1 L2			
G 28	L1 L2			

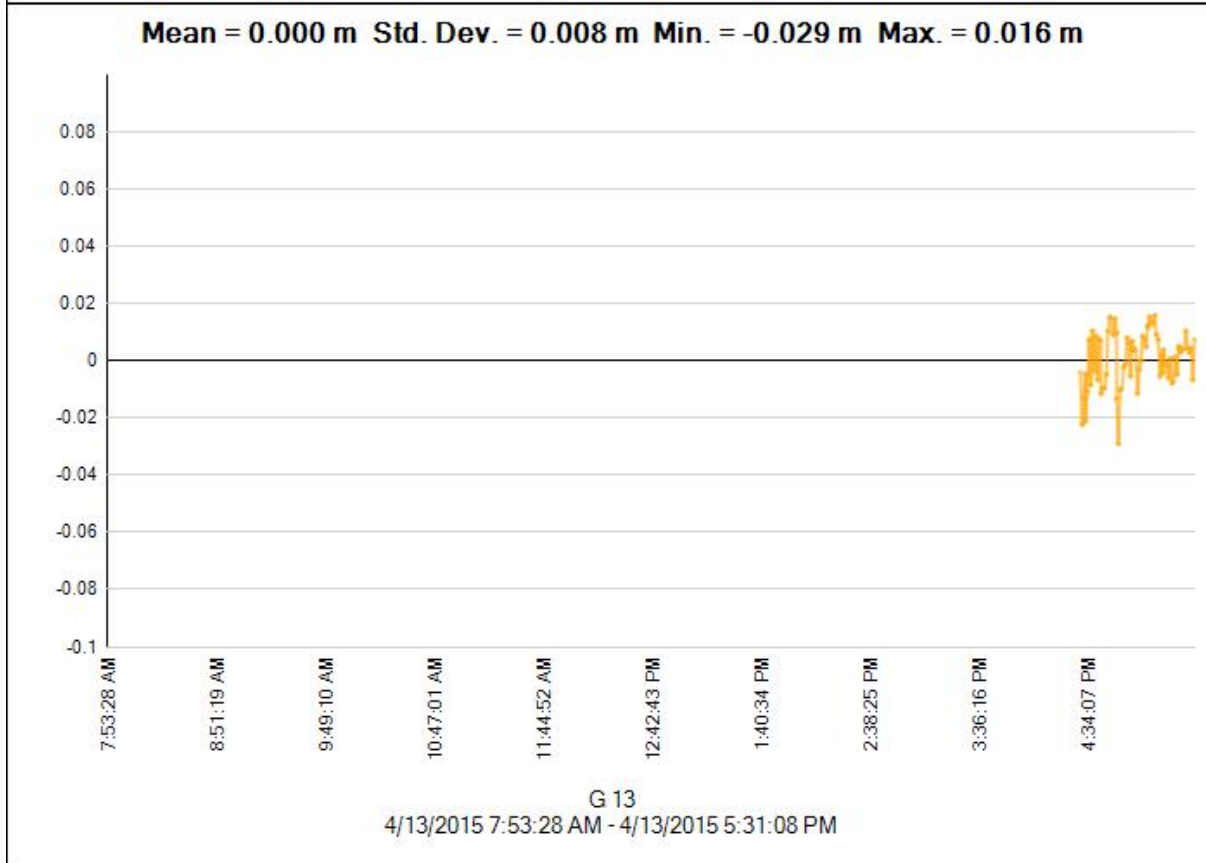
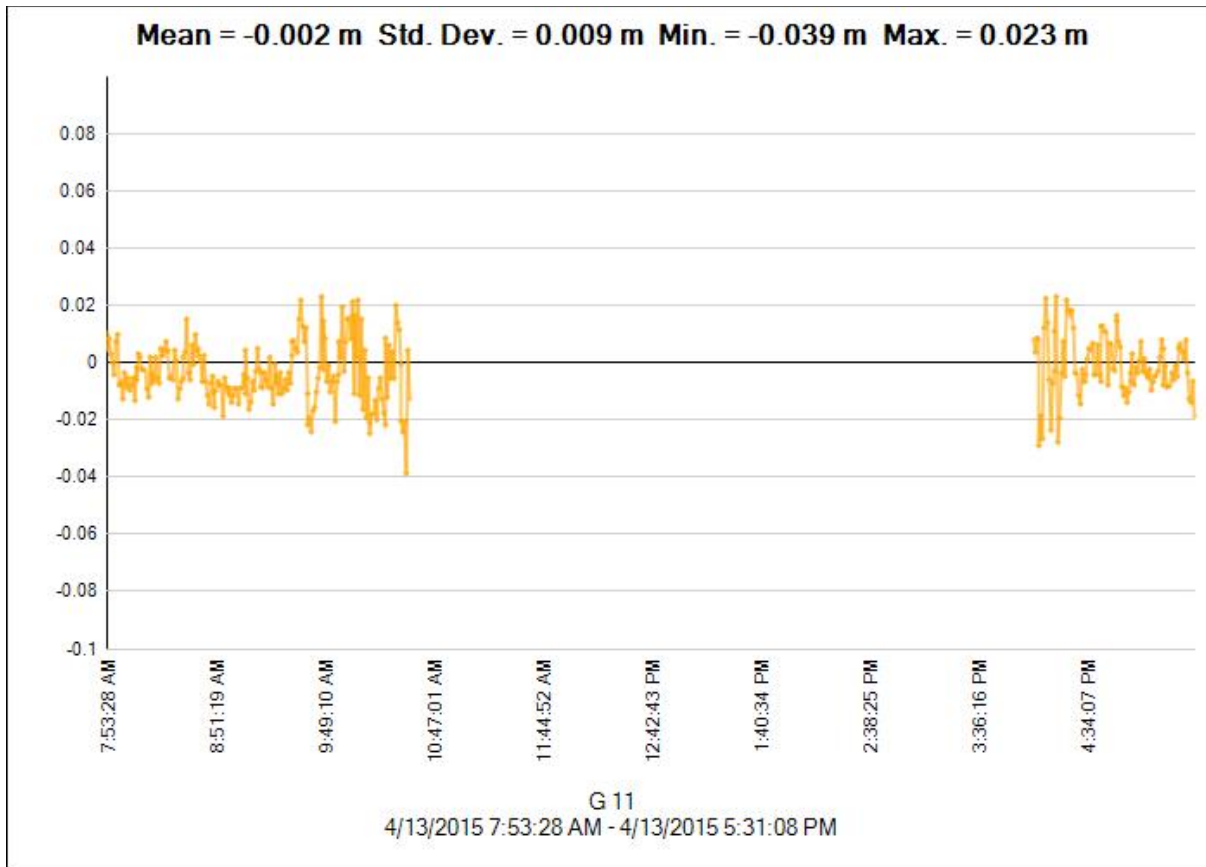
SV	4/13/2015 7:52:14 AM	Duration: 09:38:30 Major interval: 01:00:00	4/13/2015 5:30:44 PM
G 30	L1 L2		
G 31	L1 L2		
G 32	L1 L2		

Residuals

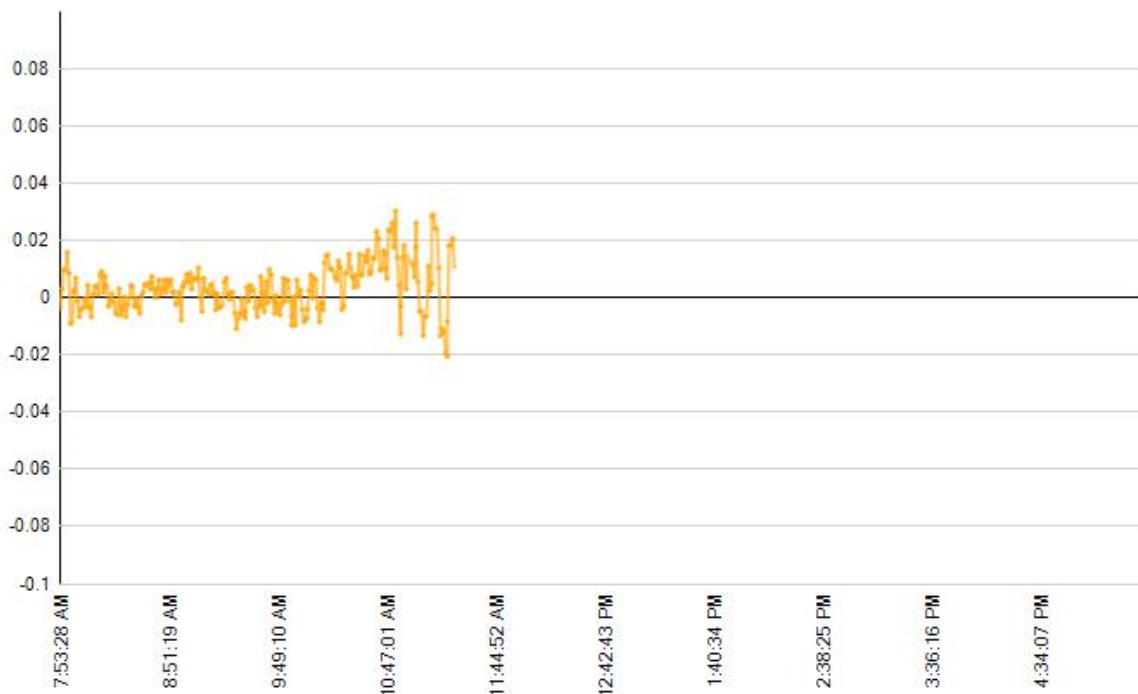






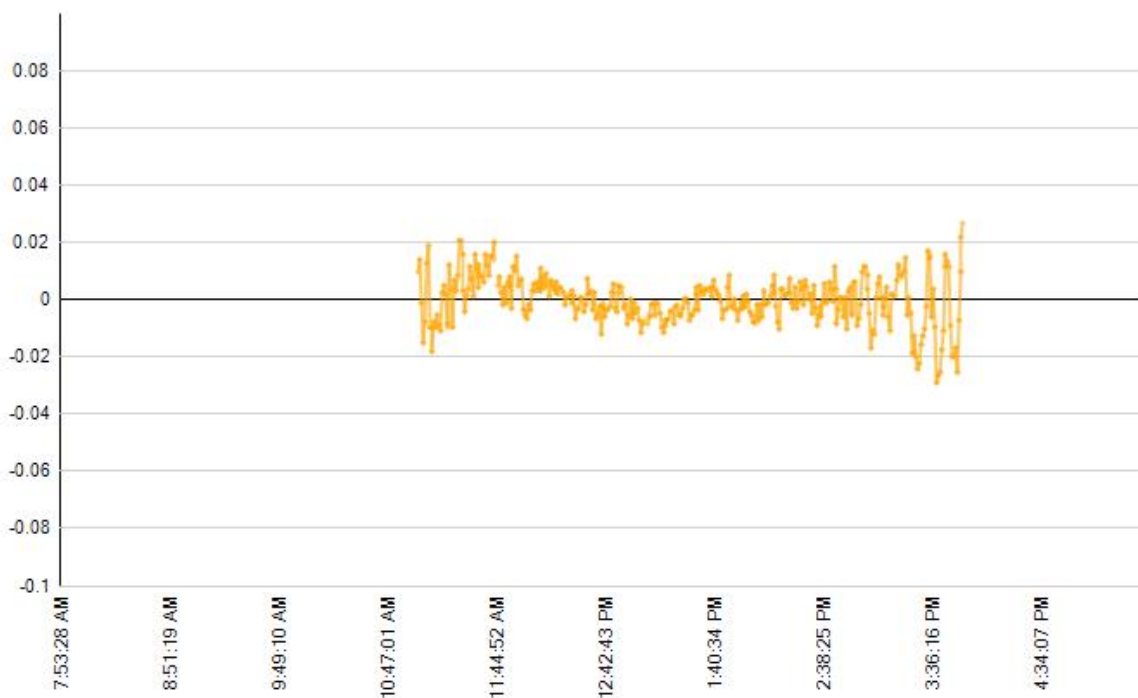


Mean = 0.003 m Std. Dev. = 0.007 m Min. = -0.021 m Max. = 0.030 m



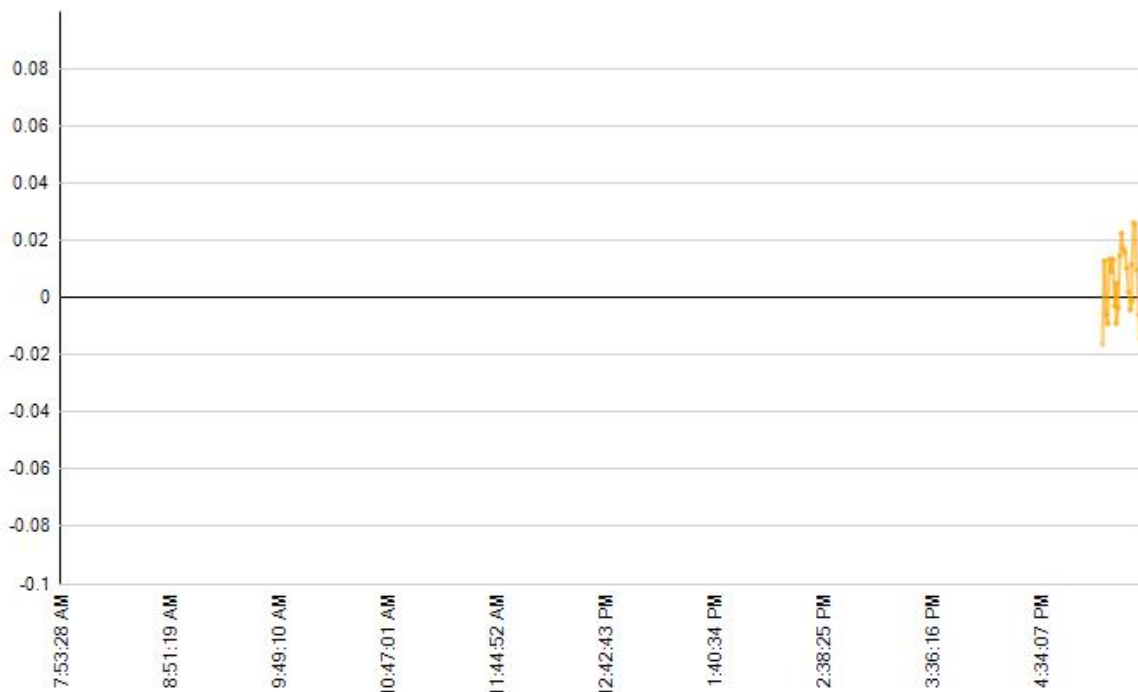
G 14
4/13/2015 7:53:28 AM - 4/13/2015 5:31:08 PM

Mean = 0.000 m Std. Dev. = 0.007 m Min. = -0.029 m Max. = 0.027 m



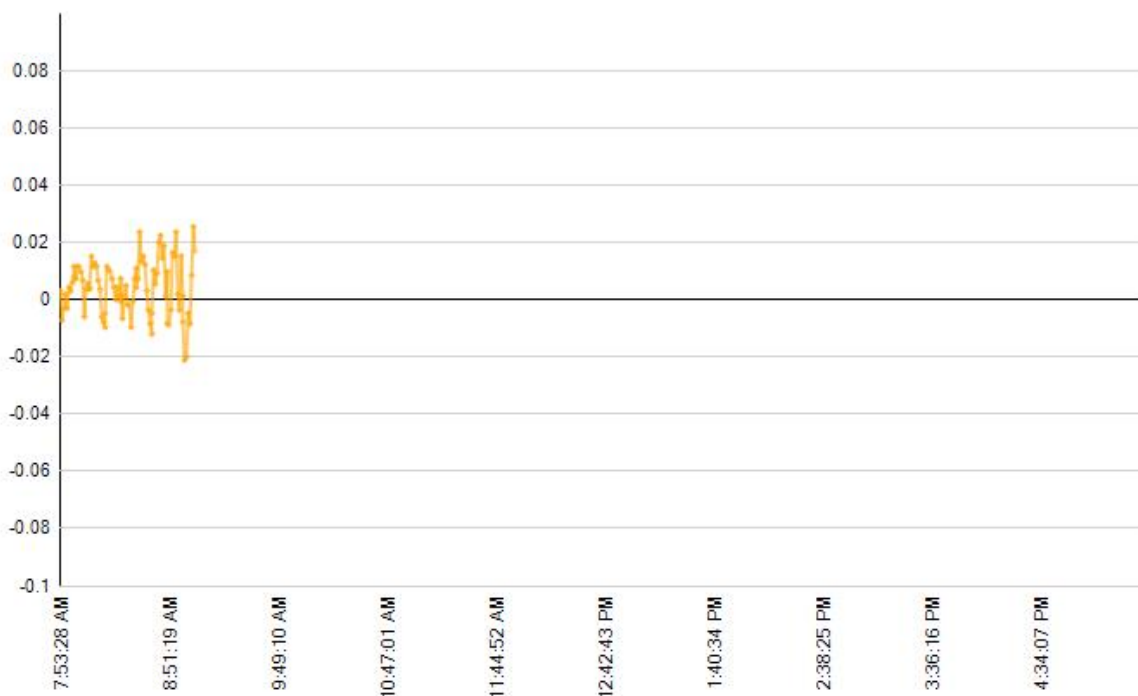
G 16
4/13/2015 7:53:28 AM - 4/13/2015 5:31:08 PM

Mean = 0.004 m Std. Dev. = 0.010 m Min. = -0.016 m Max. = 0.026 m

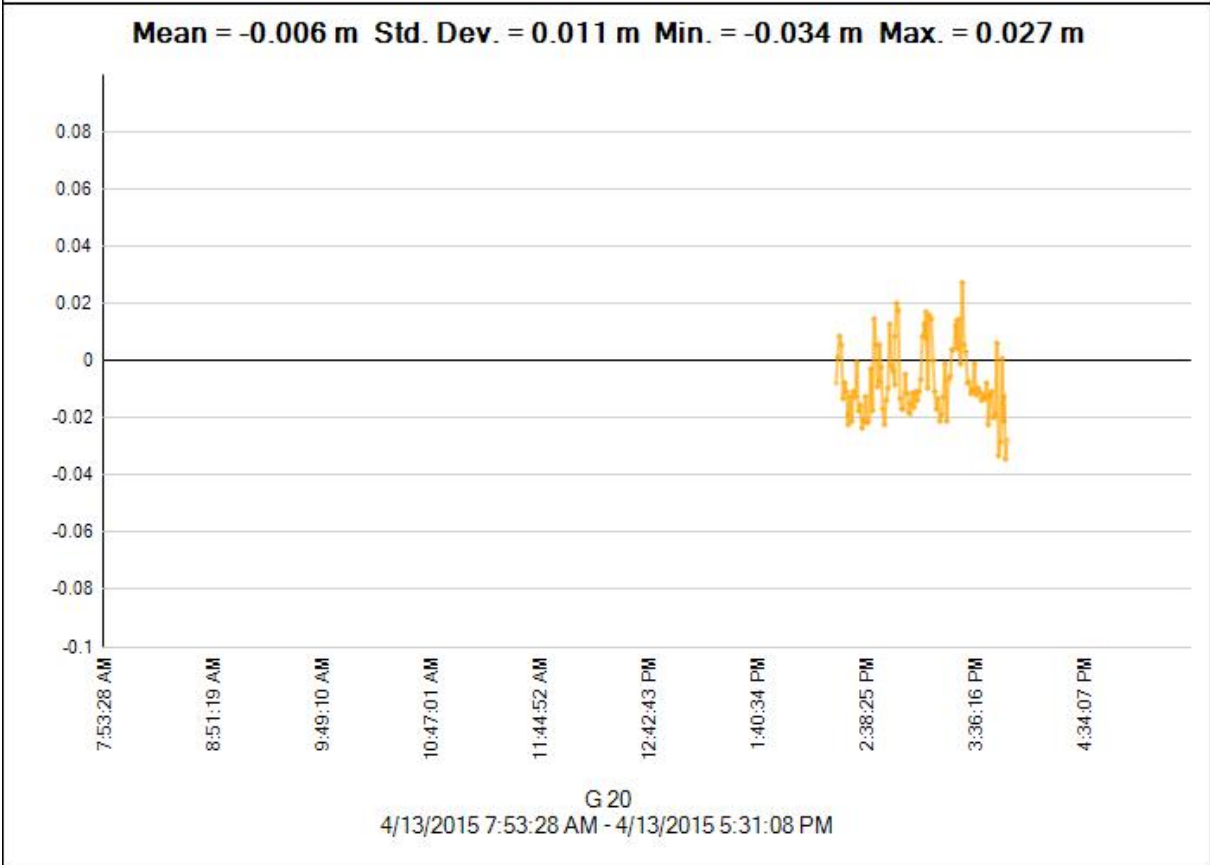
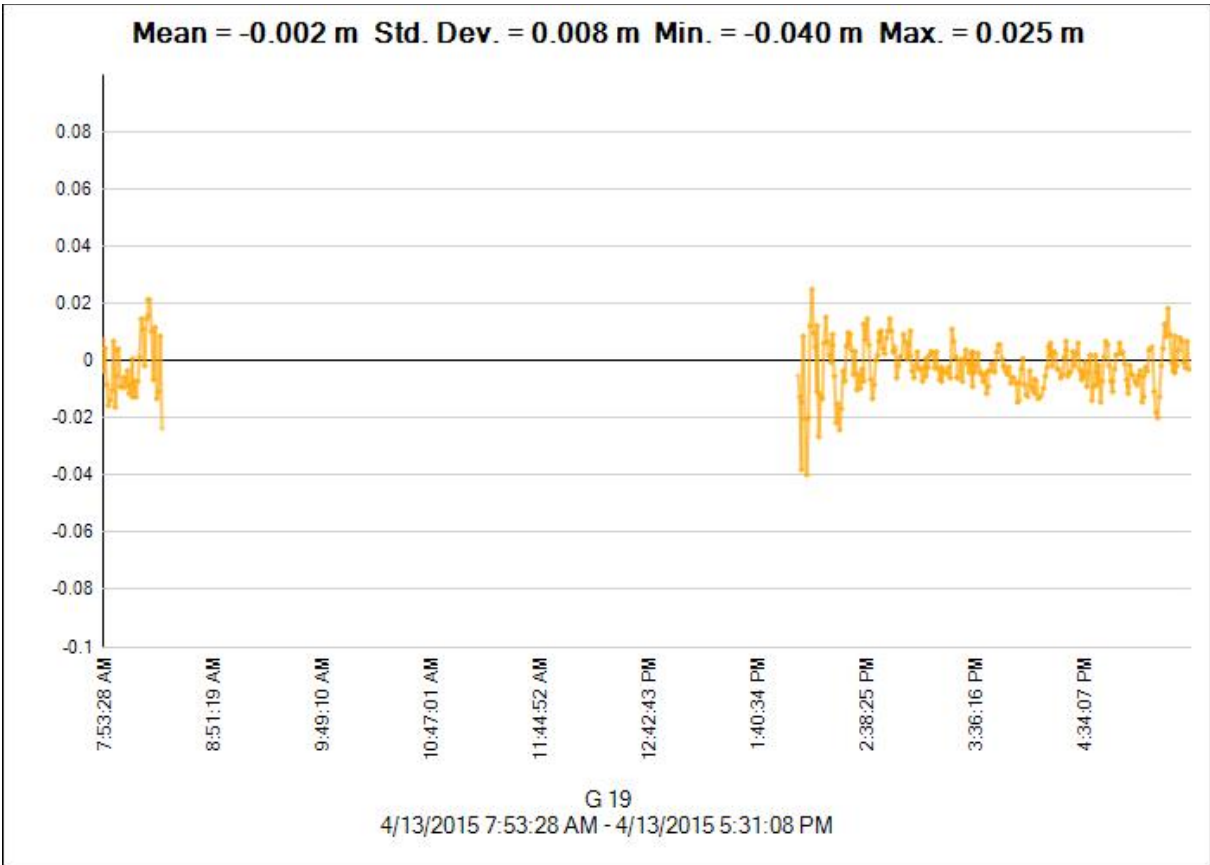


G 17
4/13/2015 7:53:28 AM - 4/13/2015 5:31:08 PM

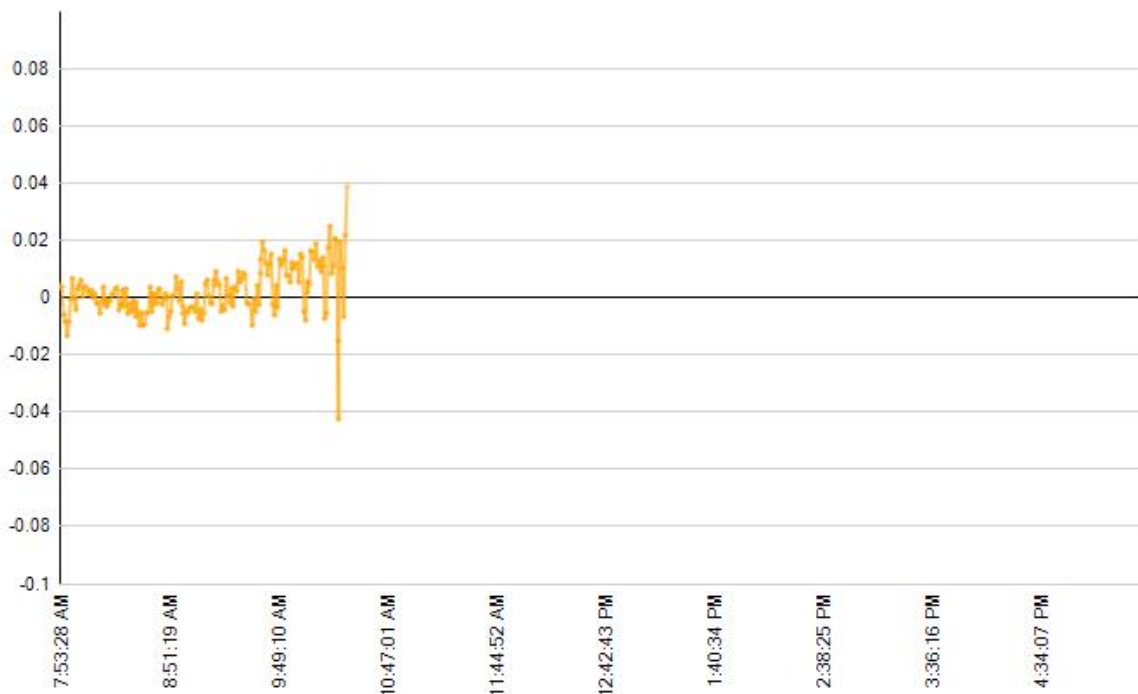
Mean = 0.004 m Std. Dev. = 0.008 m Min. = -0.021 m Max. = 0.025 m



G 18
4/13/2015 7:53:28 AM - 4/13/2015 5:31:08 PM

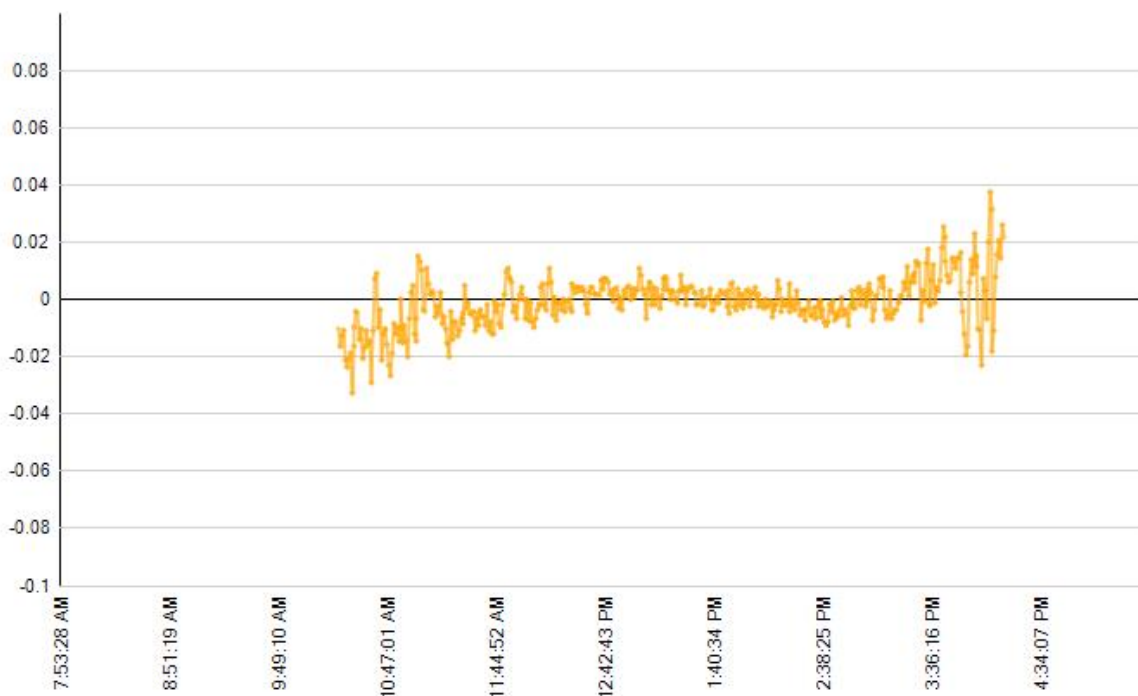


Mean = 0.001 m Std. Dev. = 0.008 m Min. = -0.042 m Max. = 0.039 m



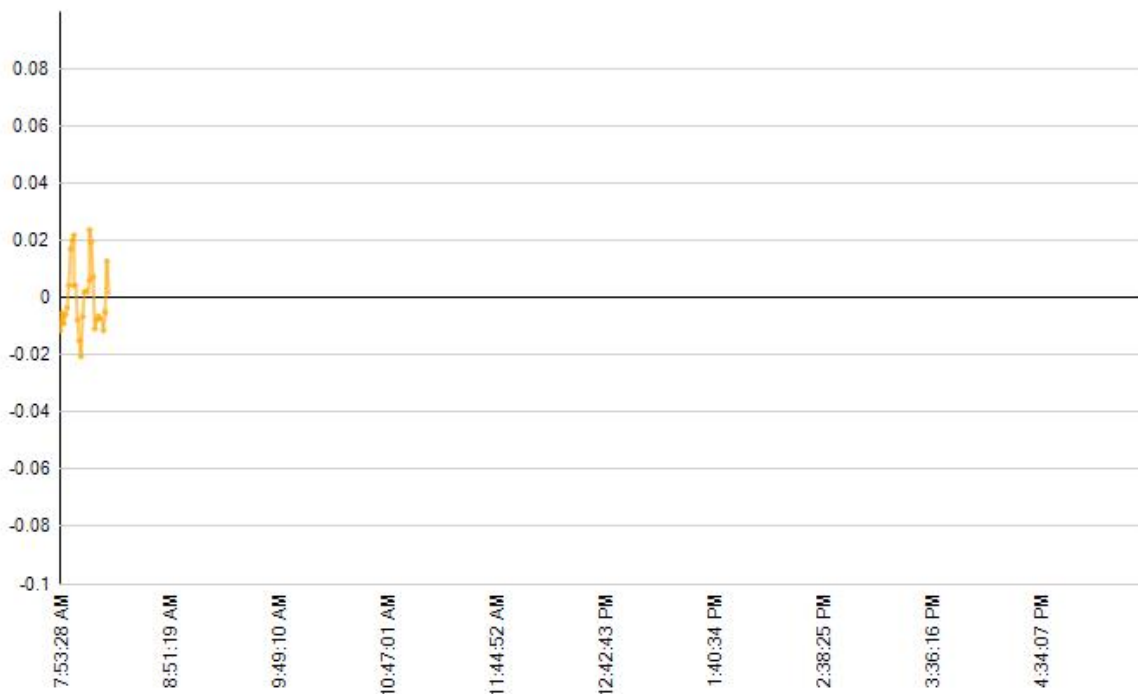
G 22
4/13/2015 7:53:28 AM - 4/13/2015 5:31:08 PM

Mean = -0.001 m Std. Dev. = 0.008 m Min. = -0.033 m Max. = 0.037 m



G 23
4/13/2015 7:53:28 AM - 4/13/2015 5:31:08 PM

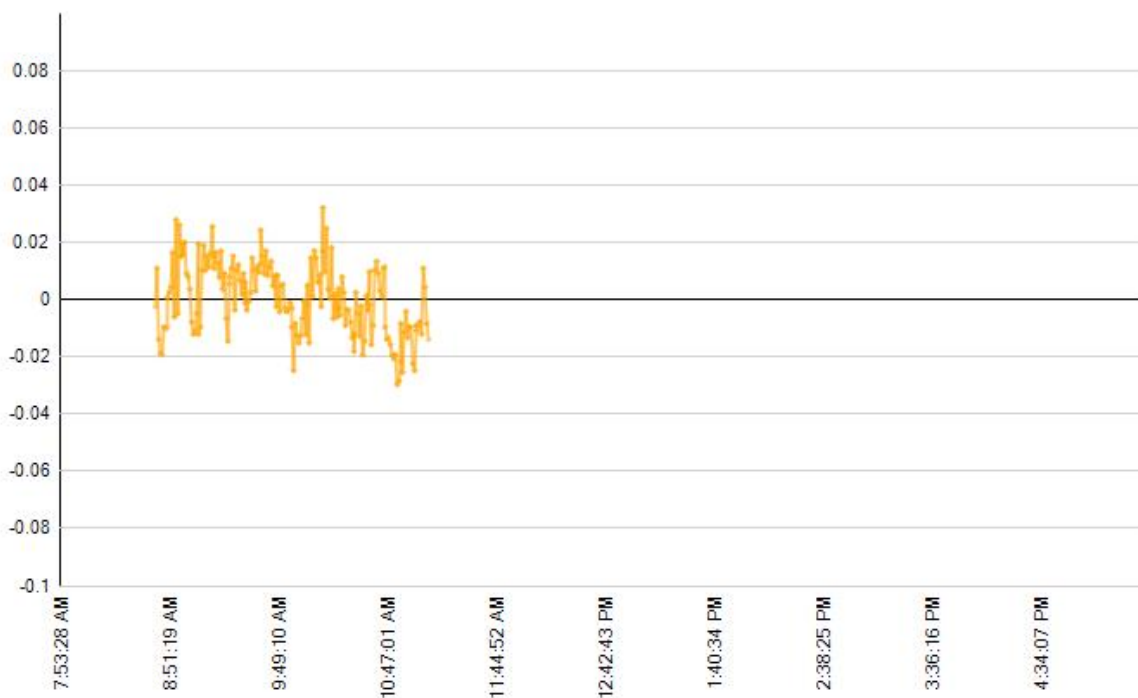
Mean = 0.000 m Std. Dev. = 0.010 m Min. = -0.021 m Max. = 0.023 m



G 24

4/13/2015 7:53:28 AM - 4/13/2015 5:31:08 PM

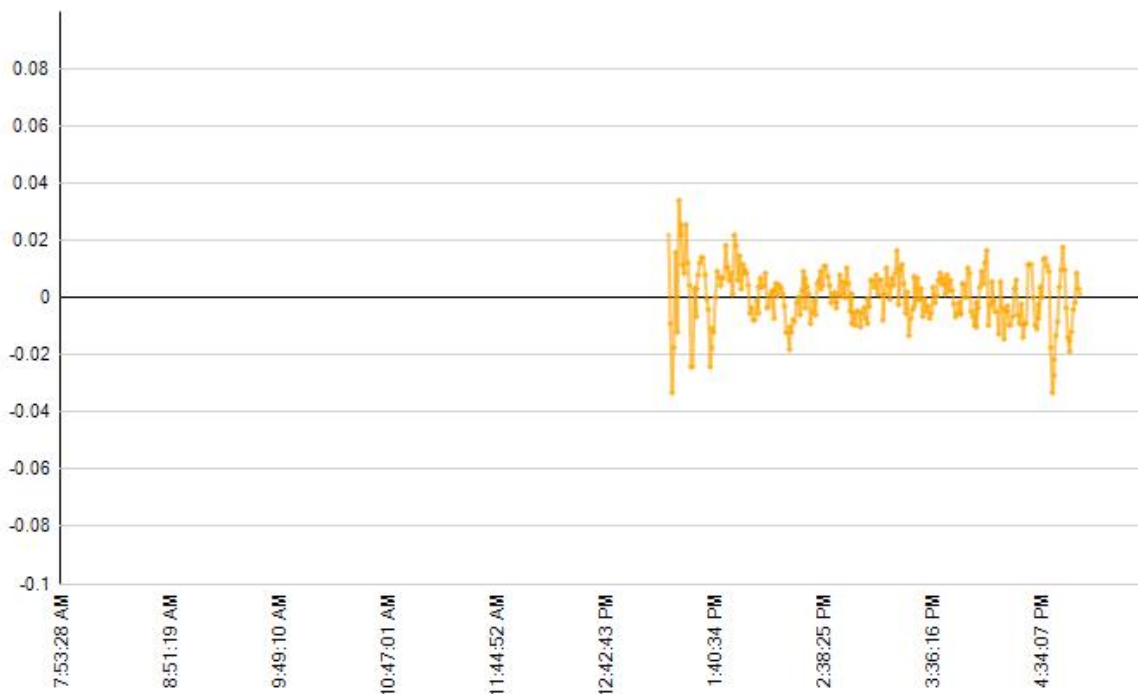
Mean = 0.000 m Std. Dev. = 0.011 m Min. = -0.030 m Max. = 0.032 m



G 25

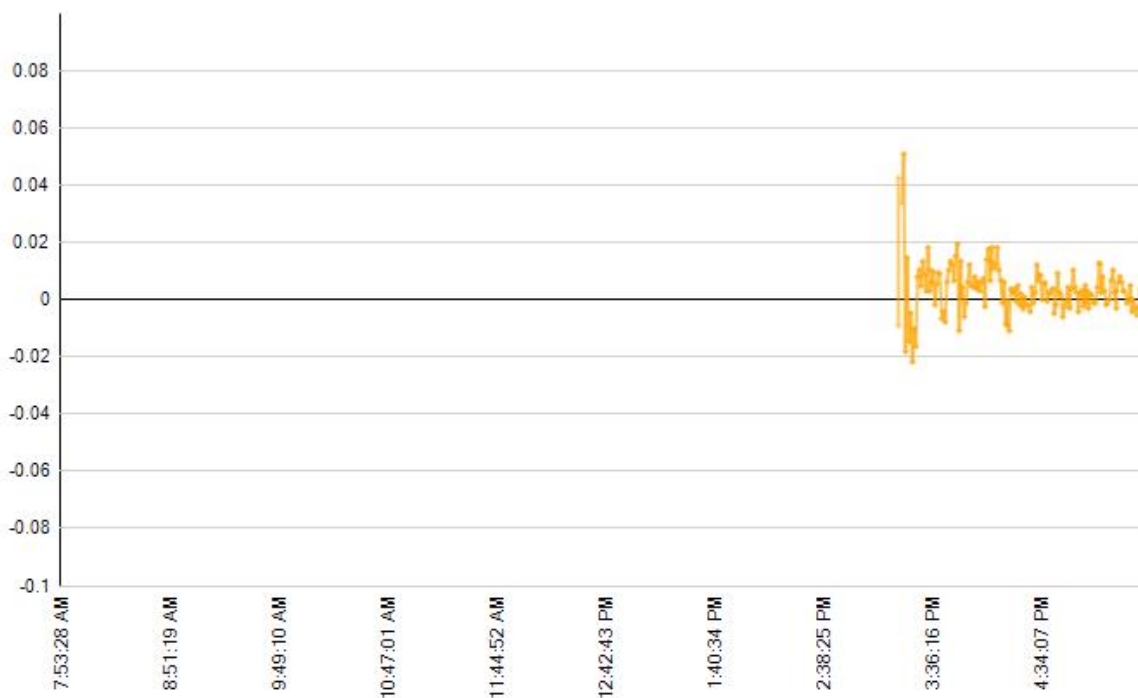
4/13/2015 7:53:28 AM - 4/13/2015 5:31:08 PM

Mean = 0.000 m Std. Dev. = 0.009 m Min. = -0.033 m Max. = 0.034 m



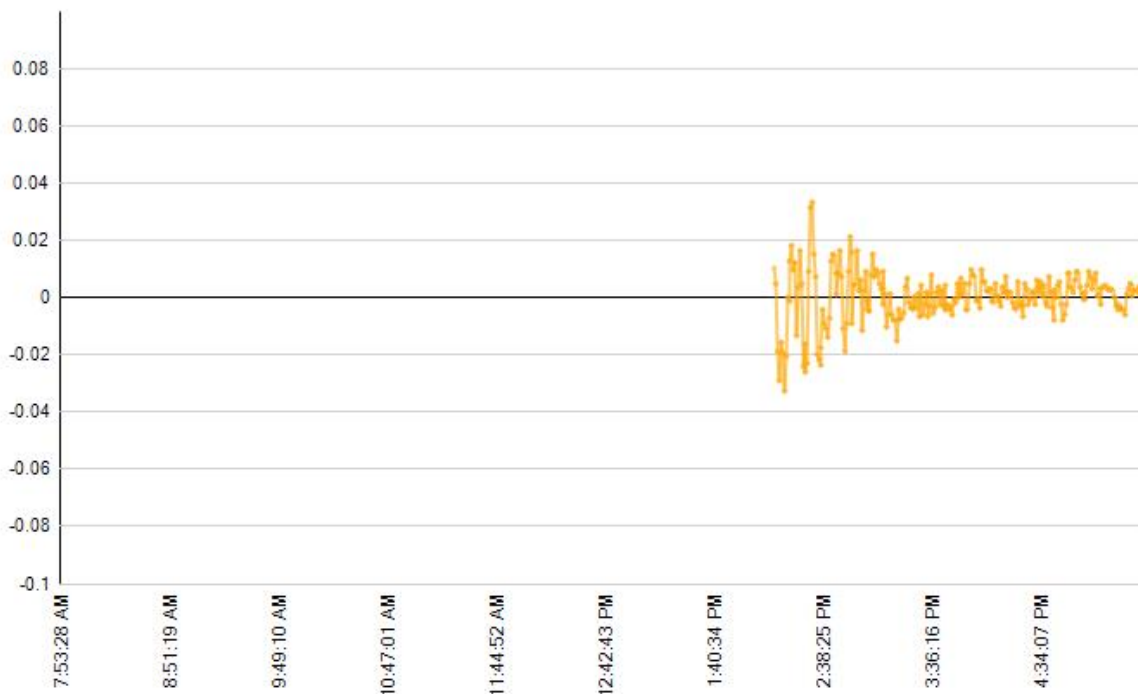
G 27
4/13/2015 7:53:28 AM - 4/13/2015 5:31:08 PM

Mean = 0.003 m Std. Dev. = 0.008 m Min. = -0.023 m Max. = 0.051 m



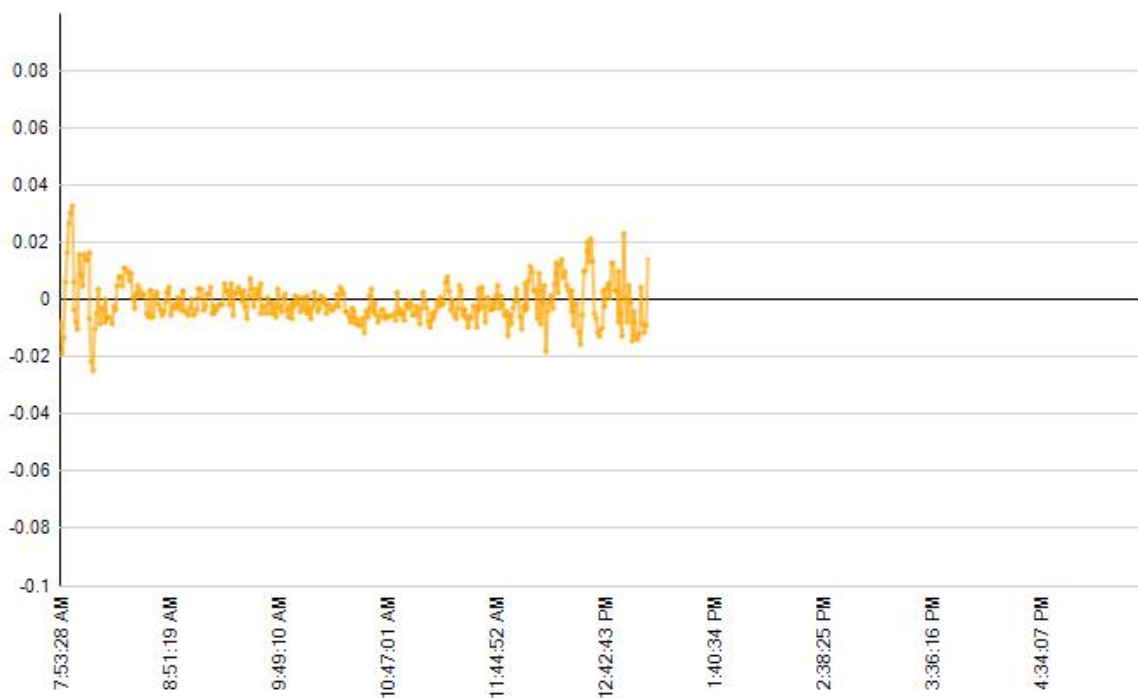
G 28
4/13/2015 7:53:28 AM - 4/13/2015 5:31:08 PM

Mean = 0.000 m Std. Dev. = 0.007 m Min. = -0.032 m Max. = 0.033 m

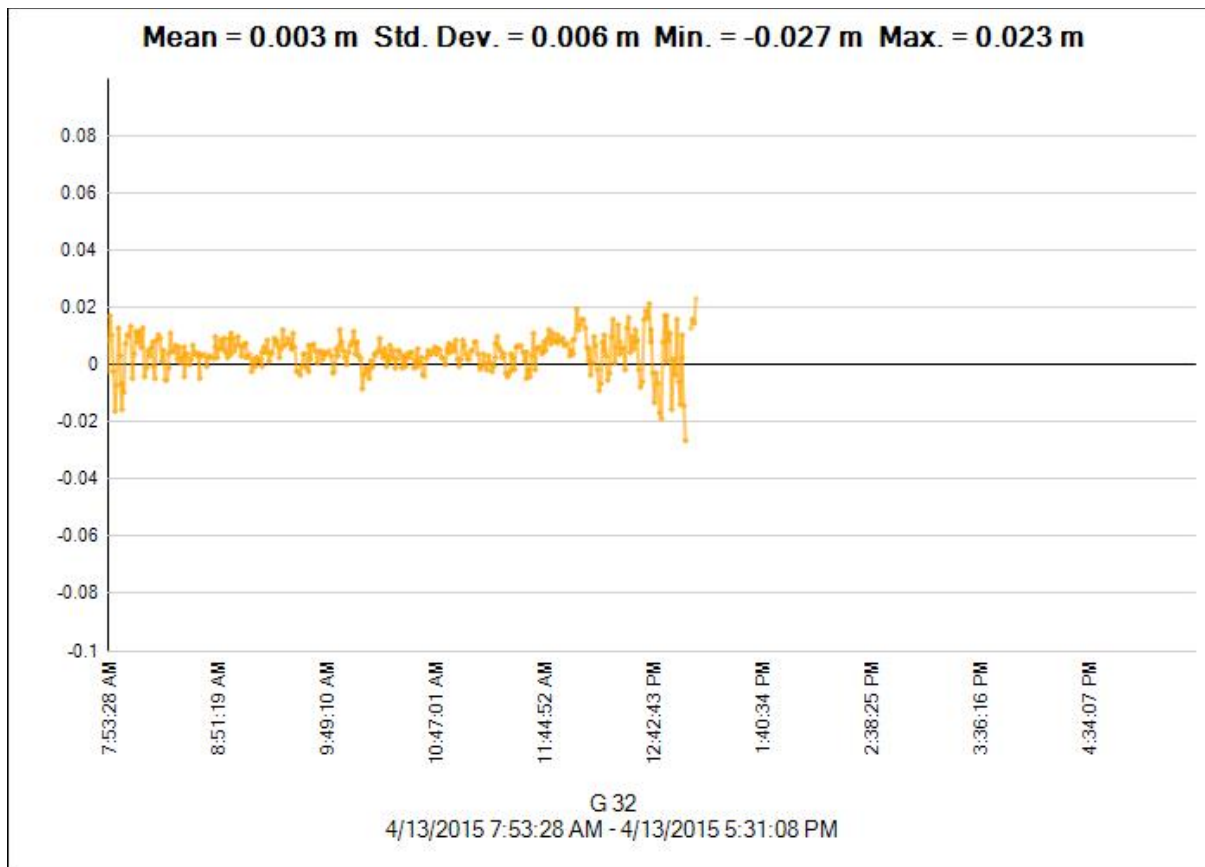


G 30
4/13/2015 7:53:28 AM - 4/13/2015 5:31:08 PM

Mean = -0.001 m Std. Dev. = 0.006 m Min. = -0.025 m Max. = 0.032 m





G 31
4/13/2015 7:53:28 AM - 4/13/2015 5:31:08 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

CASPER_APT - NR0224 (5:47:59 AM-4:15:59 PM) (S47)

Baseline observation: CASPER_APT --- NR0224 (B47)
 Processed: 9/22/2015 11:19:52 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.001 m
 Vertical precision: 0.001 m
 RMS: 0.000 m
 Maximum PDOP: 3.753
 Ephemeris used: Precise
 Antenna model: NGS Absolute
 Processing start time: 6/4/2015 5:47:59 AM (Local: UTC-6hr)
 Processing stop time: 6/4/2015 4:15:59 PM (Local: UTC-6hr)
 Processing duration: 10:28:00
 Processing interval: 5 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To: CASPER_APT					
Grid		Local		Global	
Easting	471435.244 m	Latitude	N42°54'00.07554"	Latitude	N42°54'00.07554"
Northing	366918.826 m	Longitude	W106°27'31.07631"	Longitude	W106°27'31.07631"
Elevation	1622.224 m	Height	1609.028 m	Height	1609.028 m

Vector					
ΔEasting	793.580 m	NS Fwd Azimuth	35°49'30"	ΔX	986.808 m
ΔNorthing	1123.463 m	Ellipsoid Dist.	1375.478 m	ΔY	497.521 m
ΔElevation	3.401 m	ΔHeight	3.375 m	ΔZ	819.504 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.000 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.000 m
$\sigma \Delta$ Northing	0.000 m	σ Ellipsoid Dist.	0.000 m	$\sigma \Delta$ Y	0.001 m
$\sigma \Delta$ Elevation	0.001 m	$\sigma \Delta$ Height	0.001 m	$\sigma \Delta$ Z	0.000 m

Aposteriori Covariance Matrix (Meter²)



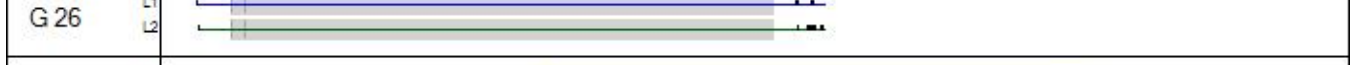
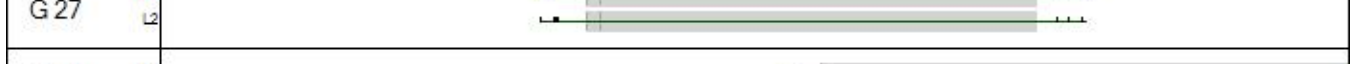





	X	Y	Z
X	0.0000001587		
Y	0.0000000417	0.0000002584	
Z	-0.0000000252	-0.0000001406	0.0000002250

Occupations

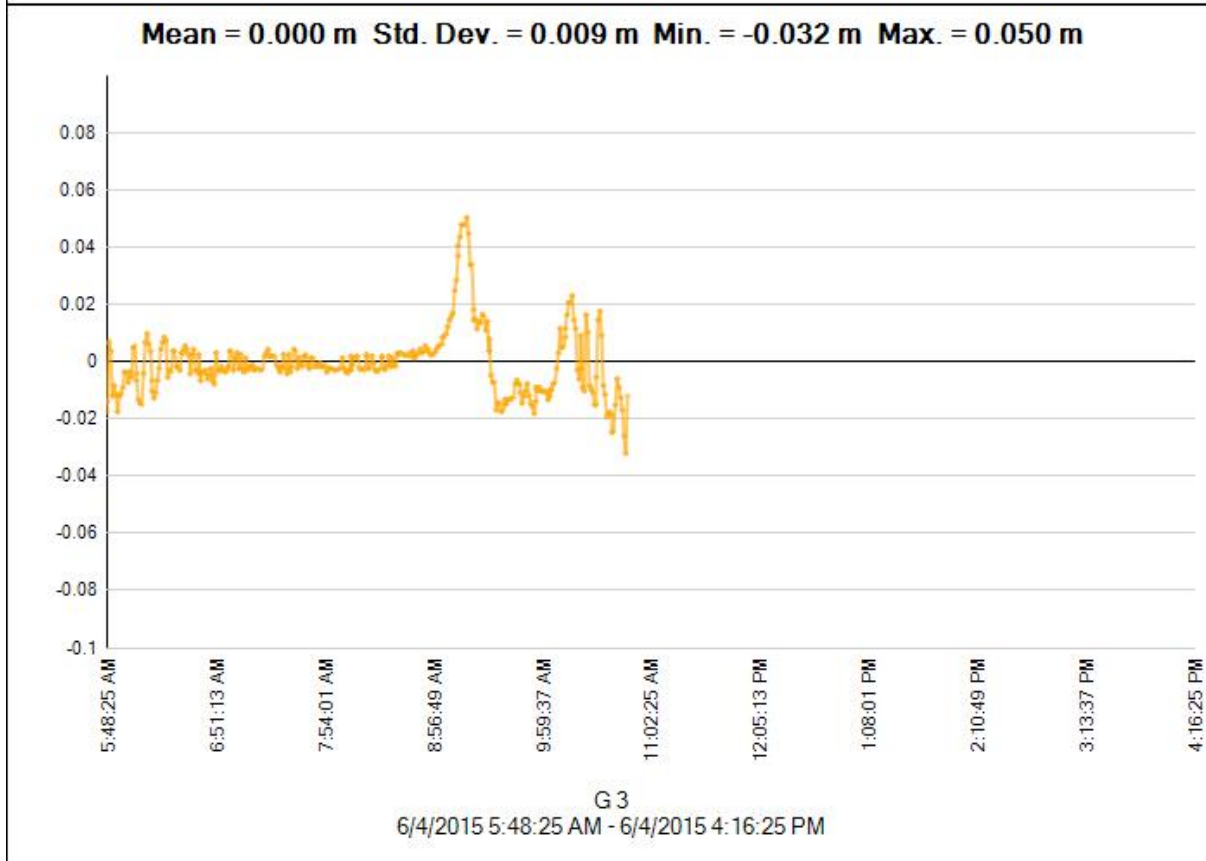
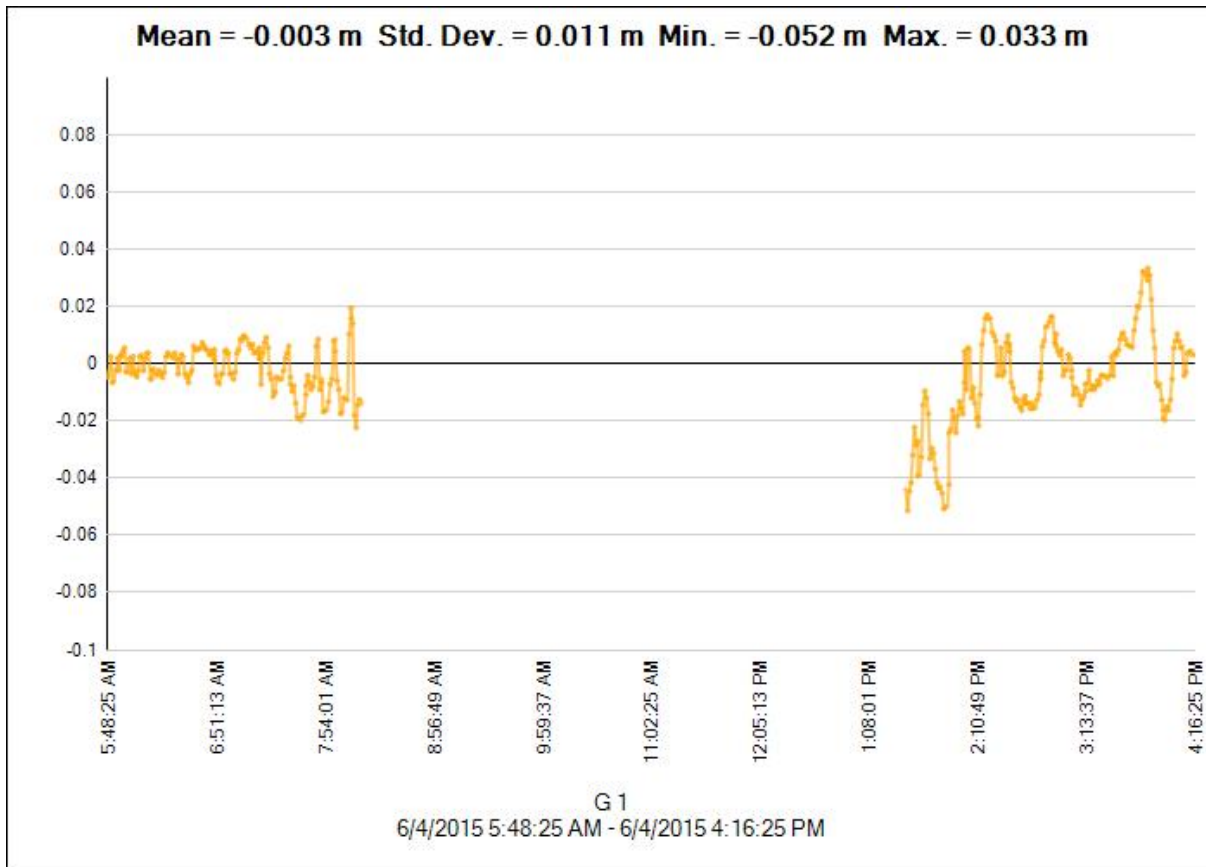
	From	To
Point ID:	NR0224	CASPER_APT
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\00111550 resampled.15o	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\00051550 resampled.15o
Receiver type:	Geo Explorer 3	Geo Explorer 3
Receiver serial number:		
Antenna type:	702 Rev 3.00	702 Rev 3.00
Antenna serial number:	-----	-----
Antenna height (measured):	2.000 m	2.000 m
Antenna method:	Bottom of antenna mount	Bottom of antenna mount

Tracking Summary

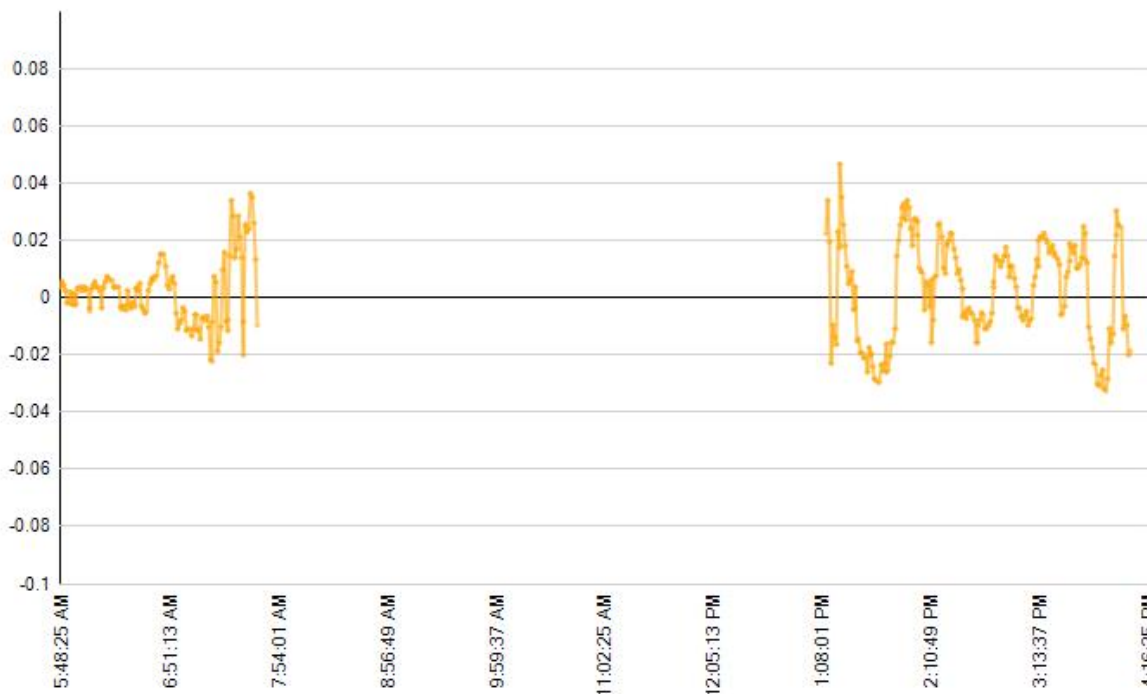
SV	6/4/2015 5:47:59 AM	Duration: 10:28:00	Major interval: 01:00:00	6/4/2015 4:15:59 PM
G 1	L1 L2			
G 3	L1 L2			
G 4	L1 L2			
G 5	L1 L2			
G 6	L1 L2			
G 7	L1 L2			
G 9	L1 L2			
G 10	L1 L2			
G 11	L1 L2			
G 12	L1 L2			
G 13	L1 L2			
G 14	L1 L2			
G 15	L1 L2			
G 16	L1 L2			
G 17	L1 L2			
G 18	L1 L2			
G 19	L1 L2			
G 20	L1 L2			
G 22	L1 L2			
G 23	L1 L2			

SV	6/4/2015 5:47:59 AM	Duration: 10:28:00 Major interval: 01:00:00	6/4/2015 4:15:59 PM
G 24	L1 L2		
G 25	L1 L2		
G 26	L1 L2		
G 27	L1 L2		
G 28	L1 L2		
G 29	L1 L2		
G 30	L1 L2		
G 31	L1 L2		
G 32	L1 L2		

Residuals



Mean = 0.002 m Std. Dev. = 0.012 m Min. = -0.033 m Max. = 0.047 m

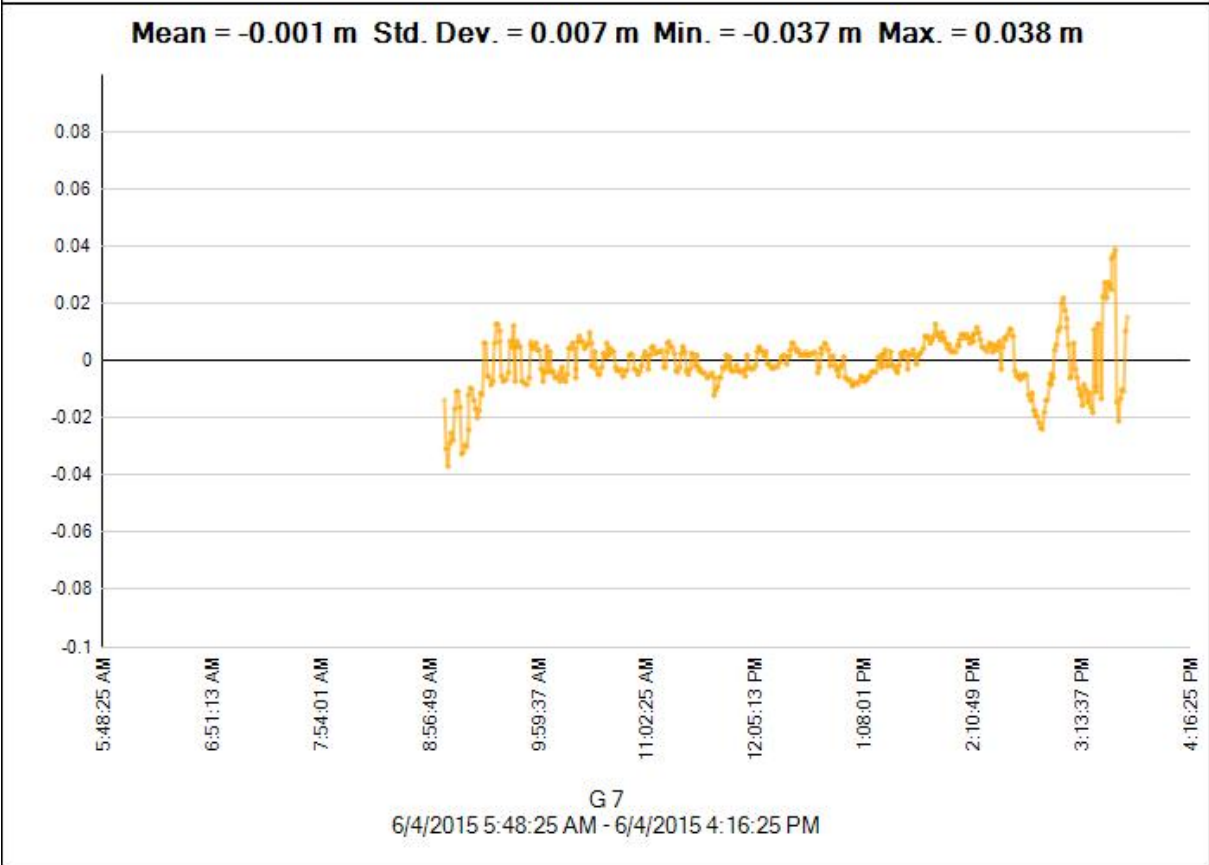
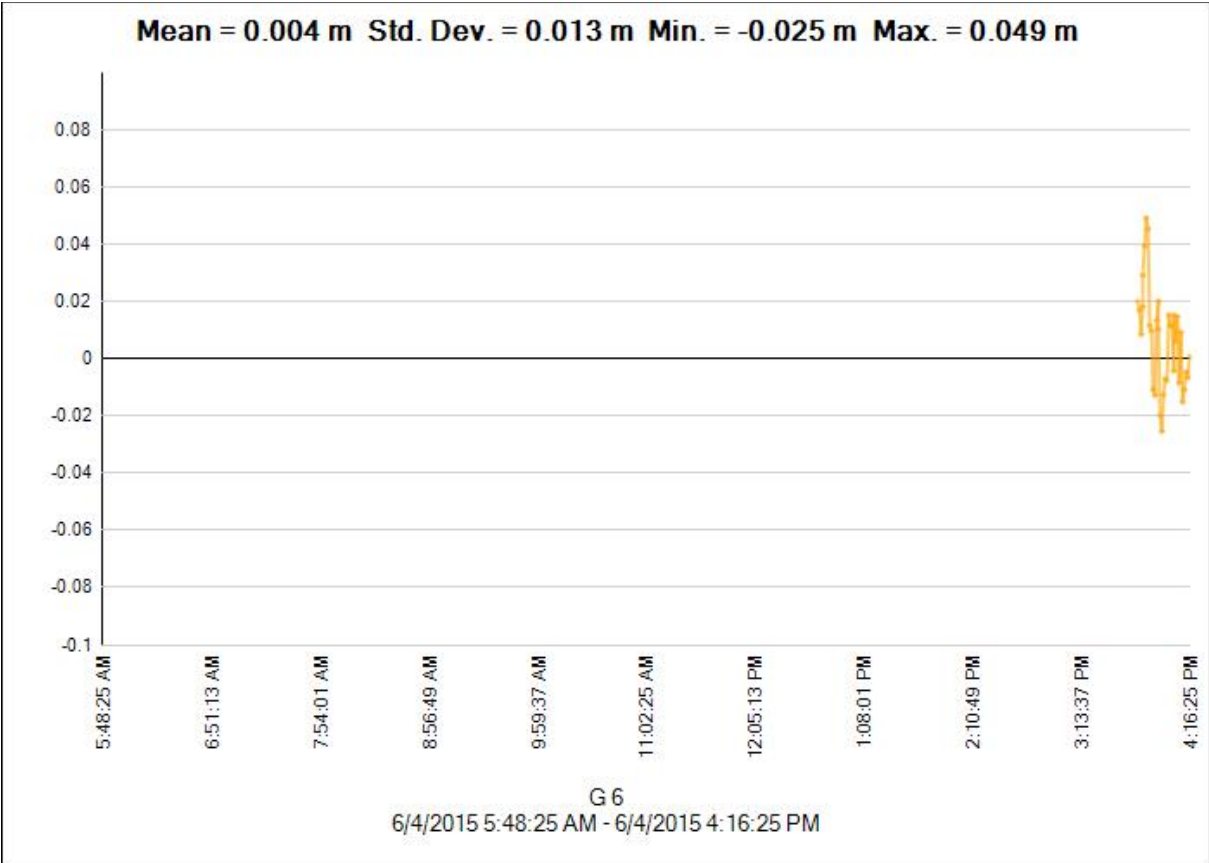


G 4
6/4/2015 5:48:25 AM - 6/4/2015 4:16:25 PM

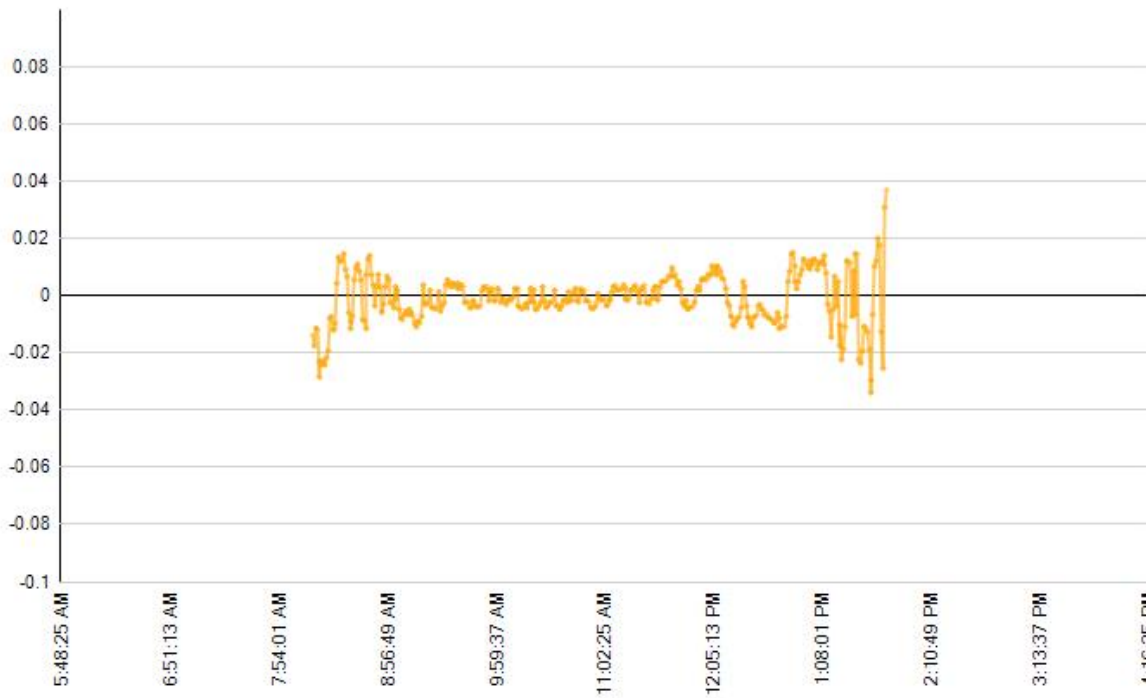
Mean = 0.005 m Std. Dev. = 0.014 m Min. = -0.024 m Max. = 0.087 m



G 5
6/4/2015 5:48:25 AM - 6/4/2015 4:16:25 PM

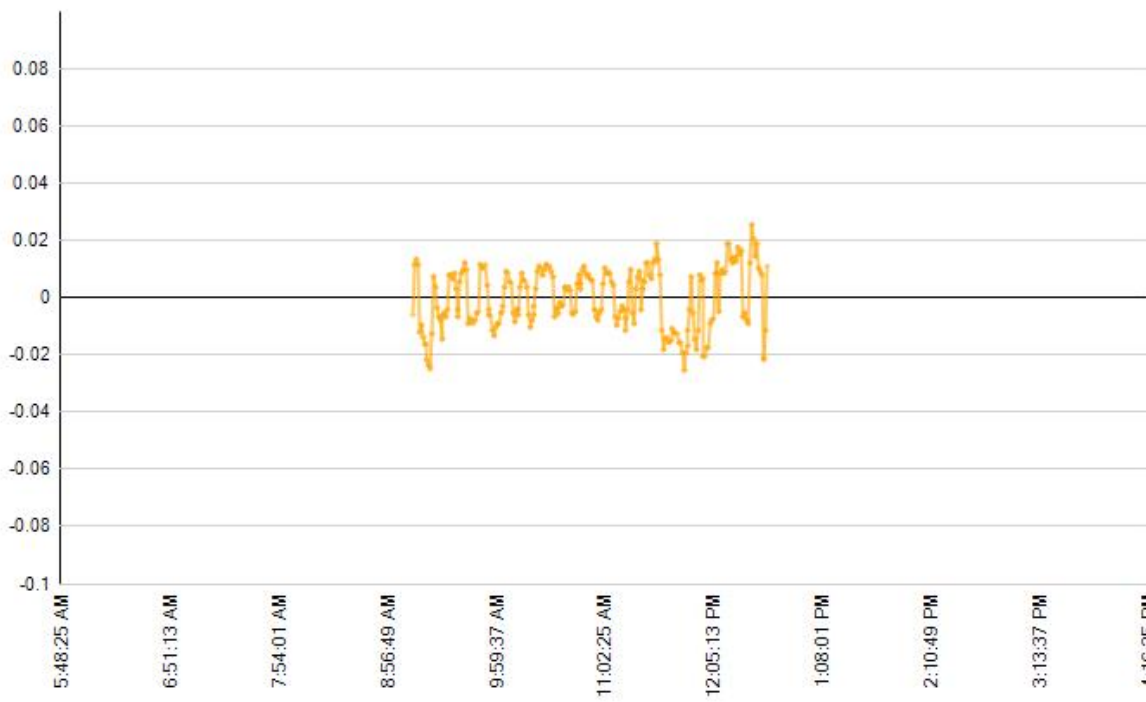


Mean = -0.001 m Std. Dev. = 0.006 m Min. = -0.034 m Max. = 0.037 m



G 9
6/4/2015 5:48:25 AM - 6/4/2015 4:16:25 PM

Mean = 0.000 m Std. Dev. = 0.007 m Min. = -0.025 m Max. = 0.026 m



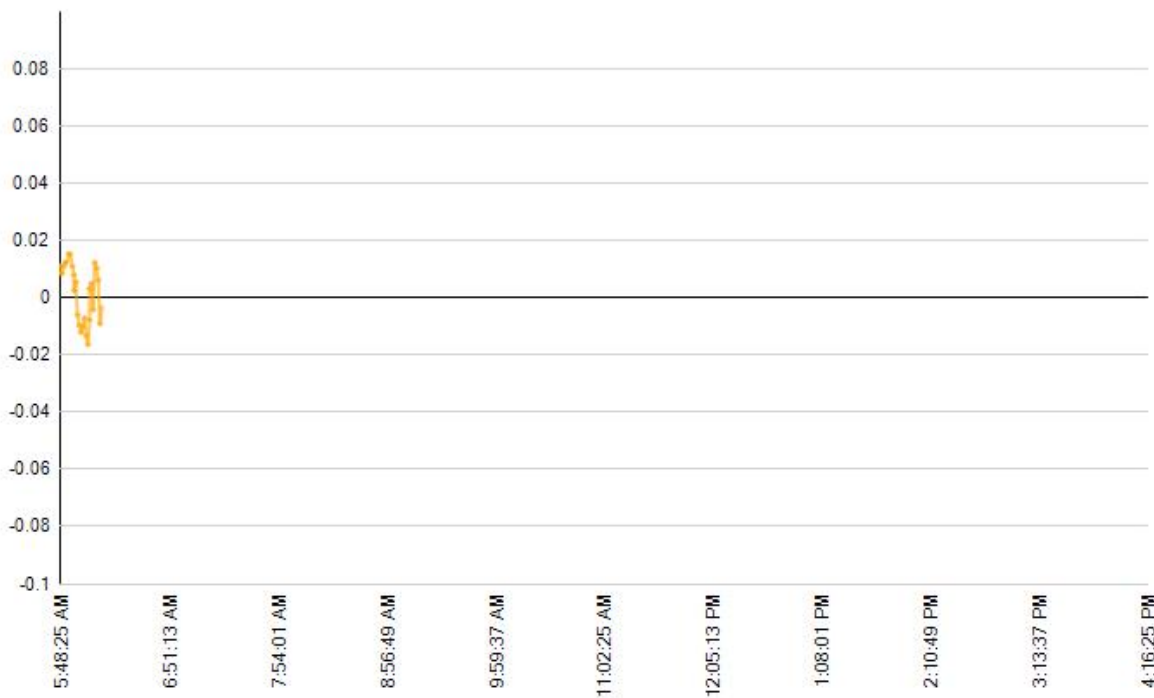
G 10
6/4/2015 5:48:25 AM - 6/4/2015 4:16:25 PM

Mean = -0.001 m Std. Dev. = 0.008 m Min. = -0.034 m Max. = 0.029 m

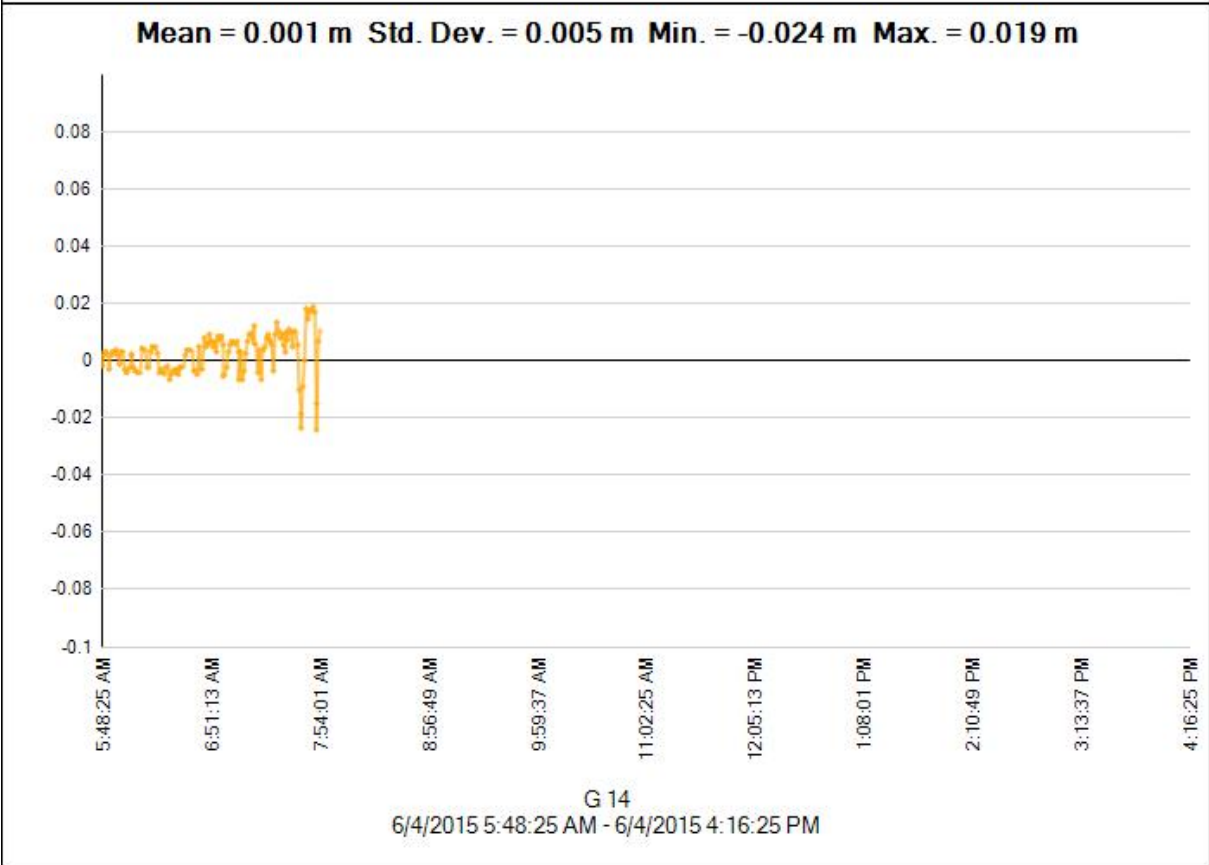
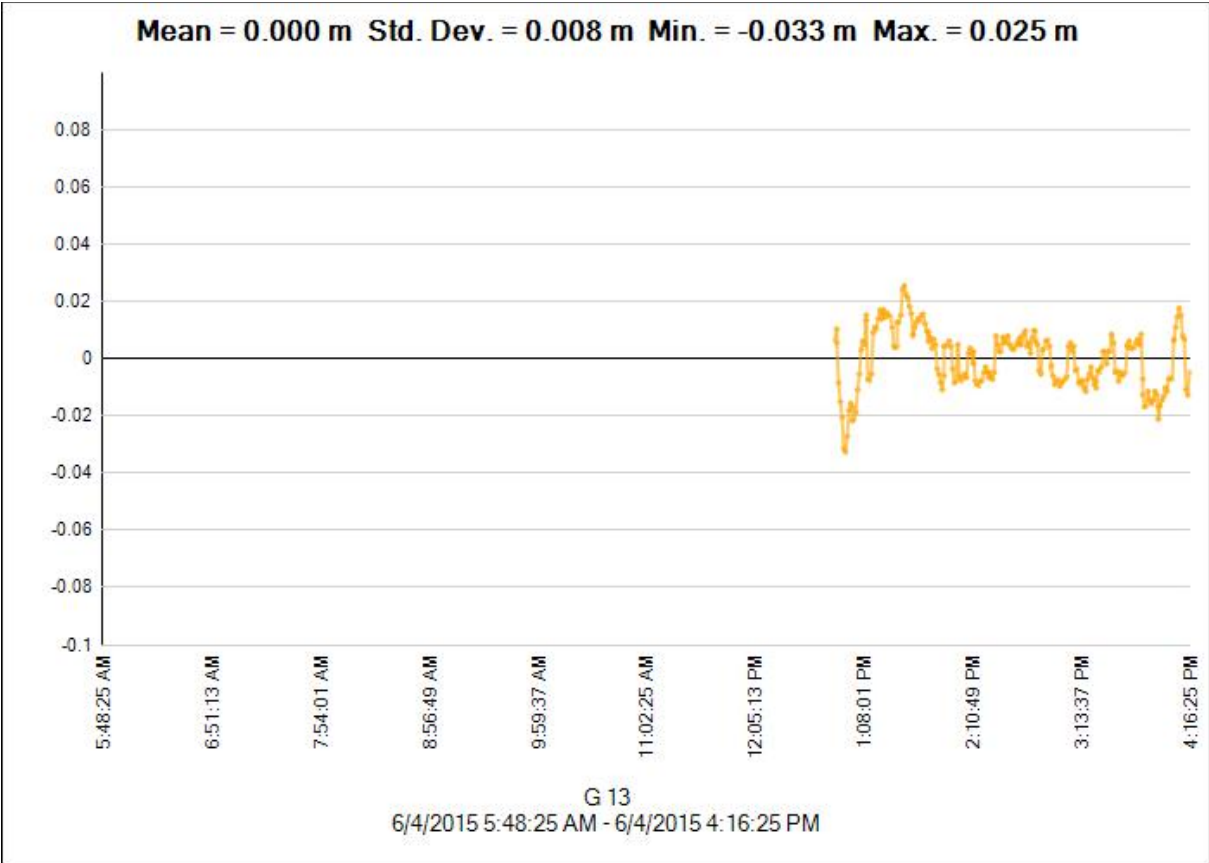


G 11
6/4/2015 5:48:25 AM - 6/4/2015 4:16:25 PM

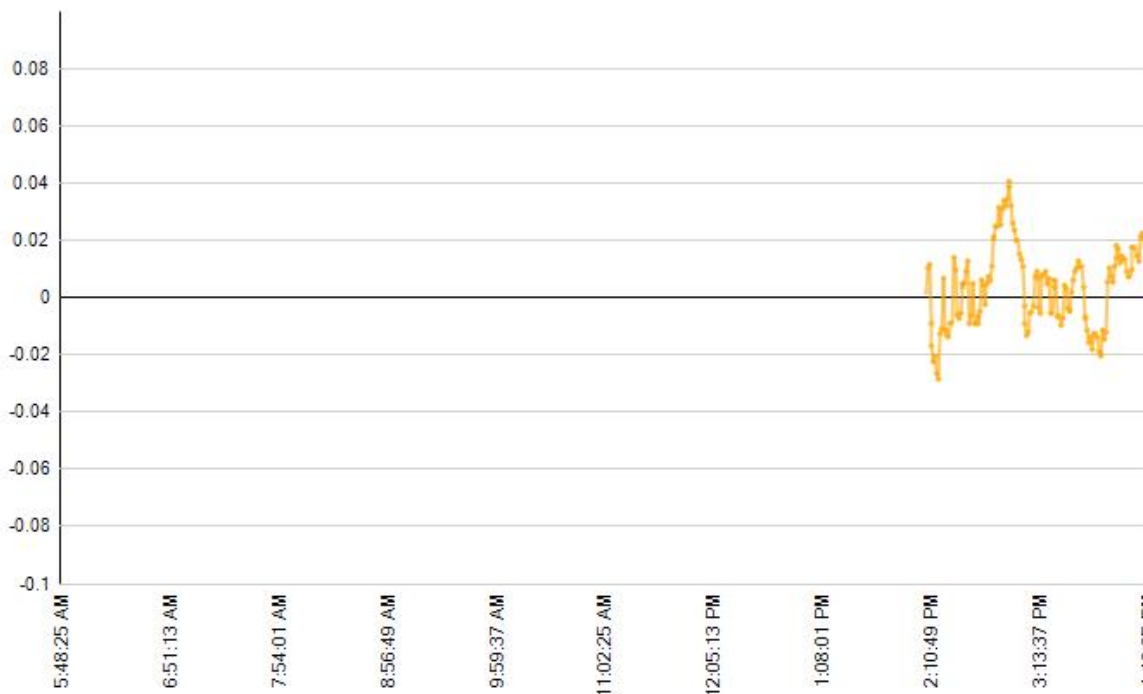
Mean = 0.001 m Std. Dev. = 0.007 m Min. = -0.016 m Max. = 0.015 m



G 12
6/4/2015 5:48:25 AM - 6/4/2015 4:16:25 PM

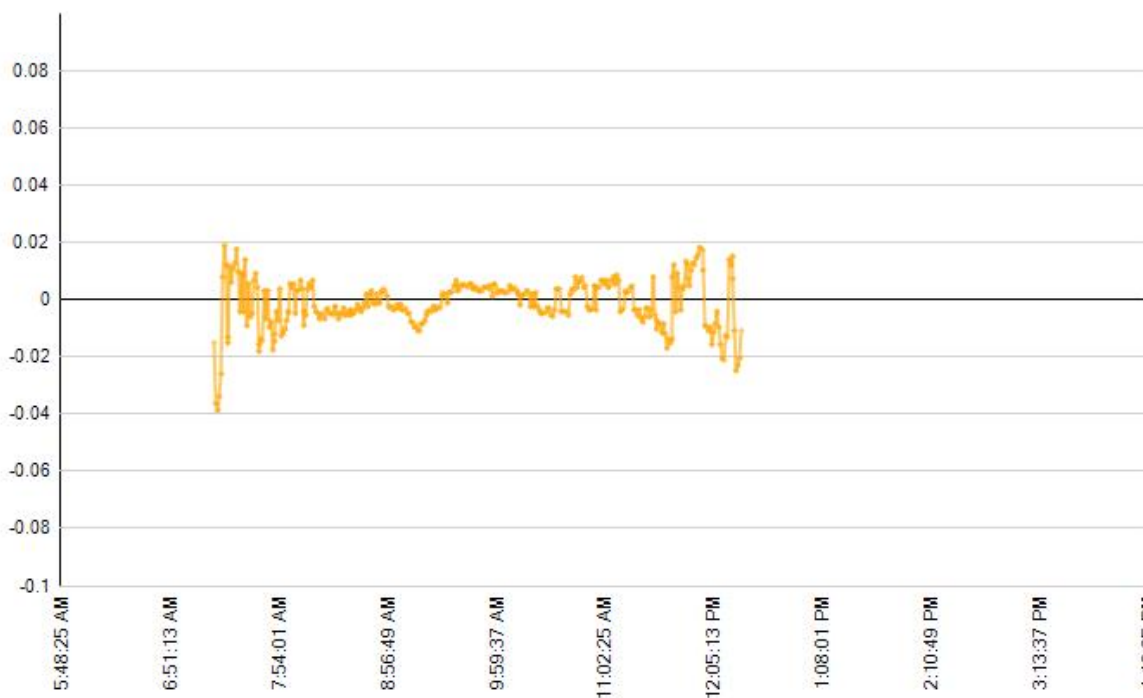


Mean = 0.003 m Std. Dev. = 0.011 m Min. = -0.029 m Max. = 0.040 m

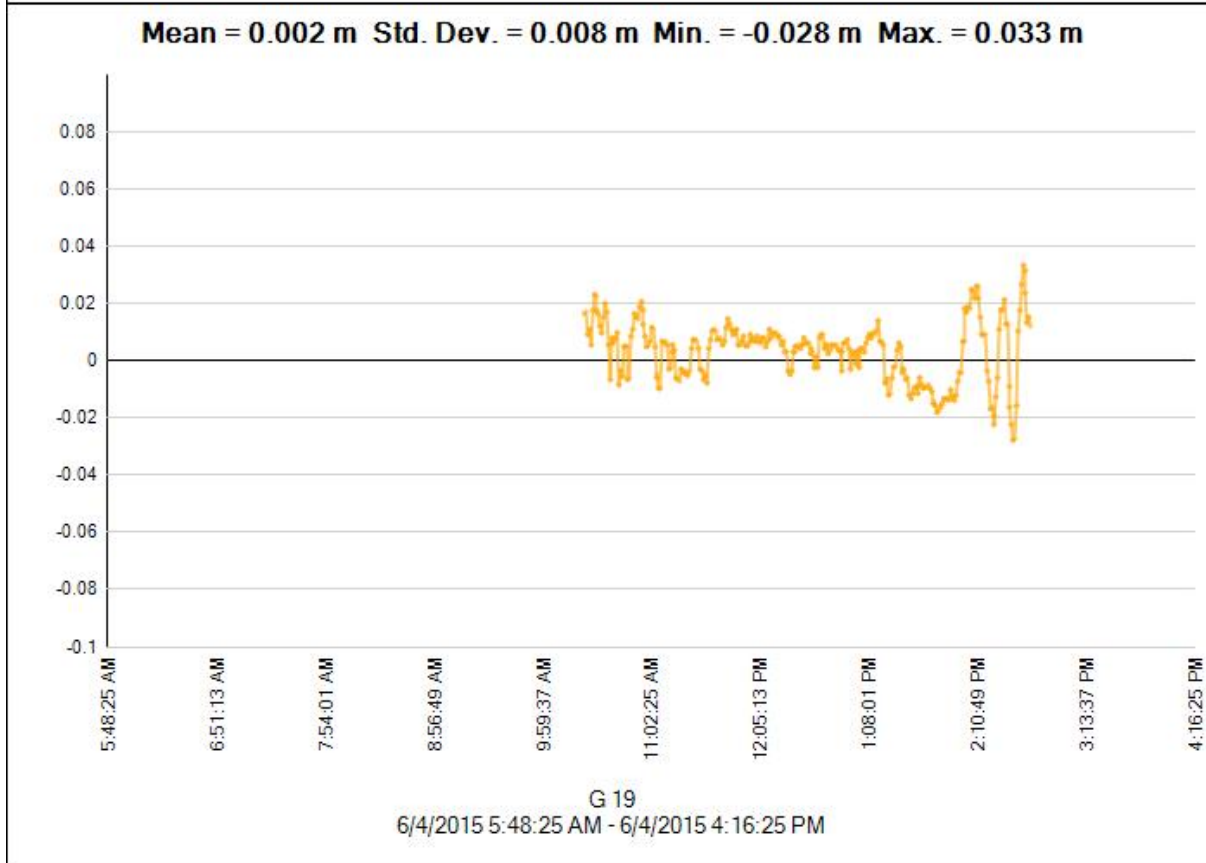
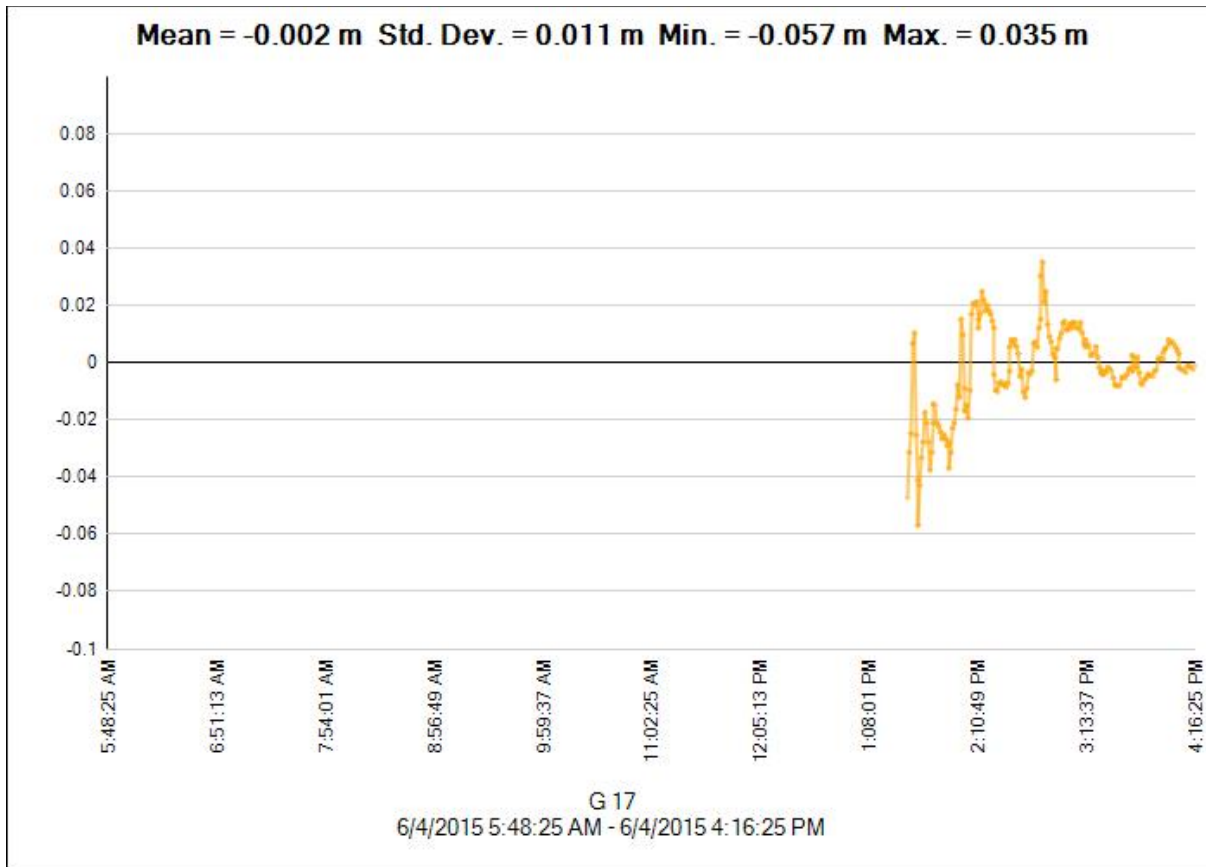


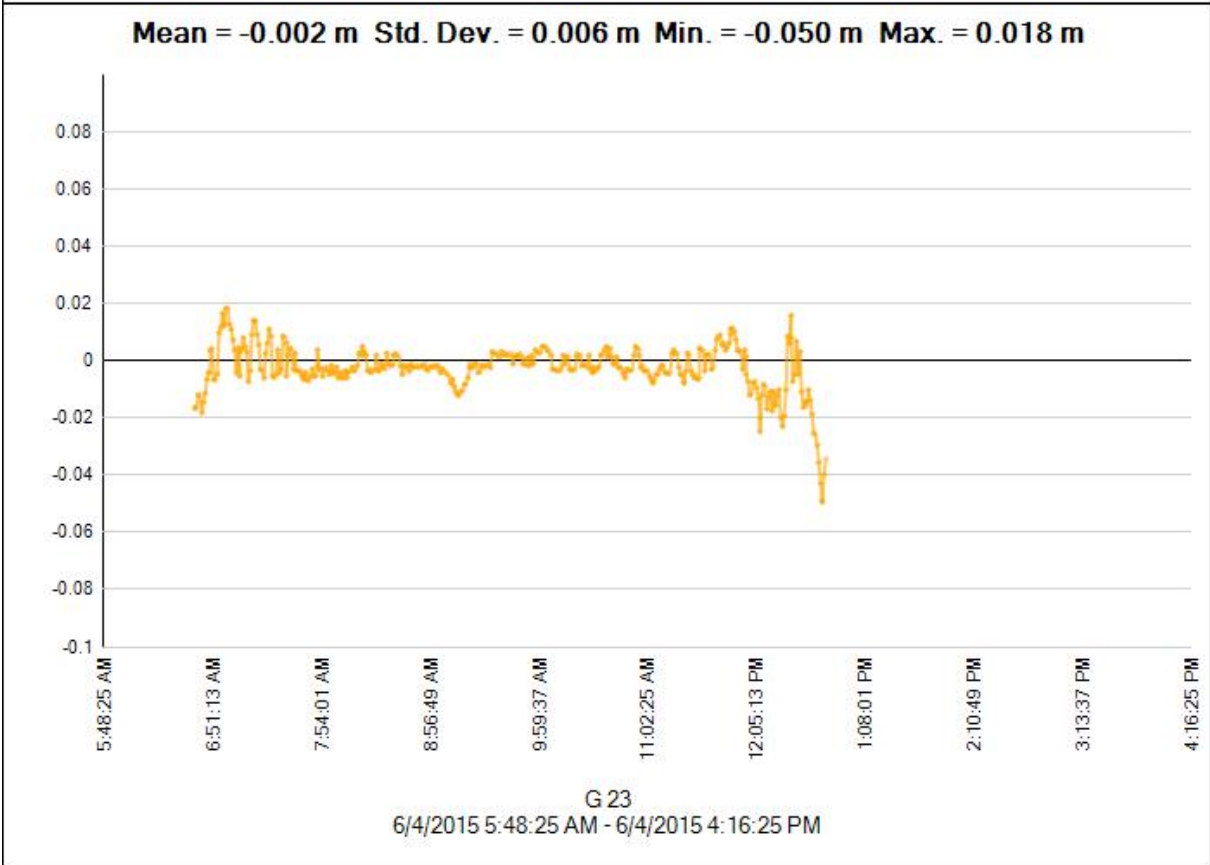
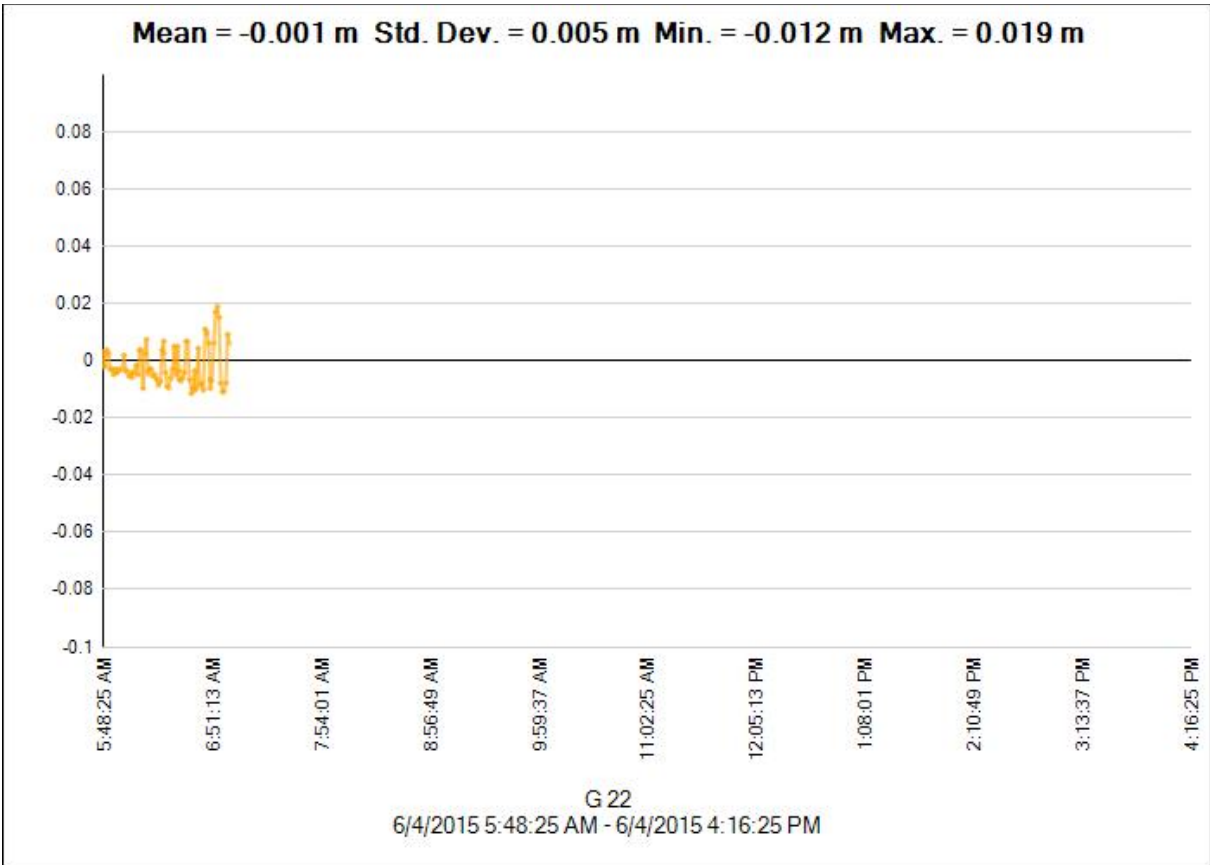
G 15
6/4/2015 5:48:25 AM - 6/4/2015 4:16:25 PM

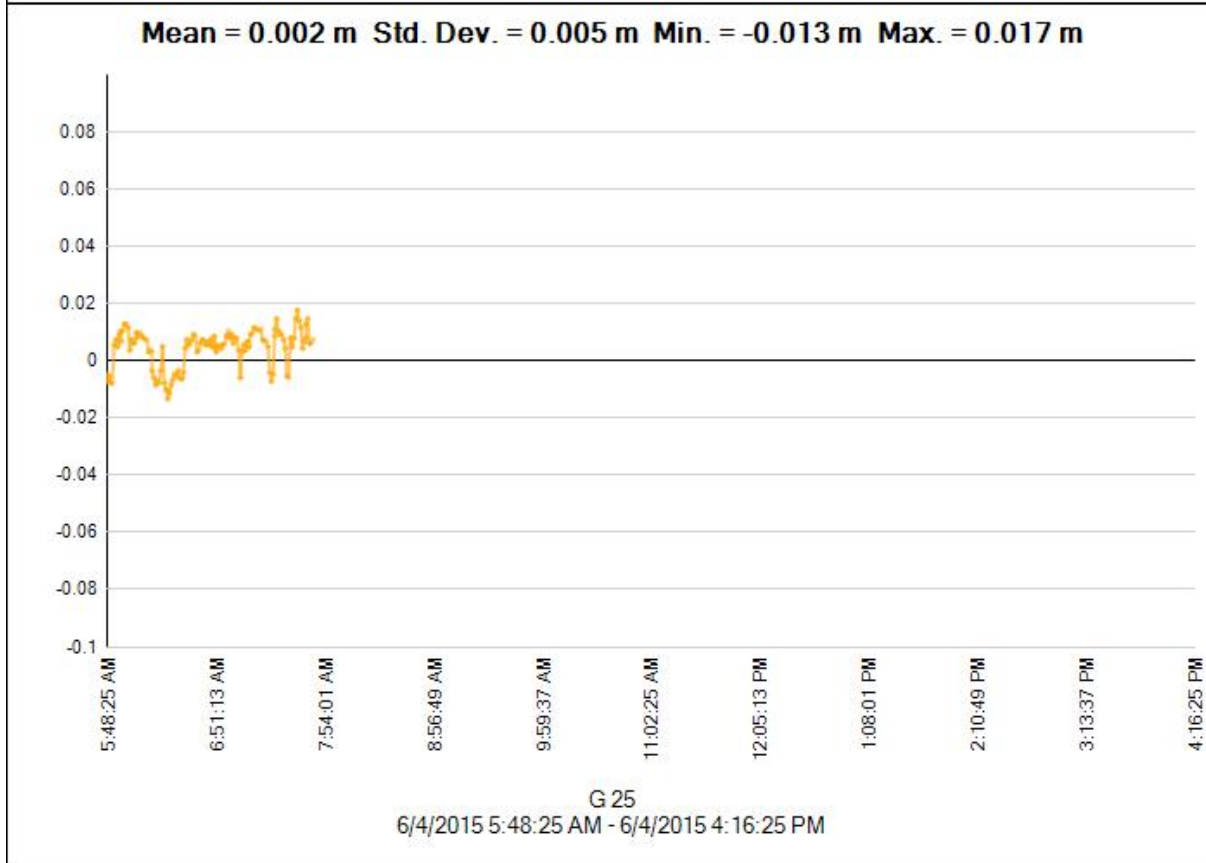
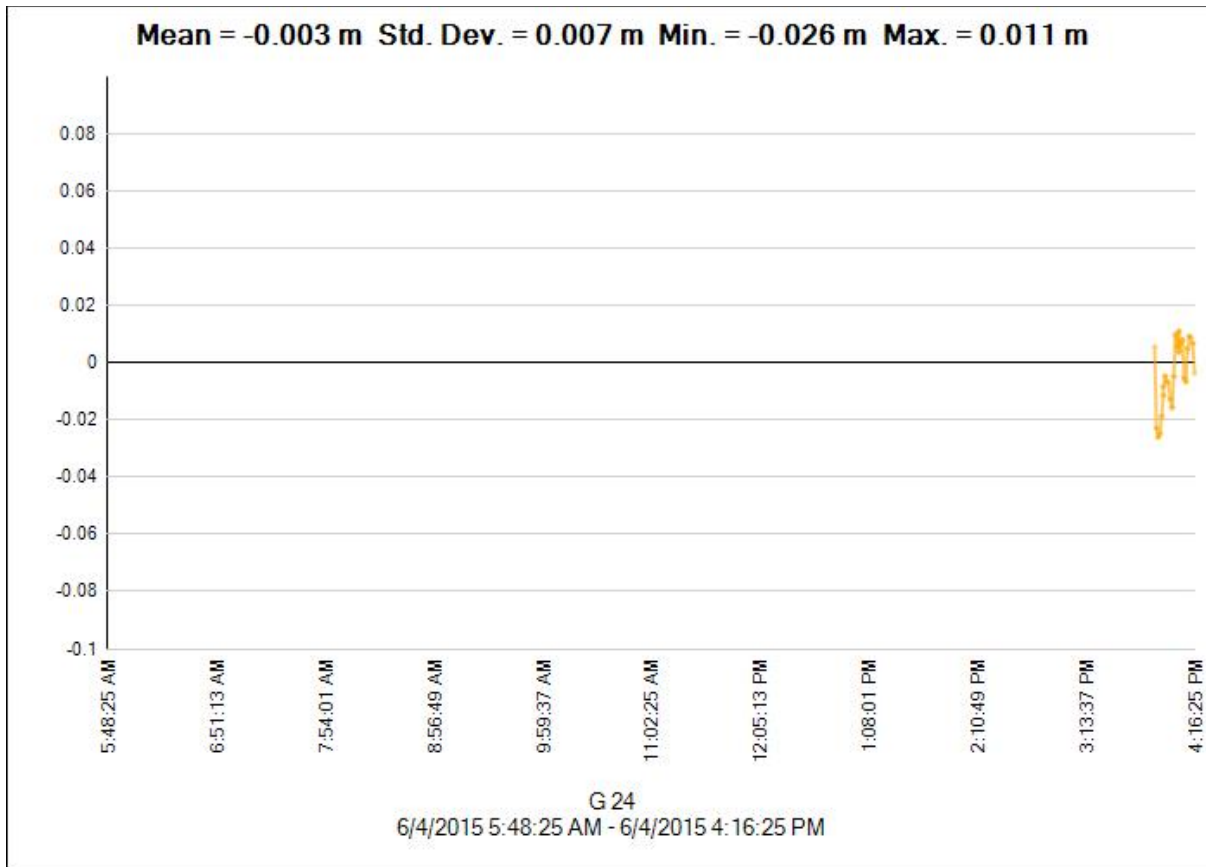
Mean = -0.001 m Std. Dev. = 0.006 m Min. = -0.039 m Max. = 0.019 m

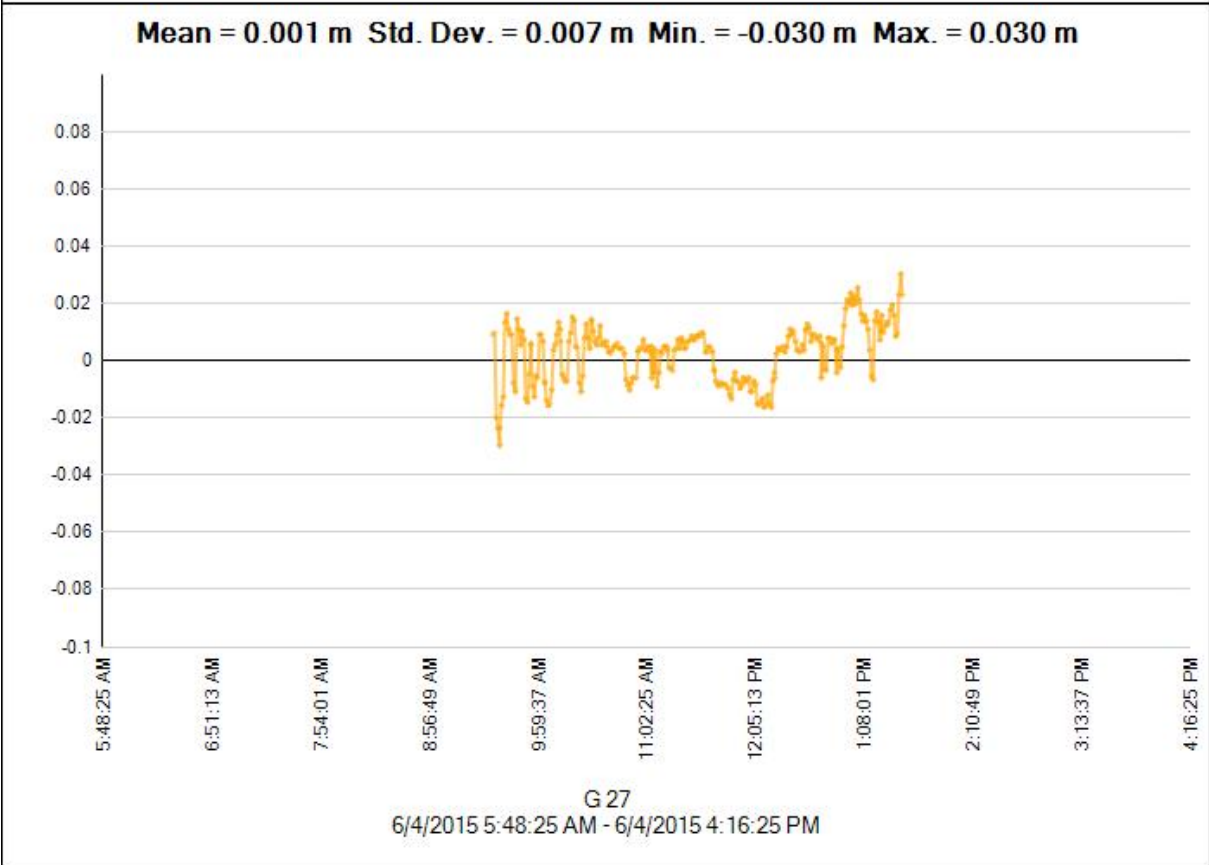
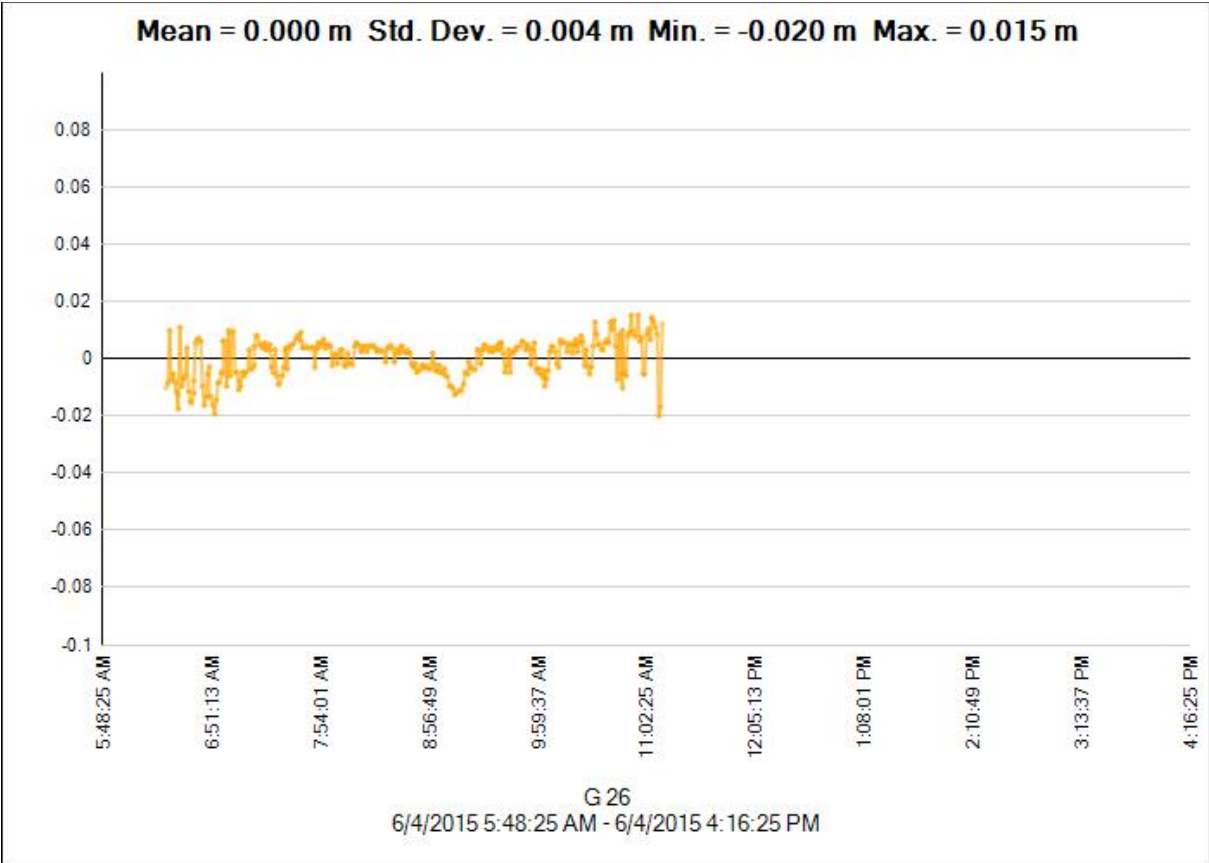


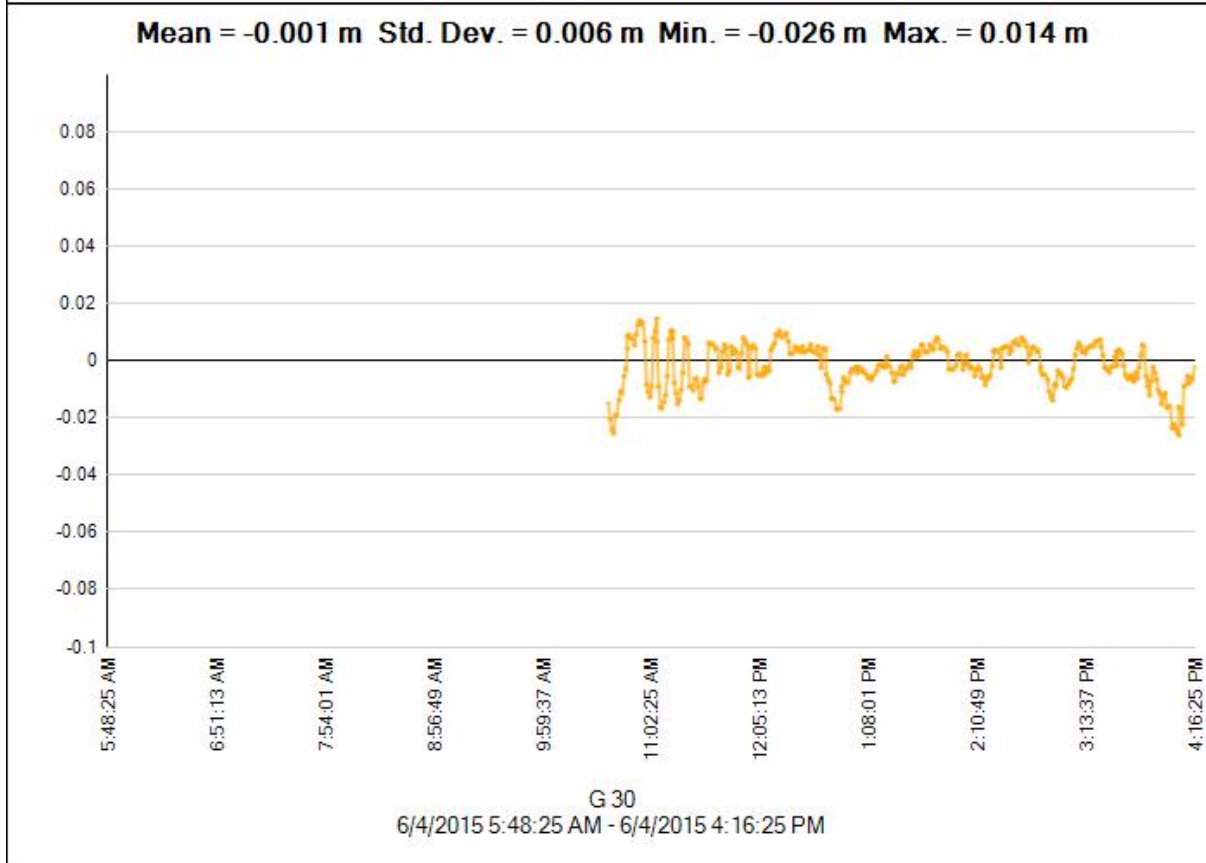
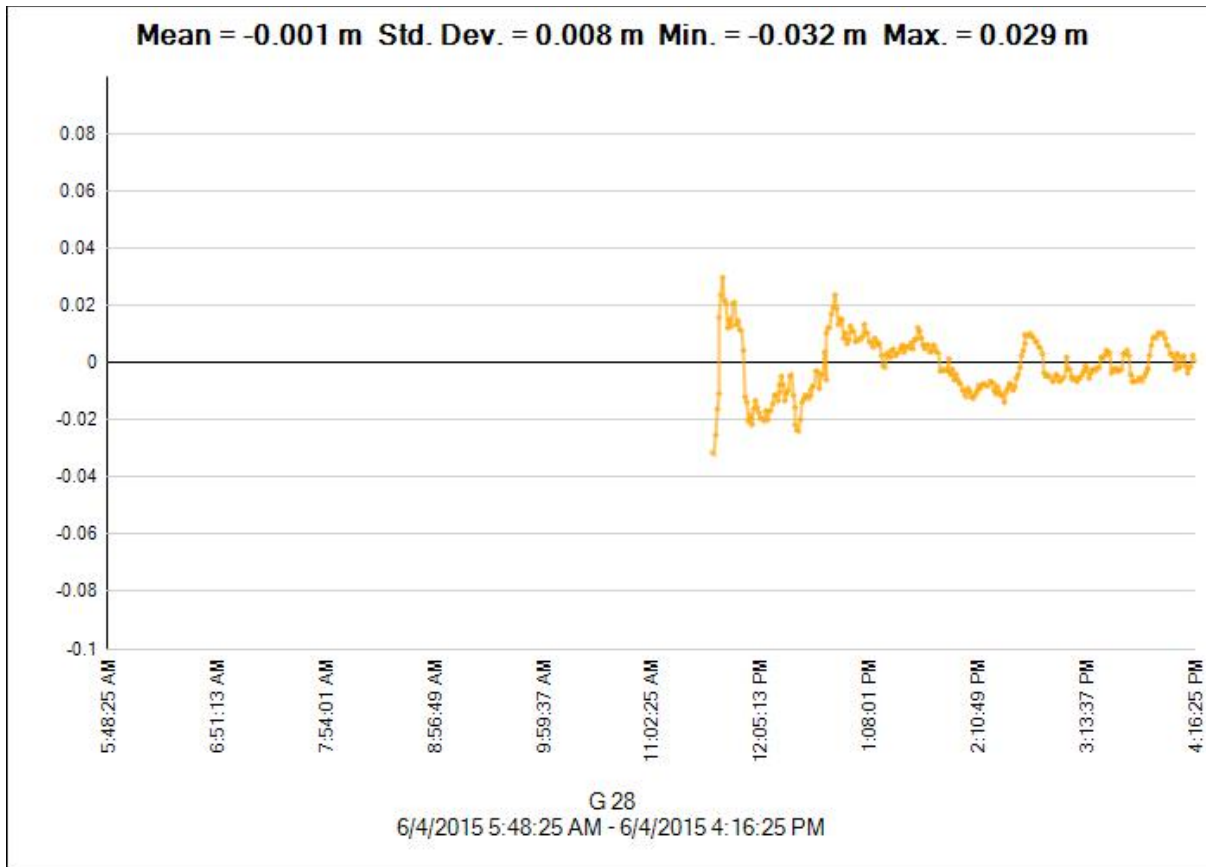
G 16
6/4/2015 5:48:25 AM - 6/4/2015 4:16:25 PM



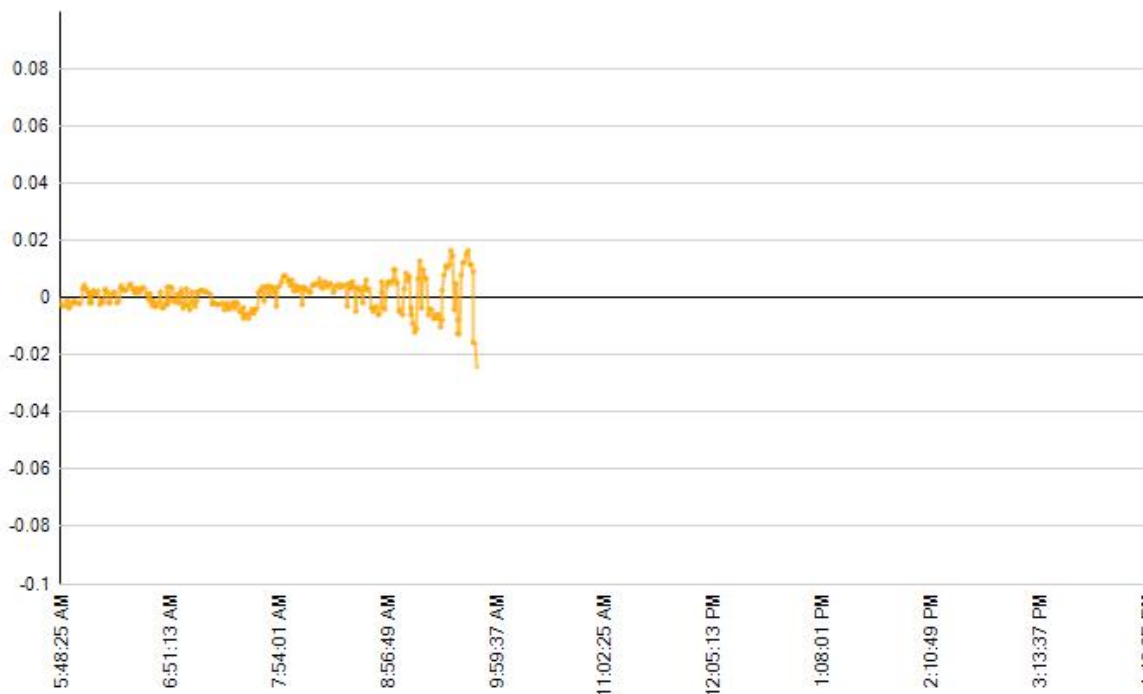






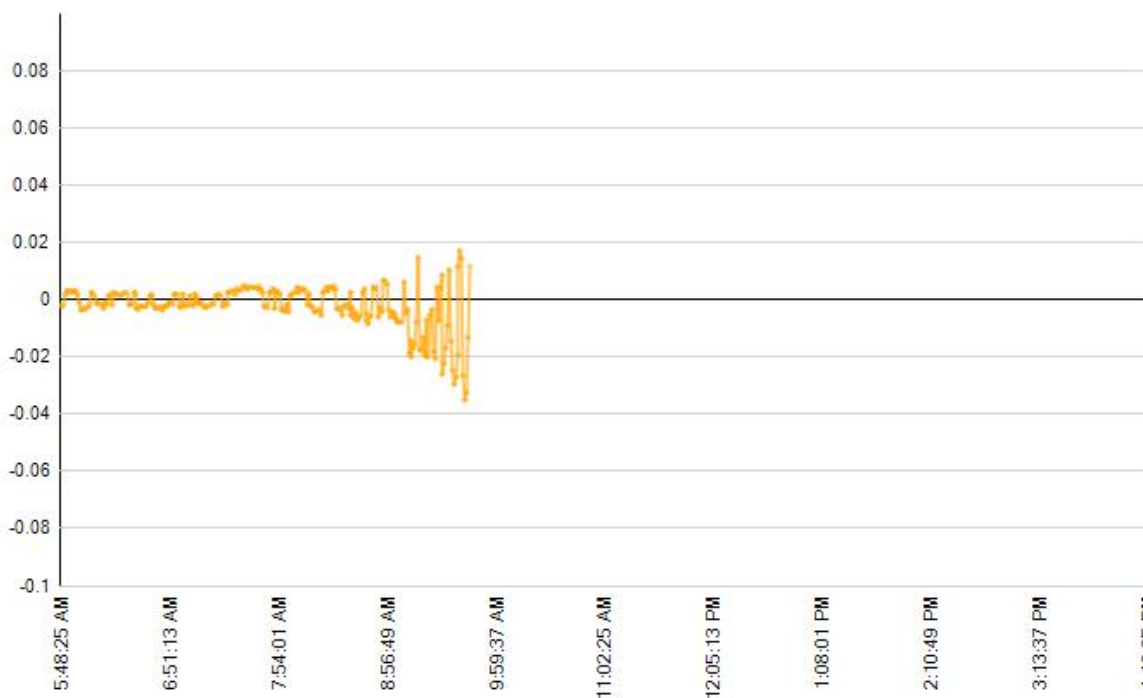


Mean = 0.001 m Std. Dev. = 0.003 m Min. = -0.024 m Max. = 0.017 m



G 31
6/4/2015 5:48:25 AM - 6/4/2015 4:16:25 PM

Mean = -0.001 m Std. Dev. = 0.005 m Min. = -0.035 m Max. = 0.017 m





G 32
6/4/2015 5:48:25 AM - 6/4/2015 4:16:25 PM

Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP117A (9:22:49 AM-9:58:21 AM) (S48)

Baseline observation: NR0224 --- CP117A (B48)
Processed: 11/3/2015 9:40:50 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.006 m
Vertical precision: 0.015 m
RMS: 0.000 m
Maximum PDOP: 2.223
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 11/1/2015 9:22:49 AM (Local: UTC-7hr)
Processing stop time: 11/1/2015 9:58:14 AM (Local: UTC-7hr)
Processing duration: 00:35:25
Processing interval: 1 second

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To:		CP117A			
Grid		Local		Global	
Easting	463694.742 m	Latitude	N42°40'15.80119"	Latitude	N42°40'15.80118"
Northing	341406.573 m	Longitude	W106°33'22.61108"	Longitude	W106°33'22.61108"
Elevation	1651.829 m	Height	1639.051 m	Height	1639.051 m

Vector					
Δ Easting	-6946.923 m	NS Fwd Azimuth	196°29'12"	Δ X	-11592.431 m
Δ Northing	-24388.791 m	Ellipsoid Dist.	25359.057 m	Δ Y	-13822.000 m
Δ Elevation	33.006 m	Δ Height	33.398 m	Δ Z	-17831.929 m

Standard Errors

Vector errors:					
σ Δ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.003 m
σ Δ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	σ Δ Y	0.005 m
σ Δ Elevation	0.007 m	σ Δ Height	0.007 m	σ Δ Z	0.006 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000092394		
Y	0.0000082679	0.0000287753	
Z	-0.0000086996	-0.0000229159	0.0000309305

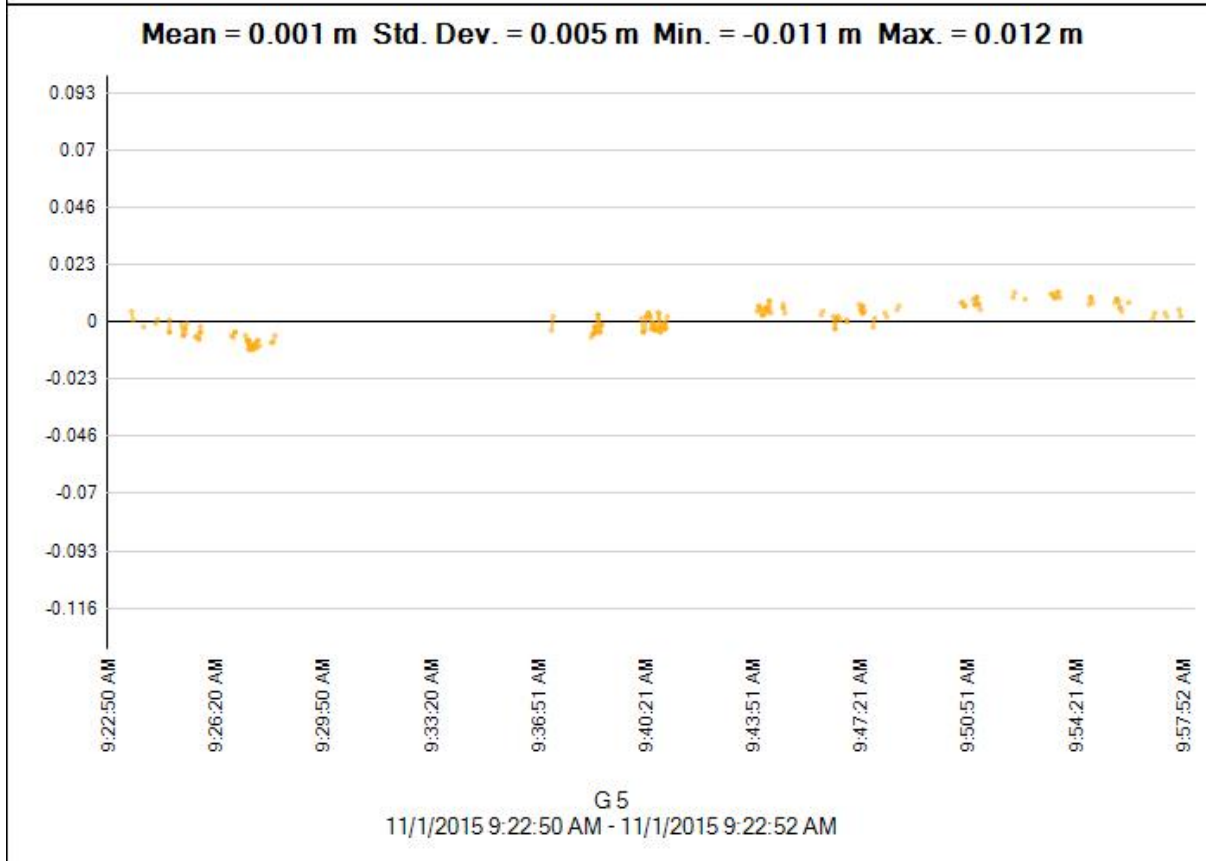
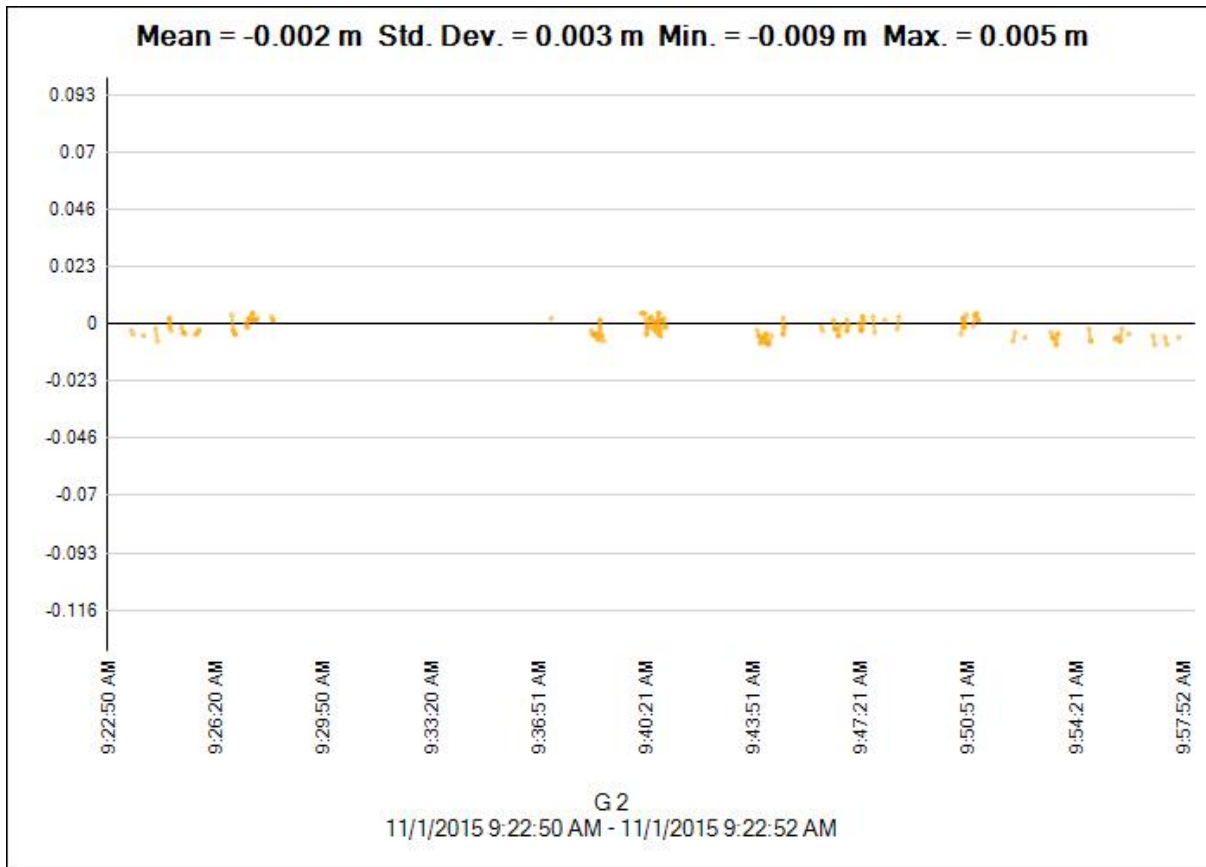
Occupations

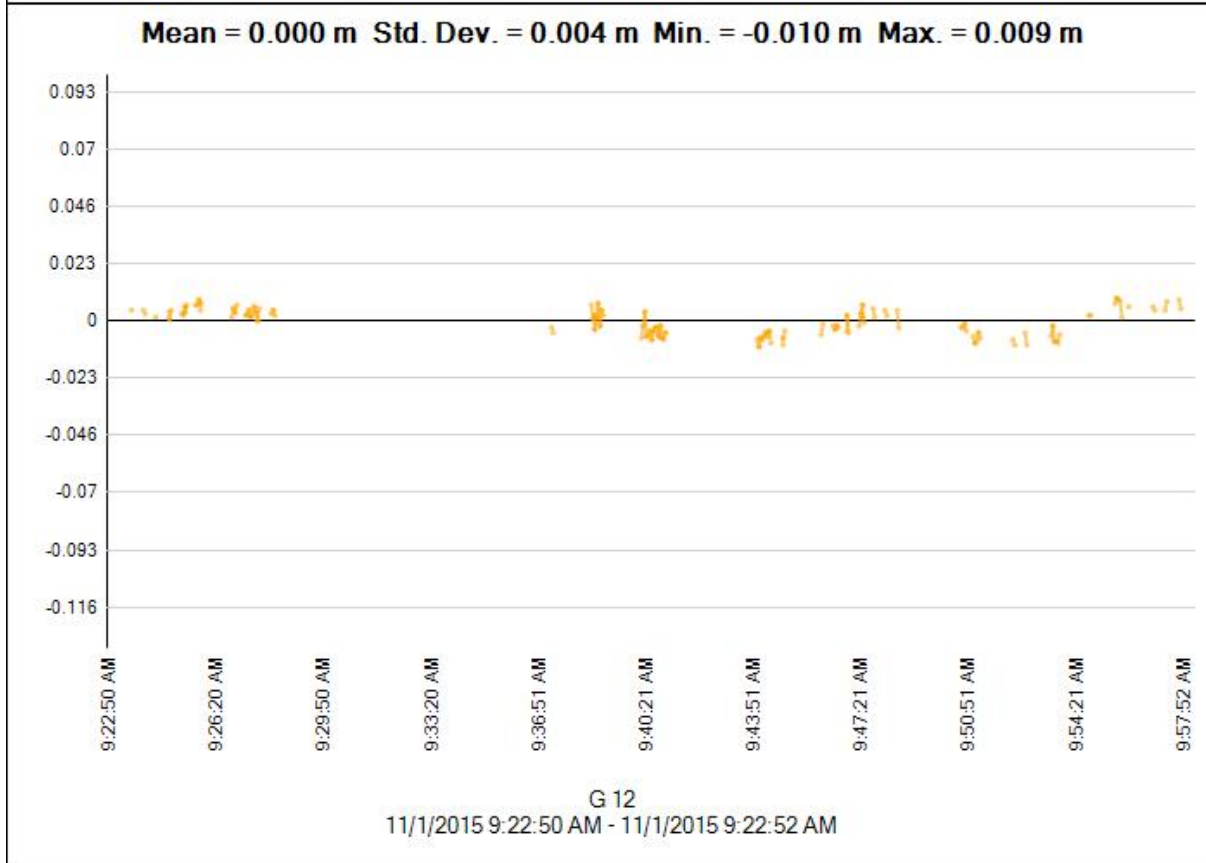
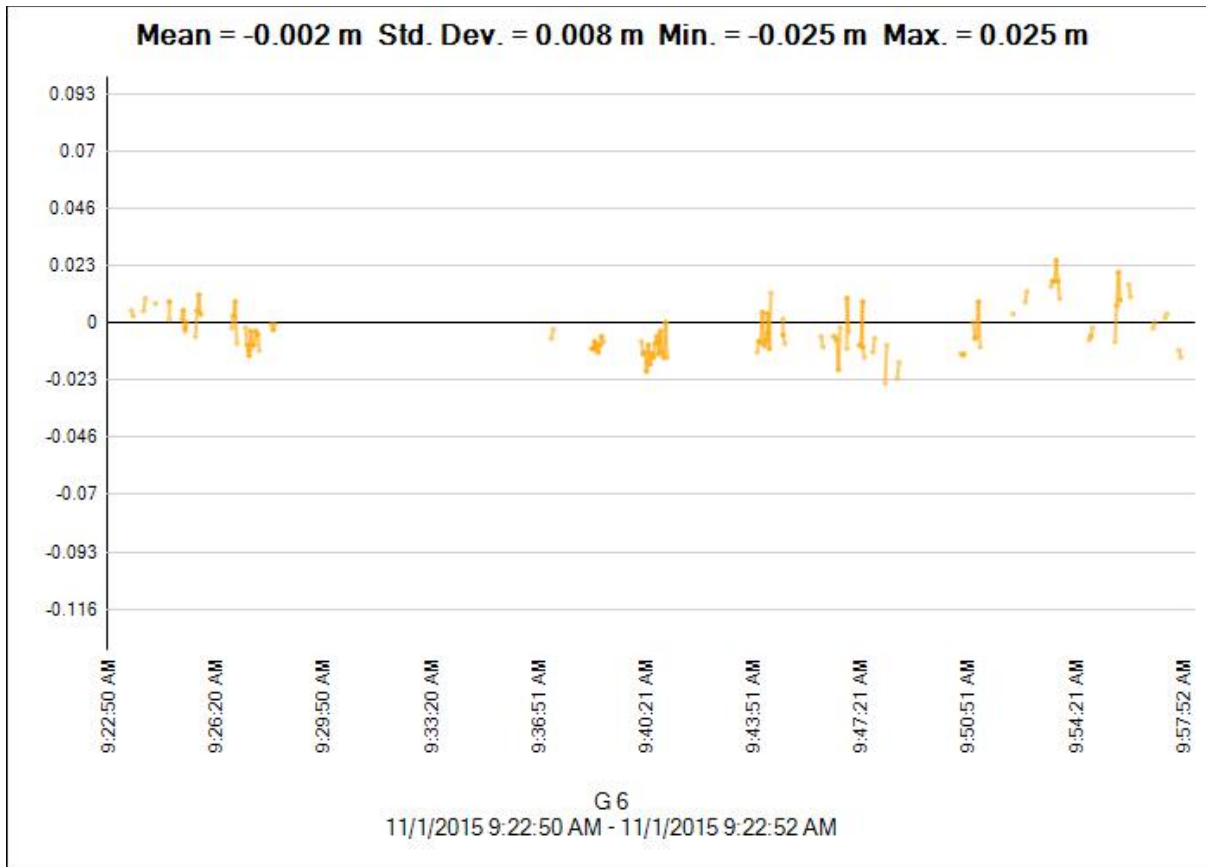
	From	To
Point ID:	NR0224	CP117A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513051.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843050.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.482 m	2.000 m
Antenna method:	Antenna Phase Center	Bottom of antenna mount

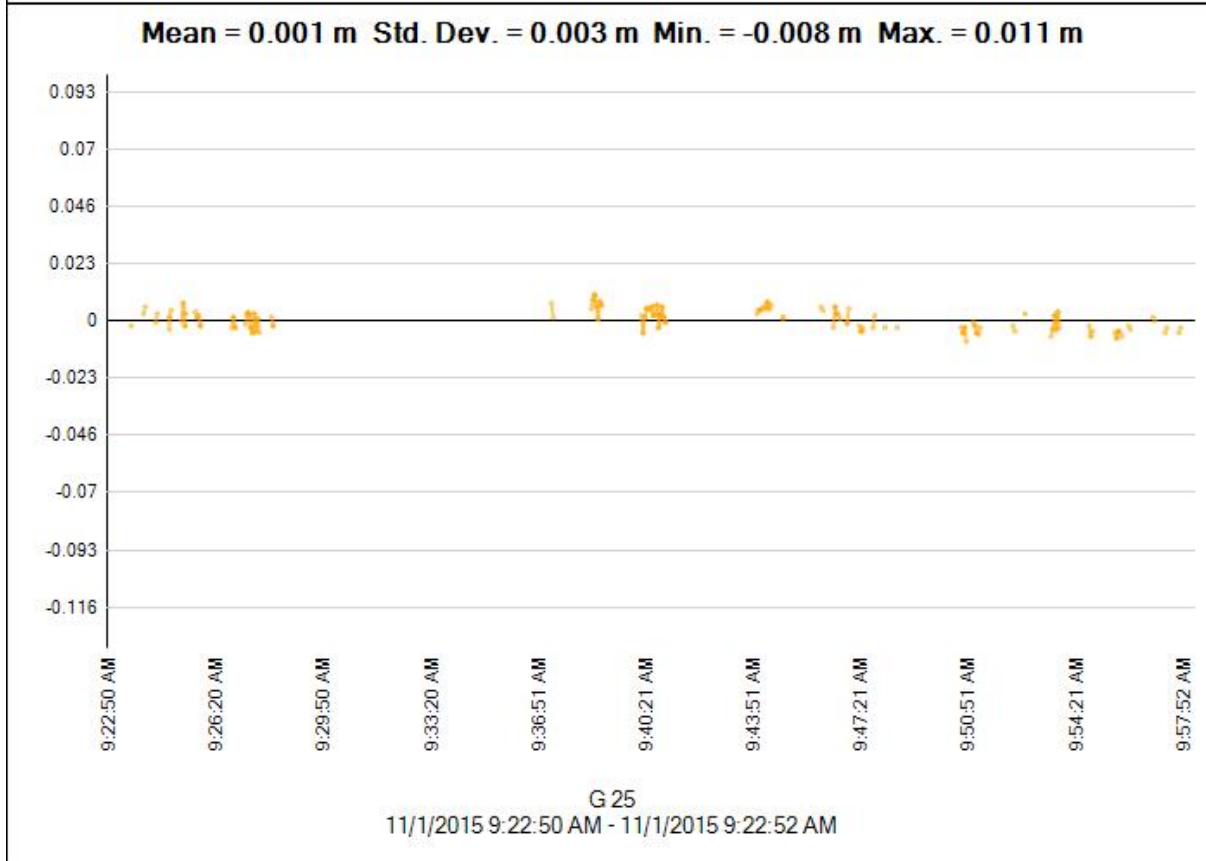
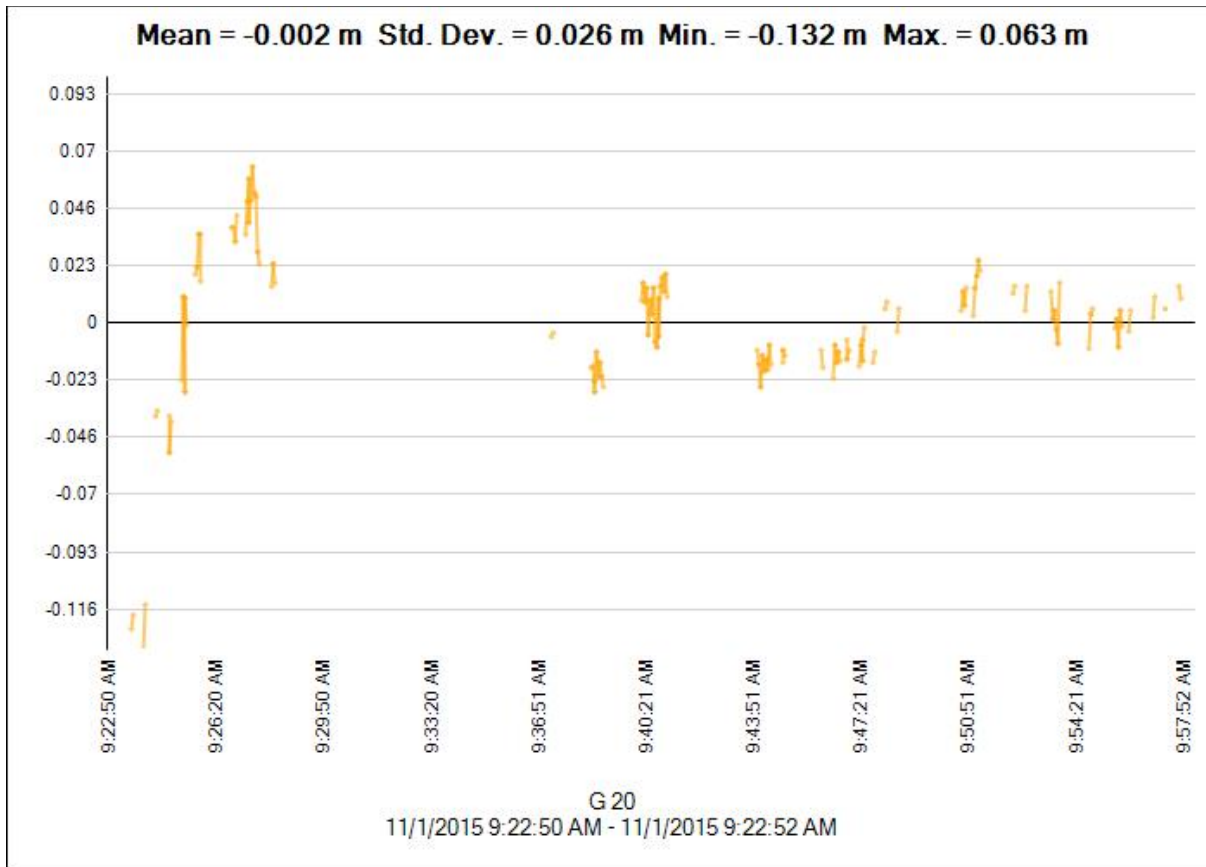
Tracking Summary

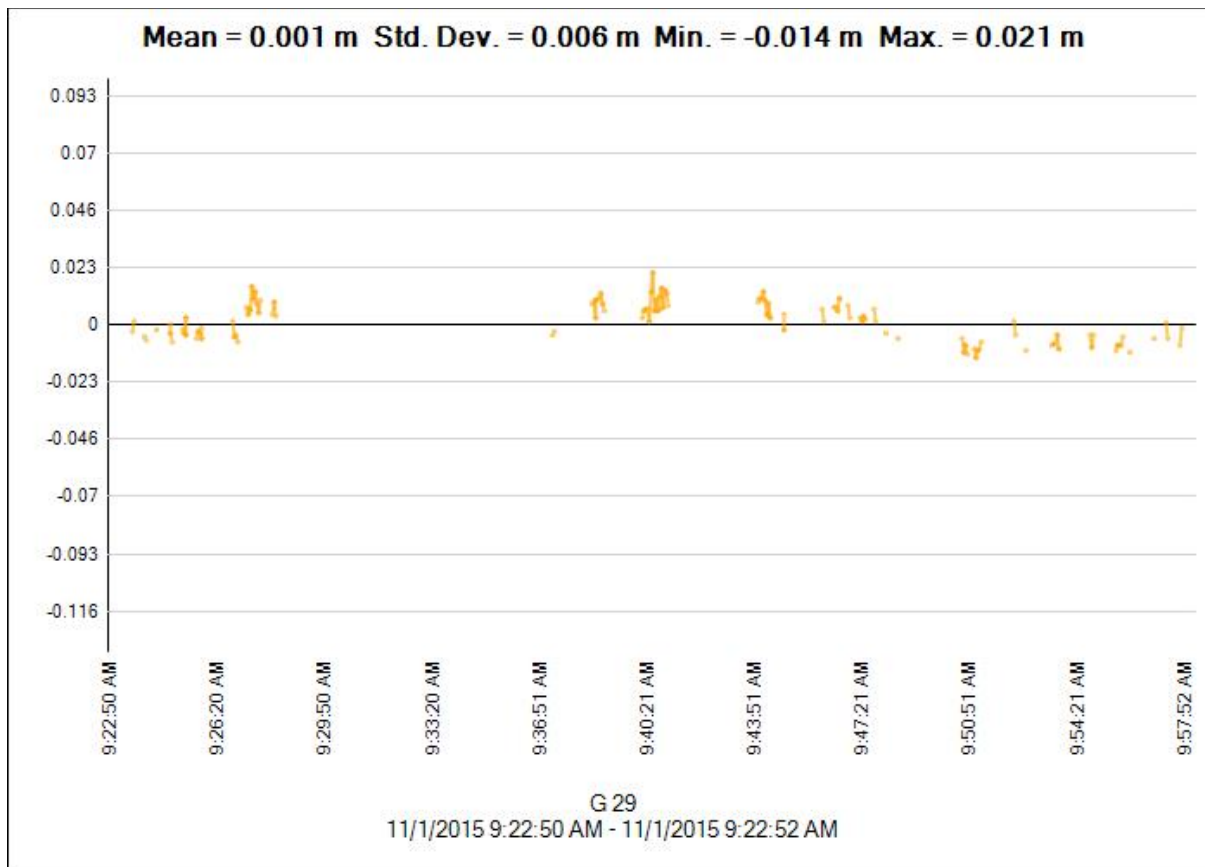
SV	11/1/2015 9:22:49 AM	Duration: 00:35:32	Major interval: 00:01:00	11/1/2015 9:58:21 AM
G 2				
G 5				
G 6				
G 9				
G 12				
G 20				
G 25				
G 29				
G 31				

Residuals











Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP118A (10:33:53 AM-11:09:37 AM) (S49)

Baseline observation: NR0224 --- CP118A (B49)
 Processed: 11/3/2015 9:40:51 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.008 m
 Vertical precision: 0.012 m
 RMS: 0.002 m
 Maximum PDOP: 2.393
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 11/1/2015 10:34:17 AM (Local: UTC-7hr)
 Processing stop time: 11/1/2015 11:09:37 AM (Local: UTC-7hr)
 Processing duration: 00:35:20
 Processing interval: 1 second

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To: CP118A					
Grid		Local		Global	
Easting	459098.186 m	Latitude	N42°36'12.74800"	Latitude	N42°36'12.74800"
Northing	333865.792 m	Longitude	W106°36'47.28929"	Longitude	W106°36'47.28929"
Elevation	1610.753 m	Height	1597.999 m	Height	1597.999 m

Vector					
ΔEasting	-11543.479 m	NS Fwd Azimuth	200°27'49"	ΔX	-17504.538 m
ΔNorthing	-31929.571 m	Ellipsoid Dist.	33952.523 m	ΔY	-17331.702 m
ΔElevation	-8.070 m	ΔHeight	-7.654 m	ΔZ	-23378.505 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.003 m
$\sigma \Delta$ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.005 m
$\sigma \Delta$ Elevation	0.006 m	$\sigma \Delta$ Height	0.006 m	$\sigma \Delta$ Z	0.004 m

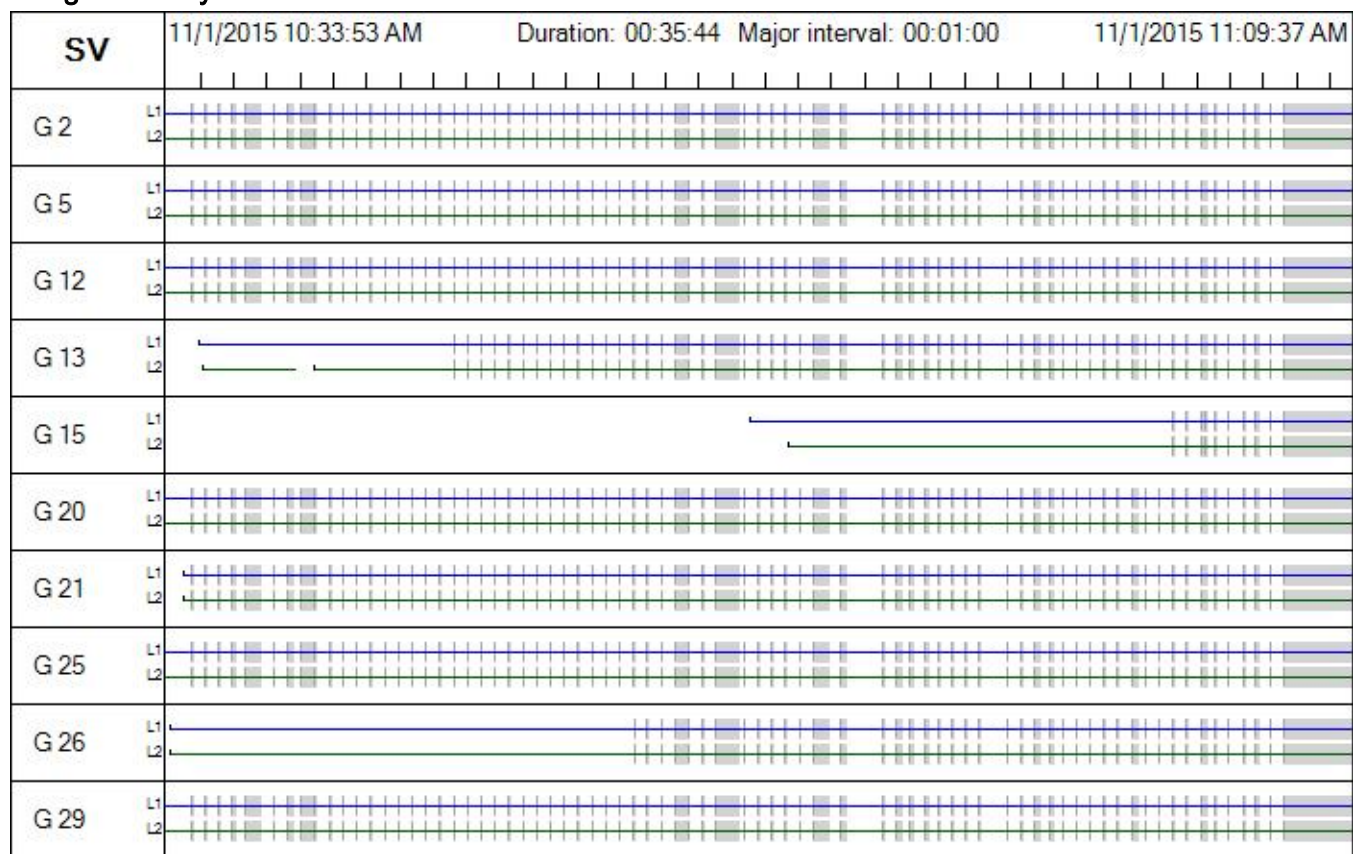
Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000069345		
Y	0.0000049734	0.0000293710	
Z	-0.0000056156	-0.0000136703	0.0000174824

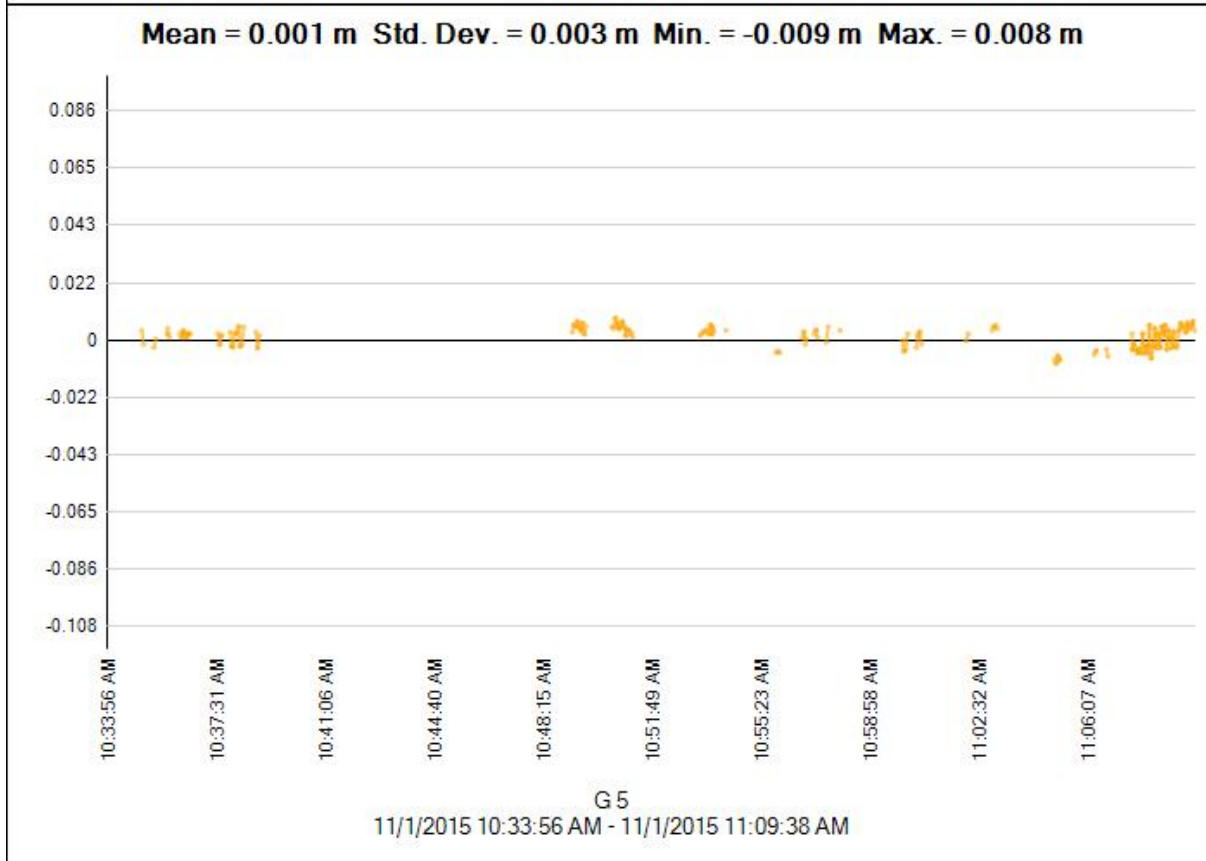
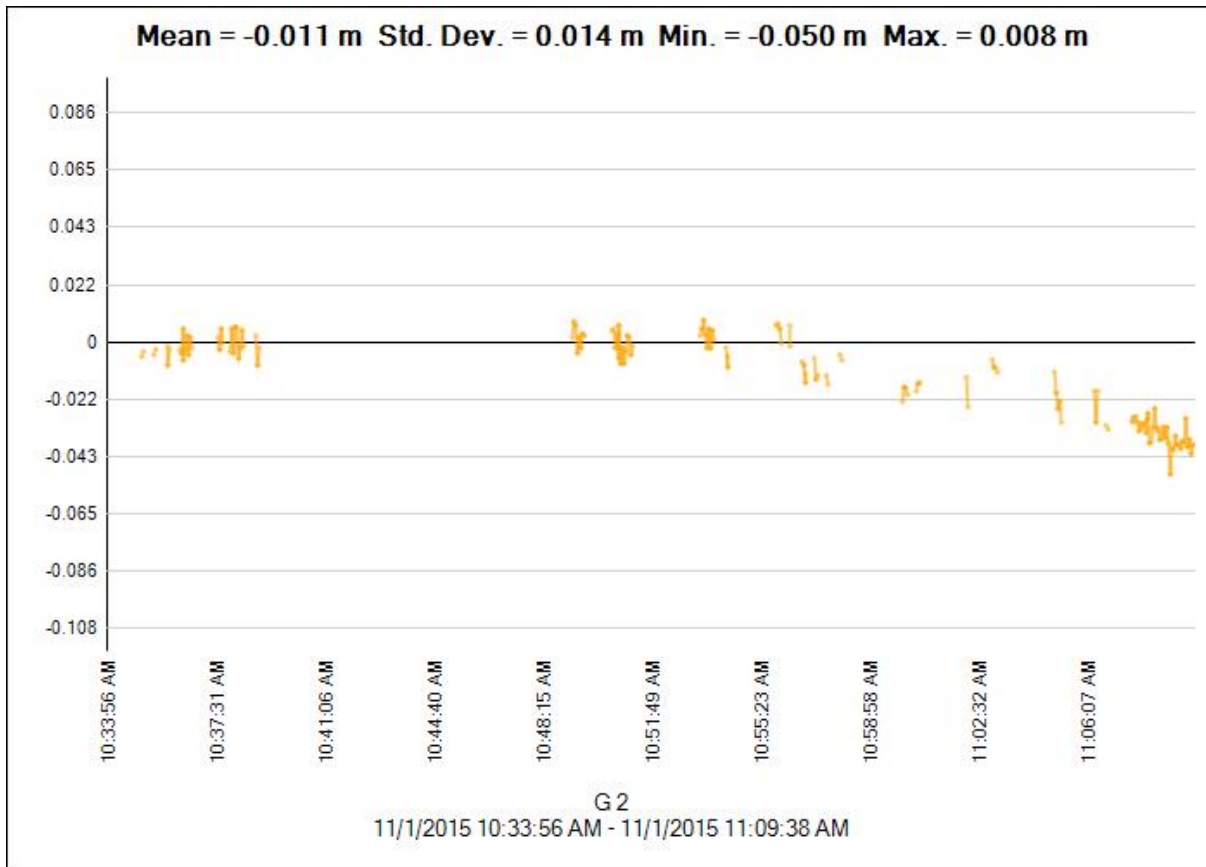
Occupations

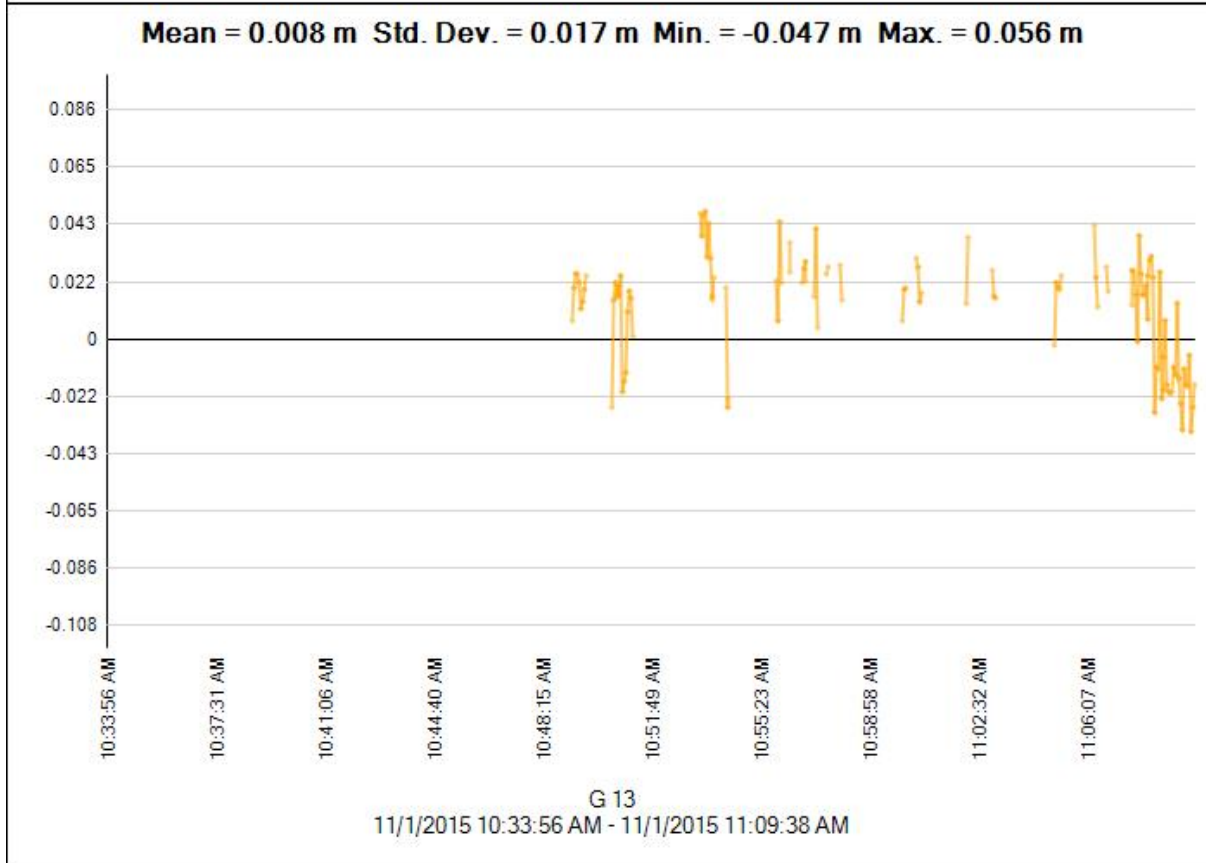
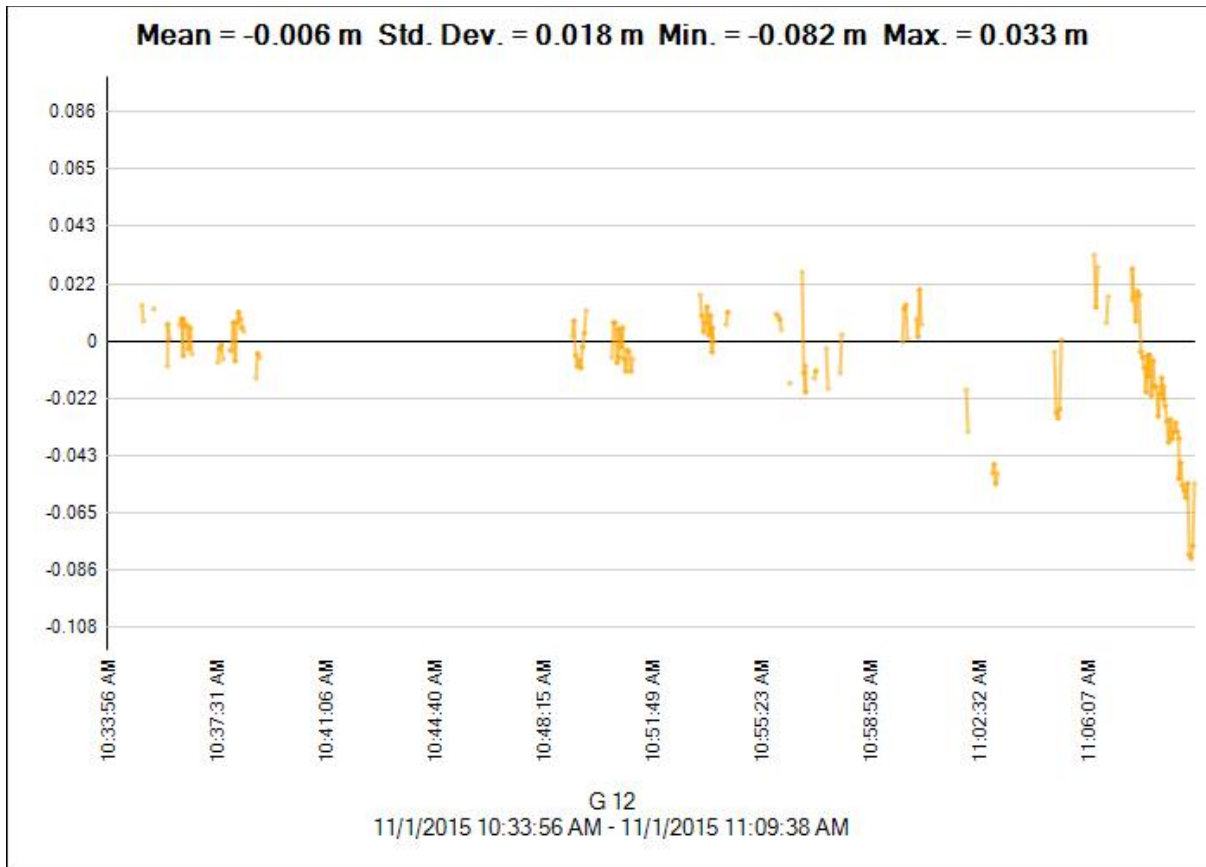
	From	To
Point ID:	NR0224	CP118A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513051.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843051.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.482 m	2.000 m
Antenna method:	Antenna Phase Center	Bottom of antenna mount

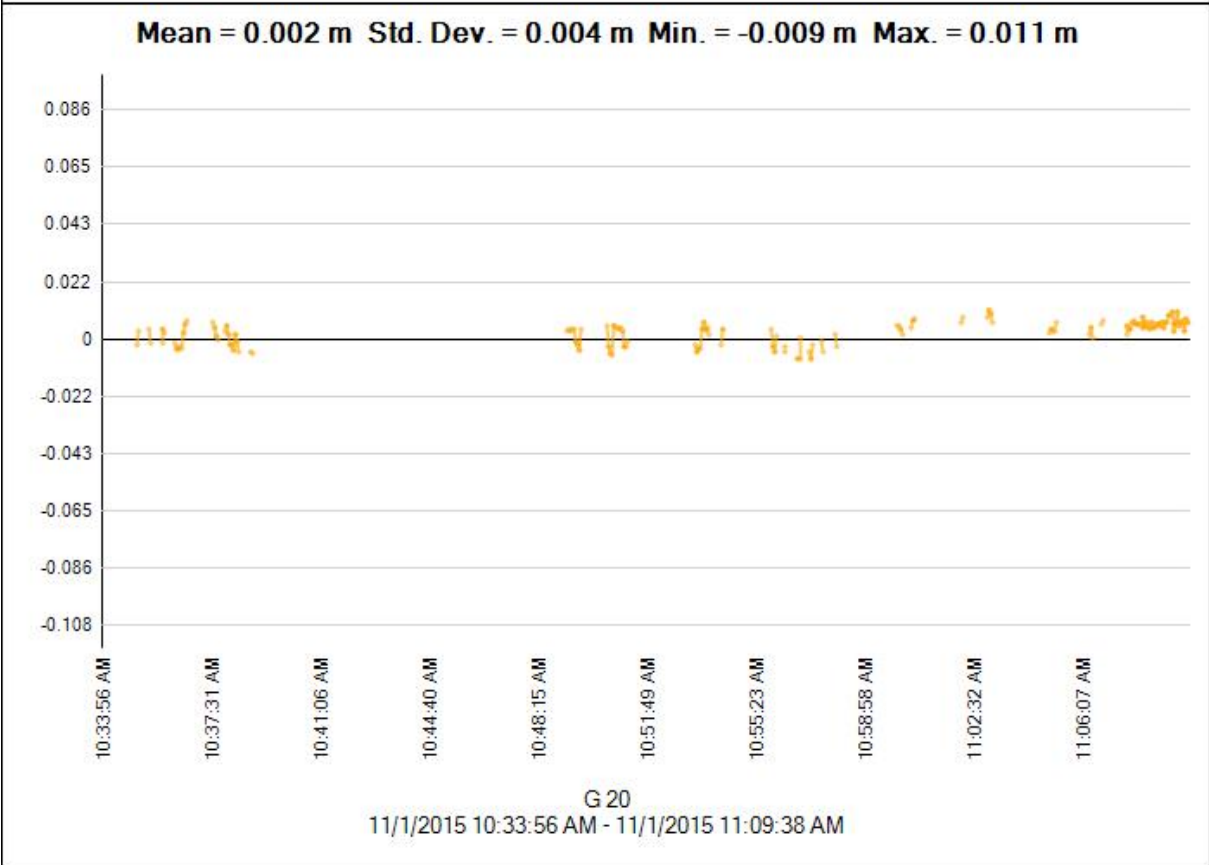
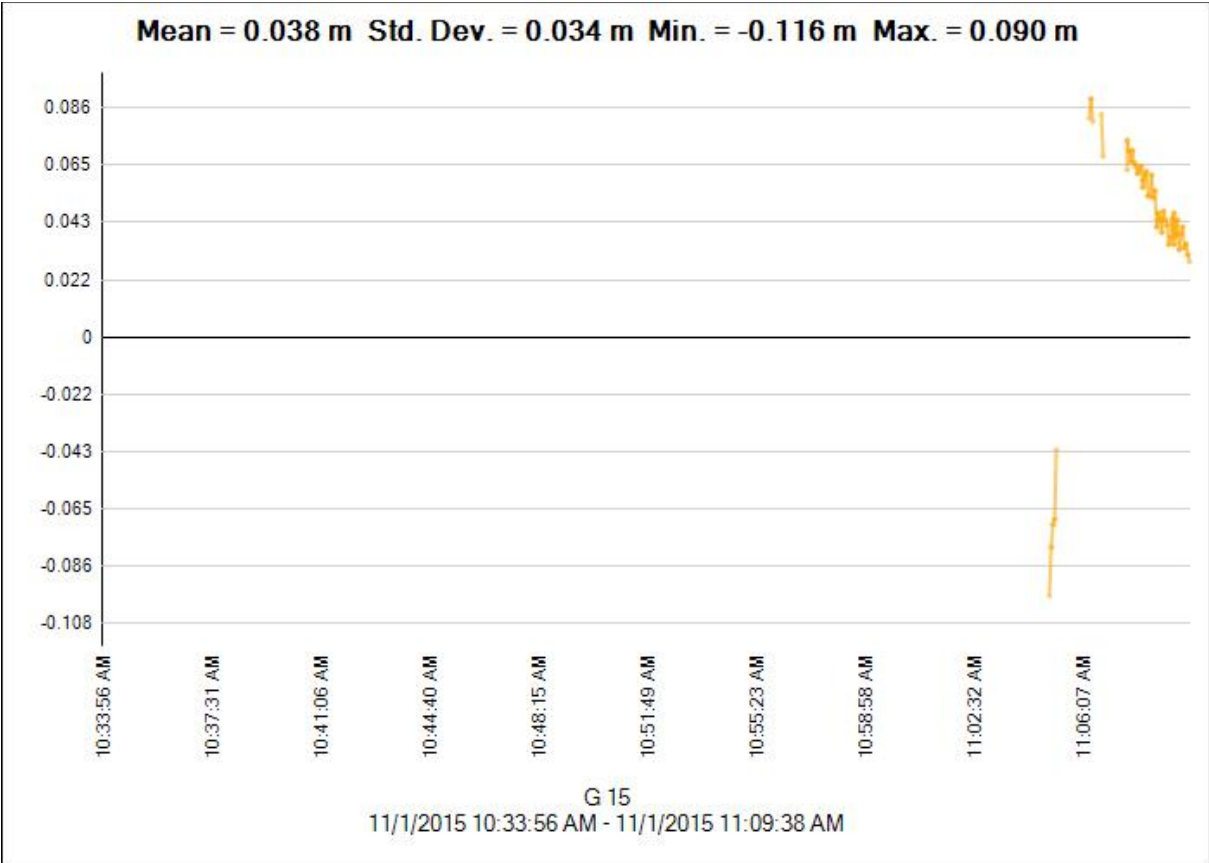
Tracking Summary

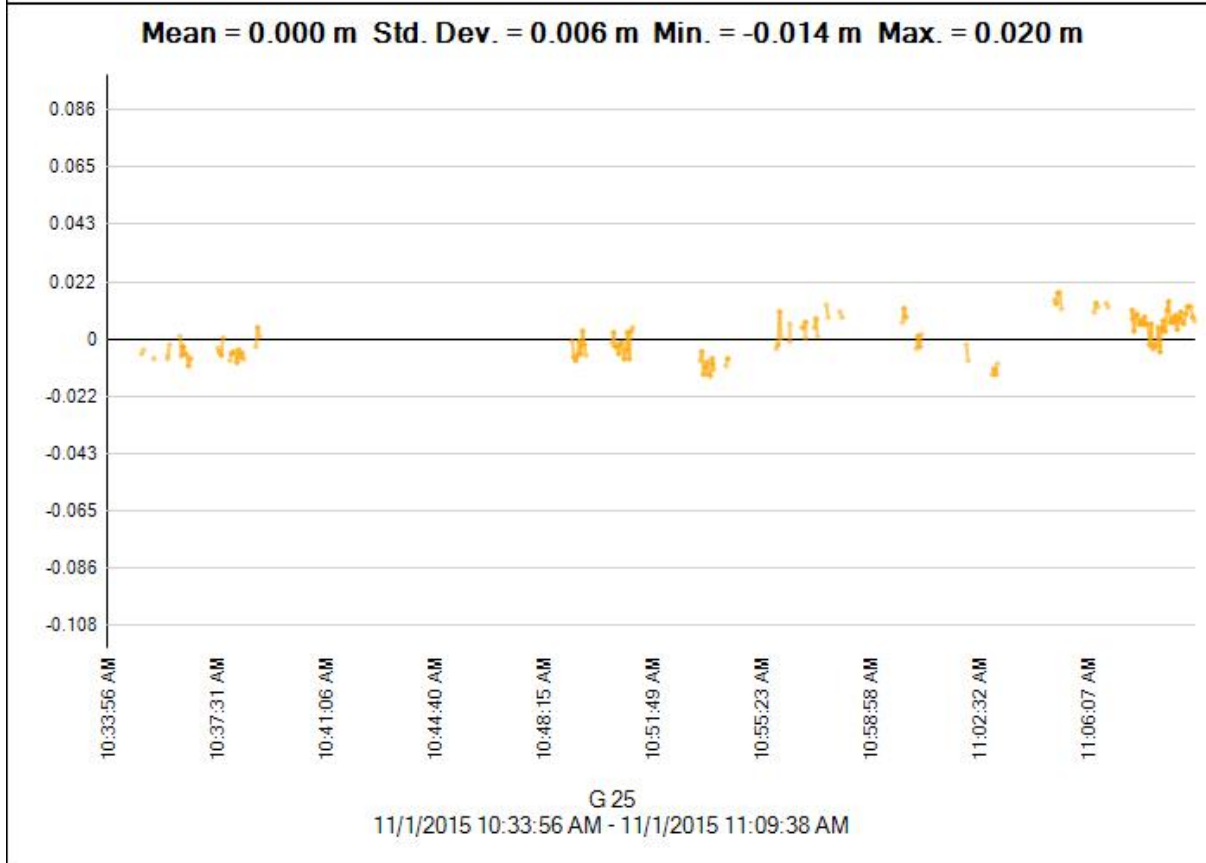
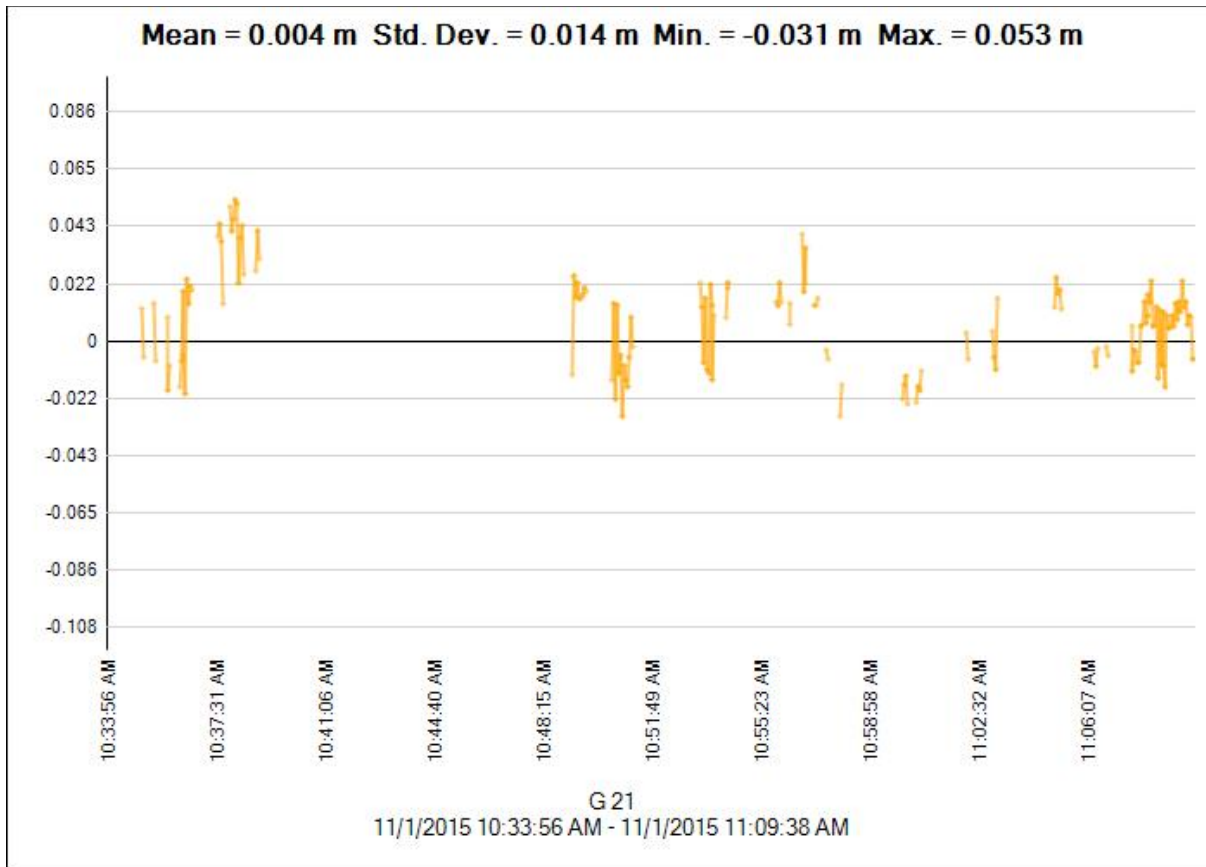


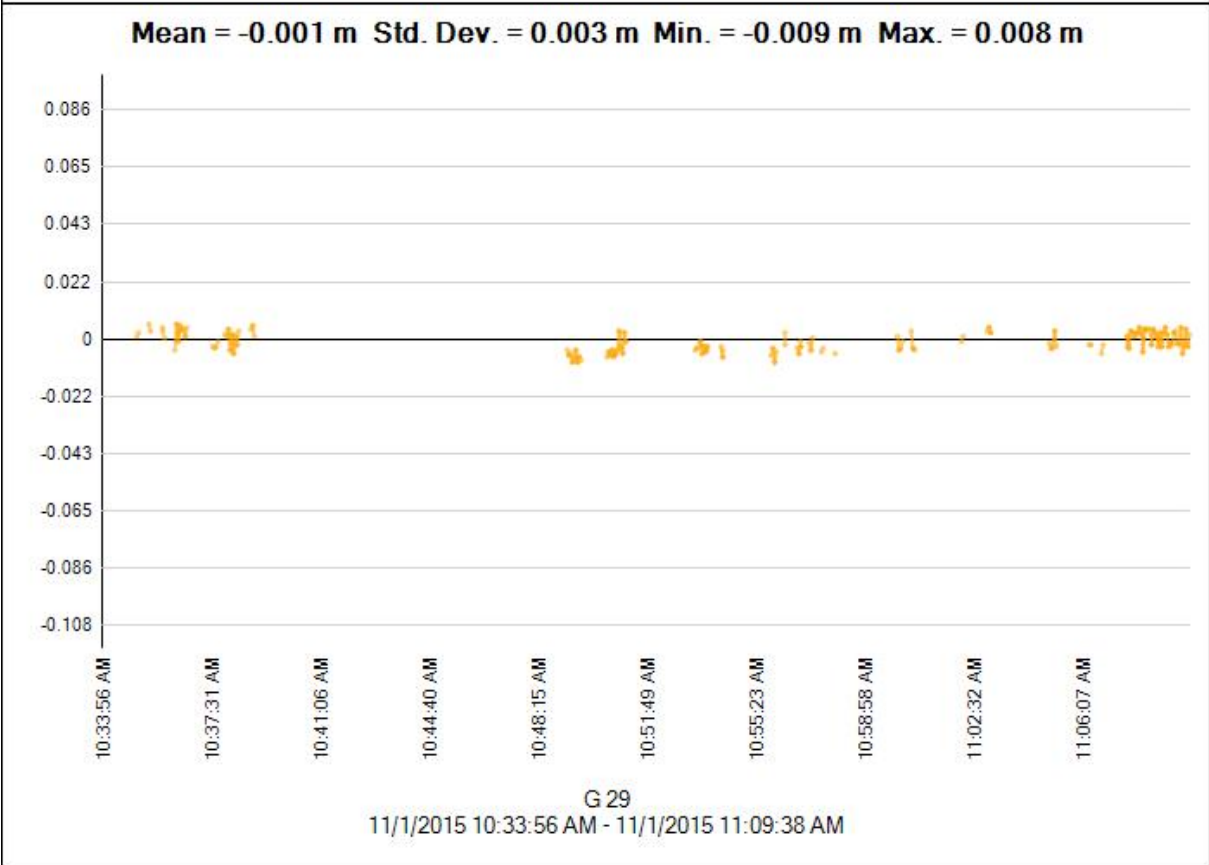
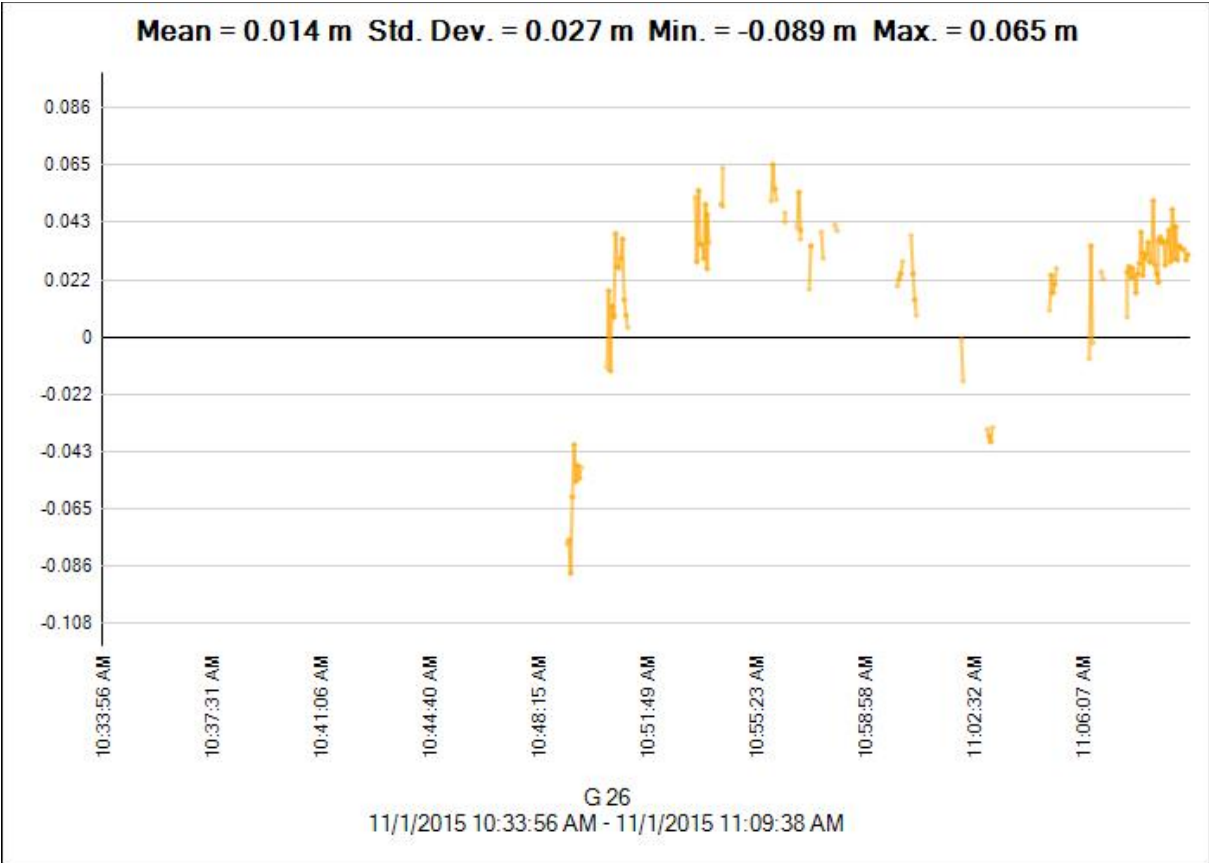
Residuals













Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP120A (12:02:52 PM-12:39:06 PM) (S50)

Baseline observation: NR0224 --- CP120A (B50)
Processed: 11/3/2015 9:40:51 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.008 m
Vertical precision: 0.010 m
RMS: 0.001 m
Maximum PDOP: 9.618
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 11/1/2015 12:02:52 PM (Local: UTC-7hr)
Processing stop time: 11/1/2015 12:39:06 PM (Local: UTC-7hr)
Processing duration: 00:36:14
Processing interval: 1 second

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To:		CP120A			
Grid		Local		Global	
Easting	470893.683 m	Latitude	N42°41'41.18561"	Latitude	N42°41'41.18560"
Northing	344111.367 m	Longitude	W106°28'05.26034"	Longitude	W106°28'05.26034"
Elevation	1764.316 m	Height	1751.736 m	Height	1751.736 m

Vector					
Δ Easting	252.019 m	NS Fwd Azimuth	179°55'18"	Δ X	-4179.361 m
Δ Northing	-21683.996 m	Ellipsoid Dist.	21685.480 m	Δ Y	-14242.444 m
Δ Elevation	145.493 m	Δ Height	146.083 m	Δ Z	-15818.178 m

Standard Errors

Vector errors:					
σ Δ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.002 m
σ Δ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	σ Δ Y	0.004 m
σ Δ Elevation	0.005 m	σ Δ Height	0.005 m	σ Δ Z	0.004 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000061025		
Y	0.0000041180	0.0000144474	
Z	-0.0000023793	-0.0000084724	0.0000198382

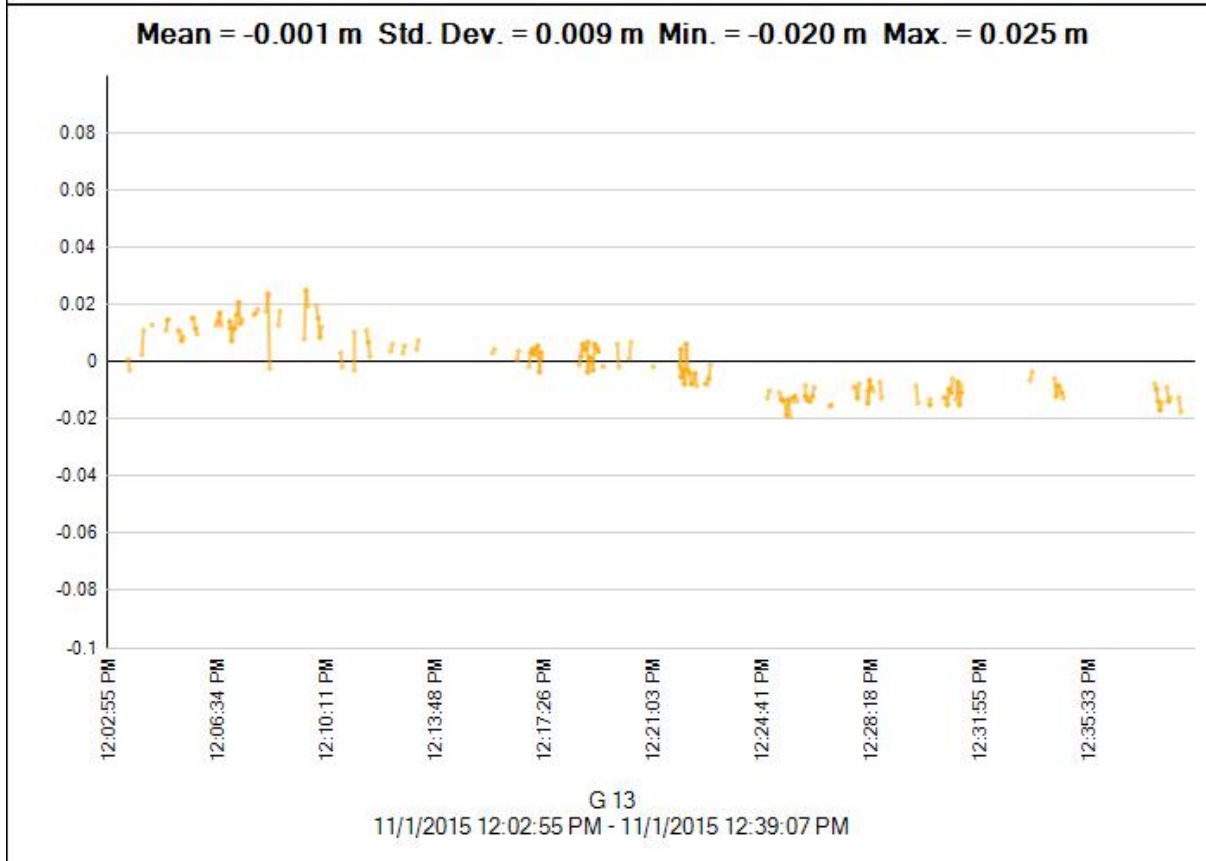
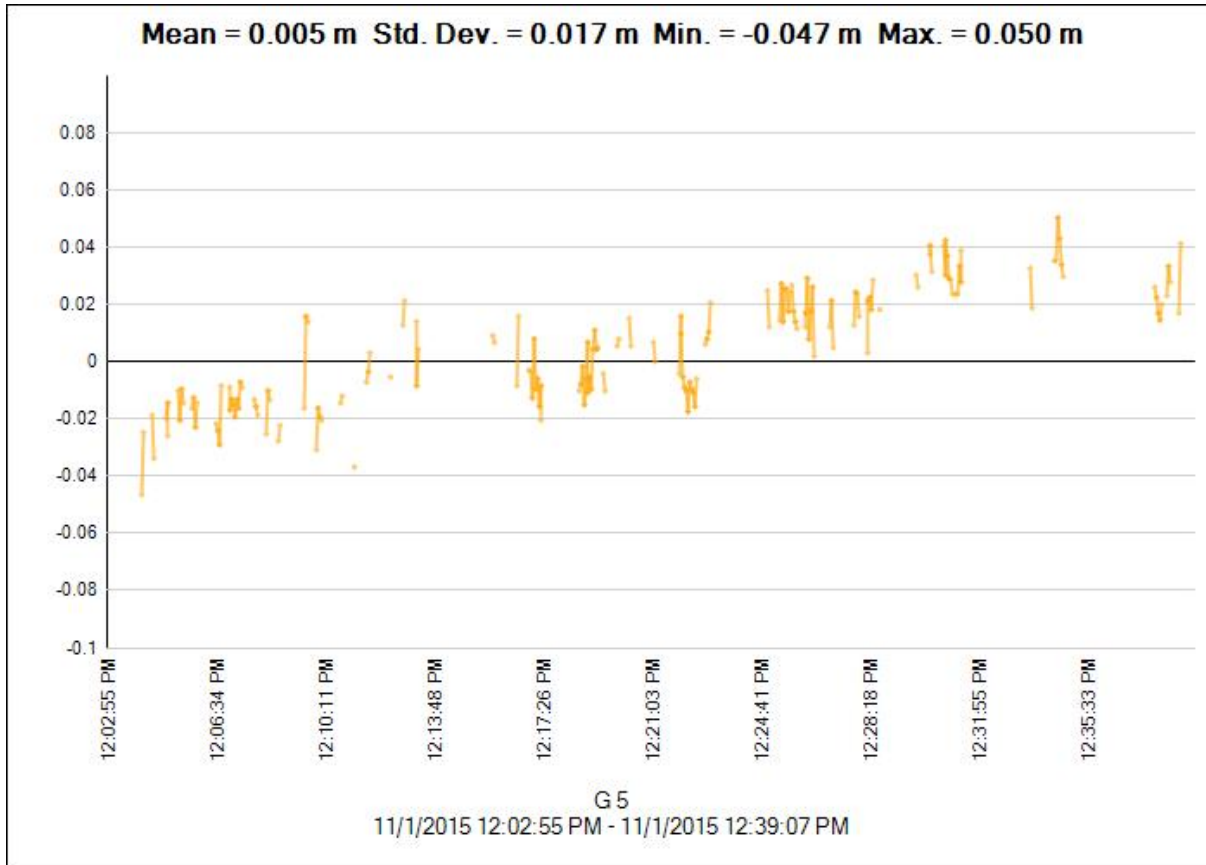
Occupations

	From	To
Point ID:	NR0224	CP120A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513051.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843052.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.482 m	1.040 m
Antenna method:	Antenna Phase Center	Bottom of antenna mount

Tracking Summary

SV	11/1/2015 12:02:52 PM	Duration: 00:36:14	Major interval: 00:01:00	11/1/2015 12:39:06 PM
G 2				
G 5				
G 13				
G 15				
G 16				
G 18				
G 20				
G 21				
G 25				
G 26				
G 29				

Residuals

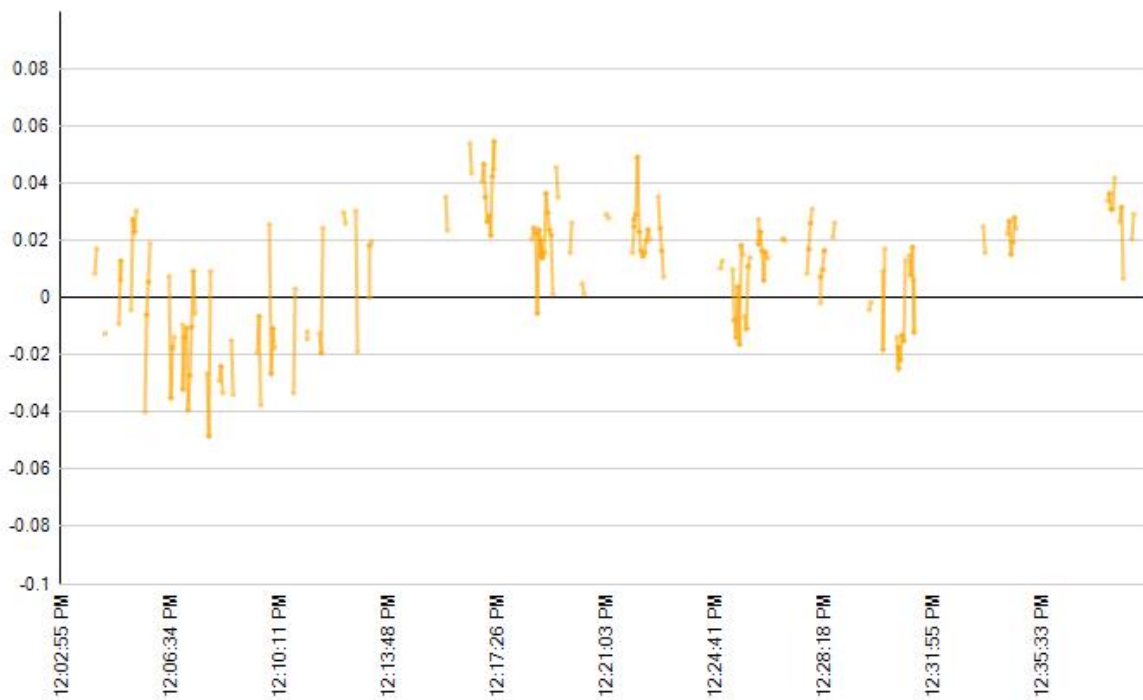


Mean = -0.003 m Std. Dev. = 0.007 m Min. = -0.038 m Max. = 0.029 m



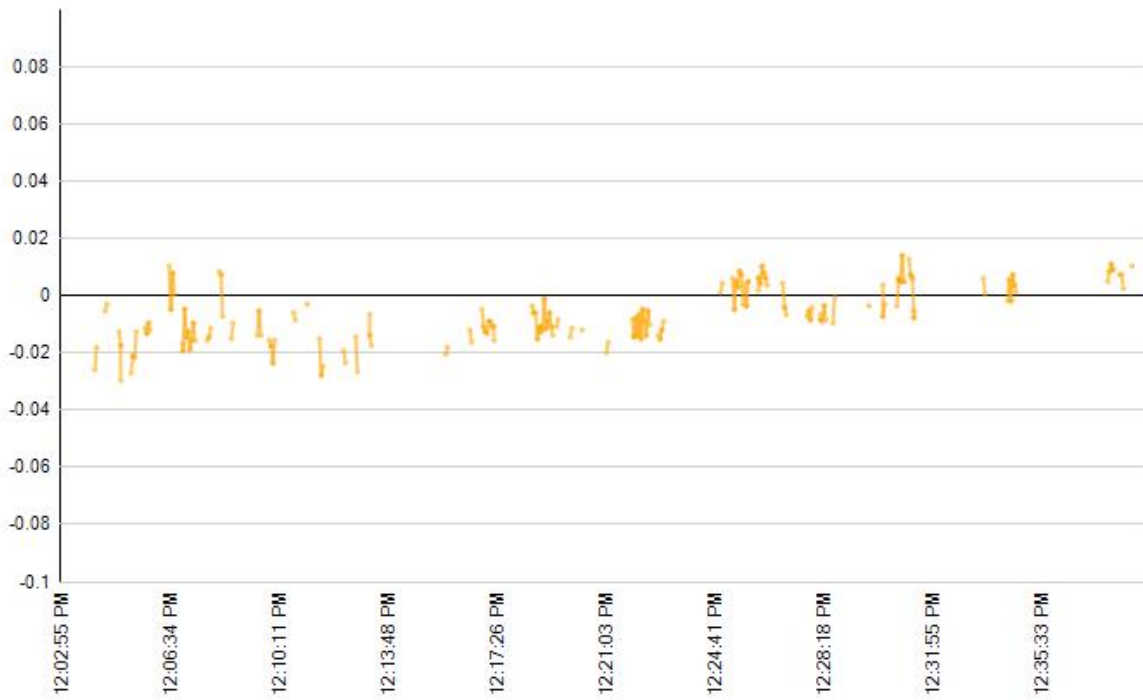
G 15
11/1/2015 12:02:55 PM - 11/1/2015 12:39:07 PM

Mean = 0.007 m Std. Dev. = 0.017 m Min. = -0.048 m Max. = 0.055 m



G 16
11/1/2015 12:02:55 PM - 11/1/2015 12:39:07 PM

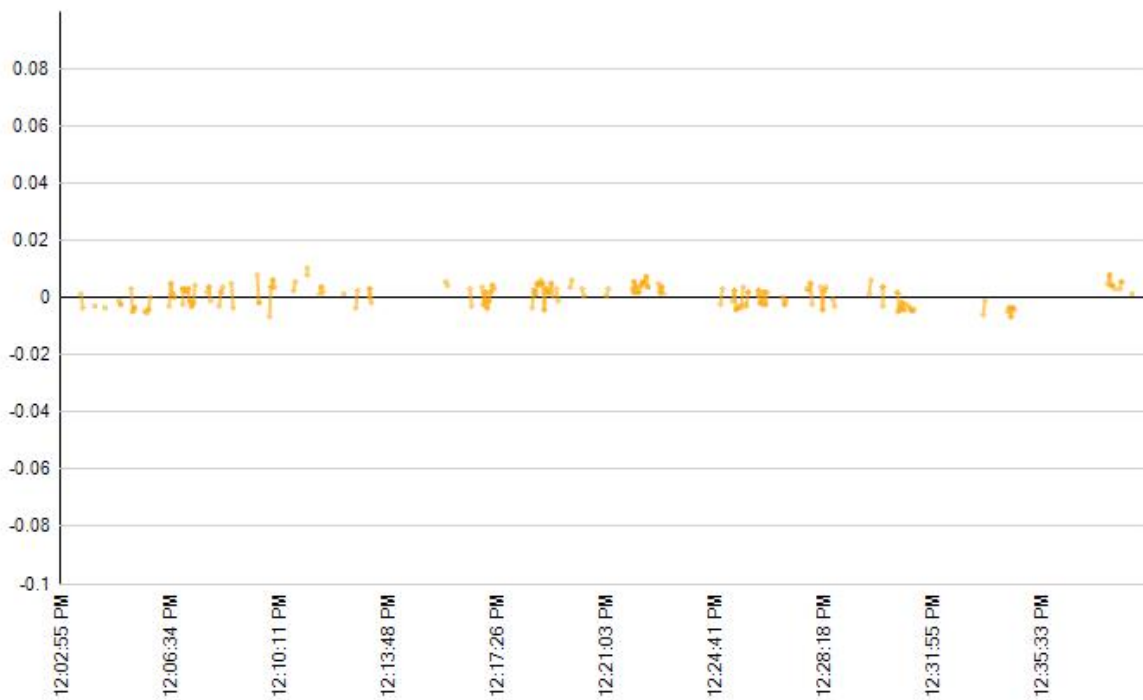
Mean = -0.005 m Std. Dev. = 0.008 m Min. = -0.030 m Max. = 0.014 m



G 18

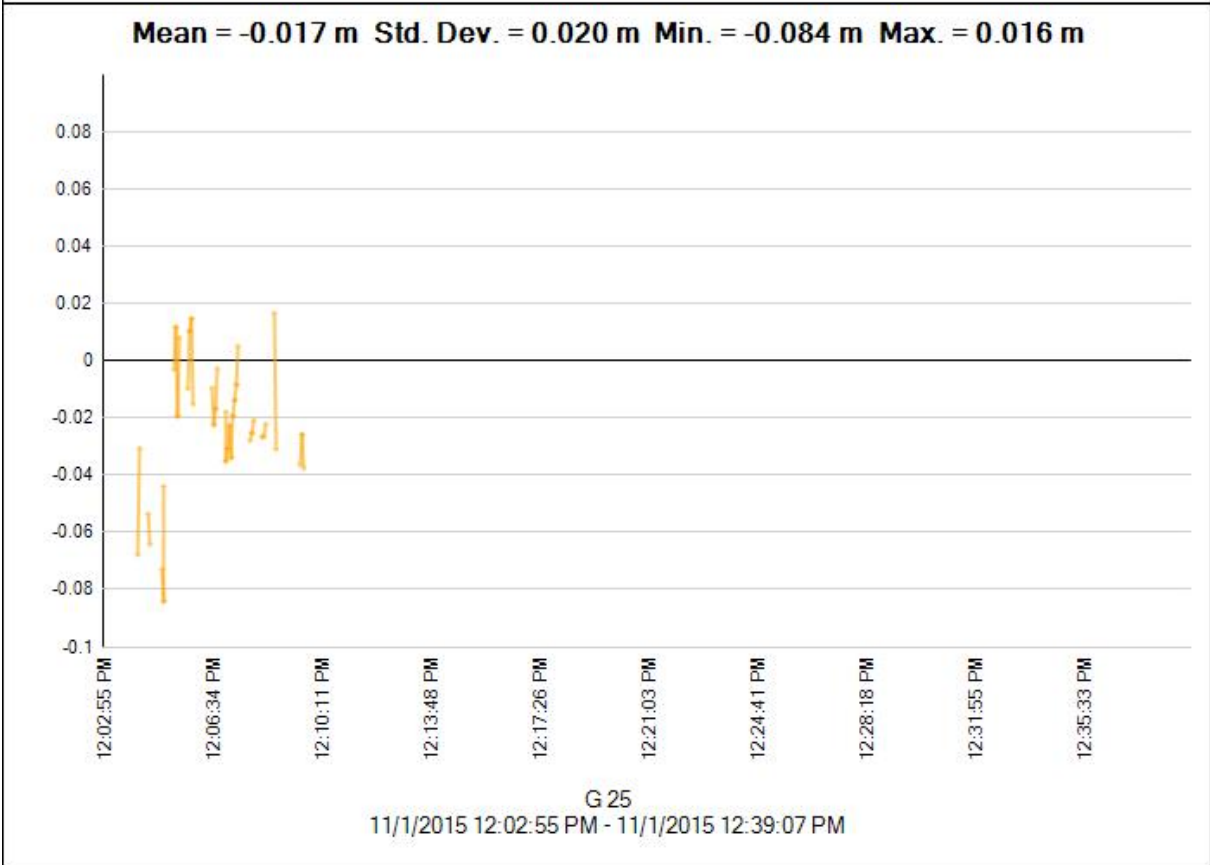
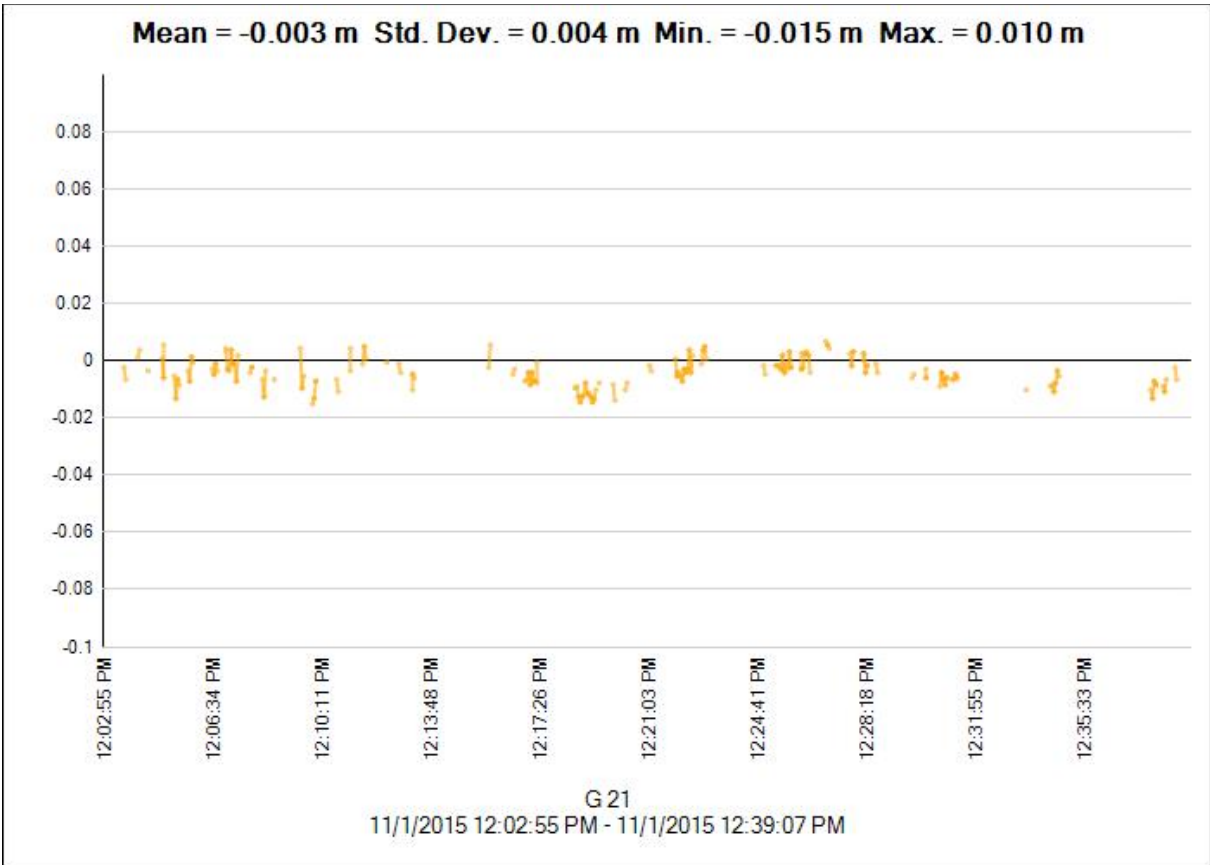
11/1/2015 12:02:55 PM - 11/1/2015 12:39:07 PM

Mean = 0.000 m Std. Dev. = 0.003 m Min. = -0.007 m Max. = 0.011 m



G 20

11/1/2015 12:02:55 PM - 11/1/2015 12:39:07 PM

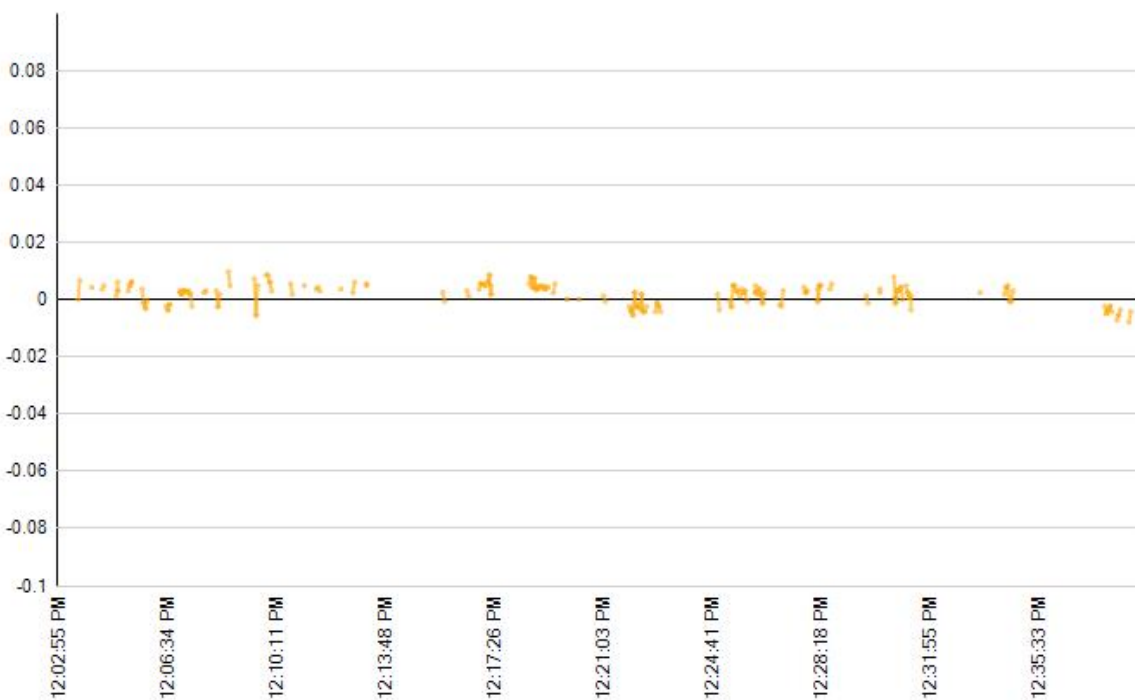


Mean = 0.015 m Std. Dev. = 0.010 m Min. = -0.014 m Max. = 0.048 m



G 26
11/1/2015 12:02:55 PM - 11/1/2015 12:39:07 PM

Mean = 0.001 m Std. Dev. = 0.003 m Min. = -0.008 m Max. = 0.009 m





G 29
11/1/2015 12:02:55 PM - 11/1/2015 12:39:07 PM

Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP101A (8:59:34 AM-9:35:42 AM) (S51)

Baseline observation: NR0224 --- CP101A (B51)
Processed: 11/3/2015 9:51:55 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.013 m
Vertical precision: 0.021 m
RMS: 0.002 m
Maximum PDOP: 2.766
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 11/2/2015 8:59:46 AM (Local: UTC-7hr)
Processing stop time: 11/2/2015 9:35:38 AM (Local: UTC-7hr)
Processing duration: 00:35:52
Processing interval: 1 second

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To:		CP101A			
Grid		Local		Global	
Easting	398621.571 m	Latitude	N43°06'58.32706"	Latitude	N43°06'58.32706"
Northing	390562.436 m	Longitude	W107°21'00.97592"	Longitude	W107°21'00.97592"
Elevation	1830.857 m	Height	1817.211 m	Height	1817.211 m

Vector					
Δ Easting	-72020.093 m	NS Fwd Azimuth	289°34'01"	Δ X	-63865.220 m
Δ Northing	24767.073 m	Ellipsoid Dist.	76162.944 m	Δ Y	37172.821 m
Δ Elevation	212.035 m	Δ Height	211.558 m	Δ Z	18528.218 m

Standard Errors

Vector errors:					
σ Δ Easting	0.004 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.005 m
σ Δ Northing	0.005 m	σ Ellipsoid Dist.	0.005 m	σ Δ Y	0.008 m
σ Δ Elevation	0.011 m	σ Δ Height	0.011 m	σ Δ Z	0.009 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000243229		
Y	0.0000138388	0.0000611065	
Z	-0.0000160219	-0.0000446552	0.0000799288

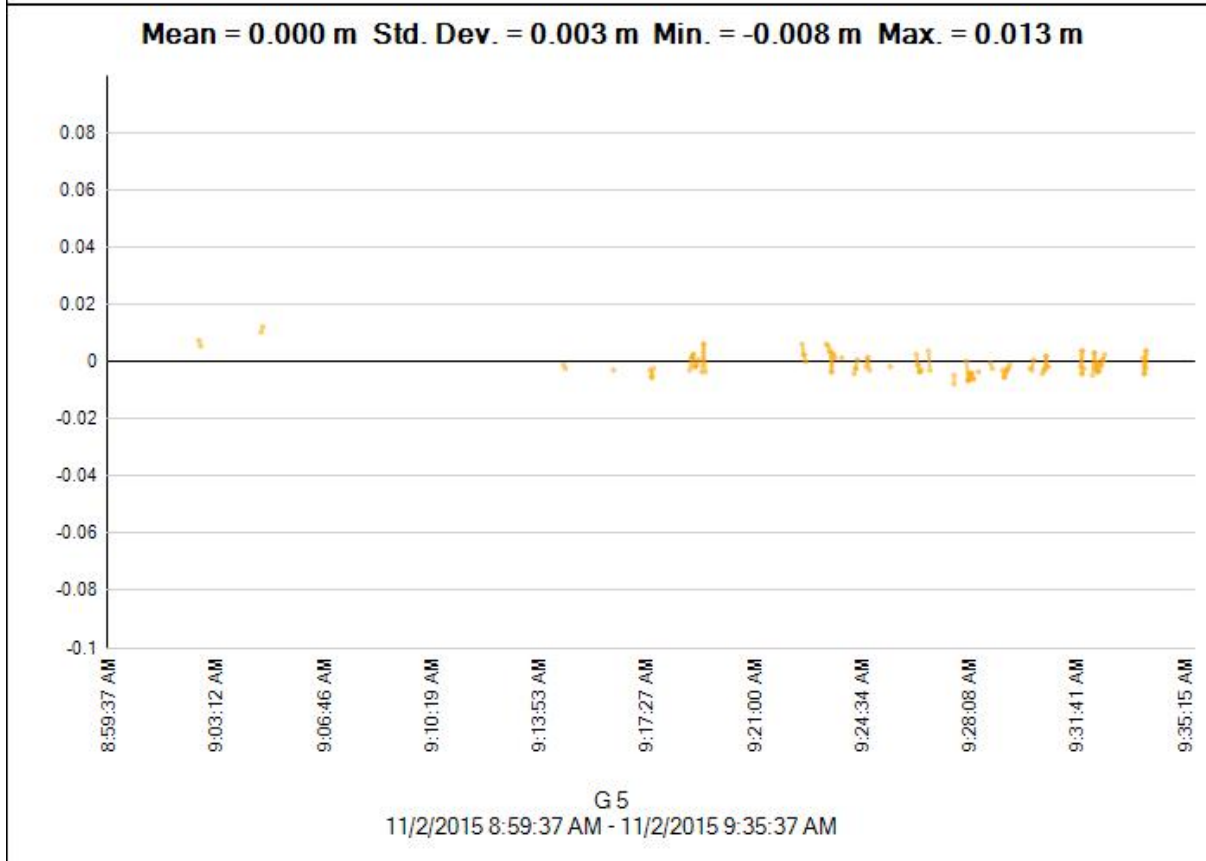
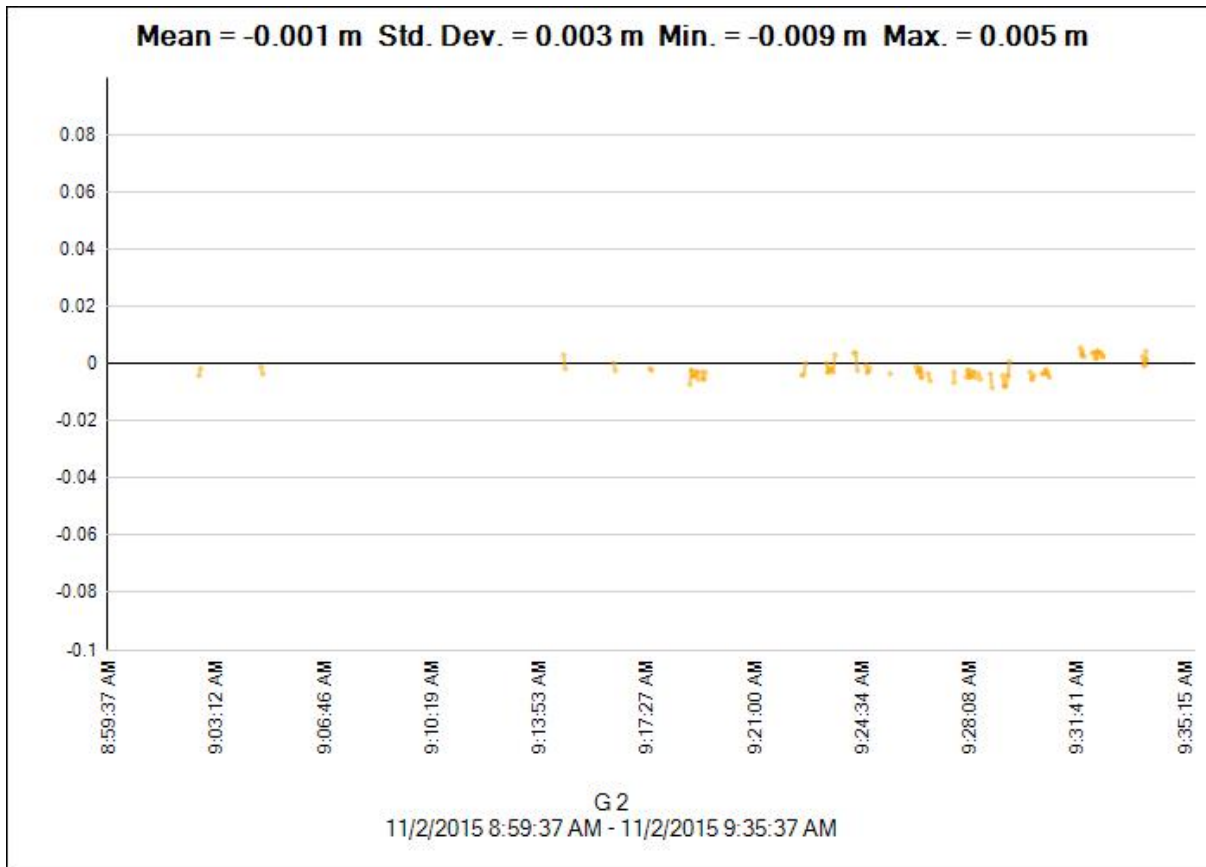
Occupations

	From	To
Point ID:	NR0224	CP101A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843061.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.486 m	1.467 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

SV	11/2/2015 8:59:34 AM	Duration: 00:36:08	Major interval: 00:01:00	11/2/2015 9:35:42 AM
G 2	L1 L2			
G 5	L1 L2			
G 6	L1 L2			
G 9	L1 L2			
G 12	L1 L2			
G 20	L1 L2			
G 24	L1			
G 25	L1 L2			
G 29	L1 L2			
G 31	L1 L2			

Residuals



Mean = 0.002 m Std. Dev. = 0.016 m Min. = -0.036 m Max. = 0.035 m

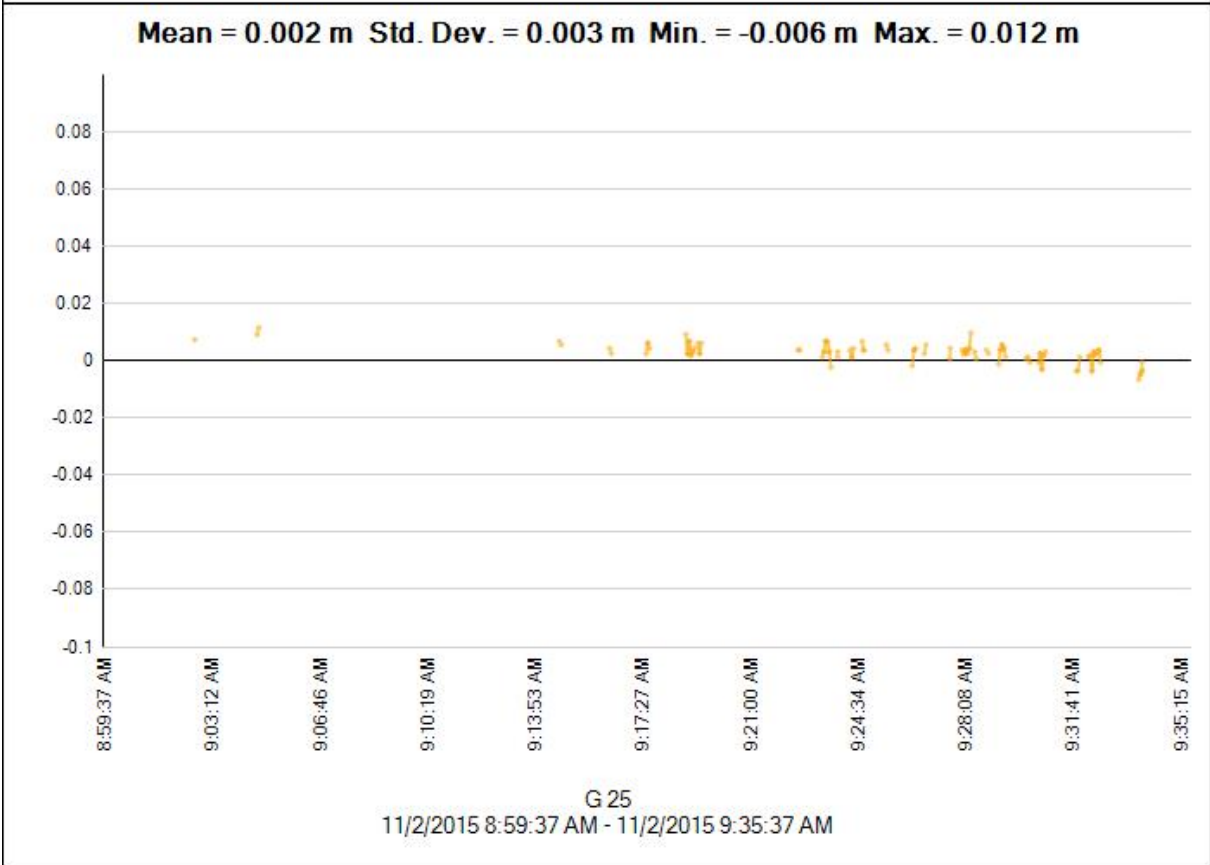
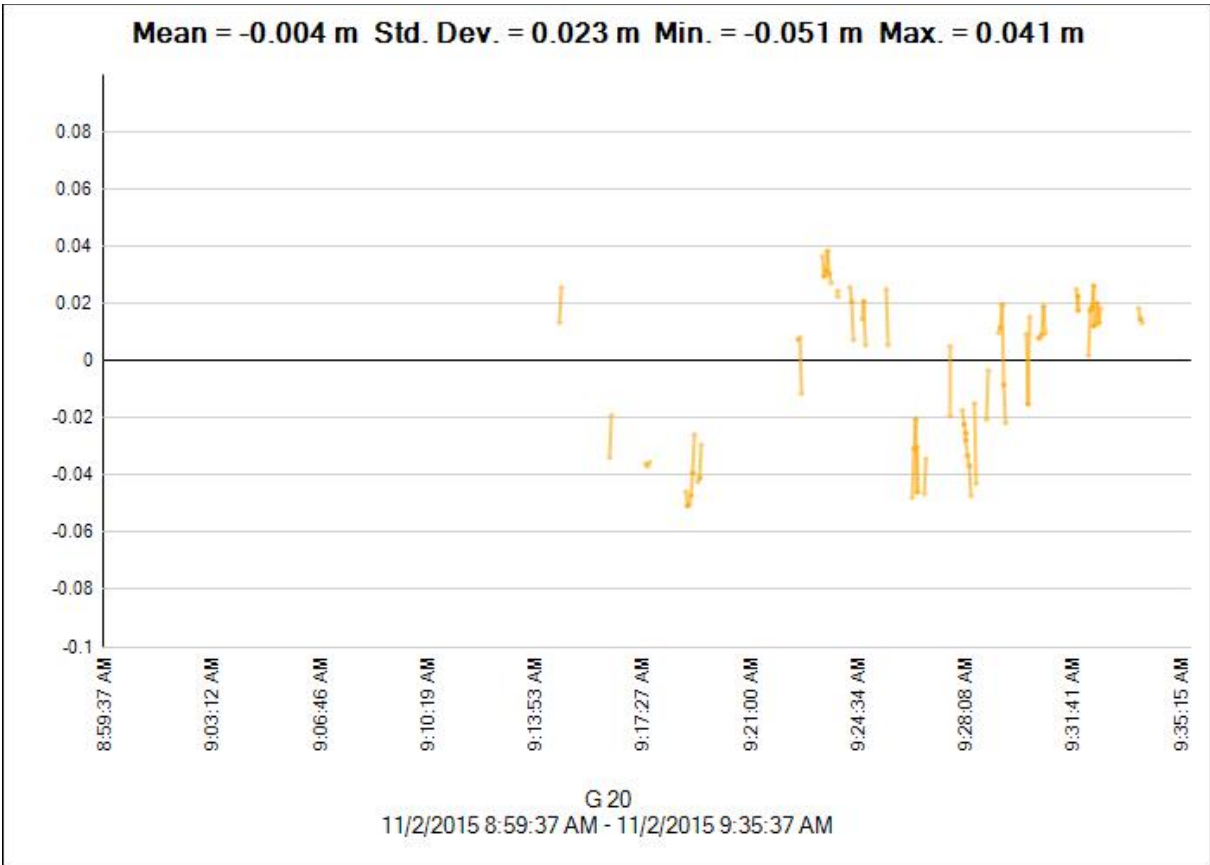


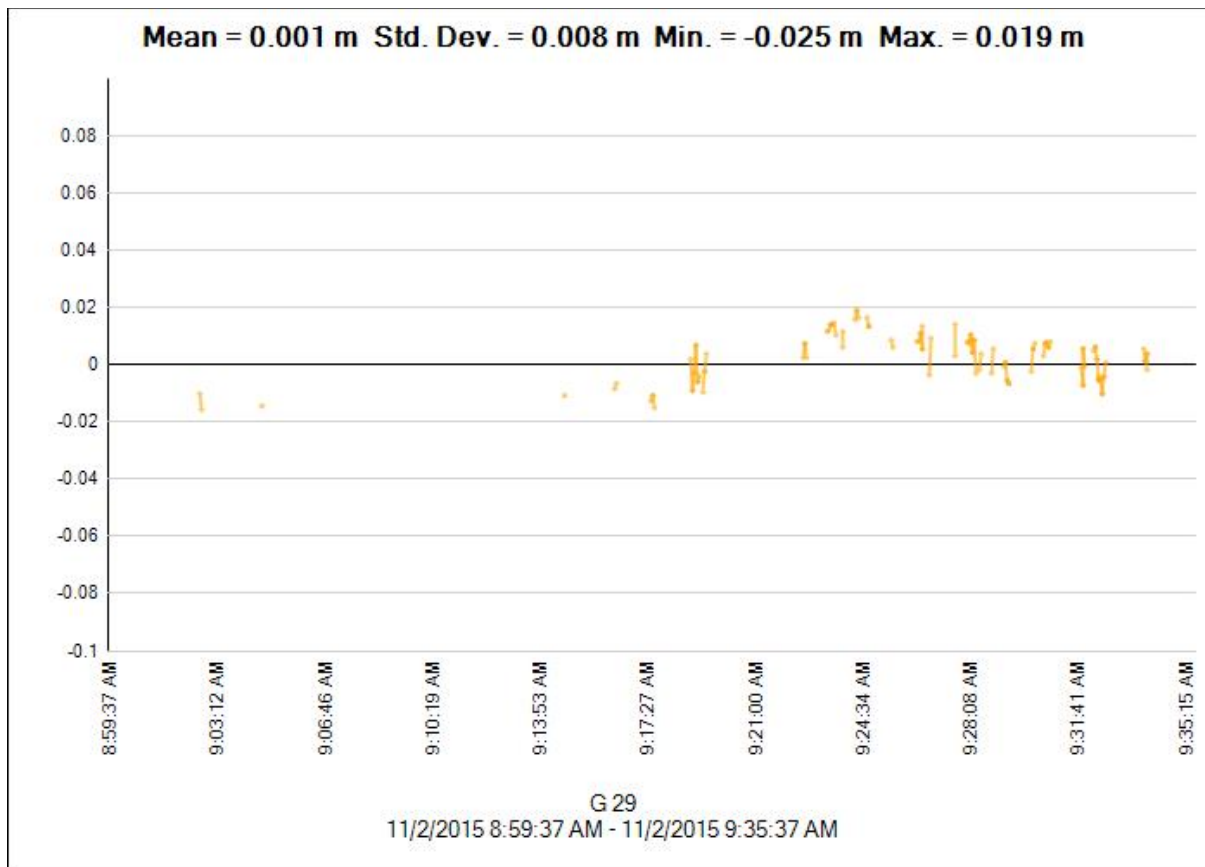
G 6
11/2/2015 8:59:37 AM - 11/2/2015 9:35:37 AM

Mean = -0.001 m Std. Dev. = 0.002 m Min. = -0.010 m Max. = 0.006 m



G 12
11/2/2015 8:59:37 AM - 11/2/2015 9:35:37 AM







Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP102A (9:50:52 AM-10:29:21 AM) (S52)

Baseline observation: NR0224 --- CP102A (B52)
 Processed: 11/3/2015 9:51:55 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.024 m
 Vertical precision: 0.040 m
 RMS: 0.001 m
 Maximum PDOP: 4.366
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 11/2/2015 9:51:16 AM (Local: UTC-7hr)
 Processing stop time: 11/2/2015 10:29:11 AM (Local: UTC-7hr)
 Processing duration: 00:37:55
 Processing interval: 1 second

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To: CP102A					
Grid		Local		Global	
Easting	399550.714 m	Latitude	N43°06'21.88078"	Latitude	N43°06'21.88077"
Northing	389437.661 m	Longitude	W107°20'19.87125"	Longitude	W107°20'19.87125"
Elevation	1832.194 m	Height	1818.560 m	Height	1818.560 m

Vector					
ΔEasting	-71090.950 m	NS Fwd Azimuth	288°59'05"	ΔX	-63207.382 m
ΔNorthing	23642.298 m	Ellipsoid Dist.	74922.326 m	ΔY	36160.836 m
ΔElevation	213.372 m	ΔHeight	212.907 m	ΔZ	17707.826 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.010 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.009 m
$\sigma \Delta$ Northing	0.005 m	σ Ellipsoid Dist.	0.009 m	$\sigma \Delta$ Y	0.016 m
$\sigma \Delta$ Elevation	0.020 m	$\sigma \Delta$ Height	0.020 m	$\sigma \Delta$ Z	0.014 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000860002		
Y	0.0000099445	0.0002694319	
Z	-0.0000131225	-0.0001969273	0.0001892697

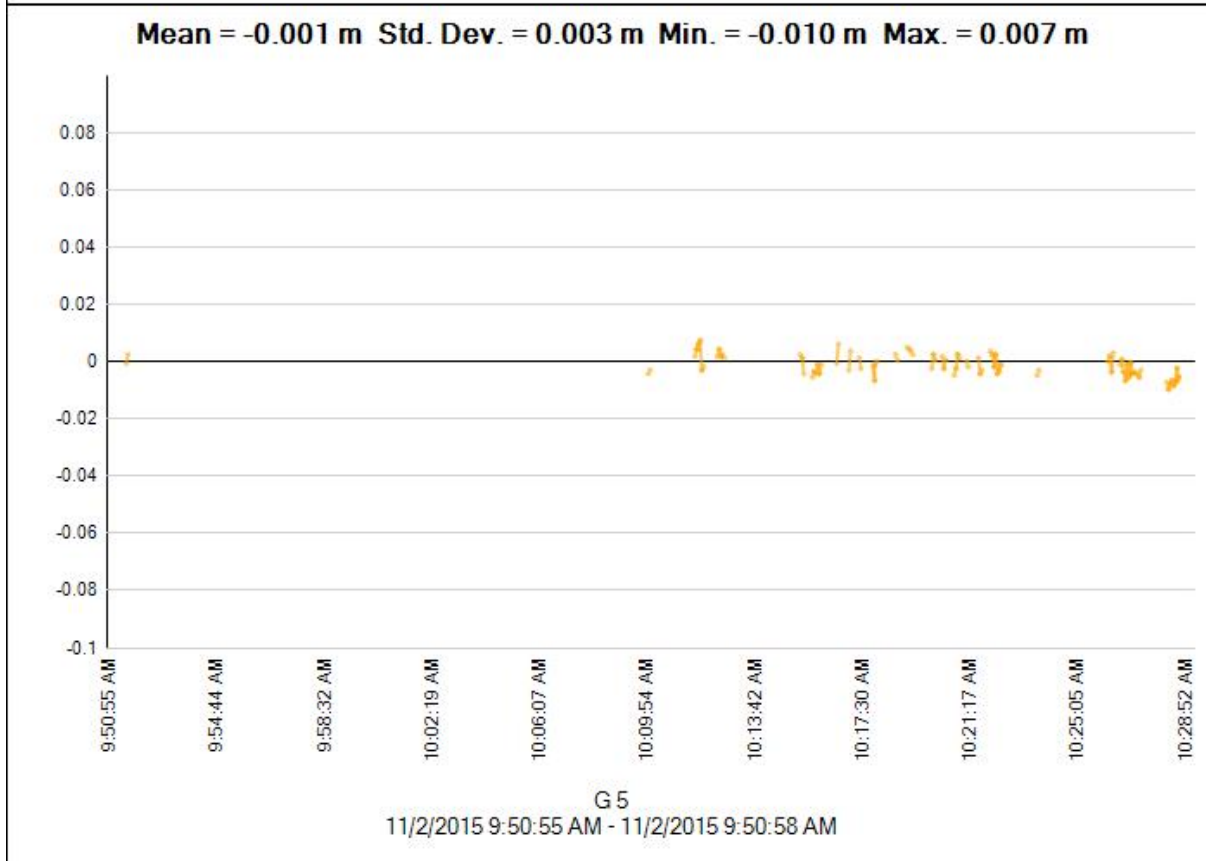
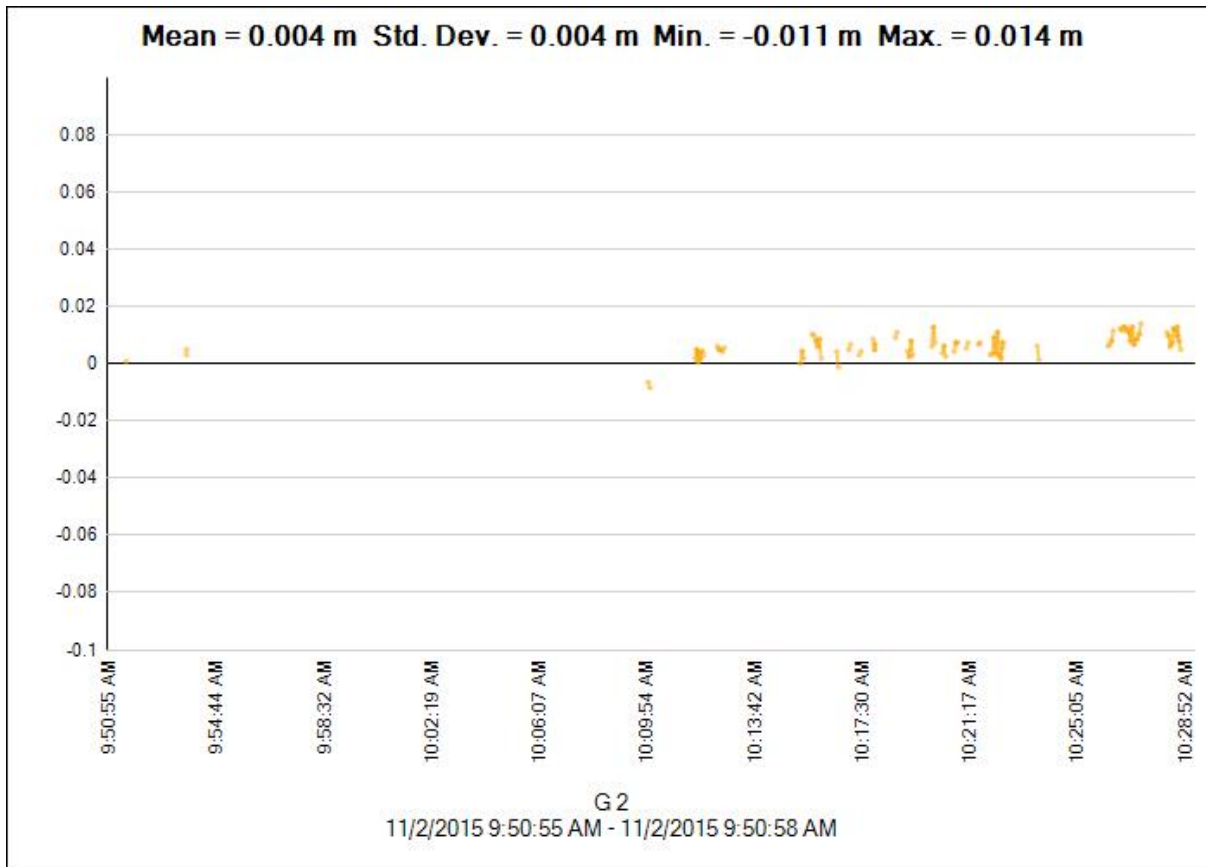
Occupations

	From	To
Point ID:	NR0224	CP102A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843062.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.486 m	2.000 m
Antenna method:	Antenna Phase Center	Bottom of antenna mount

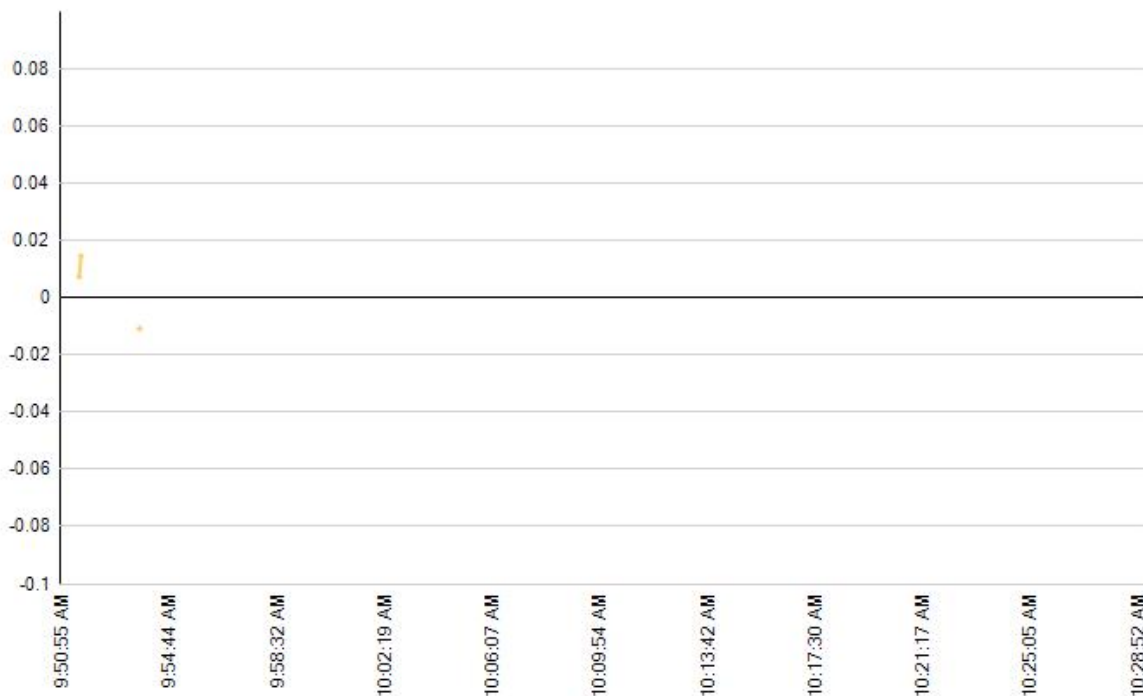
Tracking Summary

SV	11/2/2015 9:50:52 AM	Duration: 00:38:29	Major interval: 00:01:00	11/2/2015 10:29:21 AM
G 2				
G 5				
G 6				
G 9				
G 12				
G 13				
G 20				
G 21				
G 25				
G 26				
G 29				
G 31				

Residuals

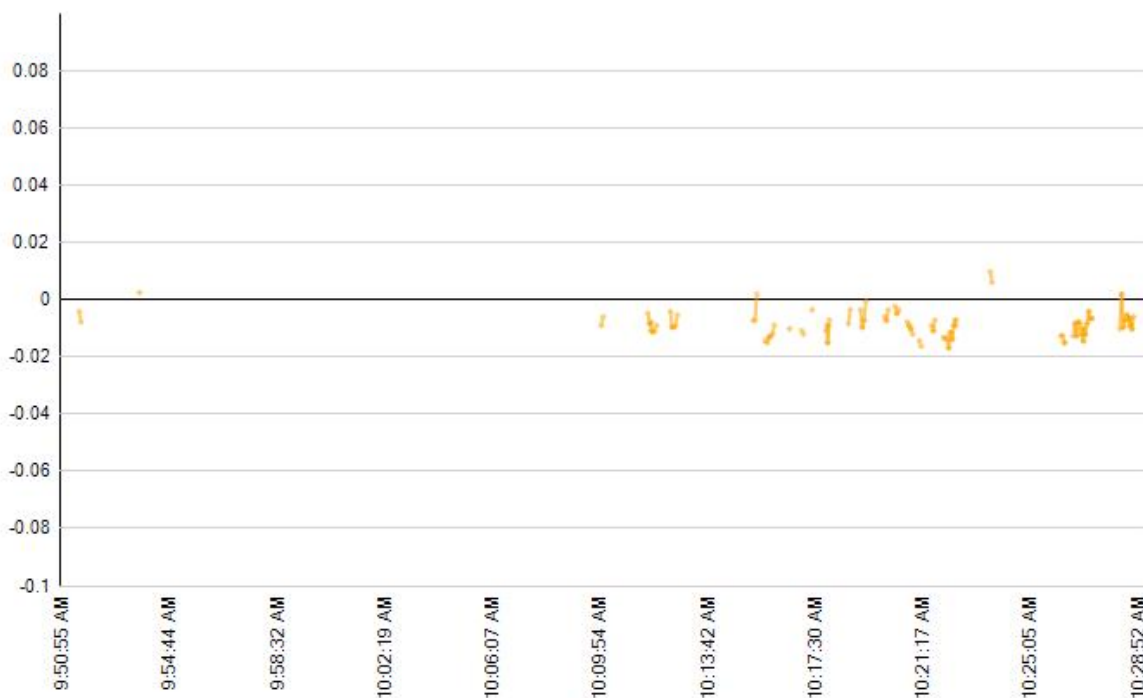


Mean = 0.000 m Std. Dev. = 0.018 m Min. = -0.032 m Max. = 0.046 m

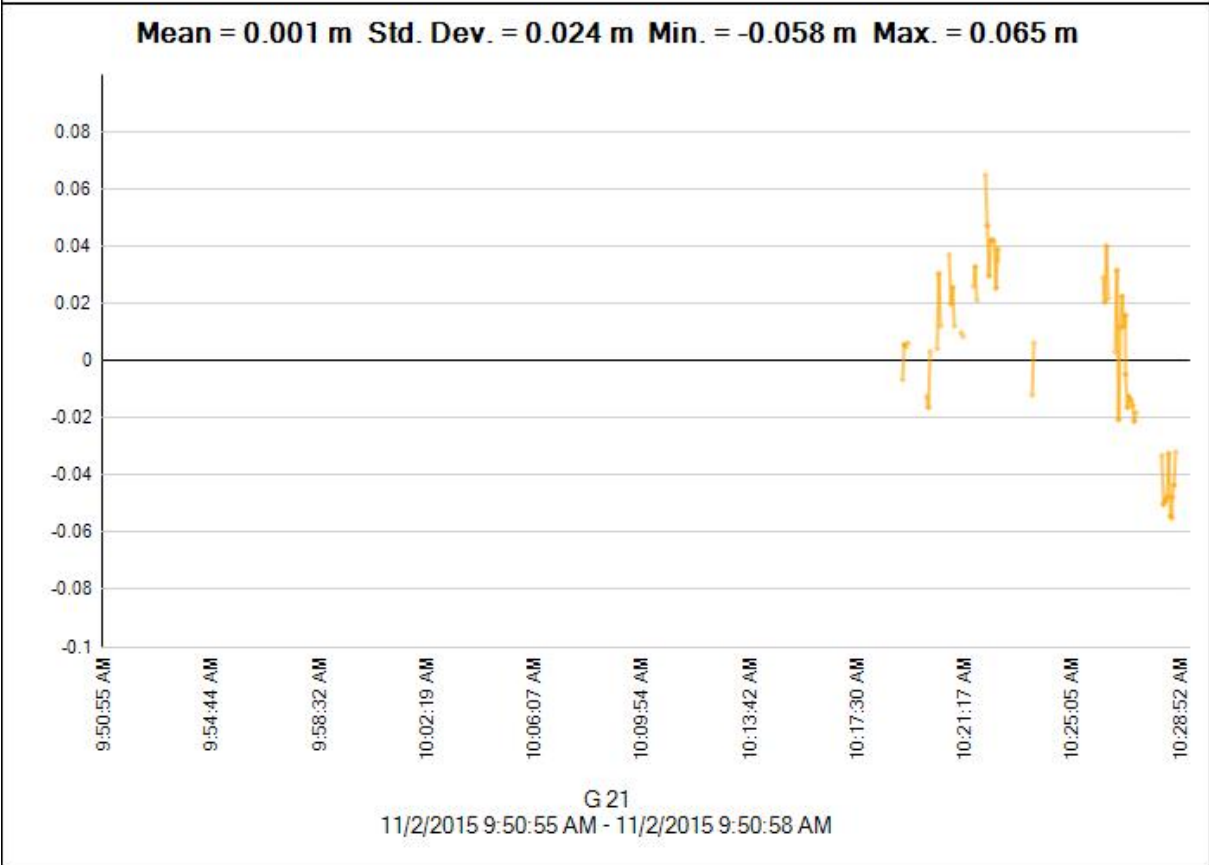
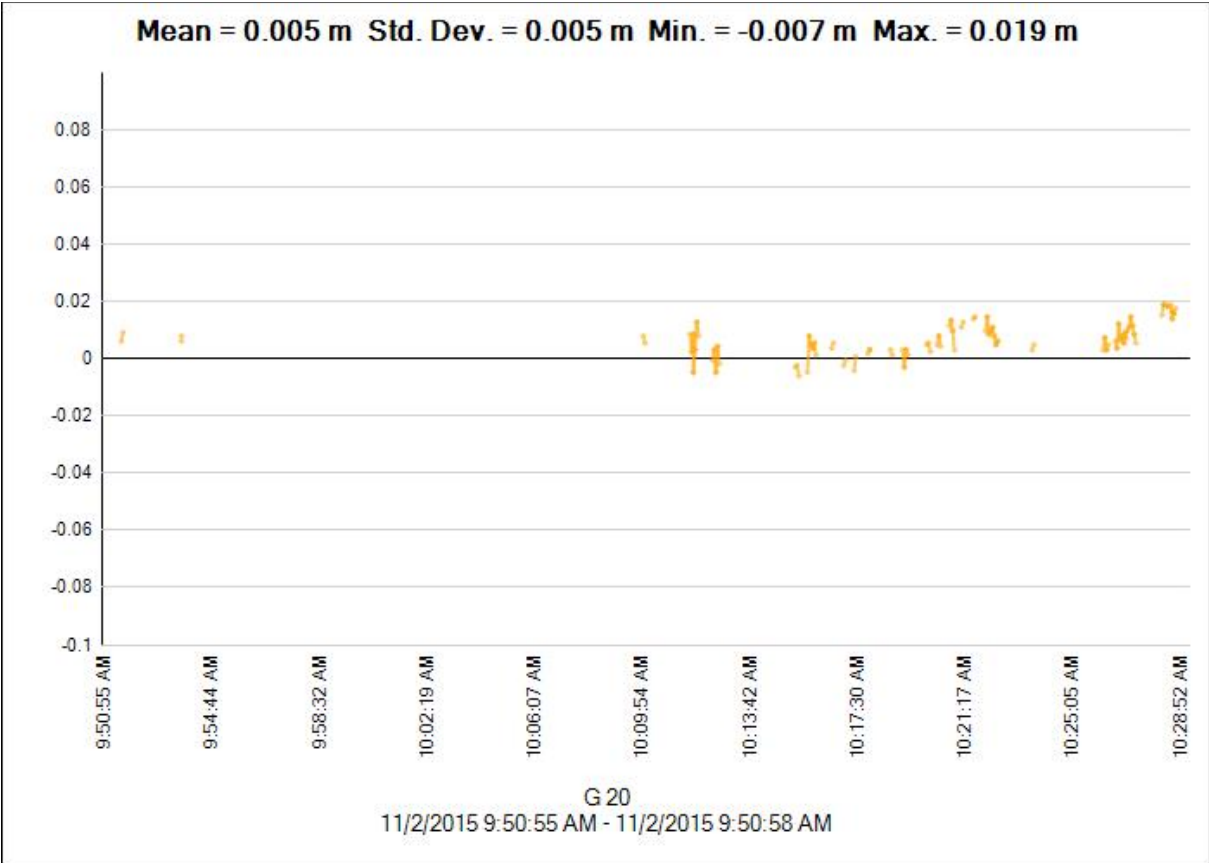


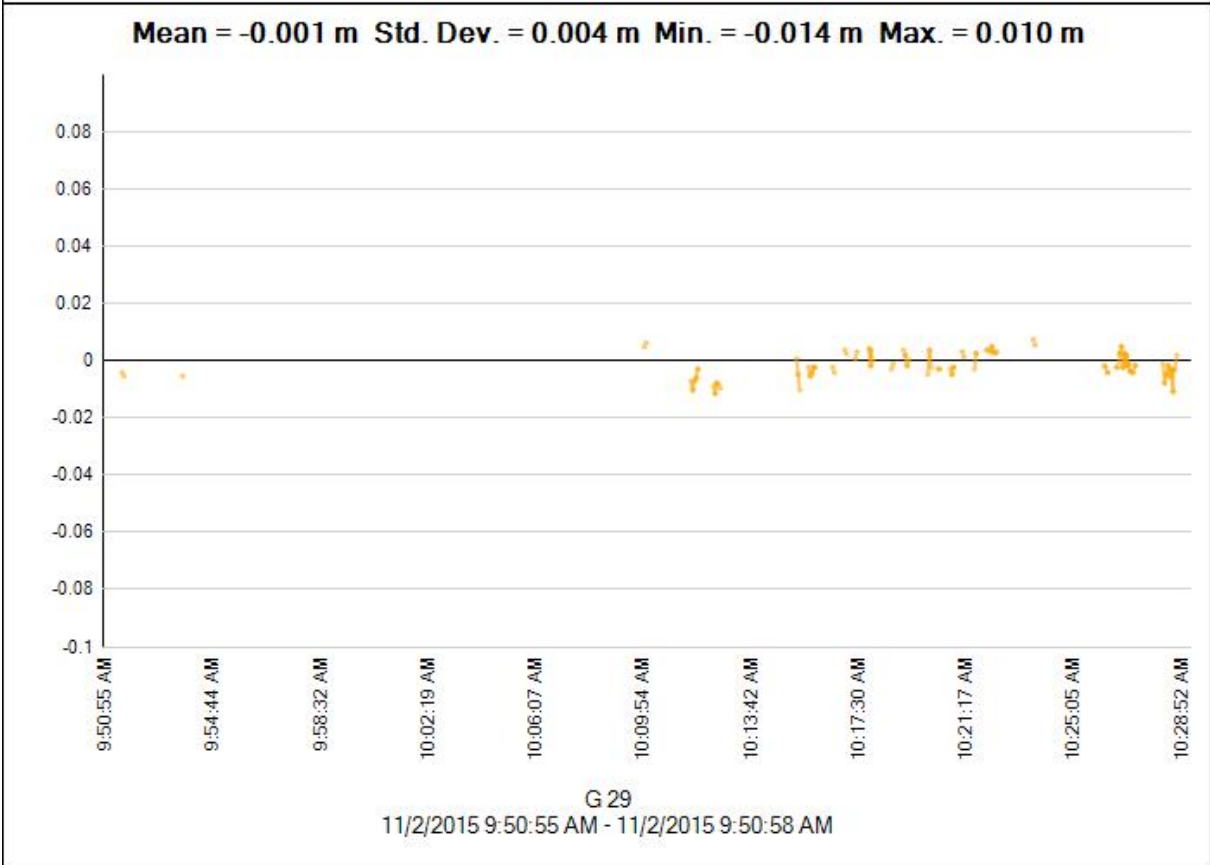
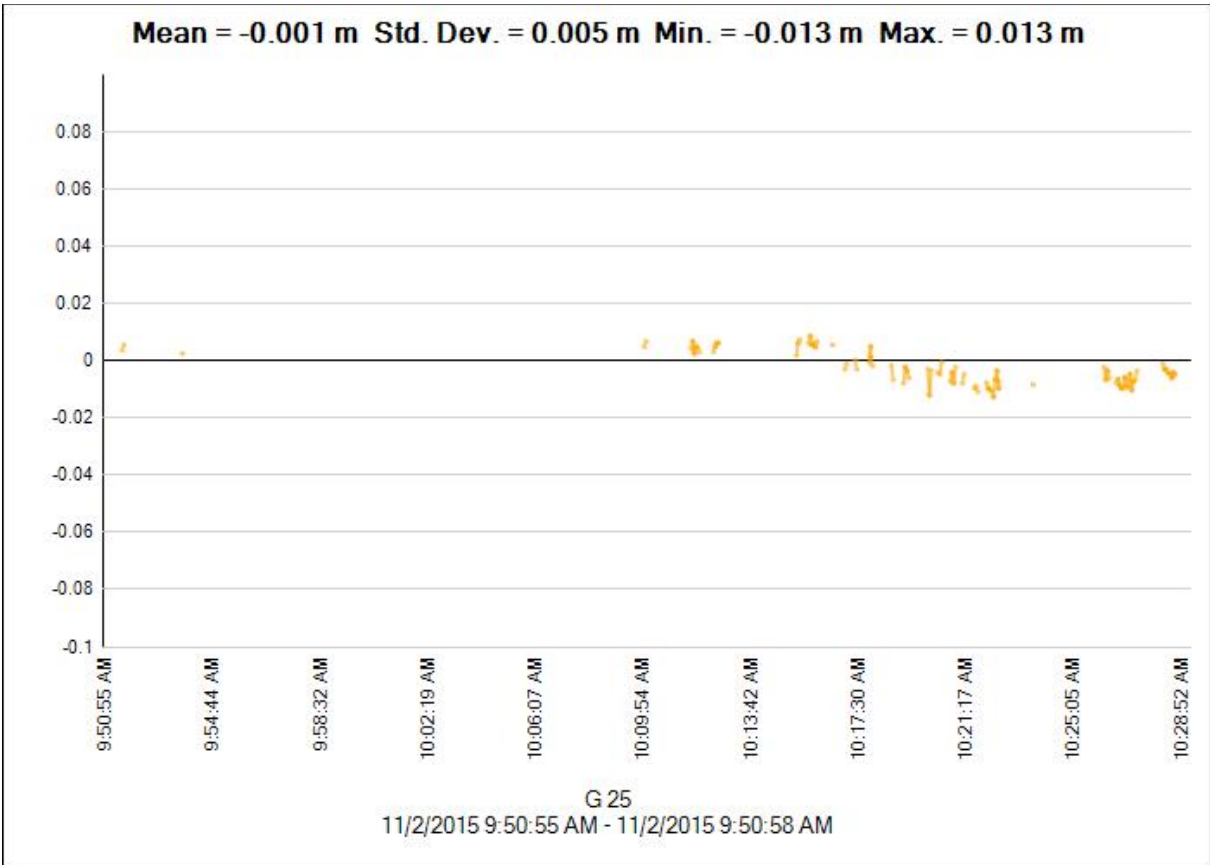
G 6
11/2/2015 9:50:55 AM - 11/2/2015 9:50:58 AM

Mean = -0.006 m Std. Dev. = 0.005 m Min. = -0.017 m Max. = 0.009 m



G 12
11/2/2015 9:50:55 AM - 11/2/2015 9:50:58 AM







Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP103A (10:44:48 AM-11:20:07 AM) (S53)

Baseline observation: NR0224 --- CP103A (B53)
Processed: 11/3/2015 9:51:54 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.014 m
Vertical precision: 0.018 m
RMS: 0.001 m
Maximum PDOP: 1.635
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 11/2/2015 10:44:48 AM (Local: UTC-7hr)
Processing stop time: 11/2/2015 11:19:48 AM (Local: UTC-7hr)
Processing duration: 00:35:00
Processing interval: 1 second

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To:		CP103A			
Grid		Local		Global	
Easting	400251.202 m	Latitude	N43°05'56.02403"	Latitude	N43°05'56.02403"
Northing	388639.770 m	Longitude	W107°19'48.89102"	Longitude	W107°19'48.89102"
Elevation	1857.384 m	Height	1843.760 m	Height	1843.760 m

Vector					
Δ Easting	-70390.463 m	NS Fwd Azimuth	288°34'11"	Δ X	-62706.445 m
Δ Northing	22844.407 m	Ellipsoid Dist.	74007.729 m	Δ Y	35413.869 m
Δ Elevation	238.561 m	Δ Height	238.107 m	Δ Z	17142.283 m

Standard Errors

Vector errors:					
σ Δ Easting	0.005 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.006 m
σ Δ Northing	0.005 m	σ Ellipsoid Dist.	0.005 m	σ Δ Y	0.008 m
σ Δ Elevation	0.009 m	σ Δ Height	0.009 m	σ Δ Z	0.007 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000309261		
Y	0.0000135418	0.0000594562	
Z	-0.0000142561	-0.0000252433	0.0000526003

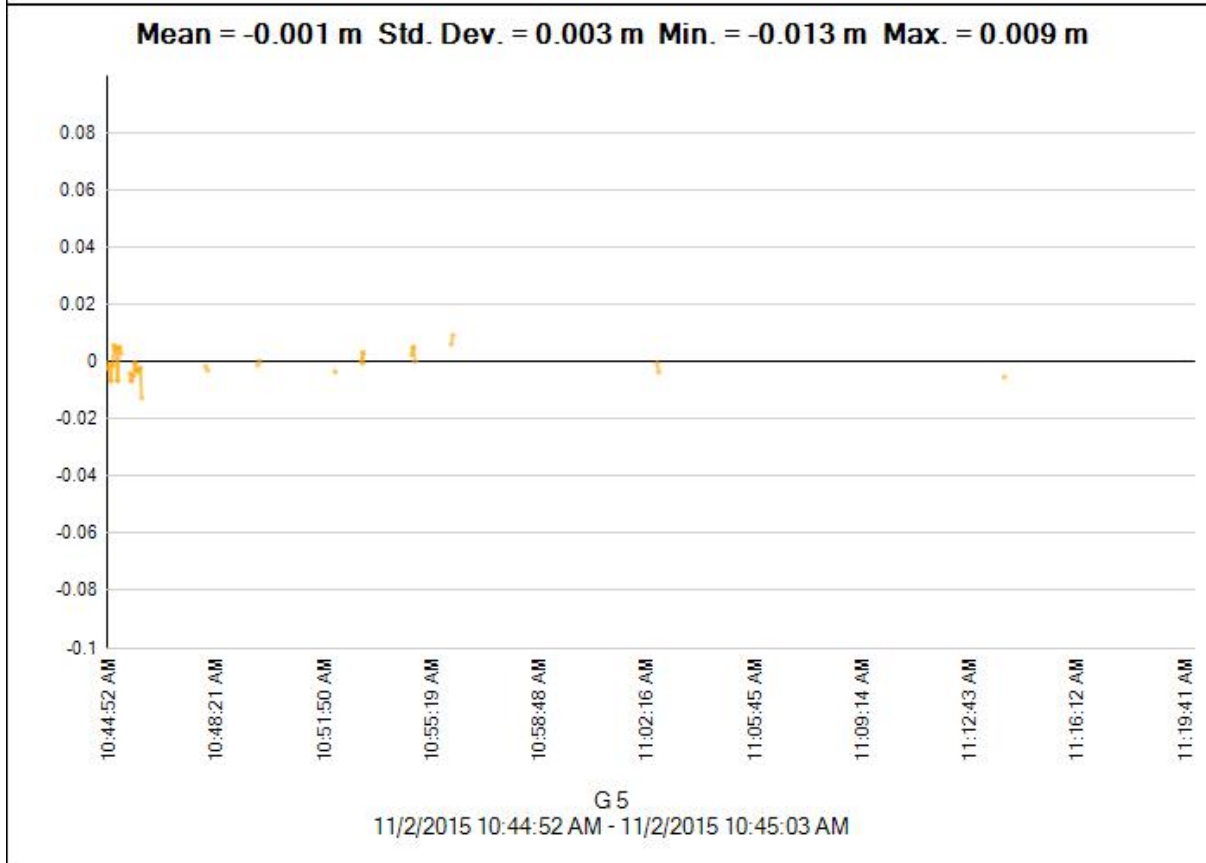
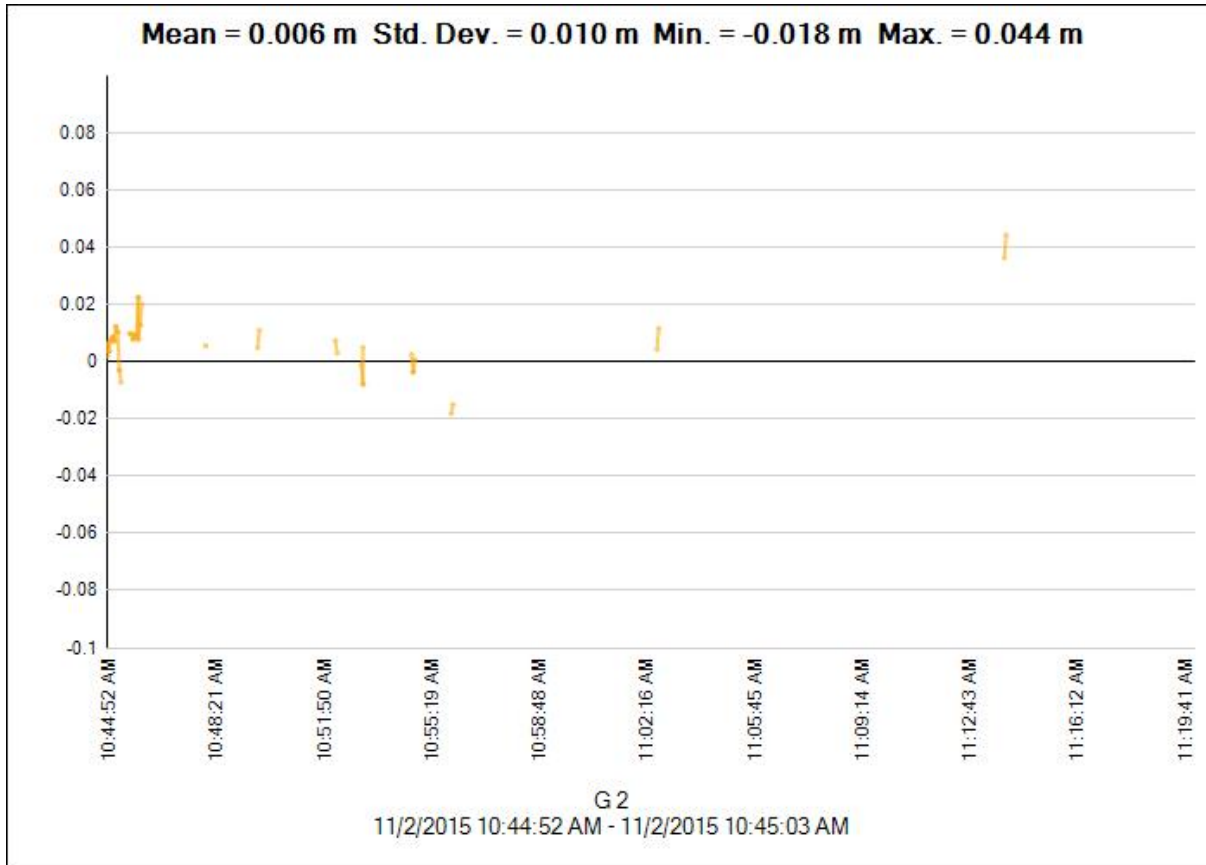
Occupations

	From	To
Point ID:	NR0224	CP103A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843063.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.486 m	1.390 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

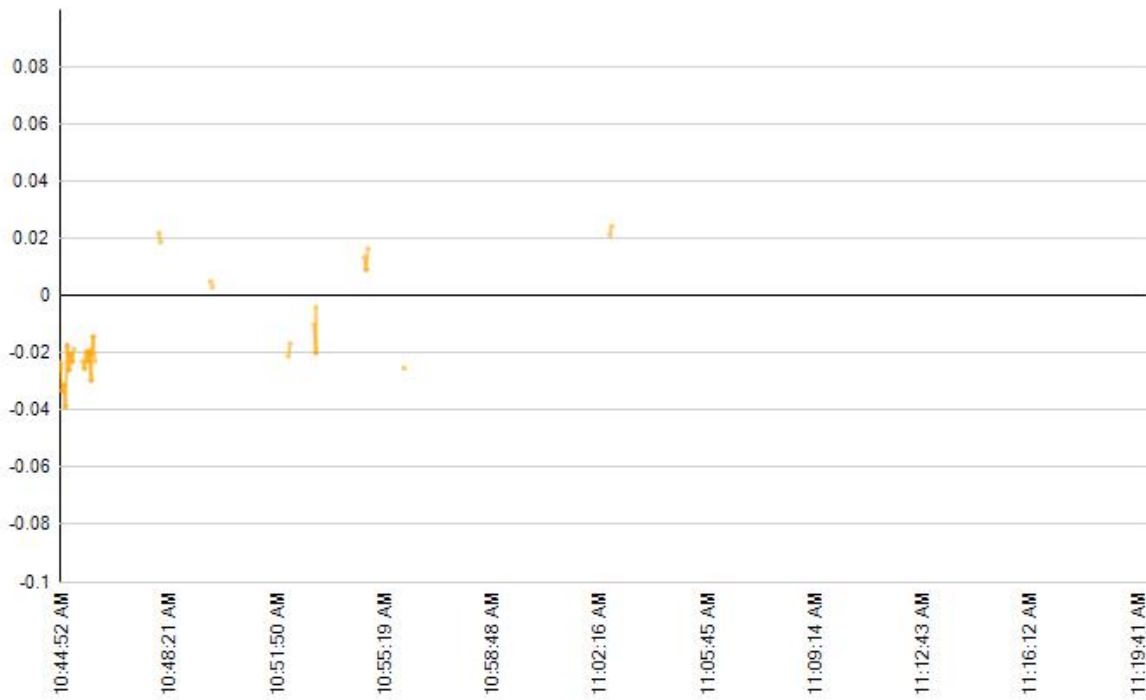
Tracking Summary

SV	11/2/2015 10:44:48 AM	Duration: 00:35:19	Major interval: 00:01:00	11/2/2015 11:20:07 AM
G 2				
G 5				
G 12				
G 13				
G 15				
G 18				
G 20				
G 21				
G 25				
G 26				
G 29				

Residuals



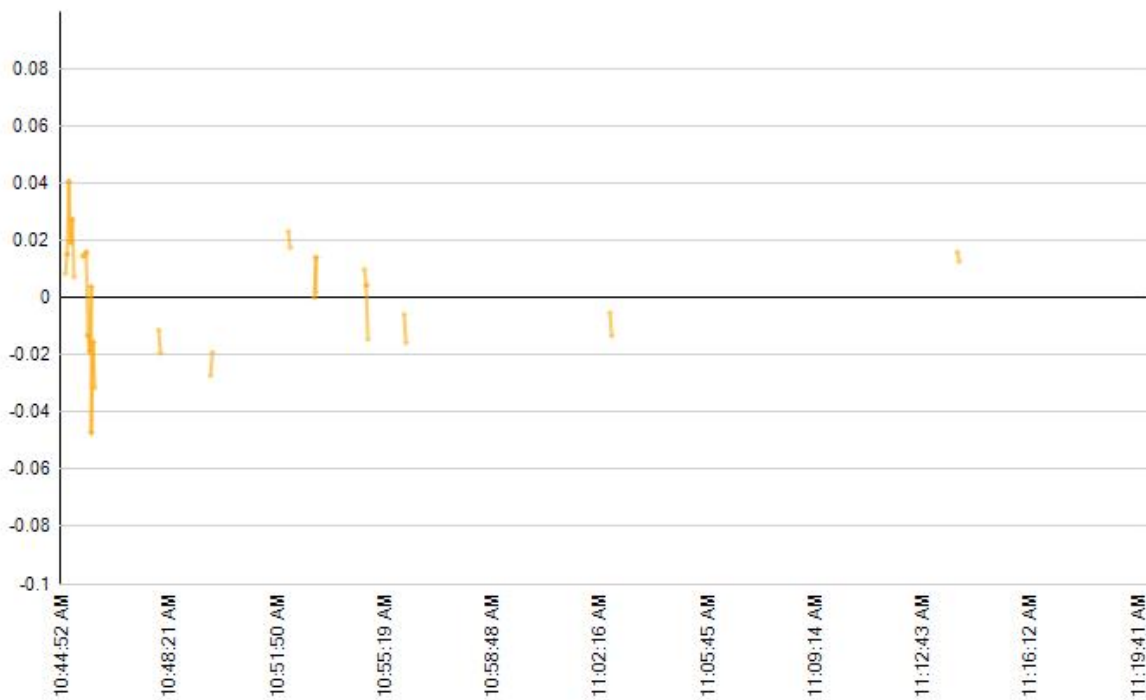
Mean = -0.011 m Std. Dev. = 0.018 m Min. = -0.048 m Max. = 0.038 m



G 12

11/2/2015 10:44:52 AM - 11/2/2015 10:45:03 AM

Mean = -0.004 m Std. Dev. = 0.016 m Min. = -0.062 m Max. = 0.042 m



G 13

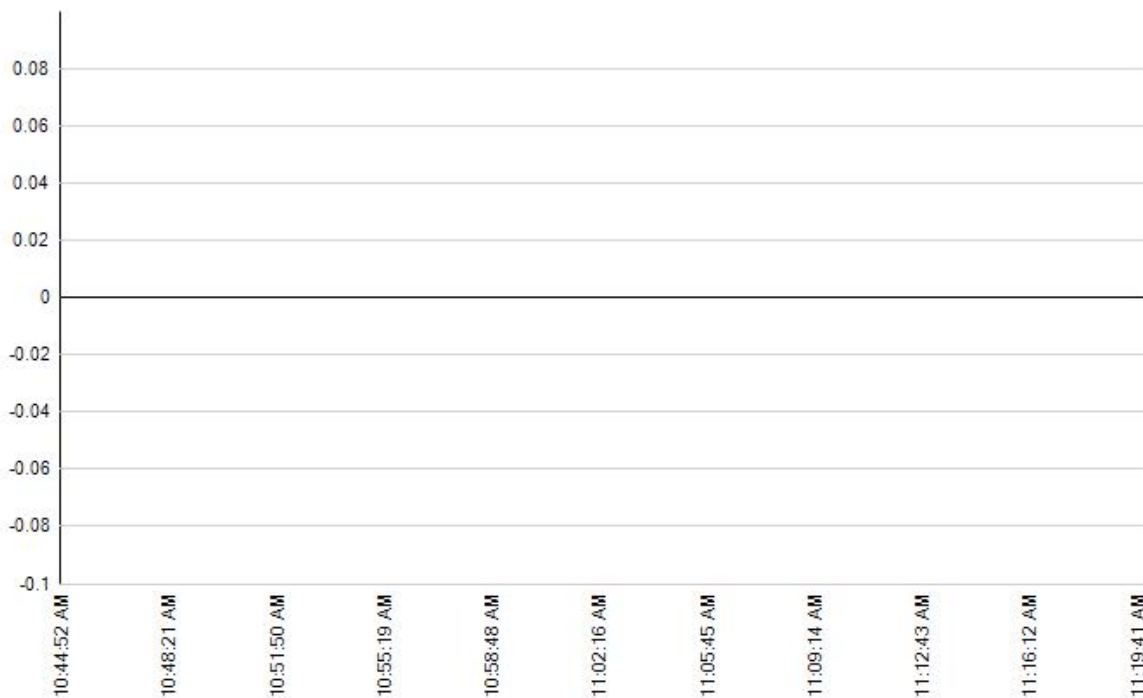
11/2/2015 10:44:52 AM - 11/2/2015 10:45:03 AM

Mean = 0.005 m Std. Dev. = 0.015 m Min. = -0.026 m Max. = 0.037 m

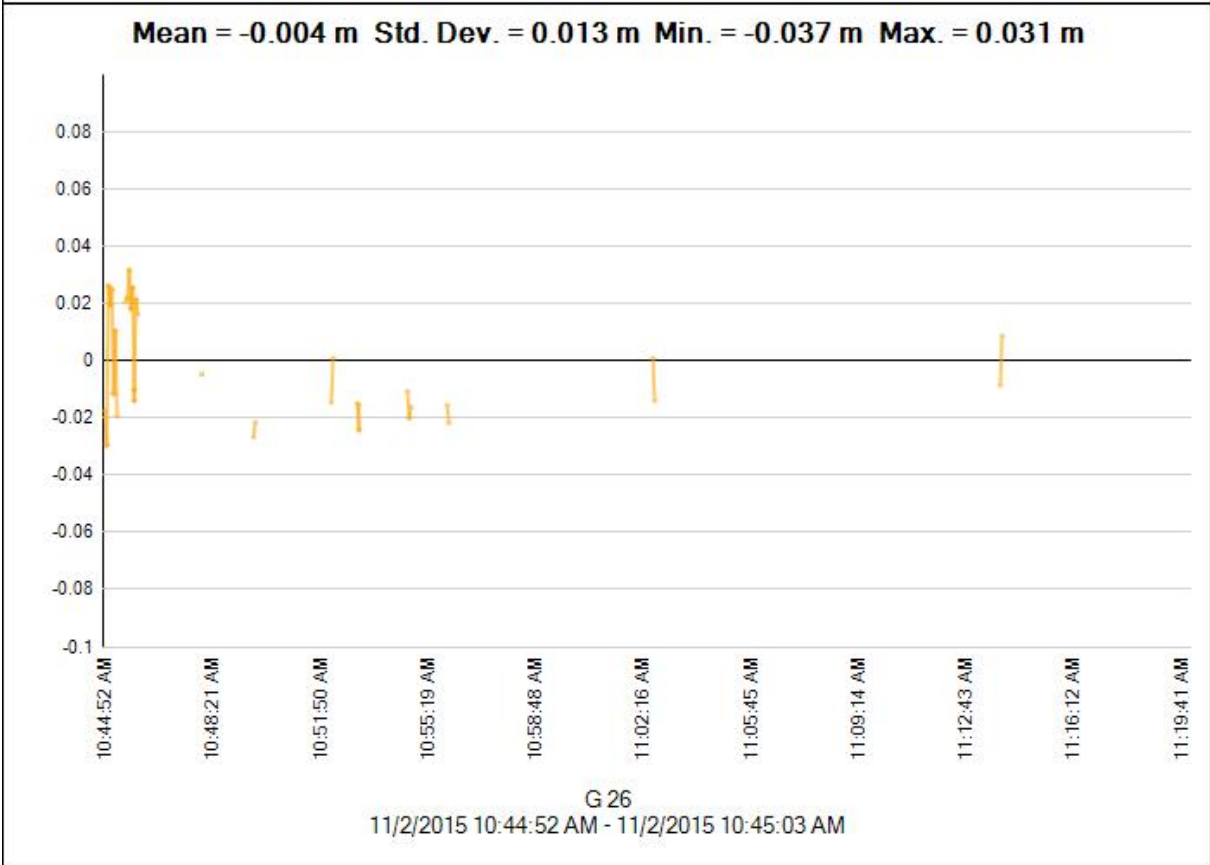
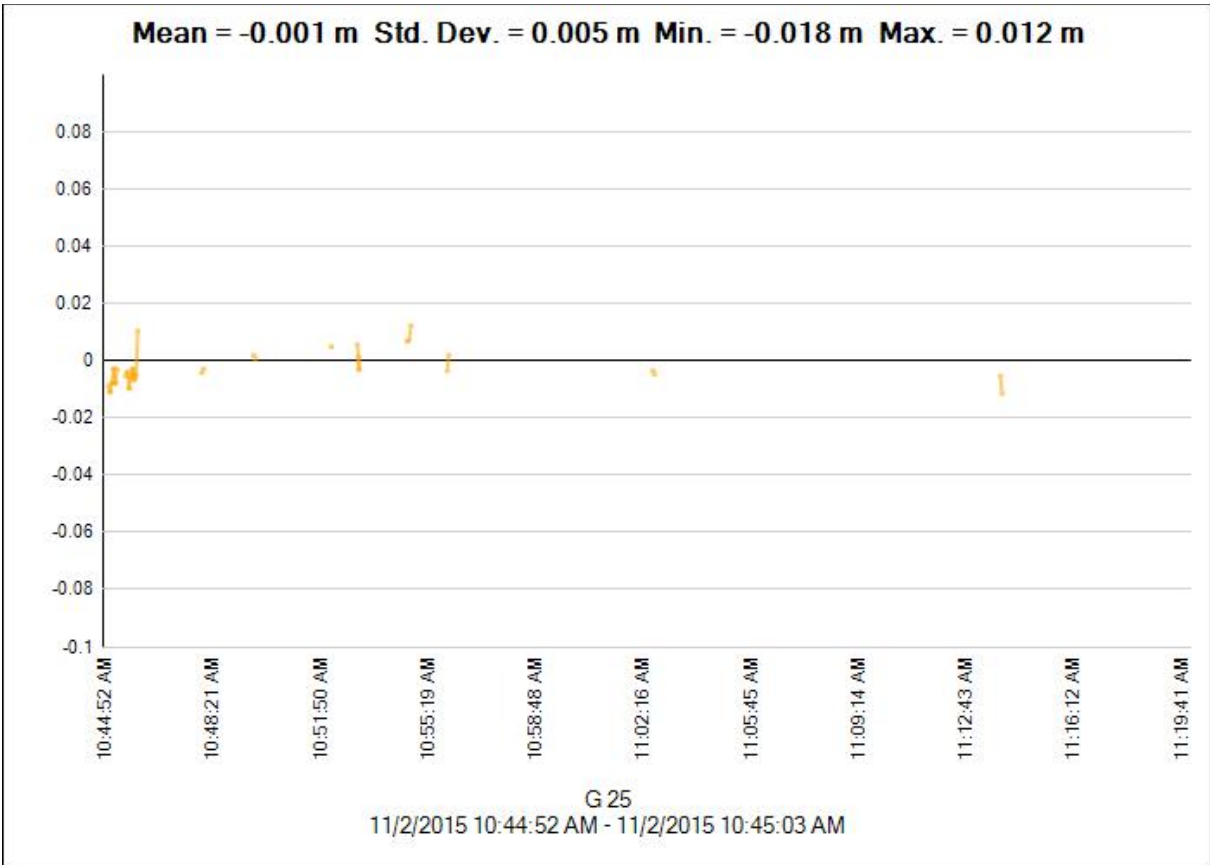


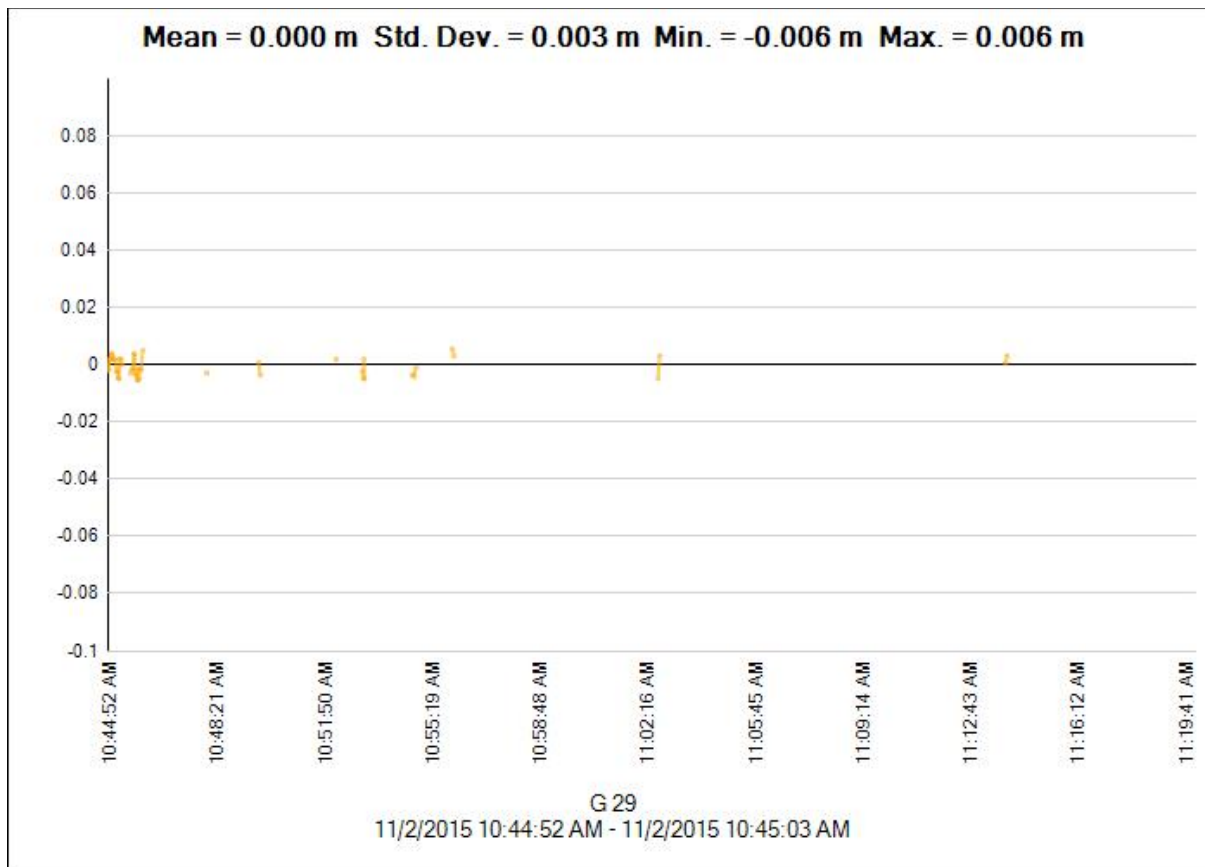
G 15
11/2/2015 10:44:52 AM - 11/2/2015 10:45:03 AM

Mean = -0.005 m Std. Dev. = 0.009 m Min. = -0.019 m Max. = 0.002 m



G 18
11/2/2015 10:44:52 AM - 11/2/2015 10:45:03 AM







Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP104A (11:52:10 AM-12:27:20 PM) (S54)

Baseline observation: NR0224 --- CP104A (B54)
 Processed: 11/3/2015 9:51:54 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.010 m
 Vertical precision: 0.016 m
 RMS: 0.001 m
 Maximum PDOP: 2.384
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 11/2/2015 11:52:10 AM (Local: UTC-7hr)
 Processing stop time: 11/2/2015 12:27:10 PM (Local: UTC-7hr)
 Processing duration: 00:35:00
 Processing interval: 1 second

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To: CP104A					
Grid		Local		Global	
Easting	410597.379 m	Latitude	N43°03'16.39317"	Latitude	N43°03'16.39316"
Northing	383722.157 m	Longitude	W107°12'11.68637"	Longitude	W107°12'11.68637"
Elevation	1815.625 m	Height	1802.118 m	Height	1802.118 m

Vector					
ΔEasting	-60044.286 m	NS Fwd Azimuth	287°12'46"	ΔX	-53816.728 m
ΔNorthing	17926.794 m	Ellipsoid Dist.	62665.690 m	ΔY	29158.321 m
ΔElevation	196.802 m	ΔHeight	196.465 m	ΔZ	13514.571 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.003 m
$\sigma \Delta$ Northing	0.004 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.006 m
$\sigma \Delta$ Elevation	0.008 m	$\sigma \Delta$ Height	0.008 m	$\sigma \Delta$ Z	0.007 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000121523		
Y	0.0000112690	0.0000340450	
Z	-0.0000078507	-0.0000234919	0.0000433149

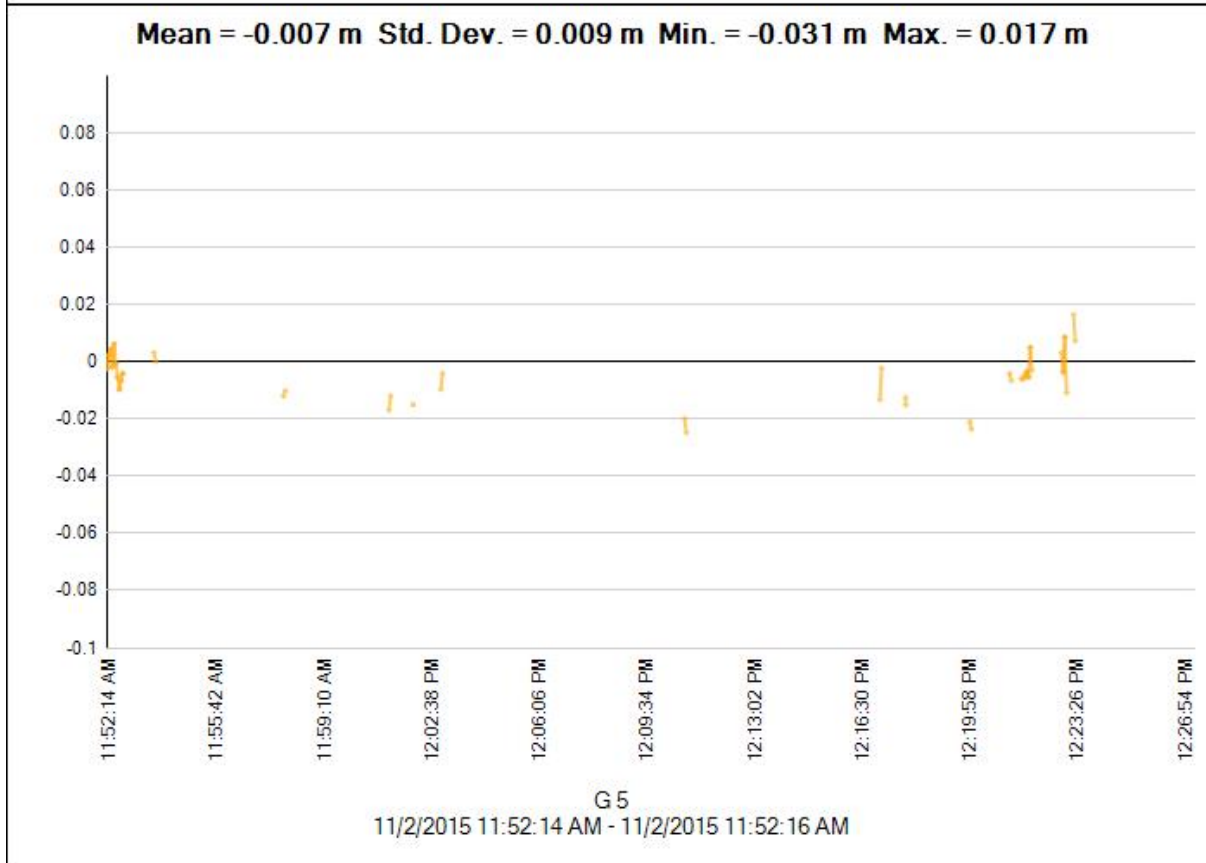
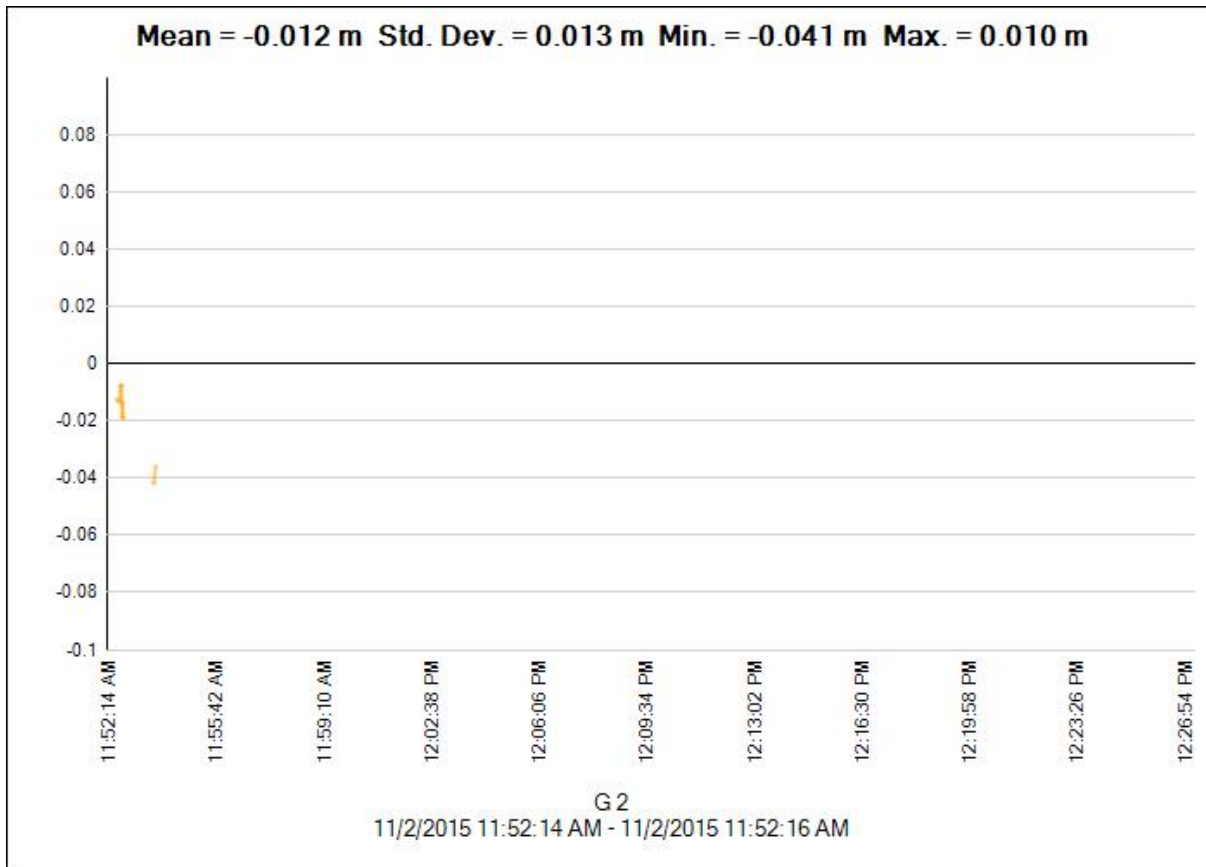
Occupations

	From	To
Point ID:	NR0224	CP104A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843064.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.486 m	2.000 m
Antenna method:	Antenna Phase Center	Bottom of antenna mount

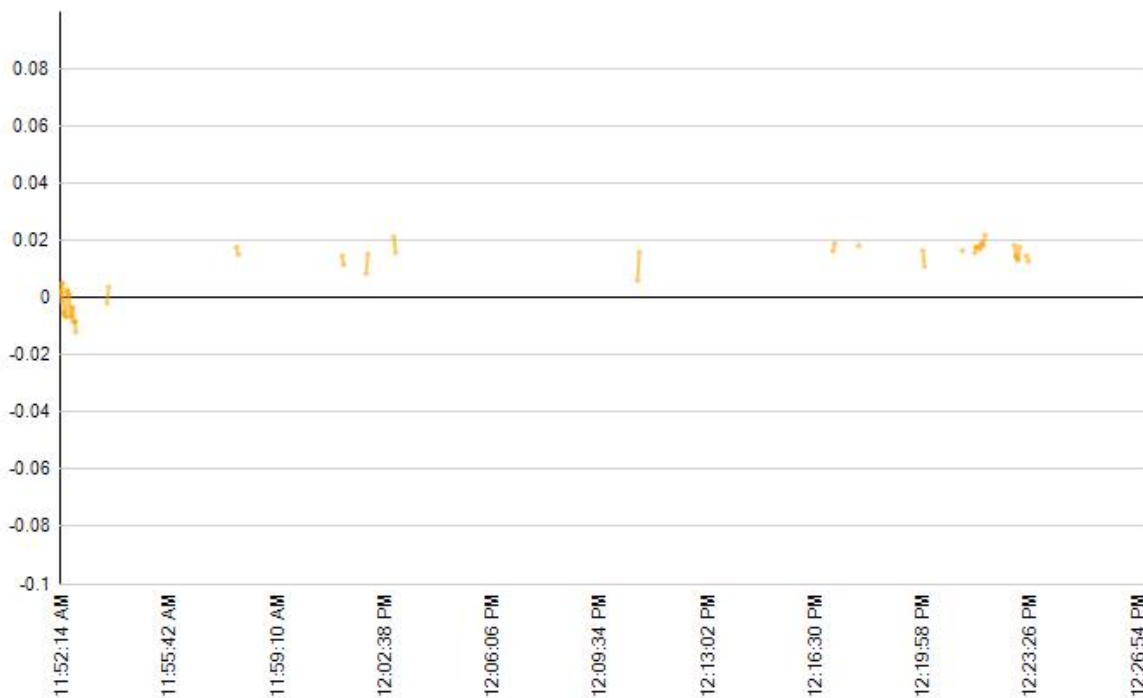
Tracking Summary

SV	11/2/2015 11:52:10 AM	Duration: 00:35:10	Major interval: 00:01:00	11/2/2015 12:27:20 PM
G 2	L1 L2			
G 5	L1 L2			
G 13	L1 L2			
G 15	L1 L2			
G 16	L1 L2			
G 18	L1 L2			
G 20	L1 L2			
G 21	L1 L2			
G 25	L1			
G 26	L1 L2			
G 29	L1 L2			

Residuals

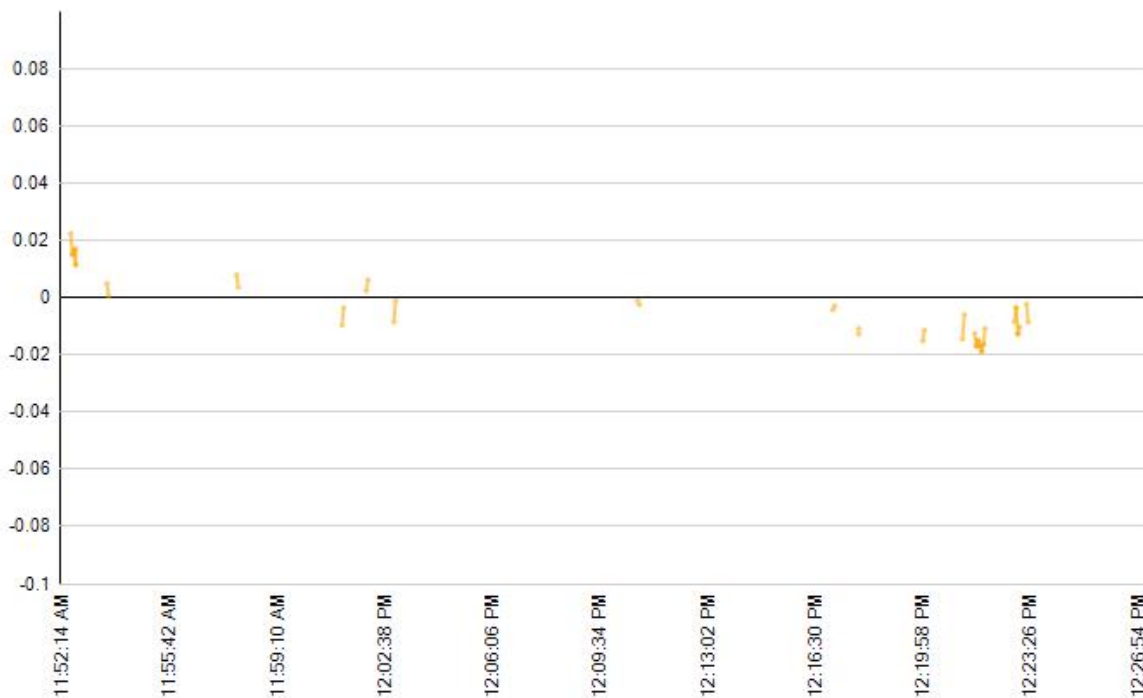


Mean = 0.011 m Std. Dev. = 0.008 m Min. = -0.012 m Max. = 0.022 m



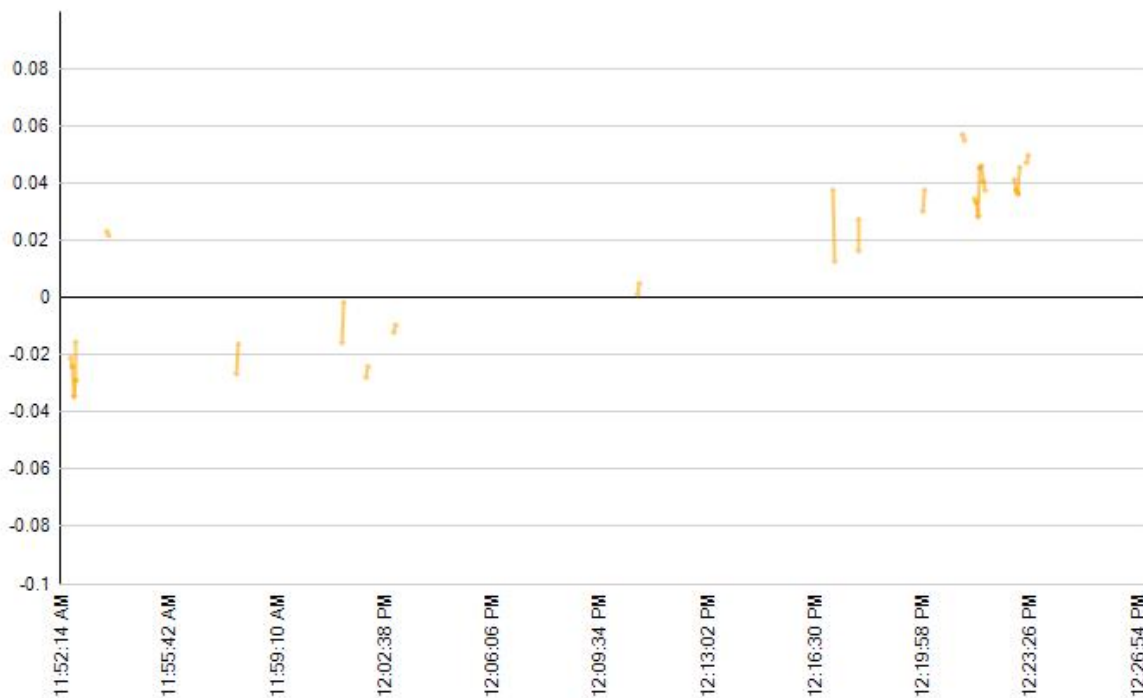
G 13
11/2/2015 11:52:14 AM - 11/2/2015 11:52:16 AM

Mean = -0.003 m Std. Dev. = 0.008 m Min. = -0.019 m Max. = 0.022 m



G 15
11/2/2015 11:52:14 AM - 11/2/2015 11:52:16 AM

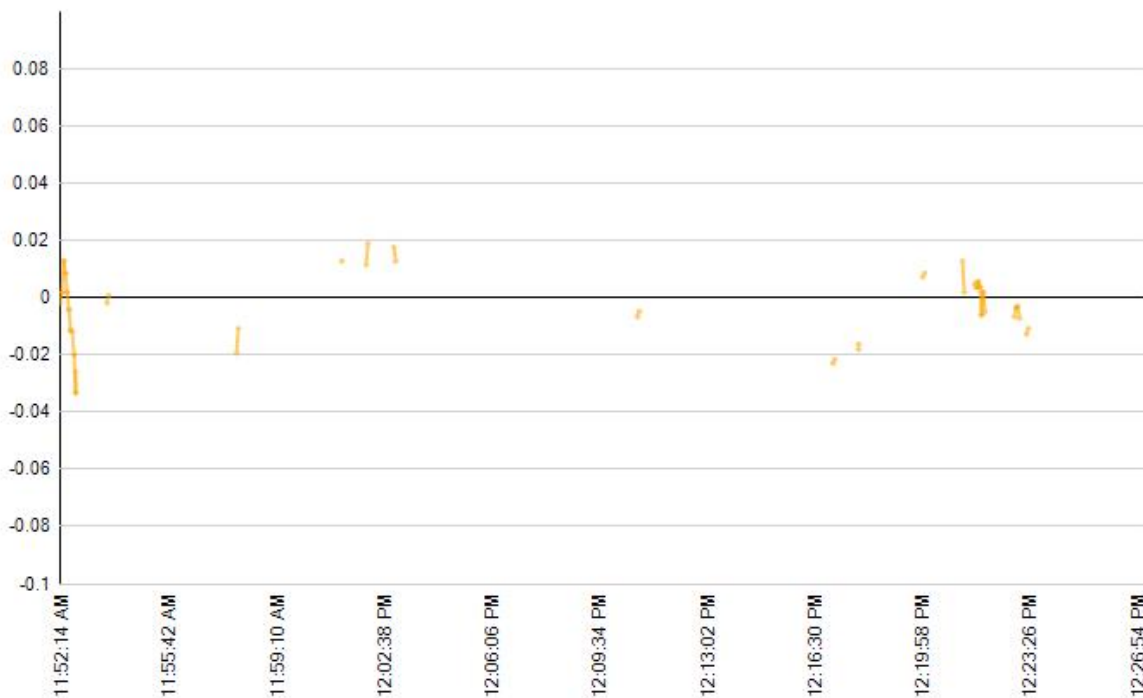
Mean = 0.013 m Std. Dev. = 0.025 m Min. = -0.035 m Max. = 0.059 m



G 16

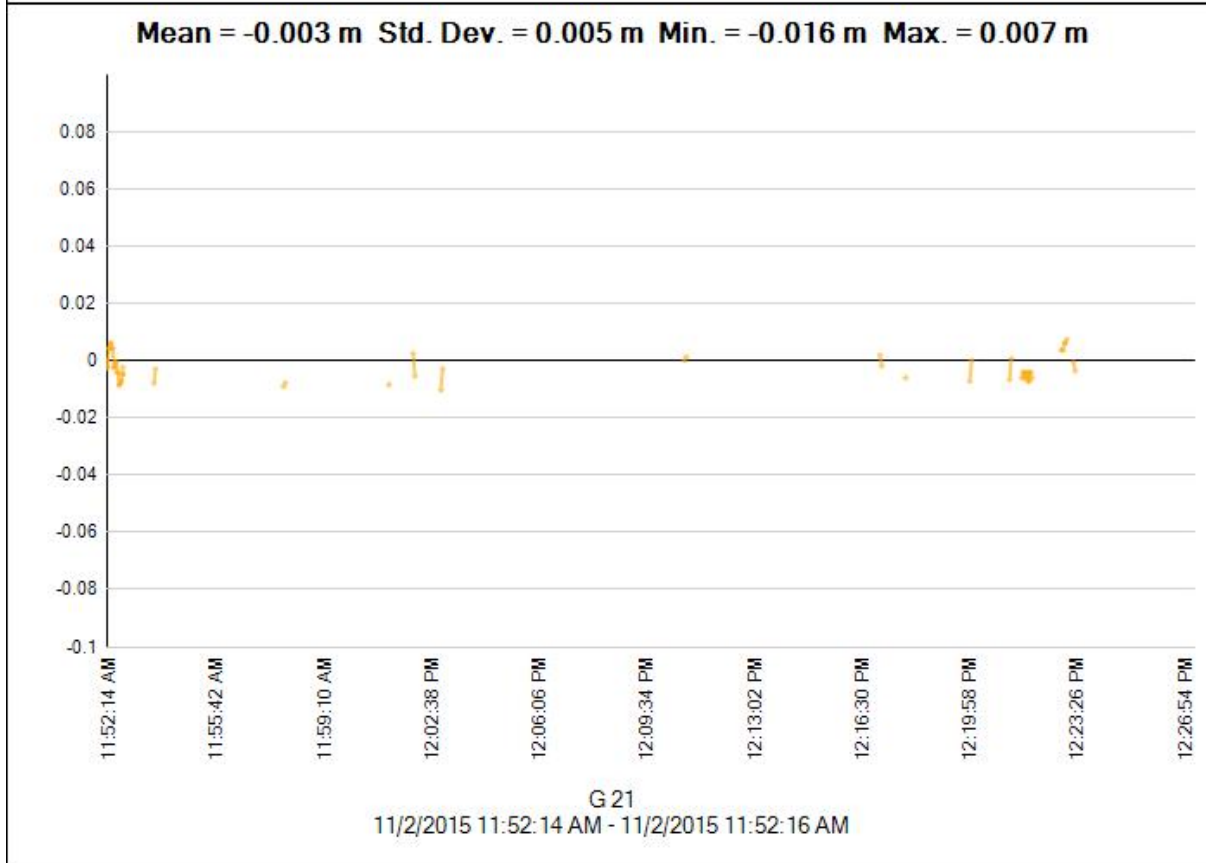
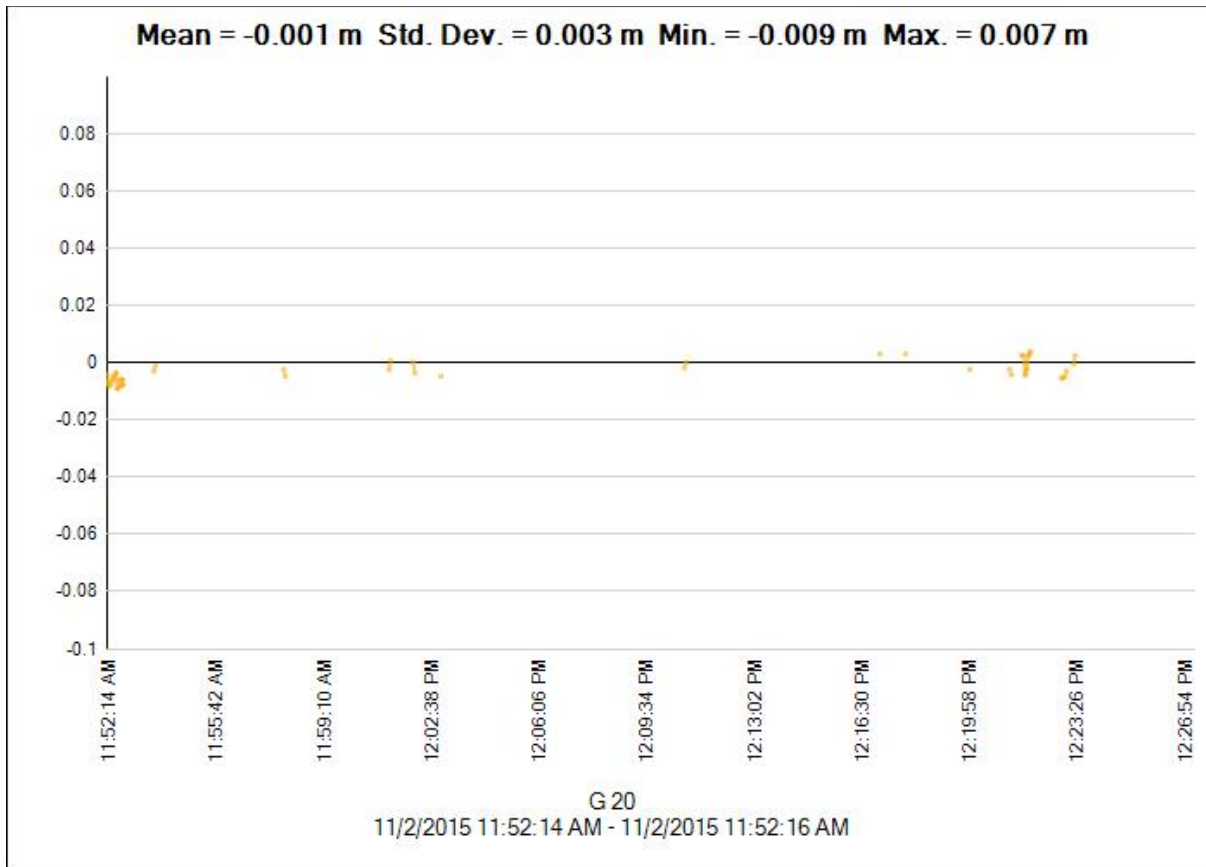
11/2/2015 11:52:14 AM - 11/2/2015 11:52:16 AM

Mean = -0.004 m Std. Dev. = 0.012 m Min. = -0.033 m Max. = 0.019 m



G 18

11/2/2015 11:52:14 AM - 11/2/2015 11:52:16 AM

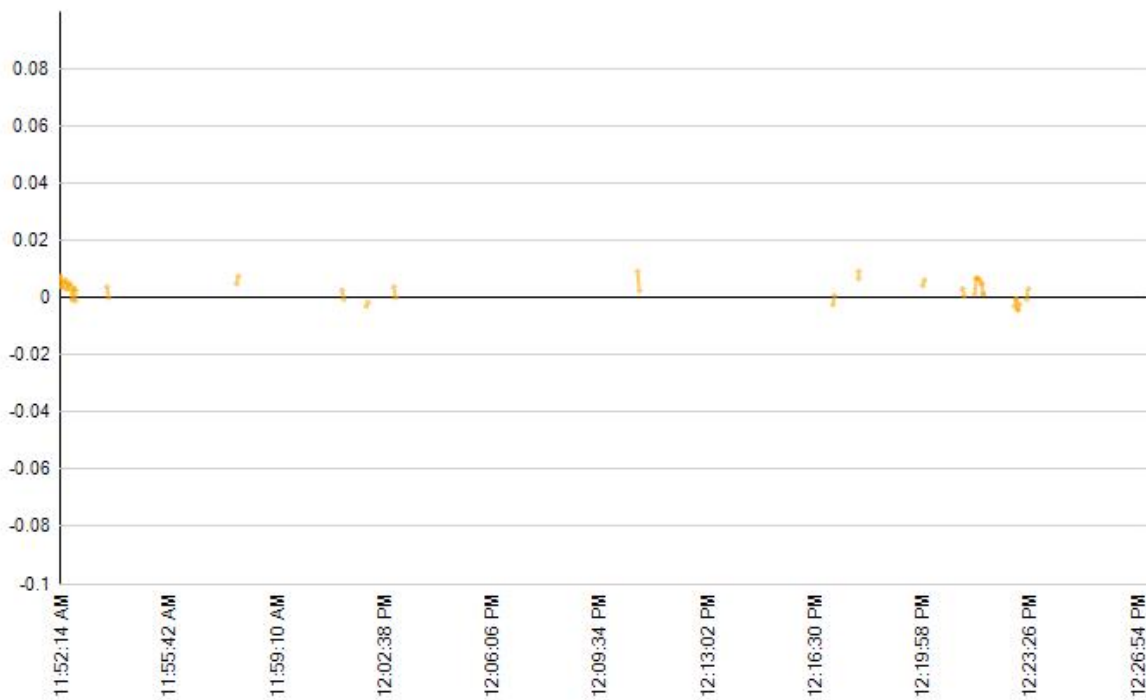


Mean = -0.005 m Std. Dev. = 0.018 m Min. = -0.039 m Max. = 0.035 m



G 26
11/2/2015 11:52:14 AM - 11/2/2015 11:52:16 AM

Mean = 0.002 m Std. Dev. = 0.003 m Min. = -0.005 m Max. = 0.010 m





G 29
11/2/2015 11:52:14 AM - 11/2/2015 11:52:16 AM

Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP106A (12:42:21 PM-1:19:05 PM) (S55)

Baseline observation: NR0224 --- CP106A (B55)
Processed: 11/3/2015 9:51:59 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.010 m
Vertical precision: 0.016 m
RMS: 0.002 m
Maximum PDOP: 2.102
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 11/2/2015 12:42:21 PM (Local: UTC-7hr)
Processing stop time: 11/2/2015 1:19:05 PM (Local: UTC-7hr)
Processing duration: 00:36:44
Processing interval: 1 second

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To:		CP106A			
Grid		Local		Global	
Easting	411206.345 m	Latitude	N43°04'14.07251"	Latitude	N43°04'14.07251"
Northing	385502.973 m	Longitude	W107°11'44.64629"	Longitude	W107°11'44.64629"
Elevation	1842.442 m	Height	1828.952 m	Height	1828.952 m

Vector					
Δ Easting	-59435.319 m	NS Fwd Azimuth	288°56'02"	Δ X	-52878.398 m
Δ Northing	19707.610 m	Ellipsoid Dist.	62619.864 m	Δ Y	30119.946 m
Δ Elevation	223.620 m	Δ Height	223.299 m	Δ Z	14833.712 m

Standard Errors

Vector errors:					
σ Δ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.004 m
σ Δ Northing	0.004 m	σ Ellipsoid Dist.	0.003 m	σ Δ Y	0.006 m
σ Δ Elevation	0.008 m	σ Δ Height	0.008 m	σ Δ Z	0.007 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000157620		
Y	0.0000155444	0.0000382235	
Z	-0.0000148261	-0.0000233114	0.0000430042

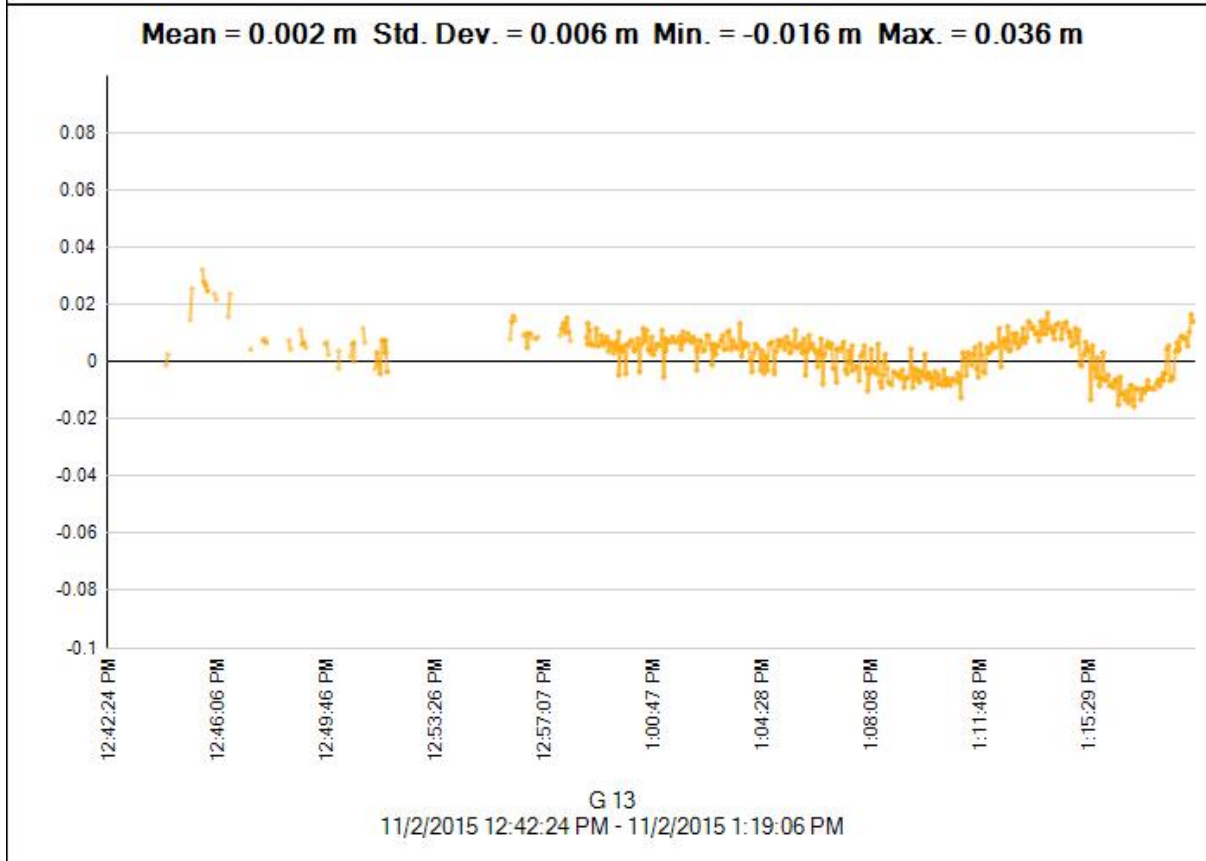
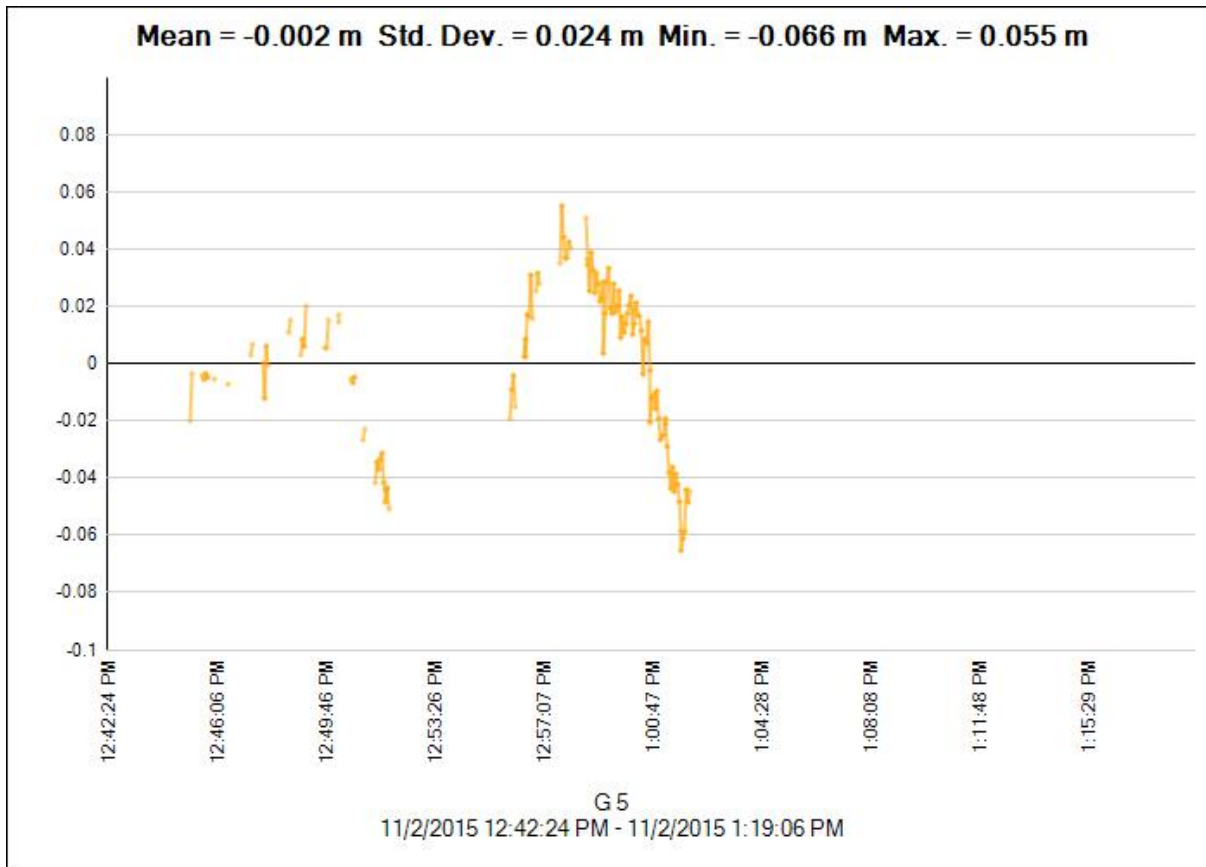
Occupations

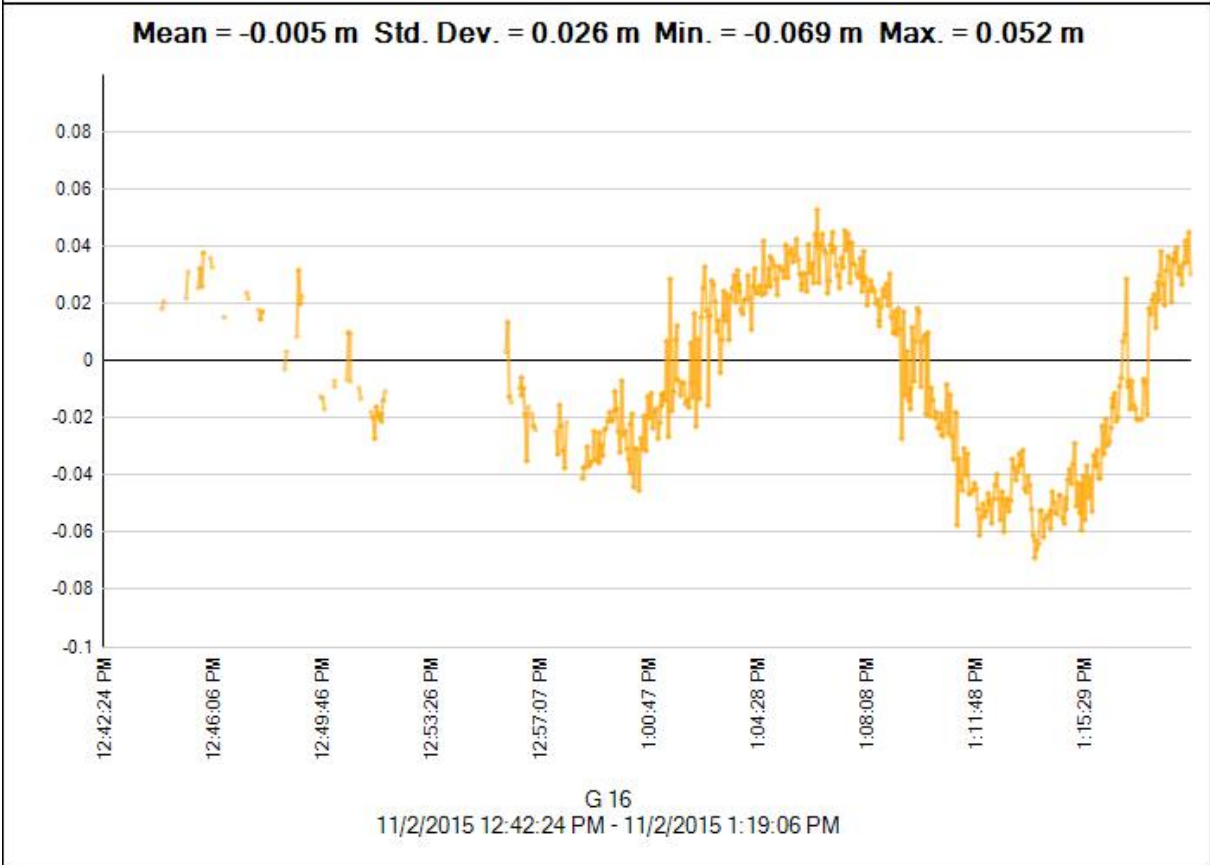
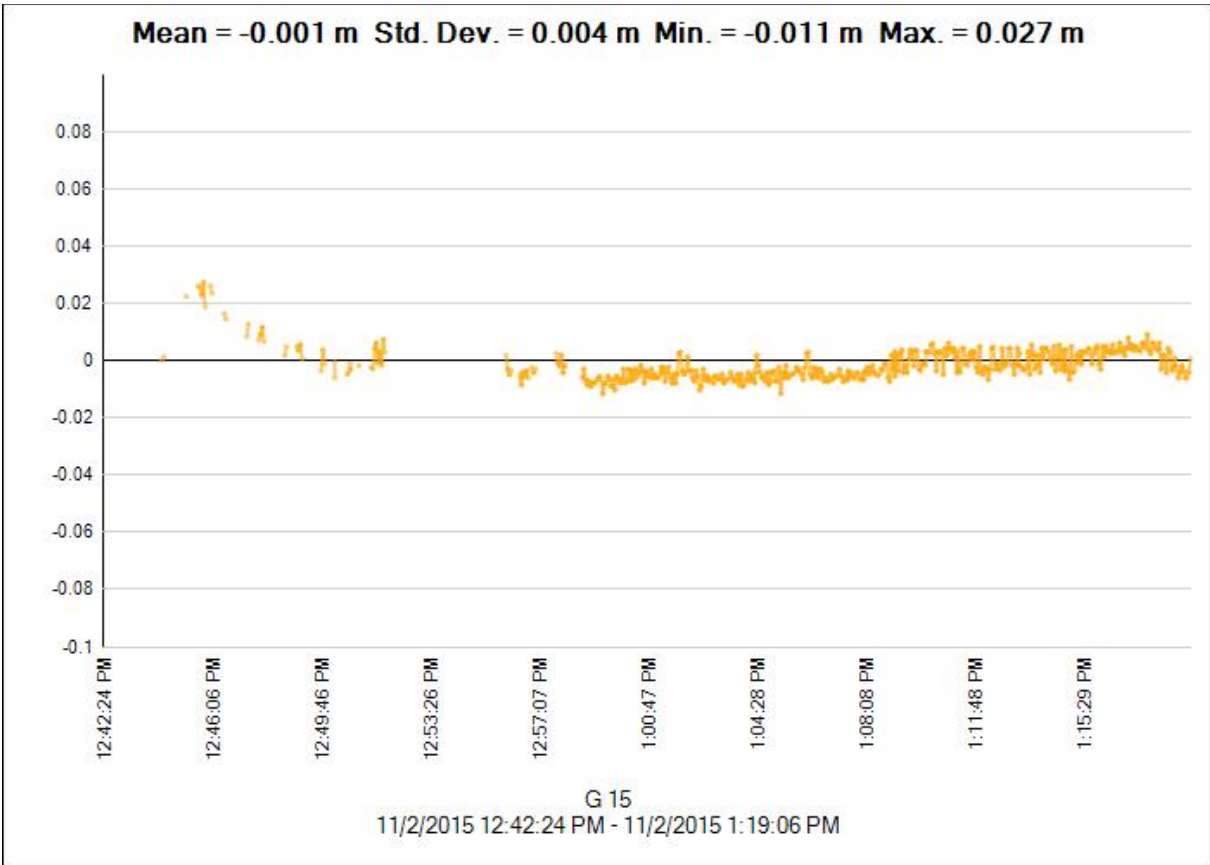
	From	To
Point ID:	NR0224	CP106A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843065.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.486 m	1.444 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

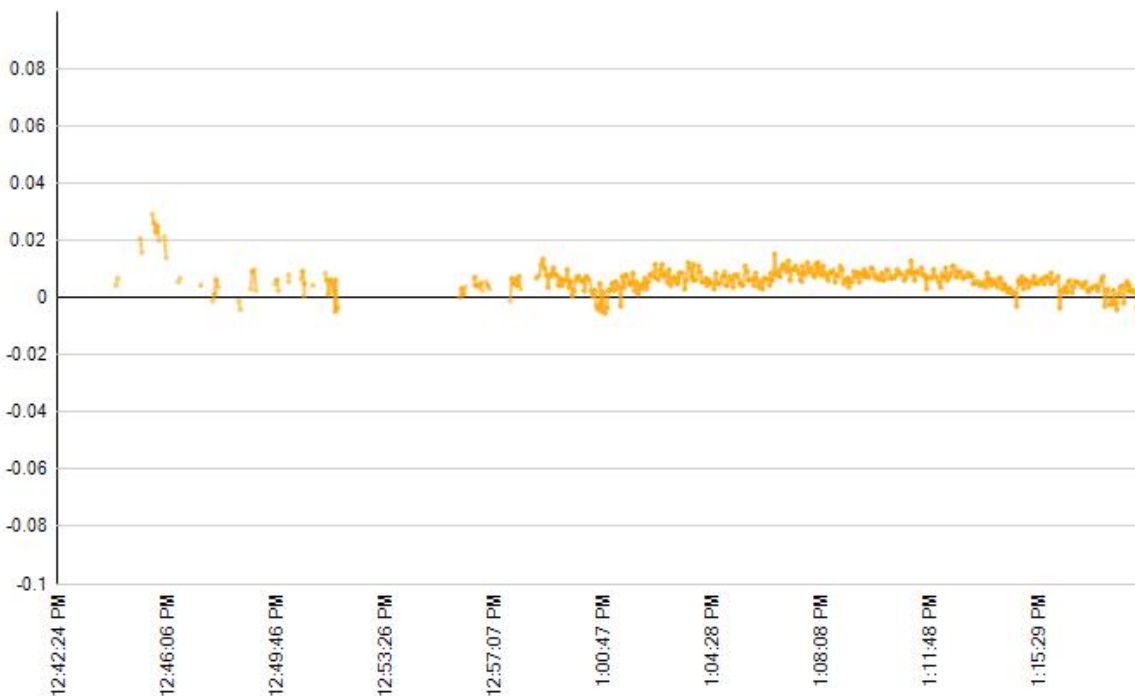
SV	11/2/2015 12:42:21 PM	Duration: 00:36:44	Major interval: 00:01:00	11/2/2015 1:19:05 PM
G 5	L1 L2			
G 13	L1 L2			
G 15	L1 L2			
G 16	L1 L2			
G 18	L1 L2			
G 20	L1 L2			
G 21	L1 L2			
G 22	L1 L2			
G 26	L1 L2			
G 27	L1 L2			
G 29	L1 L2			

Residuals



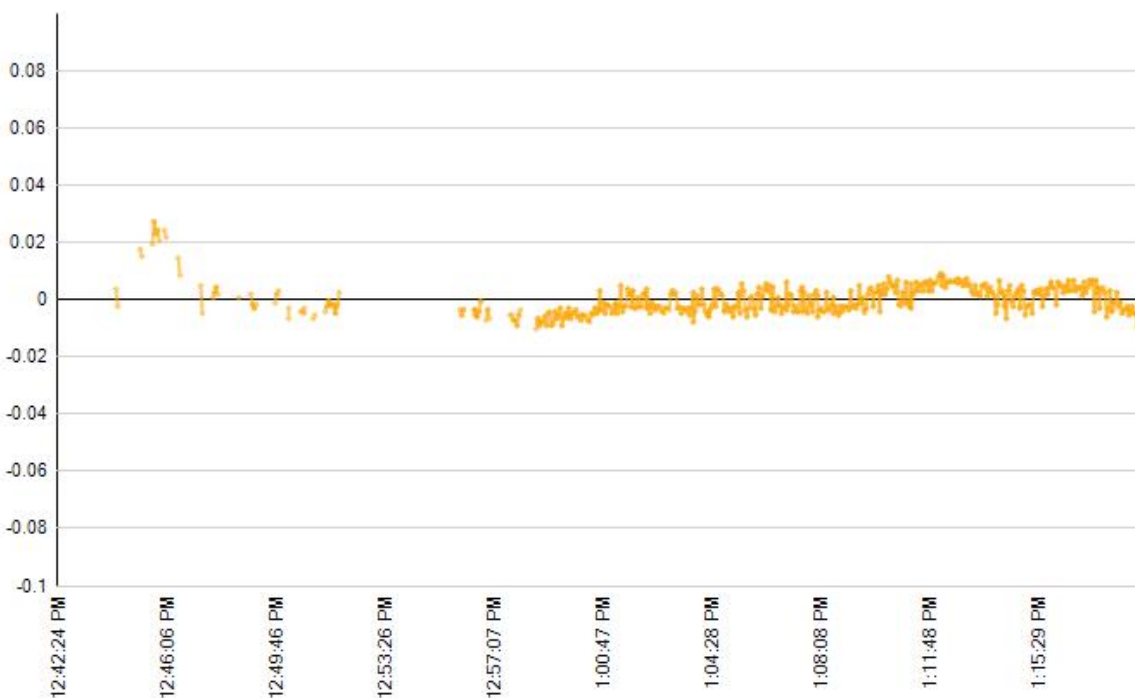


Mean = 0.004 m Std. Dev. = 0.004 m Min. = -0.015 m Max. = 0.029 m



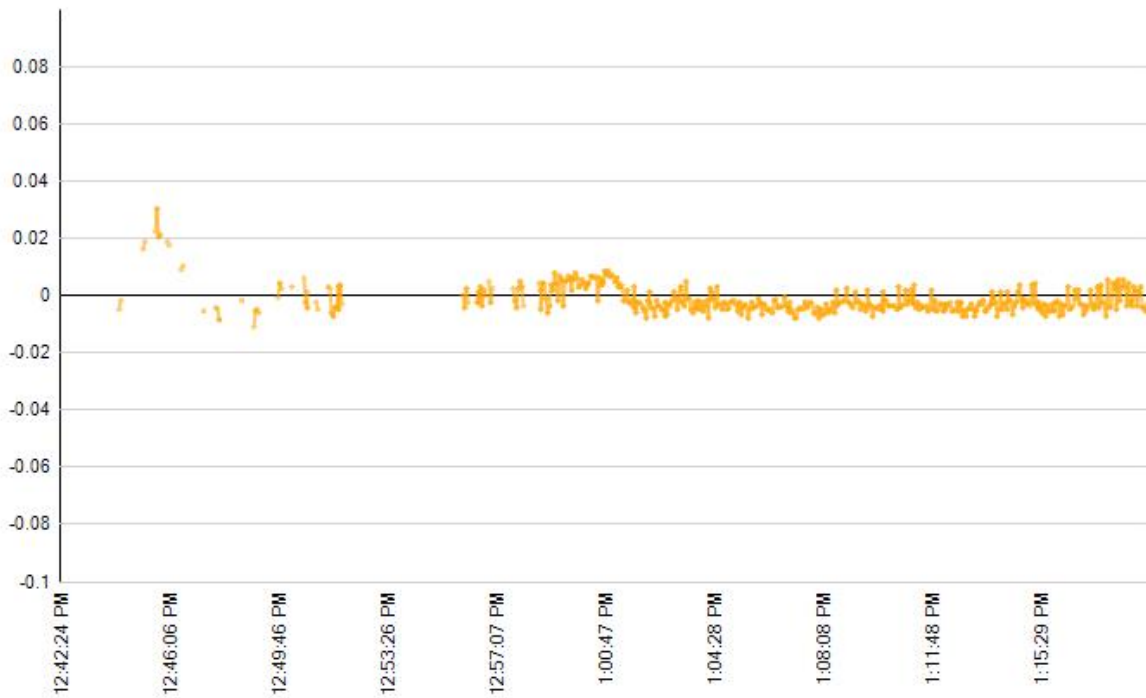
G 18
11/2/2015 12:42:24 PM - 11/2/2015 1:19:06 PM

Mean = 0.000 m Std. Dev. = 0.004 m Min. = -0.010 m Max. = 0.027 m



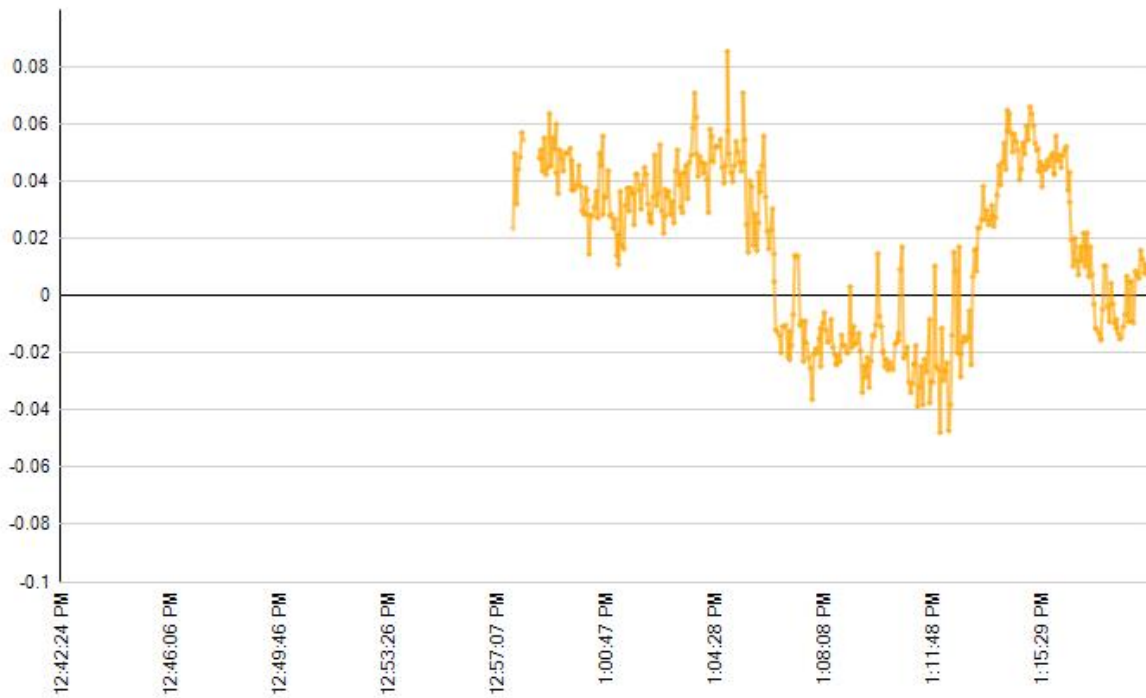
G 20
11/2/2015 12:42:24 PM - 11/2/2015 1:19:06 PM

Mean = -0.001 m Std. Dev. = 0.004 m Min. = -0.020 m Max. = 0.030 m



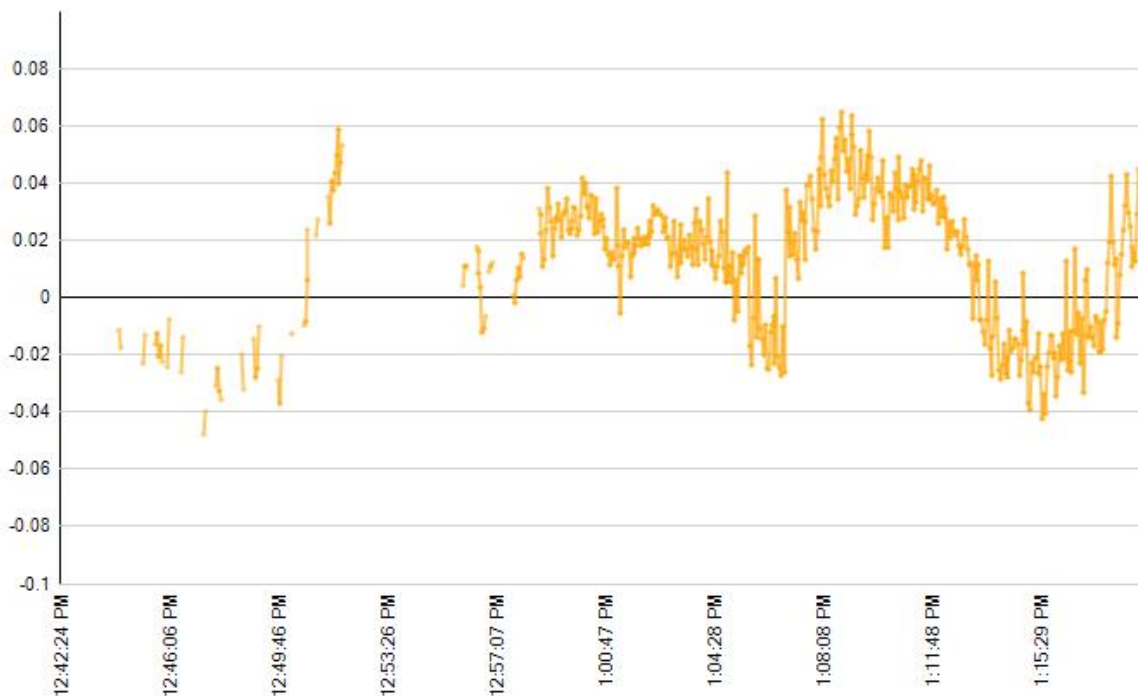
G 21
11/2/2015 12:42:24 PM - 11/2/2015 1:19:06 PM

Mean = 0.015 m Std. Dev. = 0.024 m Min. = -0.048 m Max. = 0.085 m



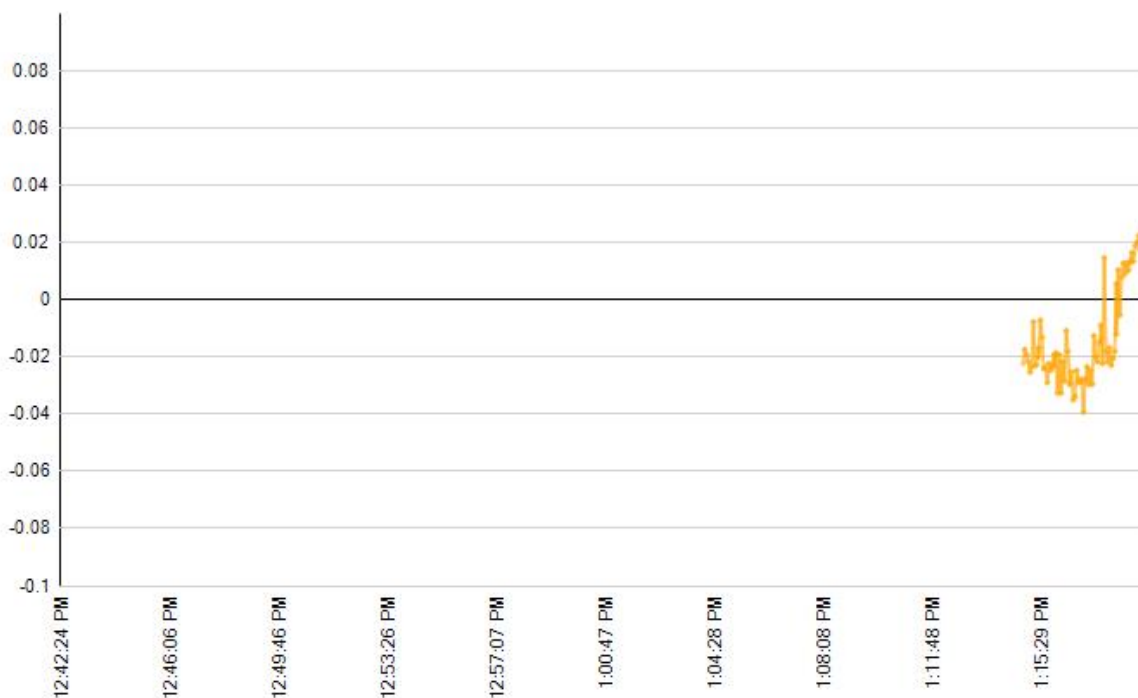
G 22
11/2/2015 12:42:24 PM - 11/2/2015 1:19:06 PM

Mean = 0.010 m Std. Dev. = 0.019 m Min. = -0.052 m Max. = 0.065 m

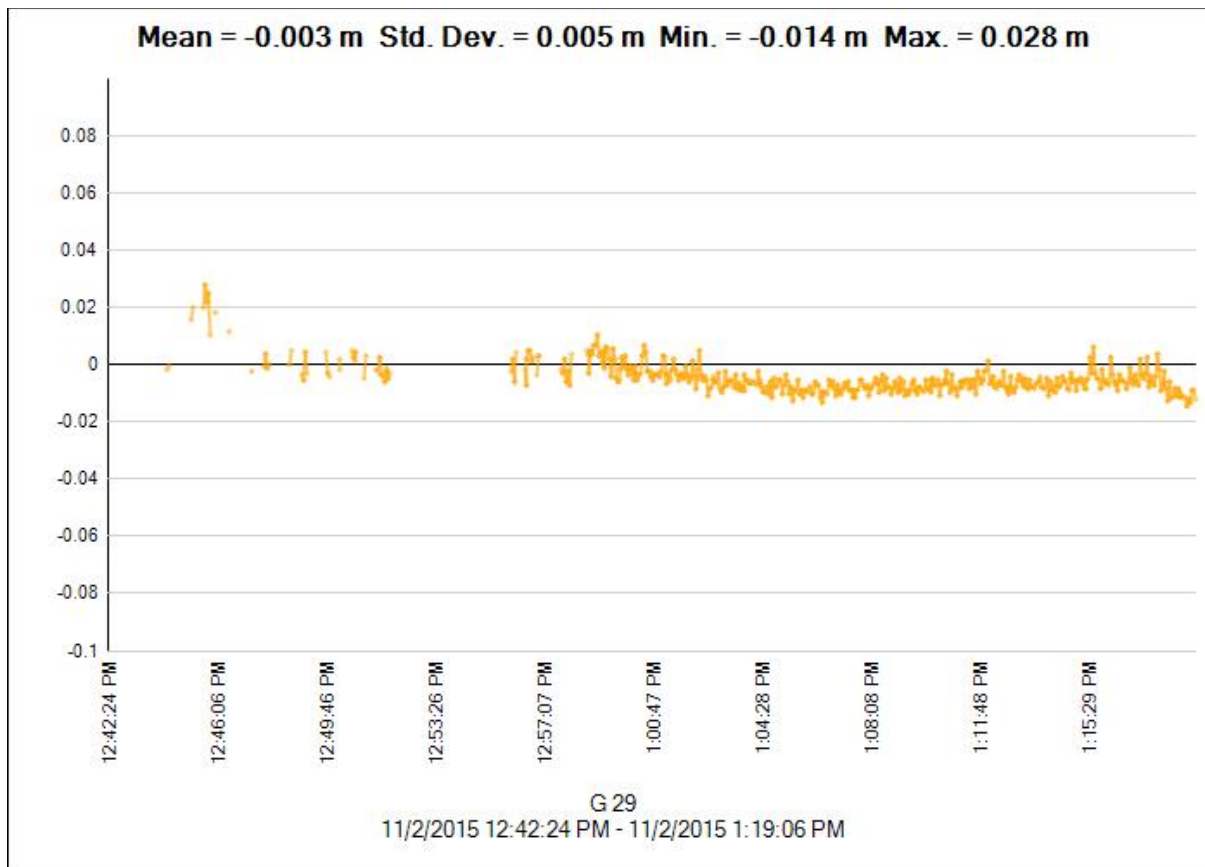


G 26
11/2/2015 12:42:24 PM - 11/2/2015 1:19:06 PM

Mean = -0.010 m Std. Dev. = 0.013 m Min. = -0.039 m Max. = 0.025 m





G 27
11/2/2015 12:42:24 PM - 11/2/2015 1:19:06 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP105A (1:30:03 PM-2:05:52 PM) (S56)

Baseline observation: NR0224 --- CP105A (B56)
 Processed: 11/3/2015 9:52:25 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.010 m
 Vertical precision: 0.012 m
 RMS: 0.001 m
 Maximum PDOP: 1.864
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 11/2/2015 1:30:03 PM (Local: UTC-7hr)
 Processing stop time: 11/2/2015 2:05:52 PM (Local: UTC-7hr)
 Processing duration: 00:35:49
 Processing interval: 1 second

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To: CP105A					
Grid		Local		Global	
Easting	413115.716 m	Latitude	N43°04'02.09669"	Latitude	N43°04'02.09669"
Northing	385136.826 m	Longitude	W107°10'20.27781"	Longitude	W107°10'20.27781"
Elevation	1853.410 m	Height	1839.933 m	Height	1839.933 m

Vector					
ΔEasting	-57525.949 m	NS Fwd Azimuth	289°10'23"	ΔX	-51131.202 m
ΔNorthing	19341.463 m	Ellipsoid Dist.	60692.697 m	ΔY	29306.999 m
ΔElevation	234.587 m	ΔHeight	234.280 m	ΔZ	14571.152 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.003 m
$\sigma \Delta$ Northing	0.004 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.005 m
$\sigma \Delta$ Elevation	0.006 m	$\sigma \Delta$ Height	0.006 m	$\sigma \Delta$ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000091425		
Y	0.0000052109	0.0000263563	
Z	-0.0000057573	-0.0000100046	0.0000248795

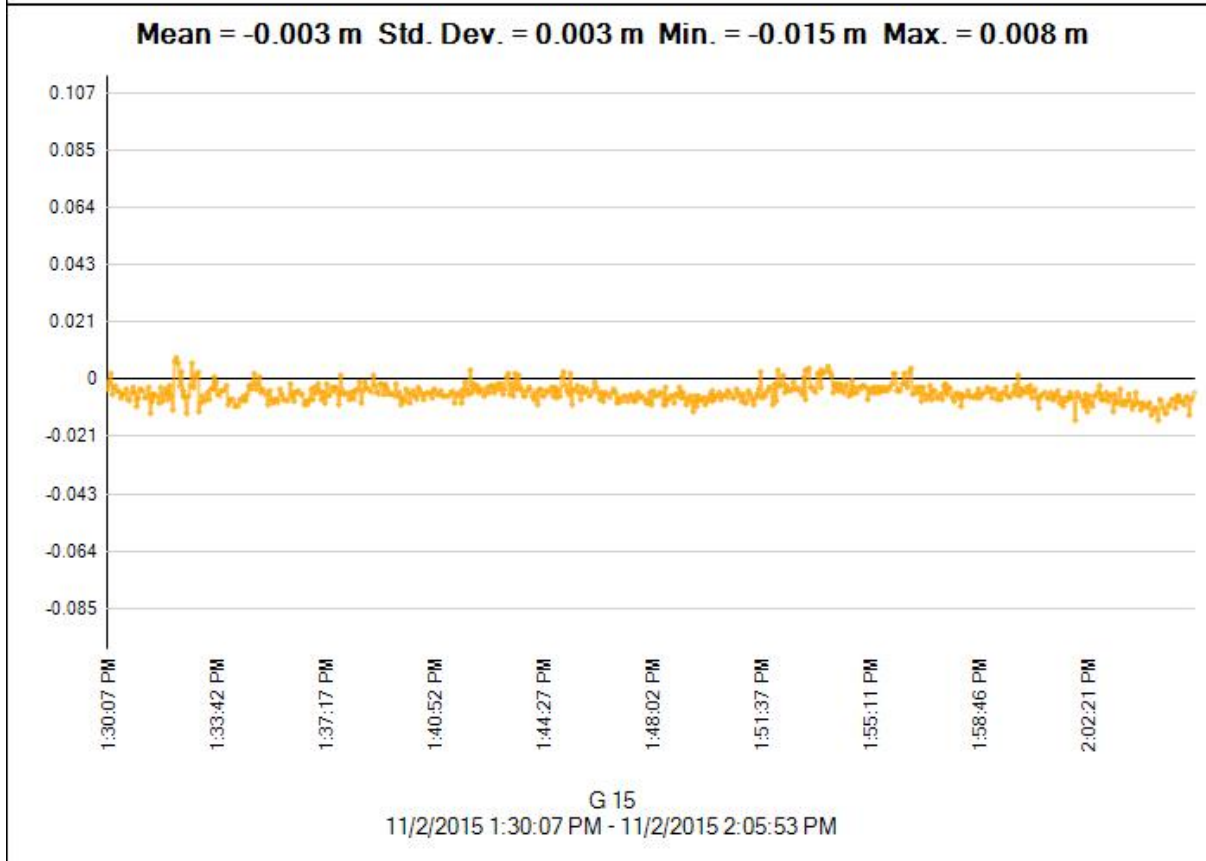
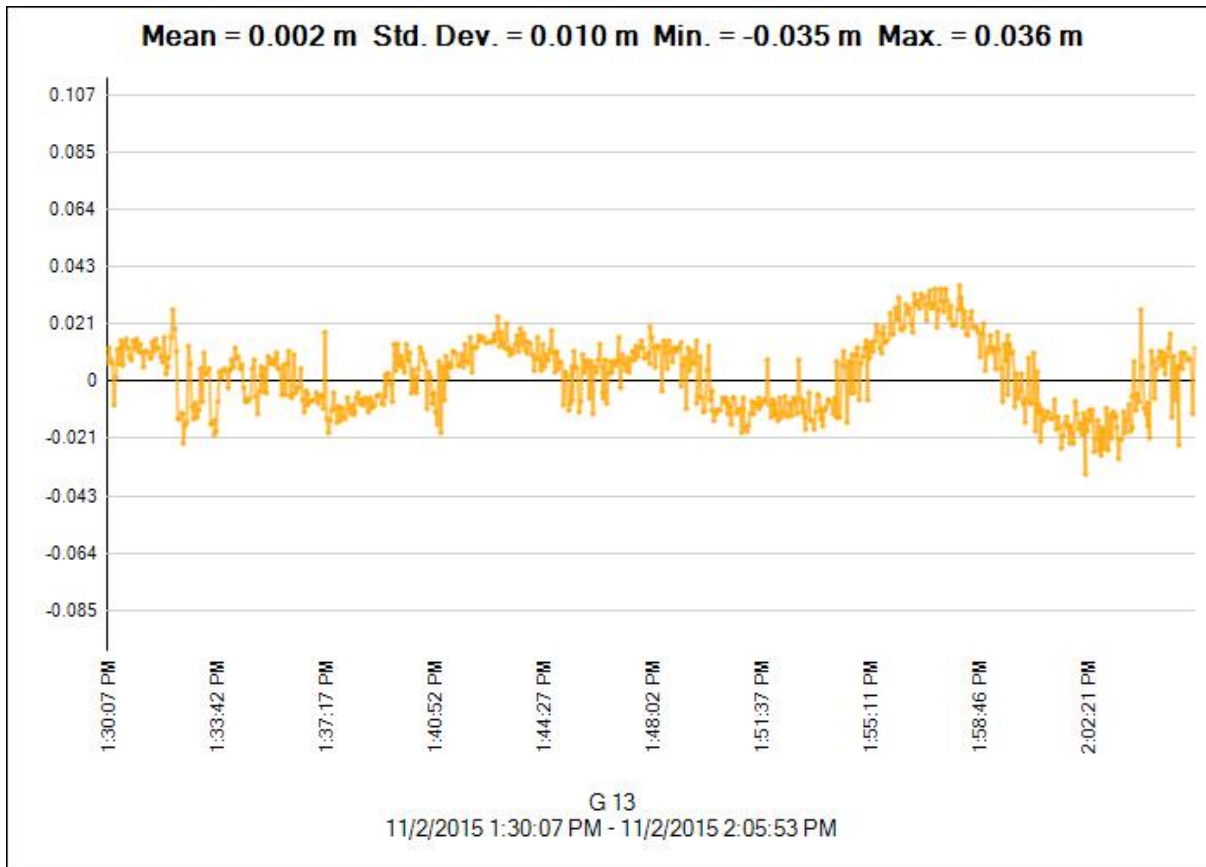
Occupations

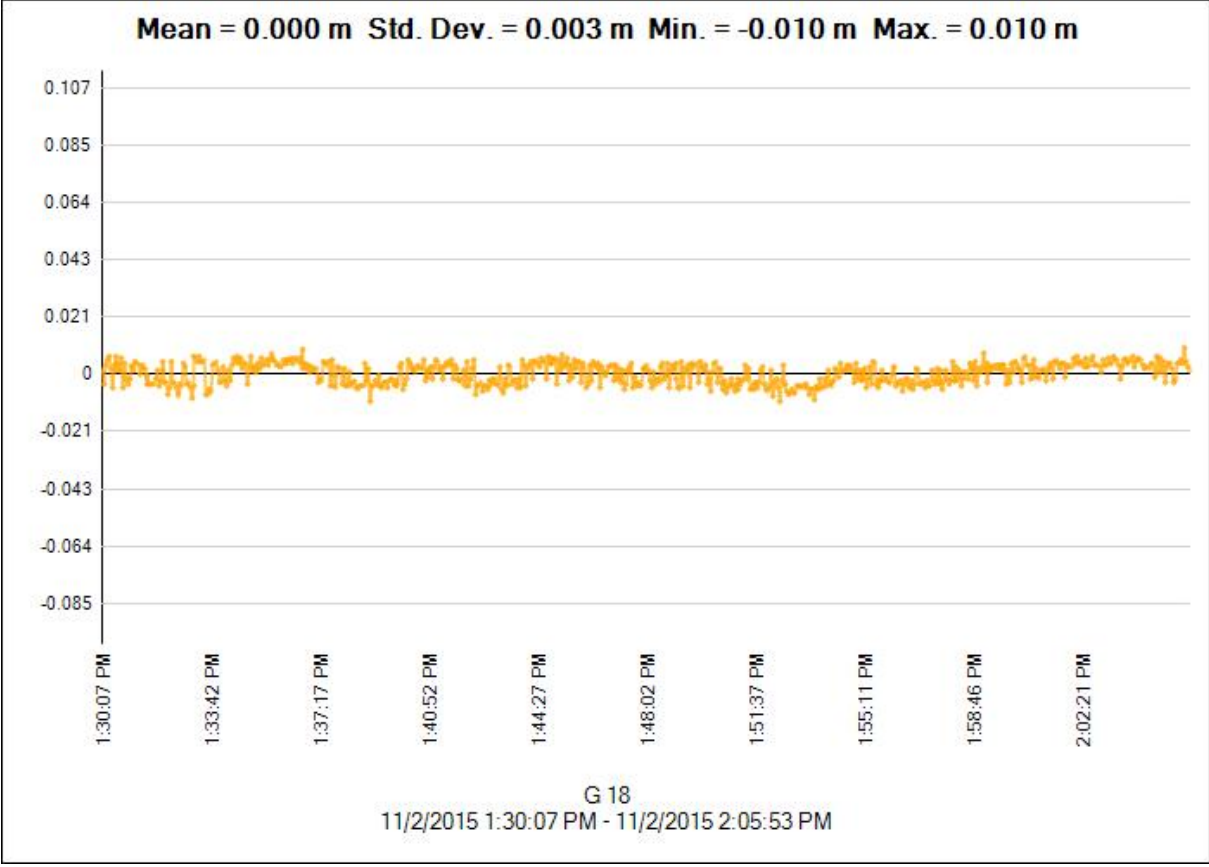
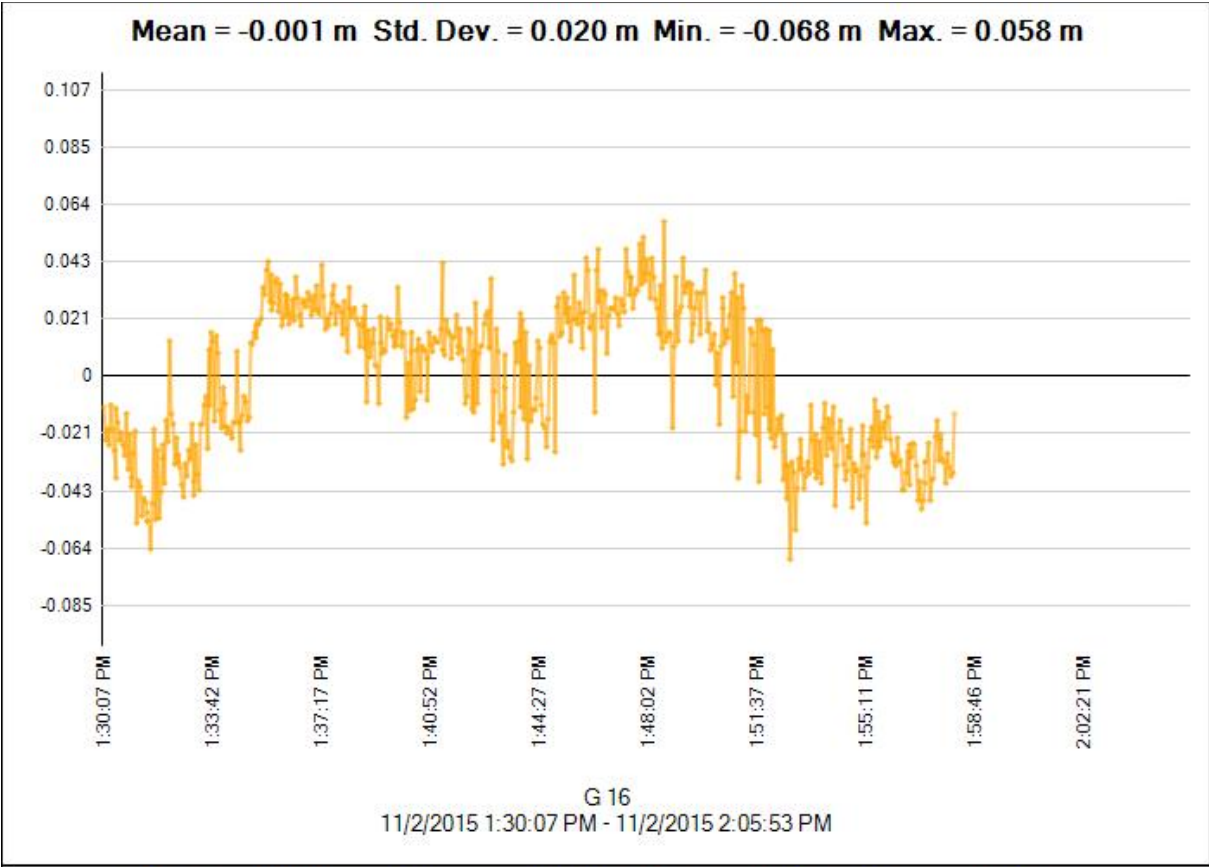
	From	To
Point ID:	NR0224	CP105A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843066.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.486 m	1.480 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

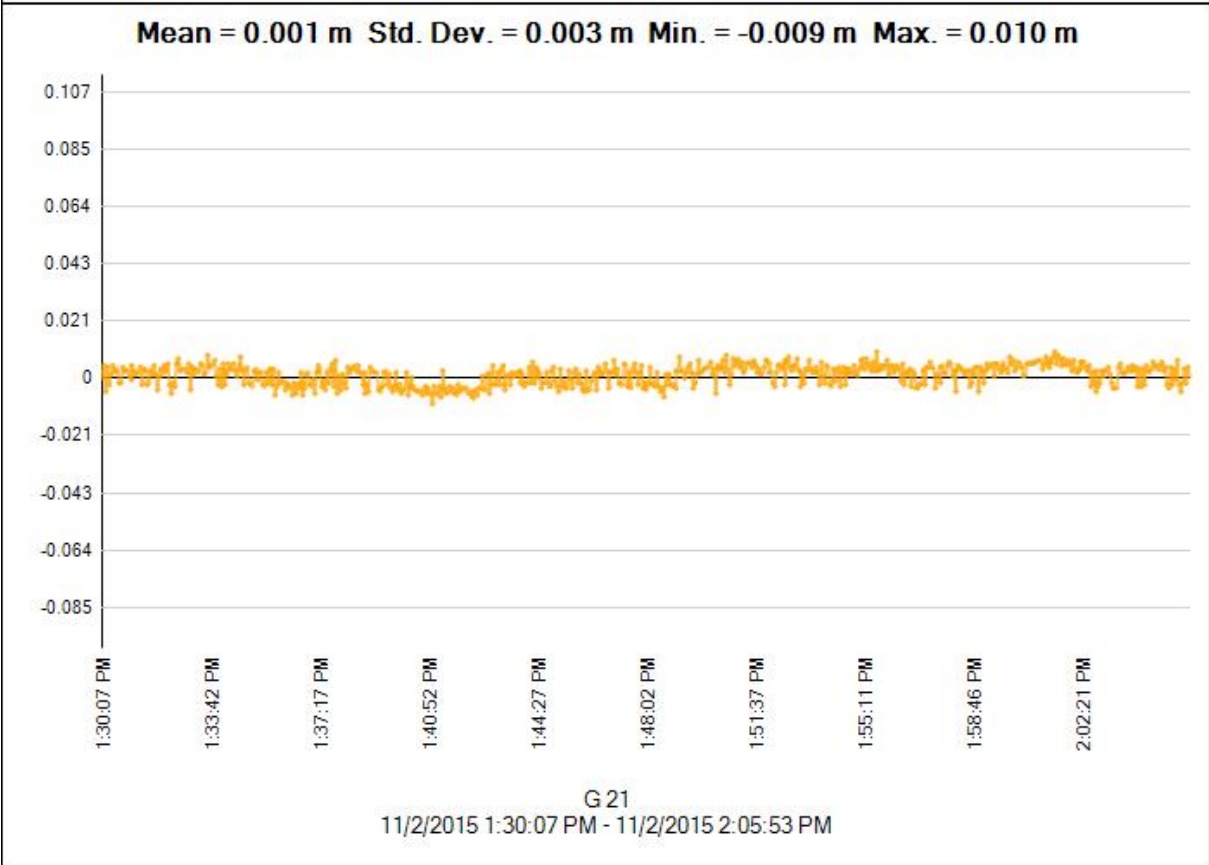
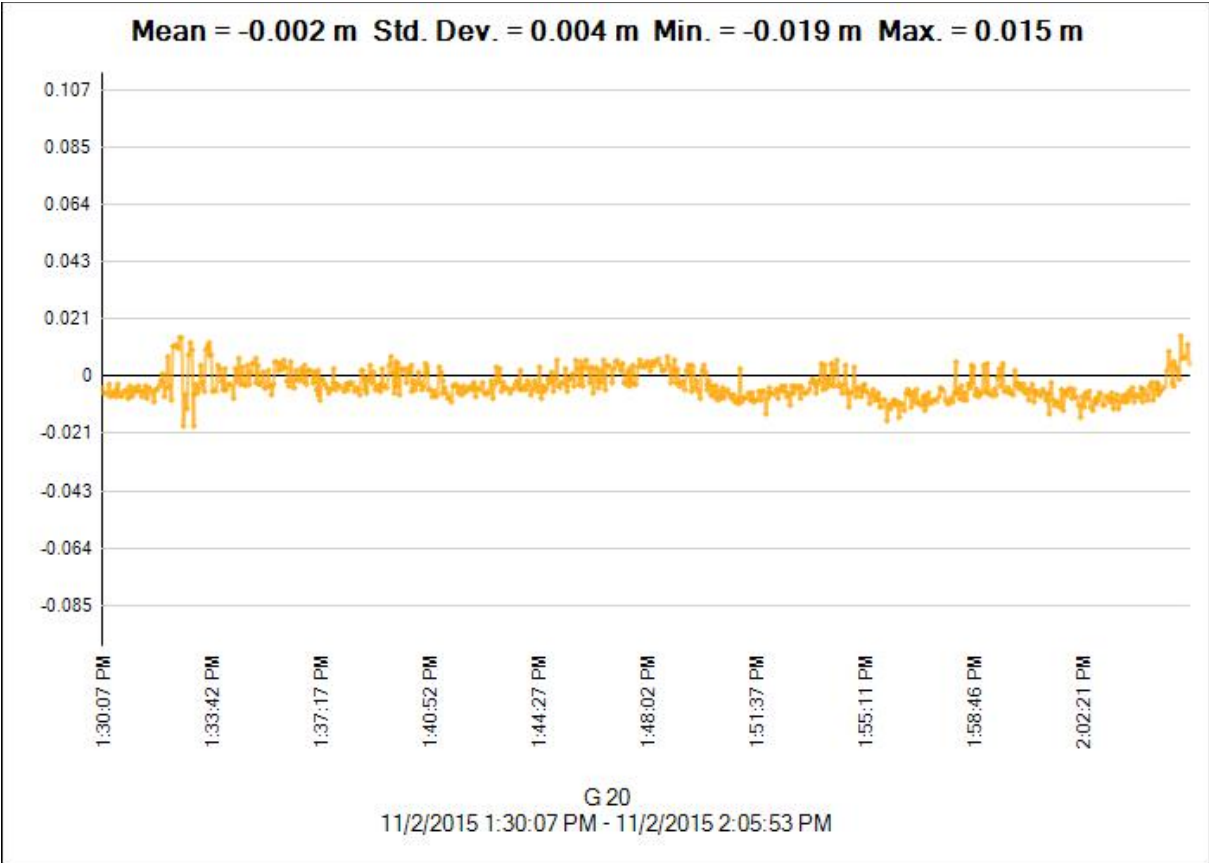
Tracking Summary

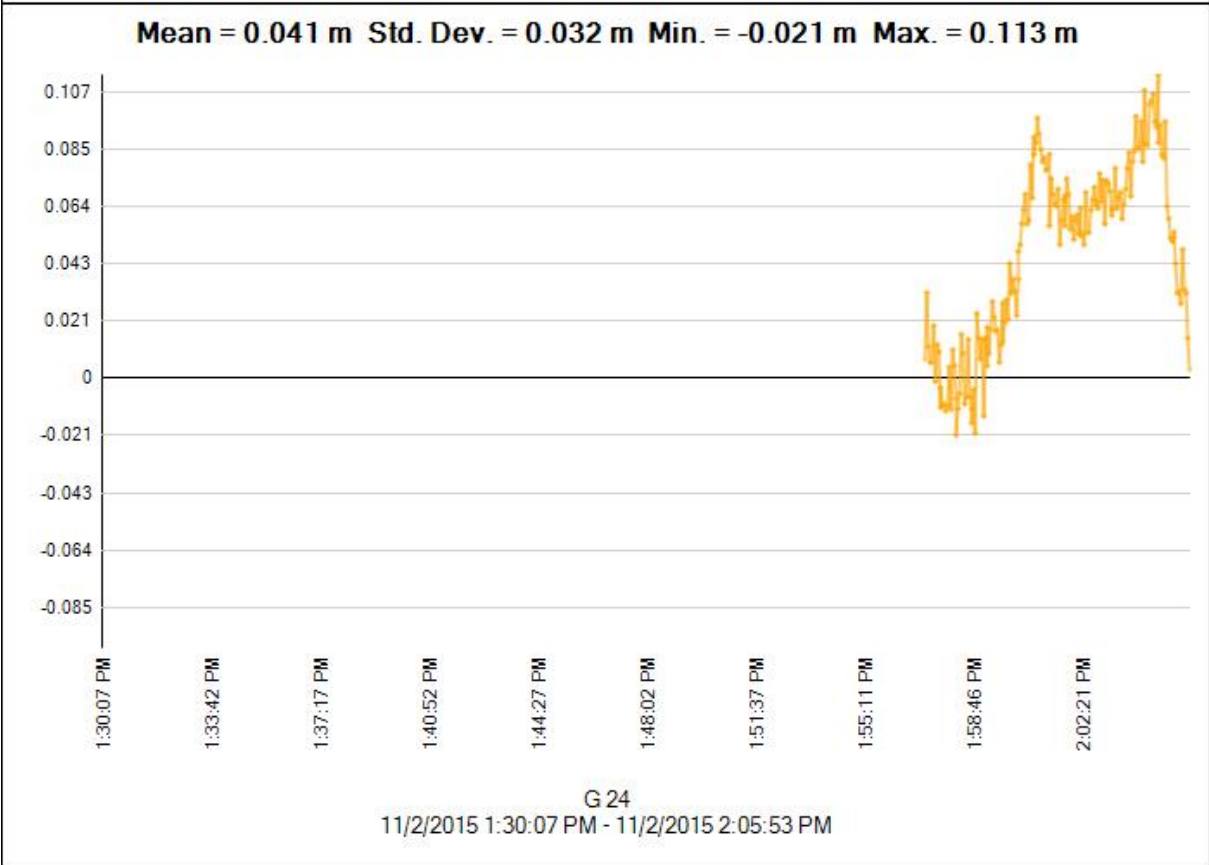
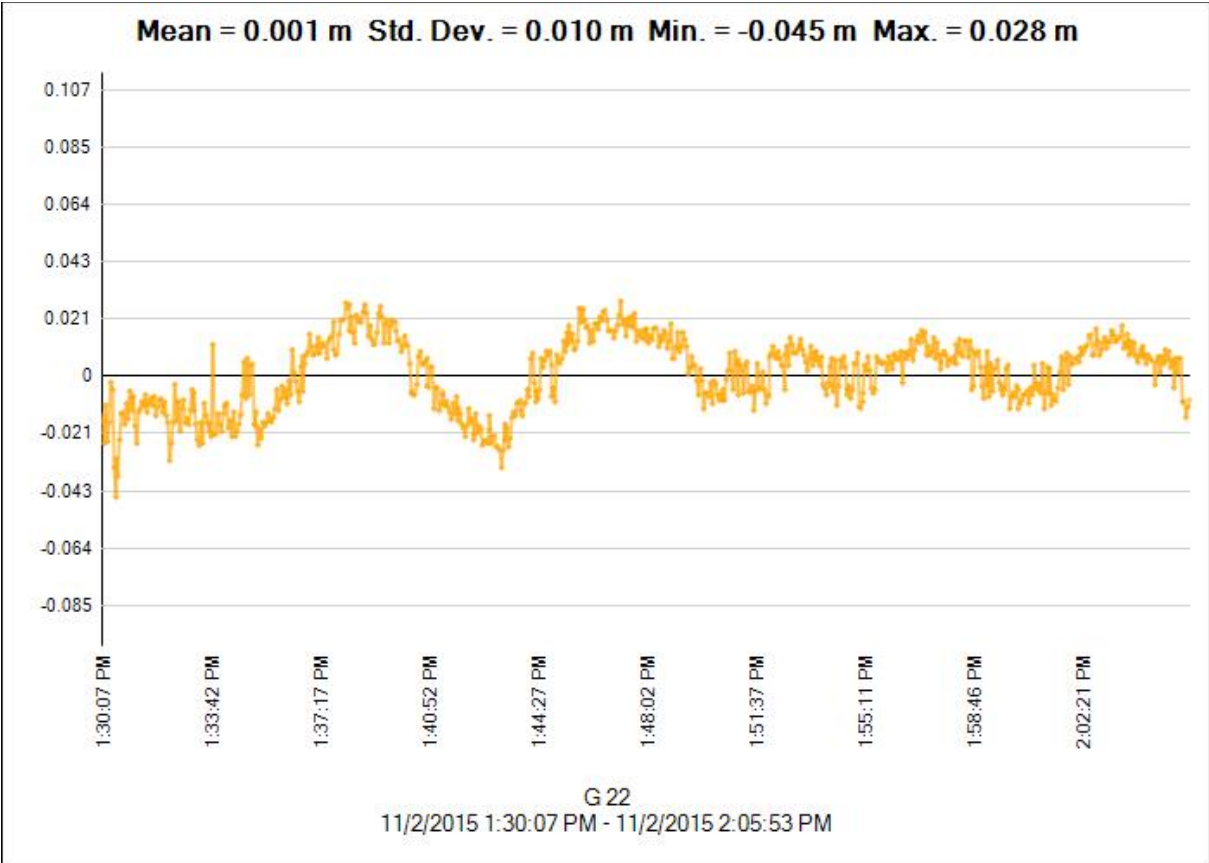
SV	11/2/2015 1:30:03 PM	Duration: 00:35:49	Major interval: 00:01:00	11/2/2015 2:05:52 PM
G 13	L1 L2			
G 14	L1 L2			
G 15	L1 L2			
G 16	L1 L2			
G 18	L1 L2			
G 20	L1 L2			
G 21	L1 L2			
G 22	L1 L2			
G 24	L1 L2			
G 26	L1 L2			
G 27	L1 L2			
G 29	L1 L2			

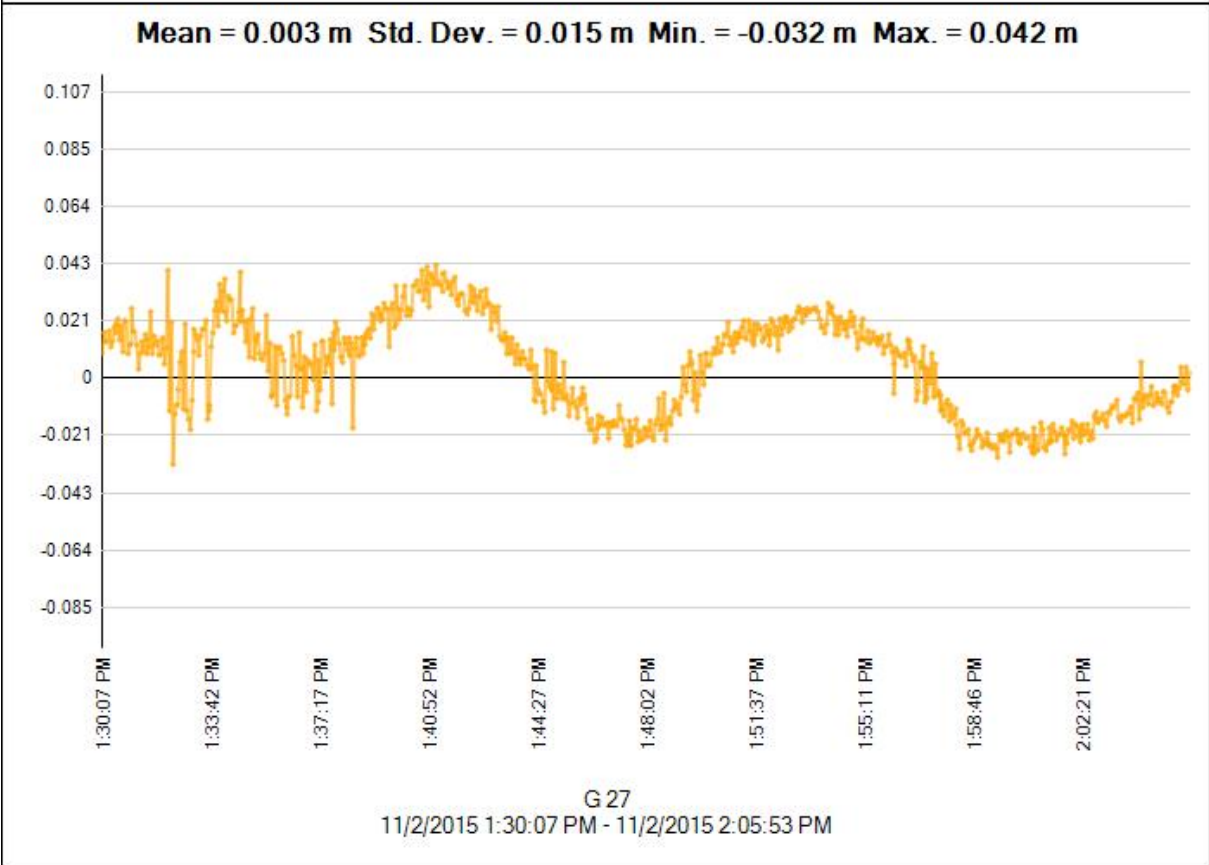
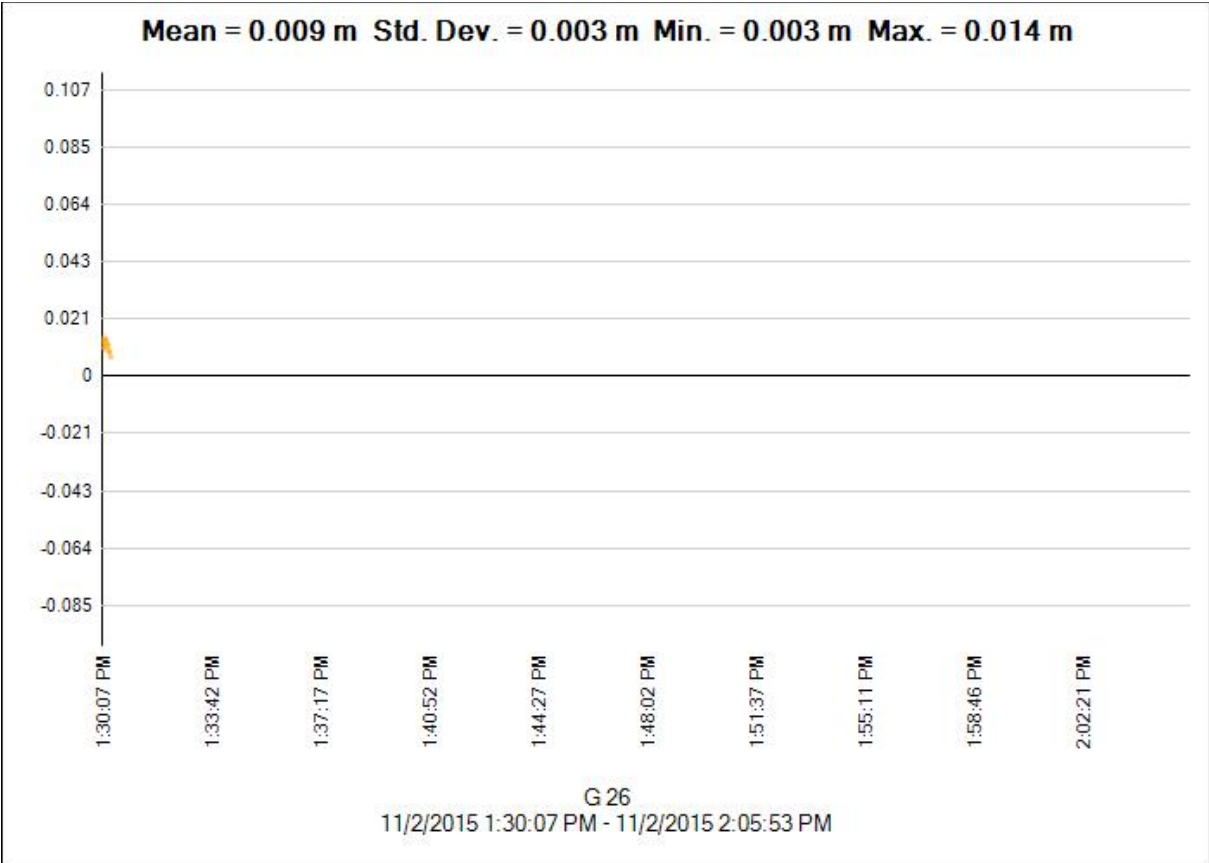
Residuals

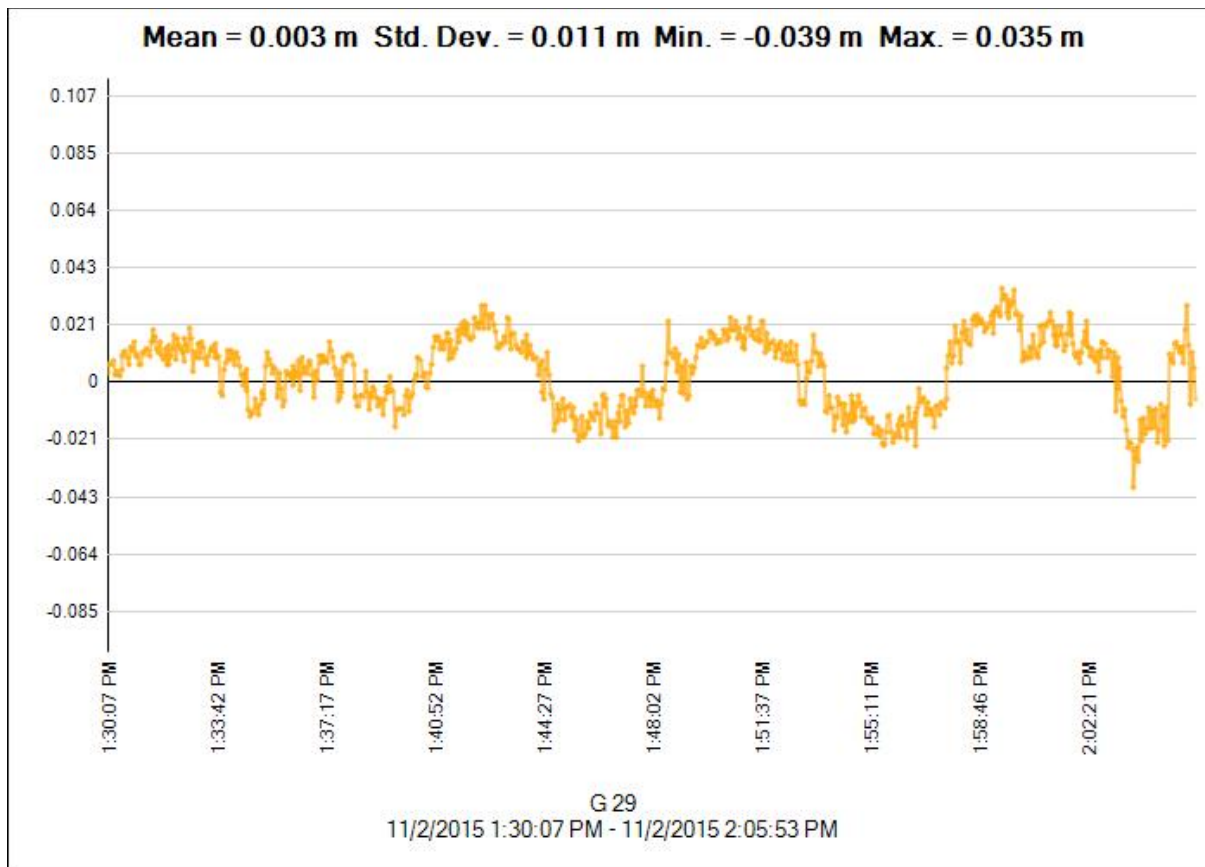














Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP107A (2:23:19 PM-2:58:12 PM) (S57)

Baseline observation: NR0224 --- CP107A (B57)
 Processed: 11/3/2015 9:51:55 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.011 m
 Vertical precision: 0.012 m
 RMS: 0.001 m
 Maximum PDOP: 2.028
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 11/2/2015 2:23:19 PM (Local: UTC-7hr)
 Processing stop time: 11/2/2015 2:57:54 PM (Local: UTC-7hr)
 Processing duration: 00:34:35
 Processing interval: 1 second

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To: CP107A					
Grid		Local		Global	
Easting	418660.189 m	Latitude	N43°03'09.27479"	Latitude	N43°03'09.27478"
Northing	383519.752 m	Longitude	W107°06'15.40563"	Longitude	W107°06'15.40563"
Elevation	1852.154 m	Height	1838.713 m	Height	1838.713 m

Vector					
ΔEasting	-51981.476 m	NS Fwd Azimuth	289°25'03"	ΔX	-46162.484 m
ΔNorthing	17724.388 m	Ellipsoid Dist.	54922.128 m	ΔY	26610.728 m
ΔElevation	233.332 m	ΔHeight	233.060 m	ΔZ	13378.992 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.003 m
$\sigma \Delta$ Northing	0.004 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.005 m
$\sigma \Delta$ Elevation	0.006 m	$\sigma \Delta$ Height	0.006 m	$\sigma \Delta$ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000098261		
Y	0.0000071108	0.0000296586	
Z	-0.0000009228	-0.0000107569	0.0000270371

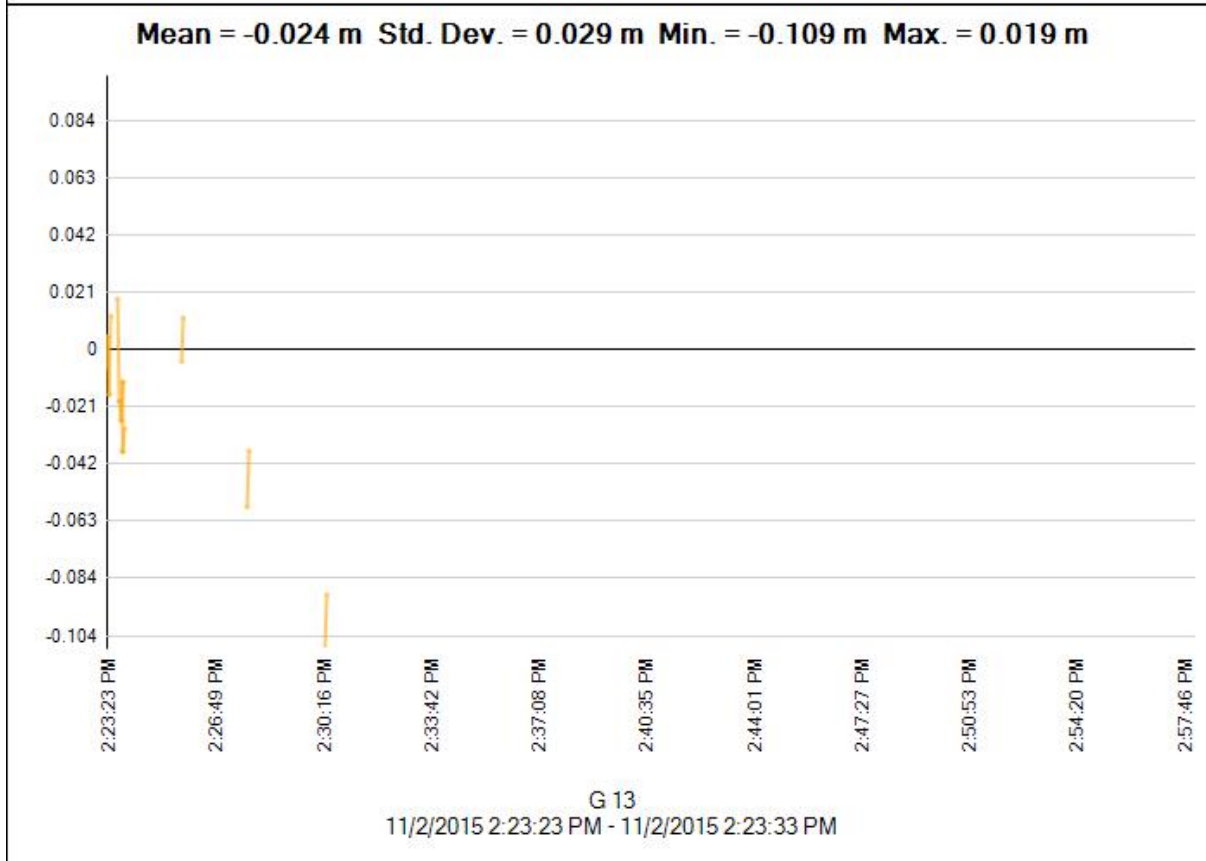
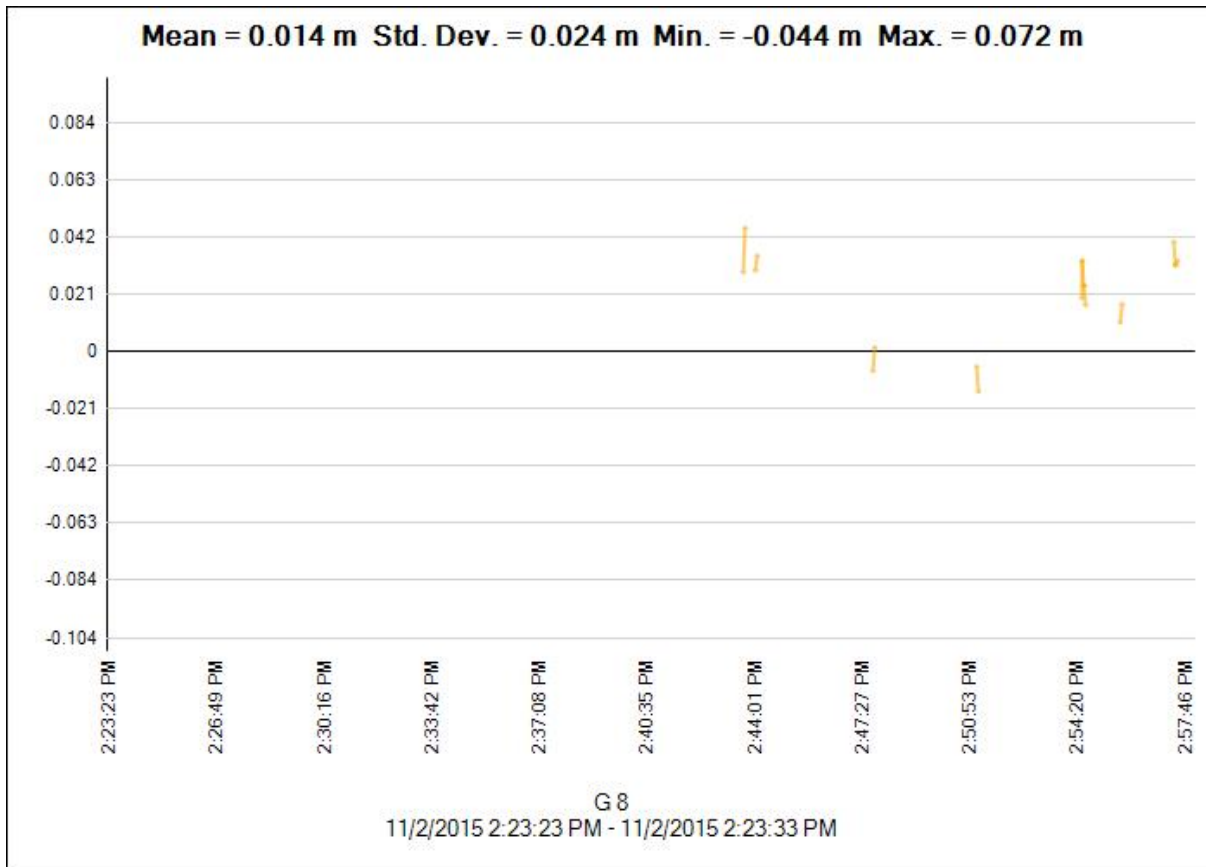
Occupations

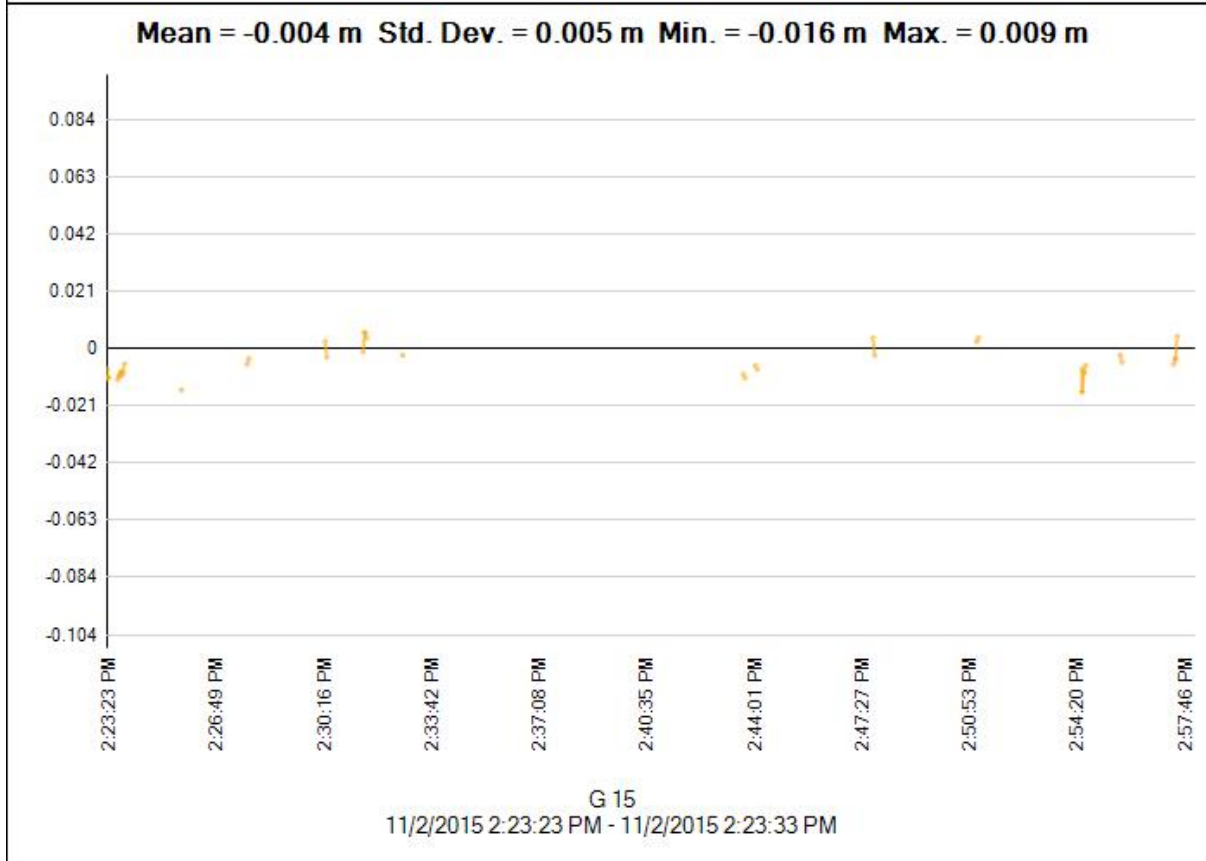
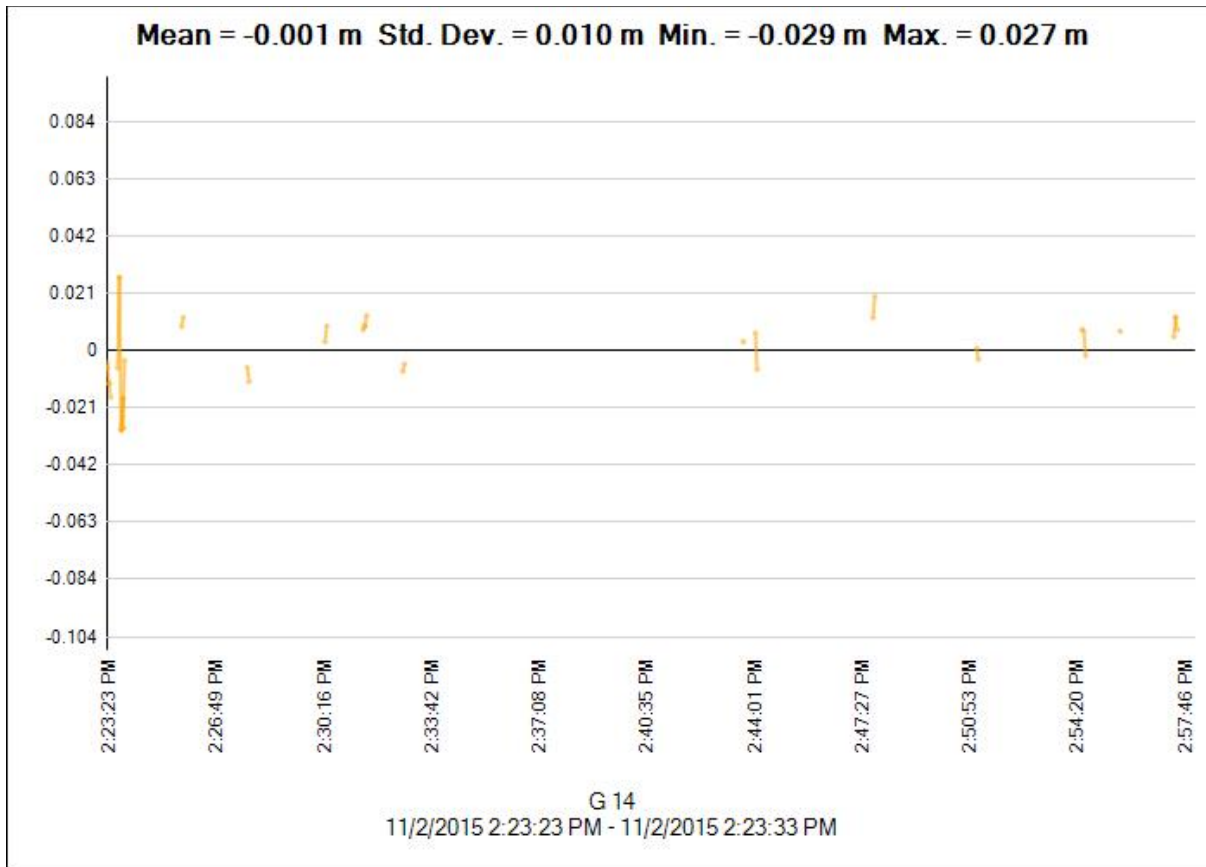
	From	To
Point ID:	NR0224	CP107A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843067.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.486 m	1.542 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

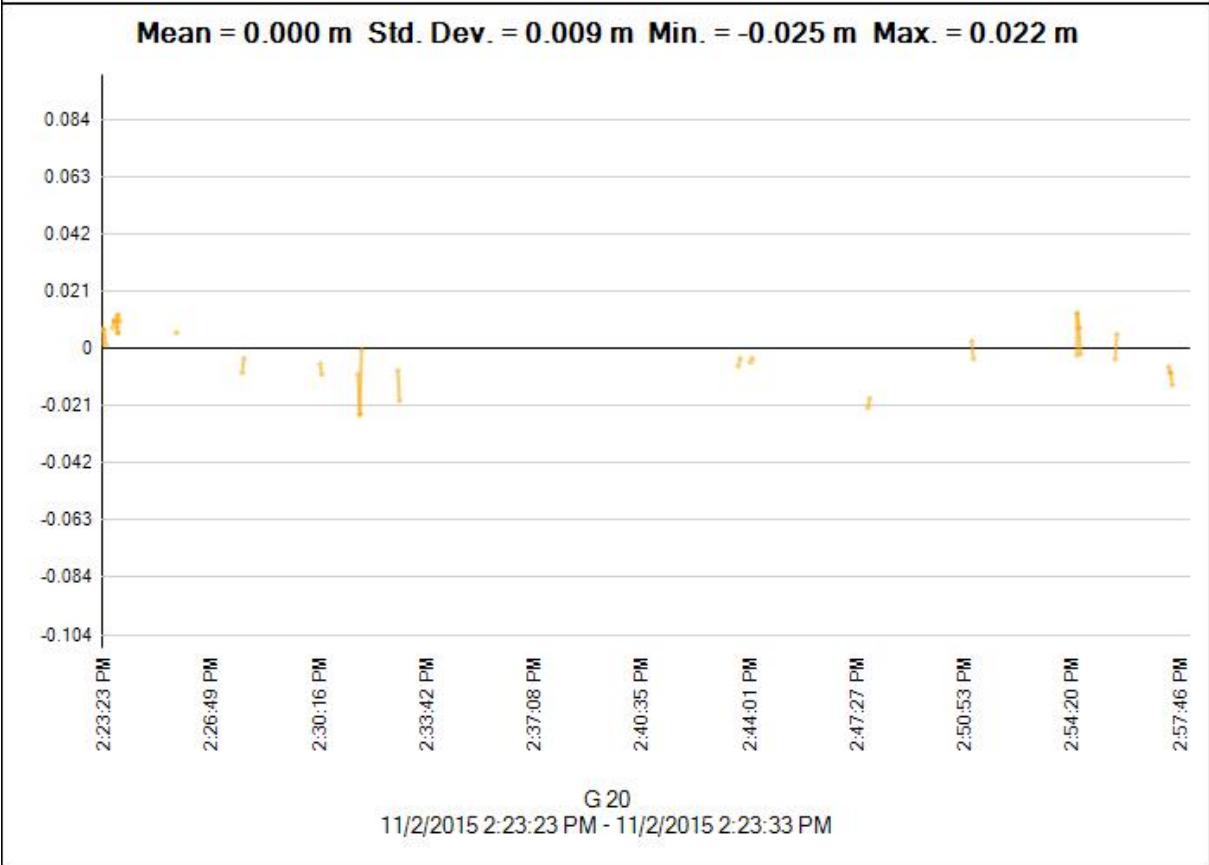
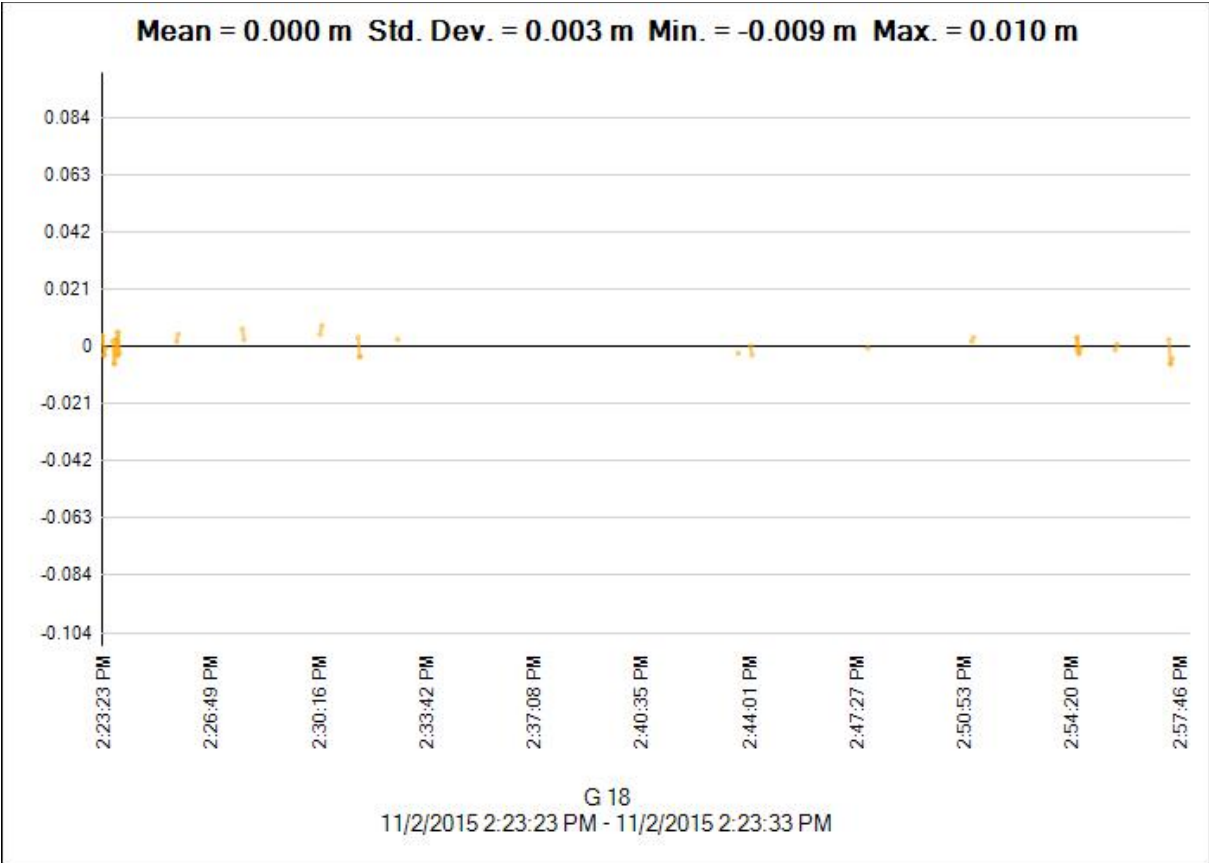
Tracking Summary

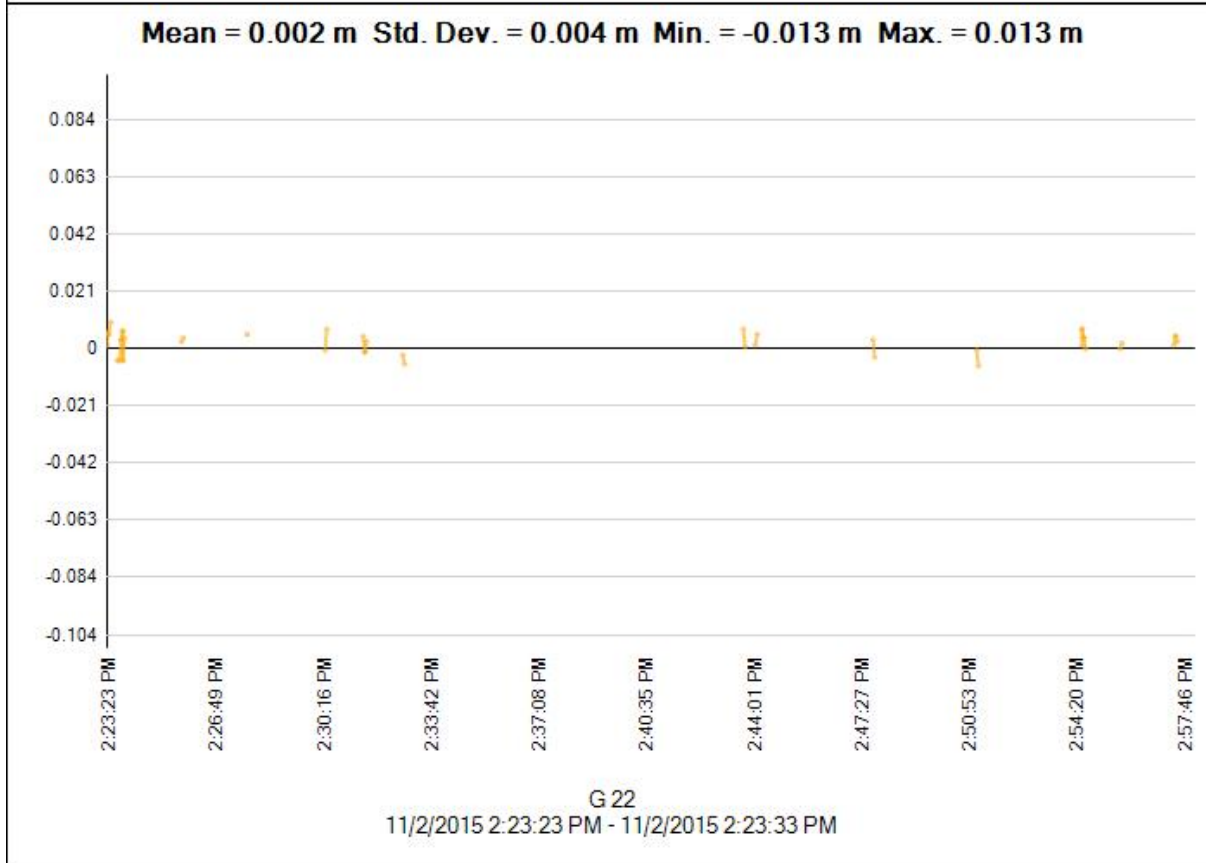
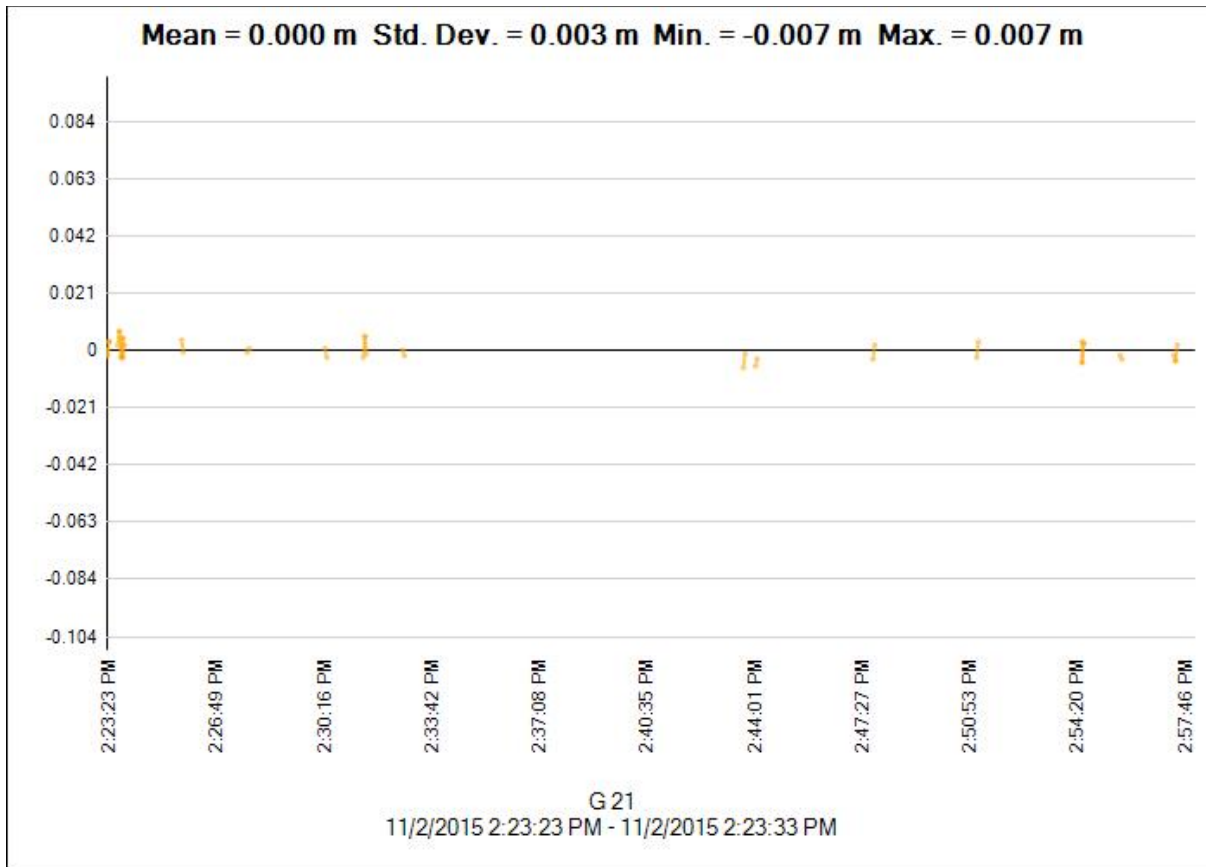
SV	11/2/2015 2:23:19 PM	Duration: 00:34:53	Major interval: 00:01:00	11/2/2015 2:58:12 PM
G 8				
G 13				
G 14				
G 15				
G 18				
G 20				
G 21				
G 22				
G 24				
G 27				
G 29				

Residuals











Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP109A (3:13:35 PM-3:48:41 PM) (S58)

Baseline observation: NR0224 --- CP109A (B58)
Processed: 11/3/2015 9:52:00 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.008 m
Vertical precision: 0.014 m
RMS: 0.001 m
Maximum PDOP: 2.490
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 11/2/2015 3:13:35 PM (Local: UTC-7hr)
Processing stop time: 11/2/2015 3:48:41 PM (Local: UTC-7hr)
Processing duration: 00:35:06
Processing interval: 1 second

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To:		CP109A			
Grid		Local		Global	
Easting	419624.078 m	Latitude	N43°02'46.78335"	Latitude	N43°02'46.78334"
Northing	382828.416 m	Longitude	W107°05'32.89933"	Longitude	W107°05'32.89933"
Elevation	1841.020 m	Height	1827.579 m	Height	1827.579 m

Vector					
Δ Easting	-51017.586 m	NS Fwd Azimuth	289°03'06"	Δ X	-45379.682 m
Δ Northing	17033.053 m	Ellipsoid Dist.	53787.733 m	Δ Y	25882.599 m
Δ Elevation	222.198 m	Δ Height	221.926 m	Δ Z	12864.042 m

Standard Errors

Vector errors:					
σ Δ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.003 m
σ Δ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	σ Δ Y	0.005 m
σ Δ Elevation	0.007 m	σ Δ Height	0.007 m	σ Δ Z	0.006 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000078373		
Y	0.0000065786	0.0000273708	
Z	-0.0000058579	-0.0000196313	0.0000351351

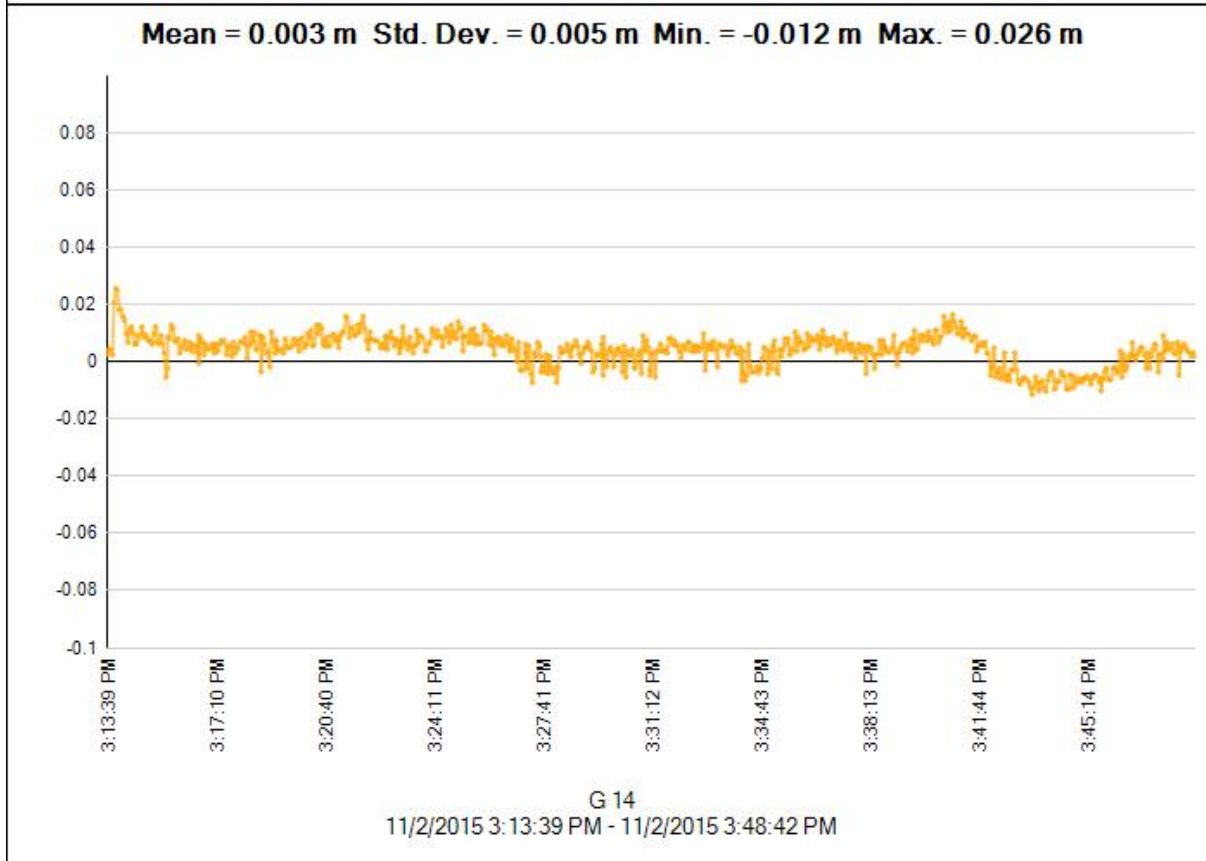
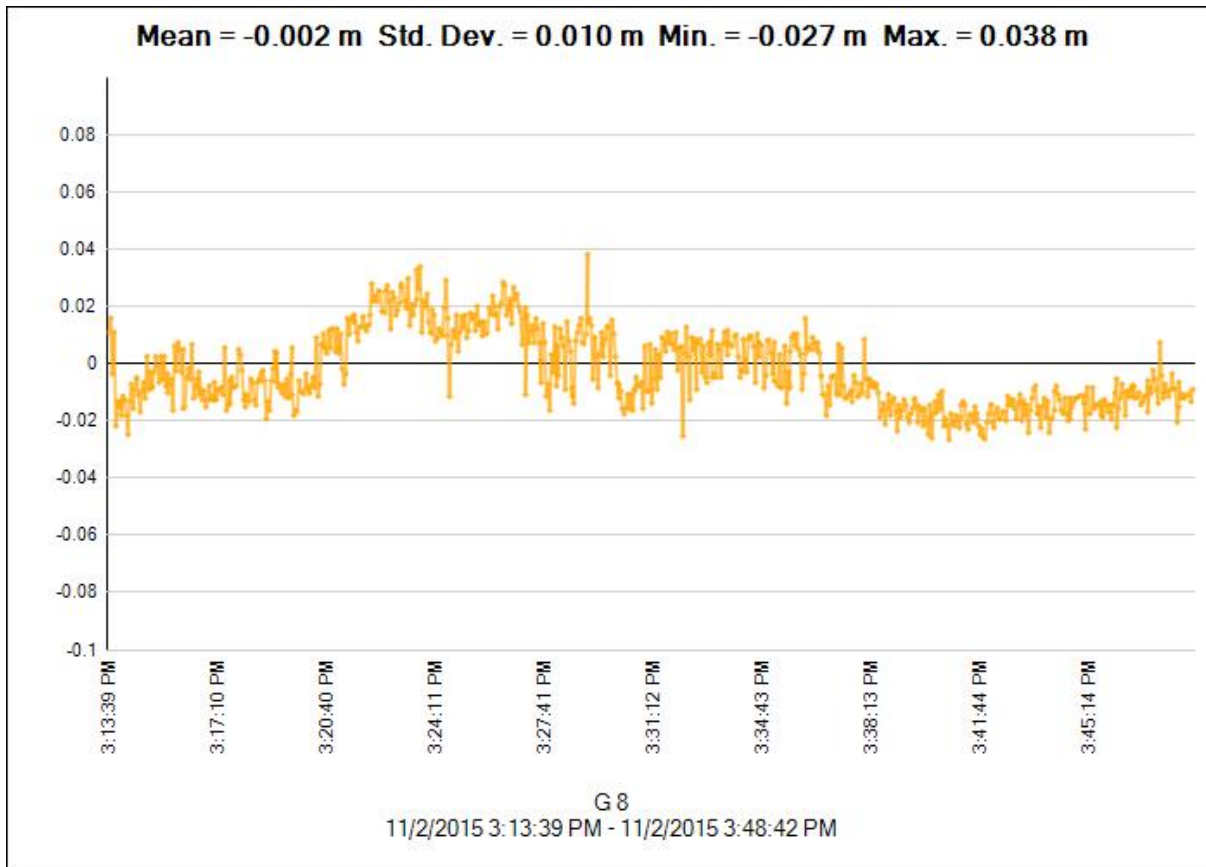
Occupations

	From	To
Point ID:	NR0224	CP109A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843068.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.486 m	0.610 m
Antenna method:	Antenna Phase Center	Bottom of antenna mount

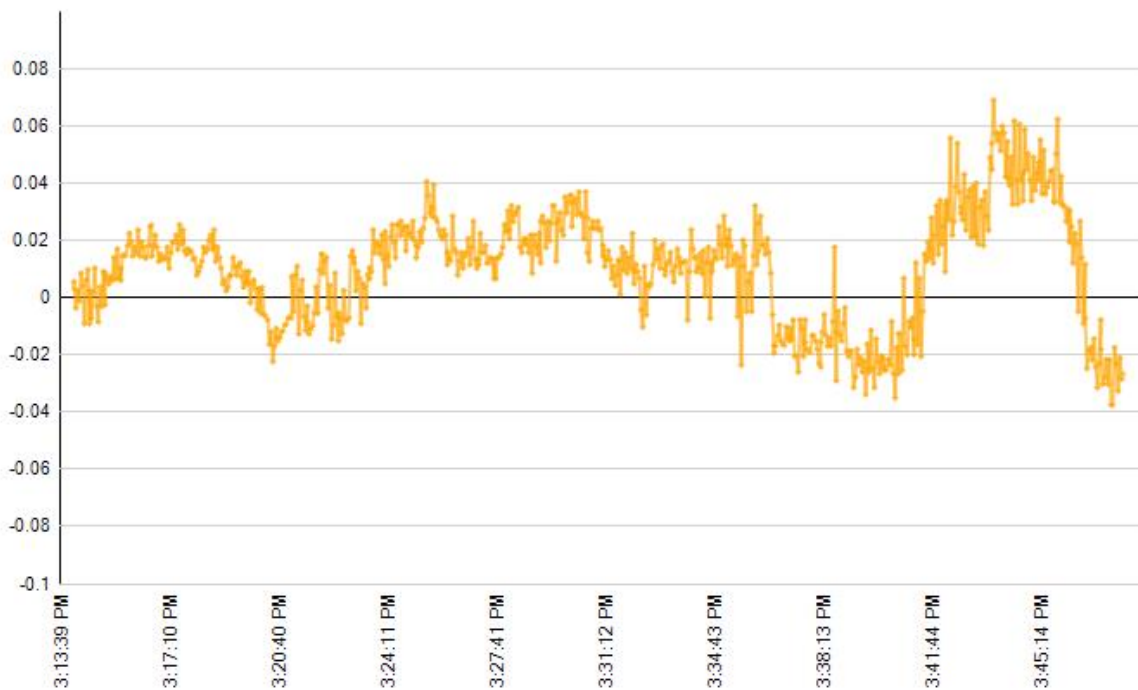
Tracking Summary

SV	11/2/2015 3:13:35 PM	Duration: 00:35:06	Major interval: 00:01:00	11/2/2015 3:48:41 PM
G 8	L1 L2			
G 14	L1 L2			
G 15	L1 L2			
G 18	L1 L2			
G 20	L1 L2			
G 21	L1 L2			
G 22	L1 L2			
G 24	L1 L2			
G 27	L1 L2			

Residuals

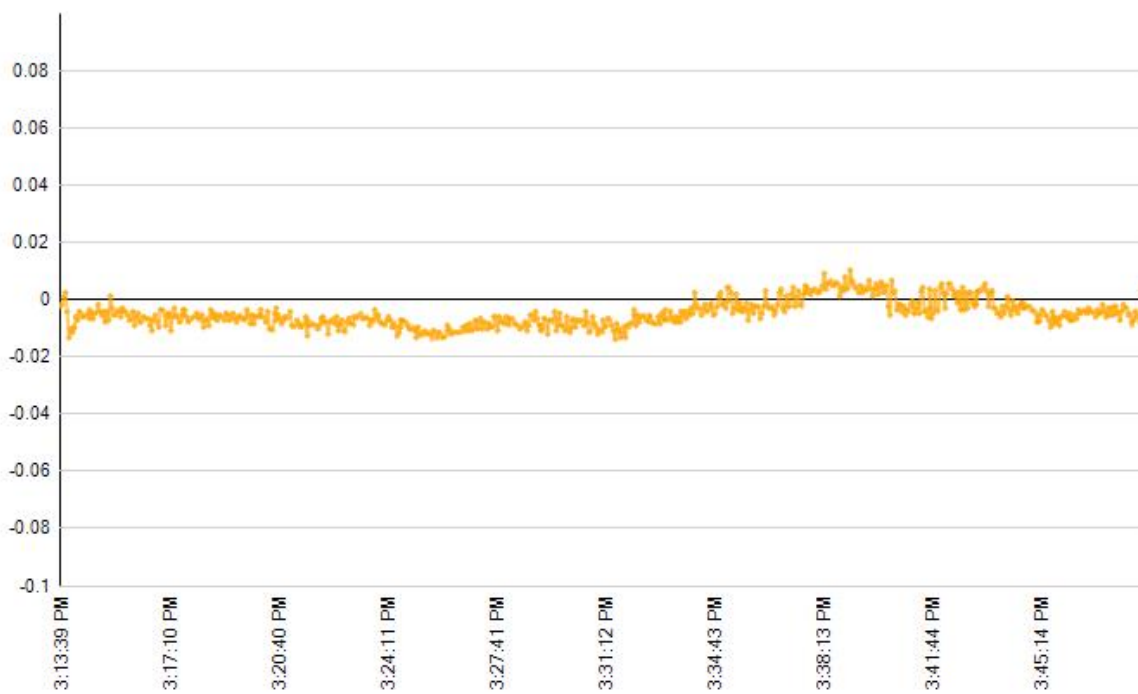


Mean = 0.008 m Std. Dev. = 0.016 m Min. = -0.038 m Max. = 0.069 m



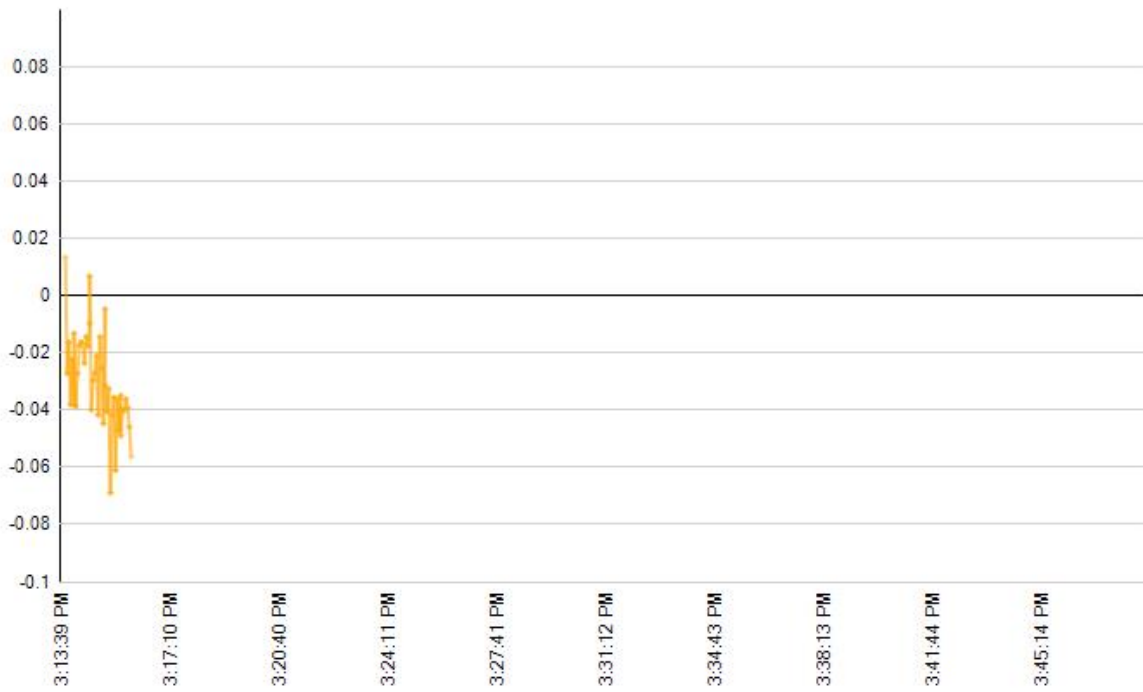
G 15
11/2/2015 3:13:39 PM - 11/2/2015 3:48:42 PM

Mean = -0.004 m Std. Dev. = 0.004 m Min. = -0.014 m Max. = 0.010 m



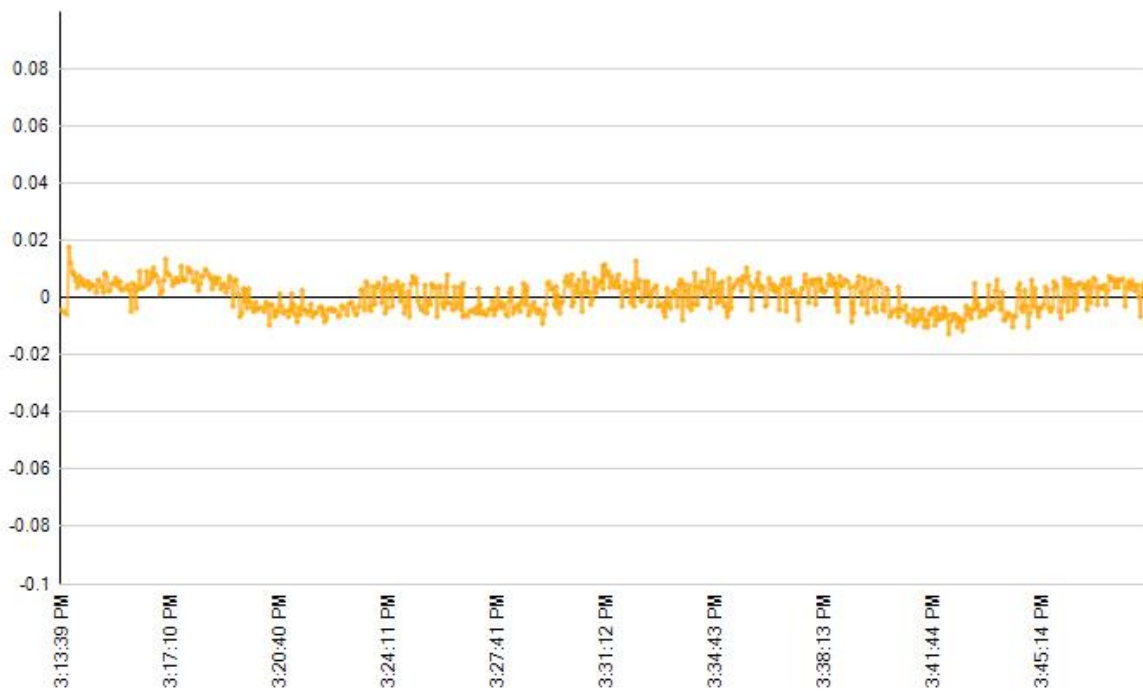
G 18
11/2/2015 3:13:39 PM - 11/2/2015 3:48:42 PM

Mean = -0.021 m Std. Dev. = 0.018 m Min. = -0.069 m Max. = 0.030 m



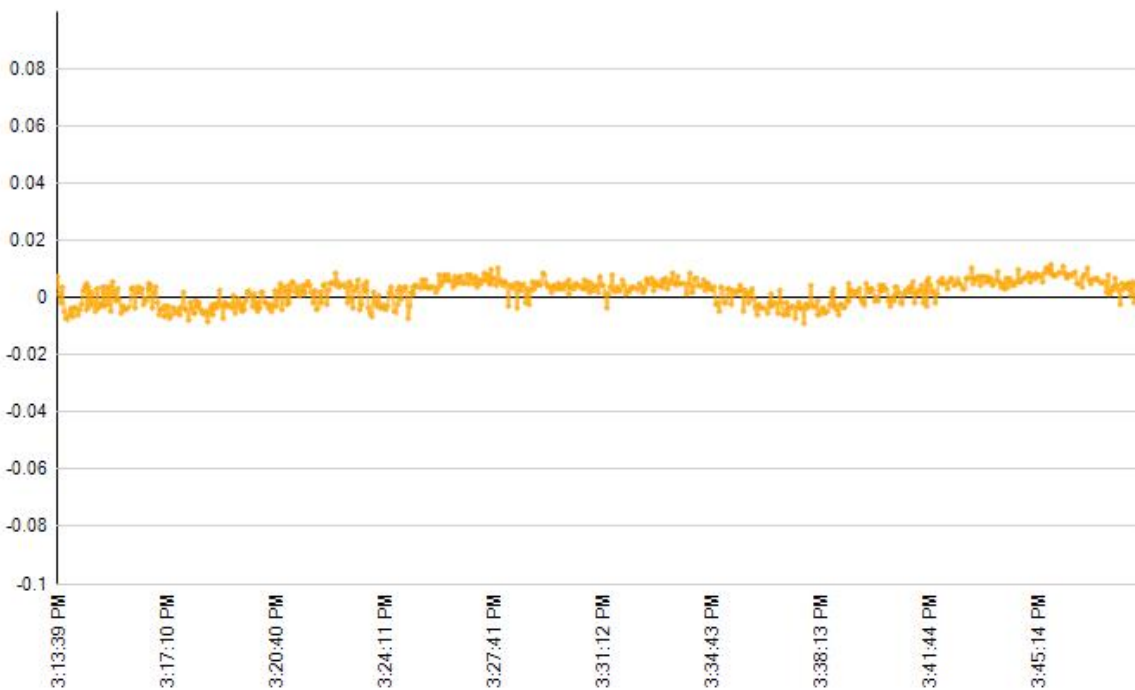
G 20
11/2/2015 3:13:39 PM - 11/2/2015 3:48:42 PM

Mean = 0.000 m Std. Dev. = 0.004 m Min. = -0.012 m Max. = 0.018 m



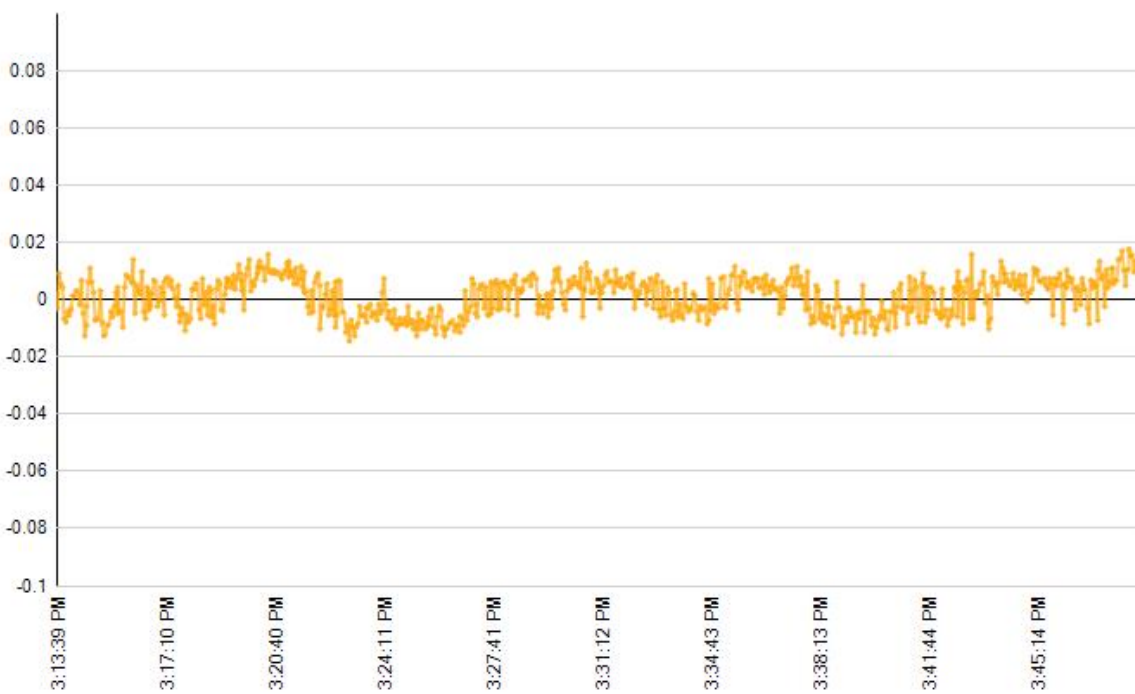
G 21
11/2/2015 3:13:39 PM - 11/2/2015 3:48:42 PM

Mean = 0.001 m Std. Dev. = 0.003 m Min. = -0.009 m Max. = 0.012 m

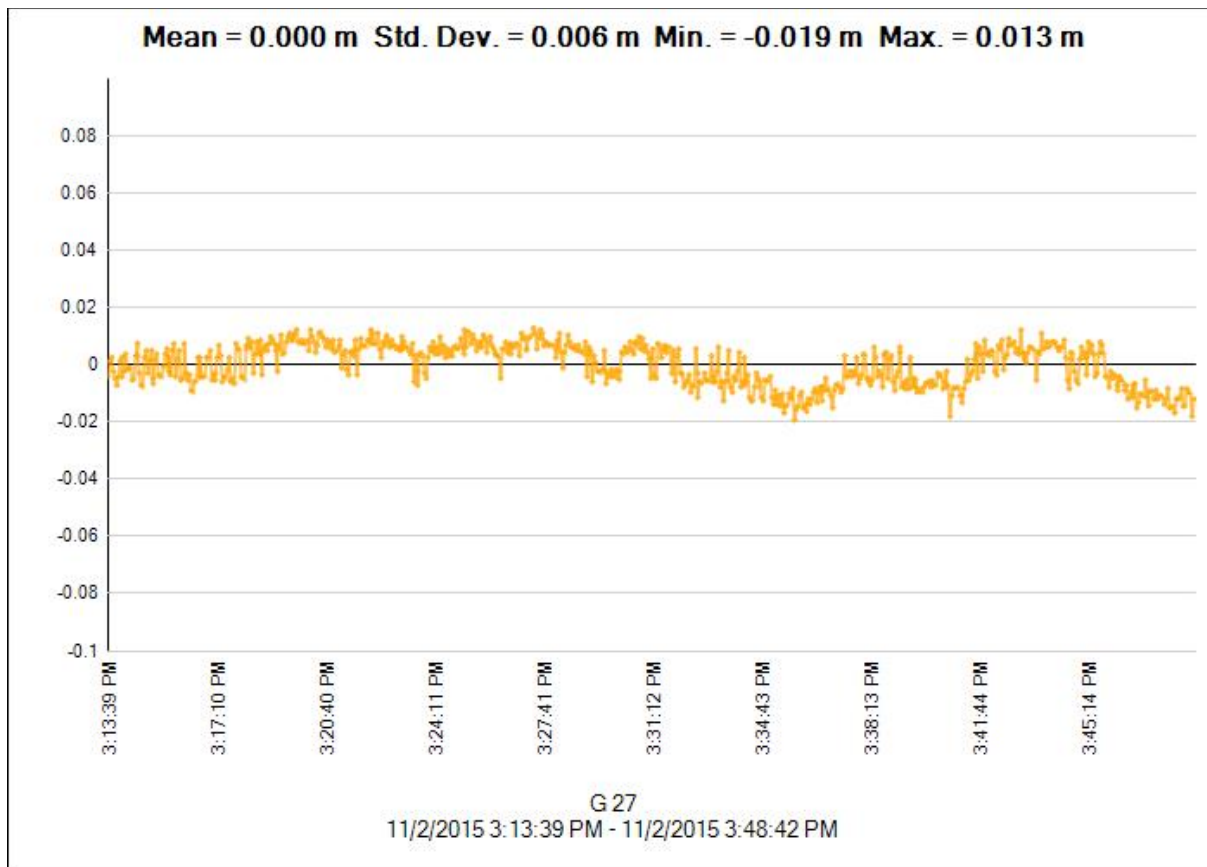


G 22
11/2/2015 3:13:39 PM - 11/2/2015 3:48:42 PM

Mean = 0.001 m Std. Dev. = 0.005 m Min. = -0.015 m Max. = 0.017 m





G 24
11/2/2015 3:13:39 PM - 11/2/2015 3:48:42 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP108A (3:56:59 PM-4:32:22 PM) (S59)

Baseline observation: NR0224 --- CP108A (B59)
 Processed: 11/3/2015 9:52:01 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.010 m
 Vertical precision: 0.012 m
 RMS: 0.001 m
 Maximum PDOP: 2.351
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 11/2/2015 3:56:59 PM (Local: UTC-7hr)
 Processing stop time: 11/2/2015 4:32:22 PM (Local: UTC-7hr)
 Processing duration: 00:35:23
 Processing interval: 1 second

Vector Components (Mark to Mark)

From:		NR0224					
		Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"		
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"		
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m		

To:		CP108A					
		Grid		Local		Global	
Easting	421460.734 m	Latitude	N43°02'23.65683"	Latitude	N43°02'23.65683"		
Northing	382120.301 m	Longitude	W107°04'11.84469"	Longitude	W107°04'11.84469"		
Elevation	1816.679 m	Height	1803.250 m	Height	1803.249 m		

Vector					
ΔEasting	-49180.931 m	NS Fwd Azimuth	288°57'08"	ΔX	-43763.381 m
ΔNorthing	16324.938 m	Ellipsoid Dist.	51821.326 m	ΔY	24894.803 m
ΔElevation	197.857 m	ΔHeight	197.597 m	ΔZ	12325.710 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.003 m
$\sigma \Delta$ Northing	0.004 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.005 m
$\sigma \Delta$ Elevation	0.006 m	$\sigma \Delta$ Height	0.006 m	$\sigma \Delta$ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000082930		
Y	0.0000061733	0.0000267507	
Z	-0.0000043852	-0.0000088961	0.0000218692

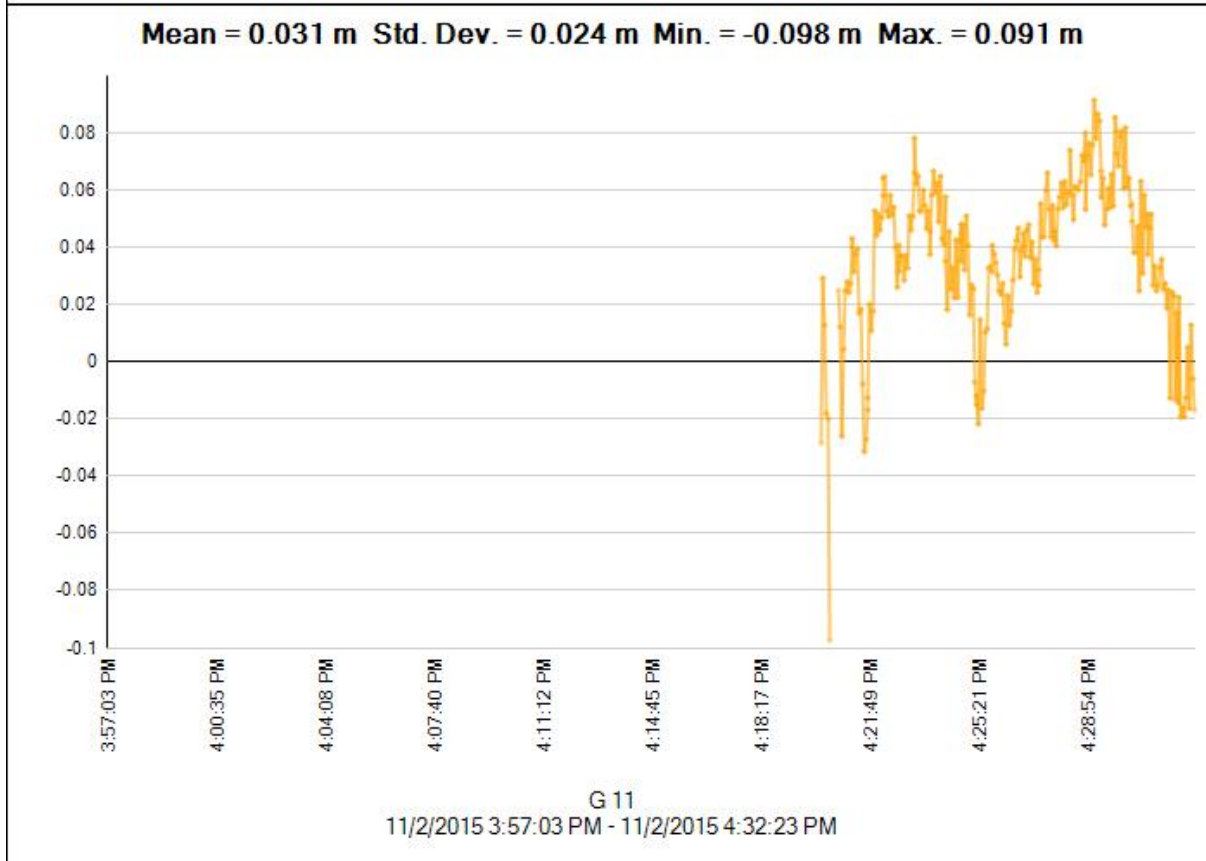
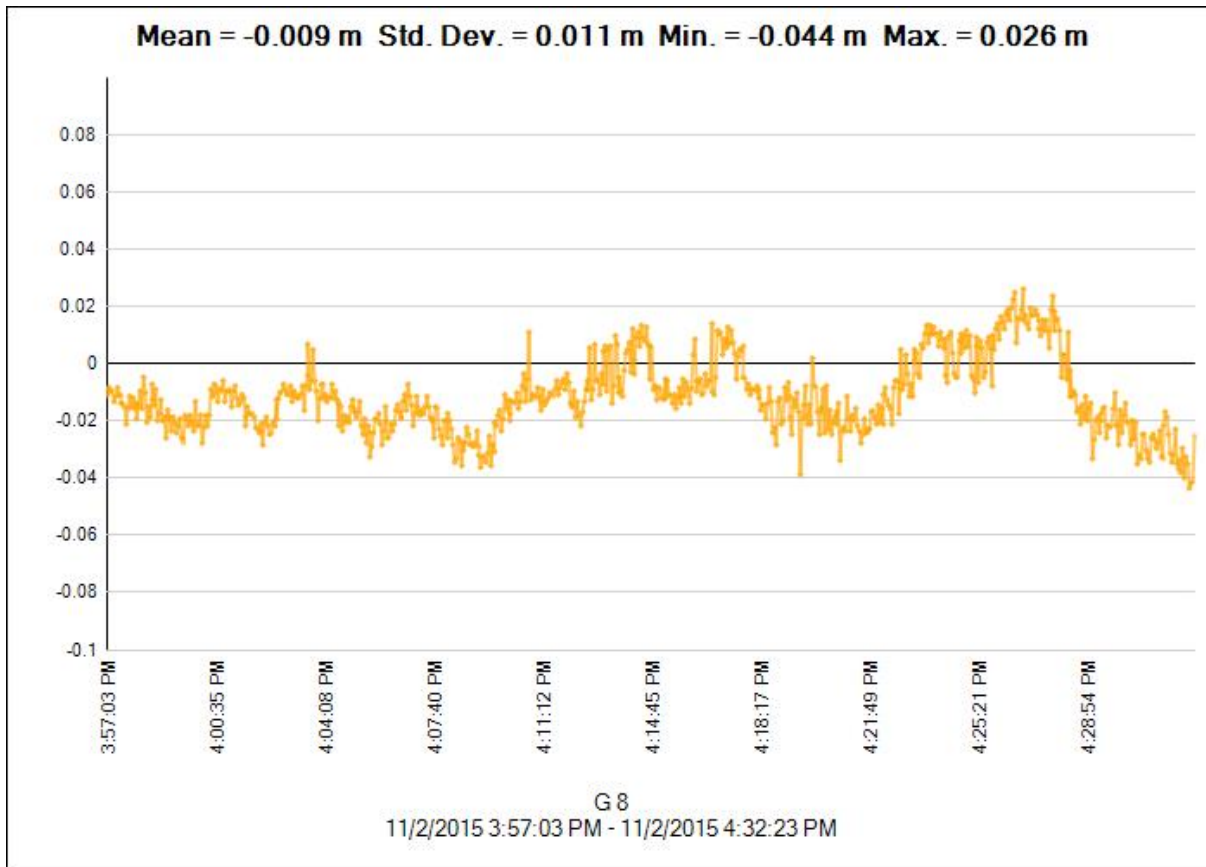
Occupations

	From	To
Point ID:	NR0224	CP108A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513060.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843069.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.486 m	1.474 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

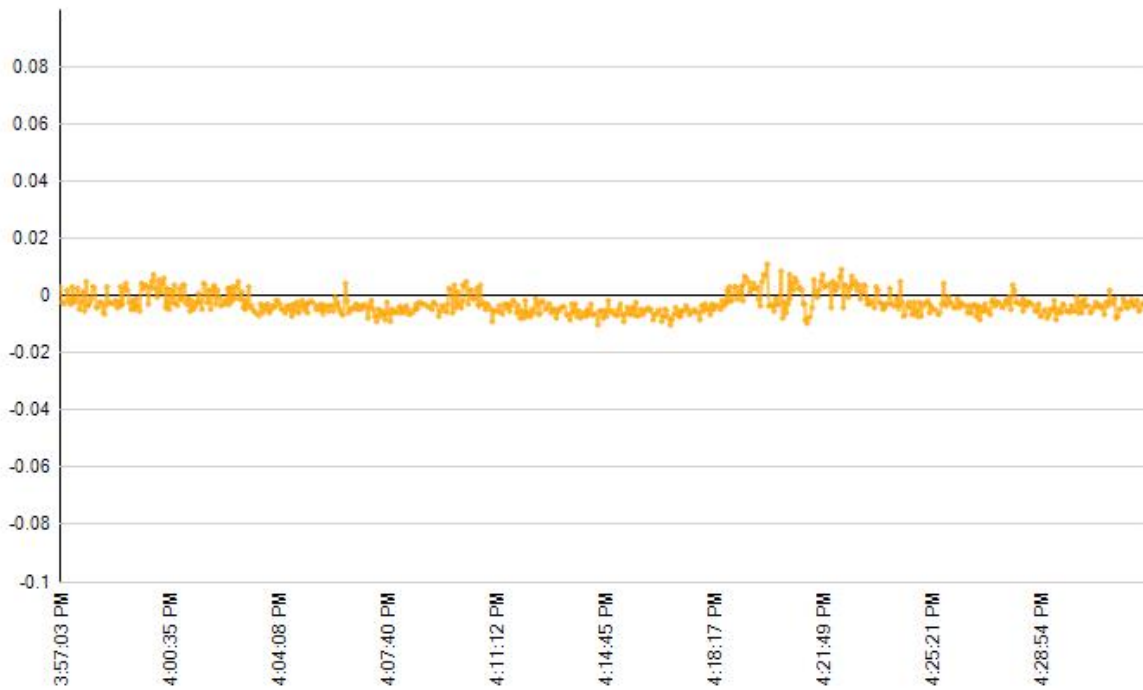
Tracking Summary

SV	11/2/2015 3:56:59 PM	Duration: 00:35:23	Major interval: 00:01:00	11/2/2015 4:32:22 PM
G 8	L1 L2			
G 11	L1 L2			
G 14	L1 L2			
G 15	L1 L2			
G 18	L1 L2			
G 19	L1 L2			
G 21	L1 L2			
G 22	L1 L2			
G 24	L1 L2			
G 27	L1 L2			
G 31	L1 L2			
G 32	L1 L2			

Residuals

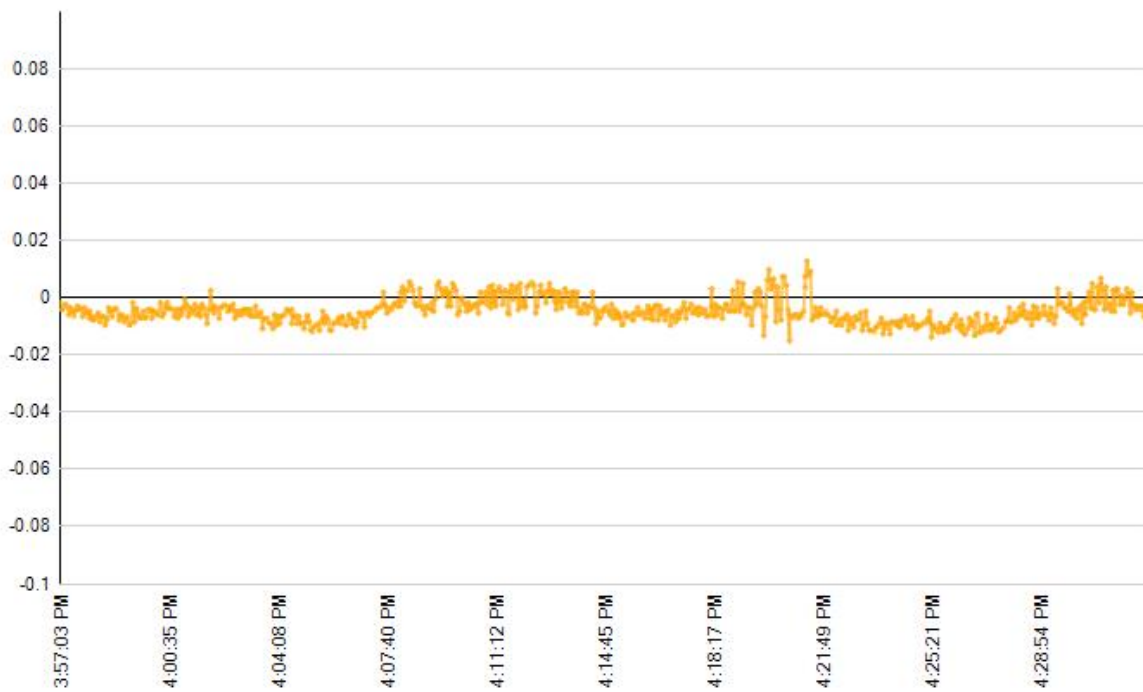


Mean = -0.002 m Std. Dev. = 0.003 m Min. = -0.010 m Max. = 0.011 m



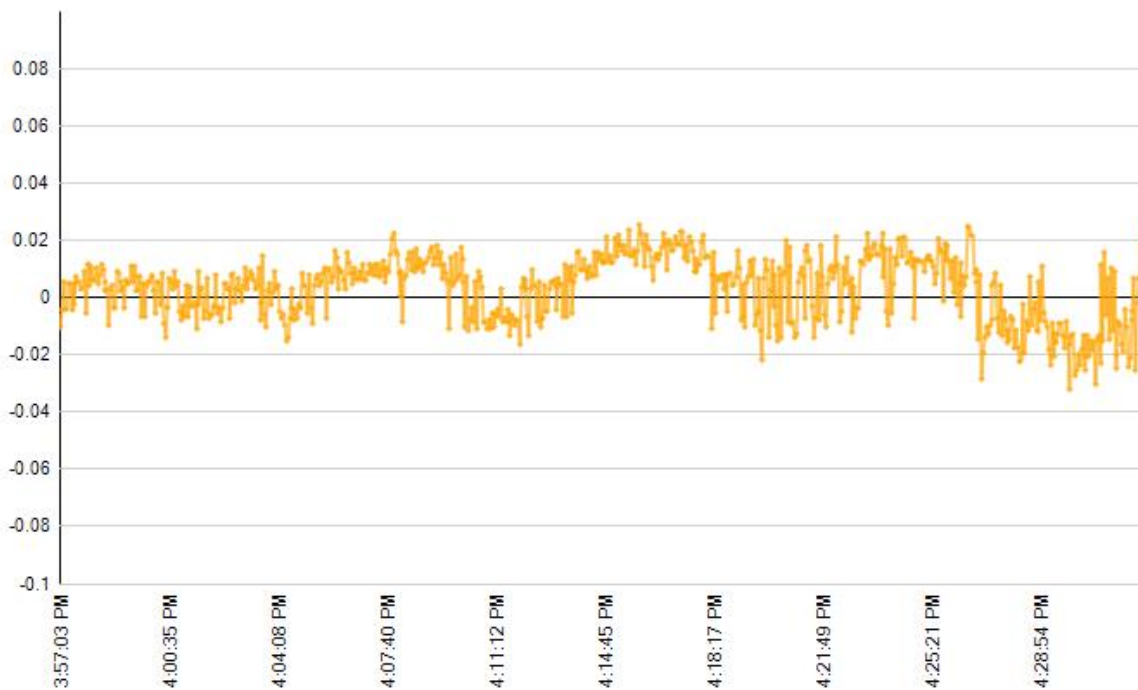
G 14
11/2/2015 3:57:03 PM - 11/2/2015 4:32:23 PM

Mean = -0.003 m Std. Dev. = 0.004 m Min. = -0.015 m Max. = 0.013 m



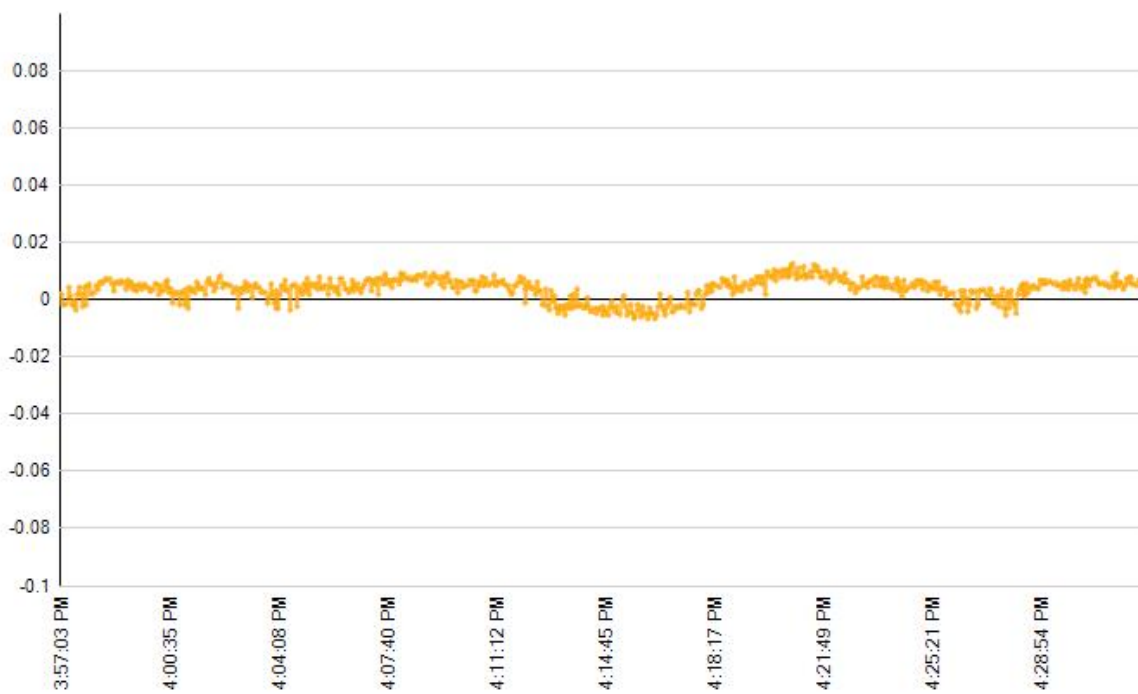
G 18
11/2/2015 3:57:03 PM - 11/2/2015 4:32:23 PM

Mean = 0.002 m Std. Dev. = 0.008 m Min. = -0.032 m Max. = 0.027 m



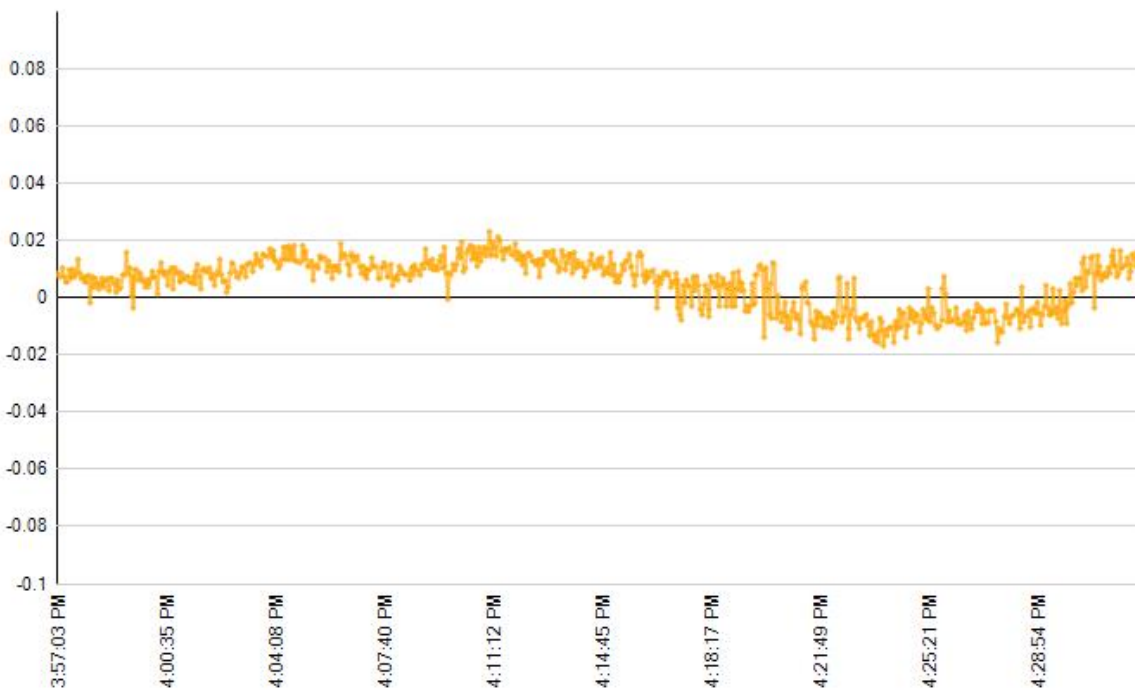
G 21
11/2/2015 3:57:03 PM - 11/2/2015 4:32:23 PM

Mean = 0.003 m Std. Dev. = 0.003 m Min. = -0.007 m Max. = 0.013 m



G 22
11/2/2015 3:57:03 PM - 11/2/2015 4:32:23 PM

Mean = 0.004 m Std. Dev. = 0.007 m Min. = -0.017 m Max. = 0.023 m

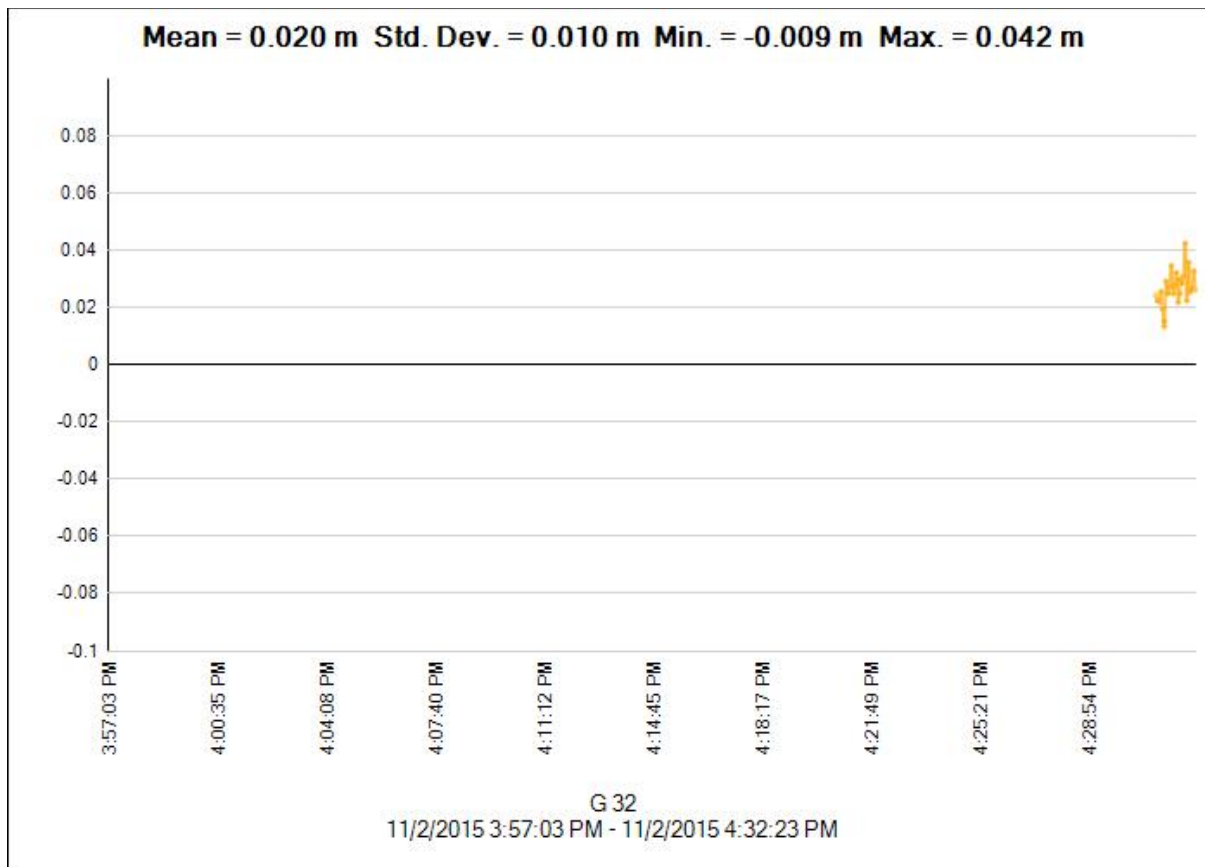


G 24
11/2/2015 3:57:03 PM - 11/2/2015 4:32:23 PM

Mean = 0.004 m Std. Dev. = 0.015 m Min. = -0.039 m Max. = 0.042 m





G 27
11/2/2015 3:57:03 PM - 11/2/2015 4:32:23 PM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP116A (7:41:03 AM-8:16:28 AM) (S60)

Baseline observation: NR0224 --- CP116A (B60)
 Processed: 12/22/2015 1:25:39 PM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.009 m
 Vertical precision: 0.010 m
 RMS: 0.001 m
 Maximum PDOP: 3.174
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 11/3/2015 7:41:03 AM (Local: UTC-7hr)
 Processing stop time: 11/3/2015 8:16:28 AM (Local: UTC-7hr)
 Processing duration: 00:35:25
 Processing interval: 1 second

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To: CP116A					
Grid		Local		Global	
Easting	502357.226 m	Latitude	N42°52'07.93226"	Latitude	N42°52'07.93225"
Northing	363848.586 m	Longitude	W106°04'50.29395"	Longitude	W106°04'50.29395"
Elevation	1539.437 m	Height	1525.921 m	Height	1525.921 m

Vector					
ΔEasting	31715.562 m	NS Fwd Azimuth	94°06'04"	ΔX	29994.325 m
ΔNorthing	-1946.777 m	Ellipsoid Dist.	31774.284 m	ΔY	-10358.578 m
ΔElevation	-79.386 m	ΔHeight	-79.732 m	ΔZ	-1773.332 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.003 m
$\sigma \Delta$ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.005 m
$\sigma \Delta$ Elevation	0.005 m	$\sigma \Delta$ Height	0.005 m	$\sigma \Delta$ Z	0.004 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000078626		
Y	0.0000032033	0.0000206754	
Z	-0.0000030295	-0.0000064936	0.0000168579

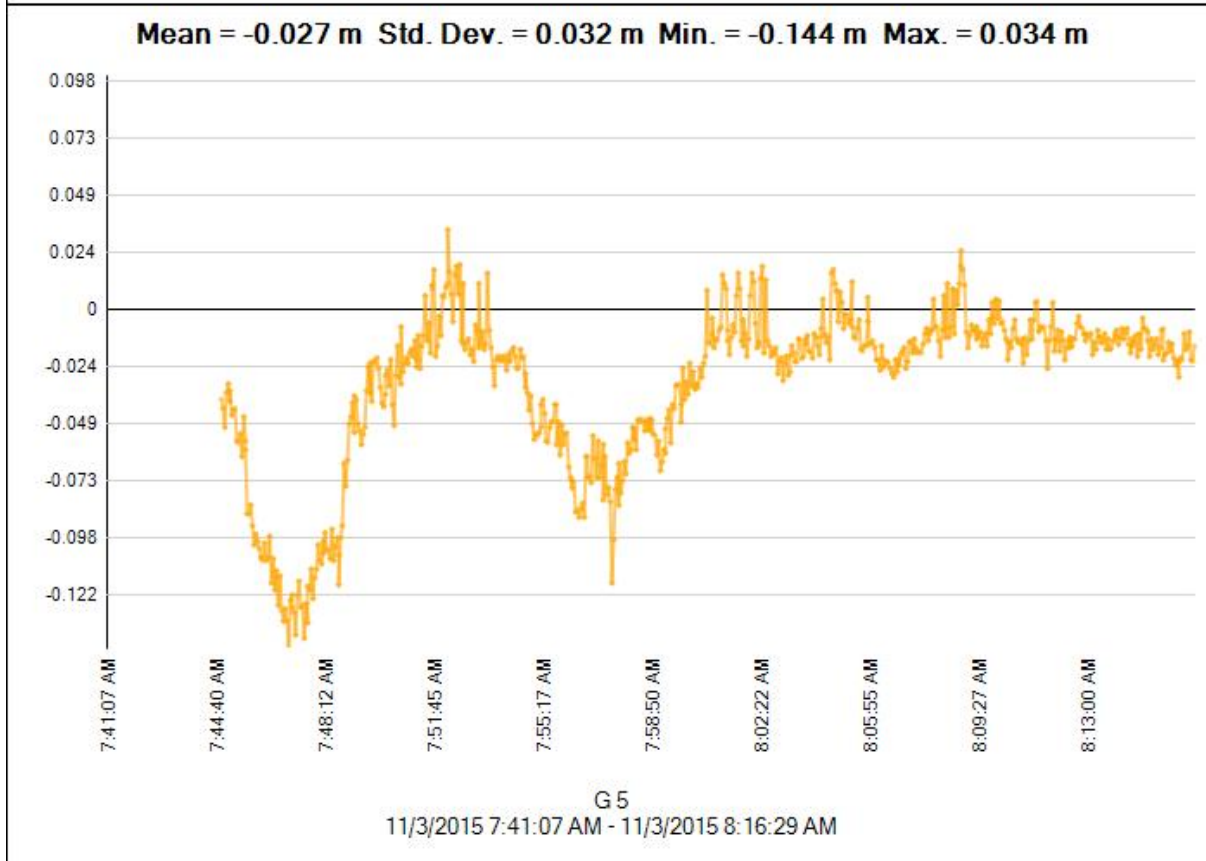
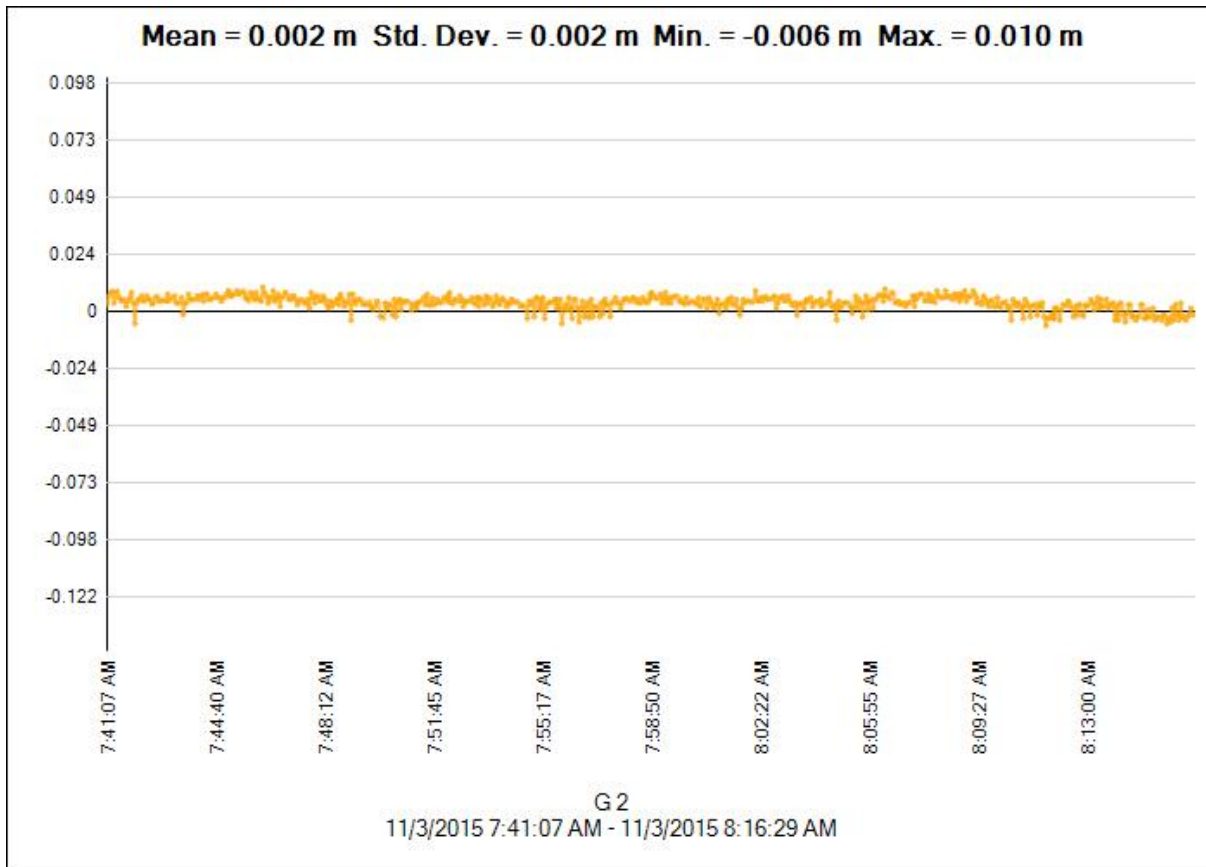
Occupations

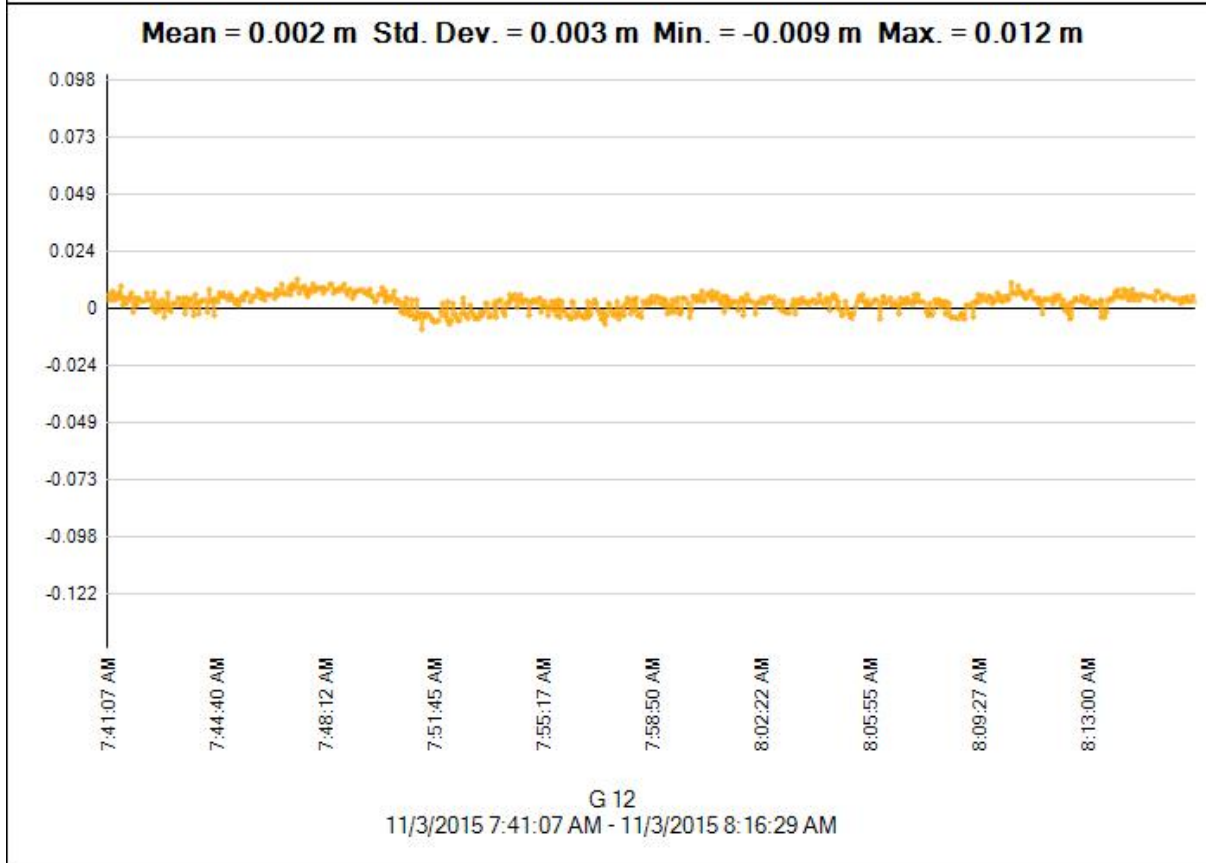
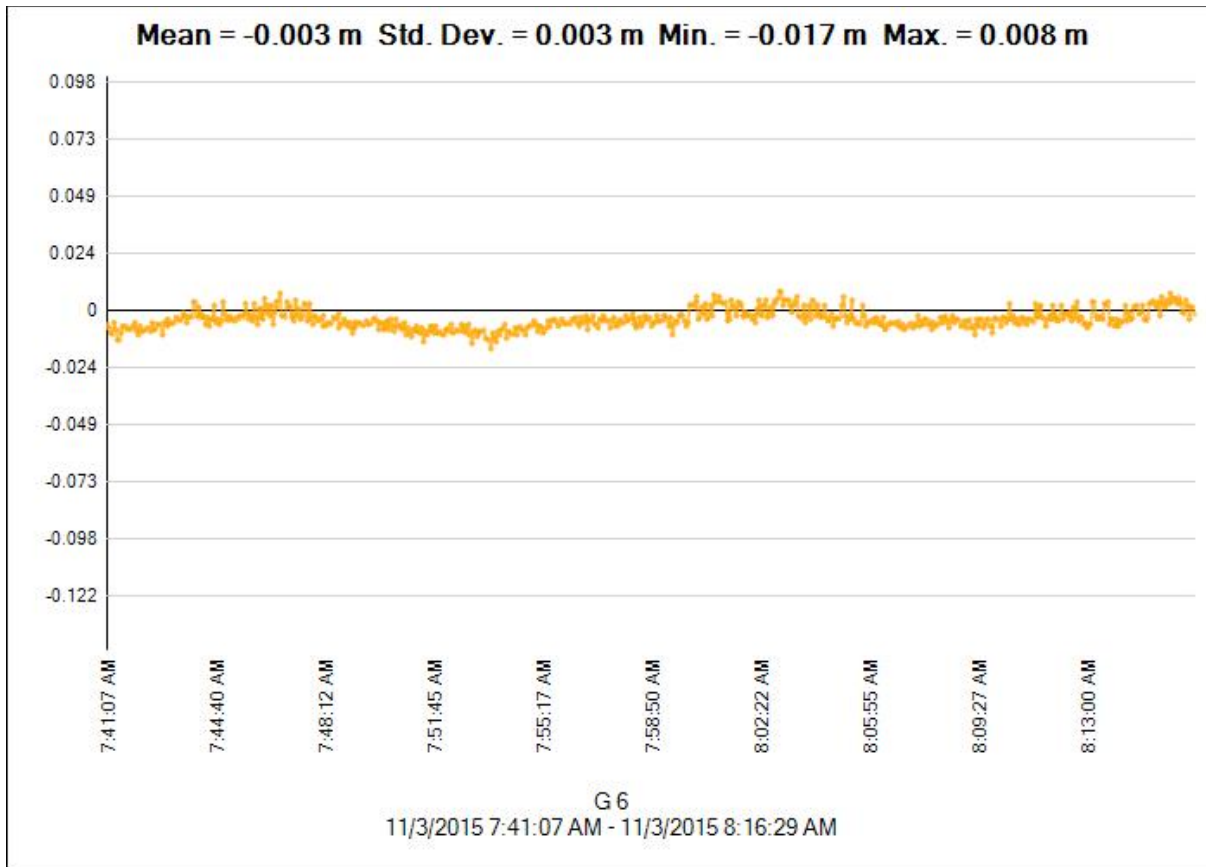
	From	To
Point ID:	NR0224	CP116A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513070.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843070.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.385 m	2.000 m
Antenna method:	Antenna Phase Center	Bottom of antenna mount

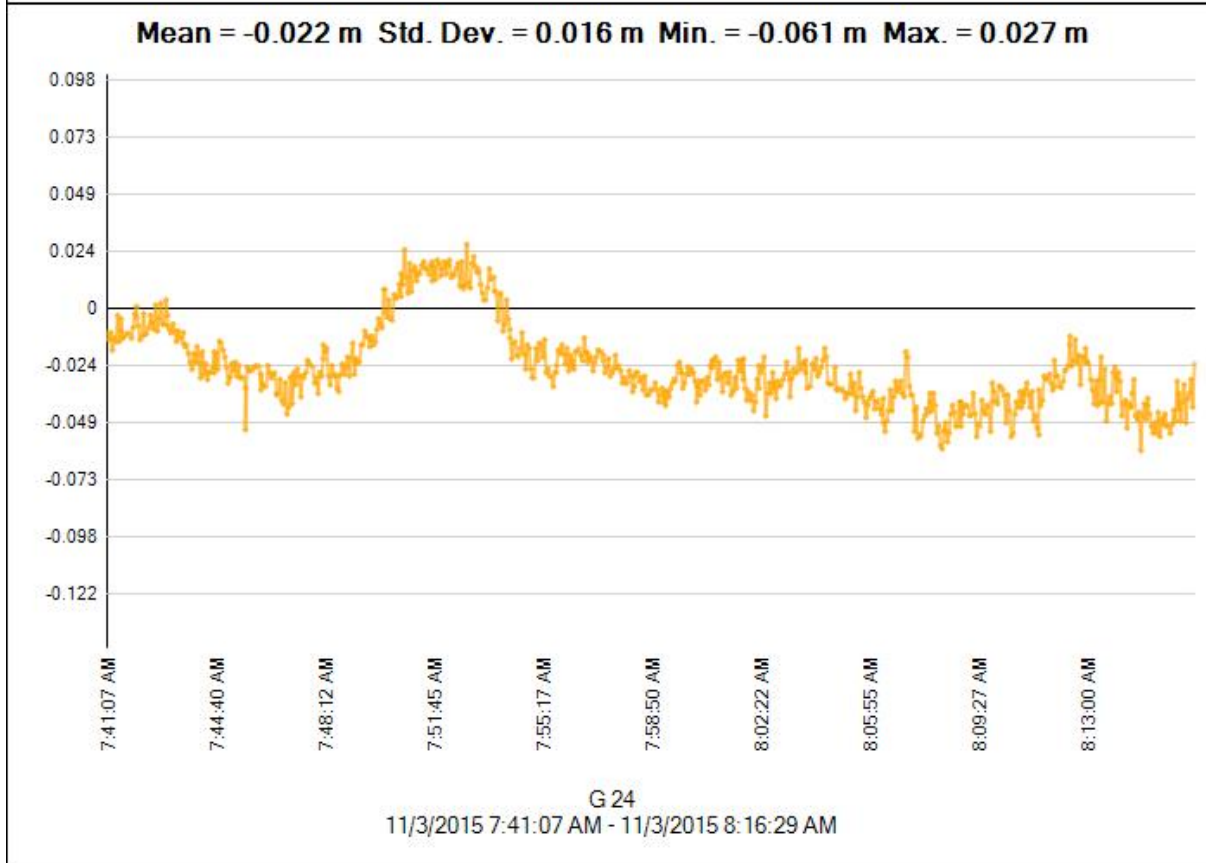
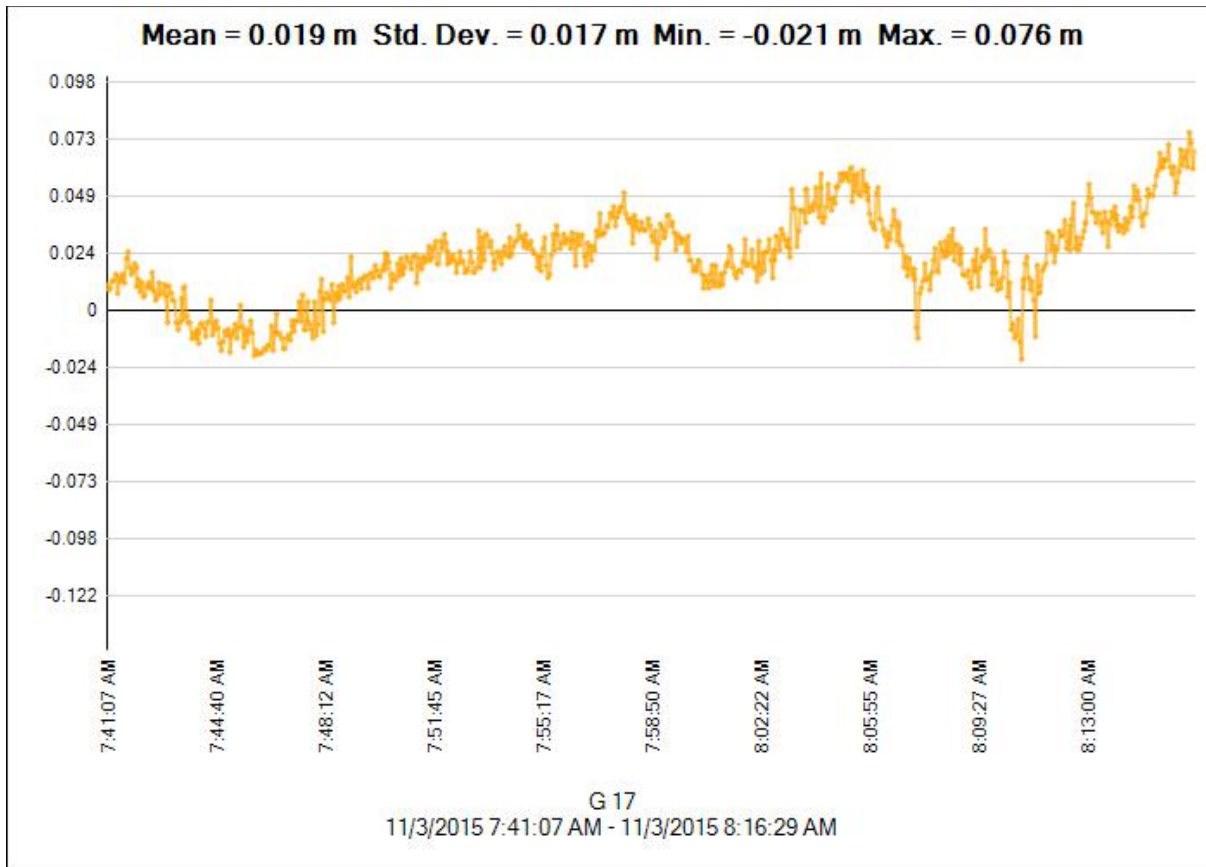
Tracking Summary

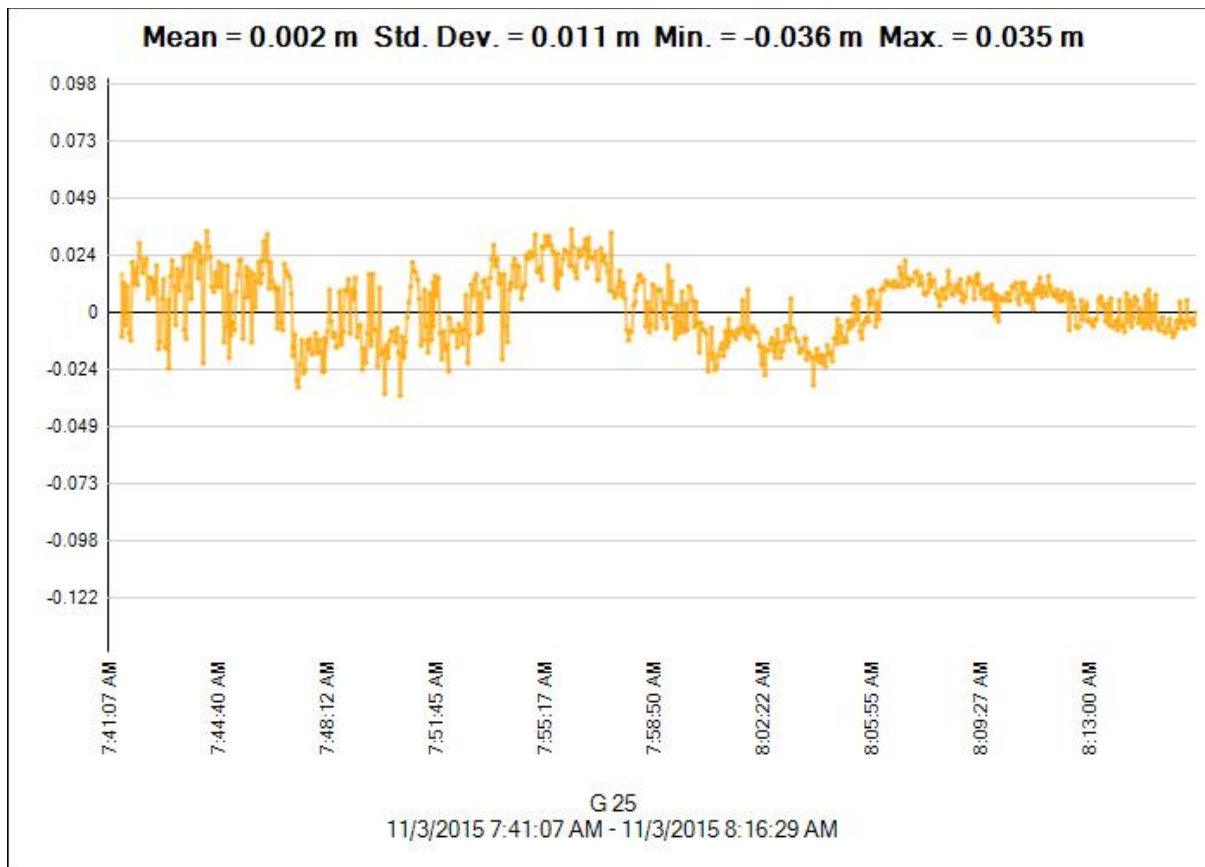
SV	11/3/2015 7:41:03 AM	Duration: 00:35:25	Major interval: 00:01:00	11/3/2015 8:16:28 AM
G 2	L1 L2			
G 5	L1 L2			
G 6	L1 L2			
G 12	L1 L2			
G 17	L1 L2			
G 24	L1 L2			
G 25	L1 L2			
G 29	L1 L2			

Residuals











Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP115A (9:20:12 AM-9:55:23 AM) (S61)

Baseline observation: NR0224 --- CP115A (B61)
 Processed: 11/4/2015 8:23:28 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.009 m
 Vertical precision: 0.018 m
 RMS: 0.001 m
 Maximum PDOP: 2.254
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 11/3/2015 9:21:02 AM (Local: UTC-7hr)
 Processing stop time: 11/3/2015 9:55:23 AM (Local: UTC-7hr)
 Processing duration: 00:34:21
 Processing interval: 1 second

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To: CP115A					
Grid		Local		Global	
Easting	486574.244 m	Latitude	N43°22'55.08313"	Latitude	N43°22'55.08313"
Northing	420640.834 m	Longitude	W106°15'53.64544"	Longitude	W106°15'53.64544"
Elevation	1509.677 m	Height	1495.837 m	Height	1495.836 m

Vector					
ΔEasting	15932.579 m	NS Fwd Azimuth	16°47'24"	ΔX	26452.237 m
ΔNorthing	54845.471 m	Ellipsoid Dist.	57112.023 m	ΔY	31273.466 m
ΔElevation	-109.145 m	ΔHeight	-109.816 m	ΔZ	39819.742 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.004 m
$\sigma \Delta$ Northing	0.004 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.007 m
$\sigma \Delta$ Elevation	0.009 m	$\sigma \Delta$ Height	0.009 m	$\sigma \Delta$ Z	0.007 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000145027		
Y	0.0000096484	0.0000468142	
Z	-0.0000115202	-0.0000324766	0.0000454960

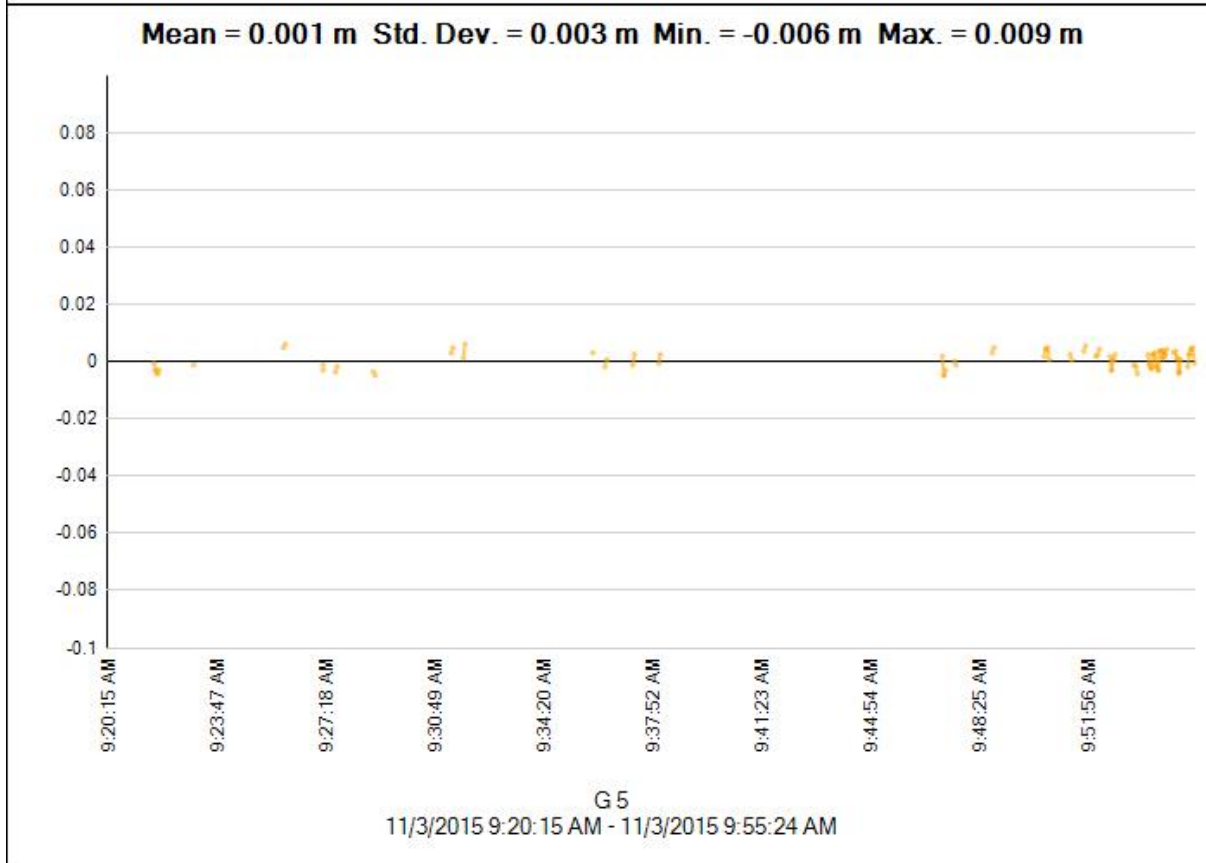
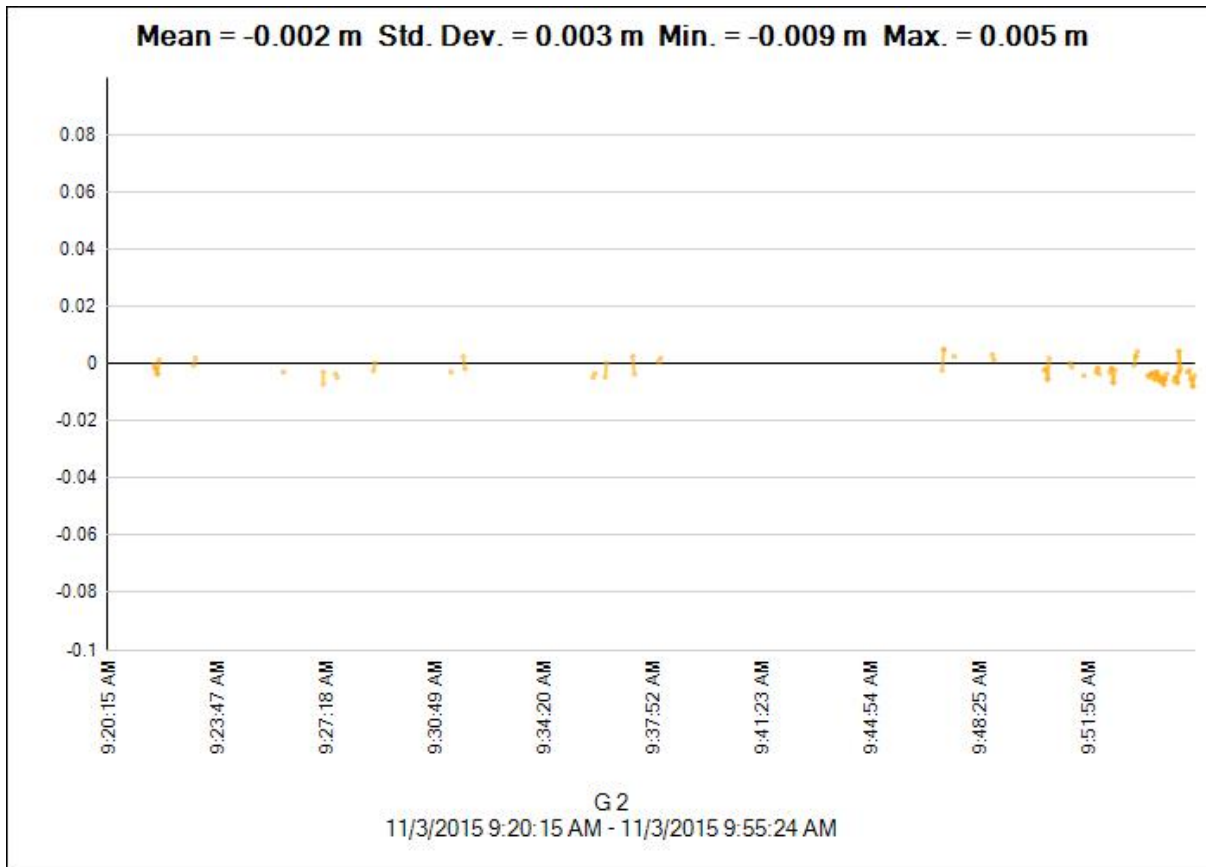
Occupations

	From	To
Point ID:	NR0224	CP115A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513070.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843071.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.385 m	2.268 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

SV	11/3/2015 9:20:12 AM	Duration: 00:35:11	Major interval: 00:01:00	11/3/2015 9:55:23 AM
G 2				
G 5				
G 6				
G 9				
G 12				
G 20				
G 25				
G 29				
G 31				

Residuals

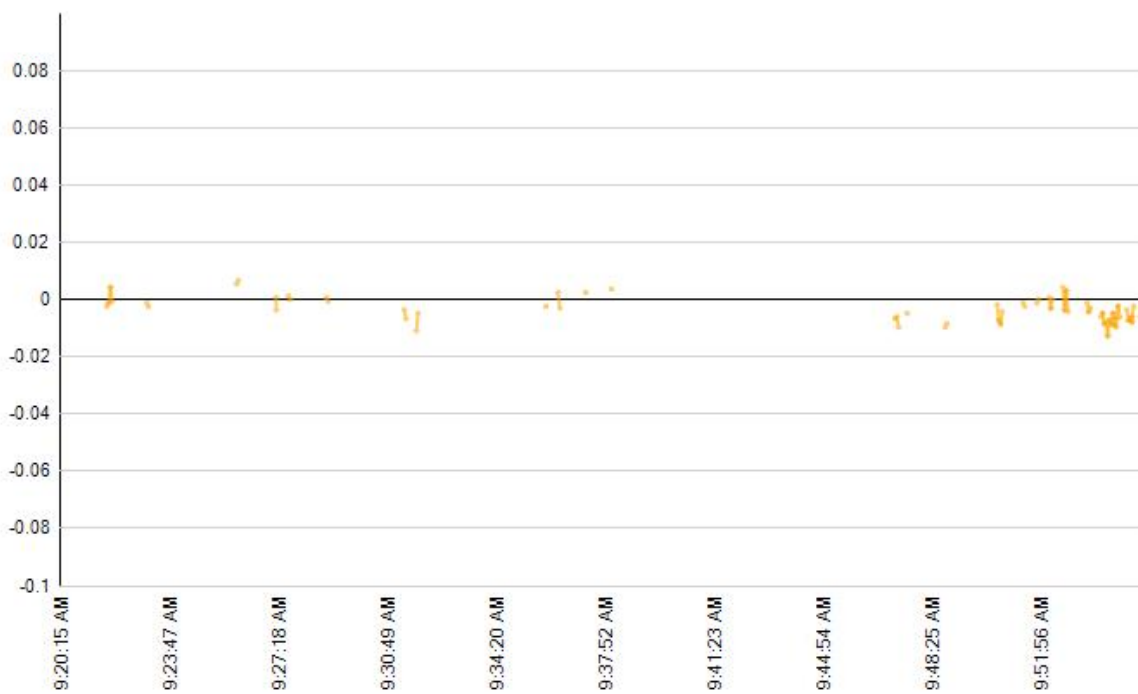


Mean = 0.007 m Std. Dev. = 0.018 m Min. = -0.056 m Max. = 0.047 m



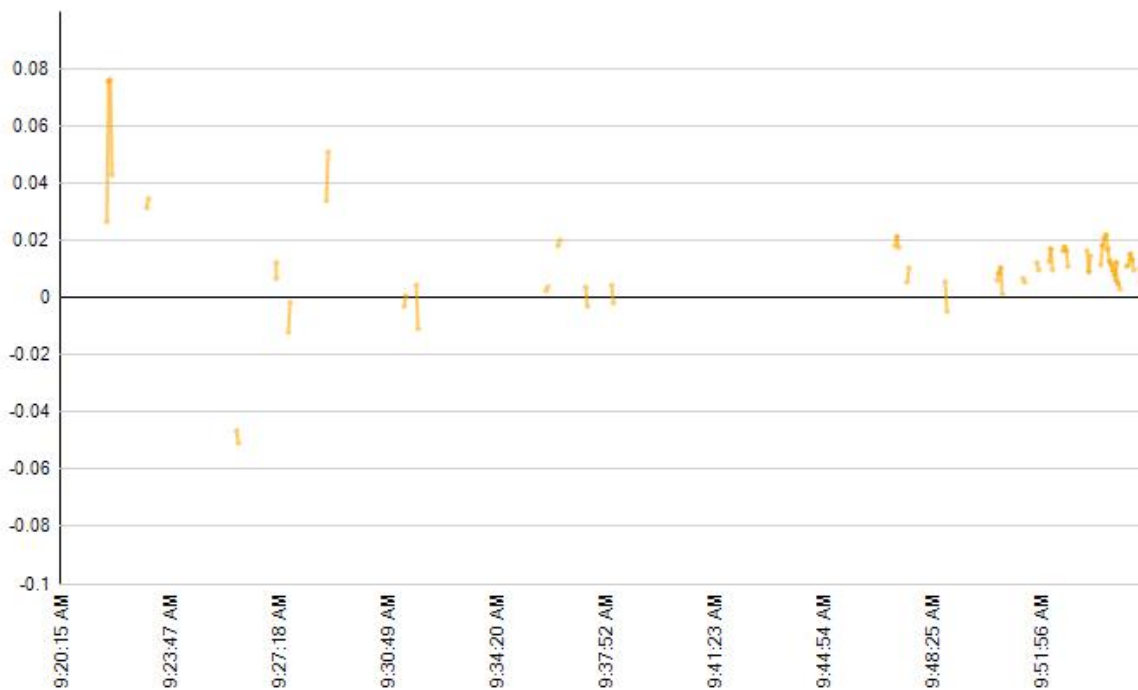
G 6
11/3/2015 9:20:15 AM - 11/3/2015 9:55:24 AM

Mean = -0.002 m Std. Dev. = 0.004 m Min. = -0.013 m Max. = 0.007 m



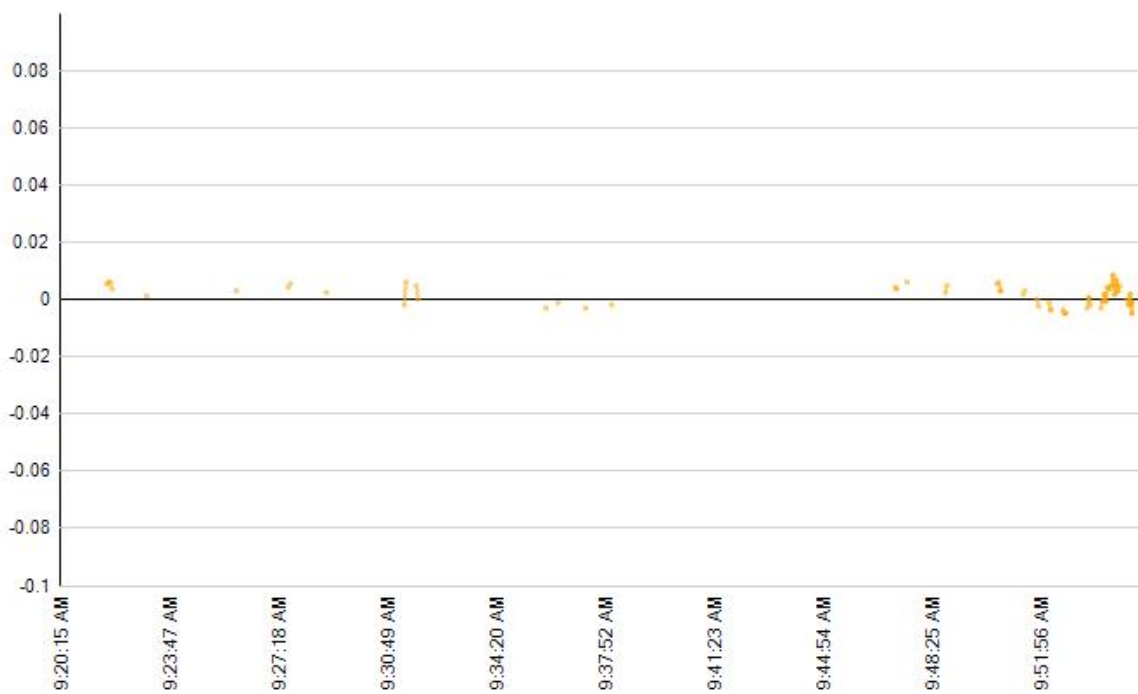
G 12
11/3/2015 9:20:15 AM - 11/3/2015 9:55:24 AM

Mean = 0.010 m Std. Dev. = 0.016 m Min. = -0.051 m Max. = 0.076 m

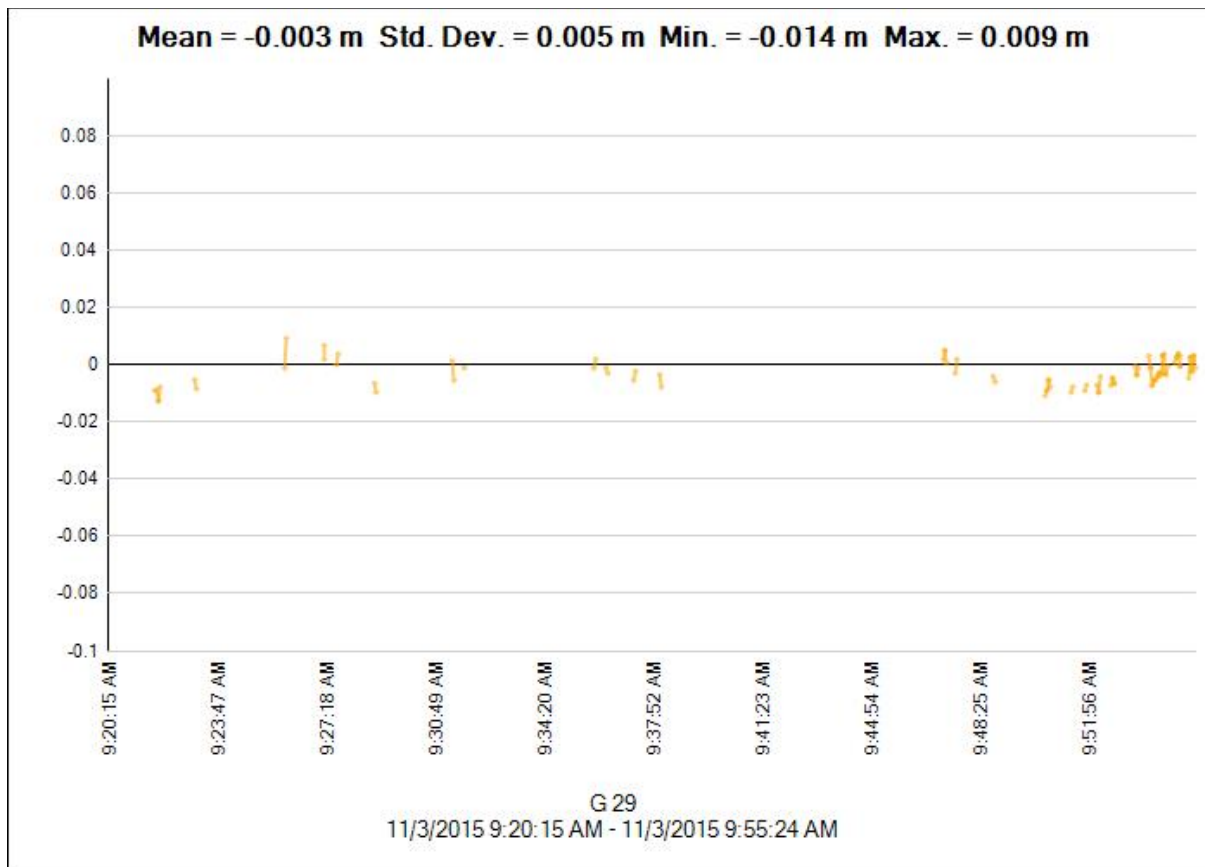


G 20
11/3/2015 9:20:15 AM - 11/3/2015 9:55:24 AM

Mean = 0.001 m Std. Dev. = 0.003 m Min. = -0.006 m Max. = 0.010 m





G 25
11/3/2015 9:20:15 AM - 11/3/2015 9:55:24 AM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP114A (10:22:40 AM-10:58:34 AM) (S62)

Baseline observation: NR0224 --- CP114A (B62)
 Processed: 11/4/2015 8:18:30 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.017 m
 Vertical precision: 0.021 m
 RMS: 0.001 m
 Maximum PDOP: 2.417
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 11/3/2015 10:23:04 AM (Local: UTC-7hr)
 Processing stop time: 11/3/2015 10:58:29 AM (Local: UTC-7hr)
 Processing duration: 00:35:25
 Processing interval: 25 seconds

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To: CP114A					
Grid		Local		Global	
Easting	488483.884 m	Latitude	N43°25'48.00512"	Latitude	N43°25'48.00512"
Northing	426002.801 m	Longitude	W106°14'25.69596"	Longitude	W106°14'25.69596"
Elevation	1545.439 m	Height	1531.515 m	Height	1531.515 m

Vector					
ΔEasting	17842.220 m	NS Fwd Azimuth	17°05'56"	ΔX	29371.836 m
ΔNorthing	60207.438 m	Ellipsoid Dist.	62794.560 m	ΔY	34216.004 m
ΔElevation	-73.384 m	ΔHeight	-74.138 m	ΔZ	43722.233 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.007 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.008 m
$\sigma \Delta$ Northing	0.006 m	σ Ellipsoid Dist.	0.006 m	$\sigma \Delta$ Y	0.008 m
$\sigma \Delta$ Elevation	0.011 m	$\sigma \Delta$ Height	0.011 m	$\sigma \Delta$ Z	0.008 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000577143		
Y	0.0000255098	0.0000718296	
Z	-0.0000201087	-0.0000367596	0.0000621633

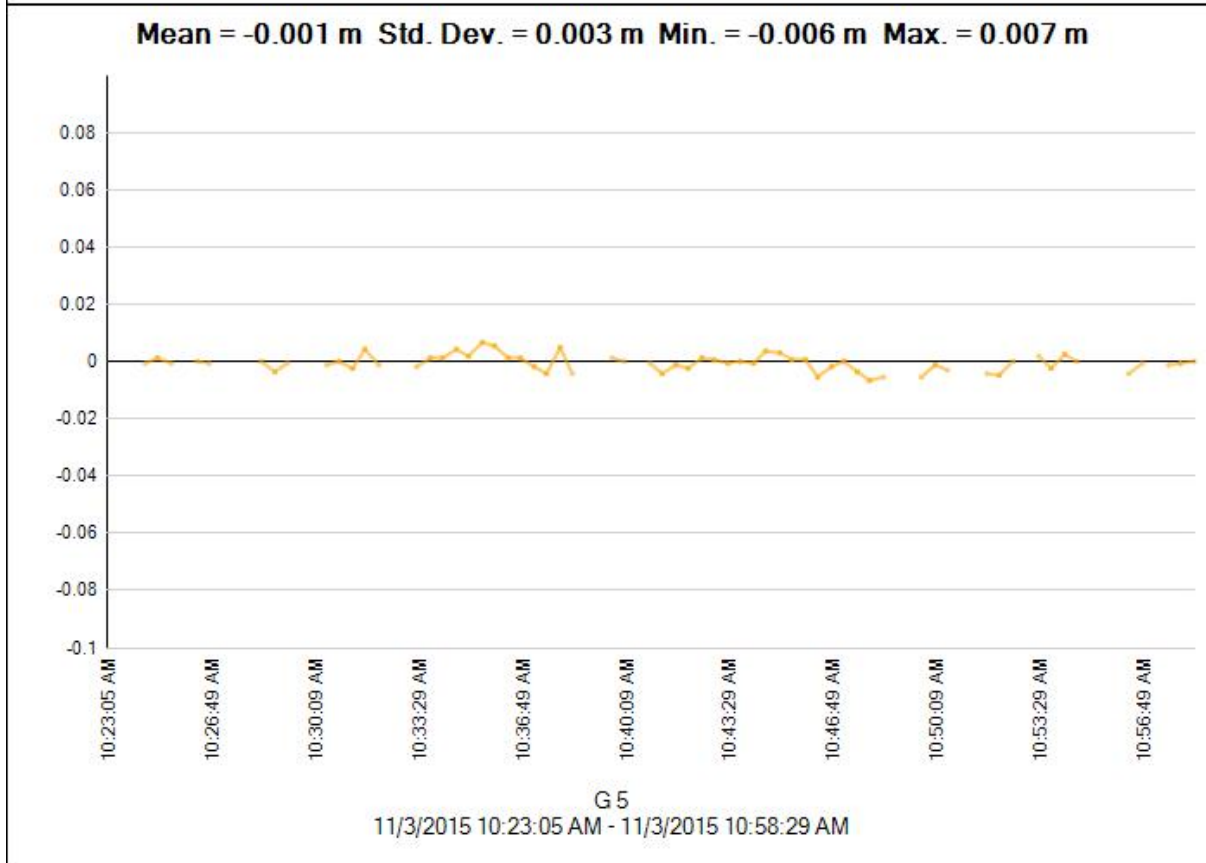
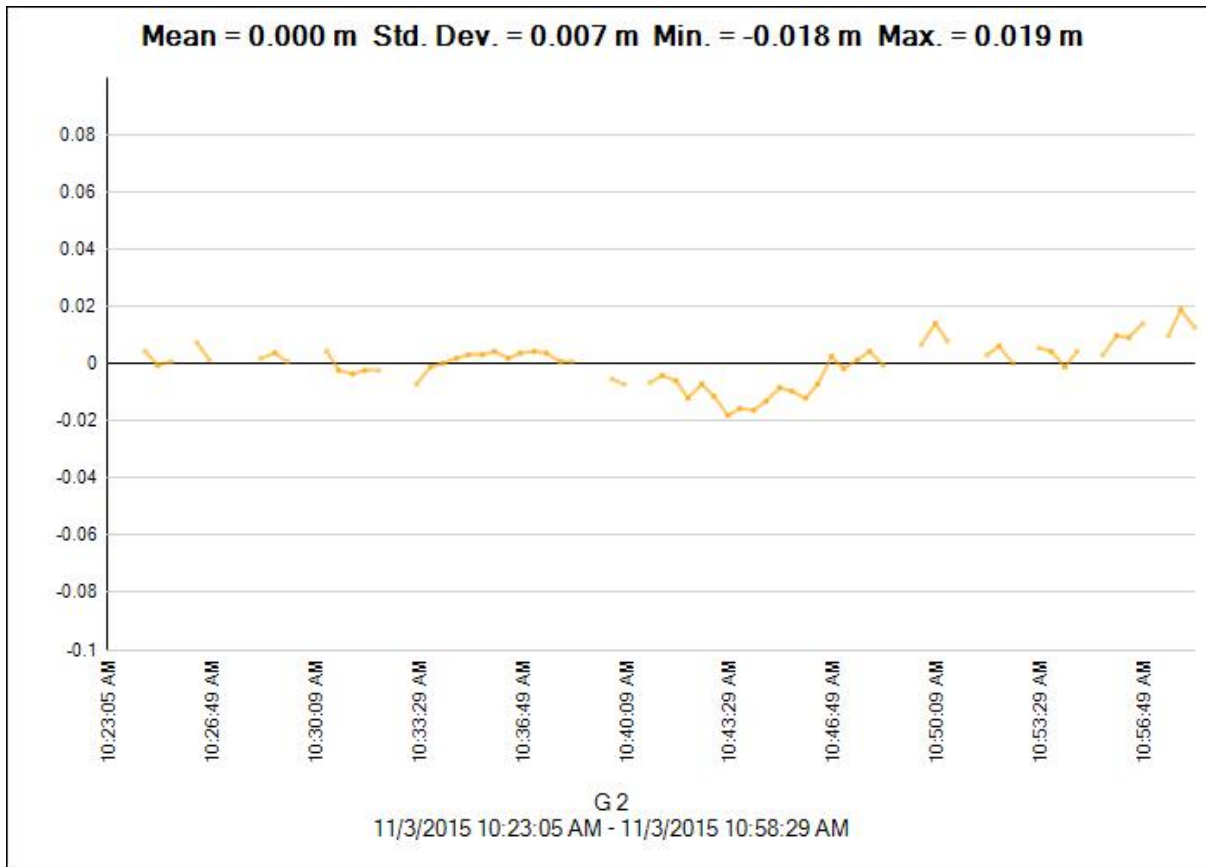
Occupations

	From	To
Point ID:	NR0224	CP114A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513070.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843072.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.385 m	2.253 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

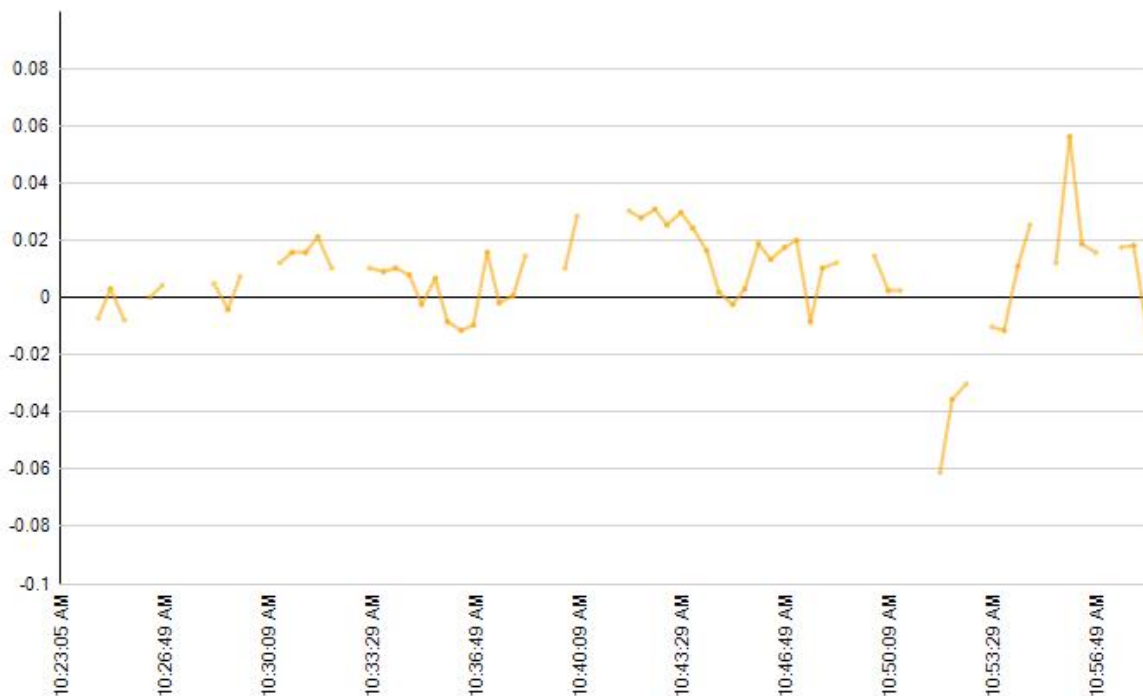
Tracking Summary

SV	11/3/2015 10:22:40 AM	Duration: 00:35:54	Major interval: 00:01:00	11/3/2015 10:58:34 AM
G 2				
G 5				
G 12				
G 13				
G 15				
G 20				
G 21				
G 25				
G 26				
G 29				

Residuals



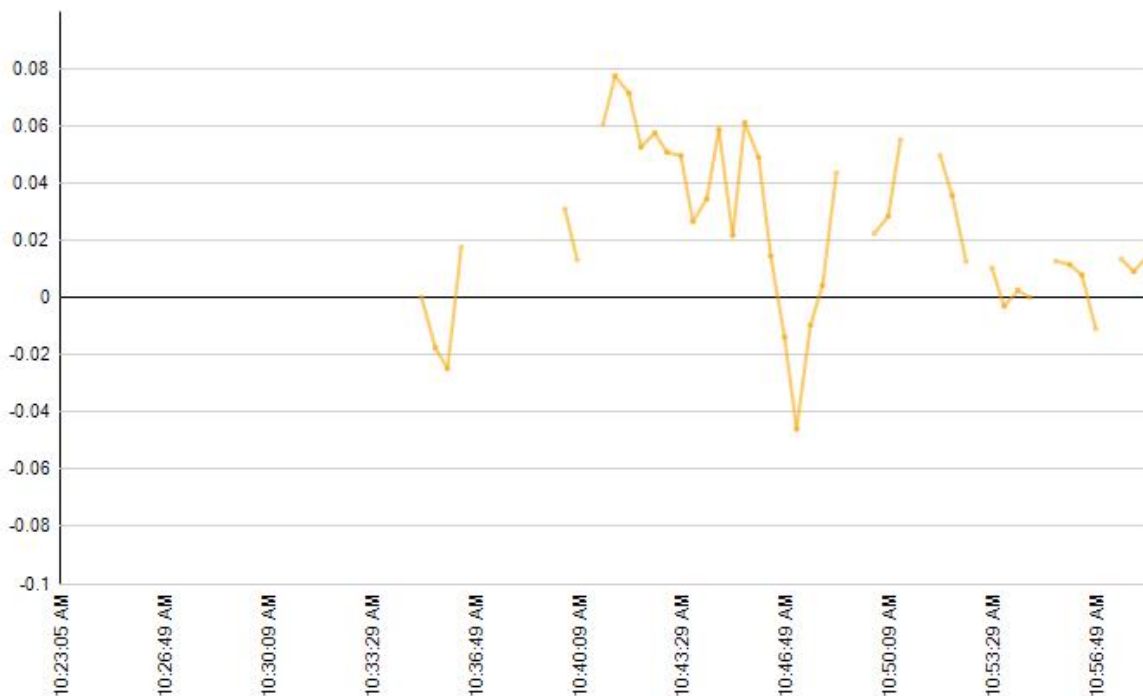
Mean = 0.007 m Std. Dev. = 0.017 m Min. = -0.061 m Max. = 0.056 m



G 12

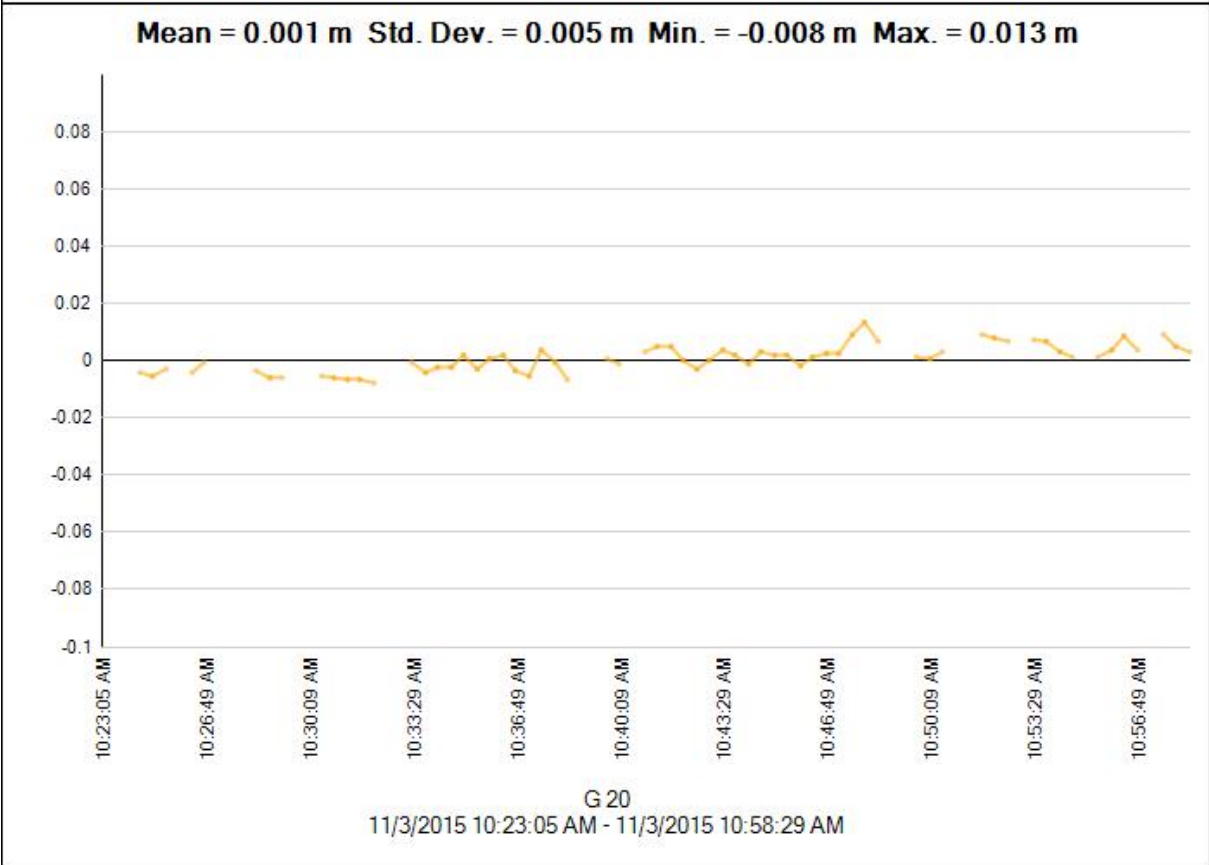
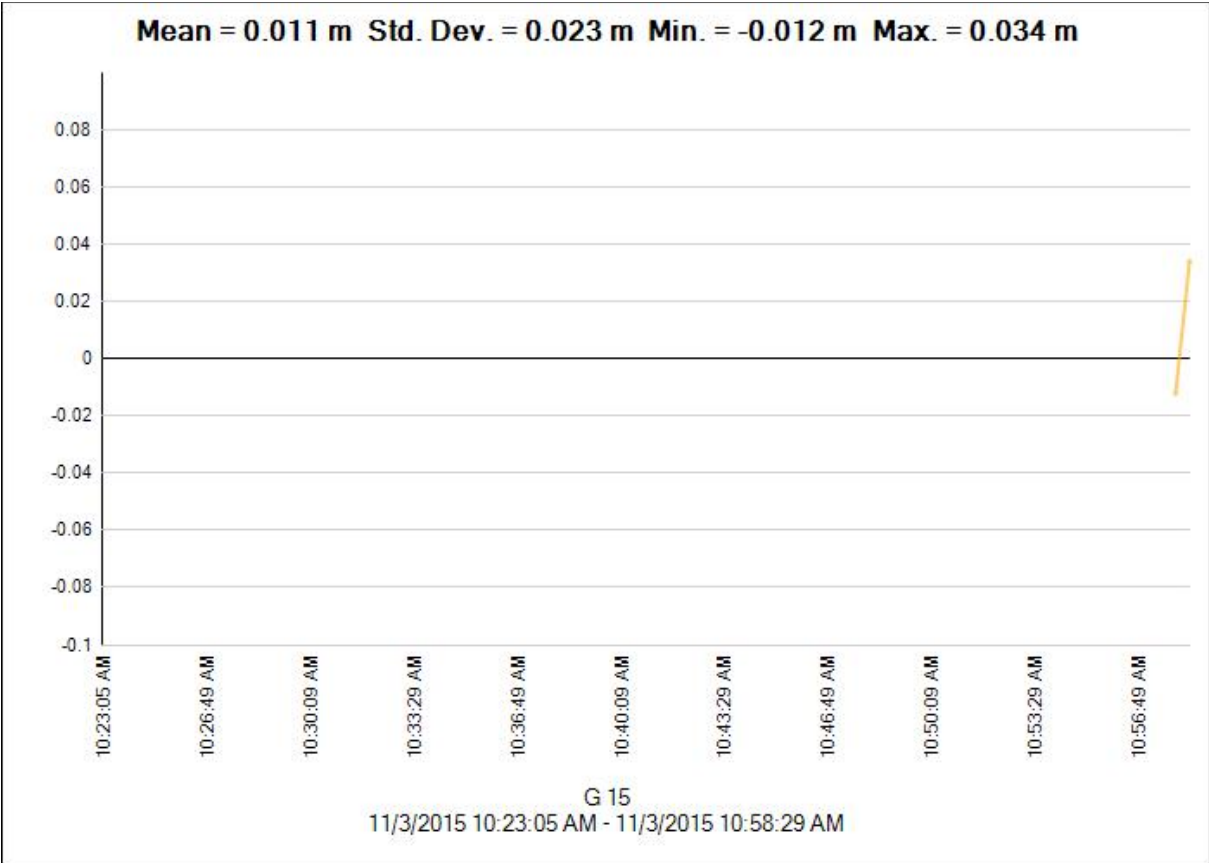
11/3/2015 10:23:05 AM - 11/3/2015 10:58:29 AM

Mean = 0.022 m Std. Dev. = 0.028 m Min. = -0.046 m Max. = 0.077 m



G 13

11/3/2015 10:23:05 AM - 11/3/2015 10:58:29 AM



Mean = 0.000 m Std. Dev. = 0.027 m Min. = -0.049 m Max. = 0.075 m



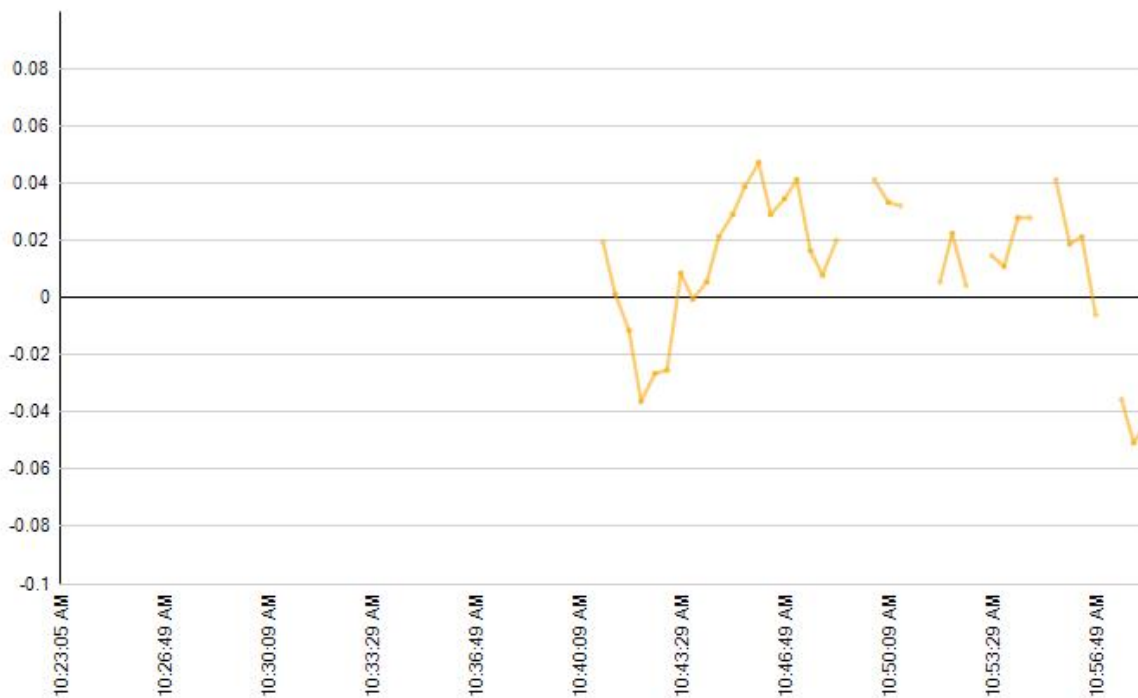
G 21
11/3/2015 10:23:05 AM - 11/3/2015 10:58:29 AM

Mean = 0.001 m Std. Dev. = 0.006 m Min. = -0.014 m Max. = 0.010 m



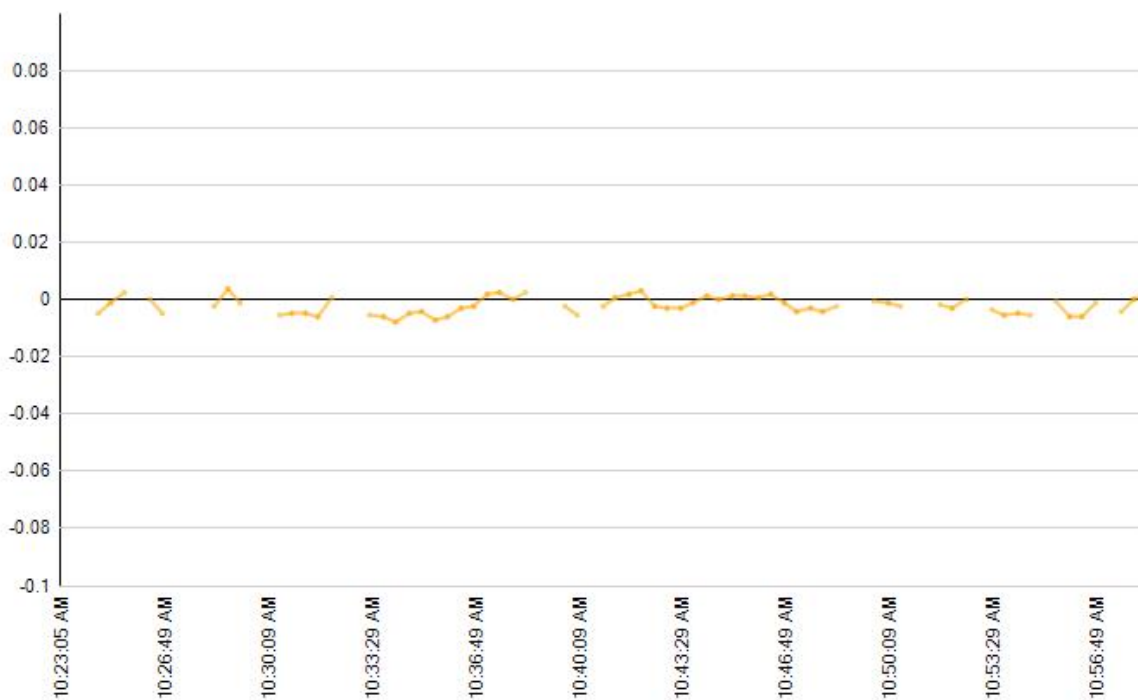
G 25
11/3/2015 10:23:05 AM - 11/3/2015 10:58:29 AM

Mean = 0.011 m Std. Dev. = 0.025 m Min. = -0.051 m Max. = 0.047 m



G 26
11/3/2015 10:23:05 AM - 11/3/2015 10:58:29 AM

Mean = -0.002 m Std. Dev. = 0.003 m Min. = -0.008 m Max. = 0.004 m





G 29
11/3/2015 10:23:05 AM - 11/3/2015 10:58:29 AM

Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP119A (11:16:43 AM-11:51:57 AM) (S63)

Baseline observation: NR0224 --- CP119A (B63)
Processed: 11/4/2015 8:23:28 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.010 m
Vertical precision: 0.012 m
RMS: 0.002 m
Maximum PDOP: 1.570
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 11/3/2015 11:16:43 AM (Local: UTC-7hr)
Processing stop time: 11/3/2015 11:51:42 AM (Local: UTC-7hr)
Processing duration: 00:34:59
Processing interval: 1 second

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To:		CP119A			
Grid		Local		Global	
Easting	484291.019 m	Latitude	N43°25'52.05728"	Latitude	N43°25'52.05727"
Northing	426074.185 m	Longitude	W106°17'32.05481"	Longitude	W106°17'32.05481"
Elevation	1461.571 m	Height	1447.767 m	Height	1447.767 m

Vector					
Δ Easting	13649.355 m	NS Fwd Azimuth	13°21'02"	Δ X	25388.320 m
Δ Northing	60278.822 m	Ellipsoid Dist.	61804.154 m	Δ Y	35531.259 m
Δ Elevation	-157.251 m	Δ Height	-157.886 m	Δ Z	43755.496 m

Standard Errors

Vector errors:					
σ Δ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.003 m
σ Δ Northing	0.004 m	σ Ellipsoid Dist.	0.004 m	σ Δ Y	0.005 m
σ Δ Elevation	0.006 m	σ Δ Height	0.006 m	σ Δ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000102721		
Y	0.0000070636	0.0000299081	
Z	-0.0000018212	-0.0000111130	0.0000238690

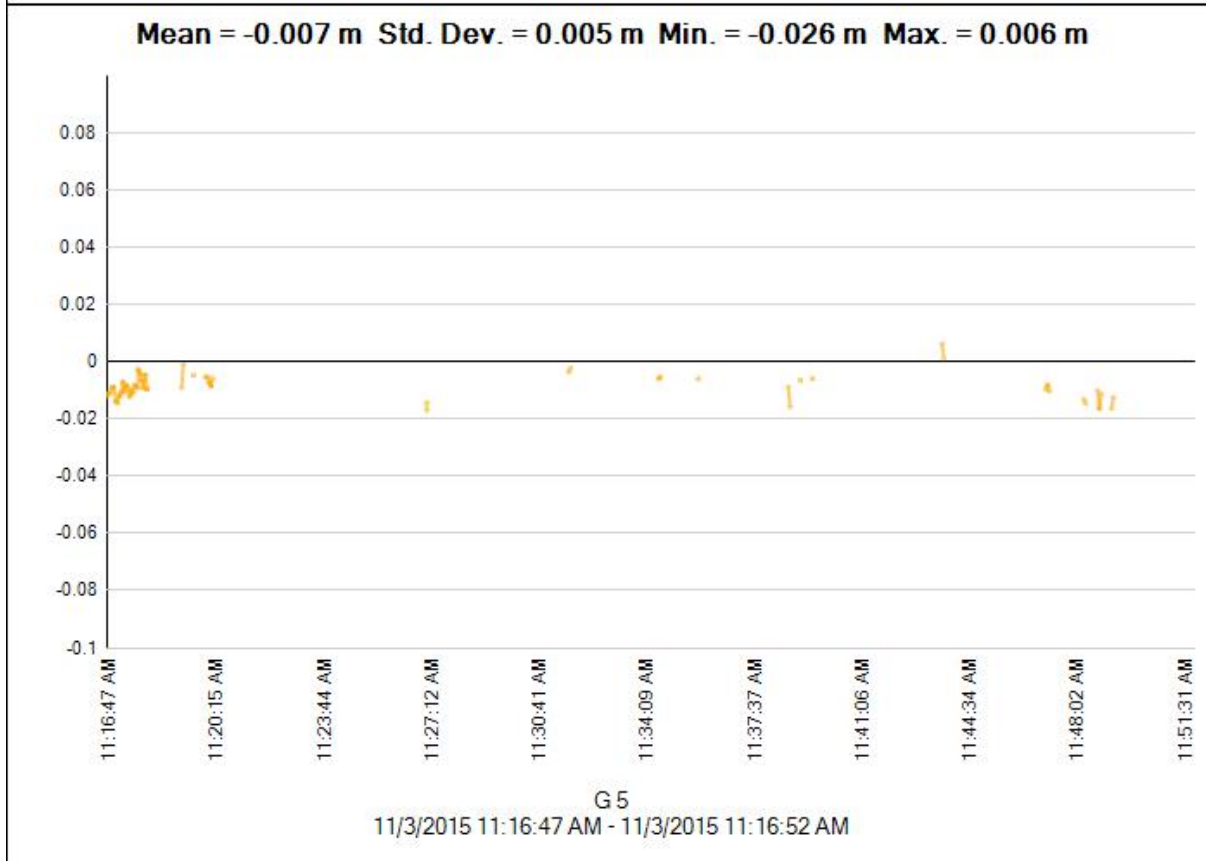
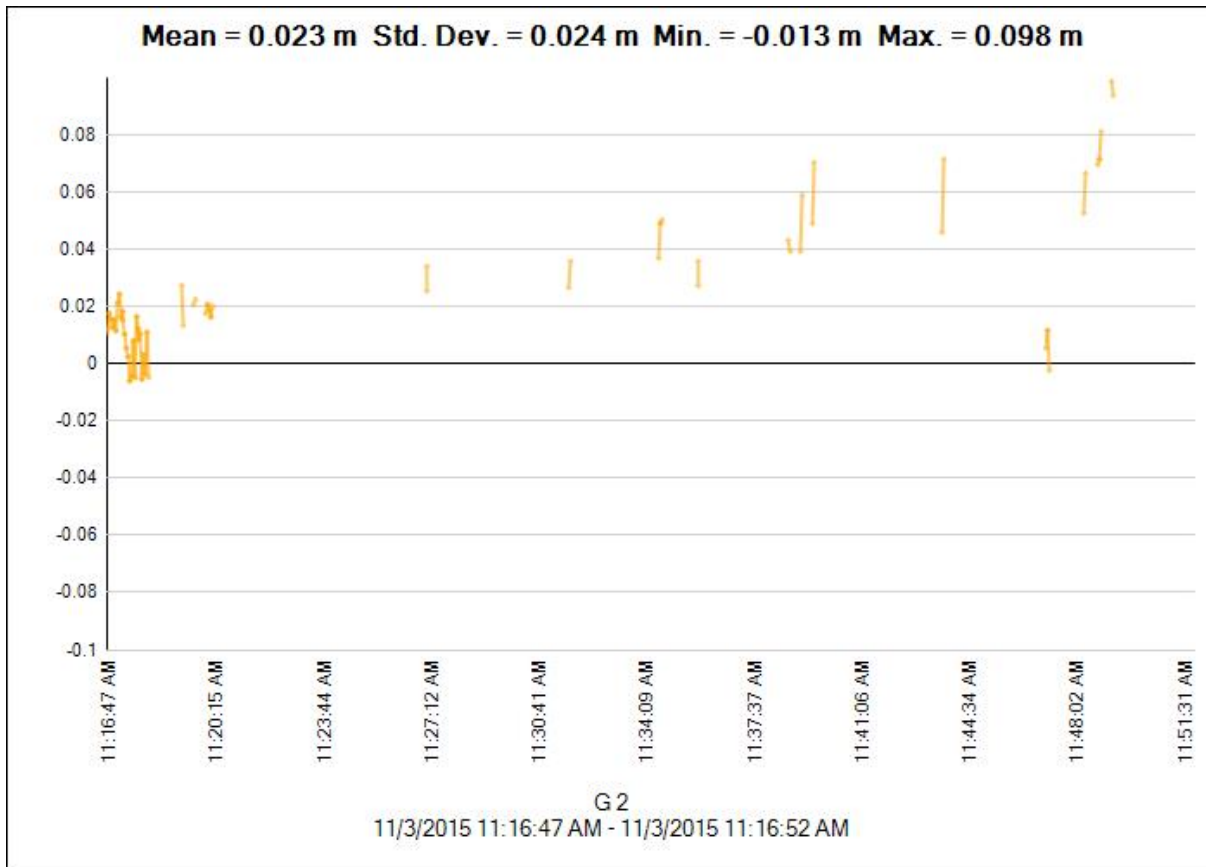
Occupations

	From	To
Point ID:	NR0224	CP119A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513070.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843073.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.385 m	1.835 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

SV	11/3/2015 11:16:43 AM	Duration: 00:35:14	Major interval: 00:01:00	11/3/2015 11:51:57 AM
G 2				
G 5				
G 12				
G 13				
G 15				
G 16				
G 18				
G 20				
G 21				
G 25				
G 26				
G 29				

Residuals

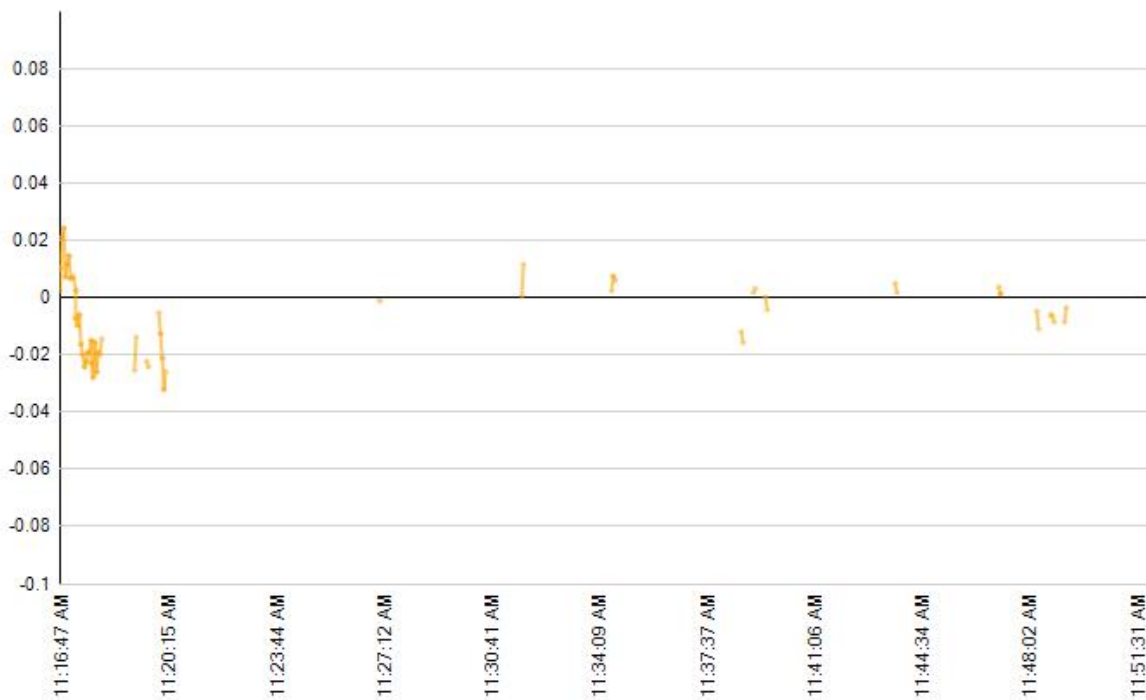


Mean = -0.004 m Std. Dev. = 0.008 m Min. = -0.025 m Max. = 0.019 m

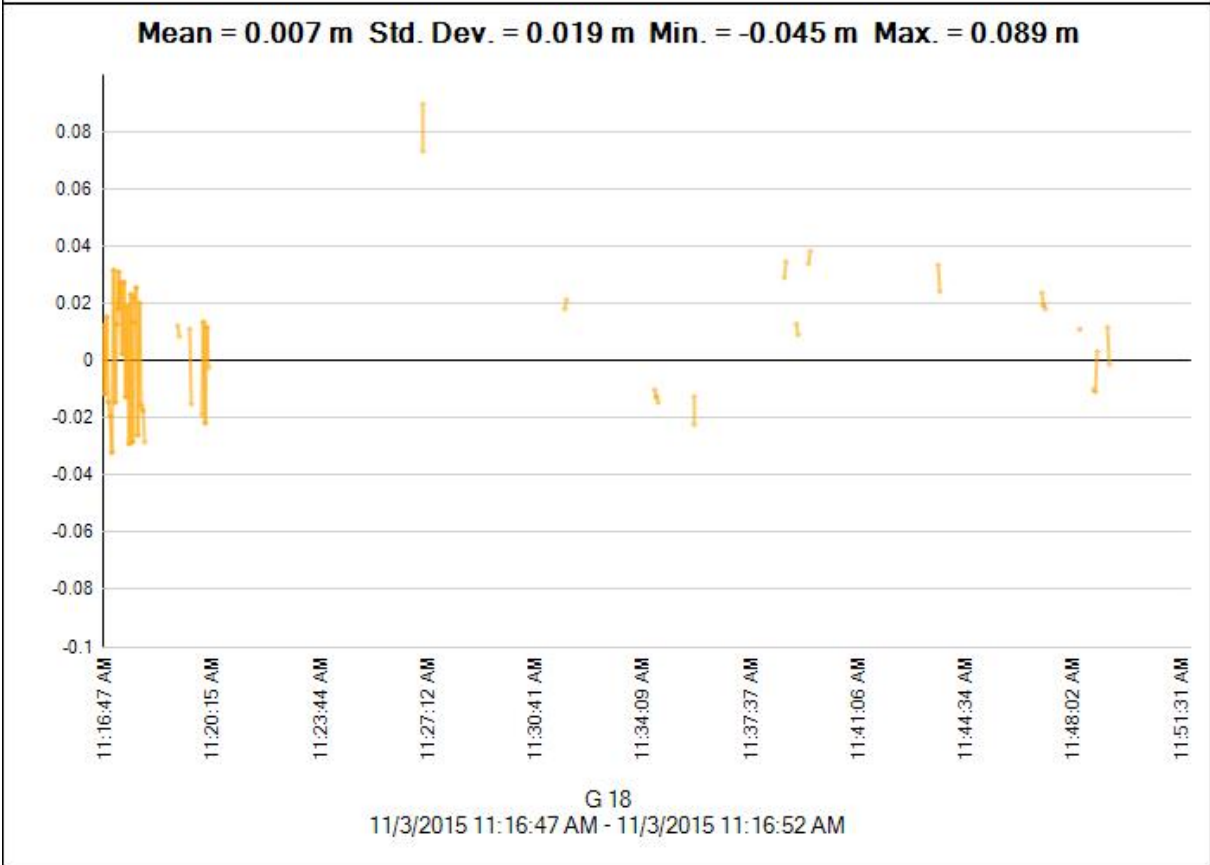
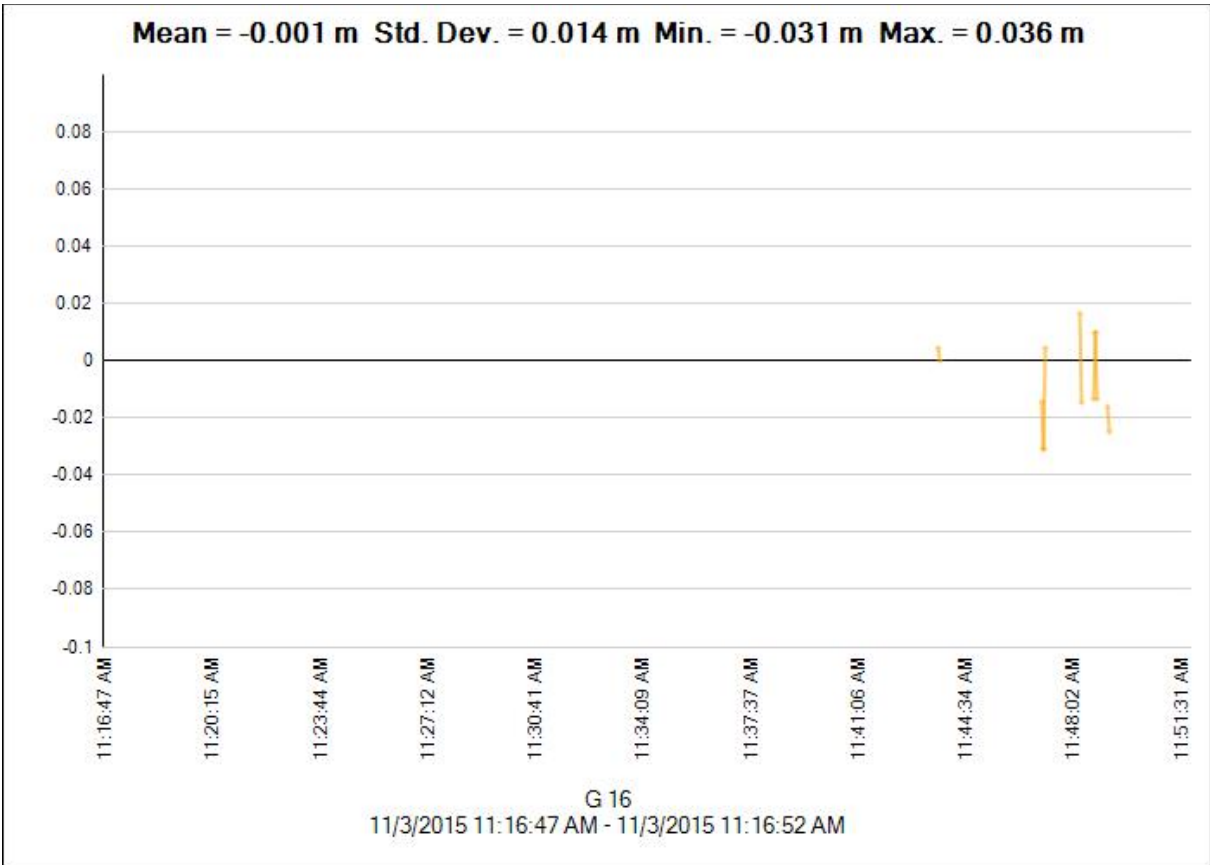


G 13
11/3/2015 11:16:47 AM - 11/3/2015 11:16:52 AM

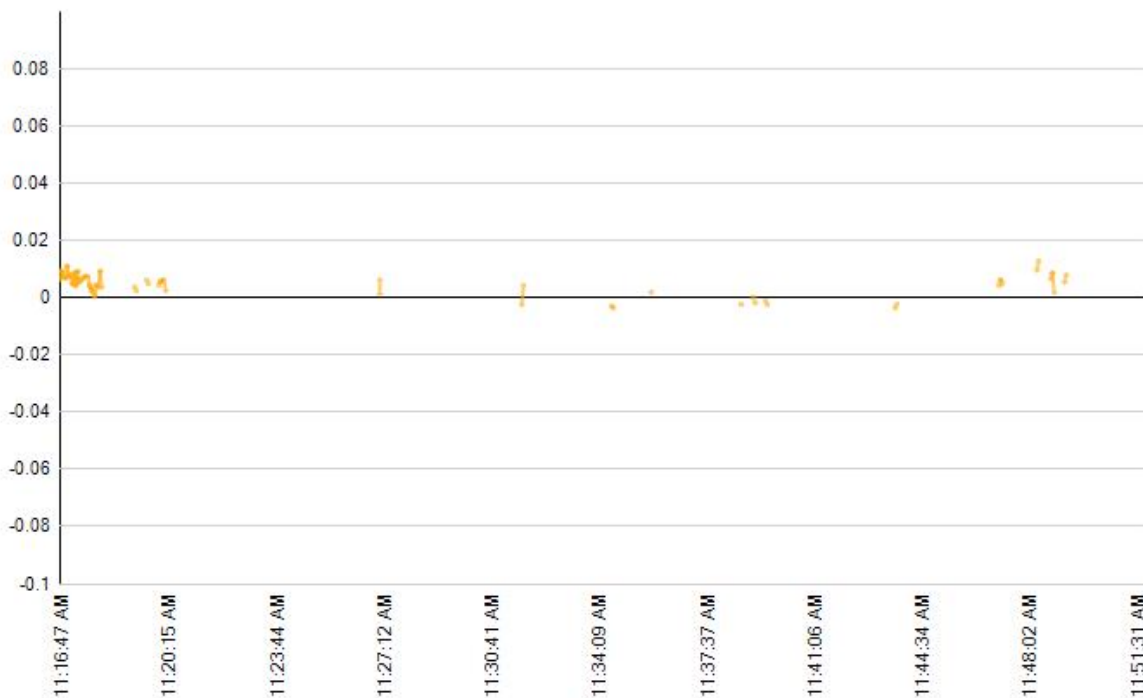
Mean = -0.006 m Std. Dev. = 0.010 m Min. = -0.035 m Max. = 0.024 m



G 15
11/3/2015 11:16:47 AM - 11/3/2015 11:16:52 AM



Mean = 0.003 m Std. Dev. = 0.003 m Min. = -0.008 m Max. = 0.013 m



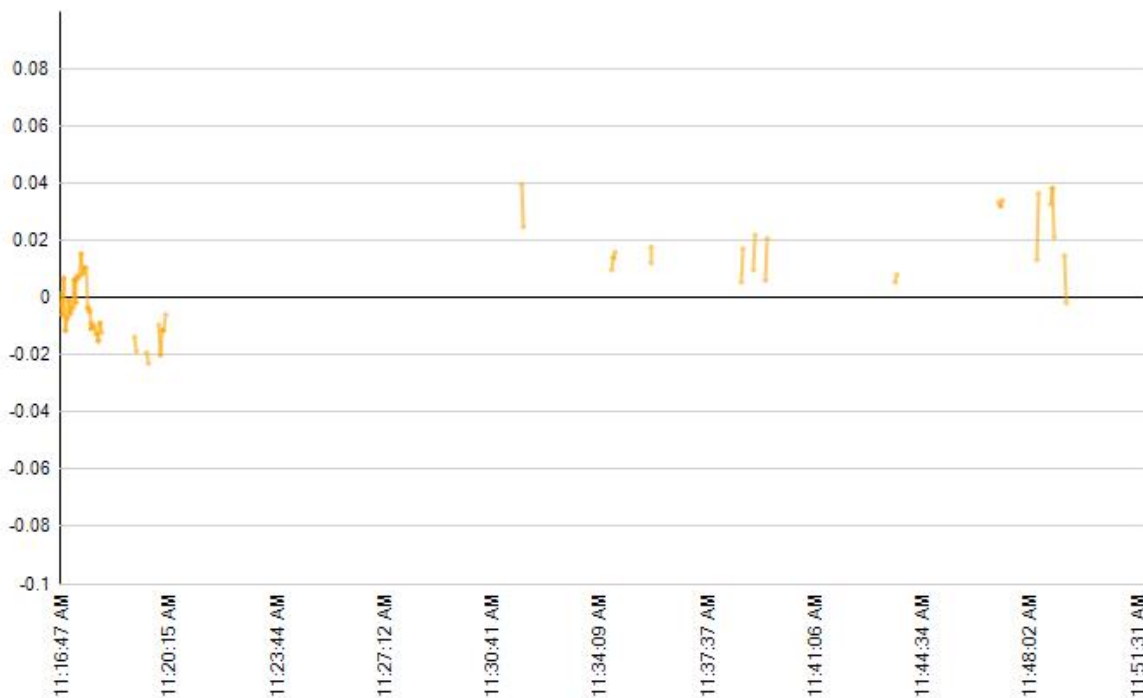
G 20
11/3/2015 11:16:47 AM - 11/3/2015 11:16:52 AM

Mean = -0.002 m Std. Dev. = 0.008 m Min. = -0.018 m Max. = 0.018 m



G 21
11/3/2015 11:16:47 AM - 11/3/2015 11:16:52 AM

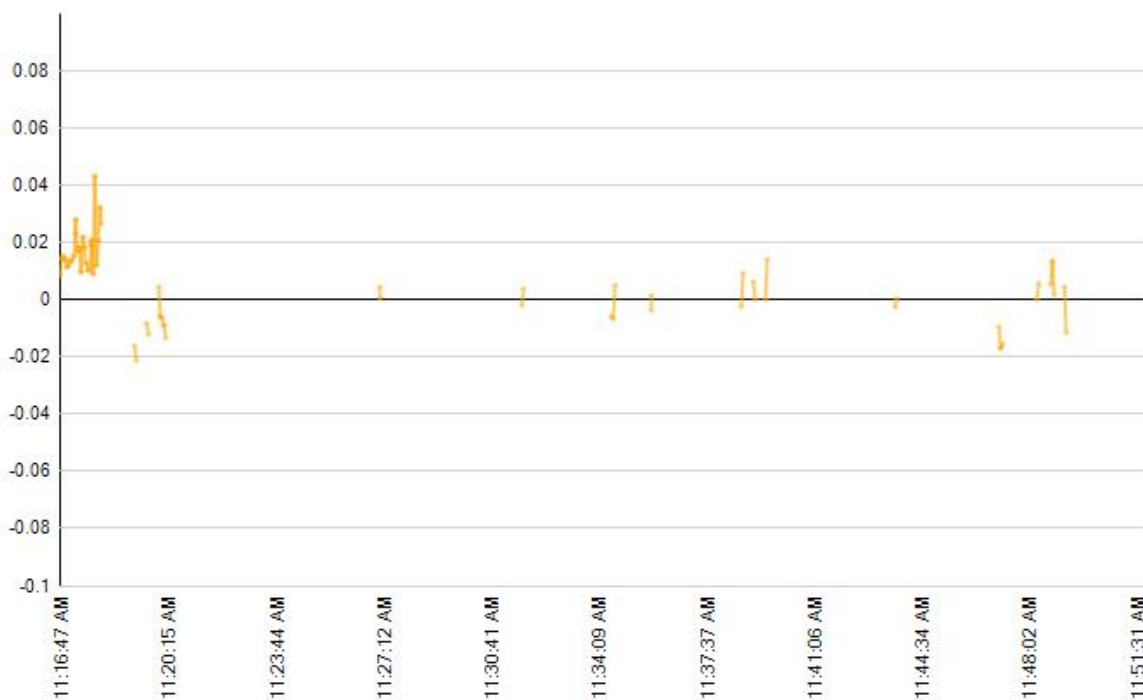
Mean = 0.004 m Std. Dev. = 0.015 m Min. = -0.039 m Max. = 0.051 m



G 25

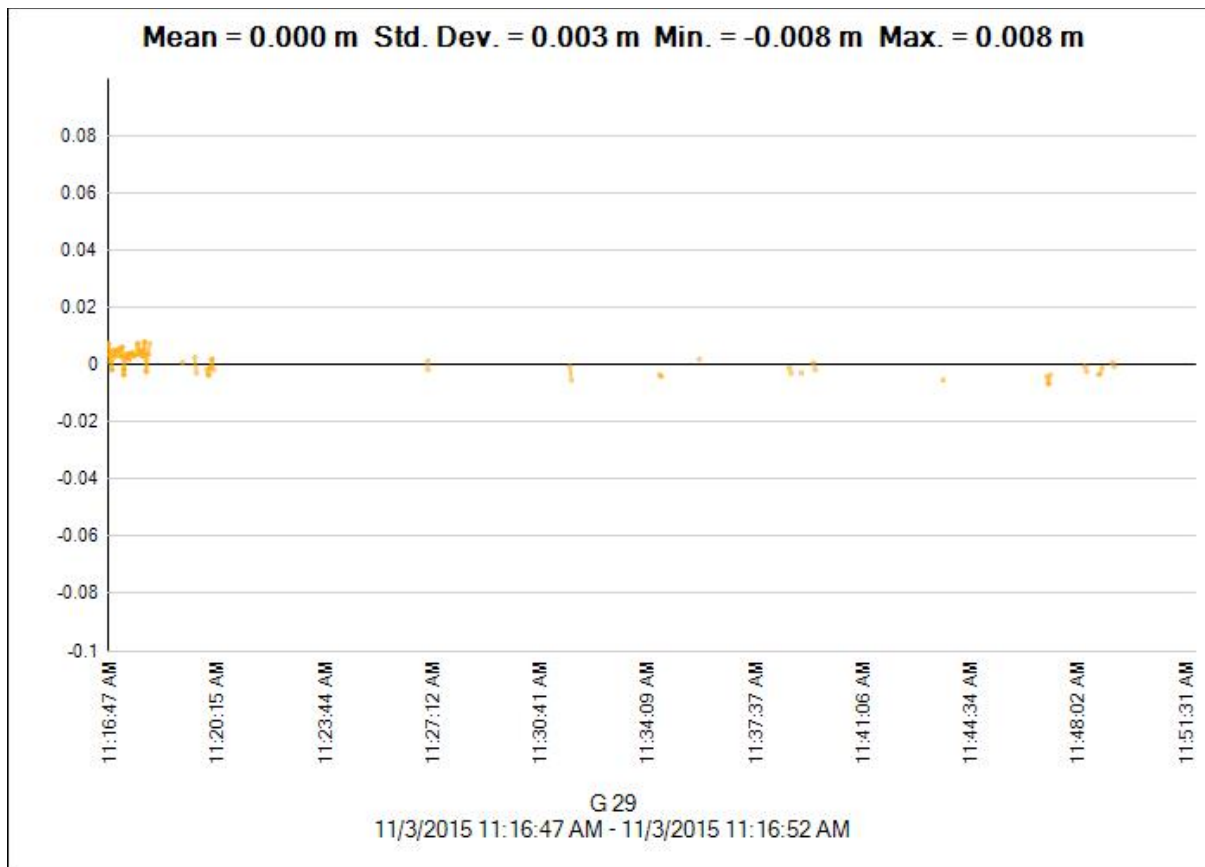
11/3/2015 11:16:47 AM - 11/3/2015 11:16:52 AM

Mean = 0.005 m Std. Dev. = 0.011 m Min. = -0.024 m Max. = 0.043 m



G 26



11/3/2015 11:16:47 AM - 11/3/2015 11:16:52 AM



Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP111A (1:32:48 PM-2:08:02 PM) (S64)

Baseline observation: NR0224 --- CP111A (B64)
 Processed: 11/4/2015 8:23:44 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.009 m
 Vertical precision: 0.009 m
 RMS: 0.001 m
 Maximum PDOP: 1.898
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 11/3/2015 1:32:48 PM (Local: UTC-7hr)
 Processing stop time: 11/3/2015 2:08:02 PM (Local: UTC-7hr)
 Processing duration: 00:35:14
 Processing interval: 1 second

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To: CP111A					
Grid		Local		Global	
Easting	428689.183 m	Latitude	N43°01'54.37198"	Latitude	N43°01'54.37198"
Northing	381243.129 m	Longitude	W106°58'52.65269"	Longitude	W106°58'52.65269"
Elevation	1738.798 m	Height	1725.463 m	Height	1725.463 m

Vector					
ΔEasting	-41952.482 m	NS Fwd Azimuth	290°48'14"	ΔX	-37016.546 m
ΔNorthing	15447.766 m	Ellipsoid Dist.	44707.556 m	ΔY	22243.063 m
ΔElevation	119.975 m	ΔHeight	119.810 m	ΔZ	11611.895 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.002 m
$\sigma \Delta$ Northing	0.003 m	σ Ellipsoid Dist.	0.003 m	$\sigma \Delta$ Y	0.004 m
$\sigma \Delta$ Elevation	0.005 m	$\sigma \Delta$ Height	0.005 m	$\sigma \Delta$ Z	0.004 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000053680		
Y	0.0000024451	0.0000180620	
Z	-0.0000027372	-0.0000047396	0.0000166286

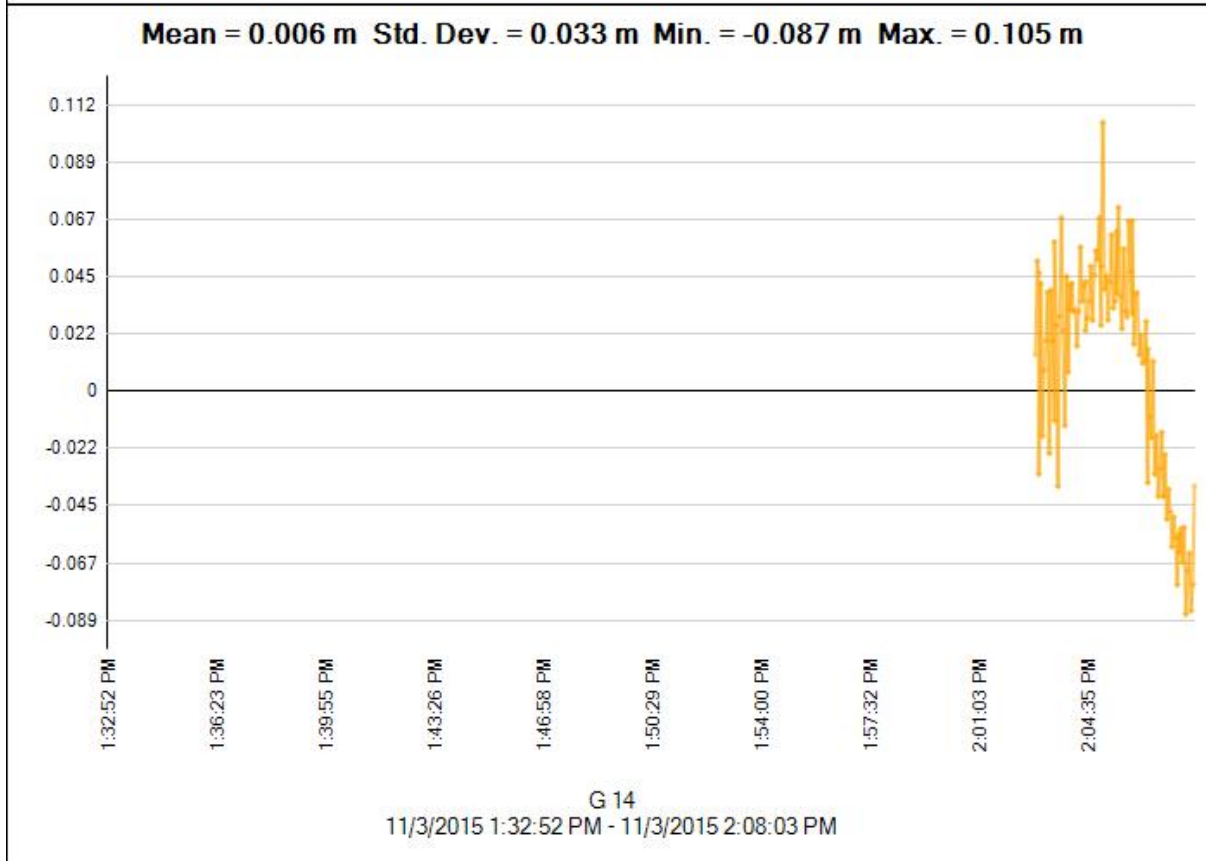
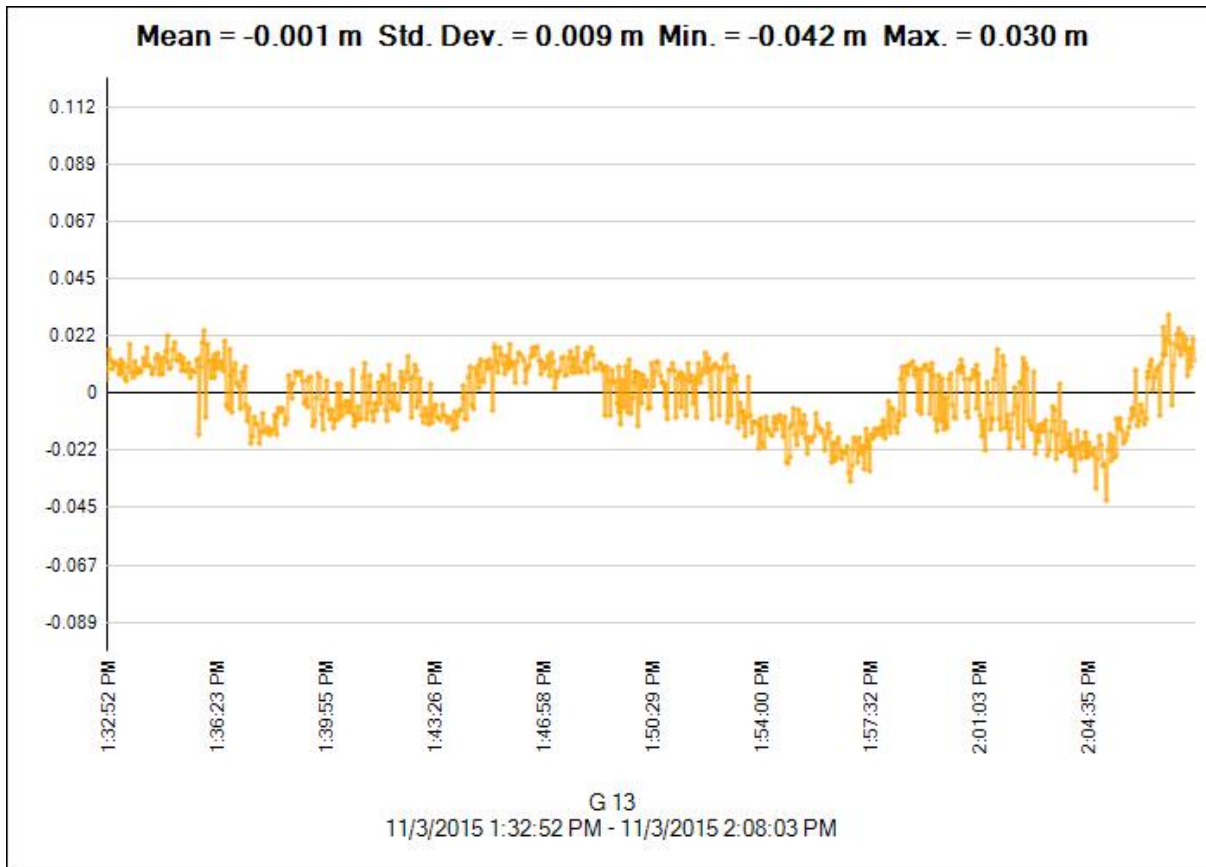
Occupations

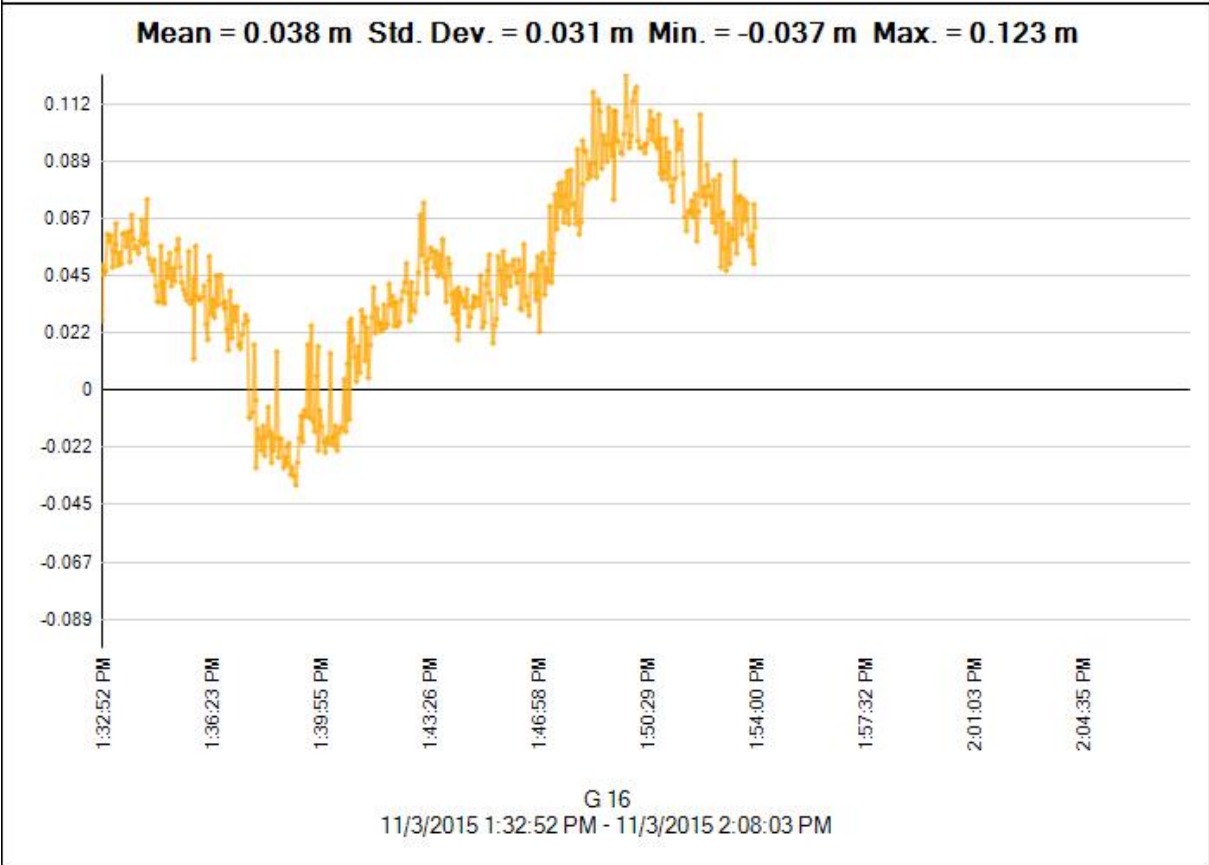
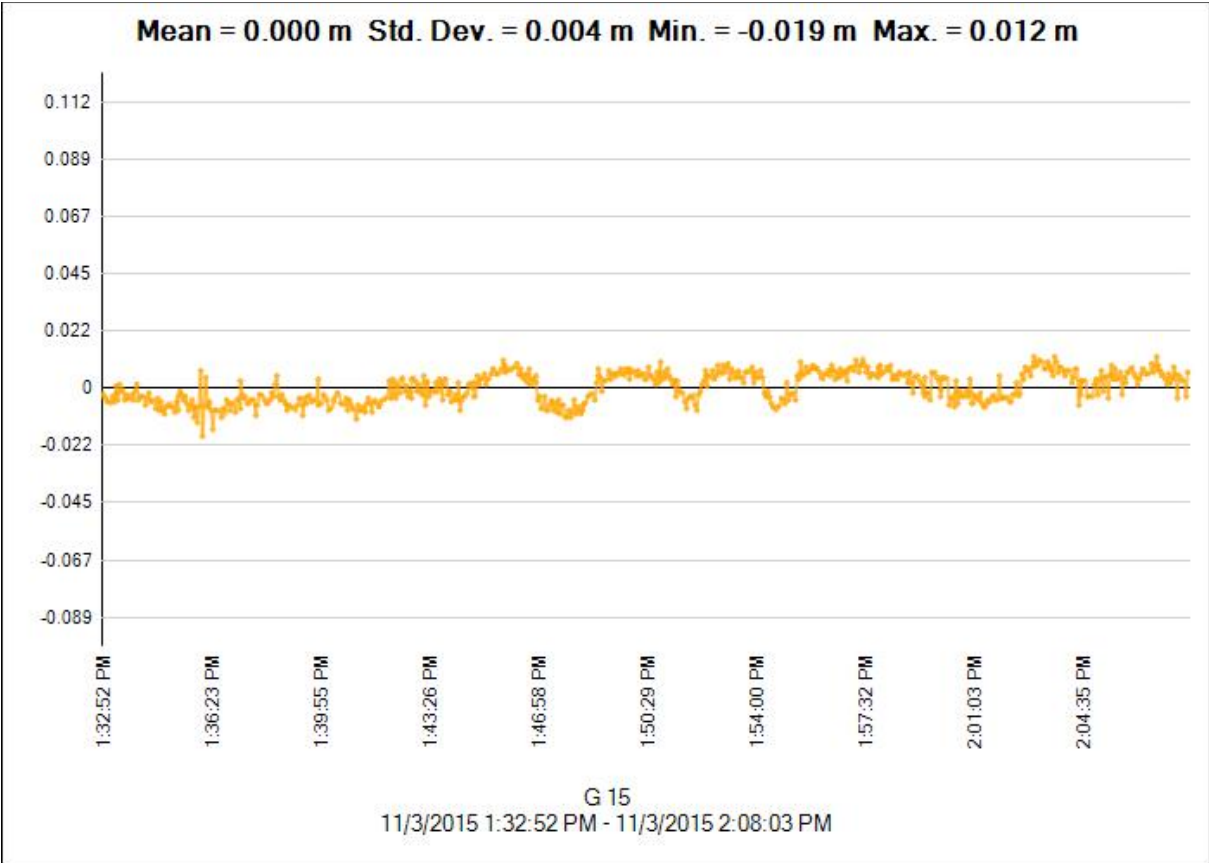
	From	To
Point ID:	NR0224	CP111A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513070.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843074.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.385 m	1.406 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

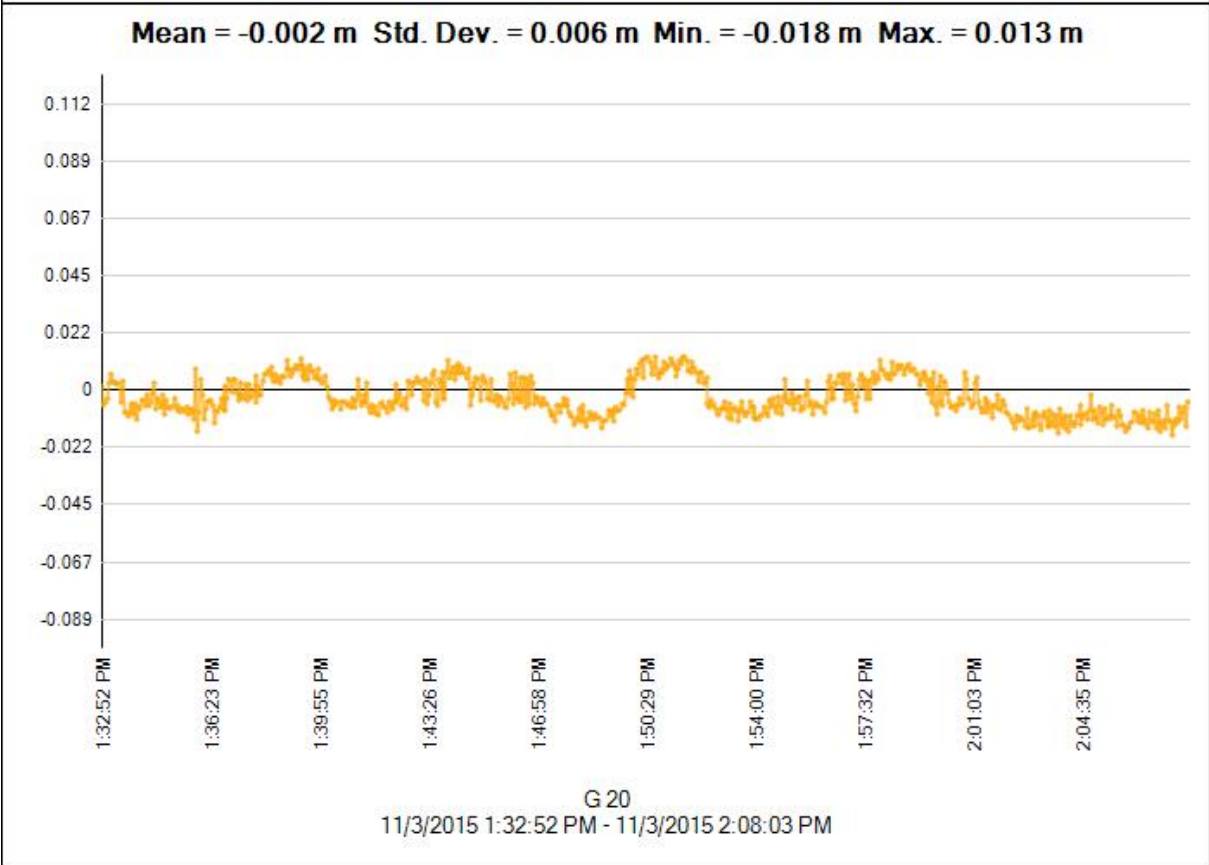
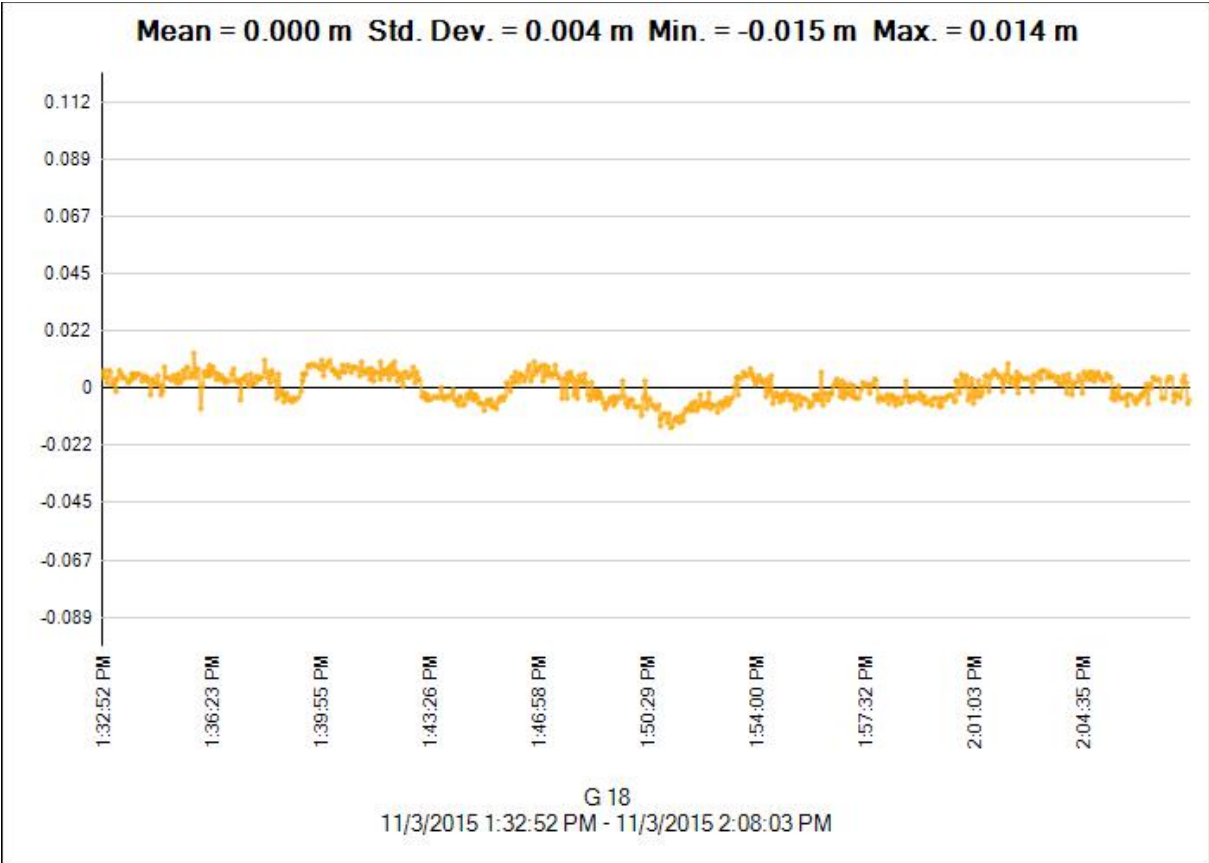
Tracking Summary

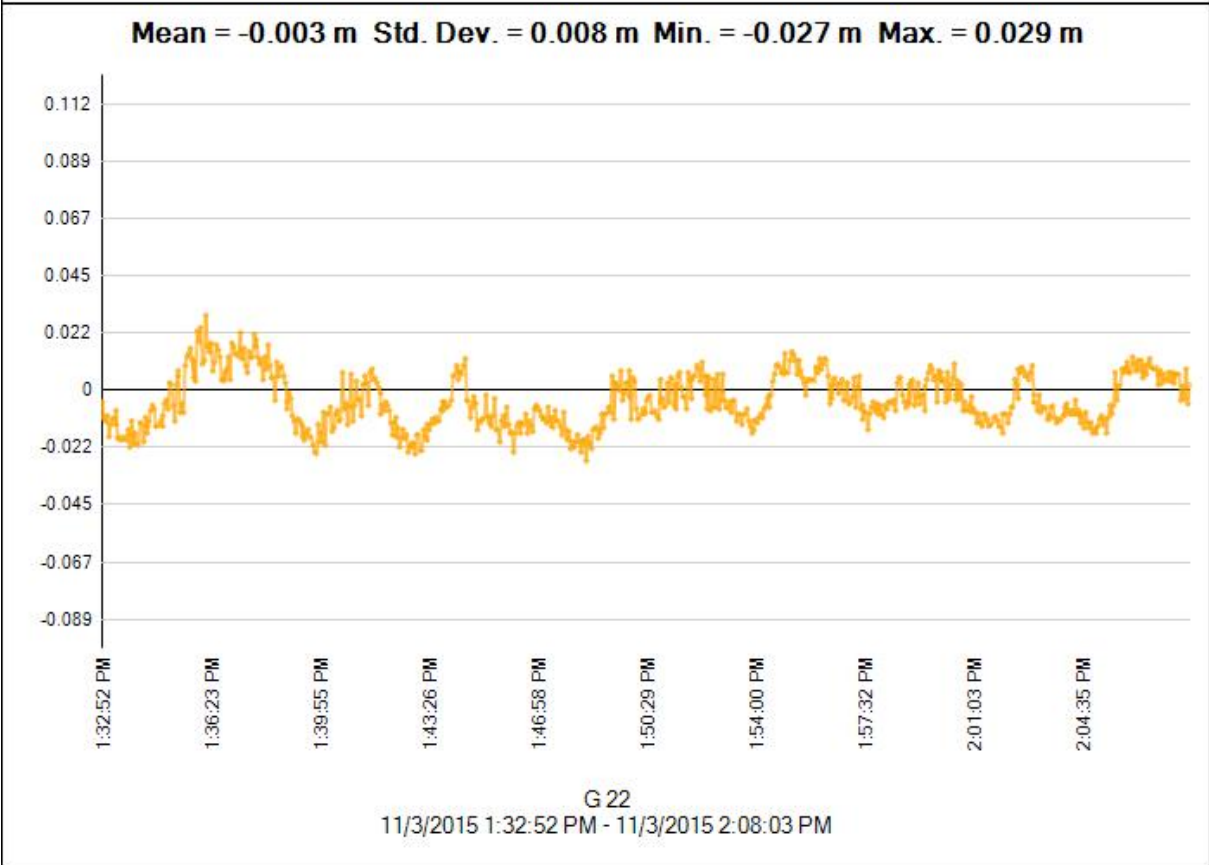
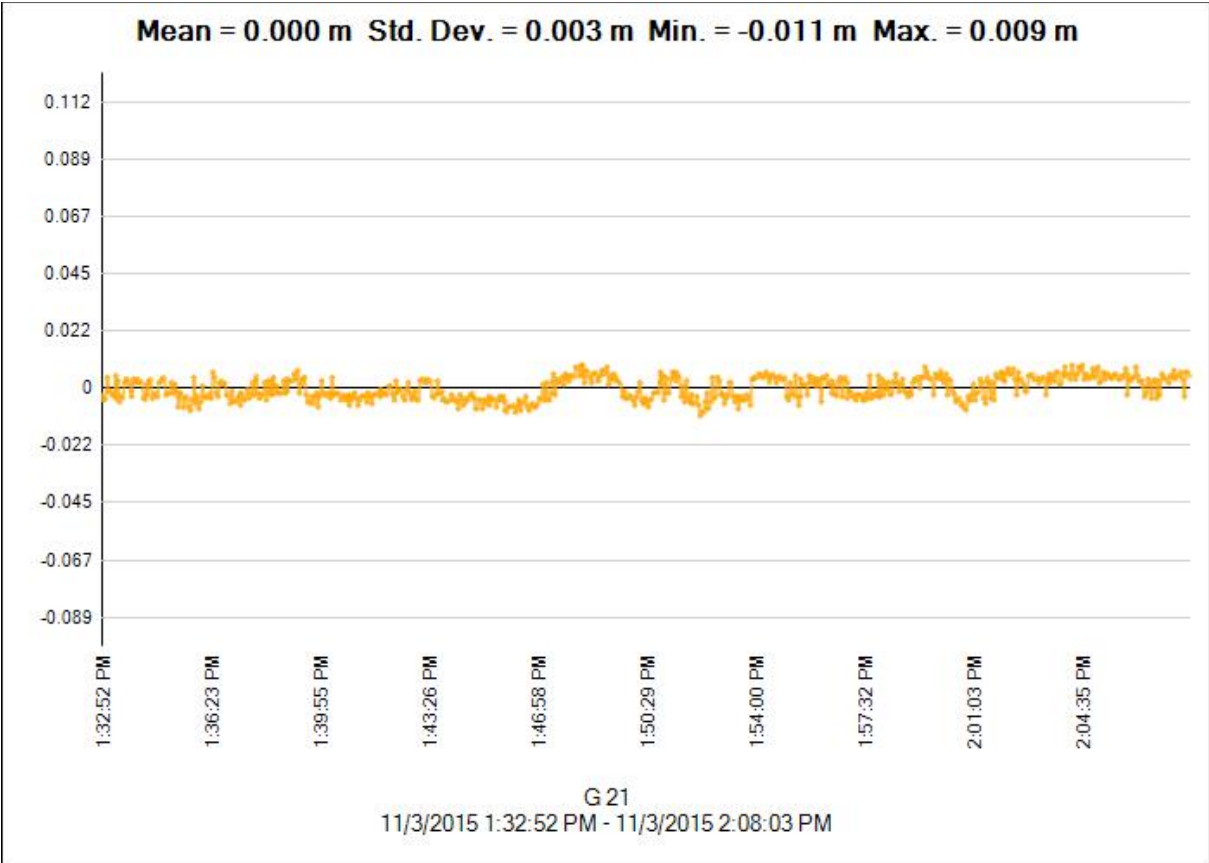
SV	11/3/2015 1:32:48 PM	Duration: 00:35:14	Major interval: 00:01:00	11/3/2015 2:08:02 PM
G 13	L1 L2			
G 14	L1 L2			
G 15	L1 L2			
G 16	L1 L2			
G 18	L1 L2			
G 20	L1 L2			
G 21	L1 L2			
G 22	L1 L2			
G 24	L1 L2			
G 26	L1 L2			
G 27	L1 L2			
G 29	L1 L2			

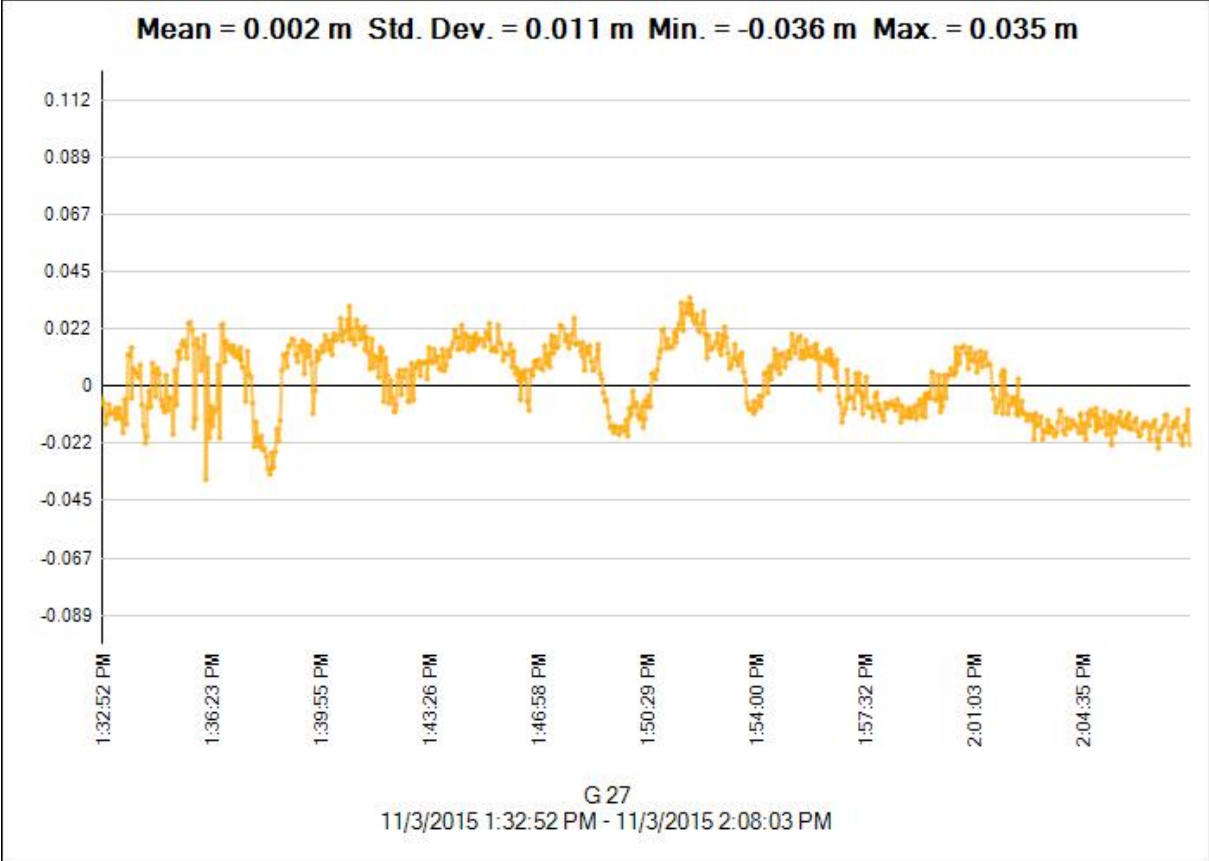
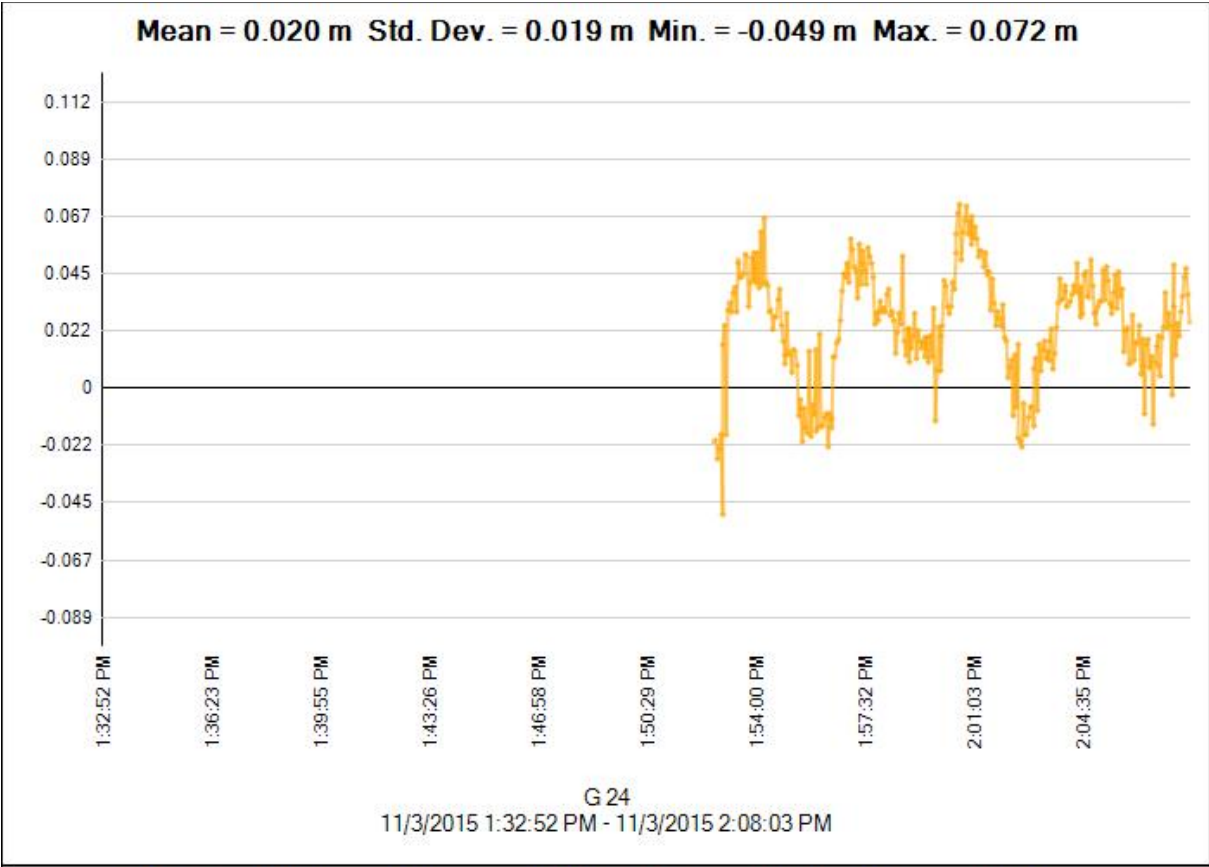
Residuals

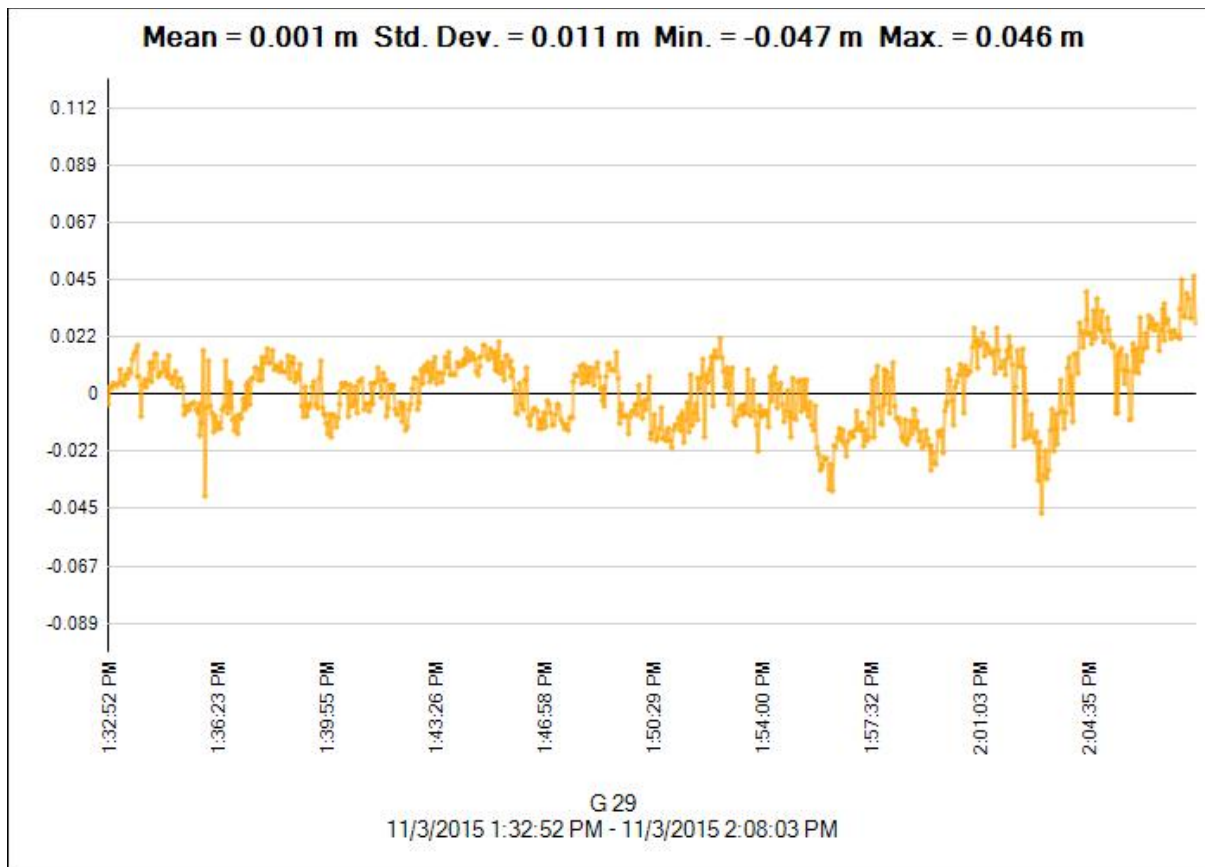














Processing style

Elevation mask: 10.0 deg
 Auto start processing: Yes
 Start automatic ID numbering: AUTO0001
 Continuous vectors: No
 Generate residuals: Yes
 Antenna model: Automatic
 Ephemeris type: Automatic
 Frequency: Multiple Frequencies
 Processing Interval: Use all data
 Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP113A (2:23:07 PM-2:58:14 PM) (S65)

Baseline observation: NR0224 --- CP113A (B65)
 Processed: 11/4/2015 8:18:30 AM
 Solution type: Fixed
 Frequency used: Dual Frequency (L1, L2)
 Horizontal precision: 0.009 m
 Vertical precision: 0.011 m
 RMS: 0.001 m
 Maximum PDOP: 2.026
 Ephemeris used: Broadcast
 Antenna model: NGS Absolute
 Processing start time: 11/3/2015 2:23:31 PM (Local: UTC-7hr)
 Processing stop time: 11/3/2015 2:58:06 PM (Local: UTC-7hr)
 Processing duration: 00:34:35
 Processing interval: 1 second

Vector Components (Mark to Mark)

From: NR0224					
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To: CP113A					
Grid		Local		Global	
Easting	428310.613 m	Latitude	N43°02'09.80901"	Latitude	N43°02'09.80901"
Northing	381717.906 m	Longitude	W106°59'09.28893"	Longitude	W106°59'09.28893"
Elevation	1743.520 m	Height	1730.184 m	Height	1730.184 m

Vector					
ΔEasting	-42331.051 m	NS Fwd Azimuth	291°12'10"	ΔX	-37282.850 m
ΔNorthing	15922.543 m	Ellipsoid Dist.	45227.981 m	ΔY	22660.799 m
ΔElevation	124.698 m	ΔHeight	124.531 m	ΔZ	11963.418 m

Standard Errors

Vector errors:					
$\sigma \Delta$ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	$\sigma \Delta$ X	0.002 m
$\sigma \Delta$ Northing	0.004 m	σ Ellipsoid Dist.	0.002 m	$\sigma \Delta$ Y	0.004 m
$\sigma \Delta$ Elevation	0.006 m	$\sigma \Delta$ Height	0.006 m	$\sigma \Delta$ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000059436		
Y	0.0000038840	0.0000201684	
Z	-0.0000016280	-0.0000091933	0.0000222247

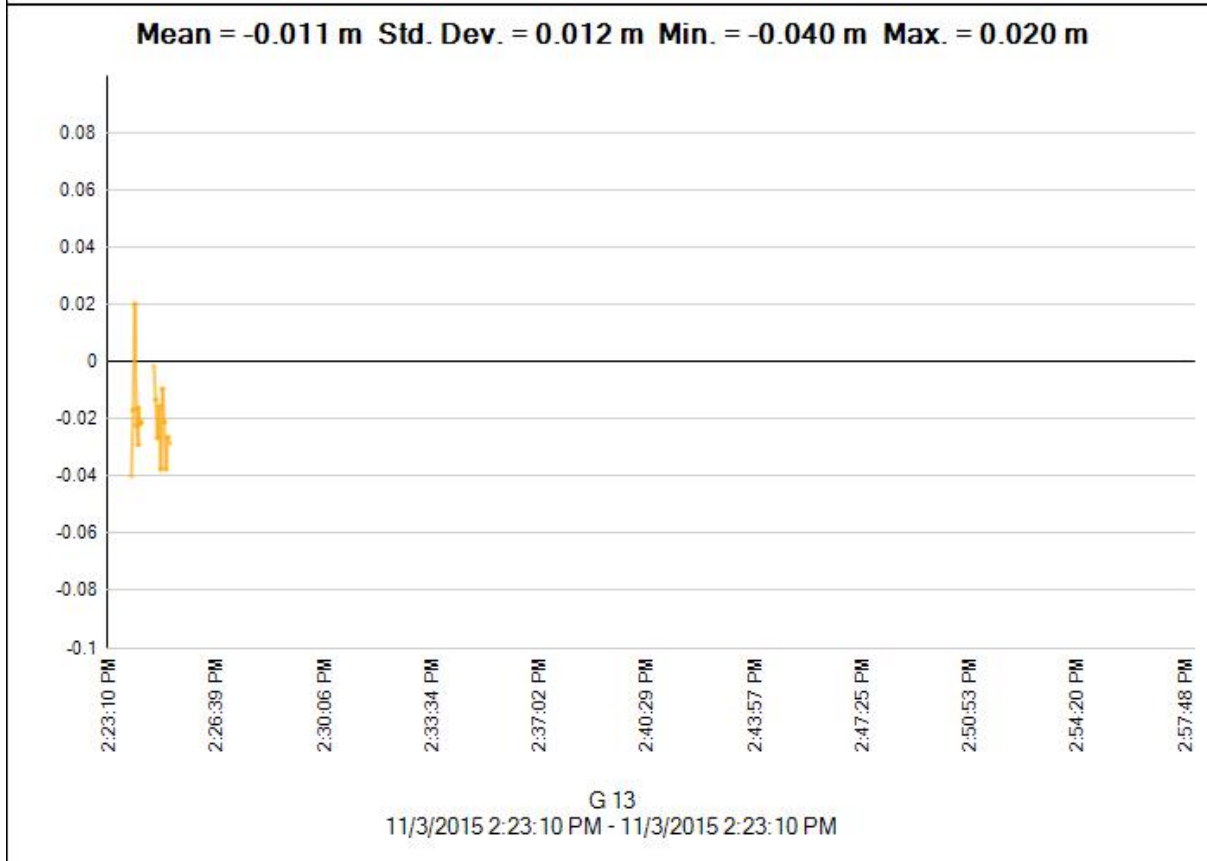
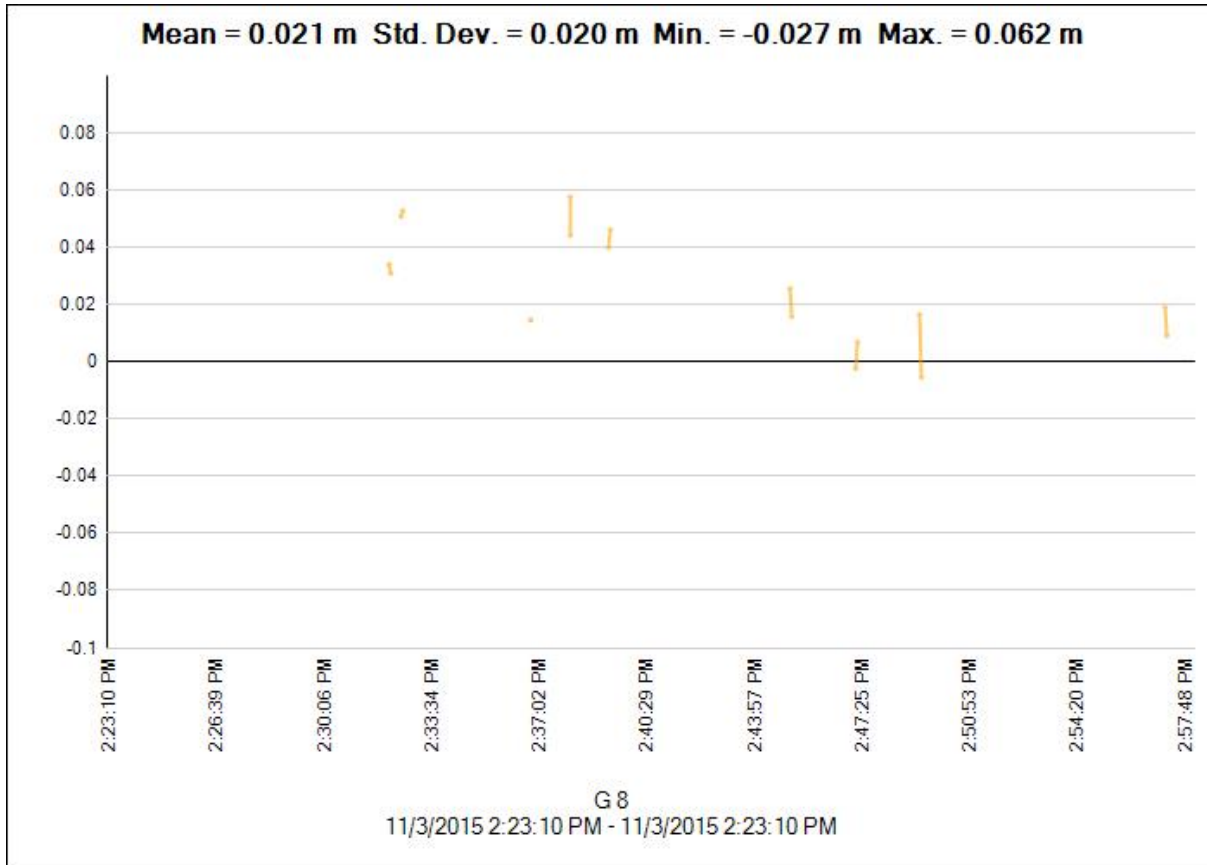
Occupations

	From	To
Point ID:	NR0224	CP113A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513070.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843075.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.385 m	1.273 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

Tracking Summary

SV	11/3/2015 2:23:07 PM	Duration: 00:35:07	Major interval: 00:01:00	11/3/2015 2:58:14 PM
G 8				
G 13				
G 14				
G 15				
G 18				
G 20				
G 21				
G 22				
G 24				
G 27				
G 29				

Residuals

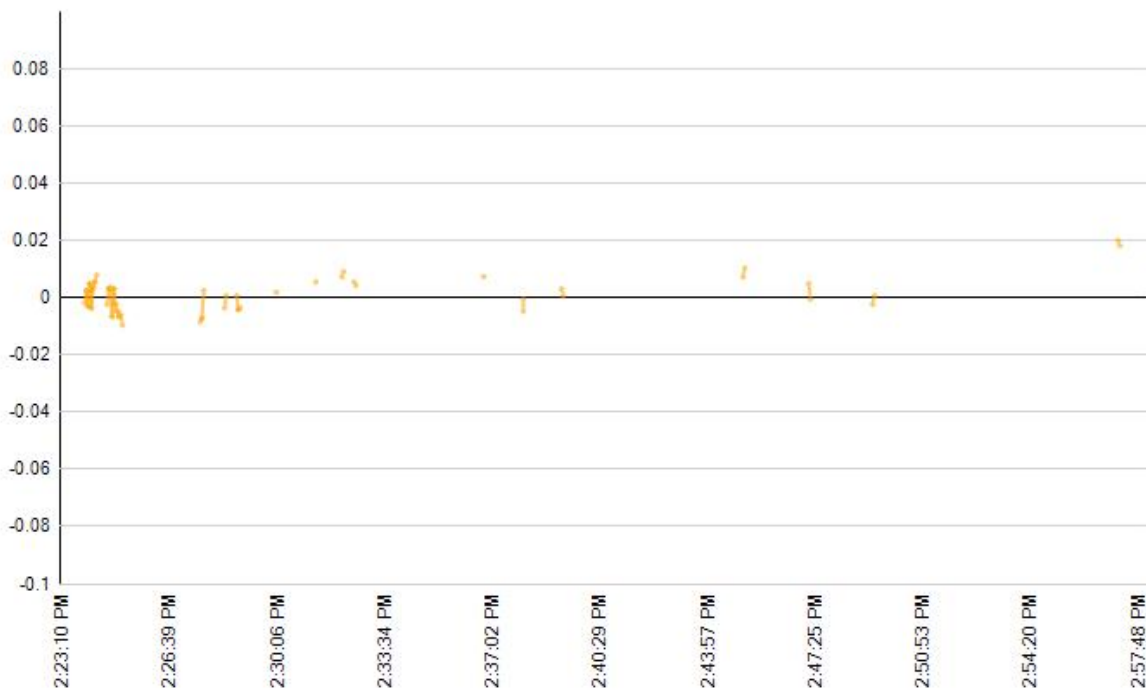


Mean = -0.005 m Std. Dev. = 0.012 m Min. = -0.028 m Max. = 0.045 m

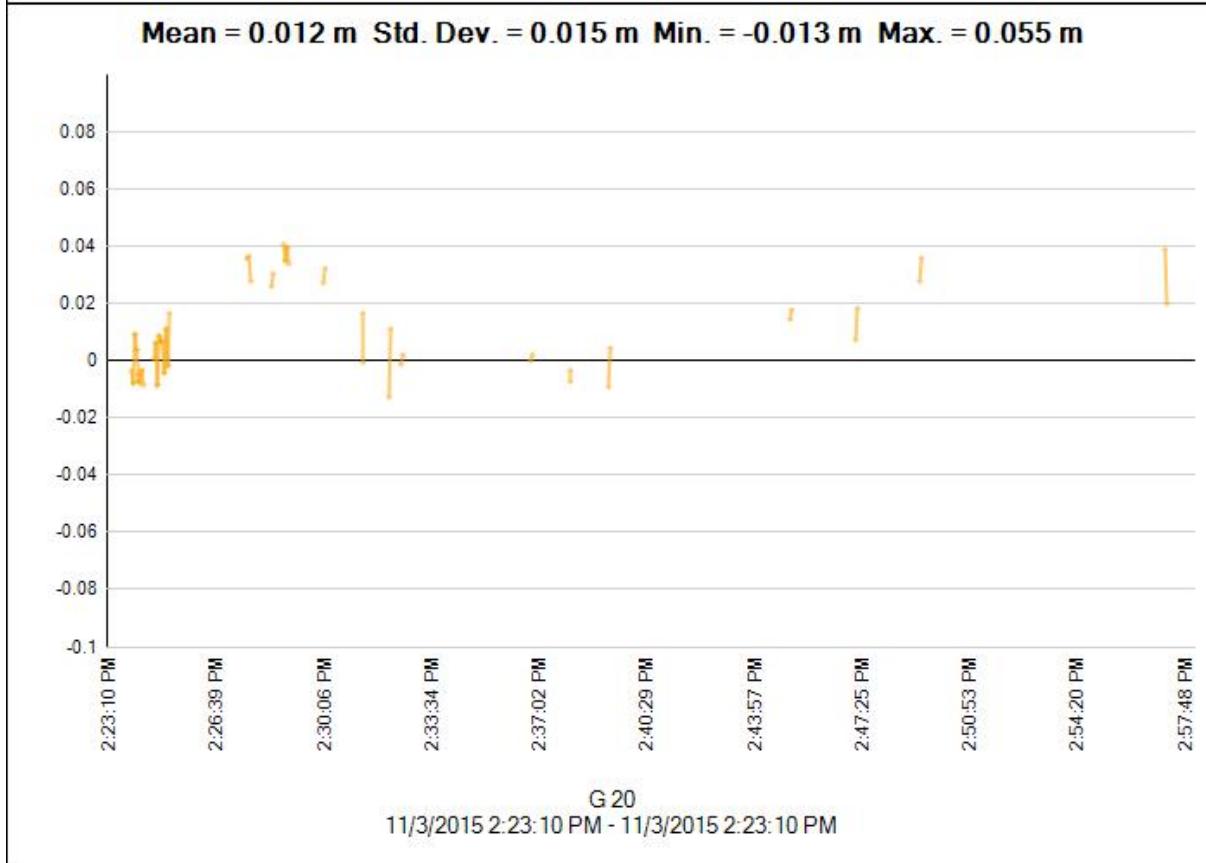
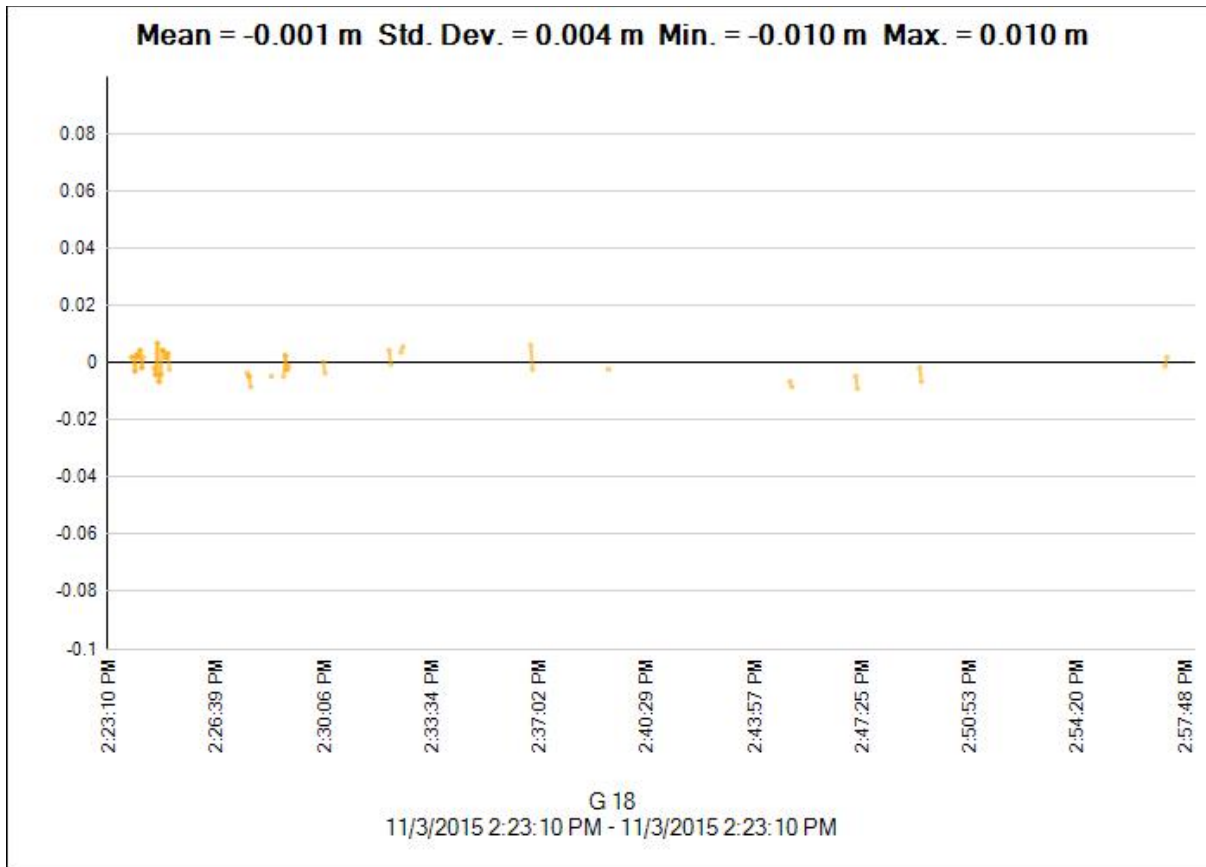


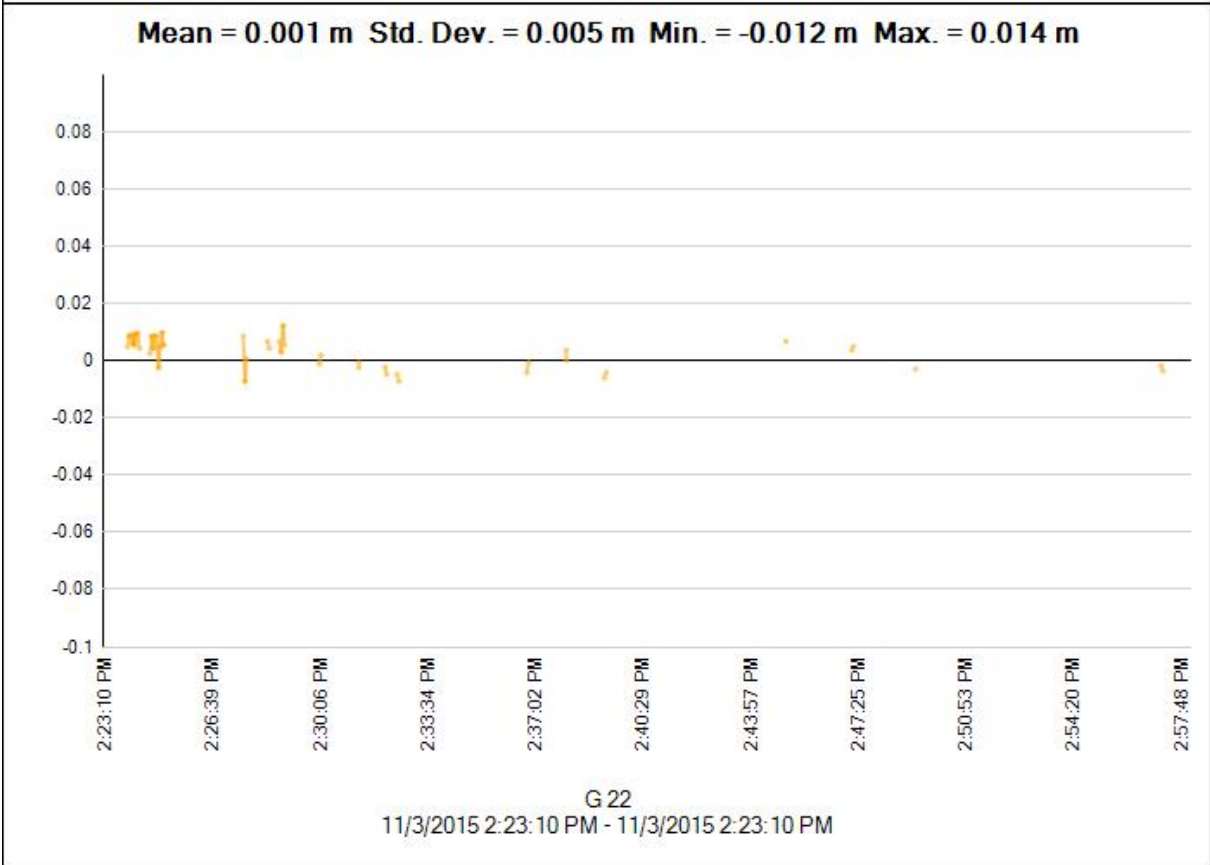
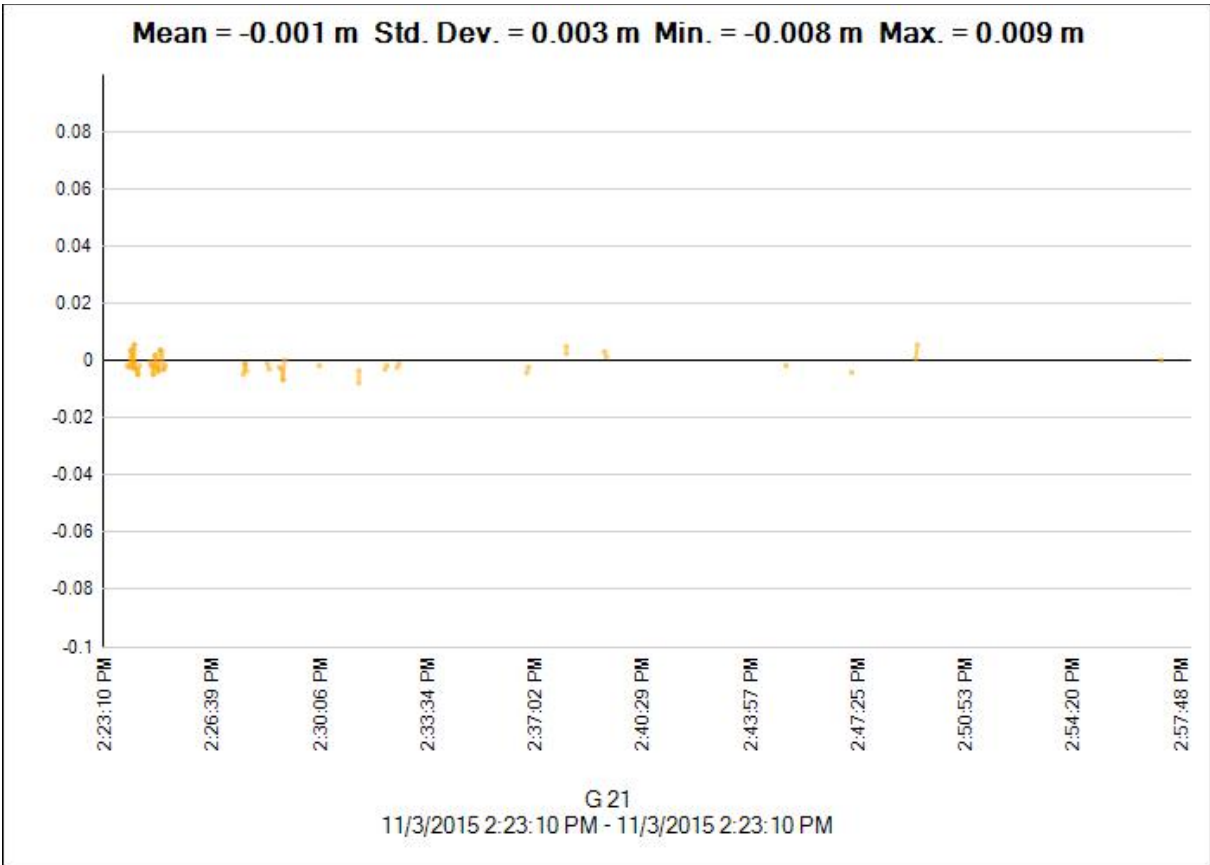
G 14
11/3/2015 2:23:10 PM - 11/3/2015 2:23:10 PM

Mean = 0.001 m Std. Dev. = 0.007 m Min. = -0.022 m Max. = 0.026 m



G 15
11/3/2015 2:23:10 PM - 11/3/2015 2:23:10 PM







Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP110A (3:20:12 PM-3:55:18 PM) (S66)

Baseline observation: NR0224 --- CP110A (B66)
Processed: 11/4/2015 8:23:28 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.008 m
Vertical precision: 0.014 m
RMS: 0.001 m
Maximum PDOP: 2.484
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 11/3/2015 3:20:36 PM (Local: UTC-7hr)
Processing stop time: 11/3/2015 3:55:18 PM (Local: UTC-7hr)
Processing duration: 00:34:42
Processing interval: 1 second

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To:		CP110A			
Grid		Local		Global	
Easting	425795.747 m	Latitude	N43°02'27.35816"	Latitude	N43°02'27.35815"
Northing	382249.490 m	Longitude	W107°01'00.30081"	Longitude	W107°01'00.30081"
Elevation	1746.700 m	Height	1733.327 m	Height	1733.327 m

Vector					
Δ Easting	-44845.917 m	NS Fwd Azimuth	290°44'15"	Δ X	-39579.134 m
Δ Northing	16454.127 m	Ellipsoid Dist.	47770.701 m	Δ Y	23747.100 m
Δ Elevation	127.877 m	Δ Height	127.674 m	Δ Z	12361.490 m

Standard Errors

Vector errors:					
σ Δ Easting	0.002 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.003 m
σ Δ Northing	0.003 m	σ Ellipsoid Dist.	0.002 m	σ Δ Y	0.005 m
σ Δ Elevation	0.007 m	σ Δ Height	0.007 m	σ Δ Z	0.005 m

Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000078385		
Y	0.0000073005	0.0000280796	
Z	-0.0000059236	-0.0000178724	0.0000300664

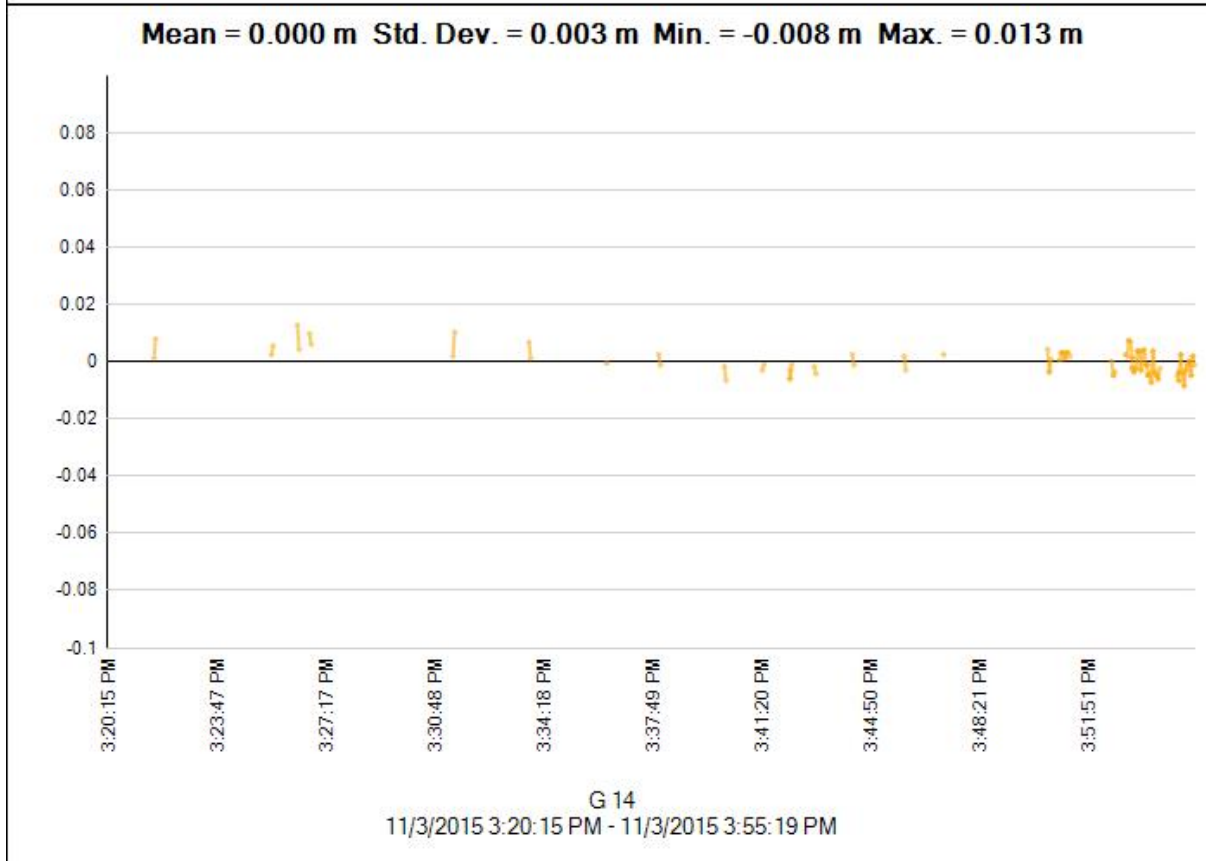
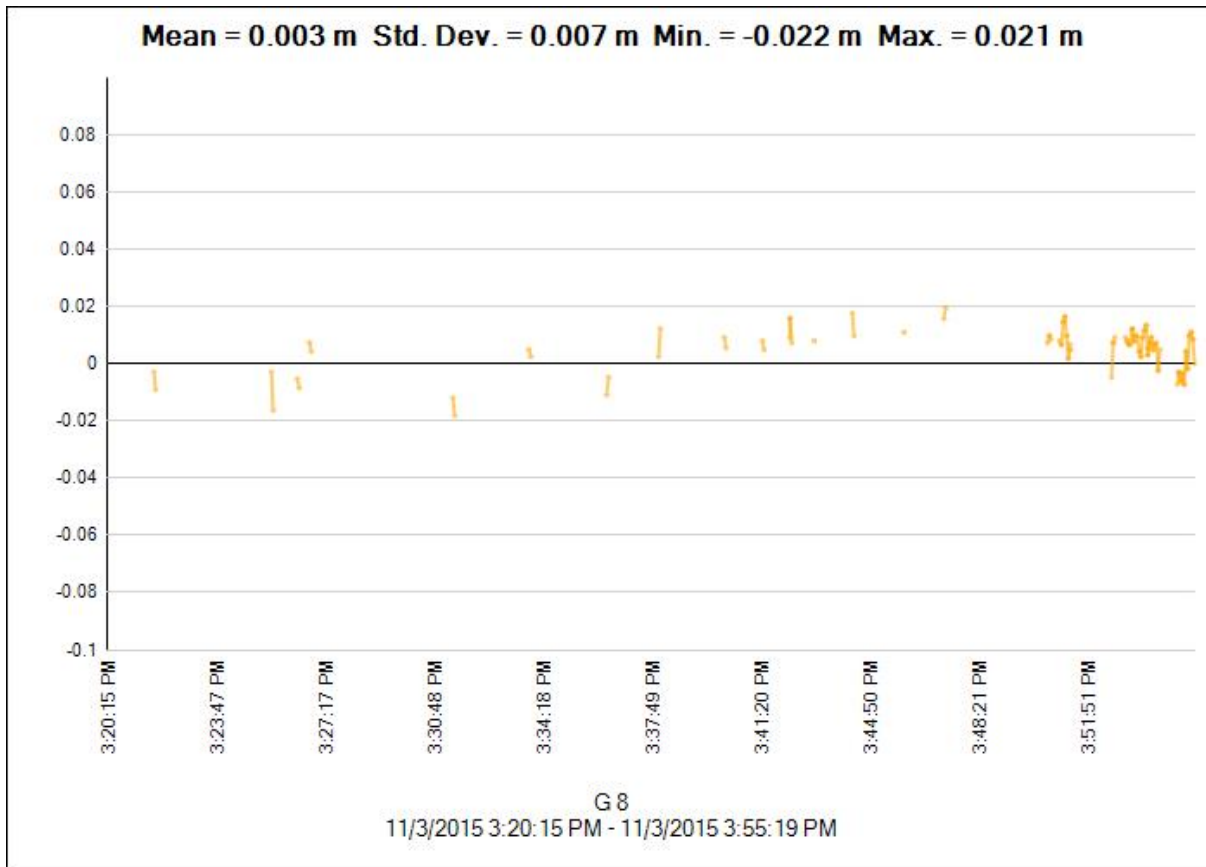
Occupations

	From	To
Point ID:	NR0224	CP110A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513070.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843076.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.385 m	1.261 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

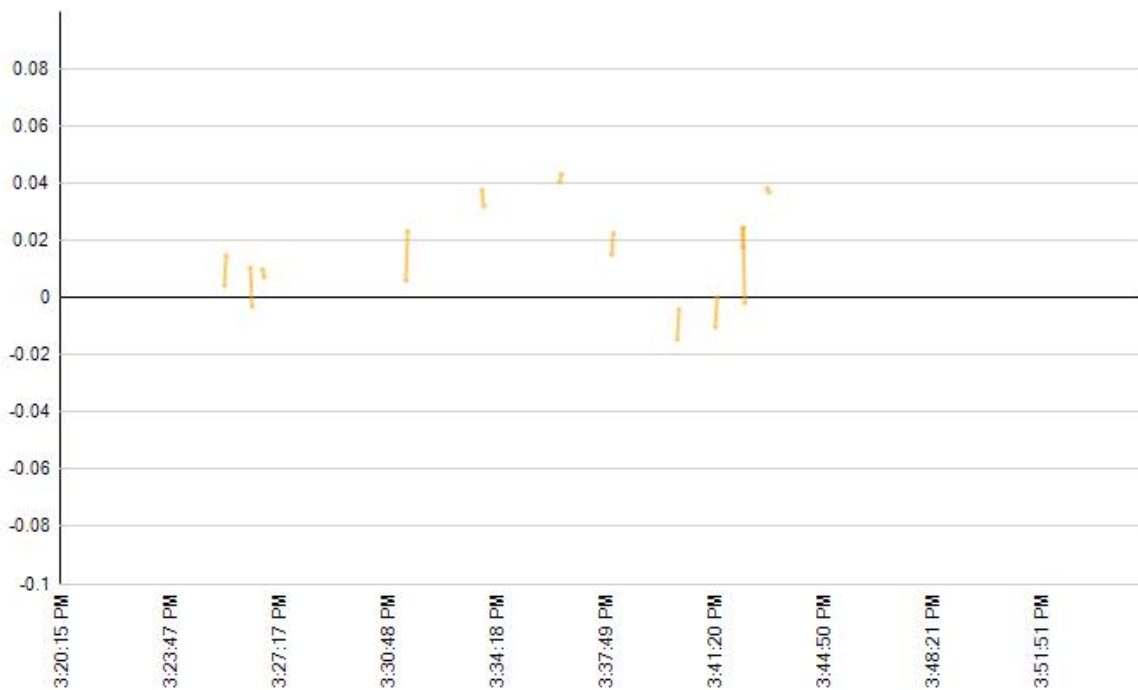
Tracking Summary

SV	11/3/2015 3:20:12 PM	Duration: 00:35:06	Major interval: 00:01:00	11/3/2015 3:55:18 PM
G 8				
G 14				
G 15				
G 18				
G 20				
G 21				
G 22				
G 24				
G 27				

Residuals

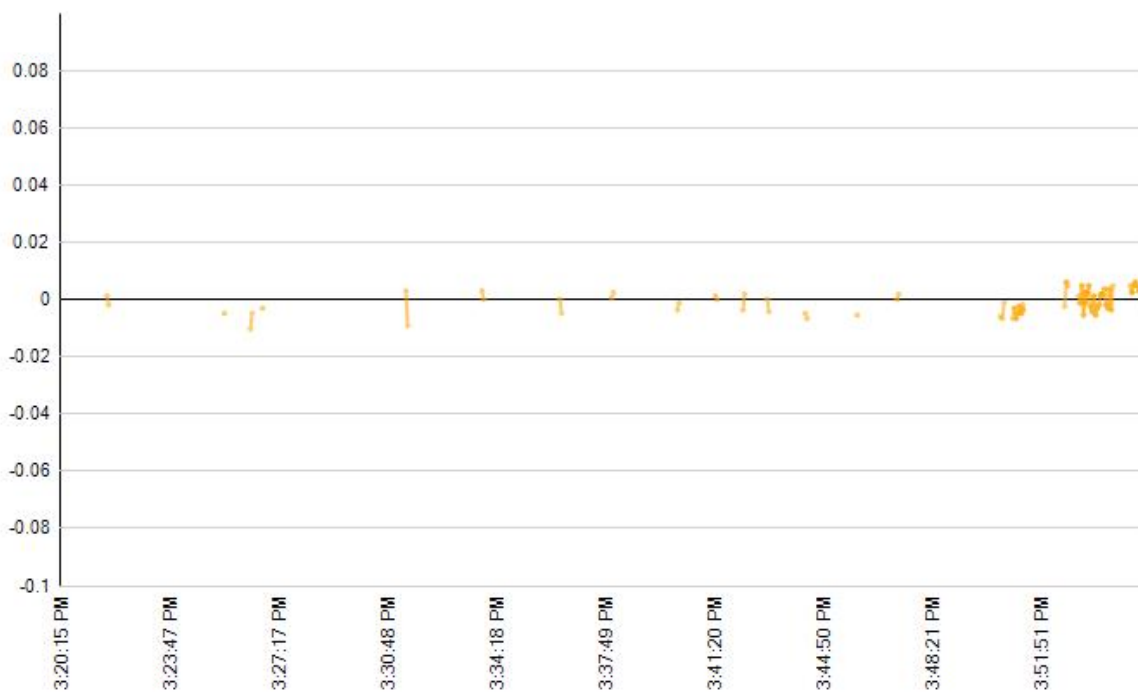


Mean = 0.014 m Std. Dev. = 0.016 m Min. = -0.018 m Max. = 0.051 m



G 15
11/3/2015 3:20:15 PM - 11/3/2015 3:55:19 PM

Mean = -0.001 m Std. Dev. = 0.003 m Min. = -0.010 m Max. = 0.006 m



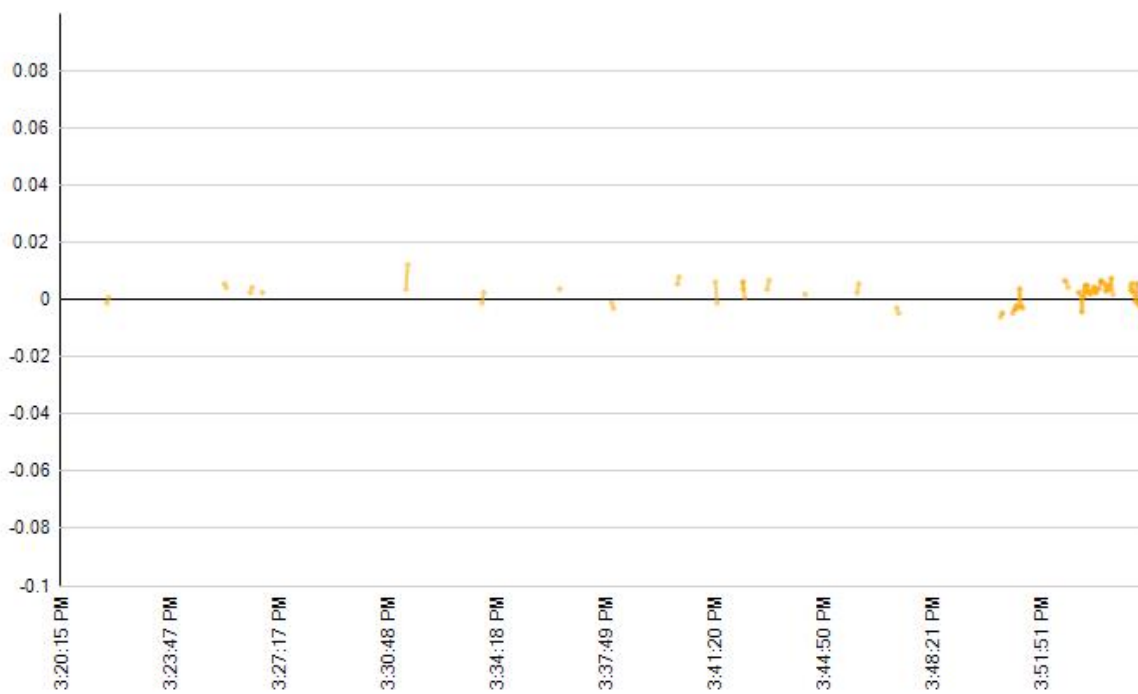
G 18
11/3/2015 3:20:15 PM - 11/3/2015 3:55:19 PM

Mean = 0.000 m Std. Dev. = 0.005 m Min. = -0.015 m Max. = 0.014 m

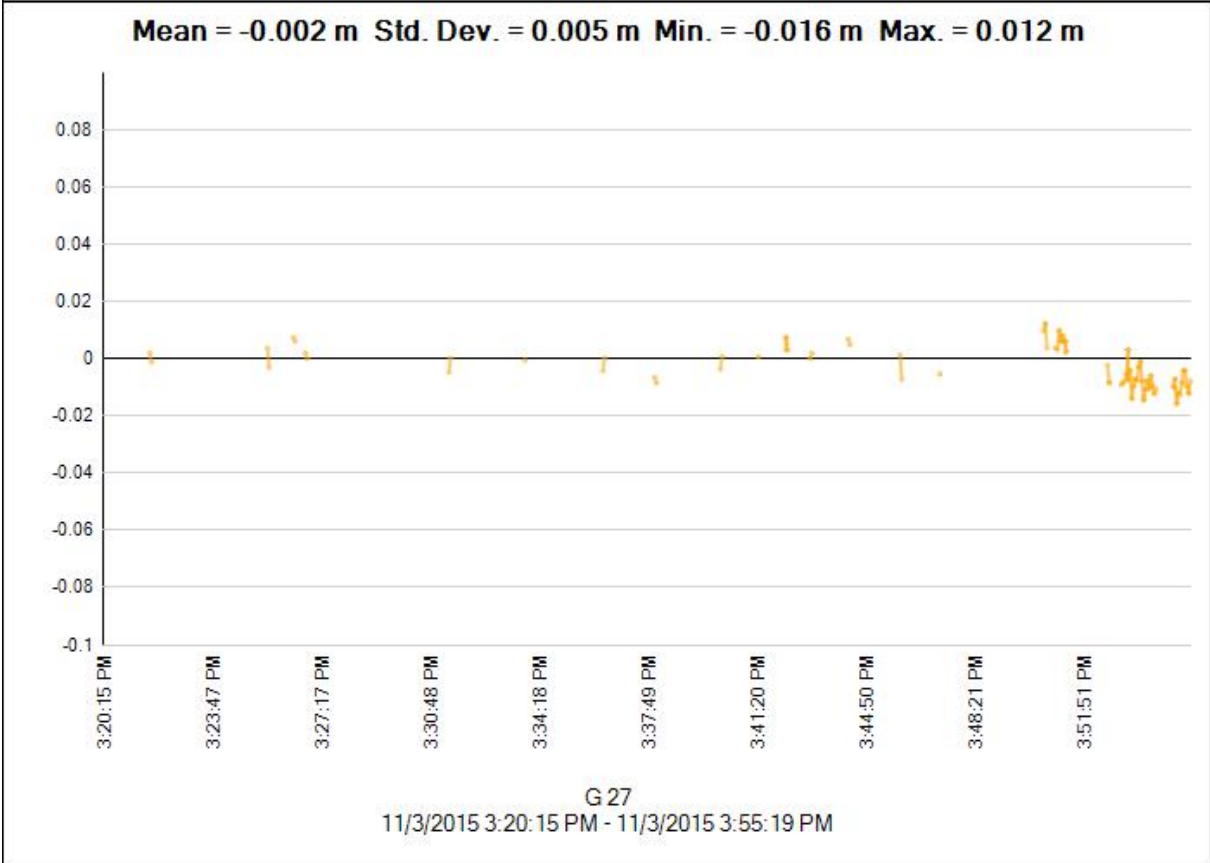
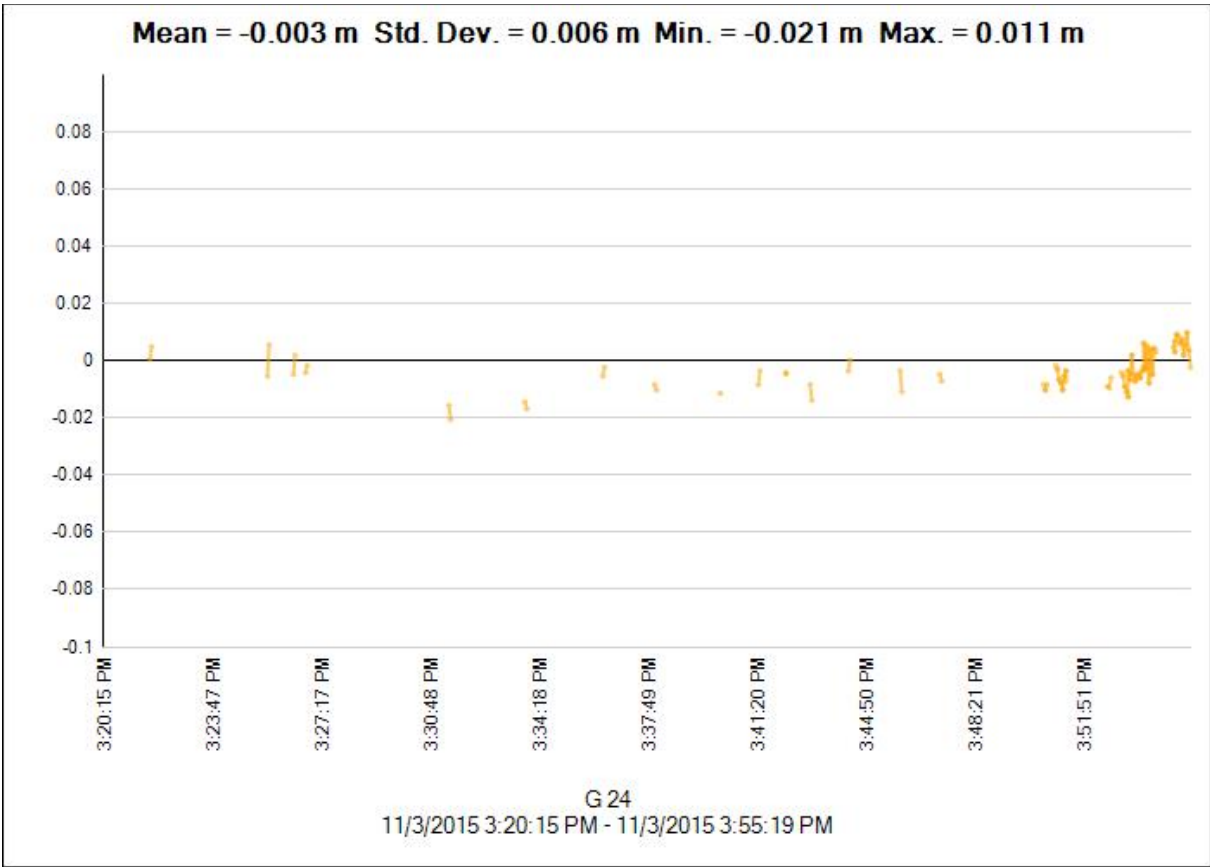


G 21
11/3/2015 3:20:15 PM - 11/3/2015 3:55:19 PM

Mean = 0.002 m Std. Dev. = 0.003 m Min. = -0.008 m Max. = 0.012 m





G 22
11/3/2015 3:20:15 PM - 11/3/2015 3:55:19 PM



Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

NR0224 - CP112A (4:23:30 PM-4:58:41 PM) (S67)

Baseline observation: NR0224 --- CP112A (B67)
Processed: 11/4/2015 8:23:31 AM
Solution type: Fixed
Frequency used: Dual Frequency (L1, L2)
Horizontal precision: 0.011 m
Vertical precision: 0.010 m
RMS: 0.002 m
Maximum PDOP: 1.691
Ephemeris used: Broadcast
Antenna model: NGS Absolute
Processing start time: 11/3/2015 4:23:54 PM (Local: UTC-7hr)
Processing stop time: 11/3/2015 4:58:41 PM (Local: UTC-7hr)
Processing duration: 00:34:47
Processing interval: 1 second

Vector Components (Mark to Mark)

From:		NR0224			
Grid		Local		Global	
Easting	470641.664 m	Latitude	N42°53'23.93631"	Latitude	N42°53'23.93631"
Northing	365795.363 m	Longitude	W106°28'06.56283"	Longitude	W106°28'06.56283"
Elevation	1618.823 m	Height	1605.653 m	Height	1605.653 m

To:		CP112A			
Grid		Local		Global	
Easting	426773.913 m	Latitude	N43°01'56.34183"	Latitude	N43°01'56.34183"
Northing	381296.151 m	Longitude	W107°00'17.24932"	Longitude	W107°00'17.24932"
Elevation	1745.367 m	Height	1731.999 m	Height	1731.999 m

Vector					
Δ Easting	-43867.751 m	NS Fwd Azimuth	290°03'01"	Δ X	-38837.837 m
Δ Northing	15500.788 m	Ellipsoid Dist.	46527.301 m	Δ Y	22838.037 m
Δ Elevation	126.545 m	Δ Height	126.346 m	Δ Z	11660.802 m

Standard Errors

Vector errors:					
σ Δ Easting	0.003 m	σ NS fwd Azimuth	0°00'00"	σ Δ X	0.003 m
σ Δ Northing	0.004 m	σ Ellipsoid Dist.	0.003 m	σ Δ Y	0.004 m
σ Δ Elevation	0.005 m	σ Δ Height	0.005 m	σ Δ Z	0.005 m

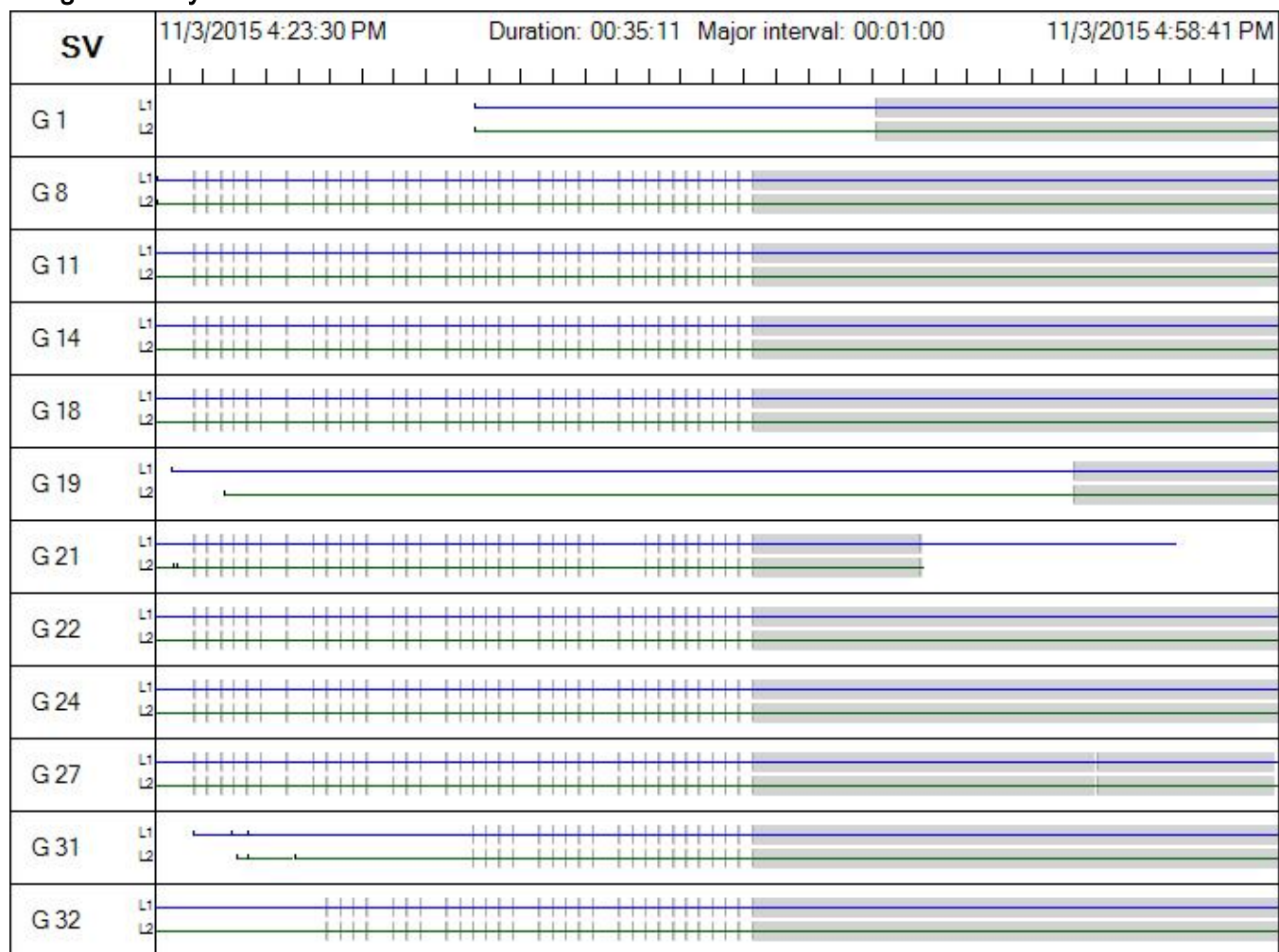
Aposteriori Covariance Matrix (Meter²)

	X	Y	Z
X	0.0000092875		
Y	0.0000053603	0.0000175475	
Z	-0.0000034768	-0.0000020565	0.0000228109

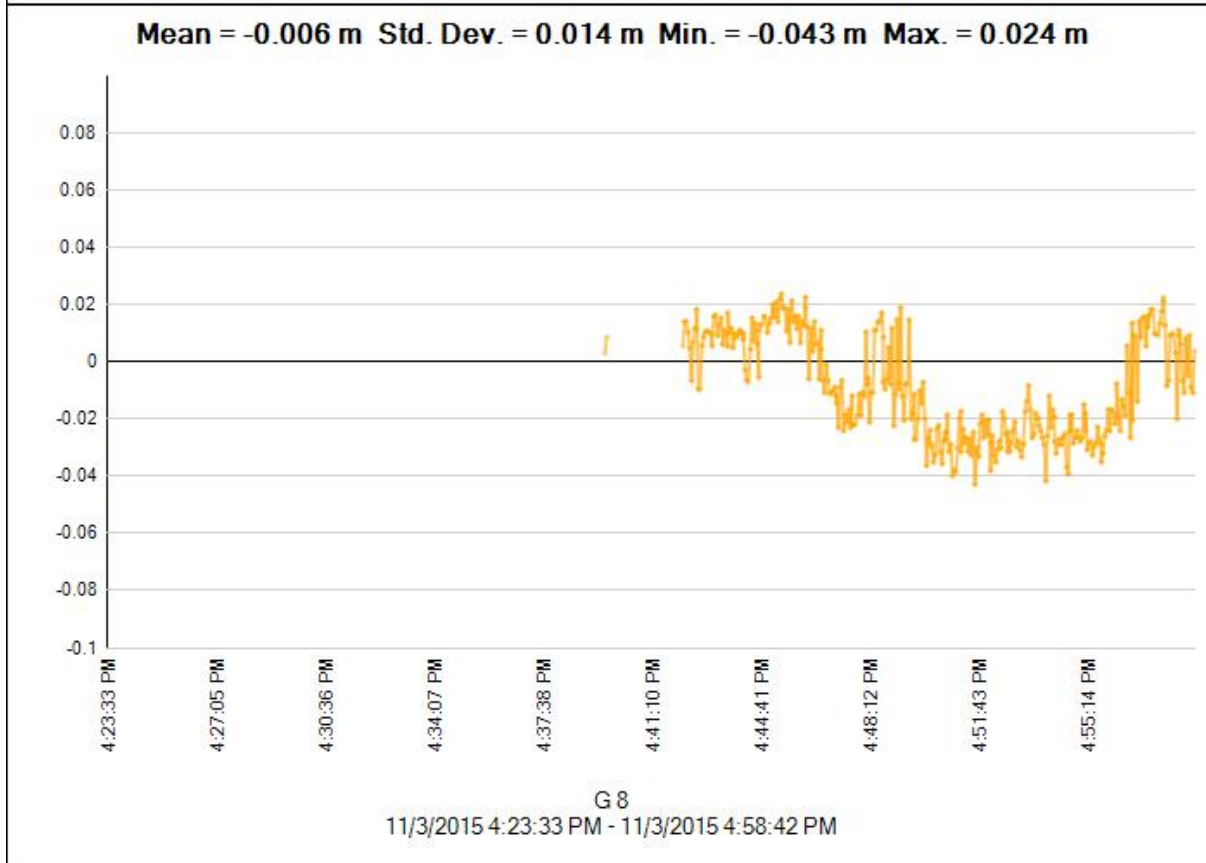
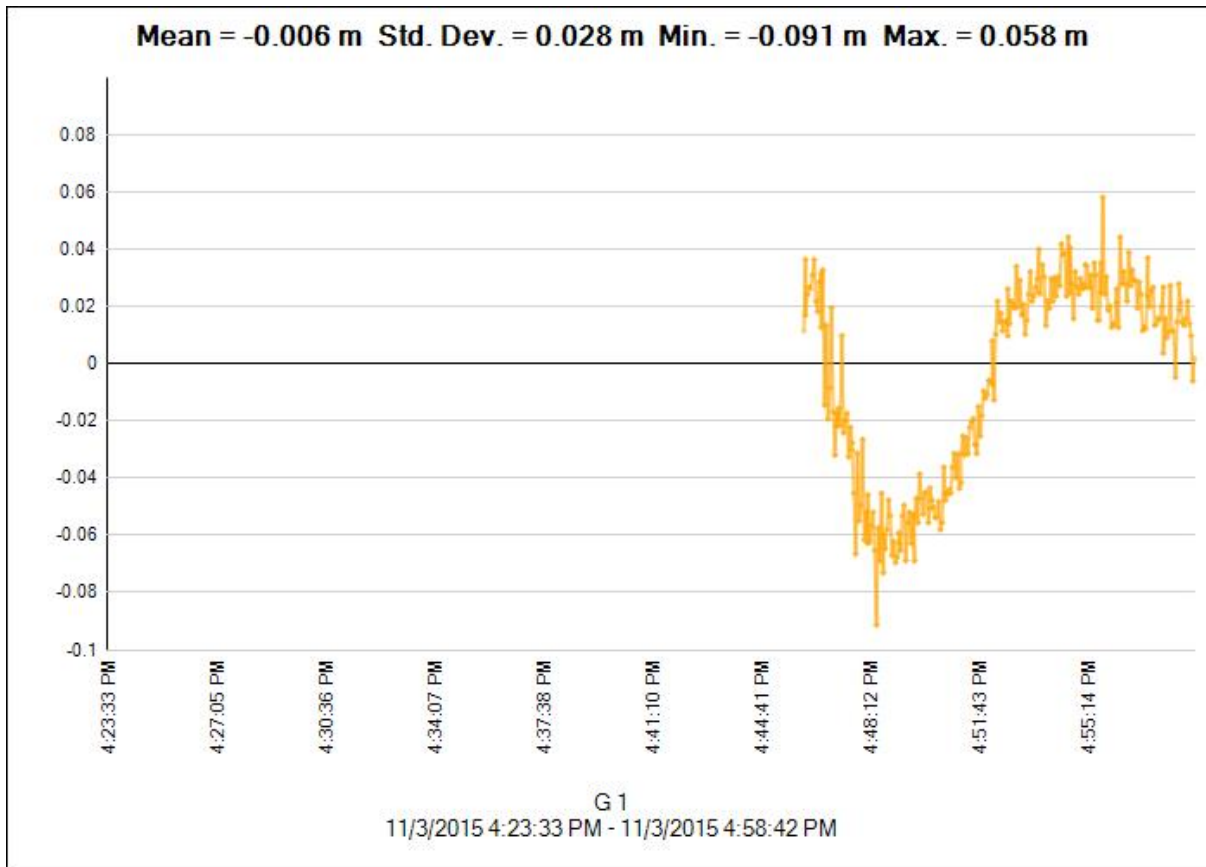
Occupations

	From	To
Point ID:	NR0224	CP112A
Data file:	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\43513070.t01	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID\87843078.t00
Receiver type:	5700	5700
Receiver serial number:	0220264351	0220308784
Antenna type:	Zephyr Geodetic	Zephyr Geodetic
Antenna serial number:	-----	00000000
Antenna height (measured):	1.385 m	1.422 m
Antenna method:	Antenna Phase Center	Antenna Phase Center

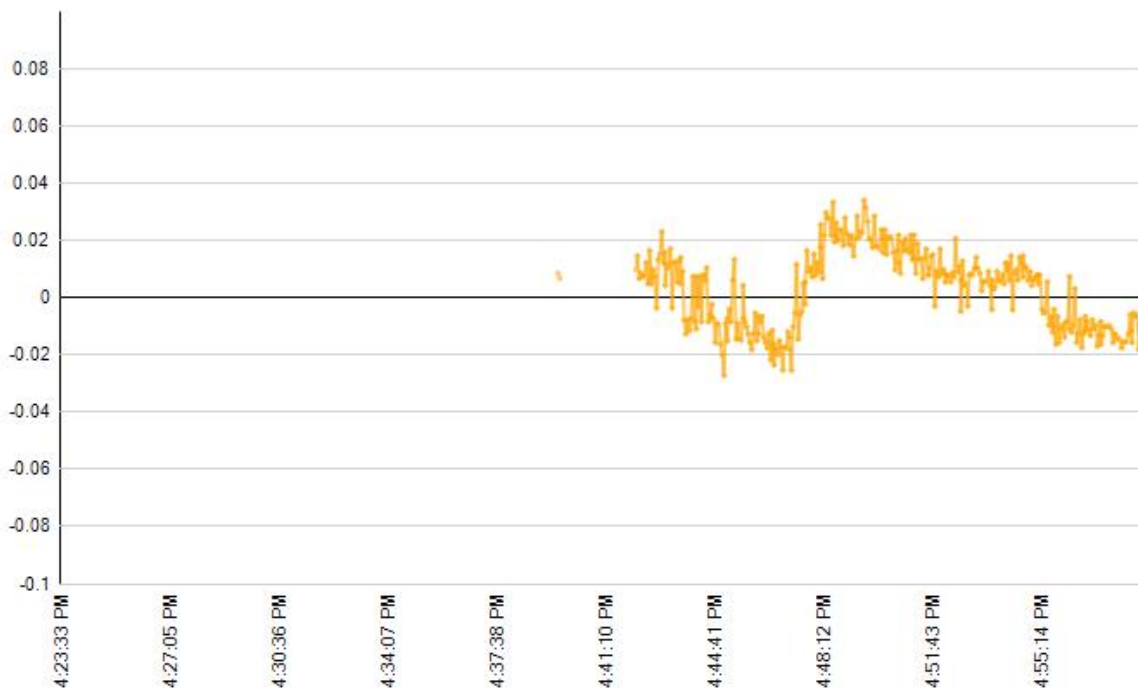
Tracking Summary



Residuals

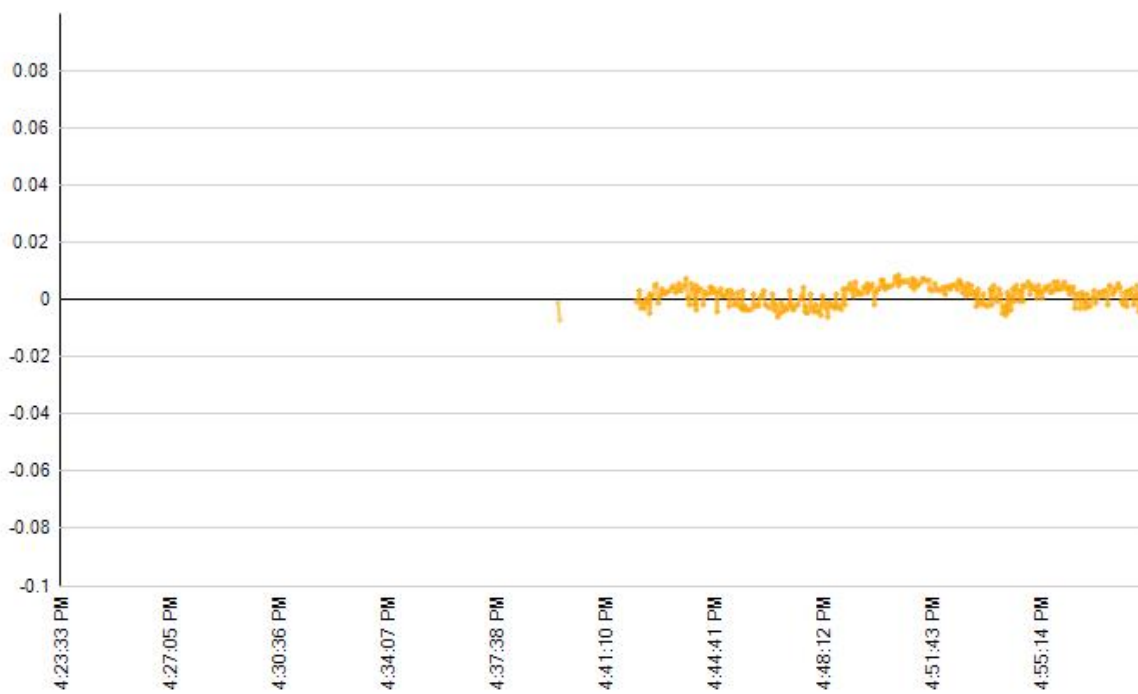


Mean = 0.003 m Std. Dev. = 0.012 m Min. = -0.027 m Max. = 0.077 m



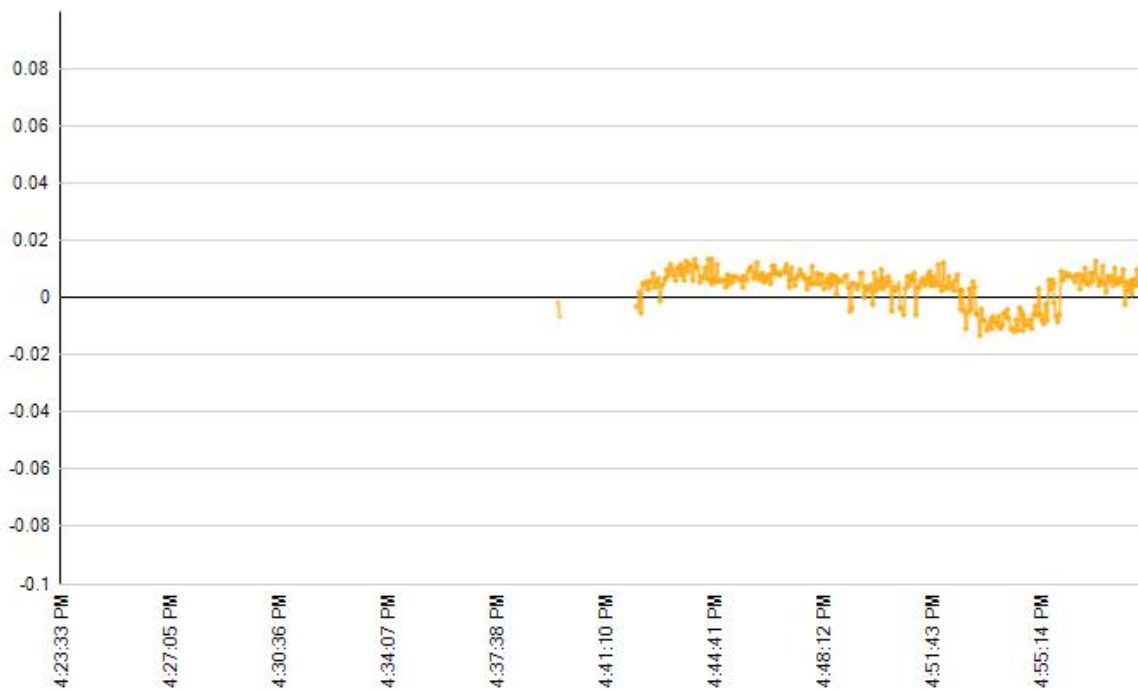
G 11
11/3/2015 4:23:33 PM - 11/3/2015 4:58:42 PM

Mean = 0.001 m Std. Dev. = 0.003 m Min. = -0.008 m Max. = 0.016 m



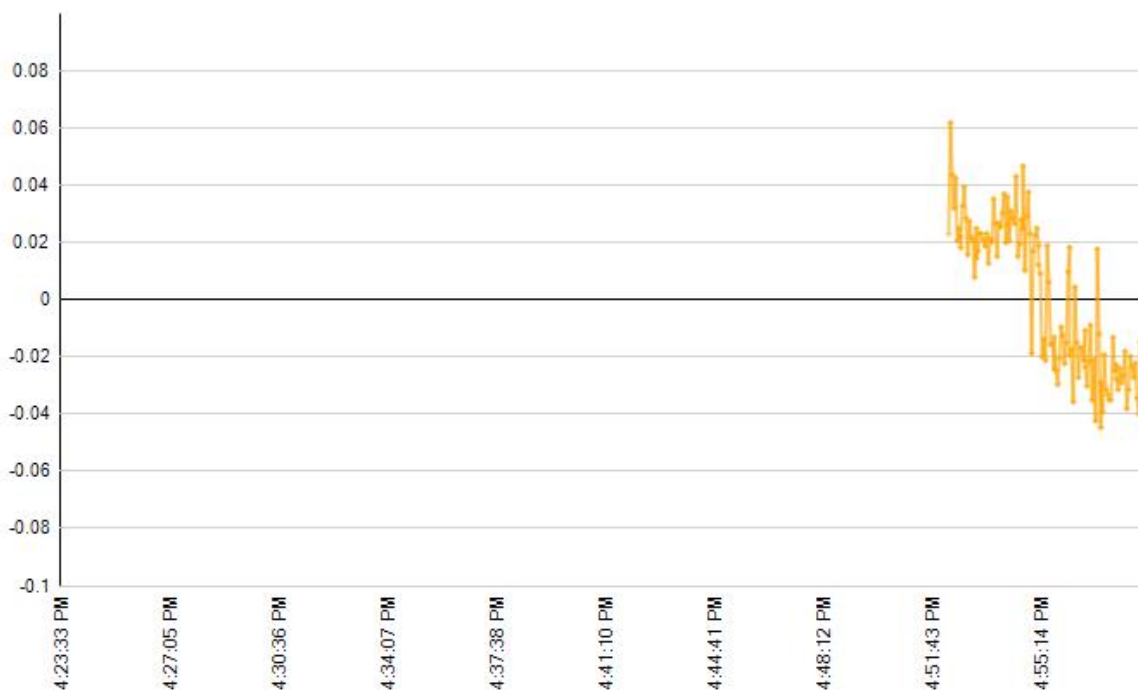
G 14
11/3/2015 4:23:33 PM - 11/3/2015 4:58:42 PM

Mean = 0.002 m Std. Dev. = 0.005 m Min. = -0.014 m Max. = 0.014 m



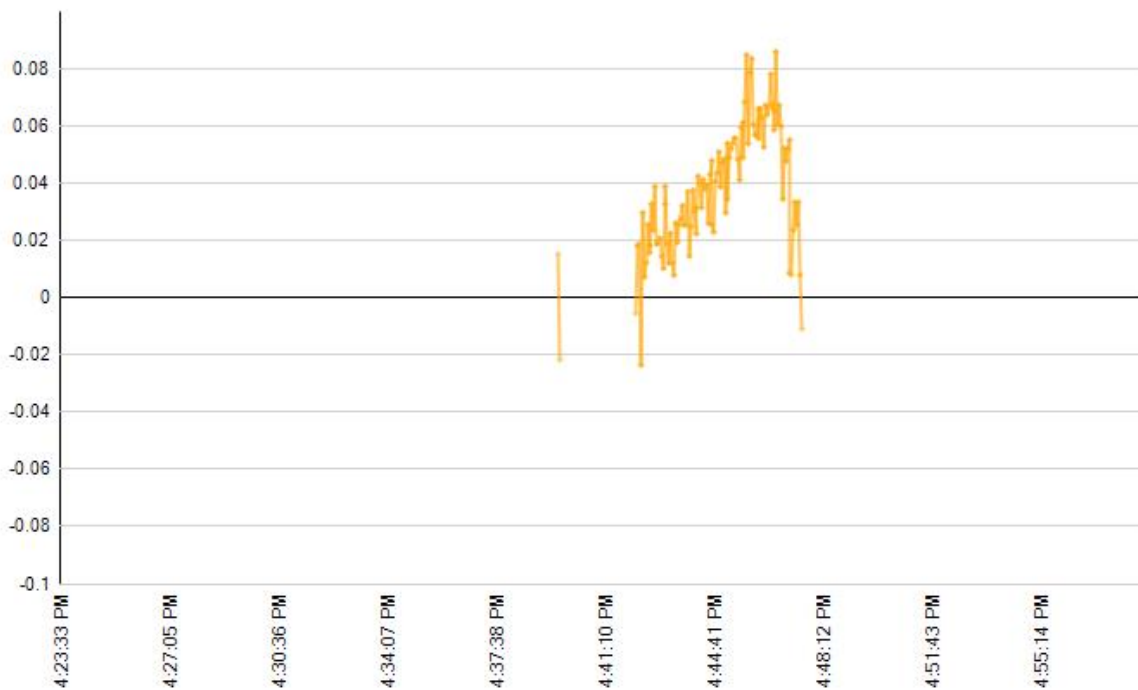
G 18
11/3/2015 4:23:33 PM - 11/3/2015 4:58:42 PM

Mean = 0.000 m Std. Dev. = 0.019 m Min. = -0.045 m Max. = 0.062 m



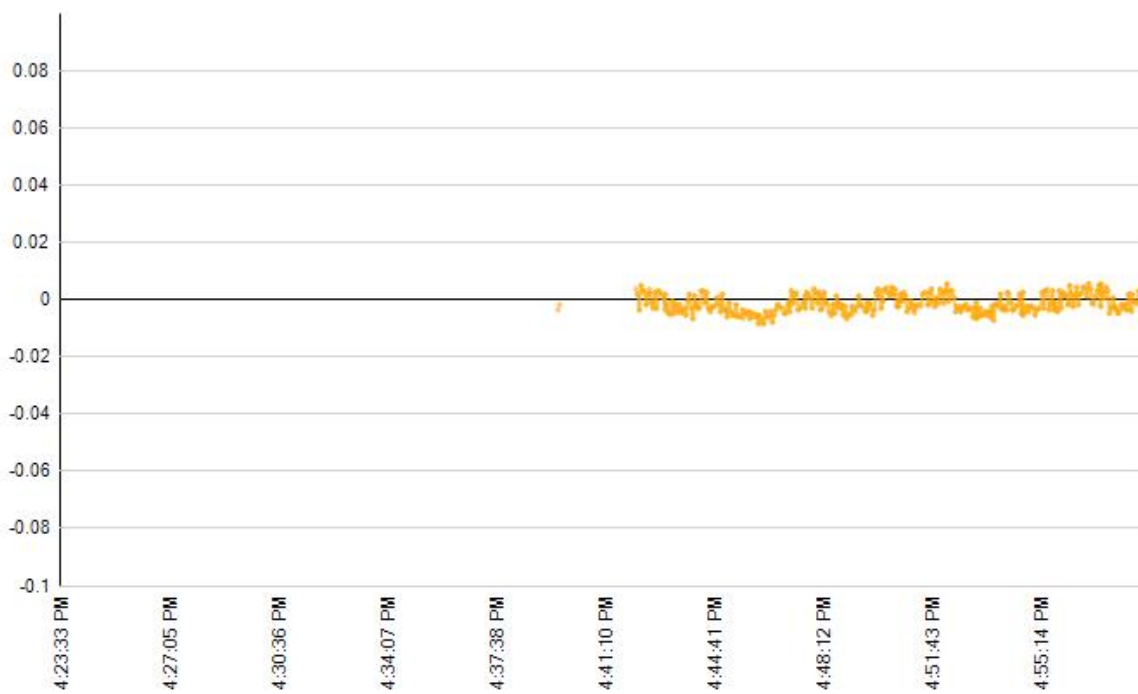
G 19
11/3/2015 4:23:33 PM - 11/3/2015 4:58:42 PM

Mean = 0.027 m Std. Dev. = 0.023 m Min. = -0.033 m Max. = 0.086 m

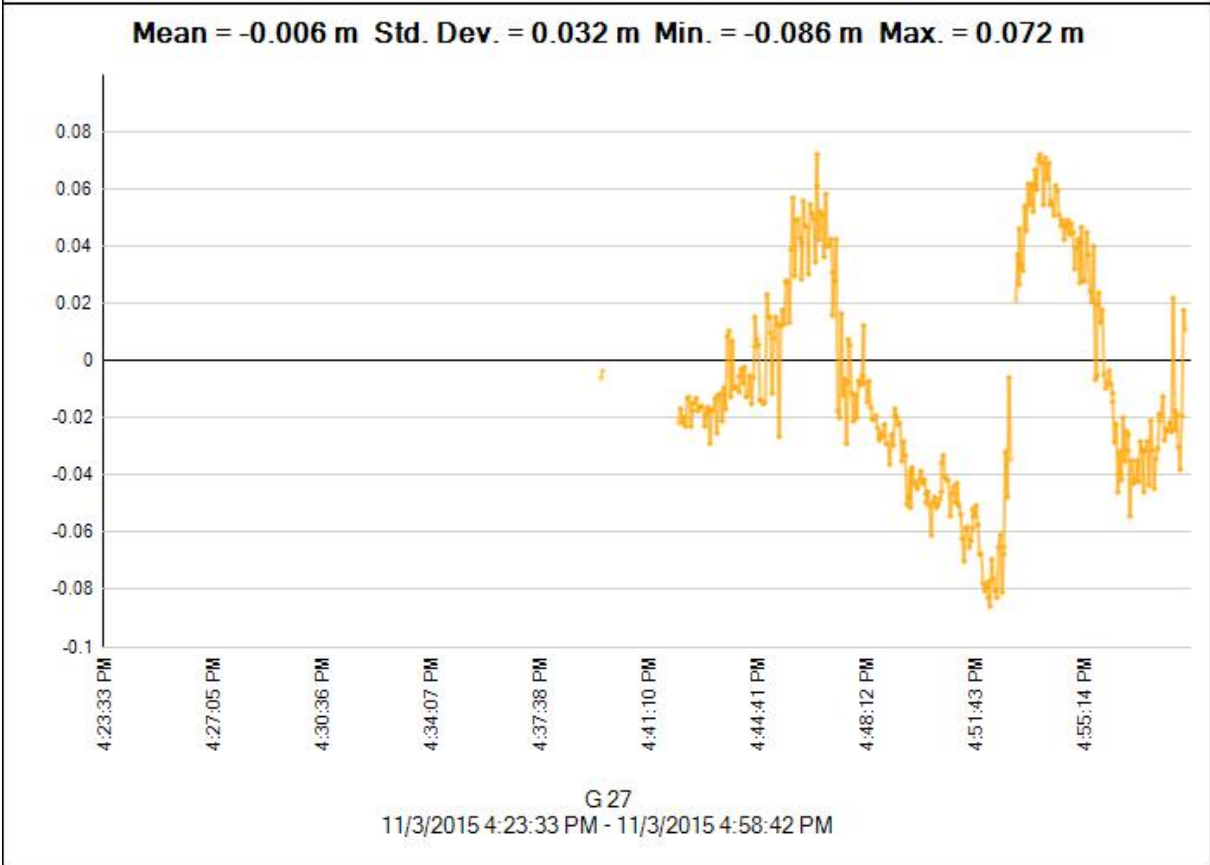
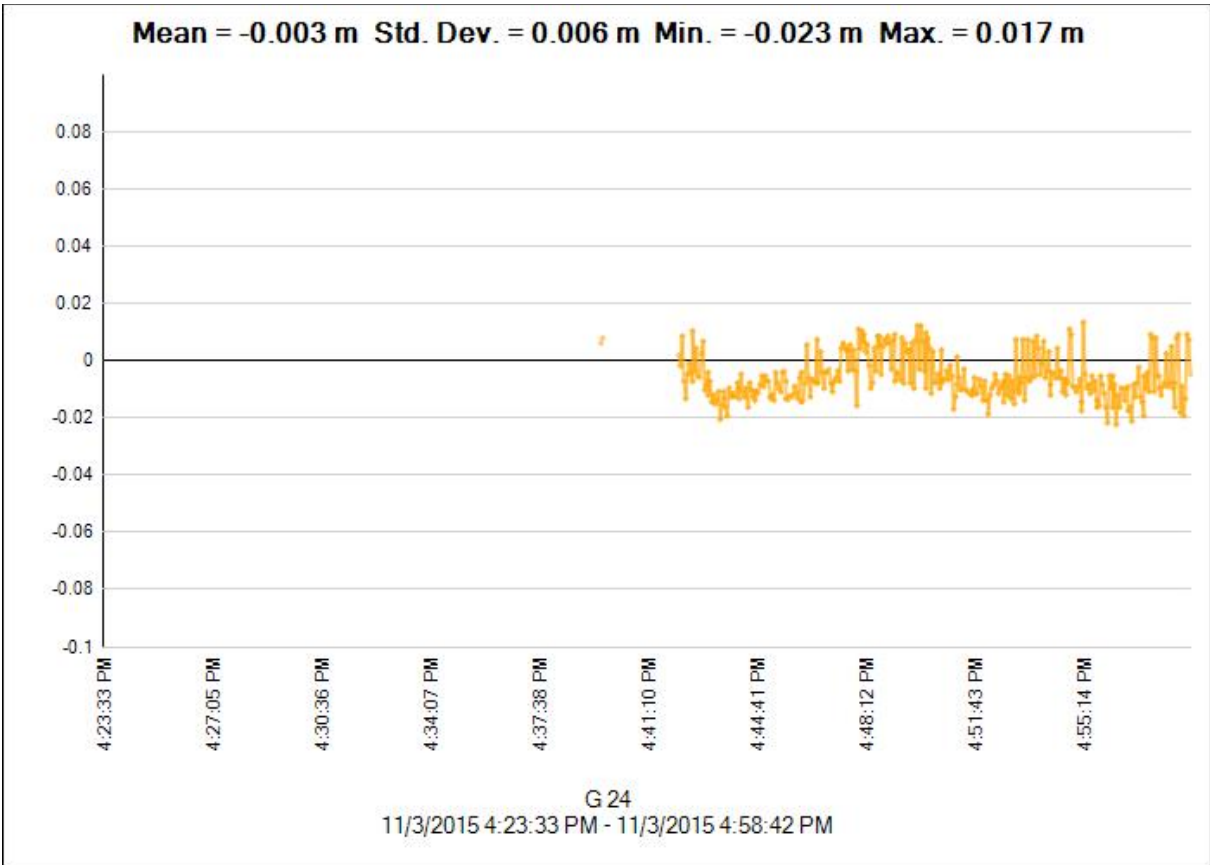


G 21
11/3/2015 4:23:33 PM - 11/3/2015 4:58:42 PM

Mean = -0.001 m Std. Dev. = 0.002 m Min. = -0.009 m Max. = 0.006 m



G 22
11/3/2015 4:23:33 PM - 11/3/2015 4:58:42 PM



Mean = -0.005 m Std. Dev. = 0.024 m Min. = -0.072 m Max. = 0.049 m



G 31
11/3/2015 4:23:33 PM - 11/3/2015 4:58:42 PM

Mean = 0.001 m Std. Dev. = 0.015 m Min. = -0.081 m Max. = 0.069 m





G 32
11/3/2015 4:23:33 PM - 11/3/2015 4:58:42 PM

Processing style

Elevation mask: 10.0 deg
Auto start processing: Yes
Start automatic ID numbering: AUTO0001
Continuous vectors: No
Generate residuals: Yes
Antenna model: Automatic
Ephemeris type: Automatic
Frequency: Multiple Frequencies
Processing Interval: Use all data
Force float: No

Acceptance Criteria

Vector Component	Flag 	Fail 
Horizontal Precision >	0.050 m + 1.000 ppm	0.100 m + 1.000 ppm
Vertical Precision >	0.100 m + 1.000 ppm	0.200 m + 1.000 ppm

12/22/2015 2:51:40 PM	\\conas\projects\312015508_CasperWY \Ground_Survey\Adjustements\5508 CasperWY PID.vce	Trimble Business Center
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